CITY OF MIDLAND, TEXAS
AGENDA FOR CITY COUNCIL MEETING
November 15, 2022 - 10:00 AM
300 North Loraine
Midland, Texas
Council Chamber - City Hall

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 Slayden, Hope Community Church

2. Pledge of Allegiance

CONSENT AGENDA

3. MOTION APPROVING THE FOLLOWING MINUTES:

   3a. BRIEFING SESSION OF OCTOBER 25, 2022

   3b. REGULAR SESSION OF OCTOBER 25, 2022

4. 2022-152 – RESOLUTION AWARDING A CONTRACT FOR THE FAIRGROUNDS ROAD - LOOP 250 TO MOCKINGBIRD LANE PAVING PROJECT TO JONES BROS. DIRT & PAVING CONTRACTORS, INC. OF ODESSA, TEXAS, AT A TOTAL COST OF $2,758,651.04; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT (DISTRICT 1) (GENERAL SERVICES)

5. 2022-153 – RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH PARKHILL, SMITH & COOPER, INC., D/B/A PARKHILL TO PROVIDE AN EVALUATION AND ANALYSIS OF TREATMENT TECHNIQUES FOR THE PAUL DAVIS WELLFIELD FOR THE UTILITIES DEPARTMENT FOR AN AMOUNT OF $325,500.00; APPROVING $48,825.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS (DISTRICT: NONE) (GENERAL SERVICES)

6. 2022-154 – RESOLUTION AWARDING A CONTRACT FOR THE PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION PROJECT TO TEC EXCAVATION, INC., FOR THE UTILITIES DEPARTMENT FOR THE TOTAL COST OF $925,277.00; APPROVING $185,055.40 FOR CONTINGENCIES; AND TRANSFERRING AND APPROPRIATING FUNDS (DISTRICT 2) (GENERAL SERVICES)

7. 2022-155 – RESOLUTION AUTHORIZING THE PURCHASE OF HERBICIDE FOR THE PLANT FARM FROM HELENA AGRI-ENTERPRISES, LLC OF STANTON, TEXAS, AND PRO CHEM SALES OF LUBBOCK, TEXAS, AT A TOTAL COST OF $156,086.95 (DISTRICT: NONE) (GENERAL SERVICES)

8. 2022-156 – RESOLUTION ACCEPTING THE PROPOSAL SUBMITTED BY QBE INSURANCE GROUP THROUGH STEALTH PARTNER GROUP OF DALLAS, TEXAS, FOR STOP LOSS INSURANCE; AUTHORIZING THE NEGOTIATION AND EXECUTION OF ALL CONTRACTS AND DOCUMENTS NECESSARY TO EFFECT THE CITY'S ACCEPTANCE OF SAID PROPOSAL; AND AUTHORIZING PAYMENT (DISTRICT: NONE) (GENERAL SERVICES)

9. 2022-157 – RESOLUTION AUTHORIZING PURCHASE OF A VERSALIFT AERIAL BUCKET LIFT TRUCK FROM SOUTHWEST INTERNATIONAL TRUCKS INC. THROUGH BUYBOARD FOR A TOTAL COST OF $253,888.78 (DISTRICT: NONE) (GENERAL SERVICES)

10. 2022-158 – RESOLUTION APPROVING THE PURCHASE OF THREE (3) AUTOMATED REFUSE TRUCKS FROM CHASTANG ENTERPRISES, INC., THROUGH BUYBOARD AT A TOTAL COST OF $1,159,210.00 (DISTRICT: NONE) (GENERAL SERVICES)

11. 2022-159 – RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH GEOGRAPHIC INFORMATION SERVICES, INC., D/B/A AXIM GEOSPATIAL, LLC, FOR AERIAL LIDAR COLLECTION MAPPING SERVICES THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $178,200.00 FOR THE COMMUNICATION AND INFORMATION SYSTEMS DEPARTMENT (DISTRICT: ALL) (GENERAL SERVICES)

12. 126-2022 – MOTION APPOINTING MARCIA BENTLEY-GERMAN AS THE CITY GOVERNANCE OFFICER/CITY SECRETARY OF THE CITY OF MIDLAND EFFECTIVE MARCH 1, 2023; AND AUTHORIZING THE MAYOR TO EXECUTE AN EMPLOYMENT AGREEMENT WITH MARCIA BENTLEY-GERMAN (DISTRICT: ALL) (ADMINISTRATIVE SERVICES)

13. 127-2022 – MOTION AUTHORIZING THE ACCEPTANCE OF A FUTURE DONATION OF A CEDRIC BENSON STATUE TO BE PLACED INSIDE ASTOUND BROADBAND STADIUM AT THE SCHARBAUER SPORTS COMPLEX; AND AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE ALL NECESSARY DOCUMENTS AND INSTRUMENTS FOR THE ACCEPTANCE OF SAID FUTURE DONATION (DISTRICT 4) (COMMUNITY SERVICES)

14. 2022-160 – RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PIONEER NATURAL RESOURCES USA, INC. ("OPERATOR") TO DRILL 10 OIL AND GAS WELLS LOCATED IN SECTION 17, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 435 FEET AND 436 FEET SOUTH OF ARAPAHOE ROAD AND BETWEEN 1,182 FEET AND

1,362 FEET WEST OF ELKINS ROAD); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

15. 2022-161 – RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL 12 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 1,638 FEET AND 1,998 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,832 FEET AND 2,020 FEET SOUTH OF WEST LOOP 250 NORTH); GRANTING VARIANCES FOR SEVEN OF SAID OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; 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)

16. 128-2022 – MOTION AUTHORIZING THE EXECUTION OF AN EMPLOYMENT AGREEMENT WITH THE CITY MANAGER (DISTRICT: ALL) (LEGAL)

SECOND READINGS

17. 10352 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR LOT 3G, BLOCK 6, SCOTSDALE ADDITION, SECTION 19, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 535 FEET WEST OF NORTH MIDLAND DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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 4) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 25, 2022)

18. 10353 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND TYLER STREET), BY PERMITTING A REDUCED MINIMUM LOT WIDTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT; 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 25, 2022)

19. 10354 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 1, BLOCK 26, WEDGWOOD PARK ADDITION, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT, TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF NORTH MIDLAND DRIVE, APPROXIMATELY 510 FEET NORTH OF NEELY 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) (FIRST READING HELD OCTOBER 25, 2022)

20. 10355 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE WEST 40 FEET OF LOT 4 AND THE EAST 25 FEET OF LOT 5, BLOCK J, GARRETT PLACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST INDIANA AVENUE, APPROXIMATELY 80 FEET EAST OF CARLTON STREET), BY PERMITTING A REDUCED MINIMUM LOT DEPTH; 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) (FIRST READING HELD OCTOBER 25, 2022)

21. 10356 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 22 AND THE WEST 97.3 FEET OF LOT 23, BLOCK 81, PERMIAN ESTATES ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF WEST WALL STREET, APPROXIMATELY 438 FEET WEST OF THOMASON DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AUTOMOBILE OR OTHER MOTORIZED VEHICLE SALES AND SERVICE; 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 2) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 25, 2022)

PUBLIC HEARINGS

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

22. 2022-162 – RESOLUTION REAUTHORIZING AND ADOPTING GUIDELINES AND CRITERIA FOR TAX ABATEMENT AGREEMENTS AS AUTHORIZED BY CHAPTER 312 OF THE TEXAS TAX CODE; AND AUTHORIZING THE CITY SECRETARY TO SUBMIT A COPY OF THIS RESOLUTION TO THE TEXAS COMPTROLLER OF PUBLIC ACCOUNTS (DISTRICT: ALL) (CITY MANAGER)

23. 129-2022 – THE PROPOSED GRANTING OF OIL AND GAS WELL PERMITS TO PIONEER NATURAL RESOURCES, USA, INC. (“OPERATOR”) FOR THE DRILLING OF THE FOLLOWING OIL AND GAS WELLS: STIMSON W17A 1H; STIMSON W17B 2H; STIMSON W17C 3H; STIMSON W17D 4H; STIMSON W17E 5H; STIMSON W17F 6H; STIMSON W17G 7H; STIMSON W17H 8H; STIMSON W17I 9H; AND STIMSON W17J 10H; SAID WELLS BEING GENERALLY LOCATED BETWEEN 375 FEET AND 376 FEET SOUTH OF ARAPAHOE ROAD AND BETWEEN 1,040 FEET AND 1,220 FEET EAST OF TODD DRIVE EXTENSION; PUBLIC HEARING ONLY (DISTRICT 1) (DEVELOPMENT SERVICES)

24. 10357 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND NORTH TYLER 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)

25. 10358 – AN ORDINANCE VACATING AND ABANDONING A 0.067-ACRE PORTION OF ALLEY RIGHT-OF-WAY LOCATED ADJACENT TO LOTS 5 THROUGH 9, BLOCK 17, KELVIEW HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF SCHARBAUER DRIVE, APPROXIMATELY 209 FEET WEST OF NORTH BIG SPRING STREET); ADOPTING THE APPRAISAL BY THE CITY MANAGER OF $5,836.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT 3) (DEVELOPMENT SERVICES)

MISCELLANEOUS

26. 130-2022 – MOTION REGARDING THE PEDESTRIAN ISLAND ALONG WADLEY AVENUE NORTH OF ABELL JUNIOR HIGH, INCLUDING POSSIBLE REMOVAL OR MODIFICATION, OR OTHER ACTION RELATED THERETO (DISTRICT 4) (CITY MANAGER)

PUBLIC COMMENT

27. 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

28. 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 551.072, Deliberation Regarding Real Property

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

b. Section 551.087, Deliberate Economic Development Negotiations

b.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

Respectfully Submitted,

Robert Patrick
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
BRIEFING SESSION
MINUTES
October 25, 2022

DRAFT

The City Council convened in briefing session in the Council Chamber, City Hall, Midland, Texas, at 9:45 AM, October 25, 2022.

Council Members present:	Dan Corrales, Robin Poole, Lori Blong, Patrick Payton, Scott Dufford, Jack Ladd, John Norman
Council Members absent:	None
Staff members present:	City Attorney John Ohnemiller, City Manager Robert Patrick, Deputy City Manager Morris Williams Jr, Assistant City Manager Tina Jauz

The meeting was called to order at 9:45 a.m.

The following matter(s), and any matter listed on the agenda for this meeting, may be discussed by the City Council:

1. Receive a briefing on the proposed Midland Entertainment District

   Development Services Director Chuck Harrington gave a brief presentation of the Midland Entertainment Overlay District including but not limited to restaurants, festivals, and parkletts. Key design elements will provide alley improvements, street redesigns, increased lighting, signage and other initiatives that will beautify the City. Estimated expenses for this item are broken down into two categories; capital expenses and operational expenses (yearly).

All the business at hand having been completed, the meeting adjourned at 10:00 a.m.

PASSED AND APPROVED November 15, 2022.

_____
Patrick Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

MIDLAND CITY COUNCIL
MINUTES
October 25, 2022

DRAFT

The City Council convened in regular session in the Council Chamber, City Hall, Midland, Texas, at 10:00 a.m., October 25, 2022.

Council Members present:	Dan Corrales, Robin Poole, Lori Blong, Patrick Payton, Scott Dufford, Jack Ladd, John Norman
Council Members absent:	None
Staff members present:	City Manager Robert Patrick, City Attorney John Ohnemiller, Deputy City Manager Morris Williams Jr, Assistant City Manager Tina Jauz

The meeting was called to order at 10:00 a.m.

OPENING ITEMS

1. Invocation – Pastor Anthony Paredes, Homeline Baptist Church

2. Pledge of Allegiance

PRESENTATIONS

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

    3a. Presentation of Proclamation for “Chiropractic Health Month”

    3b. Presentation of Proclamation for “Monarch Day”

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

Mayor Payton jumped to item number 31 for Public Comment.

CONSENT AGENDA

Lori Blong moved to approve Consent Agenda items 4-19, excluding items 8, 10, & 18; seconded by Robin Poole.

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

4. MOTION APPROVING THE FOLLOWING MINUTES:

   4a. BRIEFING SESSION OF OCTOBER 11, 2022

   4b. REGULAR SESSION OF OCTOBER 11, 2022

5. 2022-139 – RESOLUTION AUTHORIZING PURCHASE OF A JOHN DEERE UTILITY TRACTOR AND DIAMOND MOWER FROM DEERE & COMPANY THROUGH BUYBOARD FOR A TOTAL COST OF $148,362.23 (DISTRICT: NONE) (GENERAL SERVICES)

6. 2022-140 – RESOLUTION APPROVING THE PURCHASE OF A GLOBAL H4HSD STREET SWEEPER FROM GLOBAL ENVIRONMENTAL PRODUCTS THROUGH SOURCEWELL FOR A TOTAL COST OF $334,241.00 (DISTRICT: NONE) (GENERAL SERVICES)

7. 2022-141 – RESOLUTION AUTHORIZING THE SOLE-SOURCE PURCHASE OF A LENCO BEARCAT ARMORED RESPONSE VEHICLE FROM LENCO INDUSTRIES, INC., FOR A TOTAL COST OF $378,675.00 (DISTRICT: ALL) (GENERAL SERVICES)

9. 2022-142 – RESOLUTION AUTHORIZING THE PURCHASE OF TWO HUNDRED EIGHT (208) GETAC LAPTOPS AND ACCESSORIES THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES FROM SHI-GOVERNMENT SOLUTIONS, INC., AT A TOTAL COST OF $609,625.05 FOR THE POLICE DEPARTMENT (DISTRICT: NONE) (GENERAL SERVICES)

11. 2022-144 – RESOLUTION AWARDING A CONTRACT FOR THE UTILITY EXTENSION PROGRAM 05 PROJECT TO ENTRENCH INC. AT A TOTAL COST NOT TO EXCEED $2,500,000.00 PER CONTRACTUAL TERM; AND APPROPRIATING AND TRANSFERRING FUNDS (DISTRICT: ALL) (GENERAL SERVICES)

12. 2022-145 – RESOLUTION ESTABLISHING THE DATES OF THE REGULAR CITY COUNCIL MEETINGS TO BE HELD DURING THE CALENDAR YEAR 2023 (DISTRICT: NONE) (CITY SECRETARY'S OFFICE)

13. 2022-146 – RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PIONEER NATURAL RESOURCES, USA, INC. (“OPERATOR”) TO DRILL NINE OIL AND GAS WELLS LOCATED IN SECTION 17, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 405 FEET AND 406 FEET SOUTH OF ARAPAHOE ROAD AND BETWEEN 1,182 FEET AND

DRAFT

1,342 FEET WEST OF ELKINS ROAD); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

14. 2022-147 – RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 12, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED 410 FEET EAST OF SOUTH LAMESA ROAD AND 463 FEET SOUTH OF INTERSTATE 20); AND PROVIDING THAT SAID PERMIT DOES NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT SERVICES)

15. 2022-148 – RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 2, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED 1,172 FEET WEST OF SOUTH LAMESA ROAD AND 185 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT SERVICES)

16. 2022-149 – RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE, ON BEHALF OF THE CITY OF MIDLAND, A SUBSURFACE USE AGREEMENT GRANTING TO PIONEER NATURAL RESOURCES USA, INC. ("OPERATOR") A SUBSURFACE EASEMENT LOCATED ON A CITY-OWNED TRACT OF LAND DESCRIBED AS THE SOUTH HALF OF THE SOUTHWEST QUARTER OF SECTION 8, BLOCK 38, T-1-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS, FOR THE PURPOSE OF DRILLING, COMPLETING, PRODUCING, TRANSPORTING PRODUCTION THROUGH, PLUGGING AND ABANDONING WELLBORES UNDER, ACROSS AND THROUGH SAID TRACT OF LAND TO BENEFIT OIL AND GAS PRODUCTION FROM WELLS DRILLED OR TO BE DRILLED BY OPERATOR, ITS SUCCESSORS OR ASSIGNS ON LANDS LOCATED IN SECTIONS 17 AND 20, BLOCK 38, T-1-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (DISTRICT 1) (DEVELOPMENT SERVICES)

17. 2022-150 – RESOLUTION AUTHORIZING THE EXECUTION OF COMMUNITY DEVELOPMENT BLOCK GRANT CONTRACTS WITH CASA DE AMIGOS OF MIDLAND, TEXAS, INCORPORATED, THE MIDLAND COUNTY HOSPITAL DISTRICT, MIDLAND PARKER PLACE, INC., MISSION HEALTH CARE, INC., THE SALVATION ARMY OF MIDLAND, AND SENIOR LIFE MIDLAND, 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. 2022-151 – RESOLUTION AUTHORIZING THE SUBMISSION OF AN APPLICATION TO THE U.S. DEPARTMENT OF JUSTICE, OFFICE OF JUSTICE PROGRAMS, BUREAU OF JUSTICE ASSISTANCE FOR THE FISCAL YEAR 2023 EDWARD BYRNE JUSTICE

DRAFT

ASSISTANCE GRANT PROGRAM; AUTHORIZING THE ACCEPTANCE OF GRANT FUNDS IN THE AMOUNT OF $81,079.12 FOR THE PURCHASE OF TWO EXPLOSIVE ORDNANCE DISPOSAL SUITS AND ACCOMPANYING EQUIPMENT; AUTHORIZING THE EXECUTION OF ALL NECESSARY DOCUMENTS FOR THE ACCEPTANCE OF SAID GRANT FUNDS; AND PROVIDING FOR THE APPROPRIATION OF SAID GRANT FUNDS UPON RECEIPT (DISTRICT: ALL) (POLICE)

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

8. 124-2022 – MOTION APPROVING PLANS AND SPECIFICATIONS FOR THE MICHIGAN AVENUE UTILITY IMPROVEMENTS 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: ALL) (GENERAL SERVICES)

   Council Member Blong inquired of the timeline for this project.

   Assistant City Engineer Josh Ferguson reported they would like to get ahead of TXDot and are competing with material supply and weather issues.

   Engineering Services Director Jose Ortiz reported the utility work will begin in the winter and they would like to time it so that as soon as it is done, the Midland Inlay project can begin, hopefully around mid-winter.

   Lori Blong moved to approve Motion No. 124-2022; seconded by Dan Corrales.

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

10. 2022-143 – RESOLUTION APPROVING A CONTRACT WITH MID-TEX OF MIDLAND, INC., THROUGH THE PURCHASING ASSOCIATION OF COOPERATIVE ENTITIES, FOR THE REPAIR AND REPLACEMENT OF EXPANSION JOINT SEALANT AT ASTOUND BROADBAND STADIUM FOR A TOTAL COST OF $228,323.00; APPROVING $23,000.00 FOR PROJECT-RELATED EXPENSES; AND APPROPRIATING FUNDS FOR SAID CONTRACT (DISTRICT 4) (GENERAL SERVICES)

   Council Member Corrales inquired about rain that comes into the bathrooms.

   Community Services Director Cristina Burns reported that the material around the joint, which is about 20 years old, has deteriorated over time and needs to be replaced.

   Dan Corrales moved to approve Resolution No. 2022-143; seconded by Lori Blong.

DRAFT

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

18. 125-2022 – MOTION AUTHORIZING THE RESEARCH, DEVELOPMENT AND SUBMISSION OF GRANT APPLICATIONS TO FEDERAL, STATE, AND LOCAL AGENCIES FOR THE EXPRESS PURPOSE OF PREVENTING AND ENDING HOMELESSNESS IN MIDLAND COUNTY (DISTRICT: ALL) (DEVELOPMENT SERVICES)

Community Services Manager, Isaac Garnett, gave a brief overview of the item noting the City of Midland has seen an increase in homelessness since COVID began. The Community Services Department together with the Homeless Network would like to seek out Federal, State and Local grants to assist with addressing the issues.

Robin Poole moved to approve Motion No. 125-2022; seconded by Dan Corrales.

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

SECOND READINGS

20. 10344 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 317.56-ACRE TRACT OF LAND OUT OF SECTION 18, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS, FROM SF-1, SINGLE-FAMILY DWELLING DISTRICT, IN PART, SF-2, SINGLE-FAMILY DWELLING DISTRICT, IN PART, SF-3, SINGLE-FAMILY DWELLING DISTRICT, IN PART, TH, TOWNHOUSE (ATTACHED) DWELLING DISTRICT, IN PART, 2F, TWO-FAMILY DWELLING (DUPLEX) DISTRICT, IN PART, MF-16, MULTIPLE-FAMILY DWELLING DISTRICT, IN PART, AND RR, REGIONAL RETAIL DISTRICT, IN PART, TO PD, PLANNED DEVELOPMENT DISTRICT FOR A HOUSING DEVELOPMENT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF NORTH FAIRGROUNDS AND EAST MOCKINGBIRD 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 (DISTRICT 1) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 11, 2022)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10344.

Cade Labolt, 1307 Daybreak, a Landman for Pioneer Natural Resources, provided an update after seeing an article written after the last P&Z meeting. Mr. Labolt reported they have been working with Betenbough and wanted the Council to know everything has been going smooth and that they do have existing infrastructure in place.

DRAFT

Chris Berry, Betenbough, reported they have been working well with Pioneer and will keep the City Council updated as the project progresses.

Robin Poole moved to approve the second and final reading of Ordinance No. 10344; seconded by Scott Dufford.

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

21. 10347 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOTS 5 AND 6, BLOCK 2, COWDEN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-22, MULTIPLE-FAMILY DWELLING DISTRICT TO TH, TOWNHOUSE (ATTACHED) DWELLING DISTRICT (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF WEST SCHARBAUER DRIVE AND NORTH MARIENFELD 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 3) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 11, 2022)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10347

John Norman moved to approve the second and final reading of Ordinance No. 10347; seconded by Dan Corrales.

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

22. 10348 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR LOTS 4 THROUGH 6, BLOCK 24, COWDEN ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF NORTH BIG SPRING STREET AND WEST PARKER AVENUE), WHICH IS PRESENTLY ZONED LR, LOCAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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) (FIRST READING HELD OCTOBER 11, 2022)

DRAFT

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10348.

John Norman moved to approve the second and final reading of Ordinance No. 10348; seconded by Dan Corrales.

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

23. 10349 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOTS 1 AND 2, BLOCK J, GARRETT PLACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST INDIANA AVENUE, APPROXIMATELY 241 FEET EAST OF CARLTON STREET), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR A KENNEL; 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 2) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 11, 2022)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10349.

Dan Corrales moved to approve the second and final reading of Ordinance No. 10349; seconded by Robin Poole.

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

24. 10350 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 5,085-SQUARE FOOT PORTION OF LOT 6A, BLOCK 27, WYDEWOOD ESTATES, SECTION 26, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE EAST SIDE OF WEST LOOP 250 NORTH, APPROXIMATELY 800 FEET SOUTH OF WEST WADLEY AVENUE), WHICH IS PRESENTLY ZONED PD, PLANNED DEVELOPMENT DISTRICT FOR A SHOPPING CENTER, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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 4) (DEVELOPMENT SERVICES) (FIRST READING HELD OCTOBER 11, 2022)

DRAFT

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10350.

John Norman moved to approve the second and final reading of Ordinance No. 10350; seconded by Dan Corrales.

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

25. 10351 – AN ORDINANCE ADOPTING A FEE SCHEDULE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING AN APPEAL PROCESS; ESTABLISHING AN EFFECTIVE DATE OF NOVEMBER 1, 2022; AND ORDERING PUBLICATION (DISTRICT: NONE) (FINANCE) (FIRST READING HELD OCTOBER 11, 2022)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10351.

Lori Blong moved to approve the second and final reading of Ordinance No. 10351; seconded by John Norman.

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

PUBLIC HEARINGS

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

26. 10352 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR LOT 3G, BLOCK 6, SCOTSDALE ADDITION, SECTION 19, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 535 FEET WEST OF NORTH MIDLAND DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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 4) (DEVELOPMENT SERVICES)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10352.

Mayor Payton opened the public hearing at 10:48 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

DRAFT

Scott Dufford moved to approve the first of two readings of Ordinance No. 10352; seconded by Dan Corrales.

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

27. 10353 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND TYLER STREET), BY PERMITTING A REDUCED MINIMUM LOT WIDTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT; 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 Vanessa White read the caption of Ordinance No. 10353.

Mayor Payton opened the public hearing at 10:48 a.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. 10353; seconded by Dan Corrales.

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

28. 10354 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 1, BLOCK 26, WEDGWOOD PARK ADDITION, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT, TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF NORTH MIDLAND DRIVE, APPROXIMATELY 510 FEET NORTH OF NEELY 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)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10354.

Mayor Payton opened the public hearing at 10:50 a.m. There being no one present wishing

DRAFT

to speak, the public hearing was immediately closed.

Dan Corrales moved to approve the first of two readings of Ordinance No. 10354; seconded by Lori Blong.

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

29. 10355 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE WEST 40 FEET OF LOT 4 AND THE EAST 25 FEET OF LOT 5, BLOCK J, GARRETT PLACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST INDIANA AVENUE, APPROXIMATELY 80 FEET EAST OF CARLTON STREET), BY PERMITTING A REDUCED MINIMUM LOT DEPTH; 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)

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10355.

Mayor Payton opened the public hearing at 10:51 a.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. 10355; seconded by Scott Dufford.

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

30. 10356 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 22 AND THE WEST 97.3 FEET OF LOT 23, BLOCK 81, PERMIAN ESTATES ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF WEST WALL STREET, APPROXIMATELY 438 FEET WEST OF THOMASON DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AUTOMOBILE OR OTHER MOTORIZED VEHICLE SALES AND SERVICE; 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 2) (DEVELOPMENT SERVICES)

DRAFT

Deputy City Secretary Vanessa White read the caption of Ordinance No. 10356.

Mayor Payton opened the public hearing at 10:52 a.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. 10356; seconded by Dan Corrales.

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

PUBLIC COMMENT

31. 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.)

Carol Henson, 5600 Camden, spoke on behalf of the residents of Grandridge Park who are concerned over a crosswalk at Abell at the exit of their subdivision. Ms. Henson reported this crosswalk negatively affects residents everyday lives going to and from home by blocking their exits. Ms. Henson also reported on the issues that will happen if future development of this area takes place.

Engineering Services Director Jose Ortiz provided a clarifying statement as to why the construction was done the way it was.

Council Member Ladd would like to see this item on the next agenda for further discussion and moved to make a motion to do so.

Jack Ladd moved to put the Grandridge Park discussion of a crosswalk in reference to the median on the agenda for the November 15, 2022 Council meeting; seconded by Lori Blong.

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

Bob Crites, 606 E. Broadway Street, would like to know why the Hogan Park monetary discussion has not taken place before the voters of Midland.

Shirley Howard, 405 Magnolia, requested that Community Services Manager, Isaac Garnett, read the questions and comments for her regarding concerns about Hogan Park,

DRAFT

citizens being priced out of the parks in the future and concerns regarding Boards and Commissions.

EXECUTIVE SESSION

32. 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 Payton recessed the meeting to go into Executive Session at 10:55 a.m.

a. Section 551.074, Personnel Matters

a.1. Deliberate the employment, evaluation, and duties of the City Manager

All the business at hand having been completed, the meeting adjourned at 11:13 a.m.

PASSED AND APPROVED November 15, 2022.

_____

Patrick Payton, Mayor

ATTEST:

_____

Amy M. Turner, City Secretary

DRAFT

City Council Meeting

Item Number: 4

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION AWARDING A CONTRACT FOR THE FAIRGROUNDS ROAD - LOOP 250 TO MOCKINGBIRD LANE PAVING PROJECT TO JONES BROS. DIRT & PAVING CONTRACTORS, INC. OF ODESSA, TEXAS, AT A TOTAL COST OF $2,758,651.04; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT (DISTRICT 1) (GENERAL SERVICES)

Purpose:

Resolution awarding the execution of a contract for the North Fairgrounds Road Loop 250 – Mockingbird Lane Paving Project.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the CO Bond Fund 158 and will appropriated to a project for the said purposes.

Discussion:

The City Manager approved plans and specifications and authorized advertisement for bids for the North Fairgrounds Road Loop 250 – Mockingbird Lane Paving Project. The bid request was sent to one hundred sixty (160) companies. We received two (2) bids. Staff recommends awarding a contract to Jones Bros. Dirt & Paving Contractors, Inc. Please see the attached memo from Jose Ortiz, Director of Engineering Services, for more information.

Therefore, please consider a resolution awarding a contract to Jones Bros. Dirt & Paving Contractors, Inc. of Odessa, Texas for the North Fairgrounds Road Loop 250 – Mockingbird Lane Paving Project for a cost of $2,758,651.04. Staff is requesting an additional $275,865.10

in contingencies plus $50,000.00 for project related expenses, for a total project cost of $3,084,516.14.

Tina Jaug

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Martinez; City of Midland, Purchasing Manager

FROM: Jose E. Ortiz, P.E.; City of Midland, Director – Engineering Services

SUBJECT: Fairgrounds North (LP 250 to Mockingbird Ln) ♦ Engr. Project No. P17-03 ♦ Bid Tabulation ♦ Funding #_____

DATE: October 27, 2022

Erika,

Engineering staff has reviewed the bid tabulation for the Fairgrounds North (LP 250 to Mockingbird Ln) project. Jones Bros. Dirt & Paving Contractors, Inc. of Odessa, Texas, is the apparent successful low bidder. Staff recommends awarding the Fairgrounds North (LP 250 to Mockingbird Ln) to Jones Bros. Dirt & Paving Contractors, Inc.

Jones Bros. Dirt & Paving Contractors, Inc. has an established history with the City of Midland of performing work of similar scale and scope to the Fairgrounds North (LP 250 to Mockingbird Ln). Furthermore, the unit prices appear to be in line with current pricing trends.

Funding is available for this project.

The apparent successful bidder was selected based on the base bid amount of **$2,758,651.04** as outlined in the bidding documents. In addition, we would like to request that a 10% contingency in the amount of **$275,865.10** be allowed for value added changes to the project during construction and **$50,000.00** for project related costs incurred by the City to facilitate the contract (i.e. TDLR inspections, project administration, material testing services, etc.). The total amount made available for the project would be **$3,084,516.14**.

Jose E. Ortiz, P.E.
Director – Engineering Services

Cc: Bobby Wojciechowski
Madison Brasuell
Regina Stephenson

RESOLUTION NO. _____

RESOLUTION AWARDING A CONTRACT FOR THE FAIRGROUNDS ROAD - LOOP 250 TO MOCKINGBIRD LANE PAVING PROJECT TO JONES BROS. DIRT & PAVING CONTRACTORS, INC. OF ODESSA, TEXAS, AT A TOTAL COST OF $2,758,651.04; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT

WHEREAS, the City Manager approved the plans and specifications and advertised for competitive bids for the Fairgrounds Road - Loop 250 to Mockingbird Lane Paving Project (the "Project"); and

WHEREAS, Bid No. 23000160 was opened on October 26, 2022, with the lowest responsible bidder being Jones Bros. Dirt & Paving Contractors, Inc. of Odessa, Texas ("Contractor"), having submitted a bid of $2,758,651.04 as shown on the bid tabulation attached hereto as Exhibit "A" and incorporated herein for all legal purposes; and

WHEREAS, the total cost of the work to be completed, according to the previously advertised plans and specifications and the unit prices in Exhibit "A", shall not exceed $2,758,651.04; and

WHEREAS, the City Council finds it to be in the public interest to execute a contract with Contractor for said Project;

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

SECTION ONE. That the Mayor and City Secretary are hereby authorized and directed to execute and attest, respectively, on behalf of the City of Midland, a contract with Contractor for said Project at a total cost of $2,758,651.04, said contract being on file in the office of the City Secretary, referenced by the date and number of this resolution.

SECTION TWO. That the City Manager is hereby authorized and directed to execute, on behalf of the City of Midland, change orders to said contract if (1) each change order involves a decrease or an increase of $50,000.00 or less and (2) the change orders, in total, do not increase the original contract price by more than $275,865.10.

SECTION THREE. That the sum of $3,084,516.14 is hereby appropriated from the CO Bond Fund 158 to a project account for said Project.

SECTION FOUR. That the City Comptroller is hereby authorized and directed to pay Contractor pursuant to the terms of said contract and change orders executed in accordance with this resolution in an amount not to exceed $3,034,516.14 from funds available in the aforementioned project account 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

_____
Jose Ortiz, Engineering Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

P17-03 FAIRGROUNDS NORTH (LP250 to Mockingbird Ln) Bid Final 10/26/2022

City of Midland -

BID TAB					Jones Bros Dirt & Paving		Reece Albert	
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Actual Bid Total	Unit Price	Actual Bid Total
1	M1	Mobilization, furnished, installed, complete, and in place	8	MO	$ 9,500.00	$ 76,000.00	$ 55,604.00	$ 444,832.00
2	M2	Erosion Control, furnished, installed, complete and in place	8	MO	$ 5,000.00	$ 40,000.00	$ 3,055.00	$ 24,440.00
3	M3	Traffic Control, furnished, installed, complete and in place	8	MO	$ 2,500.00	$ 20,000.00	$ 1,410.00	$ 11,280.00
4	M4	Job Site Safety, furnished, installed, complete and in place	8	MO	$ 5,800.00	$ 46,400.00	$ 780.00	$ 6,240.00
5	M5	Seeded Erosion Control Mats, installed, complete and in place	3.67	AC	$ 14,658.00	$ 53,794.86	$ 13,840.00	$ 50,792.80
6	M6	Spray Watering, furnished, installed, complete and in place	1	LF	$ 8,175.00	$ 8,175.00	$ 10,800.00	$ 10,800.00
7	M7	16" Poly Pipe (PVC Casing Pipe), Furnished, installed, and complete	480	LF	$ 120.75	$ 57,960.00	$ 135.10	$ 64,848.00
						$ 302,329.86		**$ 613,232.80**
1	D1	Removal & Dispose of Existing Unclassified Pavement	380	SY	$ 33.00	$ 12,540.00	$ 11.55	$ 4,389.00
2	D2	Removal & Disposal of Existing Miscellaneous Concrete	36	SY	$ 82.00	$ 2,952.00	$ 27.50	$ 990.00
3	D3	Removal & Disposal of Existing Concrete Sidewalk & Ramps	25	SY	$ 82.00	$ 2,050.00	$ 46.45	$ 1,161.25
4	D4	Removal & Disposal of Existing Concrete Curb & Gutter	875	LF	$ 15.00	$ 13,125.00	$ 5.70	$ 4,987.50
5	D5	Removal & Disposal of Existing Driveway, complete and in place	109	SY	$ 82.00	$ 8,938.00	$ 26.90	$ 2,932.10
6	D6	Removal & Disposal of Storm Drain Catch Basin, complete	1	EA	$ 2,625.00	$ 2,625.00	$ 1,215.27	$ 1,215.27
7	D7	Relocate Existing Pedestrian Crossing Signal	2	EA	$ 2,625.00	$ 5,250.00	$ 2,750.00	$ 5,500.00
8	D8	Relocate Traffic Sign	4	EA	$ 1,039.50	$ 4,158.00	$ 834.00	$ 3,336.00
9	D9	Relocate Existing Traffic Control Box	2	EA	$ 2,625.00	$ 5,250.00	$ 2,750.00	$ 5,500.00
10	D10	Relocate Existing Traffic Signal Light	1	EA	$ 420.00	$ 420.00	$ 440.00	$ 440.00
11	D11	Relocate Existing Steet Light	2	EA	$ 6,037.50	$ 12,075.00	$ 6,325.00	$ 12,650.00
12	D12	Relocate Existing Electrical Box	3	EA	$ 2,625.00	$ 7,875.00	$ 2,750.00	$ 8,250.00
13	D13	Clearing & Grubbing, complete and in place	18070	SY	$ 0.90	$ 16,263.00	$ 1.00	$ 18,070.00
						$ 93,521.00		**$ 69,421.12**
1	SD1	24" Reinforced Concrete Pipe (RCP)	808	LF	$ 131.25	$ 106,050.00	$ 157.80	$ 127,502.40
2	SD1	30" Reinforced Concrete Pipe (RCP)	570	LF	$ 155.40	$ 88,578.00	$ 171.80	$ 97,926.00
3	SD2	(1-24") Flared End Treatment	9	EA	$ 2,534.70	$ 22,812.30	$ 2,520.00	$ 22,680.00
4	SD2	(1-30") Flared End Treatment	2	EA	$ 2,668.05	$ 5,336.10	$ 2,870.00	$ 5,740.00
5	SD2	(3-30") Flared End Treatment	2	EA	$ 7,374.15	$ 14,748.30	$ 8,770.00	$ 17,540.00
6	SD5	(4-24") Flared End Treatment	2	EA	$ 9,298.80	$ 18,597.60	$ 8,900.00	$ 17,800.00
7	SD3	16'x3' Precast Concrete Curb Inlet	1	EA	$ 7,844.55	$ 7,844.55	$ 13,315.00	$ 13,315.00
8	SD4	Connect to Exisiting RCP (24")	1	EA	$ 2,310.00	$ 2,310.00	$ 440.00	$ 440.00
9	SD5	Concrete End Treatment	66	SY	$ 126.00	$ 8,316.00	$ 187.85	$ 12,398.10
10	SD6	Excavation and Embankment	920	SY	$ 18.65	$ 17,158.00	$ 6.10	$ 5,612.00
						$ 291,750.85		**$ 320,953.50**
1	P1	Subgrade Preparation (Depth ≤ 8")	23,861	SY	$ 11.25	$ 268,436.25	$ 14.85	$ 354,335.85
2	P2	7" Jointed Concrete Pavement	1405	SY	$ 150.42	$ 211,340.10	$ 154.20	$ 216,651.00
3	P3	2" Type D HMAC Asphalt Pavement Surface Course (PG70-22, 220 LBS / SY @ 1" Thick)	2327	TON	$ 125.00	$ 290,875.00	$ 142.30	$ 331,132.10
4	P4	3" Type C HMAC Asphalt Pavement Surface Course (PG64-22, 330 LBS / SY @ 1" Thick)	3490	TON	$ 119.00	$ 415,310.00	$ 131.00	$ 457,190.00
5	P4	12" Flexible Base (Type A, Grade 4)	22,599	SY	$ 14.50	$ 327,685.50	$ 13.70	$ 309,606.30
6	P5	Bituminous Prime Coat (MC-30, 0.20 Gal / SY	4520	GAL	$ 5.50	$ 24,860.00	$ 4.30	$ 19,436.00
7	P6	Bituminous Tack Coat (MC-30, 0.10 Gal / SY	2260	GAL	$ 5.60	$ 12,656.00	$ 5.40	$ 12,204.00
8	P7	6" Commercial Concrete Driveway Approach	1262	SY	$ 84.00	$ 106,008.00	$ 116.85	$ 147,464.70

BID TAB					Jones Bros Dirt & Paving		Reece Albert	
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Actual Bid Total	Unit Price	Actual Bid Total
9	P8	Type A Concrete Curb & Gutter	1910	LF	$ 26.25	$ 50,137.50	$ 32.70	$ 62,457.00
10	P9	Type C Concrete Curb & Gutter	1719	LF	$ 26.25	$ 45,123.75	$ 31.70	$ 54,492.30
11	P10	Ribbon Curb	136	LF	$ 27.30	$ 3,712.80	$ 36.60	$ 4,977.60
12	P11	Concrete Pedestrian Access Ramp	39	SY	$ 204.75	$ 7,985.25	$ 288.30	$ 11,243.70
13	P12	4” Stamped Island Median	763	SY	$ 124.95	$ 95,336.85	$ 145.05	$ 110,673.15
14	P13	4” Concrete Sidewalk, furnished, installed	328	SY	$ 63.00	$ 20,664.00	$ 93.80	$ 30,766.40
15	P14	Micro-surfacing, furnished, installed	6744	SY	$ 4.95	$ 33,382.80	$ 7.10	$ 47,882.40
16	P15	Sawcut & Asphalt Patch	456	LF	$ 13.75	$ 6,270.00	$ 39.35	$ 17,943.60
17	P16	Adjust Existing Manhole	1	EA	$ 2,100.00	$ 2,100.00	$ 2,290.00	$ 2,290.00
18	P17	6" Stand Up Curb	79	LF	$ 57.75	$ 4,562.25	$ 27.80	$ 2,196.20
19	P18	TXDOT CSV (1)-10 Concrete Safety Precast Barrier	423	LF	$ 105.00	$ 44,415.00	$ 79.25	$ 33,522.75
						$ 1,970,861.05		**$ 2,226,465.05**
1	T1	Install Signal Conduit, furnished, installed	320	LF	$ 29.40	$ 9,408.00	$ 30.80	$ 9,856.00
2	T2	Retroreflectorized Pavement Markings (White, 4" Dashed 10'/30') (TxDOT Item 668)	542	LF	$ 0.79	$ 428.18	$ 1.65	$ 894.30
3	T2	Retroreflectorized Pavement Markings (White, 8" Solid) (Type 1 TxDOT Item 668)	1610	LF	$ 1.58	$ 2,543.80	$ 1.17	$ 1,883.70
4	T2	Retroreflectorized Pavement Markings (White, 4" Solid) (TxDOT Item 666, Type 1	10450	LF	$ 0.79	$ 8,255.50	$ 0.98	$ 10,241.00
5	T2	Retroreflectorized Pavement Markings (Yellow, 4" Solid/ Solid) (TxDOT Item 666	11671	LF	$ 0.79	$ 9,220.09	$ 0.98	$ 11,437.58
6	T2	Retroreflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668	615	LF	$ 26.25	$ 16,143.75	$ 9.35	$ 5,750.25
7	T2	Retroreflectorized Pavement Markings (TxDot Item 672, Type i-A, IC, II-A -A, or II-C-R per plans)	180	EA	$ 10.50	$ 1,890.00	$ 6.05	$ 1,089.00
8	T3	Retroreflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668	217	EA	$ 23.63	$ 5,127.71	$ 9.35	$ 2,028.95
9	T3	24" Reflective Pavement Markings (White)	20	EA	$ 420.00	$ 8,400.00	$ 55.00	$ 1,100.00
10	T3	24" Reflective Pavement Markings (White)	24	EA	$ 105.00	$ 2,520.00	$ 55.00	$ 1,320.00
11	T4	Sign (W1-4, 36)	1	EA	$ 1,548.75	$ 1,548.75	$ 1,230.00	$ 1,230.00
12	T5	Signs (W1-6R,60x30, on TxDOT Slip Bases)	2	EA	$ 1,837.50	$ 3,675.00	$ 1,230.00	$ 2,460.00
13	T6	PEXCO City Posts(Model EAC, 48 " Yellow/ Triple Wrap Reflective Sheeting)	6	LF	$ 840.00	$ 5,040.00	$ 929.50	$ 5,577.00
14	T6	Crosswalk Striping installed	265		$ 52.50	$ 13,912.50	$ 9.35	$ 2,477.75
15	T7	Illumination Pole TxDOT Type AL 40-T12-12 w/ 400W EQ LED Luminaries	1	EA	$ 12,075.00	$ 12,075.00	$ 12,650.00	$ 12,650.00
						$ 100,188.28		$ 69,995.53
		Total Price				**$ 2,758,651.04**		**$ 3,300,068.00**

MIDLAND
Engineering Services

SPECIFICATIONS

Project Name: North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project

Project Number: P17-03

MAYOR

Patrick Payton

COUNCIL MEMBERS

District 1	Scott Dufford	District 3	Jack Ladd
District 2	John Norman	District 4	Lori Blong
At-Large	Dan Corrales	At Large	Robin Poole

ENGINEERING SERVICES DIRECTOR

Jose Ortiz



9/26/22

Prepared by City of Midland, Texas
Engineering Services Division

October 2022

NOTICE TO BIDDERS

ATTENTION: All bidders who choose to mail bid packets must address them to one of the addresses below:

USPS Mailing Address:		***Physical Address for mail carriers other than USPS:***
City of Midland, Texas		**City of Midland, Texas**
Attn: City Secretary's Office	**OR**	**Attn: City Secretary's Office**
P O Box 1152		**300 North Loraine St, Suite 330**
Midland, TX 79702		**Midland, TX 79701**

If bid packets are delivered in person, then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

Sealed proposals, addressed to the Mayor and City Council of the City of Midland, Texas, for the furnishing of materials and labor together with other miscellaneous and appurtenant work will be received at the office of the City Secretary, City Hall, Midland, Texas, until 2:00 p.m. on the 19th day of October, 2022, and publicly opened and read aloud at that time.

Delivery of Submittals

Bid packets must be received in the City Secretary's Office no later than October 19, 2022 at 2:00 p.m. Bidders are responsible for the means of timely delivering the bid packet. Delays due to any instrumentality used to transmit the bid packet (e.g., delay occasioned by a bidder, City's internal mailing system, etc.) are the sole responsibility of the bidder. **Late bid packets will not be accepted under any circumstances.**

ATTENTION: The public bid opening will be in the City Council Meeting Chambers.

The Proposed Work provides for the furnishing of materials and labor for North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project together with other miscellaneous and appurtenant work.

ATTENTION: A NON-MANDATORY PRE-BID MEETING will be held at 3:00 p.m. on Wednesday, October 12th, 2022 in the basement conference room of City Hall, 300 N. Loraine Street, Midland, Texas. Bidders may attend the meeting in person.

ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

bwojciechowski@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting is Noon on Friday, October 14th, 2022. Questions submitted before the Noon deadline will be included in the Addendum that will go out that same day along with all discussion items, questions, answers, and any new information resulting from the Non-Mandatory Pre-Bid Meeting. Questions submitted after the Noon deadline will not receive any additional information and will instead only be directed to the information already provided.

Bids will be received on a unit price basis.

No Bid may be withdrawn within a period of 60 days after the date fixed for opening Bids.

“FAX” or telephone bids or modifications will not be accepted.

Bid Envelopes shall be plainly marked "Proposal for City of Midland”.

ATTENTION: Information for bidders, proposal forms, specifications, and plans may be obtained by emailing purchasing@midlandtexas.gov.

A bid bond or proposal guaranty is to accompany the bid, thereby guaranteeing the good faith of the bidder and that the bidder will enter into the written contract. The guaranty is to amount to five percent (5%) 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 bid bond. If in the form of cash or certified check, it is expressly understood and agreed that the City of Midland is given the right to retain such as liquidated damages if such bidder withdraws its bid anytime after such bid is opened and before official rejection of such bid, or if successful in securing the awarded thereof, such bidder fails to enter into the contract and furnish satisfactory performance and payment bonds. If a bid bond is submitted, it shall be executed on forms contained in these contract documents by a corporate surety authorized to do business in the State of Texas and acceptable to the City of Midland.

WAIVER OF ATTORNEY FEES

BY SUBMITTING A BID, 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 OWNER, 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 OWNER AND THE BIDDER. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE BIDDER 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.

WAIVER

BIDDER’S 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).

City of Midland

Amy Turner
City Secretary

Form Revised September 2022

INSTRUCTION AND INFORMATION FOR BIDDERS

1. LOCATION AND EXTENT OF WORK

The work and construction contemplated to be accomplished under this Contract is located in the City of Midland, Texas, and consists of municipal public works projects as set forth in the proposal.

The location and details for the construction and related work are shown upon a set of drawings dated September 26, 2022 and numbered from (1) through (37) inclusive. These drawings and plans, together with the specifications, form a part of the Contract. Where figures are shown on the drawings, they shall take precedence over scaled distances and dimensions.

2. TIME AND PLACE OF RECEIVING BIDS

All bids shall be sealed, addressed to the Mayor and City Council of the City of Midland, Texas, and will be received by the City Secretary in her office at City Hall, 300 N. Loraine Street, Midland, Texas, mailing address is P.O. Box 1152, Midland, Texas 79702, until time stated on the Advertisement for Bids.

3. PREPARATION OF BID FORM

Bids shall be submitted only on the forms provided therefore in the Contract Documents, and must not be submitted in letter form or in any other form. They shall be filled out in ink in both script and figures. The Proposal form provided in the Contract Documents sets forth in detail the various items and approximate quantities thereof contained in the Project. Bids submitted in any other form will be considered irregular and will be returned to the Bidder without receiving consideration by the Owner.

All bids must be submitted in sealed envelopes bearing on the outside the name of the Bidder, his address, and the name of the Project for which the bid is submitted. It is the sole responsibility of the Bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the Bidder unopened.

The bid must be signed in the name of the Bidder and must bear the signature in longhand of the persons duly authorized to sign the bid.

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the Contract Documents may result in the Owner's rejection of the bid as not being responsive to the invitation. No oral or telephonic modification of any bid submitted will be considered and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the Bidder was placed in the mail prior to the opening of bids.

The bid submitted must not contain any erasures, interlineations or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surnames of the person or persons signing the bid.

4. EXAMINATION OF SITE, DRAWINGS, ETC

Each Bidder is requested to visit the site of the proposed work and fully acquaint himself with the conditions relating to the construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of the work under the Contract. Bidders shall thoroughly examine and be familiar with the Plans and the Specifications. The failure or omission of any Bidder to receive or examine any form, instrument, addendum or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any Bidder from obligations with respect to his bid or to the Contract. The submission of a bid shall be taken as prima-facie evidence of compliance with this section.

5. WITHDRAWAL OF BIDS

Any Bidder may withdraw his bid, either personally, by written request, or by telegraphic request confirmed in the manner specified above, at any time prior to the scheduled closing time for receipt of bids.

6. AGREEMENT AND BONDS

The successful Bidder will be required to furnish a Performance Bond, and a Payment Bond, 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, and 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.

7. INTERPRETATION OF PLANS AND DOCUMENTS

If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents or finds discrepancies in, or omissions from the Plans or Specifications, he may submit to the Owner written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by Addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of such Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. No oral interpretations of any provision in the Contract Documents will be made to any Bidder.

8. BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm or corporation shall be allowed to make, or file more than one bid for the same work unless alternate bids are specifically called for. A person, firm or corporation that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or making a prime proposal.

9. AWARD OF CONTRACT

The Owner reserves the right to reject any or all bids submitted and not make an award. The Owner also reserves the privilege of accepting any item as a separate contract or the combination of items of a contract. The Owner and Bidder agree that, if the Contract is awarded, that it will be awarded to either the lowest responsible bidder/proposer, or to the bidder/proposer 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. Further, the Owner reserves all rights granted by Section 271.027 of the Texas Local Government Code. The Owner reserves the right to award the bid to the lowest responsible bidder.

10. OPENING OF BIDS

Bidders are invited to be present at the opening of the Proposals. All Proposals shall be made and received with the understanding that the Bidder accepts the terms and conditions contained in the Contract Documents.

11. COMPARISON OF BIDS

All bids will be compared on the basis of the Proposal.

12. BID GUARANTY

A Certified Check, Bank Money Order, issued by a bank satisfactory to the Owner, or a Bidder's Bond on the form provided and approved by the City Attorney, in the amount of five percent (5%) of the largest possible lump sum bid submitted, payable without recourse to the Owner, must accompany the Bidder's Proposal, as a guaranty that the Bidder will enter into a Contract and execute the required Performance 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 Proposals shall remain in effect for a period of thirty (30) days after date of bid opening.

13. CONTRACT DOCUMENTS

The complete Contract Documents may include the following: (1) Notice to Bidders, (2) Instructions and Information for Bidders, (3) Proposal, (4) Experience Record, (5) Bid Bond, (6) Contract Agreement, (7) Performance Bond, (8) Payment Bond, (9) Insurance Certificate, (10) General Conditions, (11) Special Conditions, (12) Detailed Specifications all of which are bound together, and/or (13) Certificate of Payment. The Contract Documents shall also include Drawings or Detailed Plans for the proposed work. A complete set of the Contract Documents and the detailed plans are on file in the Office of the City Secretary.

14. TIME ELEMENT

The work to be done under this Contract shall be commenced within fifteen (15) days from the date of the notice from the City to the Contractor to commence work. The Contractor shall commence performance of the Contract on the date stated in the City's notice to the Contractor to proceed and shall complete the performance of the Contract without delay.

15. PAYMENTS

Payments to the Contractor will be based upon the prices stated in the proposal and upon basis of the work performed as determined by the Engineer. The Engineer's determination shall be considered as final unless changes are authorized by the City in writing which shall affect the work. Upon issuance of the Certificate of Completion, the Engineer shall proceed to take final measurements and prepare a final statement of the value of all work performed and materials furnished under the terms of the agreement and shall certify same to the Owner who shall pay to the Contractor on or after the 30th day, and before the 35th day, after the date of the

Certificate of Completion, the balance due the Contractor under the terms of this agreement, provided he has fully performed his contractual obligations under the terms of this Contract, and said payment shall become due in any event upon said performance by the Contractor. Notwithstanding any provision of these Contract documents to the contrary, it is expressly understood and agreed by the parties hereto that neither the Certificate of Acceptance, nor the final or any other payment hereunder, nor any partial or total occupancy or possession of the project by the Owner, shall relieve the Contractor of his responsibility for completion of the entire project in a good workmanlike manner and in full compliance with the plans and specifications and the fulfillment of any warranties which may be required in the Contract documents.

Revised April 2010

NOTICE TO BIDDERS

IF THIS PURCHASE REQUIRES A CONTRACT, THE ATTACHED **CONTRACT AND INSURANCE REQUIREMENTS ARE NON-NEGOTIABLE**. MODIFICATIONS BY BIDDER/CONTRACTOR OF ANY MATERIAL TERM(S) TO THE CONTRACT DOCUMENTS WILL BE DEEMED A NON-RESPONSIVE BID. NON-RESPONSIVE BIDS WILL BE REJECTED. BIDDER/CONTRACTOR 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/CONTRACTOR 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/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.

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.

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.**

Jones Bros. Dirt & Paving Contractors, Inc.

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

October 26, 2022

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.

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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: _____

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 4/26/2022

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	CONTACT NAME: Lorrie Scott
Frank Siddons Insurance Agency Fort Worth 2900 Marquita Drive Fort Worth TX 76116-4016	PHONE (A/C, No, Ext): (817)737-4943 FAX (A/C, No): (817)737-4947 E-MAIL ADDRESS: lscott@fsifw.com
INSURED	**INSURER(S) AFFORDING COVERAGE** / **NAIC #**
Jones Bros. Dirt & Paving Contractors, Inc. 1401 South Grandview Ave Odessa TX 79761-7144	INSURER A: Starr Indemnity & Liability Co. 38318 INSURER B: Great American Ins. Companies 16691 INSURER C: Texas Mutual Insurance Company 22945 INSURER D: INSURER E: INSURER F:

COVERAGES CERTIFICATE NUMBER: ALOB 22-23 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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC			10000025606212	5/1/2022	5/1/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS X MCS 90			10000198569212	5/1/2022	5/1/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) PIP-Basic	$ 1,000,000 $ $ $ $ 2,500
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000			Follow Form TUU033270311	5/1/2022	5/1/2023	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		TSF-0001185649	5/1/2022	5/1/2023	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

The general liability and auto policies include blanket automatic additional insured endorsements that provide additional insured status to the certificate holder on a primary and non-contributory basis only when there is a written contract between the named insured and the certificate holder that requires such status. The general liability, auto & workers compensation policies include blanket automatic waiver of subrogation endorsements that provide this feature only when there is a written contract between the named insured and the certificate holder that requires it.

CERTIFICATE HOLDER

Sample

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

Steven Siddons/WBROWN

© 1988-2010 ACORD CORPORATION. All rights reserved.
The ACORD name and logo are registered marks of ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/06/2021

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 have ADDITIONAL INSURED provisions or 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	CONTACT NAME: Lorrie Scott	
Frank Siddons Insurance Agency Fort Worth	PHONE (A/C, No, Ext): (817) 737-4943	FAX (A/C, No): (817) 737-4947
2900 Marquita Drive	E-MAIL ADDRESS: Lorrie@fsifw.com	
Fort Worth TX 76116-4016	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A: MI. Hawley Insurance Company	37974
Jones Bros. Dirt & Paving Contractors, Inc.	INSURER B:	
1401 South Grandview Ave	INSURER C:	
	INSURER D:	
Odessa TX 79761-7144	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** Pollution 21-22 **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	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ CLAIMS-MADE ☐ OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	☐ POLICY ☐ PRO-JECT ☐ LOC						PRODUCTS - COMP/OP AGG	$
	☐ OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						☐ PER STATUTE ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Commercial Pollution Liability			EGL0009135	12/04/2021	12/04/2022	Per Occurrence	$1,000,000.
							Aggregatge	$3,000,000.
							Deductible Per Claim	$25,000.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

If required by written contract, the Pollution policy includes a blanket additional insured endorsement on a primary and non-contriburoly basis with a blanket waiver of subrogation in favor of certificate holder as required by written contract.

CERTIFICATE HOLDER

Sample

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

© 1988-2015 ACORD CORPORATION. All rights reserve

The ACORD name and logo are registered marks of ACORD

TECHNICAL SPECIFICATIONS

FOR: North Fairgrounds Road, Loop 250 – Mockingbird Lane Paving Project

All construction for this project must conform to the City of Midland "STANDARD SPECIFICATIONS" issued by the Engineering Services Department which are herein made a part of these specifications by reference.

The bidder/contractor is to pay particular attention to the following items in the "STANDARD SPECIFICATIONS" for this project.

1) Preparation of Right of Way
2) Excavation, Embankment and Preparation of Subgrade
3) Concrete Curb and Gutter, Sidewalks, Driveways, Valley Gutters, Center Drains and Rip Rap
4) Concrete Structures
5) Flexible Base, Caliche
6) Bituminous Prime
7) Bituminous Tack
8) Hot Mix Asphaltic Concrete
9) Double Course Asphalt Surface Treatment
10) Preparation of Asphaltic Concrete Surface for Overlay or Seal Coat
11) Seal Coat
12) Asphalt –Rubber Seal Coat
13) Polymer Modified Slurry
14) PVC Pipe Casings
15) Water Line Specifications
16) Gravity Flow Sewers for Waste Water and Storm Water

The "STANDARD SPECIFICATIONS" are available from the Department of Engineering Services, City Hall, 300 North Loraine Street, Suite 510, Midland, Texas.

GENERAL CONDITIONS AND PROVISIONS

1. DEFINITIONS

The following terms as used in this contract shall be defined and interpreted as follows:

(a) "Contract" or "This Contract" or "Agreement": The particular Contract executed by the Contractor and the Owner of which these general conditions are integral parts.

(b) "Contractor": The person, firm or corporation to whom this Contract is awarded by the Owner and who is a party thereto.

(c) "Owner", "City", or pronouns instead: The entity that is a party to this Contract, contracting under the official name of the City of Midland, Texas or the City Council of the City of Midland.

(d) The words "as directed", "as required", "as permitted", "acceptable to", "satisfactory", and the words of like import, shall mean that the direction, requirement or permission of the Engineer is intended.

(e) "Engineer": The word "Engineer" used in these specifications or in this Contract means the duly authorized representative or agent of the Owner supervising the performance of the Contract and representing the Owner in his Contractual relations and negotiations with the Contractor during the period of construction. The Engineer will be represented by assistants and inspectors authorized to act for him. On all questions concerning the acceptability of material or equipment, the classifications of material, the execution of the work, conflicting interest of Contractors performing related work and the determination of costs, the decision of the Engineer shall be final, but shall not relieve the Contractor of his responsibility for completion of the entire work in a good and workmanlike manner and in full compliance with the plans and specifications.

Inspectors are required to see that all the provisions of the Contract specifications are faithfully adhered to. Any inspector may, if authorized by the Engineer, stop the work entirely if there is not sufficient quantity of suitable and approved material on the ground to carry it on properly, or for any other good and sufficient cause. Any work done in the absence of an inspector may be ordered opened up for thorough examination, and must be rebuilt or replaced at the Contractors sole expense if found to be deficient or not in accordance with the plans and specifications. But no approval by an inspector shall be construed as an acceptance of defective or improper work or material, which must be rebuilt or properly replaced whenever discovered. Inspectors have not the power to give orders or directions under any possible circumstances, except as herein defined and provided, and on authority of the Engineer

(f) "Subcontractor": Any person, firm or corporation other than an employee of the contractor, supplying, for and under agreement either with the Contractor or any subcontractor of the Contractor, labor or material, or both, at the site of the project in connection with this Contract.

(g) "Project": The structure or improvement to be constructed in whole or in part through the performance of this Contract.

(h) "Work on the Project": Such work as is performed or ordinarily would be performed at the site of the project.

(i) "Surety": Any firm or corporation executing a Surety Bond or Bonds payable to the Owner securing the performance of the Contract either in whole or in part.

(j) Whenever certain articles are specifically mentioned, by brand name or name of the manufacturer, such materials shall be taken as standard and guide for quality, operation, capacity, etc. The term "or equal" shall mean that articles of equal characteristics as required, but of different brand or manufacturer, may be substituted and accepted, subject in all instances to the approval of the Engineer.

(k) "Special Provisions", "Special Conditions", "Project Specific Specification" or "Job Specific Specifications" are included as amendment of and/or additions to the General Conditions and/or Standard Specifications for the particular project in which they are included and will take precedence over the General Conditions and Standard Specifications only in so far as the amendments and/or additions. All other provisions in the General Conditions and/or Standard Specifications will not be affected.

(l) "Drawings" "Contract Drawings", "Plans" "Detail Drawings" "Detail Sheets" or "Plans and Details" refers to the set of drawings which show the details for the construction and related work anticipated on this project and upon which bids are being solicited.

2. CONFLICT OF PROVISIONS

Unless it is specifically provided otherwise, any provision in any other part of this Contract which may be in conflict or inconsistent with any provision in the General Conditions and Provisions shall be void to the extent only of such conflict or inconsistency.

3. DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR

The Contractor shall have charge of and shall be responsible for the entire work under this Contract until its completion and acceptance by the city. A competent superintendent, foreman or other representative, invested with sufficient authority to conduct the work properly, shall be maintained on the work at all times.

It is expressly agreed and understood that no decision of the Engineer or any certificate issued nor payment made to the Contractor nor partial or entire use or occupancy of the work by the Owner, shall be an acceptance of any work or materials not in accordance with this Contract, nor constitute a waiver of the Contractor's responsibility to perform the entire work in a good and workmanlike manner and in accordance with the plans and specifications.

4. TIME ELEMENT

The work shall be commenced and finished within the time set out in the Form of Contract.

The time of completion of this Contract is an essential element and consideration. Since, therefore, time is of the essence thereof, and in the event of delay in the completion of the entire work required hereunder beyond the period prescribed, or beyond the period for which time may be extended by authority of the Owner for good cause shown, the Owner shall be paid damages for such delay. Inasmuch as the amount of such damages is difficult to ascertain, it is hereby stipulated and agreed that such damages shall be liquidated and the Owner shall be paid damages at the rate as set forth in the Special Provisions, said damages to be paid to the Owner for each and every day that the Contractor be in default in completing the entire work required under this Contract. The Owner shall have the right to deduct such amounts from any monies due, or which may become due, under

this Contract. In the event that no amount for such damages is shown in the Special Provisions of these specifications, it is agreed that the amount of damages shall be Five Hundred dollars ($500.00) per day.

If during the progress of the work weather conditions, or other circumstances beyond the control of the Contractor should prevail to the extent that the work cannot be prosecuted and completed within the time specified in the Contract, the Contractor shall file with the Engineer within one week of the occurrence of such delay a request for a credit on the time of completion. Unless the Contractor files such request, the liquidated damages specified above will be enforced.

5. PAYMENT TO CONTRACTOR

ESTIMATED QUANTITIES:

This Contract, including the specifications, plans and estimate, is intended to show clearly all work to be done and material to be furnished hereunder. Where the estimated quantities are shown for the various classes of work to be done and material to be furnished under this Contract, they are approximate and are to be used only as a basis for estimating the probable cost of the work and for comparing the proposals offered for the work. It is understood and agreed that the actual amount of work to be done and material to be furnished under this Contract may differ somewhat from these estimates, and that where the basis for payment under this Contract is the unit price method, payment shall be for the actual amount of such work done and the material furnished.

Where payment is based on the unit price method, the Contractor agrees that he will make no claim for damages, anticipated profits or otherwise on account of any differences which may be found between the quantities of work actually done, the material actually furnished under this Contract and the estimated quantities contemplated and contained in the proposal provided, however, that in case the actual quantity of any major item should become as much as twenty percent (20%) more than, or twenty percent (20%) less than the estimated or contemplated quantity for such items, then either party of this agreement, upon demand, shall be entitled to a revised consideration upon the portion of the work above or below twenty percent (20%) of the estimated quantity.

A "Major Item" shall be construed to be any individual item incurred in the proposal that has a total cost equal to or greater than five percent (5%) of the total Contract cost, computed on the basis of the proposal quantities and the Contract unit price.

Any revised consideration is to be determined by agreement between the parties, otherwise by the terms of this Contract, as provided under "Extra Work".

PAYMENT; RETAINAGE:

On or before the 1st day of each month the Contractor shall prepare an itemized statement showing the total value of the work completed by the Contractor up to and including the 25th day of the preceding month; said statement shall also include the value of all sound materials delivered on the site of the work that are to be fabricated into the work. NO ESTIMATE WILL BE MADE ON UNCOMPLETED PORTIONS OF THE WORK.

After all work is completed by Contractor, 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 Contractor in the amount of the contract and all Change Orders. The City shall be the final judge of when the

work is completed by Contractor. 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.

The City may make periodic payments to Contractor; 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 Contractor 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.

FINAL COMPLETION AND ACCEPTANCE:

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion.

FINAL PAYMENT:

Upon the issuance of the Certificate of Completion, the Engineer shall proceed to make final measurements and prepare final statement of the value of all work performed and materials furnished under the terms of the Contract and shall certify same to the Owner, who shall pay to the Contractor the balance due the Contractor under the terms of this Contract, provided he has fully performed his obligations under the terms of this Contract. Notwithstanding any provision of these Contract Documents to the contrary, it is expressly understood and agreed by the parties hereto that neither the certificate of acceptance, nor the final or any other payment hereunder, nor any partial or total occupancy or possession of the project by the Owner, shall relieve the Contractor of his responsibility for completion of the entire project in a good and workmanlike manner and a full compliance with the plans and specifications and the fulfillment of any warranties which may be required in the Contract Documents.

6. OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

In addition to the amount which the Owner may otherwise retain under the Contract, the Owner may withhold a sufficient amount or amounts of any payment or payment otherwise due to the Contractor, as in this judgment may be necessary to cover:

(a) Payments which may be past due and payable for just claims against the Contractor or any subcontractor for labor or materials furnished for the performance of this Contract.

(b) For defective work not remedied.

(c) For failure of the Contractor to make proper payments to his subcontractors.

7. CERTIFICATE OF PAYMENT

Contractor shall, prior to issuance of final payment pursuant to the terms herein stated, provide proof satisfactory to the owner that all debts, bills and expenses incurred by the Contractor, his agents, employees or subcontractors employed by him, for labor, wages, materials and other purposes, in the furtherance of this

project, have been paid and satisfied in full. Satisfactory proof shall consist of an executed Certificate of Payment.

8. EXTRA, ADDITIONAL OR OMITTED WORK PAYMENT

The Owner, upon proper action by its governing body, may require changes in this Contract, or additions to, or deductions from the work to be performed or the materials to be furnished pursuant to this Contract. No employee, agent or representative of the Owner, with the exception of the governing body authorized to award this Contract, has any power to approve any change in this Contract and it is the responsibility of the Contractor before proceeding with any change to satisfy himself that the change has been properly authorized on behalf of the Owner. No charge for any extra work or other change in the Contract will be allowed unless the extra work or change has been authorized in writing by the Owner, or its duly authorized representative, and the price therefore is stated in such written authority.

Adjustments, if any, in the amounts to be paid the Contractor where such adjustments are made by reason of additions to or deductions from the quantities of units or items bid upon in the proposal schedules, shall be paid for in accordance with the provisions of the Specifications, at the unit and/or lump sum prices bid in such proposal schedules.

Adjustments, if any, in the amounts to be paid the Contractor where such adjustments are made by reason of additions of items not appearing in the proposal schedules, or addition of work of such a nature that unit and/or lumps sum prices contained in the proposal schedules cannot reasonably or equitably be applied to provide proper payment therefore, the payment to the Contractor for such work shall be determined by one or more of the following methods:

(a) By an acceptable lump sum proposal from the Contractor.

(b) By unit prices contained in the Contractor's proposal and incorporated in the Contract or fixed by subsequent agreement between the Owner and the Contractor.

(c) By a cost method pursuant to which the Contractor shall be paid the costs of the change or addition. He shall be required to keep and present in such form as the Owner may direct, a correct account of the cost of the change or addition, together with all vouchers therefore. The cost may include an allowance for overhead and profit not to exceed fifteen percent (15%) of the net cost.

In computing the cost, there shall be considered reasonable and proper net expenditures for labor, materials, power tools and equipment, pro rata charges for foremen, deductions for social security, old age and unemployment benefits and workmen's compensation insurance and surety bond premium. In computing cost of machinery and equipment involved in additional work, the amount to be paid shall be not more than one hundred percent (100%) of the latest schedule of "Equipment Ownership Expense" adopted by Associated General Contractors of America. No overhead and profit shall be allowed on the deductions for Social Security, old age and unemployment benefits. All other expenditures shall be treated as overhead costs.

No extra work shall be performed or change made unless in pursuance of a written order from the Owner stating that the extra work or change is authorized and no claim for an addition to the Contract sum shall be valid unless so ordered; provided, however, that nothing in this Article shall excuse the Contractor from proceeding with the prosecution of the work so changed.

The Contractor shall, when required by the Owner, furnish an itemized breakdown of the quantities and prices used in computing the value of any change, addition or deduction that might be ordered.

If the Contractor should claim that any instruction, request, drawing, specification, action, condition, omission, default, or other situation obligated or may obligate the Owner to pay additional compensation to the Contract, or constitutes a waiver of any provision in the Contract, he shall notify the Owner in writing of such claim within ten (10) days from the date he has actual or constructive notice of the factual basis supporting the claim. The Contractor's failure to notify the Owner within such ten (10) days period shall be deemed a waiver and relinquishment of any such claim against the Owner. The procedure for consideration of such claims shall be as stated in this Article.

9. ASSIGNMENT OF CONTRACT

The Contractor shall not assign this Contract or any part thereof, nor any monies due or to become due thereunder without the prior written consent of the Owner. No assignment of this Contract shall be valid unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or material supplied for performance of the work called for under this Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

10. SUBCONTRACTORS

Specialty subcontractors may be utilized for the performance of such parts of the work under this Contract as, under normal practices, are performed by Specialty subcontractors, unless the Owner determines that the Contractor has heretofore customarily performed such specialty work with his own organization and is equipped to do so, or unless the Owner determines that performance of the specialty work by Specialty subcontractors will result in increased costs or inordinate delays.

The Contractor shall not subcontract any work to be performed or any materials to be furnished in the performance of this Contract without the prior written consent of the Owner. If the Contractor shall subcontract any part of this Contract, the Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractor and of the persons either directly or indirectly employed by the subcontractor as he is for the acts and omissions of persons directly employed by himself. Nothing contained in this Contract shall create any Contractual relations between any subcontractor and the Owner. The Contractor shall ensure that the sub contractor has the insurance coverage required by this contract.

The Owner's consent to or approval of any subcontract under this Contract shall not in any way relieve the Contractor of his obligations under this Contract and no such consent or approval shall be deemed to waive any provisions of this Contract.

11. SUSPENSION OF WORK

Pending settlement of disputes on any point of controversy, the Engineer may suspend action on all or any part of the work. The Contractor shall not be entitled to any claim for loss or damage by reason of such, nor shall he be entitled to extension of time, although such extension of time may be granted by the Engineer if he deems it in the interest of the work.

12. RIGHT OF OWNER TO TERMINATE CONTRACT

If, in the opinion of the Engineer, the Contractor shall be improperly performing the work under this Contract, or shall neglect or refuse to take out or rebuild such work as shall have been rejected by the Engineer as being defective or unsuitable, or if, any time, the Engineer shall be of the opinion that the work is unnecessarily delayed and will not be finished within the prescribed time, or if the Contractor shall abandon the work, or shall neglect or refuse to comply with the instructions of the Engineer relative thereto, or shall fail in any manner to comply with the Specifications or Stipulations herein contained, the Engineer shall notify the Contractor to that effect in writing, and if the Contractor shall not within five (5) days thereafter take such measures as will, in the judgment of the Engineer, insure the satisfactory performance or construction of the work, the City may annul and cancel the Contract, in which event it shall notify the Contractor to discontinue all work under this Contract, and the Contractor shall immediately respect such notice and stop work and cease to have any rights to the possession of the ground and shall forfeit his Contract. Such annulment shall not entitle the Contractor to any claim for damages on account thereof, nor shall it affect the right of the City of Midland to recover damages on account of such failure. The City Council may thereupon advertise and re-let a new Contract for the uncompleted work without further ordinance, in the same manner as was followed in the letting of this Contract, and any excess of cost arising there from over and above what would have resulted from the prices set forth in this Contract will be charged against the Contractor and his surety or sureties hereto, who shall be liable therefore.

13. RIGHT OF CONTRACTOR TO TERMINATE CONTRACT

If the work should be stopped under an order of any court or other public authority for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by him, or if the City should fail to make payment to the Contractor within thirty (30) days after such payment is due, as set out in the Contract, then the Contractor may, upon seven (7) days written notice to the City and the Engineer, stop work or terminate his Contract and recover from the City payment for all work executed and for any loss sustained upon any plant or materials and reasonable profit and damages.

14. INCIDENTAL WORK

Any and all minor details 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 and included with the work for which the prices are named in the Contract Documents. The Contractor will not be entitled to any extra or additional compensation therefore, unless specifically stated otherwise.

15. PERMITS – COMPLIANCE WITH LAW

The Contractor shall, at his expense, obtain all permits and licenses necessary for the performance of this Contract, and give all necessary notices, pay all fees required by law, and comply with all laws, ordinances, rules and regulations governing the Contractor's performance of the Contract.

Portions of this contract qualify for exemption pursuant to the provisions of the Texas Limited Sales, Excise and Use Tax Act. The Contractor shall obtain a sales tax exemption certificate from the City. All labor performed on the project and all materials incorporated into the project qualify for such tax exemption. However, equipment and parts for equipment purchased to be used on the project, but are not incorporated into the 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 the project. Further Contractor shall separate the charges for materials incorporated into the project from the charges for labor.

16. INSPECTION BY OWNER

The Owner and its representatives shall at all times have access to all parts of the work and to the shops wherein the work is in preparation for the purpose of inspection, and the Contractor shall at all times maintain proper facilities and provide safe access for such inspection.

The Owner shall have the right to reject materials and workmanship which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the Owner. If the Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the Owner may correct same and charge the expense to the Contractor. No inspector shall have the power to waive the obligation resting upon the Contractor to furnish good material or do work as herein prescribed, and any failure or omission of any inspector or the Engineer to condemn any defective material or work shall not release the Contractor from the obligation to at once tear out, remove and properly rebuild the same at any time upon discovery of the defect and upon receipt of notice of the Engineer to do so.

Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of work already completed by removing or tearing out any portion thereof, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to the fault of the Contractor or his subcontractor, he shall defray all the expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and materials necessarily involved in such examination and replacement, plus fifteen percent (15%) for overhead and profit, shall be allowed the Contractor.

Where the Specifications require work to be specifically tested or approved, it shall not be tested or covered up without timely notice to the Owner of its readiness for inspection and without the approval or consent thereto by the Owner. Should any such work be covered up without such notice, approval or consent, it must, if required by the Owner, be uncovered for examination at the Contractor's expense.

17. PATENTS

The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including all costs and legal expenses, for or on account of, any patented or unpatented invention, process, article or appliance, manufactured for or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract.

18. MUTUAL RESPONSIBILITY OF CONTRACTORS

If, through acts of neglect on the part of the Contractor, any other Contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other Contractor or subcontractor by agreement or arbitration, if such other Contractor or subcontractor will so settle. If such other Contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

The Contractor must ascertain to his own satisfaction the scope of the project and the nature of any other Contracts that have been or may be awarded by the Owner in the prosecution of the project to the end that the Contractor may perform this Contract in the light of such other Contract, if any.

Nothing herein contained shall be interpreted as granting the Contractor exclusive occupancy of the site of the project. The Contractor shall not cause any unnecessary hindrance or delay to any other Contractor working on the project. If the performance of any Contract for the project is likely to be interfered with by the simultaneous execution of some other Contract or Contracts, the Owner shall decide which Contractor shall cease work temporarily and which shall continue, or whether the work under the Contracts can be coordinated so that the Contractors may proceed simultaneously. The Owner shall not be responsible for any damages suffered or extra costs incurred by the Contractor, resulting directly or indirectly from the award or performance or attempted performance of any other Contract or Contracts on the project, or caused by any decision or omission of the Owner respective to the order of precedence in the performance of Contracts.

19. NOTICE AND SERVICE THEREOF

Any notice from one party to another under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by duly authorized representative of such party. Any such notice shall not be effective for any purpose whatsoever unless served in the following manner; namely, if the notice is given to the Owner, (a) by personal delivery thereof to the individual duly authorized to direct and supervise the project of the Owner, or (b) by depositing the same in the United States Mail, enclosed in a sealed envelope, addressed to the City of Midland, 300 North Loraine Street, Midland, Texas, 79701, postage prepaid and certified; or if the notice is given to the contractor (a) by personal delivery thereof to the project superintendent or other person authorized to act for the contractor, or (b) by depositing the same in the United States Mail, enclosed in a sealed envelope, addressed to the Contractor at his regular place of business or at such other address as may have been established for the conduct of the work under this Contract, postage prepaid and certified; or (c) if the notice is given to the Surety or any other person by personal delivery to such Surety or other person, or by depositing the same in the United States Mail, enclosed in a sealed envelope addressed to such Surety or other person, at the address of such surety or other person last communicated by him to the party giving the notice, postage prepaid and certified.

20. QUALITY OF MATERIALS AND WORKMANSHIP

It is the intention of this Contract to have only first class materials and the best workmanship throughout, and the methods and appliances adopted by the Contractor must be such as will secure a satisfactory quality of work and will enable him to complete the work in the time agreed upon. If at any time such methods and appliances appear inadequate, the Engineer may order the Contractor to improve their character or increase their efficiency, and the Contractor must conform to such order; but the failure of the Engineer to order such improvement of methods or increase of efficiency will not relieve the Contractor from his obligations to perform good work or finish it in the time agreed upon. The Contractor shall submit samples or specimens of any and all materials proposed to be used in the work when required to do so by the Engineer. All materials must be of specified quality and fully equal to approved samples. All work must be done and completed in a thorough and workmanlike manner. All materials furnished and all work done must be satisfactory to the Engineer and will be subject to rigid inspection, and if not in accordance with the Specifications in the opinion of the Engineer, shall be made to conform thereto.

It is understood that except as otherwise specifically stated in the Contract, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence of temporary

construction of every nature, and all other services and facilities required for the completion of the Contract within the specified time.

21. SPECIAL METHODS

The Engineer may consent to special methods for carrying out the work in difficult cases, but the Contractor will not be relieved of responsibility for the result. The Contractor shall be responsible for the result of all work performed by him whether directed by the Engineer or not.

22. REMOVAL OR REPLACEMENT OF WORK DONE WITHOUT LINES OR GRADES

Any work done without lines or grades given by the Engineer or under his direction or without the supervision of an inspector, may be ordered removed and replaced by the Engineer at the Contractor's expense.

23. COVERING WORK

No work shall be covered until it has been examined and approved by the Engineer.

24. UNFAVORABLE WEATHER

During unfavorable weather and other adverse conditions, only such portions of the work may be done which will not be damaged thereby, unless by special means or precautions approved by the Engineer.

25. ALL WORK SUBJECT TO FINAL INSPECTION

Failure to neglect on the part of the Engineer or his inspectors to condemn or reject bad or inferior work or materials shall not be construed to imply his acceptance of such work or materials if it becomes evident at any time prior to the final acceptance of the work and the release of the Contractor.

26. PUBLIC CONVENIENCE

When materials for construction are brought on the work site they shall be neatly piled so as to cause as little obstruction to travel as possible, and so that they may be conveniently inspected.

No material or other obstruction shall be placed within five (5) feet of fire hydrants, which must at all times be readily accessible to the fire department, nor shall any material be piled within two (2) feet of any trees.

The Contractor shall be responsible for all damages to persons or property that occur as a result of his fault or negligence in connection with the prosecution of the Contract and shall be responsible for the proper care and protection of all materials delivered and work performed until completion, and final acceptance by the Owner.

The Contractor shall provide such heat, covering and enclosures as are necessary to protect all work and materials against damage by weather conditions.

The Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavement, utilities, adjoining property, and structures, and avoid damage thereto, and he shall at his own expense completely repair any damage thereto caused by his operations.

If required by the Engineer, the Contractor shall shore up, brace, underpin, and protect as may be necessary, all foundations, and other parts of all existing structures adjacent and adjoining the site of the Project, which are in any way affected by the excavations or other operations connected with the completion of the work under this Contract. Whenever any notice is required to be given by the Owner or the Contractor to any adjoining or adjacent landowner or other party before commencement of any work under this Contract, such notice shall be given by the Contractor. The Contractor shall indemnify the Owner and save it harmless from any damages on account of settlement or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the Owner may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

During the progress of the work the convenience of the public and of the residents along streets must be provided as far as practicable. Convenient access to driveways, houses and buildings along streets must be maintained whenever possible.

Temporary approaches and crossings of streets and sidewalks must be provided and kept in good condition whenever practicable.

The Contractor shall provide and maintain such fences, barriers, "Street Closed" signs, red lights and watchmen as may be necessary to prevent avoidable accidents to residents and to the public.

The Contractor alone shall be held responsible for all injuries to persons, and for all damages to property of the City or others, caused by or resulting from the negligence of himself, his employees or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. He must restore all injured public or private property to a condition as good as it was when he entered upon the work, purchasing new materials to replace all that which is injured or destroyed during the course of the work.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorization from the Owner is authorized to act at his discretion to prevent such threatened loss or injury and he shall so act.

27. TRAFFIC CONTROL

It is the policy of the City of Midland to keep at least two travel lanes open to traffic at all times and where possible to have three travel lanes between 7:30 a.m. and 9:00 a.m. and 4 p.m. and 6 p.m. (Two (2) lanes in the direction of peak travel).

At least 48 hours before beginning work the contractor shall present a traffic control and/or barricade plan prepared as per the approved Barricading Standards to the Traffic Engineering Division for review and approval. When approved and barricades are in place, they shall be inspected by the Traffic Engineering Division prior to beginning work.

Traffic control signs, such as stop signs, yield signs, etc., are placed in various intersections for the safety and protection of the traveling public. The contractor shall not move, alter or damage said signs for any reason. If said signs must be removed for construction purposes, contractor shall notify the City of Midland, Traffic Division Operations Superintendent at least 48 hours (not including weekends) before construction activities are scheduled to begin. All construction barricading, warning signs, and other construction traffic control devices shall be in place and shall be in accordance with the Texas Manual on Uniform Traffic Control Devices and approved Barricading Standards included in plans before traffic signs can be removed. The contractor shall notify the Traffic Division Operations Superintendent at least 72 hours (not including weekends) before

scheduled removal of construction barricades, warning signs, and traffic control devices. But in all cases the contractor shall not remove said barricades, warning signs, and traffic control devices until the City of Midland's Traffic Department has replaced stop signs, yield signs, etc., in their proper location. The Contractor shall notify Traffic Engineering Division at least 24 hours in advance of any Traffic Signal modification due to construction (i.e. eliminating left turn phases). Notice shall also be given to the Traffic Engineering Division at least 24 hours prior to removing barricades at signalized intersections.

28. PROTECTION OF NEW WORK

All new work shall be carefully protected by the Contractor, and any work injured from any cause before the completion of the whole project must be rebuilt by the Contractor at his own expense.

29. MONUMENTS OR STAKES

The Contractor must carefully protect from disturbance or injury all monuments, stakes and bench marks, of City County, State or Federal Government and shall not excavate nearer than five (5) feet to any of them without the permission of the Engineer, or until they have been removed, witnessed or otherwise disposed of by the Engineer.

30. USE OF COMPLETED PORTIONS

The City shall have the right to take possession of and use any completed or partially completed portions of the work notwithstanding the time for completing the entire work on 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 the Contract Documents. If such prior use increases the cost of, or delays the work, the Contractor shall be entitled to such extra compensation or extension of time, or both as the Engineer may determine.

The Owner, in taking possession of completed portions, shall agree to accept the decision of the Engineer on matters relating to responsibility for damages that may occur to any portions of the work during the period of possession preceding acceptance and final payment.

31. USE OF PREMISES

The Contractor shall confine his apparatus, storage of materials and construction operations to such limits as may be directed by the Owner, and shall not unreasonably encumber the premises with his materials.

The Contractor shall enforce any instructions of the Owner regarding advertising, fires, danger signals, barricades and smoking, and shall require all persons employed on the work to comply with all building, post or institutional regulations while on the premises.

32. SAFETY RESTRICTIONS

The following procedures will be followed regarding the subject item on this contract:

A warning sign painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

Equipment that may be operated within ten feet of high voltage lines shall have an insulating cage type of guard about the boom or arm, except back hoes or dippers, and insulator links on the lift hook connections.

When necessary to work within six feet of high voltage electric lines, notification shall be given to the power company who will erect temporary mechanical barriers, de – energize the line, or raise or lower the line. The notifying department

The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

No person shall work within six feet of high voltage line without precautions having been taken and protection provided as outlined in Paragraph (3) above.

33. INSURANCE REQUIREMENTS AND WORKERS COMPENSATION

INSURANCE REQUIREMENTS

Contractor 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 an occurrence basis. This insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Business Automobile Liability insurance provided by Contractor 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 the City as an additional insured and waive subrogation in favor of the City.

The Workers' Compensation coverage provided by Contractor shall inure to the benefit of employees injured during the course and scope of their employment by Contractor pursuant to this Contract. The Workers' Compensation shall waive all rights of subrogation in favor of the City.

All insurance required pursuant to this Contract shall provide for a waiver of subrogation in favor of the City. All insurance required pursuant to this Contract, except for Workers' Compensation Insurance, shall name the City as an additional insured on a claims occurred basis. City shall be provided the notice by Contractor's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

Contractor 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, Contractor shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of the City. The City shall not be required to provide any insurance whatsoever pursuant to this Contract.

The Contractor certifies that the certificate of insurance provided as required herein complies with the requirements of Senate Bill 425, passed during the 82nd regular session of the Texas Legislature, and effective January 1, 2012. The Contractor shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of the Contractor.

34. INDEMNIFICATION

INDEMNITY: THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE OWNER AND ALL OF THE OWNER'S OFFICERS, AGENTS AND EMPLOYEES FROM ALL SUITS, ACTIONS, CLAIMS, DAMAGES, PERSONAL INJURIES, 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 THE CONTRACTOR, 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 CONTRACTOR WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE OWNER OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS AND DEFEND THE OWNER AND ALL OF THE OWNER'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 THE OWNER, THE OWNER'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 THE CONTRACTOR OR THE CONTRACTOR'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 CONTRACTOR WILL BE REQUIRED TO PAY ANY JUDGMENT WITH COSTS WHICH MAY BE OBTAINED AGAINST THE OWNER OR ANY OF ITS OFFICERS, AGENTS OR EMPLOYEES, INCLUDING ATTORNEY'S FEES.

THE CONTRACTOR AGREES THAT HE WILL INDEMNIFY AND SAVE THE OWNER 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 THE FURTHERANCE OF THE PERFORMANCE OF THIS CONTRACT. WHEN OWNER SO DESIRES, THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE THAT ALL OBLIGATIONS OF THE NATURE HEREINABOVE DESIGNATED HAVE BEEN PAID, DISCHARGED OR WAIVED. THE CONTRACTOR, ITS SURETIES AND INSURANCE CARRIERS SHALL DEFEND, INDEMNIFY AND SAVE HARMLESS THE OWNER 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 THE CONTRACTOR 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 THE OWNER OR ANY OF ITS OFFICERS, AGENTS, OR EMPLOYEES INCLUDING ATTORNEY'S FEES.

35. RELEASE

NOTWITHSTANDING ANY OTHER PROVISION, CONTRACTOR HEREBY RELEASES, ACQUITS, RELINQUISHES AND FOREVER DISCHARGES OWNER, OWNER'S EMPLOYEES AND OFFICERS, FROM ANY AND ALL DEMANDS, CLAIMS, DAMAGES OR CAUSES OF ACTION OF ANY KIND WHATSOEVER WHICH CONTRACTOR 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 OWNER'S NEGLIGENCE.

36. 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 the Owner; that Contractor 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 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 of the work and services described hereunder by Contractor shall be considered an officer, agent, servant or employee of the 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 of the rights, obligations and liabilities, applicable to it as such independent contractor hereunder. The Owner does not have the power to direct the order in which the work is done. The Owner shall not have the right to control the means, methods or details of the Contractor's work. Contractor shall assume exclusive responsibility for the work. Contractor is entirely free to do the work in its own way.

37. QUALIFICATIONS FOR EMPLOYMENT

Preference shall be given to qualified local residents in the employment of laborers and mechanics for work on the Project under this Contract. No person under the age of sixteen (16) years shall be employed on the project under this Contract. No person whose age or physical condition is such as to make his employment dangerous to his health or safety or to the health or safety of others shall be employed on the Project under this Contract: Provided, that this shall not operate against the employment of physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform. No person currently serving sentence in a penal or correctional institution and no inmate of an institution for mentally defective shall be employed on the project under this contract.

38. PAYROLLS OF CONTRACTOR AND SUBCONTRACTORS

The Contractor and each of his subcontractors shall prepare payrolls for the workers on the Project. Not later than the seventh (7th) day following the payment of wages, the Contractor shall transmit to the Owner, if requested, a certified legible copy and two confirmed copies of such payroll.

Such copies of payrolls shall be accompanied by substantial proof that all bills for services rendered and materials supplied have been duly paid and by such other data as the Owner may require.

39. POSTING WAGE RATES

The Contractor shall post at appropriate conspicuous points at the site of the Project a schedule showing the wage rates for the various classes of laborers and mechanics to be engaged in work on the Project under this Contract and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.

40. PAYMENT OF EMPLOYEES

The Contractor shall post at appropriate conspicuous points at the site of the Project a schedule showing the wage rates for the various classes of laborers and mechanics to be engaged in work on the Project under this Contract and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.

41. WAGE UNDERPAYMENT AND ADJUSTMENTS

The Contractor agrees that, in case of underpayment of wages to any worker on the project under this Contract by the Contractor or any subcontractor, the Owner shall withhold from the Contractor out of payments due, an amount sufficient to pay such worker the difference between the wages required to be paid under this Contract and the wages actually paid such worker for the total number of hours worked and that the Owner may disburse such amount so withheld by it for and on account of the Contractor to the employee to whom such amount is due. The Contractor further agrees that the amounts to be withheld pursuant to this Article may be in addition to other amounts that may be retained by the Owner pursuant to other provisions of this Contract.

42. COMPUTATION OF WAGES ON 8 – HOUR DAY

The wages of each laborer and mechanic engaged in work on the project under this Contract shall be computed on a basis of eight (8) hours per day, eight (8) hours continuous employment except for lunch periods, constituting a day's work.

Legal holiday work shall be paid for at the regular governing per diem wage rates.

Work in excess of 40 hours per week shall be paid for at 1 ½ times the basic rate of pay.

43. OVERTIME WORK AND WORK ON SUNDAYS AND LEGAL HOLIDAYS

The Contractor will not be permitted to work on Sundays or legal holidays except in an emergency and then only upon written permission of the Engineer.

Any work necessary to be performed after regular working hours and when permitted on Sundays or legal holidays, shall be performed without additional expense to the Owner.

No work on any Contract item will be permitted before daylight or later than one hour after sundown.

44. CONTRACT SECURITY

The Contractor shall furnish a performance bond and payment bond in an amount equal to one hundred percent (l00%) of the amount of the Contract as security for the faithful performance of the Contract, including the payment of all persons performing labor on the project and furnishing of materials in connection with this Contract. All Bonds must be executed in five (5) original counterparts by a corporate surety authorized to do business in the State of Texas. Bonds executed by individuals or any other than recognized and authorized corporate surety companies will not be acceptable.

45. DELAYS

The Contractor shall receive no compensation for delays or hindrances to the work, except when, in the judgment of the Engineer, direct or unavoidable extra cost to the Contractor is caused by such hindrances or delays. When such extra compensation is claimed, a written statement thereof shall be presented by the Contractor, as provided in Paragraph 18 hereof. Such claim, if found correct, will be approved, and the decision of the Engineer whether extra cost has been incurred and the amount thereof, shall be final. If delays are caused by specific orders to stop work, given by the Engineer, or by the performance of extra work, or by unforeseen causes beyond the control of the Contractor, or by the failure of the Owner to provide materials or necessary instructions for carrying on the work, or to provide the necessary right-of-way or site for installation,

then delay will entitle the Contractor to an equivalent extension of time. Application for extension of time must be approved by the Owner and, shall not release the Sureties from their obligations, which shall remain in full force until the discharge of the Contract.

LATE COMPLETION; LIQUIDATED DAMAGES:

It is hereby understood and mutually agreed, by and between Contractor 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." Contractor 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 Contractor 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.

In the event Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the City, then Contractor and Contractor'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 calendar day that Contractor 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 Contractor only those monies deemed appropriate by the City, in its sole discretion, to compensate Contractor for any work actually performed, less any liquidated damages Contractor owes the City.

The said amount is fixed and agreed upon by and between Contractor 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.

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 Contractor shall not be charged with liquidated damages or any excess cost when the City determines, in its sole discretion, that Contractor is without fault and Contractor's reasons for the time extension are acceptable to the City. Provided, further, that Contractor shall not be charged with liquidated damages of any 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 Contractor, 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.

Provided, further, that Contractor shall, within ten (10) calendar 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 Contractor within a reasonable time of its 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 TAKINGS CLAUSES OF THE TEXAS AND UNITED STATES CONSTITUTIONS, TORT CLAIMS, OR CITY'S NEGLIGENCE.

CONTRACTOR SHALL RECEIVE NO FINANCIAL COMPENSATION FOR DELAY OR HINDRANCE TO THE WORK. IN NO EVENT SHALL THE CITY BE LIABLE TO CONTRACTOR 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. CONTRACTOR'S SOLE REMEDY IN ANY SUCH CASE SHALL BE AN EXTENSION OF TIME.

46. ERRORS AND OMISSIONS

The Contractor will not be permitted to take advantage of any error or omission in these specifications. Suitable instructions will be given by the Engineer when such error or omission is discovered.

47. SPECIFICATIONS AND DRAWINGS

The Contractor shall keep on the work a copy of the Specifications and Drawings, and shall at all times give the Engineer access thereto. Any drawings or plans listed in the detailed specifications shall be regarded as part thereof and of the Contract. Anything mentioned in these specifications and not mentioned or shown in the drawings, or shown in the drawings and not mentioned in these specifications, shall be done as though shown or mentioned in both. The Engineer will furnish from time to time, such detailed drawings, plans, profiles and information as he may consider necessary for the Contractor's guidance.

In the event of any discrepancy between the plans and these specifications, the decisions of the Engineer will be decisive thereon. The written dimensions on the plans are to be taken as correct, but the Contractor is required to check carefully all dimensions before beginning work thereon. Should any errors or omissions be discovered, the Engineer's attention shall be called to the same, and the proper corrections made. All notes on the plans shall be carefully observed by the Contractor and are a part of the Contract.

48. CONSTRUCTION STAKING

The Engineer will furnish a complete set of plans and profiles and set control stakes at fifty foot (50') intervals along the entire length of the project and at such control points he deems necessary for proper execution of the work. The Contractor will thereafter be required to lay out the work accurately and furnish at his own expense, all lines, levels, and dimensions necessary to the proper and correct execution of the entire work and be responsible for any errors resulting from his own work.

The Contractor shall give the Engineer at least 36 hours notice in writing before requiring stakes to be set on any new portion of the work, and he shall state clearly in such notice the exact locality or localities where such stakes are needed for immediate use.

The Contractor must satisfy himself, before commencing work, as to the meaning or correctness of all stakes or marks, and no claim will be entertained by the Owner for or on account of any alleged inaccuracies, or for the alterations subsequently rendered necessary on account of such alleged inaccuracies unless the Contractor notifies the Engineer thereof in writing before commencing to work thereon.

The Contractor will at all times conduct the work in such a manner as to prevent damage to construction stakes set by the Engineer. When construction stakes are damaged to such extent that they must be reset, as a result of carelessness or negligence on the part of the Contractor or his workmen, the costs thereof shall be kept by the Engineer and shall be deducted from the moneys due or to become due the Contractor under the terms of his contract.

Benchmark and survey stakes shall be preserved by the Contractor, and in case of their destruction or removal by him or his employees, they will be replaced by the Engineer at the Contractor's expense.

49. SANITATION

The Contractor shall provide suitable drinking water receptacles or containers equipped with dust-tight covers and spigots or faucets. A supply of sanitary paper drinking cups shall be kept on hand for general use near the drinking water containers. The use of common drinking cups or tin cups will not be permitted.

The Contractor shall furnish "Porta-Johns" or other approved sanitary facilities for use by all workers on the Project. Such facilities shall be placed and kept in close proximity of the site where work is being performed. Such facilities shall be properly serviced and maintained.

The Engineer may establish such other sanitary rules and regulations as may seem necessary and desirable to the safe prosecution of the work, such rules and regulations to apply to all forces employed under this Contract, and if, the Contractor fails to observe and enforce these rules, the Engineer may enforce them at the expense of the Contractor.

50. WATER FOR CONSTRUCTION

The Contractor may obtain all water necessary for construction purposes from the Municipal Waterworks System at the regular customer service rate, but the Contractor must make all necessary arrangements with the Director of Utilities for necessary connections and meters. The Contractor must make his own provisions and provide such equipment as is necessary for conveying water from point of service to point of use. No extra compensation will be allowed and the Contractor shall anticipate the expense connected herewith and absorb said expense in the prices bid for the various bid items.

51. SEQUENCE AND SPEED OF WORK

The Engineer shall direct the order and sequence of the work. If at any time before the commencement or during the progress of the work, the materials and appliances used appear to the Engineer as insufficient and improper for securing the quality of work required or the required rate of progress, he may order the Contractor to increase their efficiency or to improve their character and the Contractor shall conform to such order. The

failure of the Engineer to demand any increase of such efficiency or improvement shall not release the Contractor from his obligations to secure the quality of work or the rate of progress specified.

52. INSPECTION AND TESTING OF MATERIAL

The sampling and testing of materials used or proposed to be used in the construction of this project will be made by the Engineer, his designated representative or certified testing laboratory personnel in accordance with methods prescribed by the American Society of Testing Materials and/or the American Association of State Highway Officials, with subsequent approved revisions made prior to the date of the Proposal. The selection of the method of test shall be designated by the Engineer. The Contractor shall bear the cost of all tests required before a material or a method is approved for use on the job, unless the Owner specifically agrees to bear the cost of these tests.

All tests required by the Owner after materials and/or methods have been approved and after they have been incorporated or used in the job will be paid for by the Owner, except if the Owner's tests reveal non-conformance with the specifications, subsequent tests on that part of the work required to determine if the replaced or reworked material meets the specifications, will be paid for by the Contractor. The City will pay only one time for any required testing.

The following is a summary of test required for the approval of materials or methods:

Material	**Test**
Subgrade	Maximum density, optimum moisture
Caliche Base:	Maximum density, optimum moisture, hardness, gradation, liquid limit, plasticity index, Texas Triaxial Classification
Aggregates for hot-mix:	Gradation, unit weight, abrasion, soundness, liquid limit, plasticity index, density
Asphalt, emulsions and tars:	Certified plant test and certificates of compliance with each shipment
Hot- Mix asphaltic concrete:	Design mix, swell test, stripping test
Portland cement concrete pavement:	Design mix with test cylinders

Any materials shipped by the Contractor from the factory prior to having satisfactorily passed such testing and inspection by the Owner’s representative or prior to the receipt of notice from said representative that such testing and inspection will not be required, shall not be incorporated in the work.

The Owner may, at its discretion, approve materials and/or methods for use on this project without testing when they are from sources previously tested and approved for City of Midland projects.

53. CONSTRUCTION SCHEDULE

It shall be the responsibility of the Contractor to furnish the Construction Engineer prior to construction a schedule out – lining the anticipated time each phase of construction will begin and be completed, including sufficient time being allowed for clean – up.

54. PROFILES AND ELEVATIONS

Profiles and elevations of the ground are shown on the plans hereto attached. These profiles and elevations are believed to be reasonably correct, but are not guaranteed to be absolutely so, and are represented only as an approximation. Elevations are referred to datum given by the Engineer.

55. CLEANUP

During the progress of the work, the Contractor shall maintain the work area in a reasonably clean and safe condition. Dirt, debris, excess excavation and other objectionable materials shall be removed from the site and disposed of on a daily basis.

After completion of all the work contemplated to be done in accordance with the detailed plans and these specifications, the premises and area along the entire line of the work shall be thoroughly cleaned up and all remaining structural materials, excess or surplus excavation and debris of any nature shall be removed and disposed of in a satisfactory manner and as directed by the Engineer. The site of all work shall appear neat and finished. All portions of the project when completed shall be ready for use or occupancy.

No compensation or payment shall be made for any cleanup work. The price for such cleanup work shall be absorbed in the items covered in the proposal.

56. GUARANTEE

The contractor shall and hereby does guarantee: (1) all work performed by him directly and all work performed by his subcontractors; (2) that all material specified; and (3) that any defect due to improper workmanship or material discovered and made known to him within one year (1) f the date of final acceptance of the improvements shall be repaired, replaced, corrected or otherwise made good by him without additional expense to the Owner. The Contractor shall, in case of work performed by his subcontractors and where guarantees are required, secure guarantees from said subcontractors and deliver copies of same to the Engineer upon completion of the work.

57. 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 THE OWNER, 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 CONTRACTOR SPECIFICALLY AGREES THAT IF THE CONTRACTOR 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 CONTRACTOR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE CONTRACTOR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN

THE OWNER AND THE CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE 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.

58. 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. 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. The obligations and undertakings of each of the parties 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. The laws of the State of Texas shall govern, construe and enforce all the rights and duties of the parties, including but not limited to tort claims and any and all contractual claims or disputes, arising from or relating in any way that would direct application of the laws of another jurisdiction.

59. SOVEREIGN IMMUNITY

By executing this Contract, the City is not waiving its right of sovereign immunity. The City is retaining its immunity from suit. The City is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

60. NO THIRD – PARTY BENEFICIARY

The 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.

61. 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, Contractor 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 agreement) of such damages, duly verified, within one hundred and 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 Contractor will settle, the physical and mailing addresses of Contractor at the time and date the claim was presented and the physical and mailing addresses of Contractor for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Contractor 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 Contractor that Contractor'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, Contractor's failure to comply with the 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 City has actual or constructive notice or knowledge of said claim or alleged damages. Contractor agrees that the requirements of this entire Agreement are reasonable.

62. ASSIGNMENT

Contractor 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 the owner. The issue on whether or not to grant consent to an assignment is in the sole discretion of the owner.

63. 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 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.

64. PROMPT PAY ACT

The owner and contractor agree that Texas Government Code, Chapter 2251, Payment for Goods and Services (the "Prompt Pay Act") does not waive governmental immunity.

65. OTHER FEDERAL REQUIREMENTS

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.

Updated July 2021

SPECIAL PROVISIONS

ATTENTION: All Bidders are directed to pay special attention to the NOTICE TO BIDDERS section of the bid packet. Bidders have sole responsibility for complying with the current bid process requirements. Bidders also have sole responsibility for verifying that any bid submitted is completed correctly and includes all of the required documentation, including addendums.

1. SCOPE OF WORK:

Included in this Project will be **North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project** to be performed as outlined in the Plans and Specifications, which are necessary to satisfactorily complete the work.

The project will include the removal, replacement, and installation of existing and proposed paving, sidewalk, and structure infrastructure and appurtenances including all necessary mobilization, pavement removal, excavation, embankment, backfill, compaction, formwork, pavement placement, sidewalk placement, structure placement, vegetation and stabilization, as well as erosion control, traffic control, stabilization, storm drain installation, coordination with City of Midland staff and organizations such as TxDOT, OSHA, franchise utilities, etc. as needed, One Call (Texas 811) notifications for pending work, notifications to adjacent property owners as directed by City of Midland staff, and all other work to be performed as outlined in the Construction Drawings and Specifications, to satisfactorily complete the work.

The Owner reserves the right to abandon, without obligation to the Contractor, any part of the project, or the entire project, at any time before the Contractor begins any construction work authorized by the Owner.

Standard Specifications for Construction of the City of Midland will govern all construction, except as modified by these Special Provisions.

2. ORDER OF PRECEDENCE:

The Special Provisions take precedence over the General Conditions in this bid packet anywhere these two sections are not in agreement.

The Special Provisions take precedence over the City of Midland Specifications in this bid packet anywhere these two sections are not in agreement.

The Contractor is to bid the quantities in the Proposal section of the bid packet even if there is a discrepancy between the Proposal quantities and those noted or measured in the construction drawing set.

In the Proposal the long-hand dollar amount written in the Description column for each bid item will take precedence over the numerical dollar amount listed in the Unit Price column if there is a discrepancy between the two.

In the construction drawing set any written or noted dimension takes precedence over dimensions measured based on the drawing scale unless otherwise directed by the Engineer.

Any changes or revisions made as part of an Addendum for this project take precedence over the original bid packet and construction drawing set where the documents are in conflict.

3. EXAMINATION OF SITE:

Prospective bidders are to make a careful examination of the entire site of the project and are to make such explorations as may be necessary to determine the subsoil and/or water conditions to be encountered; improvements and obstructions which may be encountered; methods of providing ingress-egress to private as well as public property; methods of handling traffic during construction and maintenance of the entire project as well as any section thereof, protection of all existing structures both above and below ground; and how the plans fit the proposed project and especially if any discrepancies exist.

4. PAYMENT:

Payment and retainage (five percent, 5%) shall be per the General Conditions.

Payment will be made for material installed, not for material delivery.

5. SAFETY REQUIREMENTS:

It is the responsibility of the Contractor to follow and comply at all times with Occupational Safety and Health Administration (OSHA) and all other applicable safety regulations and requirements throughout the course of the project's work. The City of Midland reserves the right to require additional safety measures on the project site if they are needed in the opinion of the Engineer for the safety of the work crews or public.

OSHA approved trench protective systems (i.e. safety measures) are required for any and all trench sections on City of Midland projects that exceed a depth of five feet (5.0') regardless of the soil condition or classification at the location of the trench section in question.

6. SAFETY RESTRICTIONS – WORK NEAR HIGH VOLTAGE LINES:

The following procedure will be followed regarding the subject item on this contract:

1) A warning sign painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

   "**WARNING – UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES"**

2) Equipment that may be operated within ten feet of high voltage lines shall have an insulation cage-type of guard about the boom or arm, except back hoes or dippers, and insulator links on the lift hook connections.

3) When necessary to work within six feet of high voltage electric lines, notification shall be given to the power company of who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

4) The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

5) No person shall work within six feet of a high voltage line without protection having been taken as outlined in Paragraph (3).

7. TRAFFIC CONTROL:

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and approved by the Construction Manager no less than two (2) business days prior to starting the construction work. Traffic control for each phase of work must be approved prior to starting that work.

Generic traffic control plans or typical details may be submitted for shoulder work on any class of roadway, or for work on local or collector streets that does not require the closure of any travel lanes (i.e., all lanes are open to traffic on striped roadways, or adequate width remains available for two-way traffic on unstriped roadways). Once a generic traffic control plan or typical detail for a certain type of setup has been approved one time, the Contractor shall only be responsible for notifying the Construction Manager of the location, type of setup, and dates on which they intend to utilize the pre-approved traffic control for the duration of the contract. No additional plan submittals will be required in these cases, except that the City reserves the right to suspend this exception at its discretion. For any work not fitting the above exception, or in the event that the exception is suspended by the City, a site-specific traffic control plan will be required for each work location and time period.

1. All temporary traffic control shall be in general conformance with the *Texas Manual on Uniform Traffic Control Devices* (TMUTCD) (latest edition as adopted by the Texas Department of Transportation), except as specifically directed by the City Engineer or City Traffic Engineer.
2. All temporary traffic control shall be designed, installed, and maintained by competent and qualified personnel with adequate experience in traffic control.
3. All temporary traffic control involving multiple lane closures or traffic shifts, full closures of collector or arterial streets, traffic control extending through a railroad crossing, or any setup reasonably determined by the City to be "complex", shall be implemented only by a contractor with specific experience and expertise in the field of traffic control (i.e., a qualified "barricade company").
4. A Traffic Control Plan (TCP) shall be submitted to the Engineering Services Department, Construction Manager, in advance of any work in the right-of-way that impacts traffic. No work shall occur until an approved TCP has been returned to the Contractor.
5. A copy of the approved TCP shall be kept in the possession of the person responsible for supervising the traffic control at all times while working in the right-of-way. The approved TCP shall be presented to City staff or law enforcement upon demand at any time.
6. Depending on site conditions and the nature of the work, temporary traffic control may be approved by the City for either of the following:
    a. All Times – All traffic control, including closures, may remain in place 24 hours per day until expiration of the approved TCP.
    b. Off-Peak Only – Lane or road closures are NOT permitted from 6:00-9:00 AM and 4:00-7:00 PM on weekdays (Monday through Friday). Other traffic control not related to lane or road closures may remain in place 24 hours per day until expiration of the approved TCP.

7. The contractor setting the temporary traffic control shall be responsible for the maintenance and upkeep of all signs, barricades, and other devices, at all times.
    a. All temporary traffic control setups shall be maintained at least one time per day, including weekends and holidays.
    b. More frequent maintenance shall be performed as needed, with particular emphasis to following up after severe weather events or during times of high winds.
    c. Maintenance shall include:
        i. Verifying and correcting the location and orientation of all signs, barricades, and other devices;
        ii. Keeping signs and reflective areas of barricades and other devices clean and free of dirt buildup so as to maintain appropriate visibility and legibility; and
        iii. Ensuring the proper location, orientation, and operation of arrow boards or message boards, if present.
8. Arrow boards shall be required for lane closures under the following conditions:
    a. On roadways with a posted speed limit of 55 MPH or greater, for closures lasting more than one (1) hour;
    b. On roadways with a posted speed limit of 45 MPH or greater, for closures lasting more than four (4) hours;
    c. On any roadway if lanes will remain open to traffic travelling in the same direction on both sides of a closed lane during any overnight hours (from 7:00 PM to 6:00 AM); and

At other times as shown on the approved TCP, or as otherwise directed by the City.

8. DETOURS:

The Contractor is to prosecute his work in such a manner as to create a minimum of interruption to traffic and pedestrian facilities and to the flow of vehicular and pedestrian traffic within the project area.

9. PROPERTY AND RIGHT-OF-WAY ACCESS:

Access to adjacent properties must be maintained at all times unless otherwise directed by the Engineer. If the contractor will not be working in an area for a period of one week or more, special care is to be taken to address any unsafe conditions such as excavated areas or obstructions outside the worked area that could be tripping hazards, etc. Contractor must notify affected properties no less than two (2) business days prior to any planned access interruptions.

Contractor must coordinate with the City of Midland regarding any planned access interruptions for public Right-of-Way, or to restore any public infrastructure damaged during construction activities.

10. PROPERTY AND RIGHT-OF-WAY SERVICE:

Service to adjacent properties must be maintained at all times unless otherwise directed by the Engineer. Such services include water, wastewater, fiber, cable, electric, and gas. Contractor must notify affected properties no less than two (2) business days prior to any planned service interruption.

Contractor must coordinate with the City of Midland regarding any planned service interruptions for public water or wastewater, or to restore any public infrastructure damaged during construction activities.

Contractor must coordinate with private service providers for any necessary service interruptions to their infrastructure or to restore service to their infrastructure in the event that a private service is disrupted, damaged, etc. during construction.

11. CONSTRUCTION SCHEDULE:

It is the responsibility of the Contractor to furnish the Construction Engineer, prior to construction, with a schedule outlining the anticipated time each phase of construction will begin and be completed, including sufficient time being allowed for clean-up.

12. CONSTRUCTION STAKING:

It is the responsibility of the Contractor to provide the project construction staking at fifty foot (50') intervals along the entire length of the project as well as at such control points as the Contractor deems necessary for proper execution of the work. Construction staking is to include grading and cuts as well as horizontal alignments and construction control points. Cut sheets are to be provided to the Engineer by the Contractor for review and approval.

13. SURVEY:

The Contractor is to provide GPS survey shots for all meters replaced to the City of Midland with each completed work order submittal. Survey data is to be shot in Texas Central Zone with 1983 NAD at 1.0' accuracy or better. Survey data is to be provided in Excel csv. file format with all rounding functions turned off.

14. CONSTRUCTION MATERIALS:

The Contractor is to only provide new materials for permanent installation in any and all parts of this project, and all such materials must comply with the General Conditions, the Bid Packet Specifications, and all applicable City of Midland Standards and Specifications.

For this project, the Standard Specification is hereby amended to read:

> Qualifications of Material Sources – Contractor is only to use pavement mixtures that have a proven record of acceptance by the City of Midland, or another Texas municipality, or have a proven record of meeting similar standards for state highway projects.

Concrete is only to be placed when the ambient temperature is between 40 degrees and 95 degrees Fahrenheit and the ambient temperature in the shade is higher than 40 degrees Fahrenheit or is 40 degrees Fahrenheit and rising.

All concrete pavement joints are to be sealed with Texas Department of Transportation (TxDOT) DMS-6310 SL-2 sealant, an American Society for Testing and Materials (ASTM) D 1190 Hot-Applied Single Component Joint Sealant, or a City of Midland approved equal. This will not apply to curb or sidewalk joints.

No construction materials are to be placed or installed during rain events unless they are necessary to resolve an emergency situation or to facilitate the project site erosion control measures.

15. EROSION CONTROL:

Erosion control is the responsibility of the Contractor and erosion control measures are to be implemented so as to prevent sediment erosion from wind, rain, and other elements from the project site. Should the Owner feel that supplementary erosion control measures are required in addition to those implemented by the Contractor then the Contractor will include additional erosion control measures within reason to the Owner's satisfaction and/or TCEQ requirements.

Reasonable erosion control measures include but are not limited to: construction entrance(s), concrete washout(s), perimeter silt fence or fiber wattle, rock rip-rap dams for concentrated runoff control, gutter and inlet protection measures such as sand bags, and stabilization of the construction area surfaces when construction work is not actively occurring by means of vegetative cover or seeded erosion control blankets.

Supplemental erosion control measures are ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

Site cleanup work is to be done for this project as soon as possible as per the General Conditions and will be ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes. Site cleanup is to take place throughout the project's construction as needed to maintain a clean and professional looking work area. No more than three calendar days are to elapse after completion of construction before the final roadway and right-of-way cleanup has been completed to the satisfaction of the Engineer.

16. WASTE MATERIAL:

Excess material from excavation and other construction or demolition activity will become the property of the Contractor. Excess excavation will be disposed of at locations secured by the Contractor and if necessary, approved by the Engineer. No material is to be placed on private property or City property without the approval of the Engineer and the property owner. Removal of excess material, excavation, and waste material are ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

Excess concrete material must be washed out in a concrete washout within the project's job site area, or else any and all other concrete material washout must occur away from the job site area in the Contractor's or concrete Supplier's own operation yards or properties. Under no circumstances are concrete trucks allowed to washout in any job site excavations, channels, public right-of-way, or on private property.

Existing fire hydrants and existing water meters indicated for removal as part of the project are to be returned to the City of Midland by the Contractor and remain City property. These are ancillary to the project and will not be paid as separate items.

17. TESTING:

It is the Contractor's responsibility to perform all required testing for any and all materials and workmanship performed or installed as part of the project's work. The cost of all such testing is to be borne solely by the Contractor unless required by the Engineer for work or materials that had previously been tested and approved and had not experienced any change in condition since that time as a result of the Contractor's work or actions; or unless additional testing outside of the project scope is performed at the request of the Engineer.

Required testing includes:

Concrete Pavement – A Slump Test is required for every cylinder set (3 test cylinders) taken, and no less than 1 cylinder set per day is to be taken for testing when concrete is placed. Test results are to be given to the engineer upon completion of each test, with 1 cylinder set taken for:

A. Every 50 cubic yards of concrete placed for concrete pavement between street intersections.

B. Every 50 cubic yards of concrete placed for concrete pavement at a street intersection.

C. Every 2 sets of fillets and valley gutters at street approaches. (1 set = 2 fillets and 1 valley gutter)

D. Every 4 alley approaches or driveway approaches.

E. There will be no testing for curb, ramps, and sidewalks.

Concrete Pavement For Trench Repair – A Slump Test is required only if directed by the Engineer for pavement patches that are equal to or greater than 50 cubic yards (roughly equal to an 8' wide by 340' long by 6" thick pavement section). The slump test is to be performed once for every cylinder set (3 cylinders) taken, and no less than 1 cylinder set per day is to be taken for testing when concrete is placed. Test results are to be given to the engineer upon completion of each test. There will be no testing for curb, ramps, and sidewalks.

Asphalt Hot-Mix Pavement – A Nuclear Gauge Density Test is required for either each day that asphalt hot-mix is placed or for every 250 linear feet of asphalt hot-mix pass, whichever results in more frequent testing. The laboratory density limits will be a minimum limit of 96%, a maximum limit of 98%, and an optimum limit of 97%. The acceptable field density range for construction of this project is 93% - 98% with a target density of 95%. Test results are to be given to the Engineer upon completion of each test.

Asphalt Hot-Mix Pavement For Trench Repair – A Nuclear Gauge Density Test is required only if directed by the Engineer for pavement patches that are equal to or greater than 620 square yards (roughly equal to an 8' wide by 700' long pavement section). The laboratory density limits will be a minimum limit of 96%, a maximum limit of 98%, and an optimum limit of 97%. The acceptable field density limit will be a minimum limit of 93%, a maximum limit of 98%, and an optimum limit of 95%. Test results are to be given to the Engineer upon completion of each test.

Water Pipes & Fittings – Perform Pressure Testing and Bacterial Testing (Bac T)/Chlorination testing for all water mains and fire hydrants.

- Pressure Test – Perform test as described in the City of Midland Water Line Specifications, PART 10, Hydrostatic Tests, with the sole difference being that a continuous pressure of 180 pounds per square inch (psi) must be maintained over a continuous period of not less than four (4) hours rather than eight (8) hours. The acceptable field pressure limit will be a minimum 180 psi and a maximum 185 psi. A 2-3 psi drop in the measured pipe pressure during the first two (2) hour period will be acceptable to account for the compression of air within the pipe so long as the minimum and maximum allowed field pressure limits are not exceeded. There can be no variation in the measured pipe pressure during the last two (2) hours of the pressure test.

- Bac T/Chlorination Testing – Perform disinfection and test as described in the City of Midland Water Line Specifications, Part 9, Disinfection Of Pipe Lines.

Wastewater Gravity Pipes/Manholes – Perform air testing, mandrel testing, hydrostatic testing, and closed circuit televising (CCTV) for all wastewater mains and manholes.

- Air Test – Perform test as described in the City of Midland Gravity Flow Pipe Sewers And Fittings For Wastewater And Storm Water, Part 3.14, Testing Gravity Mains And Manholes.

- Mandrel Test – A successful mandrel pull is required for all wastewater pipes installed.

- Hydrostatic Testing – Perform test as described in the City of Midland Gravity Flow Pipe Sewers And Fittings For Wastewater And Stormwater Specifications, Part 3.14, Hydrostatic Testing.

- Closed Circuit Televising (CCTV) – Provide CCTV video of the wastewater mains for the full length of the wastewater system installed, including through all wastewater structures. CCTV video is not required for wastewater laterals unless directed by the Engineer.

Force Mains & Fittings (Wastewater & Storm Drain) – Perform pressure testing for all wastewater and storm drain force mains.

- Pressure Test – Perform test as described in the City of Midland Water Line Specifications, PART 10, Hydrostatic Tests, with the sole difference being that a continuous pressure of 180 pounds per square inch (psi) must be maintained over a continuous period of not less than four (4) hours rather than eight (8) hours. The acceptable field pressure limit will be a minimum 180 psi and a maximum 185 psi. A 2-3 psi drop in the measured pipe pressure during the first two (2) hour period will be acceptable to account for the compression of air within the pipe so long as the minimum and maximum allowed field pressure limits are not exceeded. There can be no variation in the measured pipe pressure during the last two (2) hours of the pressure test.

Storm Drain Pipes & Structures – Perform as-built survey and closed circuit televising (CCTV) for all storm drain pipes and structures.

- As-Built Survey of Storm Drain Pipes & Culverts – Provide as-built survey shots at fifty-foot (50’) intervals along the storm drain pipe or culvert at the top of the pipe or culvert installed.

- As-Built Survey of Storm Drain Structures – Provide as-built survey shots at the inverts of all storm drain structures that are installed to verify the storm drain grades, including all manholes, junction boxes, and inlets.

- Closed Circuit Televising (CCTV) – Provide CCTV video of the storm drain for the full length of the storm drain system installed, including through all storm drain structures. CCTV video is not required for storm drain laterals unless directed by the Engineer.

18. COMPLIANCE:

The said Contractor further agrees to comply with all applicable provisions of the laws and building and construction codes of the City of Midland and the State of Texas, and with any regulations for the protection of workers which may be promulgated by the Government, and will protect such work with all necessary lights, barriers, safeguards, and warnings as provided for in said specifications and the Ordinance regulations.

19. PERSONNEL:

It is the Contractor's responsibility to have a supervising representative of the Contractor on the construction site any time that construction work is taking place. The Contractor's representative must be on the Contractor's direct payroll. Sub-contractors or paid consultants will not satisfy this requirement.

It is also the Contractor's responsibility to provide the City with a reliable contact for issue escalation coordination. Such contacts would include the Contractor's site foreman, the Contractor's construction project manager, etc.

20. AWARD OF CONTRACT:

The Owner reserves the right to reject any or all bids submitted and not make an award. The Owner also reserves the privilege of accepting any item as a separate contract or the combination of items of a contract. The Owner and Bidder agree that, if the Contract is awarded, it will be awarded to the lowest responsible bidder. In determining who is the lowest responsible bidder, the Owner shall consider each bidder's price and whether the Texas Department of Transportation ("TxDOT") has determined that the bidder is currently a prequalified contractor qualified under confidential questionnaire. *See* TxDOT Contractor Prequalification - https://www.txdot.gov/business/contractors/contractor-prequalification.html; TxDOT list of prequalified contractor qualified under confidential questionnaire - https://www.txdot.gov/insdtdot/orgchart/cmd/cserve/pqlist/PqListA.htm. Whether TxDOT has determined that a bidder is currently a prequalified contractor qualified under any other questionnaire will not be a criterion that is considered. Bidder shall include with the bid a certification that TxDOT has or has not determined that Bidder is currently a prequalified contractor qualified under confidential questionnaire. Certification that TxDOT has determined that Bidder is so prequalified shall be subject to verification by the Owner. If Bidder fails to provide such certification with the bid, it shall be presumed that TxDOT has not determined that Bidder is so prequalified. The lowest responsible bidder shall be the bidder who bid the lowest price who TxDOT has determined is currently a prequalified contractor qualified under confidential questionnaire, provided that there is at least one bidder who is so prequalified; otherwise, the lowest responsible bidder shall be the bidder who bid the lowest price.

21. CONTRACT DEADLINE:

The deadline for substantial completion of this project is __**210**_ calendar days total starting from the Notice to Proceed date.

Extensions of the project deadline may be requested by the Contractor for documented excepting conditions such as weather days, delays due to conflicts with existing franchise lines, etc. which are reasonably beyond the Contractor's control. Any and all deadline extensions must be submitted by the Contractor in writing to Engineer for review, and the approval or denial of the request rests solely with the Engineer.

Unless specifically granted in writing by the Engineer, there will be no suspension of project time between phases of construction.

22. WARRANTY PERIOD:

There is a one (1) year calendar warranty period on this project for all work performed or materials installed effective immediately upon acceptance of the improvements by the Owner. The warranty period will be based on the acceptance date of the project as a whole, and not any individual phases of the project.

23. BID PACKET COMPLETION ITEMS OF NOTE:

Bidders must be willing to sign the Contract as is if a bid is submitted. Revisions, alterations, deletions, additions, or any other changes of any kind by the bidder to the bid packet or other bid documents (such as the construction drawing set, addendums, etc.) will result in the bid submittal being deemed 'Non-Responsive' and the bid will not be accepted.

Bidders are reminded to make sure that the Conflict of Interest forms are completed if applicable before submitting a bid.

All bid items in the Proposal section must be completed for a bid submittal to be considered complete. Any bid item left blank, only partially completed, or that the bidder indicates they chose to not provide a bid for will be considered incomplete, and the entire bid submittal will also be deemed incomplete, the bid submittal will be deemed 'Non-Responsive', and the bid will not be accepted. Bidders bear sole responsibility for making sure that the Proposal is complete and in accordance with the instructions provided to bidders in the bid packet.

All acknowledgement forms for all addendums that are issued during the bid process for this project must be filled out and be included with any bid submittal for that bid submittal to be considered complete. Any bid submittal lacking these completed addendum acknowledgement forms will be deemed 'Non-Responsive' and the bid will not be accepted. Bidders bear sole responsibility for making sure that they have obtained all addendums issued prior to submitting their bid.

Bidders must provide documentation as part of the bid packet submittal proving that they possess active licenses that are equivalent to or a higher class than a Water Operator D license and also equivalent to or a higher class than either a Wastewater D license or a Class 1 Collections license, and the Contractor must maintain both of these active licenses for the entirety of the project. Any bid submittal that does not include this required documentation for both licenses will be rejected as a non-responsive bid. If a Contractor allows either or both of the required licenses to lapse at any time during the course of the project then all work under this project will be halted and the City of Midland will have sole discretion to either allow the Contractor to renew both of their active licenses before resuming work or to end the project immediately.

PROPOSAL

TO: Honorable Mayor and City Council
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the drawings, specifications 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 material, equipment, and to perform all labor and work necessary for the completion of the construction of the work described by and in accordance with the attached drawings, specifications, and contract, for the following prices, to wit:

Project Name: North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project
Project Number: P17-03

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	8 MO	Mobilization, furnished, installed, complete, and in place, for the sum of: Nine Thousand Five Hundred dollars and Zero cents per month. (Pay Note M1)	$ 9,500.00	$ 76,000.00
2)	8 MO	Erosion Control, furnished, installed, complete and in place, for the sum of: Five Thousand dollars and Zero cents per month. (Pay Note M2)	$ 5,000.00	$ 40,000.00
3)	8 MO	Traffic Control, furnished, installed, complete and in place, for the sum of: Two Thousand Five Hundred dollars and Zero cents per month. (Pay Note M3)	$ 2,500.00	$ 20,000.00
4)	8 MO	Job Site Safety, furnished, installed, complete and in place, for the sum of: Five Thousand Eight Hundred dollars and Zero cents per month. (Pay Note M4)	$ 5,800.00	$ 46,400.00
5)	3.67 AC	Seeded Erosion Control Mats, installed, complete and in place, for the sum of: Fourteen Thousand Six Hundred Fifty Eight dollars and Zero cents per acre. (Pay Note M5)	$ 14,658.00	$ 53,794.86

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
6)	1 LS	Spray Watering, furnished, installed, complete and in place, for the sum of: Eight Thousand One Hundred Seventy Five dollars and Zero cents per lump sum. (Pay Note M6)	$ 8,175.00	$ 8,175.00
7)	480 LF	16" Poly Pipe (PVC Casing Pipe), furnished, installed, complete, and in place, for the sum of: One Hundred Twenty dollars and Seventy Five cents per linear feet. (Pay Note M7)	$ 120.75	$ 57,960.00
Total Miscellaneous Items 1-7		$ 302,329.86		

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	380 SY	Removal & Dispose of Existing Unclassified Pavement, complete and in place, for the sum of: Thirty Three dollars and Zero cents per square yard. (Pay Note D1)	$ 33.00	$ 12,540.00
2)	36 SY	Removal & Disposal of Existing Miscellaneous Concrete, complete and in place, for the sum of: Eighty Two dollars and Zero cents per square yard. (Pay Note D2)	$ 82.00	$ 2,952.00
3)	25 SY	Removal & Disposal of Existing Concrete Sidewalk & Ramps, complete and in place, for the sum of: Eighty Two dollars and Zero cents per square yard. (Pay Note D3)	$ 82.00	$ 2,050.00
4)	875 LF	Removal & Disposal of Existing Concrete Curb & Gutter, complete and in place, for the sum of: Fifteen dollars and Zero cents per linear foot. (Pay Note D4)	$ 15.00	$ 13,125.00
5)	109 SY	Removal & Disposal of Existing Driveway, complete and in place, for the sum of: Eighty Two dollars and Zero cents per square yard. (Pay Note D5)	$ 82.00	$ 8,938.00
6)	1 EA	Removal & Disposal of Storm Drain Catch Basin, complete and in place, for the sum of: Two Thousand Six Hundred Twenty Five dollars and Zero cents each. (Pay Note D6)	$ 2,625.00	$ 2,625.00
7)	2 EA	Relocate Existing Pedestrian Crossing Signal, complete and in place, for the sum of: Two Thousand Six Hundred Twenty Five dollars and Zero cents per each. (Pay Note D7)	$ 2,625.00	$ 5,250.00

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	4 EA	Relocate Traffic Sign, complete and in place, for the sum of: One Thousand Thirty Nine dollars and Fifty cents each. (Pay Note D8)	$ 1,039.50	$ 4,158.00
9)	2 EA	Relocate Existing Traffic Control Box, complete and in place, for the sum of: Two Thousand Six Hundred Twenty Five dollars and Zero cents each. (Pay Note D9)	$ 2,625.00	$ 5,250.00
10)	1 EA	Relocate Existing Traffic Signal Light, complete and in place, for the sum of: Four Hundred Twenty dollars and Zero cents each. (Pay Note D10)	$ 420.00	$ 420.00
11)	2 EA	Relocate Existing Steet Light, complete and in place, for the sum of: Six Thousand Thirty Seven dollars and Fifty cents each. (Pay Note D11)	$ 6,037.50	$ 12,075.00
12)	3 EA	Relocate Existing Electrical Box, complete and in place, for the sum of: Two Thousand Six Hundred Twenty Five dollars and Zero cents each. (Pay Note D12)	$ 2,625.00	$ 7,875.00
13)	18,070 SY	Clearing and Grubbing, complete and in place, for the sum of: Zero dollars and Ninety cents per square yard. (Pay Note D13)	$ 0.90	$ 16,263.00
Total Demolition Items 1-13		$ 93,521.00		

Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	808 LF	24" Reinforced Concrete Pipe (RCP), installed, complete, and in place, for the sum of: One Hundred Thirty One dollars and Twenty Five cents per linear foot. (Pay Note SD1)	$ 131.25	$ 106,050.00
2)	570 LF	30" Reinforced Concrete Pipe (RCP), furnished, installed, complete, and in place, for the sum of: One Hundred Fifty Five dollars and Forty cents per linear foot. (Pay Note SD1)	$ 155.40	$ 88,578.00
3)	9 EA	(1-24") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: Two Thousand Five Hundred Thirty Four dollars and Seventy cents per each. (Pay Note SD2)	$ 2,534.70	$ 22,812.30
4)	2 EA	(1-30") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: Two Thousand Six Hundred Sixty Eight dollars and Five cents each. (Pay Note SD2)	$ 2,668.05	$ 5,336.10
5)	2 EA	(3-30") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: Seven Thousand Three Hundred Seventy Four dollars and Fifteen cents each. (Pay Note SD2)	$ 7,374.15	$ 14,748.30
6)	2 EA	(4-24") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: Nine Thousand Two Hundred Ninety Eight dollars and Eighty cents each. (Pay Note SD2)	$ 9,298.80	$ 18,597.60
7)	1 EA	16'x3' Precast Concrete Curb Inlet, furnished, installed, complete, and in place, for the sum of: Seven Thousand Eight Hundred Forty Four dollars and Fifty Five cents each. (Pay Note SD3)	$ 7,844.55	$ 7,844.55
8)	1 EA	Connect to Existing RCP (24"), installed, complete, and in place, for the sum of: Two Thousand Three Hundred Ten dollars and Zero cents each. (Pay Note SD4)	$ 2,310.00	$ 2,310.00

Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
9)	66 SY	Concrete End Treatment, furnished, installed, complete, and in place, for the sum of: One Hundred Twenty Six dollars and Zero cents per square yard. (Pay Note SD5)	$ 126.00	$ 8,316.00
10)	920 SY	Excavation and Embankment, furnished, installed, complete, and in place, for the sum of: Eighteen dollars and Sixty Five cents per square yard. (Pay Note SD6)	$ 18.65	$ 17,158.00
Total Storm Drain Items 1-10		$ 291,750.85		

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	23,861 SY	Subgrade Preparation (Depth ≤ 8"), furnished, installed, complete and in place, for the sum of: Eleven dollars and Twenty Five cents per square yard. (Pay Note P1)	$11.25	$268,436.25
2)	1405 SY	7" Jointed Concrete Pavement, furnished, installed, complete and in place, for the sum of: One Hundred Fifty dollars and Forty Two cents per square yard. (Pay Note P2)	$150.42	$211,340.10
3)	2327 TON	2" Type D HMAC Asphalt Pavement Surface Course (PG70-22, 220 LBS / SY @ 2" Thick), furnished, installed, complete and in place, for the sum of: One Hundred Twenty Five dollars and Zero cents per ton. (Pay Note P3)	$125.00	$290,875.00
4)	3490 TON	3" Type C HMAC Asphalt Pavement Surface Course (PG64-22, 330 LBS / SY @ 3" Thick), furnished, installed, complete and in place, for the sum of: One Hundred Nineteen dollars and Zero cents per ton. (Pay Note P4)	$119.00	$415,310.00
5)	22,599 SY	12" Flexible Base (Type A, Grade 4), furnished, installed, complete and in place, for the sum of: Fourteen dollars and Fifty cents per square yard. (Pay Note P5)	$14.50	$327,685.50
6)	4,520 GAL	Bituminous Prime Coat (MC-30, 0.20 Gal / SY), furnished, installed, complete, and in place, for the sum of: Five dollars and Fifty cents per gallon. (Pay Note P6)	$5.50	$24,860.00
7)	2,260 GAL	Bituminous Tack Coat (MC-30, 0.10 Gal / SY), furnished, installed, complete and in place, for the sum of: Five dollars and Sixty cents per gallon. (Pay Note P7)	$5.60	$12,656.00

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	1262 SY	6" (Commercial) Jointed Concrete Driveways, furnished, installed, complete, and in place, for the sum of: Eighty Four dollars and Zero cents per square yard. (Pay Note P8)	$ 84.00	$ 106,008.00
9)	1910 LF	Type A Concrete Curb & Gutter, furnished, installed, complete, and in place, for the sum of: Twenty Six dollars and Twenty Five cents per linear foot. (Pay Note P9)	$ 26.25	$ 50,137.50
10)	1719 LF	Type C Concrete Curb & Gutter, furnished, installed, complete, and in place, for the sum of: Twenty Six dollars and Twenty Five cents per linear foot. (Pay Note P9)	$ 26.25	$ 45,123.75
11)	136 LF	Ribbon Curb, furnished, installed, complete and in place, for the sum of: Twenty Seven dollars and Thirty cents per linear foot. (Pay Note P10)	$ 27.30	$ 3,712.80
12)	39 SY	Concrete Pedestrian Access Ramp, furnished, installed, complete, and in place, for the sum of: Two Hundred Four dollars and Seventy Five cents per square yard. (Pay Note P11)	$ 204.75	$ 7,985.25
13)	763 SY	4" Stamped Island Median, furnished, installed, complete, and in place, for the sum of: One Hundred Twenty Four dollars and Ninety Five cents per square yard. (Pay Note P12)	$ 124.95	$ 95,336.85
14)	328 SY	4" Concrete Sidewalk, furnished, installed, complete, and in place, for the sum of: Sixty Three dollars and Zero cents per square yard. (Pay Note P13)	$ 63.00	$ 20,664.00

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
15)	6744 SY	Micro-surfacing, furnished, installed, complete, and in place, for the sum of: Four dollars and Ninety Five cents per square yard. (Pay Note P14)	$ 4.95	$ 33,382.80
16)	456 LF	Sawcut and Asphalt Patch, furnished, installed, complete, and in place, for the sum of: Thirteen dollars and Seventy Five cents per linear foot. (Pay Note P15)	$ 13.75	$ 6,270.00
17)	1 EA	Adjust Existing Manhole, furnished, installed, complete, and in place, for the sum of: Two Thousand One Hundred dollars and Zero cents each. (Pay Note P16)	$ 2,100.00	$ 2,100.00
18)	79 LF	6" Stand Up Curb, furnished, installed, complete, and in place, for the sum of: Fifty Seven dollars and Seventy Five cents per linear foot. (Pay Note P17)	$ 57.75	$ 4,562.25
19)	423 LF	TxDOT CSB(1)-10 Concrete Safety Precast Barrier, furnished, installed, complete, and in place, for the sum of: One Hundred Five dollars and Zero cents per linear foot. (Pay Note P18)	$ 105.00	$ 44,415.00
Total Paving Items 1-19		$ 1,970,861.05		

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	320 LF	Install Signal Conduit, furnished, installed, complete and in place, for the sum of: Twenty Nine dollars and Forty cents per linear foot. (Pay Note T1)	$29.40	$9,408.00
2)	542 LF	Retro-reflectorized Pavement Markings (White, 4" Dashed 10'/30') (TxDOT Item 668), furnished, installed, complete and in place, for the sum of: Zero dollars and Seventy Nine cents per linear foot. (Pay Note T2)	$0.79	$428.18
3)	1610 LF	Retro-reflectorized Pavement Markings (White, 8" Solid) (Type 1 TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: One dollars and Fifty Eight cents per linear foot. (Pay Note T2)	$1.58	$2,543.80
4)	10450 LF	Retro-reflectorized Pavement Markings (White, 4" Solid) (TxDOT Item 666, Type 1), furnished, installed, complete, and in place, for the sum of: Zero dollars and Seventy Nine cents per linear foot. (Pay Note T2)	$0.79	$8,255.50
5)	11671 LF	Retro-reflectorized Pavement Markings (Yellow, 4" Solid/ Solid) (TxDOT Item 666) furnished, installed, complete, and in place, for the sum of: Zero dollars and Seventy Nine cents per linear foot. (Pay Note T2)	$0.79	$9,220.09
6)	615 LF	Retro-reflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: Twenty Six dollars and Twenty Five cents per linear foot. (Pay Note T2)	$26.25	$16,143.75
7)	180 EA	Retro-reflectorized Pavement Markings (TxDOT Item 672, Type i-A, IC, II-A -A, or II-C-R per plans), installed, complete, and in place, for the sum of: Ten dollars and Fifty cents each. (Pay Note T2)	$10.50	$1,890.00

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	217 LF	Retro-reflectorized Pavement Markings (White, 24" Stop Bar) (TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: Twenty Three dollars and Sixty Three cents per linear foot. (Pay Note T2)	$23.63	$5,127.71
9)	20 EA	24" Reflective Pavement Markings (White), furnished, installed, complete and in place, for the sum of: Four Hundred Twenty dollars and Zero cents each. (Pay Note T3)	$420.00	$8,400.00
10)	24 EA	24" Reflective Pavement Markings (White), furnished, installed, complete and in place, for the sum of: One Hundred Five dollars and Zero cents per each. (Pay Note T3)	$105.00	$2,520.00
11)	1 EA	Sign (W1-4, 36), furnished, installed, complete, and in place, for the sum of: One Thousand Five Hundred Forty Eight dollars and Seventy Five cents per each. (Pay Note T4)	$1,548.75	$1,548.75
12)	2 EA	Signs (W1-6R,60x30, on TxDOT Slip Bases), furnished, installed, complete, and in place, for the sum of: One Thousand Eight Hundred Thirty Seven dollars and Fifty cents per each. (Pay Note T4)	$1,837.50	$3,675.00
13)	6 EA	PEXCO City Posts(Model EAC, 48 " Yellow/ Triple Wrap Reflective Sheeting), except post and mounting to be as per plans), furnished, installed, complete, and in place, for the sum of: Eight Hundred Forty dollars and Zero cents per each. (Pay Note T5)	$840.00	$5,040.00
14)	265 LF	Crosswalk Striping installed, complete, and in place, for the sum of: Fifty Two dollars and Fifty cents per linear foot. (Pay Note T6)	$52.50	$13,912.50

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
15)	1 EA	Illumination Pole TxDOT Type AL 40 T-12-12 w/ 400W EQ LED Luminaires, furnished, installed, complete and in place, for the sum of: Twelve Thousand Seventy Five dollars and Zero cents per each. (Pay Note T7)	$12,075.00	$ 12,075.00
Total Traffic Items 1-15		$ 100,188.28		

Price For:	
1. Miscellaneous Items	$ 302,329.86
2. Demolition Items	$ 93,521.00
3. Storm Drain Items	$ 291,750.85
4. Paving Items	$ 1,970,861.05
5. Traffic Items	$ 100,188.28
Total Price	$ 2,758,651.04

In addition to providing the individual prices for the items above, Contract shall write the total bid amount in the sum of

Two Million Seven Hundred Fifty Eight Thousand Six Hundred Fifty One dollars

and Four cents 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. The selected contractor will receive written notice to proceed.

Bidder agrees to substantially complete all work within 210 calendar days after receipt of notice to proceed.

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 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.

Enclosed herewith in this proposal is a cashier's check, cash or bid bond on a form approved by the City Attorney, for

Five Percent of the Largest Possible Bid dollars

and _____ cents total. ($ 5%)

which it is agreed shall be collected and retained by the owner as liquidated damages in the event this proposal is accepted by the Owner within thirty days (30) after the date advertised for the reception of bids and the undersigned fails to execute the contract and required bonds with the owner, under the conditions thereof, within (15) days after the date said proposal is accepted; otherwise said check or bond shall be returned to the undersigned on demand.

Jones Bros. Dirt & Paving Contractors, Inc.
Name of Contractor

Submitted By — Stacey Bryant, General Manager
Print Name and Title

1401 S. Grandview
Mailing Address

Odessa — Texas — 79761
City — State — Zip

PAY NOTES

(North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project)

	Bid Item	Pay Quantity Note
Miscellaneous Items		
1	Mobilization	M1
2	Erosion Control	M2
3	Traffic Control	M3
4	Job Site Safety	M4
5	Seeded Erosion Control Mats	M5
6	Spray Watering	M6
Demolition Items		
1	Removal & Disposal of Existing Unclassified Pavement	D1
2	Removal & Disposal of Existing Miscellaneous Concrete	D2
3	Removal & Disposal of Existing Concrete Sidewalk & Ramps	D3
4	Removal & Disposal of Existing Concrete Curb & Gutter	D4
5	Removal of Existing Driveway	D5
6	Removal & Disposal Storm Drain Catch Basin	D6
7	Relocate Existing Pedestrian Crossing Signal	D7
8	Relocate Existing Traffic Sign	D8
9	Relocate Exisitng Traffic Control Box	D9
10	Relocate Existing Traffic Signal Light	D10
11	Relocate Existing Street Light	D11
12	Relocate Existing Electrical Box	D12
Storm Drain Items		
1	24" Reinforced Concrete Pipe (RCP)	SD1
2	30" Reinforced Concrete Pipe (RCP)	SD2
3	1-24' Flared End Treatment	SD3
4	2-24' Flared End Treatment	SD4
5	3-24' Flared End Treatment	SD5
6	4-24' Flared End Treatment	SD6
7	16'x3' Precast Reinforced Concrete Curb Inlet	SD7
8	Connect to Existing RCP (24")	SD8
9	Open Trenching of Storm Drain (0'-10' Deep)	SD9
10	Open Trenching of Storm Drain (10'-16' Deep)	SD10
11	4-6" Concrete Flatwork	SD11
12	16" Poly Pipe (PVC Casing Pipe) (SDR-26 D2241 or C900)	SD12
Paving Items		
1	Subgrade Preparation (Depth ≤ 8")	P1
2	7" Jointed Concrete Pavement	P2
3	2" Type D HMAC Asphalt Pavement Surface Course (PG70-22, 220 LBS / SY @ 1" Thick)	P3
4	3" Type C HMAC Asphalt Pavement Surface Course (PG64-22, 330 LBS / SY @ 1" Thick)	P4
5	12" Flexible Base (Type A, Grade 4)-6" Lifts	P5
6	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	P6
7	Bituminous Tack Coat (MC-30, 0.10 Gal / SY)	P7
8	6" (Commercial) Jointed Concrete Driveways	P8
9	Type A Concrete Curb & Gutter	P9
10	Type C Concrete Curb & Gutter	P10
11	Ribbon Curb	P11
12	Concrete Pedestrian Access Ramp	P12
13	4" Stamped Island Median	P13
14	4" Concrete Sidewalk	P14
15	Micro Surfacing	P15

Traffic Items

1	Install Signal Conduit	T1
2	Retroreflectorized Pavement Markings (White, 4" Dashed 10'/30') (TxDOT Item 668)	T2
3	Retroreflectorized Pavement Markings (White, 8" Solid) (Type 1 TxDOT Item 668)	T3
4	Retroreflectorized Pavement Markings (White, 4" Solid) (TxDOT Item 666, Type 1)	T4
5	Retroreflectorized Pavement Markings (White, 24")	T5
6	Retroreflectorized Pavement Markings (Yellow, 4" Solid/ Solid) (TxDOT Item 666)	T6
7	Retroreflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668)	T7
8	Retroreflectorized Pavement Markings (TxDot Item 672, Type i-A, IC, II-A -A, or II-C-R per plans)	T8
9	Retroreflectorized Pavement Markings (White, 24" Stop Bar) (TxDOT Item 668)	T9
10	Prefabricated Pavement Markings (White, Arrow Symbol) (TxDOT Item 668)	T10
11	Prefabricated Pavement Markings (White, 18", Yield Triangle)	T11
12	Small Sign Assembly (W1-4, 36)	T12
13	Signs (W1-6R,60x30, on TxDOT Slip Bases)	T13
14	PEXCO City Posts(Model EAC, 48 " Yellow/ Triple Wrap Reflective Sheeting)	T14
15	Crosswalk Striping	T15

PAY QUANTITY NOTES

M1 Includes the necessary equipment, labor, materials, and incidentals for all Mobilization to the job site complete and in place. Measurement and payment to be made per month.

M2 Includes the necessary equipment, labor, materials, and incidentals to implement the Erosion Control Plan per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per month.

M3 Includes the necessary equipment, labor, materials, and incidentals to implement the Traffic Control per the approved Traffic Control Plan. Any required traffic control devices are to meet the City of Midland Traffic Division Standards. Measurement and payment to be made per month.

M4 Includes the necessary equipment, labor, materials, and incidentals to implement Job Site Safety and to provide a safe work environment for the project work area (including all personal protection equipment, trench safety, etc.) per the construction drawings and in compliance with all applicable Federal, State, and Local requirements or regulations including those of OSHA and the City of Midland. JOB SITE SAFETY IS THE RESPONSABILITY OF THE CONTRACTOR. Measurement and payment to be made per month.

M5 Includes the necessary equipment, labor, materials, and incidentals for Seeded Erosion Control Mats per the construction drawings and City of Midland standards and specifications, including all removal, storage, and replacement of existing topsoil as well as all mats, seeding, staking, and appurtenances. Watering is addressed in a separate pay note. Measurement and payment to be made per square yard measured along the ground surface.

M6 Includes the necessary equipment, labor, materials, and incidentals for Spray Watering per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per lump sum.

D1 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Unclassified Pavement per the construction drawings and City of Midland standards and specifications including all pavement removal, saw-cutting, and appurtenances. Depths given are approximate and pavement material is to be removed in its entirety. No additional compensation will be made for increased pavement depth removal. Measurement and payment to be made per square yard measured along the ground surface.

D2 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Curb & Gutter per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot measured along the back of curb.

D4 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Miscellaneous Concrete per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

D5 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Stormwater Catch Basin per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D6 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Driveway per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

D7 Includes the necessary equipment, labor, materials, and incidentals for the Relocate Existing Pedestrian Crossing Signal per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D8 Includes the necessary equipment, labor, materials, and incidentals for the Remove & Relocate Traffic Control Box per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D9 Includes the necessary equipment, labor, materials, and incidentals for the Remove & Relocate Traffic Signal Light per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D10 Includes the necessary equipment, labor, materials, and incidentals for the Remove & Relocate Street Light per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D11 Includes the necessary equipment, labor, materials, and incidentals for the Remove & Relocate Electrical Box per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

SD1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Reinforced Concrete Pipe per the construction drawings and City of Midland standards and specifications, including all embedment, detector wire, tracer tape, necessary testing, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

SD2 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Flared End Treatment per the construction drawings and City of Midland standards and specifications, including all forms, reinforcment, placement, sealing, finishing, and appurtenances. Measurement and payment to be made per each headwall safety end treatment installed.

SD3 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Precast Concrete Curb Inlet per the construction drawings and City of Midland standards and specifications, including all embedment, base, forms, reinforcement, placement, sealing, finishing, necessary testing, and appurtenances. Measurement and payment to be made per each curb inlet installed.

SD4 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing RCP per the construction drawings and City of Midland standards and specifications, including all coring, repairs, and appurtenances. Measurement and payment to be made per each connection made.

SD5 Includes the necessary equipment, labor, materials, and incidentals for the installation of Concrete End Treatment per the construction drawings and City of Midland standards and specifications, including all forms, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

SD6 Includes the necessary equipment, labor, materials, and incidentals for the installation of Poly Pipe PVC Casing Pipe per the construction drawings and City of Midland standards and specifications, including all embedment, detector wire, tracer tape, necessary testing, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

P1 Includes the necessary equipment, labor, materials, and incidentals for Subgrade Preparation per the construction drawings and City of Midland standards and specifications, including all proof-rollling, sub-grade reworking, scarifying, compaction, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P2 Includes the necessary equipment, labor, materials, and incidentals for placement of Jointed Concrete Pavement per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P3 Includes the necessary equipment, labor, materials, and incidentals for the placement of Type "D" HMAC Asphalt Pavement Surface Course (PG 70-22, 220 LBS / SY at 1" thick) per the construction drawings and City of Midland standards and specifications, including all placement, compaction, and appurtenances. Measurement and payment to be made per ton of material placed.

P4 Includes the necessary equipment, labor, materials, and incidentals for the placement of Type "C" HMAC Asphalt Pavement Surface Course (PG 64-22, 220 LBS / SY at 1" thick) per the construction drawings and City of Midland standards and specifications, including all placement, compaction, and appurtenances. Measurement and payment to be made per ton of material placed.

P5 Includes the necessary equipment, labor, materials, and incidentals for placement of Flexible Base compacted to 95% Density, ASTM D1557, per the construction drawings and City of Midland standards and specifications including all placement, compaction, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P6 Includes the necessary equipment, labor, materials, and incidentals for application of Bituminous Prime Coat (MC-30, 0.20 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

P7 Includes the necessary equipment, labor, materials, and incidentals for application of BituminousTack Coat (MC-30, 0.10 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

P8 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Island Median per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P9 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Curb & Gutter per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per linear foot measured along the back-of-curb.

P10 Includes the necessary equipment, labor, materials, and incidentals for placement of Ribbon Curb per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per linear foot measured along the back-of-curb.

P11 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Pedestrian Access Ramp per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P12 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Sidewalk per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P13 Includes the necessary equipment, labor, materials, and incidentals for installation of Micro-Surfacing per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

T1 Includes the necessary equipment, labor, materials, and incidentals to Eliminate Existing Pavement Markings and Markers (Line Marking) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot eliminated.

T2 Includes the necessary equipment, labor, materials, and incidentals to Eliminate Existing Pavement Markings and Markers (Letter or Symbol) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each marking eliminated.

T3 Includes the necessary equipment, labor, materials, and incidentals for the placement of Retroreflectorized Pavement Markings per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot placed.

T4 Includes the necessary equipment, labor, materials, and incidentals for the placement of Prefabricated Pavement Markings per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot placed.

T5 Includes the necessary equipment, labor, materials, and incidentals for the placement of Prefabricated Pavement Markings per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each marking placed.

T6 Includes the necessary equipment, labor, materials, and incidentals for Small Sign Assembly per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each sign assembled.

T7 Includes the necessary equipment, labor, materials, and incidentals for Small Sign Assembly per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made each sign space assembled.

T7 Includes the necessary equipment, labor, materials, and incidentals for PEXCO City Posts per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment are to be made per each sign space assembled.

T8 Includes the necessary equipment, labor, materials, and incidentals for the installation of Crosswalk Striping per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot markings placed.

BID BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

SURETY NO 101922

KNOW ALL MEN BY THESE PRESENTS, THAT Jones Bros. Dirt & Paving Contractors, Inc. (Hereinafter called the Principal), as Principal, and National Fire Insurance Company of Hartford (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 Five Percent (5%) of the Largest Possible Bid Dollars ($ 5%) 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 submitted a Bid or Proposal to enter into a certain written contract for the construction of North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project .

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully, enter into such written Contract, then this obligation shall be void; otherwise to remain in full force and effect.

IT IS EXPRESSLY UNDERSTOOD AND AGREE that if said Principal should withdraw its Bid anytime after such Bid is opened and before official rejection to 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, the Obligee, in either of such events, shall be entitled and is hereby given the right to collect the full amount of this Bid Bond as liquidated damage.

PROVIDED, further that 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___.

_____	_____
Principal	Surety
By _____	By _____
Address _____	Address _____
_____	_____
_____	_____

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company (herein called "the CNA Companies"), are duly organized and existing insurance companies having their principal offices in the City of Chicago, and State of Illinois, and that they do by virtue of the signatures and seals herein affixed hereby make, constitute and appoint

Linda K Edwards, Steven B Siddons, Shirong Chen, Lorrie E Scott, Teresa Ayala, Individually

of Fort Worth, TX, their true and lawful Attorney(s)-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on their behalf bonds, undertakings and other obligatory instruments of similar nature

- In Unlimited Amounts -

and to bind them thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of their insurance companies and all the acts of said Attorney, pursuant to the authority hereby given is hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law and Resolutions, printed on the reverse hereof, duly adopted, as indicated, by the Boards of Directors of the insurance companies.

In Witness Whereof, the CNA Companies have caused these presents to be signed by their Vice President and their corporate seals to be hereto affixed on this 15th day of July, 2022.

Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

Paul T. Bruflat — Vice President

State of South Dakota, County of Minnehaha, ss:

On this 15th day of July, 2022, before me personally came Paul T. Bruflat to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is a Vice President of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company described in and which executed the above instrument; that he knows the seals of said insurance companies; that the seals affixed to the said instrument are such corporate seals; that they were so affixed pursuant to authority given by the Boards of Directors of said insurance companies and that he signed his name thereto pursuant to like authority, and acknowledges same to be the act and deed of said insurance companies.

J. MOHR
NOTARY PUBLIC
SOUTH DAKOTA

My Commission Expires June 23, 2027

J. Mohr — Notary Public

CERTIFICATE

I, D. Johnson, Assistant Secretary of Continental Casualty Company, an Illinois insurance company, National Fire Insurance Company of Hartford, an Illinois insurance company, and American Casualty Company of Reading, Pennsylvania, a Pennsylvania insurance company do hereby certify that the Power of Attorney herein above set forth is still in force, and further certify that the By-Law and Resolution of the Board of Directors of the insurance companies printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said insurance companies this 19th day of October, 2022.

Continental Casualty Company
National Fire Insurance Company of Hartford
American Casualty Company of Reading, Pennsylvania

D. Johnson — Assistant Secretary

Form F6853-4/2012

Go to www.cnasurety.com > Owner / Obligee Services > Validate Bond Coverage, if you want to verify bond authenticity.

CONTRACT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

THIS CONTRACT, made and entered into this 16th day of November, 2022, by and between the City of Midland of the County of Midland and State of Texas, acting through its Mayor thereunto duly authorized so to do, Party of the First Part, hereinafter termed OWNER, and

Jones Bros. Dirt & Paving Contractors, Inc. of the City Odessa,

County of Ector, State of Texas, Party of the Second Part, herein-after termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Party of the first Part (OWNER), and under the conditions expressed in the bond bearing even date herewith, the said Party of the Second Part (CONTRACTOR), hereby agrees with the said Party of the First Part (OWNER) to commence and complete the construction of certain improvements described as follows: North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project together with appurtenances and incidentals.

Conditions of the Contract and at his (or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendent, labor, insurance and other accessories and services necessary to complete the said construction in accordance with the conditions and prices stated in the Proposal attached hereto, and in accordance with the Notice to the Contractors, General and Special Conditions of Agreement, Plans and other drawings and printed or written explanatory matter thereof, and the Specifications and addenda therefore as prepared by Engineering and Transportation Department of the City of Midland, Texas, herein entitled the ENGINEER, together with the CONTRACTOR'S written Proposal, the General Conditions of the Contract, and the Performance and Payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire Contract.

The CONTRACTOR hereby agrees to commence work within fifteen (15) calendar days after the written notice to do so and to substantially complete the same within 210 calendar days after receipt of notice to proceed, subject to such extensions of time as are provided by the General and Special Conditions.

The OWNER agrees to pay the CONTRACTOR in current funds the price or prices shown in the proposal, which forms a part of this Contract, such payments to be subject to the General and Special Conditions of the Contract.

The SUM TOTAL of this Contract shall be: $2,758,651 Dollars and 04 Cents.

INSURANCE

Contractor 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 an occurrence basis. This insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Business Automobile Liability insurance provided by Contractor 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. The insurance shall name the City as an additional insured and waive subrogation in favor of the City.

The Workers' Compensation coverage provided by Contractor shall inure to the benefit of employees injured during the course and scope of their employment by Contractor pursuant to this Contract. The Workers' Compensation shall waive all rights of subrogation in favor of the City.

All insurance required pursuant to this Contract shall provide for a waiver of subrogation in favor of the City. All insurance required pursuant to this Contract, except for Workers' Compensation Insurance, shall name the City as an additional insured on a claims occurred basis. City shall be provided the notice by Contractor's insurance provider not later than thirty (30) days prior to any reduction or termination of such coverage.

Contractor 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, Contractor shall provide one or more certificates of insurance specifically stating that these requirements have been met and subject to the approval of the City. The City shall not be required to provide any insurance whatsoever pursuant to this Contract.

The Contractor certifies that the certificate of insurance provided as required herein complies with the requirements of Senate Bill 425, passed during the 82nd regular session of the Texas Legislature, and effective January 1, 2012. The Contractor shall not use an unapproved certificate of insurance or insert inappropriate language on a certificate. Compliance with state law is the sole responsibility of the Contractor.

WAIVER OF ATTORNEY FEES

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 THE OWNER, 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 CONTRACTOR SPECIFICALLY AGREES THAT IF THE CONTRACTOR 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 AMEDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE CONTRACTOR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH CONTRACTOR MIGHT OTHERWISE BE ENTITLED.

CONTRACTOR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY EXISTING KNOWN RIGHT. THE CONTRACTOR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OWNER AND THE CONTRACTOR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE 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.

SOVEREIGN IMMUNITY

By executing this Contract, the City is not waiving its right of sovereign immunity. The City is retaining its immunity from suit. The City is not granting consent to be sued by legislative resolution or action.

THERE IS NO WAIVER OF SOVEREIGN IMMUNITY.

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. 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. The obligations and undertakings of each of the parties to this Contract shall be deemed to have occurred in Midland County, Texas.

COMPLIANCE – Contractor agrees that it shall comply with Texas Government Code Section 2252.908, *et seq.*, as amended. Contractor agrees that it shall comply with Texas Local Government Code Section 176.006, *et seq.*, as amended.

VERIFICATION

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.

RECORDS RETENTION AND PRODUCTION OF INFORMATION

To the extent that this contract is a contract described by Section 552.371 of the Texas Government Code, contractor shall (1) preserve all contracting information related to the contract as provided by the records retention requirements applicable to the City of Midland for the duration of the contract, (2) promptly provide to the City of Midland any contracting information related to the contract that is in the custody or possession of contractor on request of "the City of Midland, and (3) on completion of the contract, either (i) provide at no cost to the City of Midland all contracting information related to the contract that is in the custody or possession of contractor, or (ii) preserve the contracting information related to the contract as provided by the records retention requirements applicable to the City of Midland.

PUBLIC INFORMATION

To the extent that this contract is a contract described by Section 552.371 of the Texas Government Code, contractor 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 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.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

Parties of the First Part (Owner)

By: _____
Patrick Payton, Mayor

ATTEST:

_____
Amy Turner, City Secretary

APPROVED ONLY AS TO FORM:

By: _____
John Ohnemiller, City Attorney

By: _____
Party of the Second Part (CONTRACTOR)

By: _____
Title

THE STATE OF _____ §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this _____ day of _____, 20__ personally appeared _____, an officer of Jones Bros. Dirt & Paving Contractors, Inc., known to me to be the person and official whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same as an 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 _____ day of _____, 20_____

_____
Notary Public

Form Revised October 2022

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 ___North Fairground Road, Loop 250- Mockingbird Lane Paving Project_ , 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

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 **North Fairground Road, Loop 250- Mockingbird Lane Paving Project**, 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

CERTIFICATE OF PAYMENT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project

The undersigned states that all debts, bills, and expenses that were incurred by the undersigned, his agents, or subcontractors employed by him, for labor, wages, materials and other purposes furnished for the above project have been paid and satisfied in full.

The undersigned, as general contractor for the above described project agrees to indemnify, hold harmless and defend the City, its officers, agents, and employees, from and against all claims and suits for damages, expenses, including court costs and attorney fees, arising out of or resulting from the undersigned contractor, his agents or subcontractors employed by him for expenses, warranties for items furnished, or labor performed and for any party that has supplied materials in connection with the repair or construction of the above referenced premises.

The undersigned contractor agrees to waive any and all claims it may have against the City, associated with, resulting from or arising out of the work performed at the above premises.

Further, the undersigned states that all labor performed by the undersigned, his agents, and subcontractors employed by him, has been completed in the usual and customary workmanlike manner and all work performed is accompanied with the usual and appropriate warranties for such work or repair, absent any disclaimer previously approved by the City of Midland.

I, the undersigned, release and relinquish unto the City of Midland, and their assigns the above described lien upon the above referenced property and hereby certify that all debts, bills, and expenses incurred by the undersigned, his agents, or subcontractors employed by him in connection with work done at the above

premises have been fully paid, in exchange for payment in full to be made by the City of Midland for the performance on the above described premises.

WITNESS MY HAND on this _____ day of _____, 20_____.

_____
Signature

_____
Typed or Printed Name

_____
Title

_____
Name of Company

SUBSCRIBED AND SWORN to before me on the _____ day of _____, 20_____.

_____
Notary Public, State of Texas

_____
Typed or printed name

_____
My Commission expires:

Form Revised September 2022

City of Midland Specifications

PREPARATION OF RIGHT OF WAY

1. GENERAL

Includes the preparation of right-of-way for construction by clearing, grubbing, removing and disposing of all obstructions and objectionable material from the right-of-way and designated easements, which is not specifically provided for on the plans.

Obstructions and objectionable material refer to all objects or material that do not meet the quality of standards for the courses of pavement to be constructed or which protrude into the excavation for slopes.

Measurement and Payment - Measurement and payment will be at the units and prices for the applicable bid item in the proposal.

When no specific bid items are included in the bid proposal for work specified under this section this work shall be considered as incidental to other items of work and the cost shall be included in the bid for these items. No separate payment will be made.

2. CONSTRUCTION METHODS

Removal - Obstructions and objectionable material to be removed by blading, plowing, bulldozing, or other methods approved in writing by the Engineer. The use of explosives will not be permitted. Solid objects must be removed to a depth of at least one (1) foot below the finished slope or subgrade elevation. Hollow objects must be removed entirely.

Disposal - Material to be removed from the right-of-way becomes the property of the Contractor. If disposal areas are available, they will be indicated on the plans.

Preservation of Trees and Shrubs - Trees and shrubs to be preserved in the right of way are shown on the plans and must be protected from injury during construction.

Removal of Concrete - Cut concrete at the right-of-way line straight and vertical by sawing or other approved methods prior to the removal of concrete in the right-of-way.

EXCAVATION, EMBANKMENT AND PREPARATION OF SUBGRADE 1
1. GENERAL 2
2. CONSTRUCTION METHODS 2

EXCAVATION, EMBANKMENT AND PREPARATION OF SUBGRADE

1. GENERAL

Includes the excavation, embankment and preparation of subgrade determined by the lines, grades and sections shown on the plans and in accordance with the provisions of the specifications.

Excavation - Includes excavation to planned grade, disposal of the material, removal of unsuitable subgrade material and borrow material when required in the construction. All excavation to be classified as common.

Embankment - Consists of excavated or borrow materials placed and compacted in horizontal layers in accordance with the specifications.

Subgrade - The upper eight inches (8") of embankment or the upper eight inches (8") below the roadway excavation finished grade. The subgrade shall extend from six inches (6") back of curb to six inches (6") back of curb where curb and gutter is to be constructed.

Measurement and Payment - Measurement and payment to be at the units and prices for the applicable bid items in the proposal.

2. CONSTRUCTION METHODS

Excavation - Made at the location and to the lines and grades shown on the plans in areas previously prepared in accordance with provisions of Section 2A. Dispose of excess material not required in the embankment and material that is unsuitable for subgrade. Excavation tolerance to be plus or minus 1/10 foot from the plan grade.

The area between the curb and property line shall be excavated or filled, whichever is necessary, to curb height at back of curb and finished to a straight even surface to the property line. The minimum elevation at the property line shall be the elevation of the top of the curb. The maximum elevation at the property line shall be equal to a rise of 1/4 inch per foot from the back of the curb to the property line.

During the excavation of this project, it will be required that all parkways be excavated and shaped at the same time the roadway is excavated. Excess excavation will be disposed of at locations approved by the Engineer.

Embankment shall be constructed at the locations and to the lines and grades shown on the plans in areas previously prepared in accordance with Section 2A of these specifications. Top eight inches (8") of natural ground to be compacted

to embankment density requirements. Embankment shall be constructed from suitable material obtained from the excavation or borrow free of roots, rocks in excess of three inches (3"), debris and other objectionable material. Excavation deficiencies shall be supplemented from a borrow source approved by the Engineer. Embankment shall be constructed in uniform horizontal layers not to exceed eight inches (8") of loose depth and compact with suitable equipment to a minimum of ninety percent (90%) AASHTO T180. The materials shall be processed by aeration or watering to bring the material to the approximate optimum moisture. Dry layers will not be permitted. Soft spots that develop in the embankment shall be removed and replaced with suitable material. No payment will be made for removal of soft spots. Tolerance for embankment grading shall be one-half foot (1/2) plus or minus the plan grade.

Preparation of Subgrade - Eight inches (8") of the upper portion of the embankment or excavation shall be shaped and compacted to a minimum density of 95 percent (95%) AASHTO T180 and finished within a tolerance of one-half inch (1/2") in ten feet (10'). The finished subgrade shall be protected and maintained in a satisfactory condition until covered by succeeding construction.

Compaction Tests - Field density tests will be made by the Owner or by a laboratory selected by the Owner. The Contractor shall notify the Engineer when compaction has been achieved. The Contractor shall allow 24 hours for scheduling of test. Prior to the taking of subgrade density test, the entire subgrade will be tested by proof-rolling using a pneumatic roller weighing not less than 50,000 lbs. gross with tire pressure being not less than 110 psi. Any soft spots, pumping, or other evidence of weakness shall be remedied before density tests are made. Proof rolling shall be in the presence of the Engineer or his duly authorized representative.

The City will pay the cost of initial density tests made on the subgrade. If the subgrade fails to meet the density requirements on the first test, the contractor will be required to have subsequent density tests made by the commercial lab selected by owner. The cost of all subsequent density tests will be born by the contractor.

08/07

CONCRETE CURB AND GUTTER, SIDEWALKS AND DRIVEWAYS,

VALLEY GUTTERS, CENTER DRAINS AND RIP RAP

1. GENERAL

Includes the construction of concrete curb and gutter, sidewalks, driveways, valley gutters, center drains and rip rap in accordance with lines, grades and the sections shown on the plans and constructed in full compliance with provisions of the specifications.

A proven performance record by the Texas Highway Department shall be supplied by material producers for all materials supplied by them.

2. MATERIALS

Concrete - All concrete other than rip rap shall be Class "A" concrete in accordance with Texas Highway Department specifications Item No. 421. Concrete for rip rap shall be the class as shown on the plans and detail drawings. When no concrete class is shown the plans concrete for rip rap shall be Class "B" concrete.

Concrete batch designs shall be furnished for each project and shall include all classes of concrete proposed for use on the project.

Reinforcing Steel - Reinforcing steel shall be deformed bars or wire mesh fabric conforming to the requirements of "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" Item No. 440 and shall be of the sizes and grades as shown on the plans.

The contractor, at his option, may use fiber reinforcing in lieu of the wire mesh for all concrete slab on grade. When fiber reinforcing is used, it shall be "Fiber Mesh" or "Caprolan RC" or approved equal. The material and rate of application shall be approved by the Engineer prior to its use.

Expansion Joints - Bituminous pre-molded joint filler shall be composed of top grade fiber, treated by special impregnation system with water repellent bituminous materials. It shall be a non-extruding type, resilient, expanding on release of compression, preventing open joint crevices. The pre-molded joint filler shall be of such character, that it will not be deformed by handling during hot weather, nor shall it become brittle in cold weather. It shall be free from visible external defects such as holes, ragged or untrue edges, breaks, cracks or tears. It may be covered on both sides with paper to facilitate handling.

The joint filler shall be accurately cut to the dimensions and shapes required. It shall be of the thickness required by the plans, or as specified elsewhere.

3. CONSTRUCTION METHODS

GENERAL

No concrete shall be placed when, in the Engineers opinion, weather or other conditions would be detrimental to the structure placed. No concrete shall be placed on grade when the ground temperature is 35^{o} F or lower. Concrete may be placed when the ground temperature is rising from 35^{o} F. Concrete placed in cold weather shall be protected from freezing for 72 hours after being placed.

CURB AND GUTTER

EXCAVATION AND SUBGRADE - Excavation for curb, gutter, and combined curb and gutter shall be done with the subgrade excavation for the street. Street subgrade shall extend from six inches (6") back of curb to (6") back of curb and shall be compacted for a full width to a minimum of 95% AASHTO T180-61. Where subgrade is more than three inches (3") below bottom of curb, fill shall be compacted caliche base constructed from six inches (6") back of curb to six inches (6") back of curb as specified for base course.

Whenever subgrade or base is dry or dusty, it shall be thoroughly moistened, not made muddy, before the concrete is placed.

Forms - Forms shall be of steel, of a type to be approved by the Engineer, except that curves may be formed with wood sections built up or laminated, upon prior approval by the Engineer.

The forms shall be attached securely to stakes, shall be set true to line and grade, and braced sufficiently to remain true during the placing and tamping of the concrete. Forms shall be thoroughly cleaned and oiled before each use.

Curves - All changes in direction of the curbs shall be by means of true circular curves of the radii as shown on the plans.

Expansion Joints - Expansion joints shall be placed between curb and gutter sections at the tangent points of all curves, at each side of the inlet boxes, drives, alleyways, and at intervals of not more than forty feet (40') in straight runs. The expansion material shall be pre-molded three-fourths inch (3/4") in thickness, and shall conform to the requirements of expansion material as specified herein. It shall be cut to the full size and shape or the cross section of the curb and gutter, less one-half inch (1/2") from the finished surface thereof. The edges of sections against the joint shall be finished with an edging tool and the joint raked clean of concrete.

Finishing - There shall be provided on the job a metal screed or mule designed to give proper shape to the curb and gutter. It shall be bent to the exact shape of the finished curb and gutter and the forward edge turned up slightly to prevent disturbing the mortar. It shall be designed to ride on the forms and when properly manipulated shall leave the curb and gutter in its proper shaped condition. An "S" trowel shall be used to finish the surface and minor imperfections shall be corrected with a mason's trowel. Care shall be taken to finish

the gutter flow line to a true, uniform grade. All edges shall be finished with an edging tool, and joints marked with a jointer. Joint marks shall coincide with actual joints and shall be straight and true.

Curing - The completed curb and gutter, shall be cured in accordance with the requirements of the item "Membrane Curing", Texas Highway Department Item 531.

DRIVEWAYS AND ALLEY RETURNS

Driveways and alley returns shall be constructed of Class "A" concrete to the lines and grades as shown on the plans and detail sheets. All driveways and alley returns shall be reinforced as shown on the detail drawings.

Excavation and Subgrade - Excavation shall be accomplished in the same manner as for streets and curbs. The subgrade for all driveways and alley returns shall be compacted to 95% modified proctor density for 8 inches depth.

Driveways for single family residences and property used for two family residential purposes (duplexes) may be placed on the compacted subgrade. All other driveways shall be considered as commercial driveways and shall be constructed on 6 inches compacted flexible base.

Flexible Base - Commercial driveways and alley returns shall be constructed on 6 inches of flexible base conforming to Section 2-C- Flexible Base, Caliche.

Forms - Forms shall be constructed of steel or, when approved by the engineer, wood conforming to the requirements for curb and gutter forms.

Expansion Joints - Expansion joints shall be placed at the ends of abutting curb and gutter at the end of radii for all driveways and alley returns. In addition, expansion joints shall be placed at the ends of abutting sidewalk sections and at any point where the driveway or alley return abuts another concrete structure. Expansion joint material shall be pre-molded three fourths inch (3/4") in thickness, cut to the shape and dimensions required and shall extend the full depth of the concrete.

Finishing - Shaping and finishing of driveways and alley returns shall be accomplished by using a screed to shape the driveway or alley return to the lines and grade required. Finishing shall be accomplished by use of wooden floats and stiff bristled brushes or brooms. The last finish shall be by brushing or brooming in
A direction transverse to the direction of traffic.

During the entire finishing process care shall be taken to maintain the true gutter invert in line with the street curb and gutter.

Curing - Finished driveways and alley returns shall be cured in accordance with the requirements "membrane curing" "Texas Department of Highways and Public Transportation, 1982 Standard Specifications for Highways, Streets and Bridges", Item Number 531.

CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS

Concrete slab type street drainage structures with or without curbs, shall be constructed of Class "A" concrete to the lines and grades as shown on the plans and detail sheets or as may be established in the field by the engineer.

Subgrade excavation preparation and compaction and flexible base shall be the same as specified for street construction. All drainage structures within the roadway shall be constructed on a flexible caliche base so that the thickness of the concrete slab plus base is equal to the thickness of the hot mix asphaltic concrete surface plus base.

Forms - Forms shall be as specified for curb and gutter.

Reinforcing - All slab type drainage structures shall be reinforced as shown on the plans and detail drawings. Care shall be taken to maintain all reinforcing in good condition and at its proper location within the slab.

Expansion Joints - Expansion joint material shall be as specified for curb and gutter and for driveways and alley returns.

Expansion joints for valley gutter shall be placed at the ends of radii and at the juncture between the fillet and the cross valley as shown on the detail sheet.

For center drains, expansion joints shall be placed at the ends of widened or transition sections and at each end of a section containing a manhole or other structure and at intervals of sixty feet (60') measured along the center line of the drain.

Additional expansion joints shall be placed where drainage slabs abut backs of curbs, sidewalks and at contact points with other concrete structures.

Contraction Joints - Contraction joints shall be spaced at 15' intervals along the center line of center drains. These contraction joints shall be saw cut 3/8" wide minimum and 1/4 the depth of the slab using an approved concrete saw.

Saw cut contraction joints shall be made after the concrete has set sufficiently to prevent excessive raveling during sawing and shall be completed before the concrete is 48 hours old.

Finishing - Finishing shall be the same as for alley returns and driveways with the last finishing operation for structures subject to vehicular traffic being by broom or stiff brush in a direction transverse to the direction of traffic.

Curing - Curing shall be the same as for curb and gutter and driveways and alley returns.

SIDEWALKS

Sidewalks shall be constructed of Class A" concrete to the lines and grades as shown on the plans and detail drawings or as may be established in the field by the engineer. Sidewalks shall be constructed parallel to the back of the curb and on a grade parallel to

the top of curb grade. The minimum thickness for any sidewalk is 4 inches. The minimum width of any sidewalk is 4 feet.

Excavation and Subgrade - Excavation for sidewalk shall be made with street excavation where applicable. Care shall be exercised in excavating for sidewalks. Any over excavation or any fill required for sidewalk must be brought to grade in lifts not to exceed two inches (2") and thoroughly tamped. Subgrade for sidewalks shall be compacted to at least the density of the adjacent soil or to 85% modified proctor whichever is greater.

When a sidewalk is to be constructed on an embankment the fill must extend at least 3 feet beyond the edge of the sidewalk.

If the subgrade is dry or dusty it must be thoroughly moistened but not made muddy before concrete is placed.

Forms - Forms for sidewalks may be either steel or wood. Forms must be in good shape and true to line and grade. If nominal 2" x 4" lumber is used the subgrade must be finished one half inch (1/2") below the bottom of the form to provide the required 4 inch thickness.

Expansion Joints - Expansion joint material shall be pre-molded conforming to these specifications and shall be one half inch (1/2") thick. The expansion joint shall extend the full depth of the sidewalk.

Expansion joints shall be placed at points where the sidewalk contacts the back of curb, at all junctures between sidewalks all directions, and at all points where the sidewalk abuts a driveway, alley return or other concrete structure including fence foundations.

Transverse expansion joints shall be constructed in the sidewalk at intervals not exceeding twenty eight feet (28') as measured along the centerline of the walk except for sidewalks that are constructed wider than four feet (4') in which case expansion joints may be placed at intervals that are multiples of the width but not exceeding thirty feet (30').

Contraction Joints - Contraction joints consisting of trowel cuts one and one half inches (1-1/2") deep shall be spaced at four foot (4') intervals along the sidewalk. Contraction joints shall be edged using an edging tool with a 1/4 inch or 3/8 inch radius.

For sidewalks wider than four feet (4') contraction joints may be placed at intervals equal to the width of the walk up to but not exceeding ten feet (10').

Finishing - Sidewalks shall be "struck off" with a screed to provide an even surface and float finished using a wooden float.

The final finish on the sidewalk shall be accomplished by brooming or brushing using a stiff bristled brush or broom with the final strokes being in the transverse direction.

Curing - Curing shall be as specified for curb and gutter and driveways and alley returns.

CONCRETE RIP RAP

Concrete rip rap shall be constructed of concrete of the class and to the line and grades as shown on the plans.

Excavation and Subgrade - Care shall be taken not to over excavate for rip rap. The subgrade for rip rap shall be compacted to at least the density of the adjacent undisturbed soil or 85% modified proctor whichever is higher.

Forms - Forms, where required, may be either steel or wood. Forms must be in good condition and true to line and grade.

Expansion Joints - Expansion joints, where required, will meet the requirements of expansion joints materials as specified herein and will be placed as shown on the plans or directed by the engineer.

Finishing - Finishing shall be by screed and wooden float to produce true uniform surface.

Curing - Curing shall be as specified for other concrete herein.

Slope Paving - Slope paving may be required behind the curb or behind sidewalks where street paving requires deeper cuts in developed areas. Slope paving shall be constructed of Class "A" concrete and shall be constructed to the lines and grades as shown on the plans or as established in the field. Slope pavement shall be four inches (4") thick and shall be constructed in accord with the specifications for sidewalks.

When no slope grade is given on the plans the slope gradient shall be l:l.

Unless listed separately on the bid proposal, slope pavement shall be measured and paid for as sidewalk.

4. BACKFILL AND CLEANUP

GENERAL

Backfill and clean up are an integral part of the various items covered by this specification and must be completed for each item before that item will be considered for payment.

CONCRETE STRUCTURES WITHIN THE PAVED AREA OF STREETS

Backfill and clean up for concrete structures within the paved areas of streets, alleys, etc. shall receive special attention to assure the integrity of the street pavement.

Structures constructed in previously paved areas shall have sufficient surface removed along with base and subgrade where necessary to set full face forms for the concrete. As soon as the forms are removed all loose material shall be removed from the form trench and the trench filled to the base level with Portland cement stabilized backfill material

consisting of two (2) sacks Portland cement to one (l) cubic yard of caliche base material or one (l) cubic yard "blow sand". When the cement stabilized backfill has cured the pavement edge shall be saw cut to provide true and straight lines and the pavement restored to its original or revised grade using Hot mix asphaltic concrete conforming to the requirements of Section 2-F of these specifications.

For structures constructed on previously prepared subgrade or base course, clean up and backfill shall be considered complete when the subgrade or base course has been made ready to receive the next course.

When a structure is constructed on a finished base course and it is necessary to remove base material to set forms, backfill and cleanup shall be as described for previously paved areas and shall be considered complete when the base course is made ready to receive the surface course or courses.

BACKFILL BEHIND CURBS AND ALONG SIDEWALKS

Backfill behind curbs and along sidewalks that is to be grassed shall be made using good top soil. Top soil shall be free of caliche, rocks, clods, lumps, debris and other objectionable material. This backfill shall be compacted to at least the density of undisturbed adjacent soil but not less than 85% modified proctor.

Backfill behind curbs and along sidewalks that is to receive paving shall be constructed to conform to the base and subgrade of the adjacent paving and shall be compacted to 95% modified proctor. Or the contractor may elect to backfill to the top of the base with two (2) sack cement stabilized backfill.

In undeveloped areas and in areas where no sidewalks exist the contractor shall slope from the back of the curb to a maximum height of 1/4 inch per foot rise from the top of the curb to the property line on a straight line grade. The minimum elevation at the property lines shall be top of curb elevation.

In deeper cut areas slope paving may be required. When slope paving is required it shall be constructed to the lines and grades shown on the plans. Backfill and shaping beyond the slope paving shall be in accord with the applicable portions of this specification.

CONCRETE CURB AND GUTTER, SIDEWALKS AND DRIVEWAYS **1**

VALLEY GUTTERS, CENTER DRAINS AND RIP RAP **1**

1. GENERAL 1
2. MATERIALS 1
3. CONSTRUCTION METHODS 2

GENERAL *2*
CURB AND GUTTER *2*
DRIVEWAYS AND ALLEY RETURNS *3*
CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS *4*
SIDEWALKS *4*
CONCRETE RIP RAP *6*

4. BACKFILL AND CLEANUP 6

GENERAL *6*
CONCRETE STRUCTURES WITHIN THE PAVED AREA OF STREETS *6*
BACKFILL BEHIND CURBS AND ALONG SIDEWALKS *7*

Updated 3/06

CONCRETE STRUCTURES

1. GENERAL

This specification covers concrete structures including but not limited to junction boxes, culverts, head walls, cast in place manholes, valve vaults, meter vaults and retaining walls.

2. MATERIALS

CONCRETE

Concrete for cast in place manholes, junction boxes, storm sewer inlet boxes, valve vaults and direct traffic culvert and bridge decks shall be a modified class "C" concrete using a minimum of 6 sacks cement per cubic yard with a maximum water content of 5 gallons per sack of cement and producing a concrete with 4000 psi 28 day compressive strength.

Concrete for other structures shall be class "A" as specified in "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" item number 421. Concrete for riprap shall be class "B".

Reinforcing steel shall conform to the requirements of item number 440 or "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" and shall be of the sizes and grades as shown on the plans.

3. CONSTRUCTION

Construction of concrete structures shall be in accordance with the provisions of item 420 "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges".

FLEXIBLE BASE, CALICHE 1
1. GENERAL 2
2. MATERIALS 2
3. CONSTRUCTION 3
4. TESTING 3

FLEXIBLE BASE, CALICHE

1. GENERAL

This item consists of the construction of a caliche flexible base course to the lines, grades and thickness shown on the plans and in accordance with the provisions of the specifications.

Qualification of Material Source - There will be no designated material sources, but the source proposed by the Contractor must be approved by the Engineer. The contractor shall furnish evidence of capability to crush and screen the material with suitable equipment.

Measurement and Payment - Measurement and payment to be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Material from the approved source shall meet the following requirements when tested in accordance with the referenced testing standards:

Gradation - Tested by ASTM C 136-67 to meet the following gradation limits:

Sieve Size	Percent Passing
1-3/4"	100.0
7/8"	65-90
3/8"	50-70
No. 4	30-60
No. 40	15-35

Liquid Limit and Plasticity Index **-** Tested by ASTM D423-66 and D 424-59.

Liquid Limit - 30.0 Maximum
Plasticity Index - 10.0 Maximum
Triaxial Classification - Tested by Texas Highway Department Method TEX 117-E, Part II - minimum class 3.0.

Source Quality Control - The contractor shall exercise caution in the operation of the material source to prevent the inclusion of inferior materials.

3. CONSTRUCTION

A. The subgrade shall be finished true to the lines and grades as shown on the plans or as established by the Engineer and finished within specified tolerances and properly maintained to prevent drying and/or loosening of the surface.

No base material may be dumped on any subgrade until it has been tested and approved by the Engineer.

B. Flexible caliche base material shall be placed in uniform courses and processed to provide a uniformly mixed base course of the proper moisture content for compaction. The processing and compaction procedure used shall provide a uniform base course compacted to ninety-five percent (95%) modified proctor density (YACHT T180) minimum. The minimum thickness of any one compacted course shall be three inches (3"). The maximum thickness of any one compacted course shall be eight inches (8").

Any soft or segregated spots that appear in the base shall be removed, replaced or reprocessed and recompacted prior to final finishing of the base. The finished base shall conform to the lines and grades as shown on the plans or established by the Engineer. Finished tolerances shall not exceed one half inch (1/2") in ten feet (10').

The finished base shall be primed as soon after finishing as practical and shall be protected until the hot mix asphaltic concrete surface is applied. In no case will prime be applied until the finished base has been approved by the Engineer.

4. TESTING

A. All test for approval of the source shall be performed by a commercial lab selected by the owner and shall be paid for by the contractor.

B. Gradation and soil constants tests (ASTM C-136, D423 and D424) and THD Triaxial Test (THD TEX117-E Part II) will be performed for source approval. Should the appearance, workability or other visual checks indicate a possible change in the material being furnished, the Engineer may require the contractor to retest the material for source approval.

C. Field quality control test will consist of the finish tolerance test and density test.

The finish tolerance test will be performed by the contractor at his expense using a 10' rolling straight edge. This test shall be performed at the direction of the Engineer or his representative. When required, the test shall consist of checking one path in each lane with the rolling straight edge.

Density test will be made by the City or a commercial laboratory chosen by the City using Troxler 3411-B nuclear density gauges or approved equal at the minimum rate of one test for each 1000 square yards of base. In no case shall less than three tests be run on any one area processed as a unit. The City will bear the cost of the first test or set of tests only. If the base fails the first test the contractor, at his own expense, will be required to have all subsequent tests performed by the commercial laboratory chosen by the city.

8/07

BITUMINOUS PRIME

1. GENERAL

This item consists of the application of a bituminous prime coat to the finished caliche base in accordance with the provisions of the Specifications.

Qualification of Material Source - Material shall be supplied by a producer with a proven performance record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment will be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Cut-back asphalt grade MC-30, Texas Highway Department Item 300.

Source Quality Control - Certificates of compliance to be furnished by the producer to the Engineer.

3. CONSTRUCTION METHODS

Condition of Base - The surface of the base shall be tightly compacted to the line and grade shown on the plans and within the tolerances of the specifications. The surface shall be clean and the base shall contain sufficient moisture to assure the proper penetration of the prime.

The prime shall be applied with an approved distributor to the surface of the base at a rate of between 0.15 and 0.40 gallon per square yard. The application rate shall be varied to meet field conditions and to obtain uniform coverage, and adequate penetration. Properly applied prime coat should penetrate from 3/8" to 1/2" into the base and should cure in approximately 72 hours with ambient temperatures at or near 70 degrees F. The prime shall be applied at a temperature within the range of temperatures recommended in Item 300 of Texas Highway Department Standard Specifications. The temperature shall be varied within this range to provide a viscosity that will assure even spreading and penetration of the base. Air Temperatures at the time of application shall be above 50'F.

BITUMINOUS TACK

1. GENERAL

This item consists of the application of a bituminous tack coat to the primed base or existing asphaltic concrete or Portland cement concrete pavement in accordance with the provisions of the specification.

Qualification of Material Source - Material shall be supplied by producer with a proven performance record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment will be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Cut-back asphalt grade RC-250, Texas Highway Department Item 300.

3. CONSTRUCTION METHODS

Conditions of Surface - Prior to application of tack to the base course the prime must be completely penetrated into the base and the surface cleaned of foreign objects.

The tack shall be applied with an approved distributor at a rate of between 0.05 and 0.10 gallons per square yard. The temperature of application shall be within the range recommended by the Texas Highway Department in Item 300. The surface temperature to which tack is being applied shall be above 50 degrees F. at the time of application.

When the asphaltic concrete surface is being placed on primed caliche base, use of the tack coat may be waived by the Engineer if the contractor can show that adequate adhesion of the surface being placed to the base course is achieved without it.

Tack coat shall be placed on all asphaltic concrete or portland cement concrete surfaces on which an additional course of asphaltic concrete surfacing is to be placed. The tack coat shall be rolled with a pneumatic roller to assure even distribution over the entire surface and to achieve proper penetration into and adhesion to the surface being overlayed.

HOT MIX ASPHALTIC CONCRETE

I. GENERAL

Includes the construction of the hot mix asphaltic concrete surface in accordance with lines, grades and the sections shown on the plans and with the provisions of the specifications.

Qualification of Material Sources - Producers of oil asphaltic concrete mixture to have a proven record of acceptance by the Texas Highway Department.

Measurement and Payment - Measurement and payment to be at the units and price for the applicable bid item in the proposal.

2. MATERIALS

Oil Asphalt - Oil asphalt grade AC-l0 or AC-20, Texas Highway Department Item 300. When no asphalt grade is shown on the plans, and unless directed otherwise by the Engineer, asphalt for this project shall be grade AC-10.

Coarse Aggregate - Crushed stone or crushed gravel with a minimum of 75 percent of the aggregates having two or more crushed faces. Additional requirements:

(a) Los Angeles Abrasion: ASTM C l3l, Wear not to exceed 40.

(b) Decantation: Maximum 2.0 percent by weight

Fine Aggregates - Natural sand and screenings crushed from the same or similar material meeting the requirements of the course aggregates. Additional requirements.

(a) Plasticity Index: Maximum of 6.

(b) Sand Equivalents: Minimum of 50 for each individual fine aggregate.

Paving Mixtures - The paving mixture(s) shall be as shown on the plans and details. If no mixtures are shown on the plans surface or wearing courses up to l-3/4 inches thick shall be Type D, base courses up to 2 inches thick shall be Type C and base courses over 2 inches thick shall be Type B or Type A.

(a) Gradation: The master gradations for the paving mixtures are:

TYPE "A" (Coarse Graded Base Course):	Percent Aggregate by weight or volume
Passing 2" sieve	100
Passing l-3/4" sieve	95 to 100
Passing l-3/4" sieve, retained on 7/8" sieve	16 to 42
Passing 7/8" sieve, retained on 3/8" sieve	16 to 42
Passing 3/8" sieve, retained on No. 4 sieve	10 to 26
Passing No. 4 sieve, retained on No. l0 sieve	5 to 21
Total retained on No. l0 sieve	68 to 84
Passing No. l0 sieve, retained on No. 40 sieve	5 to 21
Passing No. 40 sieve, retained on No. 80 sieve	3 to 16
Passing No. 80 sieve, retained on No. 200 sieve	2 to 16
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

TYPE "B" (Fine graded Base or Leveling-up course)	Percent Aggregate by Weight or Volume
Passing l" sieve	100
Passing 78" sieve	95 to 100
Passing 7/8" sieve, retained on 3/8" sieve	21 to 53
Passing 3/8" sieve, retained on No. 4 sieve	11 to 42
Passing No. 4 sieve, retained on No. l0 sieve	5 to 26
Total retained on No. l0 sieve	58 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 21
Passing No. 80 sieve, retained on No. 200 sieve	3 to 21
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

Type "C" (Coarse Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing 7/8" sieve	100
Passing 5/8" sieve	95 to 100
Passing 5/8" sieve, retained on 3/8" sieve	16 to 42
Passing No. 4 sieve, retained on No. l0 sieve	11 to 37
Total retained on No. l0 sieve	54 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 27
Passing No. 80 sieve, retained on No. 200 Sieve	3 to 27
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 7 percent of the mixture by weight.

TYPE "D" (Fine Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing l/2" sieve	100
Passing 3/8" sieve	85 to 100
Passing 3/8" sieve, retained on 4" sieve	21 to 53
Passing No. 4 sieve, retained on No. l0 sieve	54 to 74
Total retained on No. l0 sieve	54 to 74
Passing No. l0 sieve, retained on No. 40 sieve	6 to 32
Passing No. 40 sieve, retained on No. 80 sieve	4 to 27
Passing No. 80 sieve, retained on No. 200 sieve	3 to 27
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 4 to 8 percent of the mixture by weight.

TYPE "F" (Fine Graded Surface Course):	Percent Aggregate by Weight or Volume
Passing 3/8" sieve	100
Passing No. 4 sieve	95 to 100
Passing No. 4 sieve, retained on No. l0 sieve	58 to 73
Passing No. l0 sieve, retained on No. 40 sieve	6 to 26
Passing No. 40 sieve, retained on No. 80 sieve	3 to 13
Passing No. 80 sieve, retained on No. 200 sieve	2 to 11
Passing No. 200 sieve	1 to 8

The asphaltic material shall form from 3.5 to 6.5 percent of the mixture by weight.

(b) Tolerances: Deviations from job mix formula limited to:

(l) Sizes larger than the l0 sieve- Plus or Minus 4 percent.

(2) No. l0 sieve and smaller - Plus or Minus 3 percent.

(3) The deviation from the job mix formula shall be further limited in that the total deviation from the job mix formula between any two adjacent aggregate grades shall not exceed the allowable deviation for either one.

(4) Asphalt - Plus or Minus 0.3 percent.

(c) Density - The mixture shall be designed to produce an acceptable mixture within tolerance, at or near optimum density. The mixture molded in the laboratory should have the following percent of maximum theoretical density:

Minimum	Maximum	Optimum
96	98	97

(d) Stability: Minimum of 35 Hveem

Source Quality Control - Paving mixture and plant tests to be performed by laboratory selected and paid by the Owner, except as noted.

Job Mix Formula - The contractor shall submit a job mix formula, prepared by laboratory chosen by the owner, at least l0 days in advance of laying operations to allow time for review by the engineer. Substitution of one or more materials will require a new job mix formula and must be approved by the engineer.

The design of job mix formula whether for original submittal or revisions shall be paid for by the contractor.

Plant Tests - Check of raw material uniformity, quality and flow, hot bin gradations, temperature of mixture, mixture tests for density, stability and percent asphalt and other necessary tests to be performed bythe laboratory selected by the owner for each day's production.

Oil Asphalt - Producer to furnish certificates of compliance to the Engineer.

3. CONSTRUCTION METHODS

A. GENERAL

Condition of Base - The surface of the base shall be tight and free of debris. The prime coat shall be uniformly distributed, well penetrated and completely cured prior to application of the tack coat. If the mixture will adhere to the surface of the base without the application of a tack coat, the tack coat can be eliminated. If the surface of the base is one half (l/2") inch or more lower than the proposed bottom of the asphaltic concrete it shall be corrected by placing and compacting a level up course of the asphaltic concrete before the mat is placed on it.

Stockpiling, Storage, Batching and Mixing - Shall meet the requirements of Item 340, "Texas Highway Department l982 Standard Specifications for Road and Bridge Construction.

Weather Limitations - Shall be the requirements of Item 340,"Texas Highway Department l982 Standard Specifications for Road and Bridge Construction." With the added provision that no asphaltic concrete shall be placed when the surface on which the mat is to be placed is below 50 degrees F.

Thickness - Shall be as shown on plans. Unless shown otherwise on the plans, the maximum compacted thickness of any one course of asphaltic concrete shall be two and one-half (2-l/2) times the maximum aggregate size of the mixture being placed. The minimum shall be one (l) inch or one and one fourth (1-1/4) times the maximum particle size which ever is greater.

B. PLACING

Placing of Asphaltic Concrete shall be accomplished using an approved self propelled spreading and finishing machine with a heated vibrating screed capable of producing a surface that will meet the requirements of the typical cross section and the surface test, and when the mixture is dumped directly into the finishing machine shall have adequate power to propel the delivery vehicles in a satisfactory manner. The finishing machine shall be equipped with a flexible spring and/or hydraulic type hitch sufficient in design and capacity to maintain contact between the rear wheels of the hauling equipment and the pusher rollers of the finishing machine while the mixture is being unloaded.

The use of any vehicle which requires dumping directly into the finishing machine and which the finishing machine cannot push or propel in such a manner as to obtain the desired lines and grades without resorting to hand finishing will not be allowed. Vehicles dumping directly or indirectly into the finishing machine shall be so designed and equipped that unloading into the finishing machine can be mechanically and/or automatically operated in such a manner that overloading the finishing machine being used cannot occur and the required lines and grades shall be obtained without resorting to hand finishing.

Automatic screed controls will be required and shall meet the requirements item, 528 "automatic screed controls for asphaltic concrete spreading and finishing machines "Texas Department of Highways and Public Transportation 1982 Specifications for Construction of Highways, Streets and Bridges".

The screed shall be ski controlled using a ski of not less than l8' in length. Curb shoe control will not be allowed.

The spreading and finishing machine shall be maintained in good working order and operated by competent trained personnel.

The Engineer may require the contractor to place a test strip to prove the capability of the machine and the competency of the operating personnel to produce a satisfactory finished surface.

In dips and on curved surfaces where the ski control cannot be used, the surface will be controlled using a l0' straight edge.

Fillet areas, turn outs and other areas not accessible to the spreading machine may be hand laid provided a satisfactory surface is produced.

C. COMPACTION AND FINISHING

Compaction Requirements - The asphaltic concrete surface shall be compacted so that the compacted mixture will contain not more than seven percent (7%) nor less than three percent (3%) air voids.

The surface of the pavement, after compaction, shall be smooth and true to the established line, grade and cross section, and when tested with a l0 foot rolling straightedge, except as provided herein, the maximum deviation shall not exceed l/8 inch in l0 feet, and any surface not meeting this requirement shall be corrected as directed by the engineer.

Raking and Leveling - Minor leveling may be accomplished using asphalt rakes prior to compacting the surface. The surface shall be leveled by loosening the surface of the asphaltic concrete using an asphalt rake then adding or removing material and smoothing the surface. Any large aggregate worked to the surface in this process shall be removed before compaction. The large aggregate shall not be spread over the new asphaltic concrete surface.

Edges and joints with compacted asphalt or concrete gutters shall be carefully squared and excess material removed before compaction. Care shall be taken to see that NO excess material laps over onto the surface of existing asphaltic concrete paving or concrete gutters. Large aggregate worked to the surface in this process shall be removed. It shall not be spread over the new asphaltic concrete surface.

Rolling - In general rolling shall conform to the requirements of item 340 of the Texas Department of Highways and Transportation 1982 Specifications for Construction of Highways, Streets an Bridges except as modified herein.

It shall be the responsibility of the contractor to have rolling equipment available on the job to properly compact the paving mixture in place as required without delay to the lay down operation. Rollers provided shall meet the qualifications for their type as follows:

PNEUMATIC TIRE ROLLERS: The rollers shall be acceptable medium pneumatic tire rollers conforming to the requirements of the item, "Rolling (pneumatic tire)", Type B, unless otherwise specified on plans.

TWO AXLE TANDEM ROLLER: This roller shall be an acceptable power driven tandem roller weighing not less than 8 tons.

THREE WHEEL ROLLER: This roller shall be an acceptable power driven three wheel roller weighing not less than l0 tons.

THREE AXLE TANDEM ROLLER: This roller shall be an acceptable power driven three axle roller weighing not less than l0 tons.

Vibrating rollers will not be used without prior written approval of the engineer. Written approval will be granted only upon demonstration by the contractor that the roller and operator can produce a satisfactory surface within the tolerances of these specifications. Only the operator or operators thus approved will be allowed to operate the vibrating roller on this project.

Areas not accessible to standard rollers shall be compacted using trench rollers, impact tampers, hand tamps or other approved means that will produce the density and surface required.

JOINTS- Shall be carefully rolled to provide compaction of the asphalt against the existing surface or face of the concrete gutter. Joints between concrete gutters and Hot Mix Asphaltic Concrete shall be placed so that the HMAC will be approximately l/2 inch higher than the concrete when compaction is completed. At transverse joints such as valley gutters and fillet areas where finishing asphalt paving 1/2 inch above the edge of concrete will adversely affect ride quality the asphalt shall be finished 1/4 inch above the edge of the concrete.

Transverse joints shall be rolled in the transverse direction with the first pass extending approximately six (6") inches onto the new asphalt each additional pass shall extend approximately twelve (12") inches further onto the new asphalt until the full width of the roller is on the new asphalt. Longitudinal rolling may begin then.

All transverse joints shall be checked with a l0" straight edge while the material is

still hot enough to roll. Any corrections shall be made by loosening the material using an asphalt rake and adding or removing material and recompacting the surface. The surface shall be rechecked and when the joint is acceptable the asphalt spreading machine may proceed with the pass.

Final or finish rolling shall be accomplished using a two axle tandem roller to remove roller marks. This rolling shall be accomplished after the surface has cooled sufficient to minimize further marking but before it is too cool to respond to rolling.

STRAIGHTEDGES AND TEMPLATES - The contractor shall provide acceptable l0 foot straightedge for surface testing. Satisfactory templates shall be provided as required by the Engineer.

4. FIELD QUALITY CONTROL

Test Lots - Field Quality Control Tests shall be made by lot with a lot being the amount of contiguous surface laid in one day. No lot shall exceed l0,000 S.Y. If a days laying exceeds l0,000 S.Y., that days laying shall be divided into two approximately equal lots. The same lot divisions shall be used for all Quality Control Tests. Each separate block or combination of contingeous (blocks) of paving shall be considered as a separate lot even though they may be placed in a single day and do not comprise l0,000 S.Y. of surface.

Surface Tests - Surface tolerance tests will be performed in both longitudinal and transverse directions. The test for longitudinal surface tolerance will be performed with a ten-foot rolling straightedge furnished by the contractor, and calibrated and used in accordance with the manufacturer's recommendation or other approved method.

The maximum allowable deviation in surface shall be 1/8 inch in 10 feet. Tests for longitudinal surface tolerance will be performed by the contractor, accompanied by the engineer within 24 hours of the completion of a lot. One path in each lane for the length of the entire lot will be tested. The location of the test path (Distance from centerline or pavement edge) will be determined by the engineer through the use of random numbers. Any deviations in the surface finish of a roadway wearing course which exceeds l/4 inch must be corrected. After corrections have been made, the entire lot must meet the l/8 inch surface tolerance.

Thin course "scab on" patching will NOT be permitted. Corrections may be made by planning, milling and patching or by removing and replacing affected surface area.

When milling and patching is used to correct surface defects the minimum depth of removal shall be l".

For milling and patching or surface removal the area removed or milled shall be sufficiently large to avoid the appearance of patching.

When planning is used to correct defects the thickness of the remaining paving shall meet the thickness requirements as shown on the plans.

Surface tolerance test will be performed on the last or wearing course only.

Asphaltic concrete pavement constructed under these specifications that does not meet the surface tolerance requirements and is allowed to remain in place will be paid for at a reduced rate determined by multiplying the price bid for the wearing surface course by a surface tolerance quality factor. This rate shall apply to the entire lot.

Lower courses will not be affected by this quality factor but will be paid for at the price bid or such price as it may be affected by other quality factors.

The surface tolerance quality factor will be determined according to the following schedule:

Linear % of pavement exceeding 1/8 inch surface tolerance	Surface tolerance quality factor
0.0 to 1.0	1.0
1.1 to 1.5	0.9
1.6 to 2.5	0.8
over 2.5	0.5

Roadway surface requirements will not be applied for paved drives, aprons, turnouts, and other irregular sections, however, asphaltic concrete shall be placed in such a manner as to provide a neat and uniform appearance and shall be compacted by methods satisfactory to the engineer.

The contractor may request permission to reconstruct a portion of the pavement when, in his opinion, the surface tolerance quality factor can be improved. Upon approval of the engineer, the contractor shall take sufficient tests to isolate the portion or portions of pavement to be pre- constructed and remove and reconstruct the pavement. All costs in connection with this reconstruction are to be born by the contractor. The minimum width of this reconstruction shall be l/2 the street width unless approved otherwise in writing by the engineer. The portions reconstructed shall be re-tested and the surface tolerance quality factor recomputed using the new information along with the test from the area within the portion of the lot not reconstructed.

When other quality factor reductions are provided for on the plans or in the specifications the effect shall be cumulative ie: QFl x QF2 x QF3 x ....x QFn x unit price.

No payment will be made for pavement with a combined quality factor of less than 0.5.

Thickness Test - Thickness test will be made by the engineer on each course of asphaltic concrete laid. Test specimens shall be made by a commercial laboratory selected by the owner. Test specimens shall be cores having a minimum nominal diameter of 6". These cores shall be made in the presence of the inspector at locations designated by the inspector using an approved power operated coring machine.

For thickness and compaction test, each lot shall be divided into approximately equal sublots corresponding in width to each pass of the lay down machine and containing up to but not exceeding 2,000 square yards each. If a lot contains less than 2,000 square yards the engineer may, at his option, divide the lot into two equal sublots, or, if the contractor has a record of satisfactory workmanship, the engineer may waive tests on said lots.

The engineer will locate one test spot for each l,000 S.Y. and/or fraction thereof in each sub-lot using random numbers. If a spot thus located falls within one foot of a longitudinal joint or lip of gutter or within two feet of an unsupported edge or within l5 feet of the beginning or ending edge of a pass, the engineer will relocate the spot using random numbers. The commercial laboratory chosen by the owner will remove the test specimen from each designated spot, mark the specimen and the adjacent pavement for future reference and perform the required tests. Test specimens shall be removed with special caliper type tongs having circular jaws of the diameter of the specimen being removed. These jaws shall grip at least 1/2 of the circumference of the specimen. Screw drivers or other type of prying instruments shall not be used to remove the specimens.

The thickness of a specimen shall be determined by averaging four (4) measurements made at ninety degree (90) intervals around the specimen. Any thickness less than design thickness shall be considered as deficient.

For hot mix asphaltic concrete pavement less than 2 inches thick the maximum allowable deficiency in any one test specimen is l/8 inch provided that no more than twenty five percent (25%) of the specimens tested show a deficiency. For pavement in excess of 2 inches in thickness the maximum allowable deficiency in any one specimen shall be l/8 inch plus l/l6 inch for each additional inch of thickness provided that no more than twenty five percent (25%) of the test specimens show a deficiency.

When a test specimen has a greater deficiency and less than (25%) of the test specimens show a deficiency the contractor shall, at his own expense, determine the extent of the deficiency and correct it by removing and replacing the surface. The minimum width for such correction will be the full width of the pass or passes of the lay down machine in which the deficiency occurs.

The minimum length of such correction shall be three times the width removed. When more than (25%) of the test specimens show a deficiency the surface may at

the engineers option be declared uniformly deficient and the contractor shall correct the deficiency by removing and reconstructing the surface or by constructing an overlay of not less than l inch thickness over the deficient area. The construction of an overlay will require milling at lip lines and dips.

The corrected surface shall meet all the requirements of these specifications.

Asphaltic concrete pavement constructed under these specifications that is less than design thickness, if allowed to remain in place, will be paid for at a reduced rate determined by multiplying the unit price bid in the bid proposal by a thickness quality factor. This rate shall apply to the entire lot in which the deficiency is found.

The thickness quality factor for hot mix asphaltic concrete pavement less than 2 inches in thickness shall be:

Thickness Deficiency	Quality Factor
Maximum l/8" for any one specimen with no more than 25% of the specimens showing a deficiency.	l.0
Pavement not meeting the 25% limitation with an average specimen deficiency up to l/8 inch.	0.75
Average specimen deficiency of l/8 inch to l/4 inch	.55
Average deficiency of more than l/4 inch	0.0

The thickness quality factor for hot mix asphaltic concrete more than 2 inches thick will be l.0 if the maximum deficiency for any one specimen is l/8 inch plus l/l6 inch for each additional inch of thickness over 2 inches and not more than twenty five percent (25%) of the test specimens in the lot are deficient. For thickness test that fall outside this area either by single specimen thickness deficiency or more than twenty five percent (25%) of the specimens showing deficiency the thickness quality factor shall be computed as follows:

$$\text{Thickness Quality Factor} = \frac{1}{\left(\frac{1}{\text{Thickness Ratio}}\right)^2}$$

The thickness ratio for a lot is the average specimen thickness for that lot, with no allowance for thickness in excess of design, divided by the design thickness. For determining the average specimen thickness, those specimens in excess of design thickness shall be considered at design thickness.

The minimum thickness quality factor for which payment will be allowed is .55. Any pavement with a thickness quality factor below .55 will be considered as having a thickness quality factor of 0. This shall apply only if the contractor requests, in writing, to have this paving remain in place and this request is approved in writing by the engineer.

When the deficient area is in a lower course of a multi-course paving structure the contractor may reduce or correct the deficiency by increasing the thickness of the subsequent course or courses as follows:

When subsequent course is	Maximum increase in course thickness
Type B	1/2"
Type C	3/8"
Type D	1/4"

When corrected in this manner the thickness quality factor shall be determined using the combined thickness of the corrected courses and shall apply to all unit prices applicable to this lot.

The contractor may request permission to reconstruct a portion of the pavement when, in his opinion, the thickness quality factor can be improved. Upon approval of the engineer, the contractor shall take sufficient tests to isolate the portion or portions of pavement to be reconstructed and remove and reconstruct the pavement. All cost in connection with this reconstruction are to be born by the contractor. The minimum width of this reconstruction shall be l/2 the street width unless approved otherwise in writing by the engineer. The portions reconstructed shall be retested and the thickness quality factor recomputed using the new information along with the test from the area within the portion of the lot not reconstructed.

When other quality factor reductions are provided for on the plans or in the specifications the effect shall be cumulative ie: QFl x QF2 x QF3 x....x QFn x unit price.

No payment will be made for pavement with a combined quality factor of less than 0.5.

Compaction Test: Compaction test will be made by the commercial laboratory chosen by the owner on the core samples removed from the paving for thickness testing.

The percent air voids will be calculated using maximum theoretical specific gravity of the mixture.

The contractor may attempt to correct deficiencies in compaction by additional pneumatic rolling upon written permission of the engineer. Requests for permission to conduct additional rolling shall be submitted, in writing, to the engineer no later than three days following notification of the deficiency by the commercial laboratory and the additional rolling shall be completed within ten (l0) days following said notification weather permitting.

In no case shall the additional rolling be delayed beyond thirty (30) days from the date the surface was laid. All cost for additional rolling and additional coring and testing of the re-rolled surface shall be born by the contractor.

Asphaltic concrete pavement not meeting this specification and that is allowed to remain in place shall be paid for at a reduced rate determined by multiplying the price bid in the bid proposal by a compaction quality factor determined according to the following schedule:

Percent air voids (average of all specimens for the lot)	Compaction Quality factor	
less than 3	0	
3.0 to 8.0	1.0	
8.1 to 9.0	0.9	
9.1 to 10.0	0.7	
10.1 to 11.0	0.5	and the engineer may require a chip seal to be applied at the contractor's expense
More than 11		0 and the engineer may require a chip seal to be applied at the contractor's expense.

NOTE: HMAC surfacing with between 11% and 15% air voids may, upon written request by the Contractor, be reviewed by the Engineer to determine if it may be left in place. The Engineer's review will consider the type of street and expected traffic conditions among other factors and a written determination will be issued. If the surface is allowed to remain in place, a chip seal will be required at the Contractor's expense. The quality factor for this paving will remain at 0.

The reduced rate shall apply to the entire lot.

The effect of compaction quality factors shall be cumulative and shall be applied as described for surface quality factors and thickness quality factors.

Cost for Field Quality Control - The surface tolerance test shall be made by the contractor at his expense.

The initial thickness and compaction test will be made at no cost to the contractor except for the cost of materials and labor to repair the holes left when cores are removed.

The cost of all thickness test to isolate a deficient area and the cost of retesting the corrected area shall be born by the contractor.

The cost of all retesting of compaction after additional rolling to correct compaction deficiencies shall be born by the contractor.

Areas reconstructed to remedy deficiencies shall meet all the requirements of these specifications and shall be tested in the same manner as original construction. The cost of all tests on reconstructed areas shall be born by the contractor.

5. ADDITIVES

Anti-stripping: An approved liquid anti-stripping agent shall be added to the asphalt used in the hot mix asphaltic concrete. The rate of application shall be in accordance with the manufacturer's recommendation. The minimum anti-stripping agent added shall be one-half (l/2) of l%.

The anti-stripping agent used shall have a proven record when used with similar aggregate and shall be approved by the engineer in writing prior to the date set for reception of bids.

DOUBLE COURSE ASPHALT SURFACE TREATMENT

1. SCOPE

The work to be done under this section consists of furnishing all labor, materials and equipment necessary to construct a Double Asphalt Surface Treatment on the prepared base course in accordance with the sections shown on the plans and as specified herein or as directed by the Engineer.

2. MATERIALS

2.1 Asphalt

The asphalt used shall be of the grade and type specified below. The material shall be homogeneous and free from water, shall not foam when heated to 347° F., and shall meet the following requirements.

Viscosity Grade AC-5
Texas Highway Department 1982 Specifications

Viscosity 140 F. Stokes	500 +/- 100	
	Min.	Max.
Viscosity 140 F. Stokes	1.4	--
Penetration 77° F. 100 g. 5 sec.	135	--
Flash Point C.O.C.F.	425	--
Solubility in trichlorethylene percent	99.0	--

Tests on residues from thin film oven test:

Viscosity 140 F. Stokes	--	1500
Ductility, 77° F. 5 cms per min. cms.	100	--

Spot Test – negative for all grades.

2.2 Aggregate

All aggregate shall be composed of sound and durable particles of crushed stone or crushed gravel. At least eighty-five percent (85%) of the particles of the aggregate retained on the No. 4 sieve shall have one or more crushed faces. Aggregate particles shall be free from organic matter, clay, loam, or pebbles coated therewith, and shall not contain more that (5%) of slate, shale, schist or soft particles of sandstone. The aggregates shall have a percent of wear of not more than thirty-five (35). (Los Angeles Abrasion Tests of Coarse Aggregate, AASHO Designation

T-96 as revised). Crushed limestone will not be acceptable for this project.

Double Asphalt Surface Treatment

No. 1 Aggregate – (Texas Highway Department 1982 Grade 3)	Retained on ¾" Sieve -	0% by weight
	Retained on 5/8" Sieve -	0 – 2% by weight
	Retained on ½" Sieve -	20, 35% by weight
	Retained on 3/8" Sieve -	85 – 100% by weight
	Retained on ¼" Sieve	95 – 100% by weight
	Retained on No. 10 Sieve-	99-100% by weight

No. 2 Aggregate - (Texas Highway Department 1982 Grade 5)	Retained on ½" Sieve -	0% by weight
	Retained on 3/8" Sieve -	0 – 5% by weight
	Retained on No. 4 Sieve -	40 – 85% by weight
	retained on No. 10 Sieve -	98 –100% by weight
	Retained on No. 20 Sieve-	99 100% by weight

3. CONSTRUCTION METHODS

3.1 Preparation of base

If the surface of the base course is not in proper condition for placement of surfacing, it shall first be brought true to the section and grade as established. The base shall be checked, and any deviation in excess of ¼-inch from grade or from true cross section shall be corrected by scarifying then adding or removing material, reshaping and re-compacting by sprinkling and rolling. No "scab" or "featheredge" patches will be permitted. After correction of any defects in the base, it shall be cleaned of dirt, dust, or other deleterious material by sweeping or other approved methods and primed.

The base course shall be primed with MC-30 Asphalt as directed by the Engineer. The asphalt used shall meet the 1982 Texas Highway Department Specifications Item 300.

The base course shall be checked at least 24 hours in advance of placing the surfacing and any defects shall be repaired and re-primed. Immediately prior to placing the surfacing, the base shall be cleaned of all dirt, dust, or other deleterious materials by sweeping with rotary and hand brooms or other approved methods.

Prime coats shall not be applied more than 7 days in advance of placing the surface course. Areas that have been primed longer than the time

specified above prior to placing the surface course shall be re-primed at the Contractor's expense.

3.2 Handling and Applying Asphalt

All storage tanks, piping, retorts, booster tanks, and distributors used in storing or handling asphalt shall be kept clean and in good operating condition at all times, and they shall be operated in such a manner that there will be no contamination of the asphalt with foreign material. Asphalt shall not be heated above 400° F. at any time, and when applied, it shall be at a temperature of not less than 300° F. and not more than 350° F. The Engineer will select the temperature of application, and the Contractor shall apply the asphalt at a temperature within 15° of the temperature selected. All asphalt material heated above 400° F. will be rejected. Re-circulating heating equipment shall be equipped with recording temperature gauges.

The prime coat shall not be applied when the air temperature is below 50° F. and falling or when in the opinion of the Engineer weather conditions are not suitable. Prime coat shall not be applied when the temperature of the surface on which it is to be applied is less than 40° F. The prime coat shall be applied at least 24 hours in advance of placing the surface course. Prime coat shall be applied with an approved distributor at a rate of 0.30 gallon per square yard, or as directed by the Engineer.

Double Asphalt Surface Treatment shall not be applied when the temperature of the surface on which it is to be placed is below 50° F. and is falling but may be applied when the air temperature is above 40° F. and rising. No asphalt shall be placed when general weather conditions, in the opinion of the engineer, are unsuitable. No double asphalt surface treatment shall be placed from September 30 to April 15.

Asphalt shall be applied on the clean surface by an approved type of self-propelled pressure distributor so operated as to distribute the material in the quantity specified, evenly and smoothly, under a pressure necessary for proper distribution. The Contractor shall provide necessary facilities for determining the temperature of the asphalt in all of the heating equipment and in the distributor, for determining the rate and pressure at which it is applied, and for securing uniformity at the junction of two distributor loads. The beginning and ending of each shot of asphalt shall start and stop on a strip of heavy craft paper of not less than thirty (30) inches in width.

In areas inaccessible to the distributor, asphalt shall be applied by means of a hose and spray nozzles attached to the distributor. Care shall be

taken during application of any asphalt to shield the curb and gutter from the asphalt spray; satisfactory means of handling this matter will be insisted upon.

3.3 Application of Aggregate

Immediately after making the first application of asphalt, the surface shall be covered with No. 1 aggregate. The aggregate shall be spread with an approved self-propelled continuous feet aggregate spreader box, or approved equal, at rates as specified below or as directed by the Engineer. If necessary to obtain uniform distribution of aggregates, hand brooming and hand spotting of aggregates will be required. After completion of placing the aggregates, all areas shall be bull-wheeled with a three- wheeled roller weighing not less than 8 tons followed immediately by two complete passes with an approved self propelled pneumatic roller.

The second application of asphalt shall then be made and the No. 2 aggregate shall be applied in the same manner as stated above for the No. 1 aggregate. The Contractor shall be responsible for the maintenance of the surface and the distribution of the excess aggregate until the work is accepted.

On the two successive days following completion of the work as specified above, all areas shall be rolled with at least four complete coverage's with a pneumatic roller. This rolling shall be done in the warm part of the day.

3.4 Rate of Application of Materials

The asphalt and aggregate shall be applied at the rates specified in the following schedule:

Double Asphalt Surface Treatment

Application	Aggregate Gal. Asphalt/Sq. Yd.	Aggregate Cu. Yd. To Sq. Yds.	Designation
First	0.30	1:70	No. 1
Second	0.40	1:110	No. 2

3.5 Cleanup

After completion of the asphalt surfacing, all debris resulting from the construction shall be cleaned up and removed from the site of the work to

an approved place of disposal. The ditches, shoulders and back slopes shall be bladed and graded to true grades and cross sections as shown on the plans. The entire premises of the work shall be left in a clean condition satisfactory to the Engineer, and all costs of cleanup shall be included in the contract unit prices for the items of work involved.

DOUBLE COURSE ASPHALT SURFACE TREATMENT 1
1. SCOPE 1
2. MATERIALS 1
2.1 Asphalt 1
Viscosity Grade AC-5 1
Texas Highway Department 1982 Specifications 1
Viscosity 140 F. Stokes 1.4 --..... 1
2.2 Aggregate 1
Double Asphalt Surface Treatment 2
3. CONSTRUCTION METHODS 2
3.1 Preparation of base 2
3.2 Handling and Applying Asphalt 3
3.3 Application of Aggregate 4
3.4 Rate of Application of Materials 4
Double Asphalt Surface Treatment 4
3.5 Cleanup 4

3/2006

PREPARATION OF ASPHALTIC CONCRETE SURFACE FOR OVERLAY OR SEAL COAT

1. GENERAL

This item includes patching, milling and incidentals to prepare the asphaltic concrete surface for tack coating and overlay or for application of a seal coat.

2. MATERIALS

a. Asphalt

Asphalt for hot mix asphaltic concrete shall be Grade ACl0 Texas Highway Department Item 300.

Asphaltic concrete shall be Type D or Type F Texas Highway Department Item 340 except when the overlay is the second phase of phased construction in which case the asphaltic concrete for full depth patching shall be the grade as shown on the plans.

b. Portland Cement Stabilized Base

Cement stabilized base shall conform to Texas Highway Department Item 274 and shall consist of caliche base materials described in Section 2-C of this specification. Stabilized using 2 sacks of Portland cement per cubic yard. Cement stabilized base may be blade mixed at or near the job site if the contractor can produce a uniformly mixed acceptable product by this method.

3. PATCHING

a. Patching Surface Raveling

Where, in the opinion of the engineer, surface raveling has caused sufficient loss of material to require patching, the contractor shall thoroughly clean the area to be patched by brooming, and/or compressed air nozzle. When the patched area is completely free of loose aggregate and other foreign matter the contractor shall lightly brush the area with emulsified asphalt type SS1 and apply Type F hot mix asphaltic concrete. The asphaltic concrete shall be raked using an asphalt rake and finished smooth a little higher than the existing surrounding surface and compacted using a steel wheel roller and/or a pneumatic roller. Rollers shall be sufficient size and weight to achieve

adequate compaction. Small areas may be compacted using vibrating plate compacters when approved by the Engineer.

b. Patching Deteriorated Surface

When, in the opinion of the engineer, the surface has deteriorated to a point where replacement is required the engineer shall mark the area to be removed and replaced. The contractor shall saw cut for the full depth of the asphaltic concrete and remove said pavement. The saw cut shall be rectangular in shape with the edges being parallel to and at 90` to the centerline of the street. The minimum width for any patch shall be one (l') foot. After the surface has been removed the base shall be carefully smoothed and all loose base material shall be removed. When needed the base shall be reprimed using a light shot of RC 250 or MC 30 asphalt. After the prime coat has penetrated the base material, the contractor shall apply tack coat to the sawed edges of the surface and place Type D asphaltic concrete to a sufficient depth above the existing surface to provide a compacted surface slightly higher than the adjacent surface. The patch shall be compacted to a density of 92% to 97% Rice density using steel wheel and or pneumatic rollers.

c. Patching Deteriorated Substructure

When the base and or subgrade have failed and are to be removed, the contractor shall remove the surface as specified for deteriorated surface patching. The weakened base shall be removed to a uniform depth to expose undamaged base or subgrade. The minimum depth of removal shall be six (6") inches. The base and subgrade thus removed shall be replaced with Portland cement stabilize base and compacted to 95% modified proctor density and finished at the level of the abutting base. The finished base shall be primed and the surface replaced as specified for patching deteriorated surface.

4. MILLING

Surface milling shall be accomplished using approved asphalt milling machines. The maximum depth of milling shall be one (l") inch.

Milling shall be as directed by the engineer to remove asphaltic concrete placed at valley gutters, gutters and at the ends of the first phase of phased construction for drainage and to remove the asphaltic concrete placed for a smooth connection between that phase and the existing paving. The Engineer may also direct milling to

remove ridges and ruts that have formed on the pavement surface.

The Contractor shall be responsible for controlling the milling operation so that only these areas which require milling are milled. No measurement or payment will be made for milling where only superficial surface marks are left and from which no material is removed. When milling is required to remove ridges and ruts the low areas between ridges and ruts will be considered as "milled surface" for payment.

If a smooth straight joint can not be made by milling the contractor may be required to saw cut a one (l") inch depth groove at the edge of the milled area and remove material between the saw cut and the milled area by hand. No separate payment will be made for this saw cut when required.

5. MEASUREMENT AND PAYMENT

a. Patching Surface Raveling

Measurement will be made of the actual square footage of surface area patched. Payment will be made at the price bid per square foot for patching surface raveling in the bid proposal.

b. Patching Deteriorated Surface

Measurement will be made of the square yards of street surface replaced.

Payment will be made for the actual number of square yards of street surface replaced at the price bid per square yard for patching deteriorated surface in the bid proposal.

c. Portland Cement Stabilized Base

Measurement will be made of the actual cubic yards of compacted cement stabilized base in place.

Payment will be made at the price per cubic yard bid for compacted in place Portland cement stabilized base in the bid proposal.

d. Saw Cutting

Measurement will be made of the actual length of full depth saw cut made as directed by the engineer. No measurement will be made of the sawing required to square up poor milling edges.

Payment will be made at the price per linear foot of full depth saw cutting for the actual number of feet of saw cut as measured above.

No payment will be made for saw cutting required to square up the edges left by improper, inadequate or poor quality milling.

e. Milling

Measurement will be made of the actual area milled. No measurement will be made of areas where milling leaves only superficial surface marks from which no material was removed.

Payment will be made for the actual number of square yards of surface milling as measured above at the unit price bid per square yard of surface milling in the bid proposal.

01/04

SEAL COAT

I. DESCRIPTION

This item shall consist of the application of liquid asphalt to the existing pavement surface followed by placement of cover aggregate and rolled to increase adhesion, together with other operations necessary to form a complete durable seal coat.

II. MATERIALS

A. Asphaltic Materials

The material shall be homogeneous, shall be free from water, shall not foam when heated to 347 degrees F and shall meet the following requirements:

		VISCOSITY GRADE	
TEST		AC-5 Min/Max	AC-10 Min/Max
Viscosity, 140 F stokes		500+100	1000+200
Viscosity, 275 stokes		1.4	1.9
Penetration, 77F, 100g, 5 sec.		135	85
Flash Point, C.O.C.F.		425	450
Solubility in trichlorethylene	%	99.0	99.0
Tests on residues from thin film oven test: Viscosity, 140 F stokes		1500	3000
Ductility, 77 F 5cms per min, cms		100	70
Spot Test		Negative for all grades	

B. Storage, Heating and Application Temperatures

Asphalt materials should be applied at the temperature which provides proper and uniform distribution and within practical limits avoiding higher temperatures than necessary. Satisfactory application usually should be obtained within the recommended ranges shown below. No material shall be heated above the following maximum temperatures:

Applications and Mixing

TYPE-GRADE	Recommended Range, F	Maximum Allowable, F	Heating and Storage Maximum, F
AC-5, 10	275-350	375	400

NOTE:Heating of asphalt materials (except emulsions) constitutes a fire hazard to various degrees. Proper precautions should be used in all cases and especially with RC cutbacks.

Warning to Contractors: Attention is called to the fact that asphaltic materials are very flammable. The utmost care shall be taken to prevent open flames from coming in contact with the asphaltic materials or the gases of same. The Contractor shall be responsible for damages from any fires or accidents which may result from heating the asphaltic materials.

C. Additives

1. Latex Additive: A minimum of two percent by weight latex additive (solids basis) shall be added to AC-5 asphalt when specified on the plans or in other specifications in the contract. The latex additive shall be governed by the following specifications:

The latex is to be an anionic emulsion of butadiene-styrene low-temperature copolymer in water, stabilized with fatty-acid soap so as to have good storage stability, and possessing the following properties:

Monomer ratio, B/S 70/30
Minimum solids content 67%
Solids content per gal @ 67% ..... 5.3 lbs
Coagulum on 80-mesh screen ..... 0.1% max

Type Anti-oxidant ..... staining
Mooney Viscosity of Polymer
(M/L4 @ 212 F) ....100 min
pH of Latex ..... 9.4 - 10.5
Surface Tension ..... 28-42 dynes/cm^2
Brookfield Viscosity
of Latex ..... 1200 ps max @ 67% solids

The finished latex-asphalt shall meet the following requirements:

Viscosity at 140 F, stokes ..... 1500 max
Ductility at 39.2F, 1cm per min, cm..... 100 min

2. Anti-stripping Agent. An approved liquid anti-stripping agent shall be added to the asphalt used on this project when called for on the plans or elsewhere in the specifications or bid proposal. The rate of application shall be in accordance with the manufacturers recommendations. The minimum anti-stripping agent added shall be one/half (1/2) of 1%. The anti-stripping agent shall be Permatac or approved equal.

D. Regular Aggregate

Regular aggregate shall be Type B Grade 4 or Grade 5 crushed gravel, or crushed stone as specified in Item 302 of the Texas State Department of Highways and Public Transportation (T.S.D.H.P.T.) 1982 Standard Specification for Construction of Highways, Streets, and Bridges with the following exceptions:

1. Limestone other than natural limestone rock asphalt will not be approved for use on this project.

2. Aggregate shall contain not more than 1% by weight of organic matter, clays, loam or pebbles coated therewith and shall contain not more than 5% by weight of any one of or combination of slate, shale, schist or soft particles of sandstone when tested in accordance with Test Method Tex-217-F.

3. Aggregate Gradation, expressed as a percentage of weight, shall be as follows:

Grade 4	Percent by Weight		
Retained on 5/8" sieve			0
Retained on 1/2" sieve	0	-	2
Retained on 3/8" sieve	5	-	35
Retained on No. 4 sieve	80	-	100
Retained on No. 10 sieve	98	-	100
Passing No. 200 sieve	0	-	0.5

Grade 5	Percent by Weight		
Retained on 1/2" sieve			0
Retained on 3/8" sieve	0	-	5
Retained on No. 4 sieve	40	-	85
Retained on No. 10 sieve	98	-	100
Retained on No. 20 sieve	99	-	100

When no aggregate grade is shown on the plans or called for elsewhere in the specifications or bid proposal, Grade 5 aggregate will be furnished.

4. The percent of wear, as determined by ASTM C-131, shall not exceed 25%.

5. The percent loss of the aggregate, as determined by ASTM C-88 using a magnesium sulfate solution and a four cycle test, shall not exceed 30%.

E. Precoated Aggregate

Precoated aggregate shall be Type PB Grade 4 or Grade 5 crushed gravel, or crushed stone as specified in Item 304 of the T.S.D.H.P.T. 1982 Standard Specification for Construction of Highways, Streets, and Bridges with the following exceptions:

1. Those exceptions listed in Paragraph II 2(B) above.

2. The precoated aggregate shall be coated with 1.0 to 2.0 per cent by weight of asphaltic cement of Grade AC-20.

F. Joint Paper

Paper used for starting and stopping asphalt application, as well as making fabricated paper discs to protect manhole covers and valve covers, shall be a non-absorbent, high grade 60# Kraft paper, 30" in width.

The contractor shall cover all manhole and valve box lids with paper discs, furnished by Contractor, immediately before application of asphalt and remove same immediately after application of rock.

G. Delivery Tickets

A legible copy of the delivery tickets for all materials to be used on this project shall be furnished to the City's representative at the time materials are delivered to the project stock pile and storage site.

III. CONSTRUCTION METHODS

A. Equipment

In general, all equipment used on this project shall be in good working order and in sufficient quantity to insure proper expedition of the seal operation.

1. Asphalt Handling Equipment

The asphalt distributor shall have been recently calibrated and the Engineer shall be furnished an accurate and satisfactory record of such calibration. The distributor shall be an approved type of self-propelled pressure distributor so operated as to distribute the material in the quantity specified, evenly and smoothly, under a pressure necessary for proper distribution. The Contractor shall provide all necessary facilities for determining the temperature of the asphaltic material in all of the heating equipment and in the distributor, for determining the rate at which asphalt is applied, and for securing uniformity at the junction of two distributor loads. All storage tanks, piping, retorts, booster tanks, and distributors used in storing or handling asphaltic material shall be kept clean and in good operating

condition at all times, and they shall be operated in such manner that there will be no contamination of the asphalt with foreign material. It shall be the responsibility of the Contractor to provide and maintain in good working order a recording thermometer at the storage heating unit at all times.

2. Drag Broom

A drag broom shall be required if the aggregate is not properly distributed. The drag broom shall be furnished at no additional cost to the City.

3. Pneumatic-tire Roller

Pneumatic-tire rollers shall be of the self-propelled type consisting of not less than 7 pneumatic-tired wheels, running on axles in such manner that the rear group of tires will not follow in the tracks of the forward group, and mounted on a rigid frame and provided with a loading platform or body suitable for ballast loading. The roller shall be not less that 10 tons in weight and carry not less than 50 pounds pressure in each tire.

4. Aggregate Spreader

Aggregate spreader shall be an approved self-propelled continuous feed aggregate spreader. The spreader shall be equipped with a disposable trash box for placing debris removed from spreader box scalping screen.

5. Miscellaneous Equipment

The Contractor shall have available for immediate use at no additional cost one rock blade and one drag broom if their use is required by the Engineer. These pieces of equipment shall not be pulled by rollers. In addition, the Contractor shall furnish one tail gate aggregate spreader and one dump truck, equipped to receive the tail gate spreader.

6. Truck Scale

A truck scale conforming to the requirements of item 520 of "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges" shall be furnished by the Contractor at aggregate stockpile sites.

B. Surface Preparation

The City of Midland will sweep all streets to be sealed ahead of the Contractor. This sweeping by the City of Midland is not intended to be a final cleaning preparation for the application of asphalt but is intended as an aid to the Contractor.

Prior to placing the seal coat, loose dirt and other objectionable material shall be removed from the existing surface by the Contractor. The surface will be cleaned with rotary brooms. Hand brooms will be used in areas not accessible to the rotary broom. The Engineer shall approve all streets before application of any asphalt.

C. Application of Bituminous Material

Paper shall be spread on the surface for a sufficient distance back form the end of each application so that flow through sprays may be started and stopped on the paper, and so that all sprays will operate properly over the entire length being treated.

No asphaltic material shall be applied when the total of air temperature plus pavement surface temperature is less than 120" F.

No equipment or vehicular traffic shall be allowed to cross over joint paper in place, except the distributor.

Immediately following the application of asphaltic material, the Contractor shall remove all joint paper and load same on a designated vehicle. At the end of each day, all paper shall be disposed of at the City Landfill.

Following all preparation outlined above, the Contractor shall immediately apply asphaltic materials at the specified rates and temperatures designated by the Engineer.

If the Contractor employs only one distributor in the seal operation, he shall be required to seal all designated filets and street stubs in the seal area before moving to another section of the City. If two distributors are used, one distributor will be employed only to seal filets and street stubs.

The use of a second distributor to seal filets and street stubs shall require the following additional equipment; one dump truck equipped with tailgate spreader, and one self-propelled pneumatic roller. All rolling shall be deferred until aggregate is dry.

D. Application of Aggregate

Aggregate shall be immediately and uniformly applied and spread by an approved self-propelled continuous-feed aggregate -8- spreader, unless otherwise authorized by the Engineer. Aggregate shall be applied at the approximately rate directed by the Engineer.

Vehicles used to transport aggregate from stockpiled area to spreading machine shall be weighed and a weight ticket issued for each load. Weight tickets shall show truck identification No., tare weight of truck, gross weight, and net weight of aggregate. The weight ticket shall be delivered to the city's representative at the aggregate spreader.

E. Rolling

A minimum of three (3) rollers shall be employed by the Contractor. Rolling shall be controlled by the Engineer during the entire project. The speed of all rollers will be held to a maximum of 5 miles per hour during the rolling process. When surface moisture is present on aggregate, "Rolling shall be deferred until aggregate is dry.

F. Stockpiling

All aggregate stockpiles shall be placed on a paved surface or areas acceptable to the Engineer.

When dust from the aggregate creates a nuisance or when aggregate fails to adhere to the asphalt the Engineer may require the Contractor to "water down" the aggregate stock pile.

When, directed by the Engineer, or desired by the Contractor, aggregate stockpiles will be "watered down". When the "watered down" aggregate does not adhere to the asphalt properly the Engineer may direct that water for this purpose contain 5% EA10S emulsified asphalt and/or an approved wetting agent. The Engineer may direct the contractor to increase the amount of emulsified asphalt added to the water if, in his opinion, desired results are not being achieved. No separate payment shall be made for emulsified asphalt, water or wetting agent but the cost shall be considered as an incidental cost for furnishing satisfactory aggregate.

G. Cleanup

Clean up shall be maintained on a timely manner as the work progresses. All debris scattered on the sidewalks and driveways shall be swept up by the Contractor. Sweeping debris onto freshly sealed streets shall not be allowed.

City forces will remove excess aggregate from the street and gutters after the project is completed.

H. Maintenance

The Contractor will be required to maintain all sealed streets until final acceptance of the project by the Engineer. Maintenance shall consist of adding additional coverstone when required, rolling, pony blading, or drag brooming.

IV. MEASUREMENT

Asphaltic material shall be measured in gallons at the applied temperature at the point of application.

Aggregate shall be measured by the ton in vehicles as delivered to the aggregate spreader and applied on the street. Trucks will not be allowed to leave the construction area with a partial load. If it becomes necessary for a truck to leave the area because of mechanical failure or other reasons, a second weigh ticket for that truck will be required.

Rolling shall be measured by the hours of actual rolling for each roller.

V. PAYMENT

Payment shall be made as provided under "Measurement" at the unit price bid for "aggregate", "asphalt", and "rolling" and shall be full compensation for furnishing and incorporating the materials "Aggregate" and "Asphalt" (and additives where applicable) into a composite product; for delivering, stockpiling; for brooming, compaction, and rolling; for cleaning the existing surface; for cleaning excess bituminous material; cleaning gutters; for cleaning sidewalks and driveways; for cleaning stockpile sites; for all required maintenance; for pony blading; for drag brooming; for adding additional cover aggregate; for all labor, equipment, supervision, tools, overhead, profit, and any other incidentals necessary to complete the work required under the conditions of these plans and specifications to the satisfaction of the Engineer.

08/07

ASPHALT - RUBBER SEAL COAT

(Stress Absorbing Membrane)

1. SCOPE

This specification covers the material, equipment, and construction procedures for a Stress Absorbing Membrane (seal coat).

2. PREQUALIFICATION OF A NEW ASPHALT-RUBBER MATERIAL

Pre-qualification of a new asphalt-rubber material or applicator may be requested at any time. Pre-qualification will be based on three controlled field applications evaluated after three years' performance under traffic. New asphalt-rubber material that has been evaluated and pre-qualified by an agency recognized nationally may be pre-qualified by that agency upon disclosure of suitable evidence of successful performance. Notwithstanding other agency pre-qualification, the City reserves the right to withhold pre-qualification pending the performance evaluation of local controlled field applications.

3. MATERIALS

3.1 Asphalt

The grade of asphalt cement for the asphalt-rubber mixture shall be AC - 5 or AC - 10 which shall comply with the requirements of Item 300 "Asphalt, oils and emulsions" of Texas State Department of Highways and Public Transportation 1982 Standard Specification for Construction of Highways, Streets and Bridges. The grade selected shall be based on laboratory testing by the asphalt-rubber supplier, to insure compatibility with the granulated reclaimed rubber.

If indicated necessary by laboratory testing, an approved anti-stripping additive may be added to the asphalt cement up to 1.0 percent by weight of asphalt.

3.2 Granulated Reclaimed Rubber

The granulated reclaimed rubber used shall be produced primarily from the processing of automobile and truck tires. The rubber shall be produced by ambient temperature grinding processes only.

The gradation of the granulated reclaimed rubber when tested in accordance with ASTM C-136 and using a 50 gram +/- 1 gram sample, shall meet the

following requirements:

Sieve Sizes	Percent Passing
#8	100
#10	95 - 100
#16	40 - 60
#30	0 - 10
#50	0 - 5

The use of rubber from multiple sources is acceptable provided that the overall blend of rubber meets the gradation requirements.

The individual granulated rubber particles, irrespective of diameter, shall not be greater in length than 3/16 inch (5mm).

The granulated rubber shall have a specific gravity of 1.15 +/- 0.05 and shall be free of loose fabric, wire and other contaminants except that up to 4 percent (by weight of rubber) calcium carbonate or talc may be added to prevent rubber particles from sticking together. The rubber shall be sufficiently dry so as to be free flowing and not produce a foaming problem when blended with the hot asphalt cement.

The granulated reclaimed rubber shall be accepted by certification from the rubber supplier.

3.3 **Diluent**

The diluent shall have the following properties:

Flash Point	130^{o} F Minimum
Initial Boiling Point (ASTM D-86)	340^{o} F Minimum
Dry Point (ASTM D-86)	390^{o} - 415^{o} F
Total Saturates	85% Minimum

3.4 **Asphalt - Rubber**

The asphalt-rubber supplier shall furnish to the engineer a minimum of 10 days before the beginning of membrane placement, the asphalt-rubber mix formulation which shall contain the following information:

Asphalt Cement
Source of Asphalt Cement

Grade of Asphalt Cement
Percentage of Asphalt Cement by total weight of the asphalt-rubber mixture.

Granulated Reclaimed Rubber
Source of Granulated Rubber
Grade of Granulated Rubber
Percentage of Granulated Rubber by total weight of the asphalt-rubber mixture.

If granulated rubber from more than one source is utilized the above information will be required for each granulated rubber used.

Diluent
Source of Diluent
Grade of Diluent
Percentage of Diluent allowable by volume of the asphalt-rubber mixture.

3.5 **Cover Aggregate**

Aggregate shall be composed of a clean and durable crushed rock, crushed gravel or crushed slag conforming to Item 304 "Aggregate for Surface Treatments (pre-coated)" of Texas State Department of Highways and Public Transportation 1982 Standard Specification for Construction of Highways, Streets and Bridges, grade No. 3 or No. 4.

Proposed aggregate samples shall be submitted to the asphalt-rubber supplier a minimum of 21 days prior to application, to test for aggregate stripping characteristics. The results shall be submitted to the engineer. Anti-strip will be included as a contingency bid item.

4. **EQUIPMENT**

4.1 **General**

The equipment used by the contractor shall include a self propelled rotary power broom or mobile pickup broom for pavement cleaning and excess cover material removal.

4.2 **Asphalt-Rubber Equipment**

All equipment utilized in the production and application of the asphalt-rubber shall be so designed and accessible that the Engineer can readily determine

the percentage by weight for each material being incorporated into the mixture and shall be as described as follows:

4.2.1 An asphalt heating tank with a hot oil heat transfer system or retort heating system capable of heating asphalt cement to the necessary temperature for blending with the granulated rubber. This unit shall be capable of heating a minimum of 3,000 gallons of asphalt cement.

4.2.2 An asphalt-rubber mechanical blender with a two stage continuous mixing process capable of producing a homogenous mixture of asphalt cement and granulated rubber, at the mix design specified ratios, as directed by the engineer. This unit shall be equipped with a granulated rubber feed system capable of supplying the asphalt cement feed system, as not to interrupt the continuity of the blending process. A separate asphalt cement feed pump and finished product pump are required. This unit shall have both an asphalt cement totaling meter in gallons and a flow rate meter in gallons per minute.

4.2.3 A truck mounted self powered distributor truck equipped with a retort heating unit, and an internal mixing device capable of maintaining a uniform mixture of asphalt cement and granulated rubber. It shall be equipped with a full circulating spreader bar and a pumping system capable of applying asphalt-rubber material within +/- .05 gallons per square yard tolerance of the specified application rate and must give a uniform covering of the surface to be treated. The distributor shall have a boot board on the rear of the vehicle and a bootman shall accompany the distributor. The bootman shall ride in a position so that all spray bar tips are in full view and readily accessible for unplugging if a plugged tip should occur. The distributor shall also include a tachometer, pressure gauge, volume measuring device and a thermometer.

4.3 Cover Material Spreader

The cover material (chip) spreader shall be a self-propelled machine with an aggregate receiving hopper in the rear, belt conveyors to carry the aggregate to the front, and a spreading hopper equipped with a full-width distribution auger and spread roll. The spreader shall be in good mechanical condition and be capable of applying the cover material uniformly across the spread at the specified rate.

4.4 Rolling Equipment

A minimum of three operational self-propelled pneumatic-tired rollers shall be used for the required rolling of the cover material. The pneumatic tired rollers shall carry a minimum loading of 3,000 pounds on each wheel and a

minimum air pressure of 100 pounds per square inch in each tire.

4.5 **Hauling Equipment**

Trucks for hauling cover material shall be tailgate discharge and shall be equipped with a device to lock onto the hitch at the rear of the cover material spreader. Haul trucks shall also be compatible with the cover aggregate spreader so that the dump bed will not push down on the spreader when fully raised or have too short a bed which results in aggregate spillage while dumping into the receiving hopper.

5. **CONSTRUCTION**

5.1 **General**

Streets to receive the asphalt-rubber stress absorbing membrane or seal coat shall be prepared in accord with Section 2-C-1 "Preparation of Asphaltic Concrete Surface for Overlay or Seal Coat" of these specifications.

Immediately prior to the application of the asphalt-rubber membrane, the surface shall be thoroughly cleaned in order to insure adequate adhesion of the asphalt-rubber to the pavement.

Due to the handling characteristics of asphalt-rubber, when radii and other irregular areas are to be sealed it is recommended that this be done with an RS or CRS chip seal emulsion or paving grade asphalt cement.

5.2 **Asphalt-Rubber Mixing and Reaction**

The percentage of granulated rubber shall be 23 percent plus or minus 3 percent by weight of total asphalt-rubber mixture, the exact granulated rubber content shall be as determined by the mix design submitted by the asphalt-rubber supplier. During membrane placement the granulated rubber percentage shall not fluctuate more than 1 percent by weight of total asphalt-rubber mixture.

The temperature of the asphalt cement shall be between 350^{o} and 400^{o} F at the addition of the granulated rubber. The asphalt and rubber shall be combined and mixed together in the asphalt-rubber blending unit and reacted in the distributor for a period of time as required by the engineer which shall be based on laboratory testing by the asphalt-rubber supplier. The temperature of the asphalt-rubber mixture shall be above 350^{o} F during the reaction period.

After the reaction between asphalt cement and granulated rubber has occurred, the viscosity of the hot asphalt-rubber-mixture may be adjusted for spraying and/or better "wetting" of the cover material by the addition of a diluent. The diluent shall comply with the requirements of Section 3.3 and shall not exceed 7.5 percent by volume of the hot asphalt-rubber mixture.

When a job delay occurs after full reaction, the asphalt-rubber may be allowed to cool. The asphalt-rubber shall be reheated slowly just prior to application but not to a temperature exceeding 350° F. An additional quantity of diluent not exceeding 3 percent by volume of the hot asphalt-rubber mixture may be added after reheating.

5.3 Application of Asphalt-Rubber Material

Placement of the asphalt-rubber membrane shall be made only under the following conditions.

1. The pavement surface temperature shall be 45° F and rising.

2. The pavement surface is clean and absolutely dry.

3. The wind conditions are not excessive.

4. All construction equipment such as asphalt-rubber distributor, cover material spreader, haul trucks with cover material, and rollers are in position and ready to commence membrane placement operations.

5. Rain is not imminent.

The asphalt-rubber mixture shall be applied at a temperature of 300° to 350° F at a rate of between .55 and .65 gallons per square yard. Transverse joints shall be constructed by placing building paper across and over the end of the previous asphalt-rubber application. Once the spraying has progressed beyond the paper, the paper shall be removed immediately and disposed of as directed by the engineer. All longitudinal joints shall not exceed a four inch overlap.

5.4 Application of Cover Material

Cover material shall be applied immediately to the asphalt-rubber after spreading at a rate of 25 to 35 pounds per square yard.
At the time of application to the asphalt-rubber, cover material shall be

surface dry so as to gain proper adhesion to the asphalt-rubber material.

5.5 Rolling

At least three operational pneumatic-tired rollers complying with the requirements of Section 4.4 shall be provided to accomplish the required embedment of the cover material. At some project locations or where production rates dictate, fewer rollers may be utilized as directed by the engineer. At no time shall there be less than two operational pneumatic tired rollers on a project.

Sufficient rollers shall be used for the initial rolling to cover the width of the aggregate spread with one pass. The first pass shall be made immediately behind the cover material spreader, and if the spreading is stopped for an extended period, the cover material spreader shall be moved ahead or off the site so that all cover material may be immediately rolled. Four complete passes with rollers shall be made with all rolling completed within one hour after the application of the cover material.

5.6 Traffic Control

Except when it is necessary that hauling equipment must travel on the newly applied membrane, traffic of all types must be kept off the membrane until it has had time to set properly. The speed of all hauling equipment shall not exceed 15 miles per hour when traveling over a membrane which is not adequately set. The minimum traffic free period shall not be less than one hour.

5.7 Removing Loose Cover Material

Sweeping can begin a minimum of one hour after membrane placement.

5.8 Method of Measurement and Basis of Payment

5.8.1 Asphalt-Rubber

a) Measurement will be made of the actual number of gallons of Asphalt-Rubber including asphalt placed in accord with these specifications.

b) Payment will be made at the price bid per gallon of Asphalt-Rubber in the bid proposal and will be full compensation for furnishing all asphalt, rubber, extender and for all labor,

equipment and incidentals for placing the asphalt-rubber on the Street surface.

5.8.2 **Cover Aggregate**

a) Measurement will be made of the actual number of tons of pre-coated aggregate placed in accord with these specifications.

b) Payment will be made at the price bid per ton of pre-coated aggregate in the bid proposal and shall be full compensation for furnishing all pre-coated aggregate and for all labor and equipment including rollers and rolling for the complete surface in place.

5.8.3 **Rolling**

a) No measurement will be made of rolling but rolling shall be considered as incidental to placing of the cover aggregate.

b) No separate payment will be made for rolling. The cost of rolling shall be included in the price per ton of cover aggregate in the bid proposal.

5.8.4 **Anti strip agent**

a) Anti stripping agent, when used, shall be measured by the gallon.

b) Payment for anti stripping agent shall be made at the price per gallon of anti stripping agent bid in the bid proposal.

08/07

POLYMER MODIFIED SLURRY SEAL (MICRO-SURFACE)

I. SCOPE

This specification covers the design, application, testing, quality control and measurement and payment for a complete in place "polymer modified micro surface" constructed on existing paved surfaces cleaned and prepared in accordance with the item 2-C-1 "PREPARATION OF ASPHALTIC CONCRETE SURFACE FOR OVERLAY OR SEAL".

2. DESCRIPTION

This specification covers all materials, equipment, construction and application procedures for rut filling and/or surfacing of existing paved surfaces. The micro-surfacing shall be a mixture of cationic polymer modified asphalt emulsion, mineral aggregate, mineral filler, water and other additives, properly proportioned, mixed and spread on the paved surface in accordance with this guideline and as directed by the Engineer.

3. MATERIALS

3.1 Emulsified Asphalt

(1.) The emulsified asphalt shall be a cationic emulsified type, designated as CSS-1P and shall comply with the following requirements.

	Min.	Max.
Viscosity, Saybolt Furol, 25 C (77 F), Sec.	**20**	**100**
Storage Stability test, one day, percent	**-**	**1**
Particle charge test		**Positive**
Sieve test, percent	**-**	**0.1**
Distillation:		**-** **-**
Oil distillate, by volume of emulsion, %	**-**	**0.5**
Residue, %		**62** **-**
Test on Residue from Distillation:		
Penetration, 77 F, 100 g, 5 seconds	**55**	**90**
Ductility, 77 F, 5 cm/min, cm	**70**	**-**
Solubility in trichloroethylene , %	**97**	**-**
Softening Point, R. & B., F	**135**	**-**
Viscosity, absolute 60 C (140 F), Poise		**8000** **-**

This standard distillation procedure shall be modified as follows: The temperature on the lower thermometer shall be brought slowly to 350 degrees plus or minus 10 degrees F and maintained at this point for 20 minutes. Complete the total distillation in 60 plus or minus 5 minutes from the first application of heat.

(2). The emulsion shall be modified with an approved Polymer. The distillation residue of the modified emulsion shall contain a minimum of three percent (3%) polymer solids by weight. The modified emulsion shall pass all applicable storage and settlement tests. The polymer material shall be milled into the emulsion or blended into the asphalt cement prior to the emulsification process. The cement-mixing test shall be waived for this emulsion.

(3). The polymer modified emulsified asphalt shall be so formulated that when the paving mixture is applied with the relative humidity at not more than 50% and the ambient temperature at least 75^{o} F, the paving mixture will sufficiently cure so that uniformly moving traffic can be allowed in approximately one hour. Locations such as driveways, Intersections and where sharp turning may take place or where vehicles may accelerate sharply, additional curing time may be required.

(4). The contractor shall notify the Engineer of the source of his asphaltic material prior to the design or production of the surfacing mixture and this source shall not be changed during the course of the project, except on written permission by the Engineer.

3.2 Mineral Aggregate

(1) Description. One Hundred percent (100%) of the mineral aggregate shall be crushed and shall be composed of clean, tough and durable particles of traprock, granite, sandstone or other approved aggregates. A sand equivalent of 65 or higher is required. The aggregate shall have a weight loss of not more than 12% when sodium sulfate is used or 18% when magnesium sulfate is used in accordance with Test Method Tex-411-A, using 5 cycles. The aggregate shall be one that has proven resistant to polishing in roadway surfacing.

(2.) Grades. When tested by Test Method Tex-200-F, Part I, the gradation requirements shall be as follows:

Grade 1 (Fine Graded Surface Course)	Percent Aggregate By Weight
Passing 3/8" sieve	100
Passing No. 4 sieve	98-100
Passing No. 8 sieve	75 -90
Passing No. 16 sieve	50- 75
Passing No. 30 sieve	30- 50
Passing No. 50 sieve	18- 35
Passing No. 200 sieve	5 -15

Grade 2 (Coarse Graded Surface Course)	Percent Aggregate By Weight
Passing 1/2" sieve	100
Passing 3/8" sieve	99-100
Passing No.4 sieve	86- 94
Passing No. 8 sieve	45- 65
Passing No. 16 sieve	25- 46
Passing No. 30 sieve	15 - 35
Passing No. 50 sieve	10 - 25
Passing No. 200 sieve	5- 15

(3.) Mineral Filler. Mineral filler shall be non-air entrained Portland cement that is free of lumps or foreign matter.

3.3 Water

The water shall be portable and shall be free of harmful soluble salts.

3.4 Other Additives

Additives supplied by the emulsion manufacturer may be added to the emulsion mix or to any of the component materials to provide control of the set time in the field.

4. LABORATORY EVALUATION

4.l General

Before work commences, the contractor shall submit a signed mix design covering the specific materials to be used on the project. This design shall be performed by the contractors or suppliers laboratory or by a qualified laboratory chosen by the owner. Once the materials are approved, no substitution will be permitted, unless first tested and approved by the laboratory preparing the mix design. The cost of mix design shall be born by the contractor.

4.2 Designing Job Mix

The qualified laboratory shall develop the job mix design and present certified test results for the contractor approval. Compatibility of the aggregate and modified CSS-1P shall be verified by the mix design. The mix design must be made using samples taken from the actual materials proposed for use in the project and in accordance with the procedures and requirements of Article 5.1 below.

5. PAVING MIXTURE

5.1 Mixture Design.

The mix shall be designed in accordance with Texas State Highway Department Bulletin C-14 and Test Method Tex-204-F, using Test Method Tex-227-F to supplement Test Method Tex-201-F and Tex-202-F to conform to the requirements herein. The above laboratory mixing and curing procedures may be modified as approved by the Engineer. The emulsified asphalt content will be selected by the Engineer to provide an optimum laboratory compacted density within the range of 94 to 97%. A minimum Hveem stability of 35 is required for placements exceeding a depth of twice the maximum aggregate size.

This is a mix design requirement, to be verified by testing of trial batch material prior to placement of project material. Hveem Stability testing will be performed by the selected laboratory. The Engineer will determine the frequency of job control density and stability testing. The Contractor shall furnish the mix design for the type of mixture specified together with applicable design worksheets and data. The Bulk Specified Gravity will be determined for each aggregate to be used in the design mixture. If the determined values vary by 0.300 or more, the mixture design will be by the Volumetric Method, Test Method Tex-204-F, Part II. To substantiate the design, trial mixtures will be produced and tested using all of the proposed project materials and equipment prior to any placement. The Engineer may waive trial mixtures if the same design has been proven to be in conformance with these requirements.

5.2 Composition of Mixture.

The Engineer shall approve the design mix and all micro-surfacing materials and methods prior to use and shall designate the proportions to be used within the following limits.

Residual Asphalt	**6 to 9 percent by weight of dry aggregate or 13.5 to 23 percent by volume of the aggregate**
Mineral Filler	**0.5% to 3.0% by dry weight of aggregate**
Modifier	**As required to provide the specified properties**
Water	**As required to provide proper consistency**

5.3 Type

The paving mixture shall consist of a uniform mixture of coarse aggregate, fine aggregate and asphaltic material. The mix may also contain mineral filler and/or additives when required.

The mixture shall be designed so that the mineral aggregate will produce a gradation, which conforms to the limitations for the master grading for the type specified herein. The gradation will be determined in accordance with Test Method Tex-200-F (Dry Sieve Analysis) and shall be based upon aggregate only. The amount of asphaltic material shall conform to the limitation for the type specified.

The aggregate grade shall be as shown on the plans. If no grade is shown on the plan grade 2 aggregate shall be used.

5.4 Tolerances

The aggregate portion of the paving mixture produced shall not vary from the design gradation by more than the tolerances that follow. The material passing the No. 200 sieve is further restricted to conform to the limitations for the master grading for the type specified. The asphaltic material portion of the paving mixture shall not vary from the design amount by more than the allowed tolerance and is also restricted to conform to the master limits. The method of test for determining the aggregate gradation and asphalt content of the mixture shall be Test Method Tex-210-F or other methods of proven accuracy.

	Percent by Weight or Volume as Applicable
Passing 3/8" sieve, retained on No. 4 sieve	**Plus or minus 5**

Passing No. 4 sieve, retained on No. 8 sieve	**Plus or minus 5**
Total retained on No. 8 sieve	**Plus or minus 5**
Passing No. 8 sieve, retained on No. 16 sieve	**Plus or minus 3**
Passing No. 16 sieve, retained on No. 30 sieve	**Plus or minus 3**
Passing No. 30 sieve, retained on No. 50 sieve	**Plus or minus 3**
Passing No. 50 sieve, retained on No. 200 sieve	**Plus or minus 3**
Passing No. 200 sieve	**Plus or minus 2**

Asphaltic Material Plus or minus 0.5 by wt. or l.2 by vol.

6. EQUIPMENT

6.1 General.

All equipment for the handling of all materials and mixing and placing of the mixture shall be maintained in good repair and operating condition and subject to the approval of the Engineer. Any equipment found to be defective and potentially affecting the quality of the paving mixture will be replaced or, at the option of the Contractor, satisfactorily repaired. It will be the contractor responsibility to prove to the Engineer that the repaired equipment is properly functional.

6.2 Mixing and Proportioning Equipment.

(1.) The material shall be mixed by a self-propelled micro-surfacing mixing machine which shall be a continuous flow mixing unit able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, field control additive and water to a revolving multi-blade twin shafted mixer and discharge the mixed product on a continuous flow basis. The machine shall have sufficient storage capacity for aggregate, emulsified asphalt, mineral filler, field control additive and water to maintain an adequate supply to the proportioning controls. The machine shall be equipped with self-loading devices, which provide for the loading of all materials while continuing to lay micro surfacing.

The machine shall be equipped with opposite side driving stations to optimize longitudinal alignment. The machine shall be equipped to allow the mix operator to have full hydrostatic control of the forward and reverse speed during application of the micro-surfacing material.

The self-loading devices, opposite side driving stations and forward and reverse speed controls shall be original equipment manufacturer design.

(2). Individual volume or weight controls for proportioning each material to be added to the mix shall be provided. Each material control device shall be calibrated and properly marked.

(3) The aggregate feed to the mixer shall be equipped with a revolution counter or similar device so the amount of aggregate used may be determined at any time.

(4) The emulsion pump shall be a positive displacement type and shall be equipped with a revolution counter or similar device so that the amount of emulsion used may be determined at any time.

(5.) The mixing machine shall be equipped with a water pressure system and nozzle type spray bar to provide a water spray immediately ahead of and outside the spreader box.

(6.) The mixing machine shall be equipped with an approved fines feeder that shall provide a uniform, positive, accurately metered, predetermined amount of the specified mineral filler.

6.3 Spreading Equipment.

The paving mixture shall be spread uniformly by means of a mechanical type spreader box attached to the mixer, equipped with paddles, screws or augers to agitate and spread the materials throughout the box. A front seal shall be provided to insure no loss of the mixture at the road contact surface. The rear seal shall act as a final strike off and shall be adjustable and shall break in the middle so that the screed can be adjusted to fit the crown of the street including inverted crowns. The rear seal carrier shall be capable of being fitted with a rubber seal or a steel strike off bar.

The spreading equipment shall be readily adjustable in width so that laying widths can be changed without undue delay before starting each pass if necessary.

The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved to produce a free flow of material to the rear strike-off. The seam where two spreads join, shall be neat appearing and uniform.

7. STOCKPILING AND STORAGE.

7.1 Aggregate Storage.

If the mineral aggregates are stored or stockpiled, they shall be handled in such a manner as to prevent segregation, mixing of the various materials or sizes, and contamination with foreign materials. The grading of aggregates proposed for use and as supplied to the mixing plant shall be uniform. Suitable equipment of acceptable size shall be furnished by the Contractor to work the stockpiles and prevent segregation of the aggregates. The mineral aggregate shall be screened and weighed at the contractor stockpile prior to job site delivery. The Engineer shall approve screens and scales.

7.2 Storage and Heating of Asphaltic Materials.

The asphaltic material storage shall be ample to meet the requirements of the plant. Asphalt shall not be heated to a temperature in excess of that specified
in the Item "Asphalt's, Oils and Emulsions" Texas Highway Department 1982 Standard Specifications. All equipment used in the storage and handling of asphaltic material shall be kept in a clean condition at all times and shall be operated in such manner that there will be no contamination with foreign matter.

8. CONSTRUCTION METHODS

8.1 General

It shall be the responsibility of the Contractor to produce, transport, and place the specified paving mixture in accordance with these specifications and as approved by the Engineer.

8.2 Street Preparation

Prior to starting the micro-surfacing operation, streets designated to be surfaced shall be prepared in accordance with item 2-C-1 "Preparation of Asphaltic Concrete Surface for Overlay or Seal".

8.3 Weather Limitations.

The material shall be spread only when the atmospheric temperature is at least fifty (50 degrees) F and rising and the weather is not foggy or rainy. No material will be placed when the surface on which it is to be placed is below 50^{o} F.

8.4 Final Surface Preparation

Immediately before placing the micro-surface, the area to be sealed shall be thoroughly cleaned of all vegetation, loose aggregate and soil, and moistened. Water for prewetting the surface shall be applied immediately ahead of the spreader box by use of a pressure spray bar equipped with nozzles that produce a fine mist. The rate of application of water shall be sufficient to dampen the entire surface without any free flowing water ahead of the spreader box. The rate of the mist spray shall be adjusted from time to time during the placing operation to accommodate changes in temperature, surface texture, humidity and dryness of the pavement surface.

8.5 Placing the Mix

(1). The mixture shall be spread to fill cracks and minor surface irregularities and leave a uniform skid resistant application of aggregate and asphalt on the surface. The finished surface shall be neat in appearance without drag marks, excessive buildup or other detracting irregularities.

(2). The speed of operation of the surfacing equipment shall be controlled by the mixer operator at forward speeds between 85 and 225 feet per minute depending on conditions and appearance of the newly placed surface.

If transverse rippling occurs the speed of the equipment shall be reduced until the ripples disappear.

(3). The Engineer shall designate either rubber seal/screed or the steel strike off screed according to the Project requirements.

(4). The depth of mixture in the spreader box shall be carefully controlled to prevent transverse ridging and premature setup of material in the corners of the box and ahead of the screed. In general the depth of mixture in the box should be approximately to the mid point of the auger-agitator.

(5). Auxiliary equipment shall be kept in good working order and free of leaks. Any truck or transport used to bring materials on to the street being surfaced that develops leaks either of the material being transported or fuel and/or oil leaks will be removed from the job site and not allowed to return until it has been thoroughly repaired.

Scales and screens used at the contractors stockpile and storage site shall be kept in good working order.

(6). Spills of surfacing materials or fuel, oil or other detrimental substances on the street ahead of the surfacing operation shall be thoroughly removed before the surface is placed. This may required the operation to be shut down until the street has been cleaned.

(7). No excessive streaks shall be left in the finished surface. When such excessive streaking occurs, the operation shall be immediately stopped and corrective action is taken before resuming the operation.

8.6 Joints

(1). Longitudinal joints shall be placed on lane lines. On residential streets an eight-foot parking lane will be assumed with the centerline being the other lane line.

(2). All longitudinal and transverse joints shall be straight and neat in appearance without excessive build up or bare spots. Any irregularity shall be corrected immediately before the material has started to set up.

(3). The overlap at longitudinal joints shall not exceed 4 inches. When the overlapped pass is only partially set care shall be exercised to avoid skid marks. Any skid marks that occur shall be immediately corrected by removing any partially set material that has been displaced and placing fresh mix in the mark and shaping by use of Lutes, squeegees, hand drags, etc.

Overlapping of longitudinal joints shall not leave a visible build up. Any buildup shall be immediately removed by use of lutes, squeegees, hand drags, shovels or other approved means.

8.7 Mix Stability

The modified mixture shall posses sufficient stability so that premature breaking of the material in the spreader box does not occur. The mixture shall be homogeneous during and following mixing and spreading; it shall be free of excess water or emulsion and free of segregation of the emulsion and aggregate fines from the coarser aggregate.

8.8 Hand Work

Areas that cannot be reached with the mixing machine shall be surfaced using hand squeegees to provide complete and uniform coverage. The area to be hand-worked shall be lightly dampened prior to mix placement. Care shall be exercised to leave no unsightly appearance from handwork. The same type finish as applied by the spreader box shall be required. Handwork shall be completed during the machine applying process.

8.9 Lines

Care shall be taken to insure straight lines along curbs and shoulders. No runoff on these areas will be permitted. Lines at intersections will be kept straight to provide a good appearance.

8.10 Work Force

The contractor shall maintain a work force of adequate size to accomplish the work as specified herein, including the loading and transporting of materials to the job site, the placing of the micro surface, the monitoring of joints and surface and the correction of any deficiencies that occur.

If, at any time, the Engineer or his representative determines that the work force is not adequate to perform all the tasks required for the proper completion of the micro surfacing, work on the project will be halted until adequate personnel are provided and/or modifications in procedure are implemented that will assure proper placement of the surfacing material.

8.11 Scratch or Level up course

A scratch or level up course will be required on certain streets as shown on the plans and/or as directed by the Engineer. This course shall be the same material as the polymer modified surface course and will be placed in the same manner except the spreader shall be equipped with a steel strike off screed. This screed shall be set to run as close to the pavement surface as practical.

The appearance of this course is not as critical as the final surface so long as any marks or blemishes that occur are not of such magnitude that they will affect the appearance of the final course.

8.12 Correction of Deficiencies and Blemishes

After the laydown work is completed and before final acceptance by the

Engineer, spot application of micro- surfacing material may be required to correct any deficiencies such as streaks, scuff marks, tire tracks, gaps, etc. to improve the ride quality and overall appearance. The spot application shall be performed with a full width spreader box when required.

9. QUALITY CONTROL

9.1 Materials

The contractor will permit the Engineer and/or the Independent laboratory to take samples of the aggregate and asphalt emulsion used in the project at the Engineers discretion. Gradation and sand equivalent tests may be run on the aggregate and residual asphalt content tests on the emulsion. Test results will be compared to specifications. Tests will be run at the expense of the owner. The owner must notify the contractor immediately if any test fails to meet the specifications.

9.2 Polymer Modified Micro-Surfacing

Samples of the material may be taken directly from the mixing unit(s). Consistency and residual asphalt content tests may be made on the samples and compared to the specifications. Tests will be run at the expense of the owner. The owner must notify the contractor immediately if any test fails to meet specifications.
The Engineer may use the recorders and measuring facilities of the unit to determine application rates, asphalt emulsion content, mineral filler and additive.

9.3 Non-Compliance

If any two successive tests fail on the stockpile material, the job shall be stopped. It is the responsibility of the contractor, at his own expense, to prove to the Engineer that the conditions have been corrected. If any two successive tests on the mix from the same machine fail, the use of the machine shall be suspended. It will be the responsibility of the contractor, at his own expense, to prove to the Engineer that the problems have been corrected and that the
machine is working properly.

10. CLEAN UP

10.1 Protecting and Cleaning Manholes and Valves

Prior to beginning the sealing operation the contractor shall locate all manhole covers and valve boxes in the area to be sealed. Placing one or

more layers of heavy craft paper or other suitable material over them shall protect manhole covers and valve boxes. The protective covering shall be secured in place so that it does not move or tear during the sealing operation. The contractor shall remove the protective covering and any seal material placed over manhole covers and valve boxes as soon as the seal has set sufficiently to prevent damage to the adjoining seal in the process. The edges around manhole covers and valve boxes shall be neat and smooth and shall conform to the shape and size of the manhole cover or valve box.

10.2 Streets

Clean up along streets shall be accomplished as the work progresses and any excess material that is raked onto or otherwise placed on adjoining concrete curb and gutter, valley gutters or fillet areas or on adjacent asphalt or concrete paving shall be removed before it breaks or sets up.

Before a section of street is opened to traffic all clean up work shall be completed on that section.

11. MEASUREMENT AND PAYMENT

11.1 General

Payment will be made for these items listed in the bid proposal only. All work, materials, labor and appurtenance required to complete the project as shown on the plans or called for in the specifications but not listed in the bid proposal shall be considered as incidental and no separate payment will be made. The cost of these incidentals must be included in the price bid for the various items listed in the bid proposal.

11.2 Measurements

(1). Measurement will be made of the actual number of tons of each type or grade of the Composite Polymer Modified Slurry Seal (Micro-Surface) complete in place. For this specification a ton is considered 2000 lbs. and the composite slurry seal mixture is defined as the asphalt,
aggregate and additives.

All materials shall be weighed on certified public scales or the contractor shall place a set of standard truck scales at a site approved by the Engineer. Scales shall conform to the requirements of the item "Weighing and measuring equipment" Texas Highway Department 1982 Standard Specifications.

(2). Aggregate - The quantity of aggregate used in the accepted portions of the work shall be measured by net ticket weight of each individual load of
aggregate shipped to the project from the approved job site scale.

The weight of mineral additive used shall be calculated and included in the total aggregate weight.

(3). Polymer Modified Asphalt Emulsion. The quantity of polymer modified asphalt emulsion in the accepted portion of the work shall be measured by tons of material based on the accepted load tickets issued from the manufacturer. At the completion of the project any unused emulsion shall be weighed back and that quantity deducted from the accepted asphalt emulsion quantity delivered.

11.3 Payment

Payment will be made for the number of tons of micro surface measured at the applicable unit price bid per ton of micro surface in the bid proposal. This payment shall be full and complete compensation for the complete in place micro surface.

08/07

P.V.C. PIPE CASINGS

1. SCOPE

   This item consists of furnishing and installing PVC pipe for casing for future water and electric lines at locations shown on the plans or as directed by the Engineer.

2. MATERIAL

   Pipe shall be ASTM D 1785 schedule 40 PVC pipe or ASTM D 2241 PVC SDR 32.5 pressure pipe. The ASTM designation and schedule or SDR shall be clearly marked on the outside of the pipe.

3. CONSTRUCTION

   Pipe shall be laid in straight alignment and grade in trenches as narrow as the diameter of the pipe can be laid. Pipe shall be placed after the sub grade is prepared but before base material is placed. Bedding under the pipe shall be a minimum of 2 inches in thickness and shall be carefully graded and leveled before pipe is placed. Joints shall be water tight. They may be solvent cement welded using approved materials, or may be made using a gasketed collars or push on gasketed bell and spigot. When collars are used care shall be exercised to assure that the collar is centered over the joint. All joints shall be made in accord with the manufacturer's recommendations. After pipe has been joined and inspected the pipe shall be encased in bedding/encasement material to a thickness of 3 inches above the pipe. Care shall be exercised to be sure the encasement material is worked in under the haunches of the pipe and compacted along the side of the pipe to assure adequate lateral support. The balance of the trench shall be back filled using cement stabilized backfill consisting of 2 sacks of Portland cement to 1 cubic yard of blow sand or crushed caliche mixed with sufficient water to form a stiff place able mixture that can be consolidated in the trench by rodding or vibrating. The back fill shall be "struck off" at the finished sub grade level using square point shovels or suitable screeds. The ends of the pipe shall be tightly plugged to prevent the entrance of water debris or other foreign material. These plugs shall be PVC or rubber stoppers designed to endure until the water lines and/ or electric lines are places.

4. MEASUREMENT AND PAYMENT

   Casing pipe shall be measured by the linear foot along the center of the pipe and shall be paid for at the unit price in the bid proposal.

WATER LINE SPECIFICATIONS

1. SCOPE OF WORK

The work covered by this section consists of all water pipe lines and piping, including valves, valve boxes, tapping sleeves, fire hydrants and other accessories, required to complete the project. The contractor shall furnish all materials, labor, superintendence, tools, equipment and incidentals necessary for the complete construction of this work in accordance with the drawings and these specifications.

2. PIPE AND MATERIAL

2.1 General

Pipe shall be polyvinyl chloride (PVC) AWWA C900, ductile iron AWWA C-151 or steel cylinder concrete pipe AWWA C-303.

2.2 Polyvinyl Chloride (PVC) Pipe

A. PVC pipe furnished for use on this project shall conform to the requirements of AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in., for water distribution pressure class 150, DR18. and shall be NSF approved for potable water supply.

B. The pipe furnished shall have an integral bell designed for joint assembly using elastomeric seals.

C. Markings for the pipe shall include all the requirements of AWWA C900 and the MSF approval stamp.

D. Elastomeric seals shall be furnished by the pipe manufacturer. Seals shall be manufactured to conform with the requirements of ASTM F4 77 and shall be specifically designed for use with the pipe furnished.

E. Lubricants intended for use with PVC pipe and seals (gaskets) shall be compatible with both PVC and the seal material. Lubricant shall not support growth of bacteria and shall not adversely affect the potable quality of the water that is to be transported.

F. Pipe laying lengths shall be 20'.

G. Service taps on PVC water lines shall be made using hinged type or double strap type saddles. Tapping saddles shall support the full circumference of the pipe and shall have a bearing area of sufficient width along the axis of the pipe to prevent distortion of the pipe when saddle is tightened.

No direct taps into the wall of PVC pipe will be permitted.

Seals for tapping saddles shall be recessed into the body of the saddle and shall be

a rubber - compound conforming to the requirements of ASTM F477.

Tapping saddles shall be SMITH-BLAIR Taper Seal Style 313 or DMD Dresser style 194 or approved equal.

H. Tapped connections for water mains and fire lines made on PVC water mains shall be accomplished using full bodied ductile iron tapping sleeves of a pressure rating equal to or greater than the pressure rating of the pipe specified.

I. Bedding for AWWA C900 PVC water pipe shall extend from a minimum depth of 4 inches below the outside of the water line to a minimum cover of 6 inches over the top outside of the water line.

J. AWWA C900 PVC water pipe shall be installed in accord with the applicable requirements for installing ductile iron pipe.

Care shall be taken to install each joint of PVC water pipe to, but not beyond the factory insertion mark on the pipe.

When a joint of PVC water pipe must be cut, the end of the pipe shall be carefully beveled to match the factory bevel on the uncut pipe. An insertion mark matching the factory insertion mark on the uncut pipe must be made before the pipe is inserted into the bell.

When PVC water pipe is to be inserted into a ductile iron fitting or valve, the factory bevel must be removed to form a square plain end pipe.

2.2 (a) Metallic Marking Tape (For PVC Water Pipe)

2.2(a).1 General

When non-metallic pipelines are to be installed, then the Contractor shall furnish and lay, above the pipeline, a continuous strip of metallic identification tape.

2.2 (a).2 Tape Material

The metallic identification tape shall be at least two inches (2”) in width and shall be of corrosive resistant metal of sufficient thickness to be stable and reflect electronic signals to electronic pipeline detector when buried to a dept of twenty-four (24”) below normal ground level.

The metallic tape shall be painted blue on one side and shall have 1-inch high letters painted continuously on the same side of the tape which read, “CAUTION: BURIED WATER LINE BELOW” or other words to this effect.

The marking tape shall be “Detectable Warning Tape”, as manufactured by the Omega Marking Company, or equal approved by the Engineer.

2.2(a).3 Construction Methods

The Contractor shall backfill over non-metallic pipelines to a depth which is less than twenty-four (24”) and not more than twelve inches (12) from the top of the cut of the ditch section in which the pipeline is laid. Contractor shall stop the backfilling material to a generally uniform level. All machine tamping, jetting and other compaction activities shall be accomplished up to this point of height in the backfilling the marking tape is placed in the trench.

The Contractor shall then lay the marking tape in the pipe trench and shall be held in position by the spot placement of backfill materials over it to keep it from sliding t the sides and/or from being blown about in the ditch by the wind. The tape shall be lid with the painted side, which shall also be the side with the identification lettering on it, in the “up” position. The tape shall be laid in the flat position and kept there until backfill is accomplished.

The Contractor shall then complete the backfilling operation in such a manner that the marking tape is not cut, crimped, ruptured or separated by the backfilling work.

2.2(a).4 Measurement and Payment

No separate pay item will be provided for furnish and placing the marking tape. This item shall be considered subsidiary to the non-metallic pipe being placed.

2.3 Ductile Iron Pipe

A. All ductile iron pipe used in the construction of water works improvements shall be Cement Lined and shall be manufactured in accordance with and shall meet the requirements of AWWA Specification C-l5l.

B. Pipe shall be cast in lengths of not less than l2 feet and shall be designed for a working pressure of l50 pounds per square inch. Thickness of ductile iron pipe shall be as shown on the plans and bid proposal or shall be computed in accordance with AWWA Specification C-l50, based on l50 pounds per square inch working pressure for 10 feet of cover and laying condition 2.

C. All ductile iron pipe shall have an exterior, bituminous coating and an inside cement-mortar lining in accordance with the requirements of AWWA Specification C-l04.

2.4 Polyethylene Plastic Tubing

Service lines shall be constructed with polyethylene plastic tubing as specified in ASTM D 2737 with a rating of l60 psi.

2.5 Ductile Iron Pipe Fittings

All fittings for ductile iron pipe and PVC pipe shall be ductile iron and shall be mechanical joint all connections except tees for fire hydrant leads unless shown otherwise on the plans. Tees for connecting fire hydrant leads shall be MJ- with a flange outlet.

All ductile iron fittings shall conform to AWWA Specification C-110, designed for a working pressure of 250 psi. All ductile iron fittings shall have an external coating and shall be cement lined in accordance with the specifications for coating and lining the pipe.

2.6 Pretensioned Concrete Cylinder Pipe

A. The contractor shall furnish and install all concrete cylinder pipe and fittings, including connections and appurtenances complete as shown on the plans and specified herein.

B. The contractor shall submit six (6) sets of full and complete shop drawings on the concrete cylinder pipe and fittings. All of the drawings and data shall be complete and shall include a complete description of the pipe offered, including cuts, tabulated layout and all pertinent engineering data required for a complete evaluation of the submittal. Submittal data shall be in such form and so presented that the Engineer may readily review the data.

C. Prior to delivery of the pipe to the project site, the manufacturer shall furnish an affidavit certifying that all pipe, fittings, and specials, and other products and materials furnished, comply with the applicable provisions of this specification.

D. The pipe manufacturer shall furnish a factory trained, job experienced field representative who shall visit the project periodically during the course of installation. He shall also be subject to call by the contractor and/or engineer to advise and assist with the solution of field problems.

During visits, the representative shall observe all phases of the project including location and condition of pipe strung ahead of the contractor, trench width, if applicable, bedding and backfill, assembly of pipe joints and protection of steel. If, in the opinion of the representative any phase of the installation is unsatisfactory, he shall so advise the contractor's superintendent and also advise the owner or engineer's representative on the job site.

E. All closure sections shall be the jack on type and "field welding" will not be permitted without the written permission of the engineer.

F. Pipe manufacturer will install all necessary taps for the contractor to disinfect and field hydrostatic test the pipe.

G. Pretensioned concrete cylinder pipe, fittings and specials shall be designed, fabricated and tested in accordance with the latest requirements of AWWA C-303, "Reinforced Concrete Pressure Pipe Steel Cylinder Type, Pretensioned, for Water and Other Liquids" with additional requirements or modifications as described herein.

H. Pretensioned concrete cylinder pressure pipe shall be designed for l50 psi, working pressure and manufactured in 32 foot nominal lengths in accordance with the provisions of AWWA Standard C-303.

I. Inspection and Testing

(1) The owner reserves the option to have an independent testing laboratory, at the owner's expense, inspect pipe and fittings at the pipe manufacturer's plant to ensure compliance with the applicable specifications. The owner's testing laboratory and Engineer shall have free access to those parts of the manufacturer's plant that are necessary to ensure compliance with the governing standard. The pipe manufacturer shall notify the owner, in writing, at least two weeks ahead of pipe fabrication as to start of fabrication and fabricating schedule so that the owner can advise the manufacturer as to owners' decision regarding tests to be performed by an independent testing laboratory. In event the owner elects to retain an independent testing laboratory to make material tests and weld test, it is the intent that the tests be limited to one spot testing of each category unless the tests do not show compliance with the standard. If these tests do not show compliance, the owner reserves the right to have the laboratory make additional tests and observations to ensure compliance of the finished product with the standard.

(2) In any event, the manufacturer shall perform the tests described in AWWA C 303, and furnish the owner with a copy of the test reports, if requested, at the expense of the pipe manufacturer. The pipe manufacturer shall furnish the owner with affidavit of compliance as outlined in the standard.

(3) All welds for water tightness in special pipe and fittings that have not been hydrostatically tested may be examined by use of visible dye penetrant system meeting requirement of ASTM El65; however, collar reinforcement and all other lap welds shall be tested by introducing air under l0 psi pressure between the collar and cylinder and checking for leaks around and through the welds with soap solution.

The area to receive the dye penetrant shall be cleaned free from contaminants that might interfere with the penetrant process. The temperature of the steel in the weld area shall be between 60 and l25 degrees F. when the penetrant is applied. Dwell time of six hours shall be allowed after application of the penetrant and developer before interpreting the results.

Defects that are found shall be repaired and the test repeated until all defects

are eliminated. Colored penetrant shall be removed before fittings are lined.

2.7 Casing Pipe

Casing pipe to be installed in bore or open cut may be limited service pipe, corrugated galvanized steel pipe or new straight seam or spiral welded steel pipe. Casing pipe shall be furnished in thickness or gage as shown on the plans.

Limited service pipe proposed for use on this project must be approved a minimum of four (4) working days prior to the time of opening bids and shall be in good condition and shall meet the same service requirements as the corrugated galvanized steel or welded steel pipe.

Welded steel casing pipe shall be coated inside and out using a coal tar epoxy or shall be bituminous coated in side and out by the hot dip method.

2.8 Bedding Materials

A. All water pipelines placed on this project shall be bedded with crushed stone bedding materials to the minimum as shown on the plans and in the Detail Drawings.

B. Granular material furnished for foundation, bedding, encasement, backfill, or other purposes as may be specified, shall consist of any natural or synthetic mineral aggregate such as, crushed gravel, crushed rock, crushed stone, or slag, and shall conform to the following specifications and/or gradation.

Note, all materials used for these purposes shall be crushed and shall have at least two broken faces. Pea gravel will NOT be allowed.

	Foundation	Bedding	Encasement	Backfill
ASTM c33 Grade #57	X			
ASTM C33 Grade #67	X			
ASTM C33 Grade #8		X	X	
THD 1982 ITEM 302 Type "D" Grade #4		X	X	
THD 1982 Item 302 Type "D" Grade #5			X	
Crusher Fines**			*X	X

* 100 percent of crusher fines that are to be used within 12 inches of the top of pipe must pass the 3/4" sieve.

** Approximate Gradation for Crusher Fines

Sieve Size	% Passing
2 inch	100
#4	35 - 100
#10	20 - 100
#40	5 - 35
#200	4 - 10

Crushed stone material proposed as an alternate for use on this project and not meeting the above specifications must be approved in writing at least 48 hours prior to the time scheduled for opening bids.

C. Granular materials provided for Foundation, Bedding, Encasement, or backfill use as required by the contract, either as part of the pipe item work unit or as a separate contract item, shall be classified as to use in accordance with the following:

MATERIAL USE DESIGNATION	ZONE DESIGNATION
Granular Foundation	Placed below the bottom of pipe grade as replacement for unsuitable or unstable soils, to achieve better foundation support.
Granular Bedding	Placed below the midpoint of the pipe prior to pipe installation, to facilitate proper shaping and achieve uniform pipe support. Also for Class B Bedding where specified.
Granular Encasement	Placed below an elevation one half (6") foot above the top of pipe, after pipe installation, for protection of the pipe and to assure proper filling of voids and thorough consolidation of backfill.
Granular Backfill	Placed below the surface base course, if any, as the second stage of backfill, to minimize trench settlement and provide support for surface improvements.

In each case above, unless otherwise indicated, the lower limits of any particular zone shall be the top surface of the next lower course as constructed. The upper limits of each zone are established to define variable needs for material gradation and compaction or void content, taking into consideration the sequence of construction and other conditions. The material use and zone designations described above shall only serve to fulfill the objectives and shall not be construed to restrict the use of any particular material in other zones where the gradation requirements are met.

3. **VALVES AND VALVE BOXES**

3.1 General

A. Valves 4" through l2" shall be resilient seated gate valves with non-rising stems and shall open by turning to the left (counter clock wise).

B. Valves l4" and larger shall be resilient seated butterfly valves and have operators suitable for direct burial and shall open by turning to the left (counter clock wise).

All valves except valves for use in fire hydrant leads shall have mechanical joint ends unless shown otherwise on the plans. Valves for use in fire hydrant leads shall be flange by mechanical joint.

C. All valves and fire hydrants shall be spray coated with a two component thermal setting epoxy to cover all interior wetted ferrous surfaces. Finished coating shall have a minimum thickness of 4 mils. The coating shall conform to the coating section of these specifications.

D. All valves for buried service shall be equipped with 2" square AWWA operating nuts.

3.2 Gate Valves

A. Gate valves shall be iron body, resilient **wedge gate** and shall be in compliance with AWWA Standard C-509-80 or latest revision thereof and shall have the following design features:

B. All valves shall have a working pressure of 200 psi and shall be bottle tight tested at this pressure from both directions. The gate body shall also be hydrostatically tested at 400 psi. Zero leakage will be required in all tests. The body, bonnet, and stuffing box shall be flange together with ASTM A-307 Grade B bolts and nuts to insure repairability.

C. Stems shall be machined from modified manganese bronze rod with an integral forged thrust collar machined to size.

D. Stem seals shall be dual "O" ring type.

E. Valve discs shall be rubber encapsulated or have disc seat rings molded of natural rubber, internally steel reinforced retained to the disc by self-locking type 304 stainless steel screws. Valve gates shall seat against a machined epoxy coated mating surface in the body of the valve.

F. All internal ferrous metal surfaces (machined or cast) shall be factory spray coated with a two component thermosetting epoxy to a nominal thickness of 4 mils and the exterior shall be coated with asphalt varnish as specified for coating of the pipe. (See Sec. 3.4 of these specifications for epoxy coating).

G. Valves shall be Mueller A-**2360** or Dresser-M&H **4067** or approved equal. Any alternate (approved equal) to these specifications **shall have completely interchangeable parts with either of the specified valves.**

3.3 Butterfly Valves

A. General - All butterfly valves shall be of the rubber seated tight-closing type. They shall meet or exceed AWWA Standard C-504, Class l50B. Both valve ends shall be mechanical-joint per AWWA Standard C-lll. Accessories (bolts, glands, and gaskets) shall be supplied by the valve manufacturer.

B. All valves must use full AWWA C-504 Class l50 B valve shaft diameter, and full Class l50 B underground service operator torque rating throughout entire travel, to provide capability for operation in emergency service.

C. Valve body shall be high strength cast iron ASTM A 126 Class B with l8-8 type 304 stainless steel body seat. Valve vane shall be high strength cast iron ASTM A 48 Class 40 or ASTM A 536, Grade 65-45-l2 ductile iron having rubber seat mechanically secured with an integral l8-8 stainless steel clamp ring and l8-8 stainless steel self locking screws.

D. Rubber seat shall be a full circle 360^{o} seat not penetrated by the valve shaft. Valve shall have permanently set two way thrust bearing. Packing shall be designed for permanent duty in underground service.

E. Valve operator shall be of the traveling nut type, sealed, gasketed and lubricated for underground service. It shall be capable of withstanding an overload input torque of 450 ft. lbs. at full open or closed position without damage to the valve or valve operator. It shall be designed to resist submergence in water to 25 ft. head pressure. Number of turns to operate valve shall be as listed below in order to closely resemble conventional distribution valve practices and to minimize water hammer:

Pipe and Valve Size	Turns to close	Pipe and Valve Size	Turns to Close
4" - 6"	16-1/2	14" - 16"	48"
8"	24	18" - 20"	72
10" - 12"	36	24"	90

F. Valves shall be capable of easy closure by one man using standard valve key, even under emergency line-break conditions as severe as those that would - cause a valve maximum opening torque requirement of as much as two times AWWA Class l50 B.

G. All valves shall be tested bottle-tight at rated working pressure by the manufacturer as follows:

l4" up. . . . . l50 psi

In addition a hydrostatic test with vane partially open shall be given to the assembled valve as follow:

l4" up. . . . . 300 psi

H. Valve shafts shall be l8-8 type 304 stainless steel. Shaft bearings shall be of the self lubricating sleeve type.

I. Valve discs or vanes for valves 30" and larger shall be the flow through (bridge or truss) type.

J. Butterfly valves shall be Dresser-M&H Model "450", "4500" or "l450" or Mueller line seal III or approved equal. Alternates (approved equal) to these specifications must be approved in writing 48 hours prior to time bids are received.

3.4 Coating

A. The coating shall be a two part thermosetting epoxy protective coating and shall function as a physical, chemical and electrical barrier between the base metal to which it is applied and the surroundings.

B. The coating shall be non-toxic and shall not impart taste to water. The coating must be formulated from materials deemed acceptable per the FOOD AND DRUG ADMINISTRATION DOCUMENT TITLE 2l of the FEDERAL REGULATIONS ON FOOD ADDITIVES SECTION l2l.25l4 entitled, RESINS AND POLYMERIC COATINGS.

C. The coating shall have a satin finish and shall be suitable for field over coating and touchup with same coating material without sanding or special surface preparation, or application of heat in excess of room temperature.

D. The coating shall have a successful record of performance in valves, pipe or other allied equipment for a minimum of two years.

E. The coating adhesion to the substrate shall exceed cohesion of the coating film as demonstrated by the following test:

(1) Prepare test panel and apply coating per manufacturer's recommendation.

(2) After sample has properly cured per manufacturer's recommendation, scribe an "X" using a sharp knife or scalpel through the coating to the metal substrate.

(3) Then with the point of the knife at the juncture of two scribes, attempt to lift off coating. Coating should not lift off substrate or between coats readily, but should break up leaving coating material on the substrate of this damaged area.

(4) No disbandment of the film shall be noted as tested above after immersion in tap water for l500 hours at l00`F.

F. A falling sand abrasion test using ASTM D968 shall produce an abrasion coefficient of 25-30 liters/mil. As an alternative, a Taber Abrader Test should find 3.5 - 3.7 milligrams coating loss per l00 cycles when using a CSF l0 Wheel (l000 gram weight).

3.5 Valve Boxes

All valves to be used in buried service shall be enclosed in cast iron valve boxes. Care shall be taken to place and maintain the 2" square operating nut in the center of the valve box. The valve box shall be two piece cast iron suitable for use with PVC pipe box risers. The 6 inch diameter cover shall be marked " Water". The PVC riser pipe shall be furnished in lengths as required (minimum pipe cover 42") PVC pipe for valve box riser may be ASTM C-900, ASTM D1785 schedule 40, ASTM D2241 pressure class 125 or ASTM D3034 DR 35. Valve boxes shall have a concrete ring 8" thick and having a radius equal to the radius of the valve box plus one foot (1') cast around them. Valve boxes placed in unpaved areas shall be set level with or slightly higher than the finished ground elevation. Valve boxes set in paved areas shall match the finished pavement surface.

3.6 Fire Hydrants

A. Fire hydrants shall conform to the requirements of AWWA C 502 dry barrel type. The fire hydrants shall be designed for a depth of bury of 4.5 feet, however the depth of bury may vary according to field conditions and extensions or shorter bury depth may be required.

B. The hydrants shall have a 5-l/4 inch valve opening, two 2-l/2 inch hose nozzles and one 4-l/2 inch pumper nozzle.

C. Hose threads shall be National Standard threads.

D. The hydrants shall be sized for 6-inch mains and shall have an inlet connection compatible with the type pipe used. All gaskets, nuts, bolts and other jointing materials shall be considered part of the fire hydrant installation.

E. Operating nut shall be standard l-l/2 inch pentagon opening counter-clockwise. The hydrant shall close with the pressure.

F. Hydrants shall be painted Federal Safety Yellow.

G. Fire hydrants shall have all interior wetted ferrous surfaces epoxy coated as required in the general and coating section of this item.

H. The hydrants shall have a minimum of two (2) drain holes located on opposite sides of the hydrant. The entire drainage channel must be made of non-corrosive material and sealed by acceptable resilient material (metal and/or leather seals are not acceptable).

I. The hydrants shall have a breakable safety flange and breakable stem coupling which breaks cleanly upon impact.

J. The hydrants shall be AWWA improved type hydrants and shall have self-oiling reservoirs.

K. Fire hydrants shall be the Mueller Centurion, the Dresser -M & H 929 Reliant, or The American Darling.

4. EXCAVATION, TRENCHING BEDDING AND BACKFILLING

4.l Trenching

A. The trench shall be excavated to the lines and grades as established by the engineer and as shown on the plans. The depth of cover for all main lines on which the grades and elevations are not shown on the plans, shall in general be Forty-two (42) inches. The amount of cover may vary over or under 42 inches as directed by the engineer but in no case will the amount of cover be less than thirty-six (36) inches. Depth of cover for service lines shall be as shown on the detail drawings.

B. Water lines constructed in proposed streets and service drives shall have the depth of cover measured from the finished grade. The contractor is hereby cautioned that proposed street finished grades are sometimes cut below the existing ground elevation.

C. The minimum width of the trench shall be the outside diameter of the pipe plus twelve (l2) inches for pipe diameter through l8", the outside diameter of the pipe plus eighteen (l8) inches for pipe diameters over l8". The trenching equipment shall be maintained on a sufficiently level road bed to provide substantially vertical trench walls. The maximum horizontal offset of the trench wall from bottom of trench to the top of the trench (under-cutting) shall be four (4) inches.

D. The trench shall be over excavated to an even grade to the depth of required bedding so that the bottom of the pipe will rest on a uniform thickness of bedding material on the bottom of trench throughout the entire length of the pipe. In order to obtain a true even grade, the bedding material shall be fine graded by hand. On lines that are to be laid to established grades batter boards shall be set at fifty foot intervals and the trench graded to the established grade.

E. Any part of the trench excavated below grade shall be corrected by filling with bedding material. The bedding material shall be thoroughly compacted.

E. If large rock, rock fragments or other unyielding materials are encountered in the bottom of the trench they shall be removed to a depth of six inches below grade, and the void filled with thoroughly compacted approved bedding material.

G. Bell holes of ample dimensions shall be dug at each joint to permit the jointing of pipe to be made properly and of sufficient depth to prevent the bell of the pipe from resting on undisturbed materials.

H. Wherever necessary to prevent caving, the trench shall be adequately braced and sheeted. Trench safety shall be in accordance with item l4 "Shoring and Sheeting of this specification.

I. Trench digging machinery may be used to make the trench excavations except in places where operation of same would cause damages to trees, buildings or other existing structures either above or below ground. In such instances hand trenching methods shall be employed.

J. All excavated material shall be stockpiled in a manner that will not endanger the work or existing structures and that will cause the least amount of obstructions to walks and driveways.

K. There will be no classification of the excavated materials and the term excavation shall include all materials encountered in excavating the trenches or structural excavations.

L. The contractor shall take all necessary precautions for protecting paved areas from being damaged by the trenching and backfilling equipment. Any damage done to any paved area, outside of the area set forth in the plans, as a result of the construction work shall be repaired by the contractor at his own expense.

M. Where the lines are located behind curbs, the contractor shall take special precautions to protect trees and shrubs. Care shall be exercised to cause as little damage to lawns as possible.

Where lines cross under curbs, gutters or curbs and gutters, tunneling will be required.

N. Blasting for excavation of solid rock will be permitted only after securing the

approval of the Director of Engineering and Transportation and the engineer and only when proper precautions are taken for protection of persons and property. The hours of blasting will be fixed by the engineer. Any damage caused by blasting shall be paid for by the contractor. The method or procedure relative to blasting shall conform to all state laws and local ordinances.

O. The contractor will be required to locate all known utility lines, including consumer service lines, far enough in advance of the trenching to make proper provisions for protecting the lines and to allow for any deviations that may be required from the established lines and grades.

P. The contractor shall not be allowed to disrupt the service on any utility lines except consumers service lines, which may be taken out of service for short periods of time, if the contractor obtains permission from the engineer and from the owner of the premises being served by the utility.

Q. The contractor shall immediately notify the proper utility company of any damage to utility lines, in order that service may be reestablished with the least possible delay. Repair of any damage to existing lines and the repair of consumer lines which are authorized to be cut or temporarily taken out of service shall be made by the contractor at his own expense, and as directed by an official representative of the utility company involved.

R. All utility lines shall be properly supported to prevent settlement or damage to the line both during and after construction.

S. Any permanent relocations of existing utility lines shall be done by the proper utility company without expense to the contractor.

4.2 Backfill General

A. All pipeline excavations shall be backfilled in a manner that will restore pre-existing conditions as the minimum requirement and fulfill all supplementary requirements indicated in the Plans and Specifications. The backfilling operations shall be started as soon as conditions will permit on each section of pipeline to provide continuity in subsequent operations and restore normal public service as soon as practicable on a section-by- section basis. All operations shall be pursued diligently, with proper and adequate equipment, to assure acceptable results.

B. Depositing of the backfill shall be done so the shock of falling material will not injure the structure. Grading over and around all parts of the work shall be done as directed by the Engineer.

C. Whenever soil types which are determined by the Inspector to be undesirable for backfill are excavated from the trench, such material shall be hauled away and deposited where directed by the Inspector at no additional compensation.

D. In the absence of special work item requirements the backfilling shall be accomplished with the use of suitable materials selected from the excavated

materials to the extent available and practical. Should the materials available from the trench section be unsuitable or insufficient, the required additional materials shall be furnished from outside sources at the Owners expense.

E. Suitable material shall be defined as a mineral soil reasonable free of foreign materials (rubbish, debris, etc.) frozen clumps, oversize stone, rock, concrete or bituminous chunks and other unsuitable materials, that may damage the pipe installation, prevent thorough compaction, or increase the risks of after settlement unnecessarily. Material selection shall be such as to make the best and fullest utilization of what is available, taking into consideration particular needs of different backfill zones. Material containing stone, rock, or chunks of any sort shall only be utilized where and to the extent there will be no detrimental effects.

F. Backfill materials shall be carefully placed in relatively uniform depth layers spread over the full width and length of the trench section in a manner and/or sequence that will provide simultaneous support on both sides of the pipeline. Each layer shall be compacted effectively, by approved mechanical of hand methods, until there is no further visual evidence of increased consolidation. Compaction of the in place layer shall be completed acceptably before placing material for a succeeding layer thereon. The manner of placement, layer thickness, compaction equipment, and procedure effectiveness shall be subject to approval of the Engineer. Water jetting or flooding shall NOT be used to compact trench backfill.

G. Within the pipe bedding and encasement zones described as that portion of the trench which is below an elevation one foot above the top of the pipe, the materials placed shall be limited in particular size to 3/4 inch maximum. For larger pipe in access of 18 inches in diameter the Engineer may allow particle sizes up to 2 inches maximum if it can be shown that the backfill can be satisfactorily compacted without leaving voids or damaging pipe or joints. Above these zones, the placement of material containing stones, boulders, chunks, etc. shall be governed by the layer thickness and compaction equipment capabilities.

H. Compaction of materials placed within the pipe bedding and encasement zones shall be accomplished with portable or hand equipment methods to achieve thorough consolidation under and around the pipe and avoid damage to the pipe. Above the pipe zone material, the use of heavy roller type compaction equipment shall be limited to safe pipe loading.

I. The maximum loose thickness of each backfill layer shall be l2 inches, except that l6 inches will be permitted for Granular Materials placed above an elevation one foot above the top of pipe, and with the provision that, by authority of the Engineer in consideration of the demonstrated capability of special type vibratory compactors, these maximums may be increased at his discretion. "Hydro tamps" or "vibra tamp: or other heavy vibrating equipment shall not be used until the backfill has reached a depth of four (4) feet above the top of the pipe.

J. All surplus or waste materials remaining after completion of the backfilling operations shall be disposed of in an acceptable manner within 24 hours after

completing the backfill work on each particular pipeline section. Disposal at any location within the project limits shall be as specified, or as approved by the Engineer; otherwise, disposal shall be accomplished outside the project limits at the Contractor's discretion. The backfilling and surplus or waste disposal operations shall be a part of the work required under the pipeline installation items, not as work that may be delayed until final cleanup.

K. Until final acceptance of the project, the Contractor shall assume full Responsibility and expense for all backfill settlement and shall refill and restore the work as directed to maintain an acceptable surface condition. All additional materials required shall be furnished without additional cost to the Owner.

4.3 Backfill Procedure above Pipe Zone, in Public Rights-of-way and other areas where settlement is important.

A. Backfill above the pipe zone shall be made using Portland cement stabilized backfill or crushed stone screening (crusher fines).

B. Backfill around structures such as manholes, junction boxes, transformer boxes and valve boxes shall be made using portland cement stabilized backfill material or crushed stone screening (crusher fines).

C. The minimum depth of stabilized backfill or crusher fines shall be twelve (12") inches.

When utilities are being constructed under existing paving, the stabilized backfill or crusher fines shall extend from top of the pipe zone to the top of the base course.

When utilities are being constructed under existing unpaved streets that are not scheduled for immediate pavement construction, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the existing roadway surface.

When utilities are being constructed in new streets that are scheduled for immediate paving or in streets in a new subdivision for which a paving contract with the property developer has been approved the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the bottom edge of the eight (8") inches of subgrade, or, if the paving contractor has constructed a portion of the roadway prior to the construction of the utilities stabilized backfill shall extend to the top of the course the contractor has finished. In no case shall the backfill extend above the top of the base course.

If the final course of asphaltic concrete has been placed, the street or alley surface shall **NOT** be cut for utility installation.

In new streets where stabilized backfill is required only to the bottom of the subgrade course, the minimum depth of stabilized backfill may be reduced to six (6") inches in which case the maximum depth of the "pipe zone" shall be limited to six (6") inches above the top of the utility line or conduit.

D. Backfill Materials

(1) Portland cement stabilized backfill shall consist of caliche base material, blow sand or native soil stabilized by the addition of Portland cement. Crushed stone or concrete aggregate shall **NOT** be used.

The Contractor shall submit a mix design prepared by an approved Commercial Laboratory that will produce a minimum 7 day compressive strength of 150 psi. In no case shall the minimum cement content of the mix be less than 1 sack per cubic yard.

(2) Cement used in Portland cement stabilized backfill shall be Type I or Type II conforming to the requirements of ASTM Designation C150.

(3) Caliche used for Portland cement stabilized backfill shall be crushed material con-forming to Texas State Department of Highways and Transportation 1982Standard Specifications for Construction of Highways, Streets and Bridges Item 248 Type F, Grade 2.

(4) Blow sand used for Portland cement stabilized backfill shall be clean, free from organic matter, clay lumps, rock and other deleterious matter.

(5) Native soil used for Portland cement stabilized backfill shall be clean, free from clods and organic matter, and rock in excess of 2".

(6) Crushed stone screening (crusher fines) used for back fill shall be sharp grained particles of crushed stone conforming to the following gradation

Sieve Size	% Passing
2"	100
#4	35-100
#10	20-100
#40	5-35
#200	4-10

and may be the by product of crushing stone for other purposes or may be stone specifically crushed for use in backfill. Crusher fines not meeting these specifications may be approved for backfill upon demonstration that the desired results will be obtained.

E. Backfill Construction

(1) Portland cement stabilized caliche backfill or Portland cement stabilized native soil backfill may be constructed using either the "dry" method or the "wet" method.

(a) The dry method of stabilized backfill construction consists of dry mixing of the cement and caliche, sand or soil to produce a homogenous mixture then adding and mixing sufficient water for proper compaction and hydration of the cement. The water content of the mixture will be approximately one to two percent above the optimum moisture for soil compaction. The mixing may be accomplished by using batch mixers or on the job site by "blade Mixing" or other suitable method to produce the desired backfill material. The mixed material shall be placed in lifts of up to a maximum of 12 inches and compacted to ninety five (95%) modified proctor density by use of suitable compacting equipment.

(b) In the "wet" method of cement stabilized backfill construction, the materials shall be mixed in an approved concrete batching plant or mixer to the consistency of concrete and placed as concrete would be placed. The slump of the backfill material shall be such that all voids will be filled, approximately four (4") to six (6") inches. The backfill shall be consolidated by rodding or by the use of mechanical vibrators.

(c) The mix design used must be for the method of placement chosen.

(2) Portland cement stabilized blow sand backfill shall be mixed and placed by the "wet" method as described above.

(3) Crushed stone screening (crusher fines) shall be wetted uniformly throughout with sufficient moisture to assure proper compaction before being placed in the trench.

The moistened crushed stone screening (crusher fines) shall be placed in maximum lifts of twelve (12") inches and consolidated using vibratory type compaction equipment except when it has been demonstrated that the compaction equipment employed will adequately compact deeper lifts in which case the maximum depth of a lift shall be limited by the capabilities of the equipment used.

Tests to determine the compacted density of the backfill shall be ordered by the Engineer if in his opinion the compaction is not adequate. Test showing a minimum compacted density of 90% modified proctor will be deemed adequate compaction.

5. INSTALLATION OF DUCTILE IRON PIPE

5.1 Pipe Laying - General

A. All pipe and accessories shall be unloaded, handled, laid, jointed, tested for defects and for leakage and chlorinated in the manner herein specified.

B. The pipe, fittings, valves, and accessories shall be inspected upon delivery and during the progress of the work and any material found to be defective will be rejected by the engineer and the contractor shall remove such defective material from the site of the work.

C. The contractor shall be responsible for all material furnished by him and he shall replace at his own expense all such material that is found to be defective in manufacturer or has become damaged in handling after delivery.

D. All pipe, fittings, valves, and other accessories shall, unless otherwise directed, be unloaded at the point of delivery, hauled to and distributed at the site of the work by the contractor. Loading and unloading, of pipe and fittings shall be by hoisting or by sliding, or rolling on skidways in such a manner as to avoid shock or damage to the material. Under no circumstances shall pipe or fittings be dropped. Pipe handled on skidways must not be skidded or rolled against pipe already on the ground.

The pipe, fittings and accessories shall be placed along the site in such a manner as to be kept as free as possible from dirt, sand, mud, and other foreign matter.

E. All pipe shall be laid and maintained to the lines and grades shown on the plans
or as established on the ground by the engineer.

F. Wherever it is necessary to deflect pipe from a straight line either in a vertical or horizontal plane to avoid obstructions, to plumb valves and hydrants, or where vertical or horizontal curves are shown or permitted, the degree of deflection at each joint shall not exceed the maximum deflection recommended by the manufacturer of the particular kind of pipe being laid and the degree of deflection shall be approved by the engineer.

G. After the trench grade has been completed and all bell holes dug and the grade inspected, the pipes and accessories my be placed in the trench. All pipe, fittings, valves, and hydrants shall be carefully lowered into the trench piece by piece by means of derricks, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to the material in any way. Under no circumstances shall pipe or accessories be dropped or dumped in the trench.

H. Before lowering into trench the pipe shall be again inspected for defects and the pipe while suspended shall be lightly hammered to detect cracks. Any defective, damaged or unsound pipe and materials shall be rejected.

I. All foreign matter or dirt shall be removed from the inside of the pipe and from all bells, spigots or parts of the pipe used in forming the joint, before the pipe is lowered into the trench, and it shall be kept clean by approved means during and after laying.

5.2 Laying and Jointing Ductile Iron Pipe

A. Unless otherwise directed, pipe shall be laid with bells facing in direction of laying; and for lines on appreciable slopes, bells shall, at the discretion of the engineer, face up grade. Cutting of pipe for inserting valves, fittings or closure pieces shall be done in a neat and workmanlike manner without damage to the pipe or the cement lining.

B. The jointing shall be completed for all pipe laid each day. No open joints will be left in the trench overnight. At times when pipe laying is not in progress, the open ends of pipe shall be closed by approved means. No trench water shall be permitted to enter the pipe.

C. No pipe shall be laid in water, or when the trench conditions or weather is unsuitable for such work, except by written permission of the engineer.

D. Rubber Gasket joints for cast iron or ductile iron pressure pipe and fittings shall conform to AWWA Standard C-lll.

E. Before laying the pipes, all lumps, blisters and excess coal tar coating shall be removed from the bell and spigot ends of each pipe; the outside of the spigot and the inside of the bell shall be wire brushed and wiped clean and dry. Pipe ends shall be kept clean until joints are made.

F. The pipe and fittings shall be properly aligned and free to move in any direction while bolting, and the bolts shall be gradually tightened at a uniform rate around the entire flange.

G. Flange joints where used shall be bolted with flange bolts of best quality mild steel and of the size and length required by AWWA C-ll5: Bolts and nuts shall be provided with standard hexagonal heads. Gasket rings shall be used and shall be made of best quality rubber composition sheet packing one-eighth (l/8) inch thick, of a brand and quality approved by the engineer.

H. Standard plugs shall be inserted into the bells of all dead end pipes, tees, or crosses and spigot ends shall be capped. Plugs or caps shall be jointed to the pipe or fittings in the same manner used in joining the pipe.

6. SPECIFICATIONS FOR INSTALLING PRETENSIONED CONCRETE CYLINDER PIPE

6.l General

The applicable portions of the specifications for installing ductile iron pipe shall apply except as amended or supplemented herein.

6.2 Pipe Laying

A. Pipe and fittings shall be handled with care at all times to avoid damage. They shall be lifted by hoists or slide or rolled on skid-ways in such manner as to avoid shock. Under no circumstances shall they be dropped. Pipe must not be skidded or rolled against other pipe or object.

B. Just before making the joint, the bell and spigot rings shall be thoroughly cleaned by wire-brushing until clean and dry. The gasket and the inside surface of the bell shall be lubricated with a light film or soft vegetable soap compound (flax soap) to facilitate telescoping the joint. The rubber gasket shall be stretched uniformly as it is placed in the spigot groove to insure a uniform volume of rubber around the circumference of the groove.

C. The joint shall be telescoped by pulling directly along the centerline of the pipe so that the spigot enters squarely into the bell. After the spigot has been telescoped into the bell, the bell end of the pipe being laid shall be moved in accordance with the plans to secure proper grade and alignment. After the joint is in place, a thin metal feeler gauge shall be used to check the position of the rubber gasket around the circumference of the joint.

D. The inside joint recess shall be filled immediately prior to placing the pipe together by buttering the bell end with mortar. After the joint is engaged, the joint mortar of pipe l8" in diameter and larger shall be finished off smooth by hand. The mortar in pipe smaller than l8" in diameter shall be smoothed and cleaned with a swab.

E. After the spigot has been telescoped into the bell, the joint checked and found satisfactory, a canvas wrapper shall be placed around the pipe, covering the joint. The canvas type wrapper shall be of the quality manufactured by the Mar-Mac Manufacturing Company or approved equal burlap type, and shall be hemmed at each edge to allow threading with a steel strap to securely fasten the wrapper around the pipe by means of a stretcher and sealer.

The wrapper shall have a minimum width of 7" and sufficient length to encircle the pipe leaving enough space between the ends at the top to allow the cement mortar to be poured. The entire joint shall be poured with cement mortar and rodded or agitated to eliminate voids and settlement. Prior to pouring the cement mortar the joint shall be thoroughly cleaned and saturated with clean water. Any joint showing shrinkage or excessive cracking shall be cleaned and remade. In hot weather,

additional measures may be required to obtain the best quality of joint, such as additional wet burlap, curing membrane, or immediate careful and well controlled backfilling of the joint with damp earth.

F. The mortar used at the exterior joint shall consist of one part Portland cement to 2-l/2 parts fine, sharp, clean sand and mixed with water to the consistency of thick cream. Mortar required at the joint shall not be placed in freezing weather unless adequately protected from freezing.

G. The joints for pipe to be installed in casing shall be made as for pipe laid in trench except that the outside portion of the joint shall be wrapped in a special polyurethane wrap impregnated with unhydrated cement manufactured for this purpose, prior to being jacked into the casing pipe. The wrap shall be "Flex-Protex" as manufactured by Mar-Mag Mfg. Corporation or approved equal. The interior of the joints shall be mortared after the pipe to be installed in casing has been jacked into place. The pipe shall not be moved after interior mortaring is completed. After the water line has been installed in the casing the ends of the casing shall be sealed using concrete or cement mortar.

H. Steel cylinder reinforced concrete pipe shall not be pressure tested until it has been in place a minimum of l4 days.

I. The contractor shall fill the steel cylinder reinforced concrete pipe under slight pressure and allow approximately 24 hours for water absorption by concrete lining before performing pressure test.

7. SETTING VALVES, VALVE BOXES, FIRE HYDRANTS AND FITTINGS

7.1 General

Valves and fittings shall be set at the locations shown on the plans or at locations as established by the engineer, and shall be set and jointed to the pipe in the manner heretofore specified for pipe installation. All valves buried in the ground shall have a cast iron valve box set over the valve and set to grade. All valves shall be set vertical, unless otherwise specified, and shall be thoroughly inspected and checked for operation before installation.

7.2 Valve Boxes

Cast Iron valve boxes shall be firmly supported and maintained centered and plumb over the wrench nut of the valve, with box cover flush with the surface of the ground or street paving.

Valve boxes shall be supported by a ring of concrete as shown on the plans and Detail Drawings. This ring shall be Class "A" concrete having a minimum thickness of six (6") inches and shall extend a minimum of twelve (12") inches in all directions from the outside diameter of the valve box and shall be supported on thoroughly compacted backfill.

7.3 Setting Fire Hydrants

A. Fire hydrants shall be located at points shown on the plans, the exact location of the hydrant to be established by the engineer. All hydrants shall be set plumb, to the grade as established by the engineer, and shall have their nozzles parallel with and/or at right angles to the curb, with the pumper nozzle facing the curb. The hydrants shall be supported in such a manner as not to cause a strain on the fire hydrant lead or branch.

The bowl of the hydrant shall be well braced against unexcavated earth at the end of the trench with concrete blocking. The concrete blocking shall be placed so as not to interfere with the hydrant drains and so that the joints or flanges are accessible.

B. Each hydrant shall be connected to the main with a six (6) inch ductile iron branch controlled by an independent six (6) inch gate valve. Each hydrant shall be set upon a stone or concrete slab not less than four (4) inches thick and not less than one square foot of surface area. Where solid rock exists in the bottom of the trench and same is excavated to the proper depth to form a foundation for the hydrant, the slab of stone or concrete may be omitted.

C. There shall be placed around the base of the hydrant not less than seven (7) cubic feet of sound broken stone or clean gravel, or other suitable material to provide reservoir capacity so that the hydrant will completely drain when closed. The gravel or broken stone shall reach from the bottom of the trench to at least six (6) inches above the waste opening in the hydrant. Each hydrant shall be operated by the contractor to prove to the inspector that the drain hole has not been plugged with concrete or other material.

8. **ANCHORAGE OF BENDS, TEES AND PLUGS, ETC.**

Reaction or thrust blocking shall be applied to all pipe lines at all tees, plugs, caps, valves, fire hydrants, and at bends deflecting ll-1/4 degrees or more. Concrete shall be used for blocking the pipe and fittings. Concrete for thrust block shall have a minimum compressive strength of 3,000 psi and shall conform to Texas Highway Department Class "A" concrete. Before thrust blocking is placed the element to be blocked shall be carefully wrapped in polyethylene sheeting having a minimum thickness of 3 mils. The blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on pipe and on the ground in each instance shall be that required by the engineer. The blocking shall be so placed that the pipe and fitting joints will be accessible for repair.

9. DISINFECTION OF PIPE LINES

The contractor shall furnish all labor, equipment, and materials necessary to the disinfecting of the new pipe lines which shall be disinfected before being placed in service. The lines shall be disinfected by the application of a chlorinating agent. The chlorinating agent may be a liquid chlorine, liquid chlorine gas water mixture, or a calcium hypochlorite solution, which shall be fed into the lines through a suitable solution feed device, or other methods approved by the engineer. The chlorinating agent shall be readily dissolvable and of a type that will rapidly mix with the water as it is loaded into the water line. Tablets or other solid form shall not be used unless they are dissolved before being placed into the line. The chlorinating agent shall be applied at or near the point from which the line is being filled, and through a corporation stop or other approved connection inserted in the horizontal axis of the newly laid pipe. The water being used to fill the line shall be controlled to flow into the section to be disinfected very slowly, and the rate of application of the chlorinating agent shall be in such proportion to the rate of water entering the pipe that the chlorine dose applied to the water entering the line shall be at least 50 parts per million. The treated water shall be retained in the pipe lines for a period of not less than twenty four (24) hours. At the end of the retention period all treated water shall be thoroughly flushed from the lines until the replacement water in the lines shall have a chlorine residual of not more than 0.2 parts per million. Where it is necessary to place the new lines in service in less than 24 hours, the concentration of chlorine may be increased to 300 ppm and the lines flushed and placed in service in 3 hours. Disinfecting procedures shall conform to AWWA C 60l.

l0. HYDROSTATIC TESTS

All pipe lines constructed under this contract before being accepted, shall be tested at l20% design pressure as described in the following paragraphs. This test shall apply to all newly laid pipe or any valved sections thereof.

The required test pressure (l80 pounds per square inch) shall be maintained over a continuous period of not less than eight (8) hours.

Each valved section of pipe shall be slowly filled with water, being certain that all air is expelled from the pipe by using hydrants, blow-offs or taps at points of highest elevation in the line. The specified pressure shall be applied by means of a pump and flow meter (gpm and amount) connected to the pipe in a manner satisfactory to the engineer. The contractor shall furnish all necessary equipment, materials and labor to satisfactorily make the hydrostatic tests.

After the line section to be tested has been brought to pressure, a visual inspection shall be made of all joints, fittings, valves, and appurtenance. Any leaks thus located shall be corrected before continuing with the test.

If the test indicates a leakage in excess of a rate equal to twenty-five (25) gallons per inch of nominal diameter of pipe line per mile per day (maximum 600 gallon per mile per day total leakage) the cause of such leaks shall be determined and corrected and the line retested until satisfactory results are obtained.

11. **REMOVING AND REPLACING PAVEMENT**

A. When it is necessary to cut existing paving to install utilities the paving shall be repaired as soon after the backfill is consolidated or the cement stabilized backfill has reached sufficient strength as practical. The repair shall be made using Texas Highway Department Type "D" Hot Mix Asphaltic Concrete and shall have a minimum thickness equal to the thickness of the existing surface.

B. Edges along the trenches and around pits shall be saw cut to remove damaged edges and/or surface. Saw cuts shall be straight and parallel to or at right angles to the street or alley center line in so far as practical. Meandering, zig-zag or notched saw lines will not be permitted. The saw cuts shall be such that a minimum of 6" of surface is removed beyond the edges of the trench.

C. The edges of the saw cut and surface of the backfill material shall be tack coated prior to the placing of hot mix asphaltic concrete. The tack coat shall be either RC-250 cut back asphalt or RS2h emulsified asphalt or approved equal. When emulsified asphalt is used for tack coat the asphaltic concrete shall not be placed until the break of the emulsion is complete and all free water has evaporated or has been removed.

D. After the tack coat is cured the hot mix asphaltic concrete shall be placed uniformly throughout the repair area. The edges of the repair shall be squared up and the hot mix asphaltic concrete thoroughly compacted. Any large aggregate that is separated from the mix during the leveling process shall be removed from the surface and disposed of off the project. Care shall be taken that none of the mix over laps the old paving. Any mix that has "scabbed" onto the paving shall be removed before the section is reopened to traffic.

Sufficient mix shall be placed so that the finished repair is from one eight (1/8") inch to one quarter (1/4") inch above the old paving surface to allow for further consolidation by traffic.

12. **TUNNELING UNDER UTILITY LINES, ETC**.

Where pipes, conduits or concrete curbs, gutters or other obstructions are encountered in the construction, the cost of tunneling under such obstructions shall be included as a part of the cost of the pipe line, or other pay items, complete in place.

13. **HIGHWAY CROSSING**

A. The City of Midland will obtain any required permits from the State Highway Department for installation of the water line along and across the highway right-of-way. It shall be the contractor's duty and responsibility to coordinate the time of making the crossing and the manner of handling traffic.

B. Installations of the casing pipe shall be accomplished by boring or open cut trench as indicated on the drawings and in accordance with the Texas Department of Transportation permit and requirements. Equipment used shall be of such size and capacity as to allow the placement of the casing to proceed in a safe and expeditions manner. Installation of the casing and the excavation and removal of the materials

within the casing shall proceed simultaneously.

The boring shall proceed from a pit provided for the boring equipment and workmen. Excavation and location of the pit shall be approved by the Engineer. Boring without the concurrent installation of the casing pipe will not be permitted. The use of water or other fluids in connection with the boring operation will be permitted only to the extent of lubricating cuttings. Jetting will not be permitted. Overcutting in excess of one inch shall be remedied by concrete pressure grouting the entire length of the installation. All joints for casing pipe installed in bore shall be welded. Care shall be taken to keep the casing pipe on the proper line and grade.

C. After the casing pipe has been installed and is accepted by the Engineer, the pipe shall be shoved through the casing. The pipe shall be pushed or pulled through the casing by exerting pressure on the barrel of the pipe and not on the bell, and shall be done in such a manner that the joint is always in compression during the shoving operation. Hardwood, or other suitable material skids shall be banded with stainless steel bands to each joint of pipe In accordance with the pipe manufacturers recommendation. The hardwood skids shall be of sufficient dimensions to allow the bell of the pipe to clear the casing pipe by at least one-half inch. The length of the skid shall be in accordance with the pipe manufacturers recommendations. A minimum of three bands shall be used to secure the skids to the pipe. The skids shall be such that the carrier pipe will be centered in the casing pipe. The design of skids and bonding techniques shall be submitted to the Engineer for approval prior to use.

In general waterline installation in the casing pipe shall conform to AWWA C 600-Section 6 requirements.

After completion of pipe installation in casing, the ends of the casing shall be sealed off by use of concrete grout. The minimum compressive strength of the grout shall be 2,000 psi in 28 days.

14. **SHORING & SHEETING**

14.1 Description

This item shall govern for the Trench Safety Systems required for the construction of all trench excavation to be utilized in the project and including all additional excavation and backfill necessitated by the safety system. A trench shall be defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. The depth is five feet or more.

Trench Safety Systems include but are not limited to sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, dewatering or diversion of water to provide adequate drainage.

l4.2 Construction Methods

Trench safety systems shall be accomplished in accordance with the detailed specifications set out in the provisions of Excavation, Trench, and Shoring, Federal Occupational Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, Subpart P, as amended, including Proposed Rules published in the Federal Register (Vol. 52, No. 72) on Tuesday, October 31, l989. The sections that are incorporated into these specifications by reference include Sections 1926-650 through 1926-652. Legislation that has been enacted by the Texas Legislature, being Tex. Rev. Civ. Stat. Ann. arts. 1015q, 2368a.6 (Vernon Supp. 1988) with regard to Trench Safety Systems, is hereby incorporated, by reference into these specifications.

A reproduction of the OSHA Publication 2226 is attached for the convenience of the Contractor. The City assumes no responsibility for the accuracy of the reproduction or that it reflects current law. The Contractor is responsible for obtaining a copy of this section of the Federal Register for his use.

If the contractor elects to use a trench protective system that, in the Proposed Rules, requires "Design by a qualified person or a qualified engineer," [For example see 1926.652(b) (3) and 1926.652(c) (4)], "a qualified person or qualified engineer" shall be a Professional Engineer registered in the State of Texas. The Contractor is responsible for obtaining boring and soil analysis as required for the planned design. The trench excavation is to be designed in conformance with OSHA standards and regulations.

14.3 Safety Program

The Contractor shall submit a safety program specifically for the construction of trench excavation. The trench safety program shall be in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

14.4 Inspection

The Contractor shall make daily inspections of the Trench Safety Systems to ensure that the systems meet OSHA requirements. Daily inspection is to be made by a "competent person" provided by the Contractor. If evidence of possible cave-ins, or slides, is apparent, all work in the trench shall cease until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench. It is the sole duty, responsibility and prerogative of the Contractor, not the owner or the Engineer, to determine the specific applicability of the designed trench safety systems to each field condition encountered on the project. The Contractor shall maintain a permanent record of daily inspections.

14.5. Safety Restrictions - work near high voltage lines

The following procedures will be followed regarding the subject item on this contract:

A. Warning signs painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

B. All equipment except back hoes or dippers that may be operated within ten feet of high voltage lines shall have an insulating cage-type of guard about the boom or arm and insulator links on the lift hook connections.

C. When necessary to work within six feet of high voltage electric lines, notification shall be given the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

D. The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

l5. MEASUREMENT AND PAYMENT

l5.l General

The unit price or lump sum price bid on each item, as stated in the proposal, shall include furnishing all labor, superintendence, machinery, equipment, and materials necessary to complete the various items of work in accordance with the plans and specifications. Cost of work or materials shown on the plans and called for in the specifications and on which no separate payment is made shall be included in the bid price on the various pay items.

l5.2 Water Lines

A. Measurement

The length of pipe lines for the various sizes, classes and types to be paid for will be determined by measurement along the center lines of the pipe installed, measurement being made from the center of fitting to center of fitting or end of pipe, without any deduction for the length of intermediate fittings or valves including pipe installed in casing.

B. Payment

Furnishing and installing approved type pipe of the various sizes and classes shown on the plans or as required will be paid for at the unit price bid per linear foot for furnishing and installing the various sizes and classes of approved pipe complete in place. The unit price bid shall be complete compensation for furnishing and installing the pipe complete in place including all excavation, backfilling, testing and disinfection of lines and shall include any and all incidental work not otherwise included in the bid items or otherwise provided for in the specifications.

l5.3 Solid Rock Excavation

All excavation for pipe trenches shall be unclassified and no extra compensation will be made for solid rock excavation. The contractor is expected to make boring of his own and satisfy himself to the character of material which will be encountered.

l5.4 Gate Valves or Butterfly Valves

A. Measurement

Gate valves or butterfly valves will be counted in the field after installation by the size and type specified and actually installed.

B. Payment

The unit price bid for each type and size valve shall be complete compensation for furnishing and installing the valves, complete in place, including the furnishing and installation of cast iron valve boxes on all valves to the finished grade of the adjacent surface. All valves in paved areas shall be set to finish pavement grades

l5.5 Fire Hydrants

A. Measurement

Fire hydrants will be counted in the field after installation in accordance with the plans and specifications.

B. Payment

The unit price bid shall be complete compensation for furnishing and installing the fire hydrants, complete in place, each, including lead pipe the gravel drain, concrete blocking, extension or additional bury depth as required for a complete installation.

I5.6 Service Connections

A. Measurement

The number of service connections of the type and size specified to be paid for will be counted in the field after complete installation.

B. Payment

The unit price bid shall be complete compensation for furnishing and installing the service connections, complete in place, including the meter box and lid, service line, corporation stop, meter stop and incidentals required for a complete installation.

I5.7 Ductile Iron Fittings

A. Measurement

The weight of the various ductile iron fittings and specials were estimated by using the standard weights for cast iron fittings as established by the American Water Works Association or American Standard Association. Measurement of ductile iron fittings will be made by counting the actual number of fittings installed and multiplying the number of fittings by the catalog weights for those types of fittings actually installed. Allowance will be made for glands and bolts.

B. Payment

The ductile iron fittings or specials required in the construction of the various size pipe lines as shown on the plans or as required will be paid for at the unit price bid per ton for furnishing and installing the ductile iron fittings complete in place. The unit price shall also include all materials, excavation, backfilling, concrete blocking and other incidental work required for the complete installation.

I5.8 Steel Cylinder Concrete Pipe Fittings

A. Measurement

No separate measurement or count of fittings and specials for steel cylinder concrete pipe will be made.

B. Payment

No separate payment will be made for fittings or specials for steel cylinder concrete pipe used on this project, but the cost of same shall be included in the price bid per linear foot for the various classes and sizes of pipe in the bid proposal.

l5.9 Casing Pipe In Bored Hole Or Open Cut

A. Measurement

Measurement of the casing pipe, of the type and size specified, shall be made by the linear foot of casing installed complete in bored hole or installed complete in open cut.

B. Payment

The unit price bid per linear foot for casing in bored hole or for casing in open cut shall be complete compensation for furnishing and installing the casing, complete in place, including all pits, boring equipment, materials and labor required for a complete installation. Payment for carrier pipe installed in the casing will be made as stated under Waterlines above.

l5.l0 Paving Cut and Repair

A. Measurement

Measurement of paving cut and repair will be made by the square yard for replacing pavement of the type specified. The area of the pavement replaced shall be determined by actual measurements on the ground; however, measurement will be limited to areas within widths of cuts as shown on the plans unless additional widths are authorized by the engineer. Any pavement removed or damaged outside of the aforementioned limits shall be replaced as prescribed with these specifications, but will not be measured for payment.

B. Payment

The unit price bid, per square yard, shall be complete compensation for cutting and removing the pavement, and constructing the concrete base and surfacing of the type specified, all as specified herein and as shown on the plans.

15.ll Trench Safety Systems, Sheeting and Shoring

A. Measurement

Trench Safety Systems shall be measured by the linear foot along the centerline of trench including manholes and other line structures.

B. Payment

Payment for Trench Safety Systems, measured as prescribed above, shall be made at the unit price bid per linear foot of "Trench Safety Systems: Payment of all work prescribed under this item shall be full compensation for the Trench Safety Systems including all Engineering cost and any additional excavation and backfill required, for furnishing, placing, maintaining and removing all shoring, sheeting, or bracing; for dewatering or diversion of water; for all jacking and jack removal; and for all other labor, materials, tools, equipment and incidentals necessary to complete the work.

Revised 08/07

GRAVITY FLOW PIPE SEWERS AND FITTINGS
FOR WASTE WATER AND STORM WATER

PART I – GENERAL

1.01 SCOPE

A. The work covered by this specification shall include the furnishing of all material, labor and equipment to construct, complete in place, all Gravity sewers including jointing, gaskets, fittings, castings, mortar, concrete, the placing of sewer pipe, and the construction of manholes and other appurtenance, all in accordance with the details shown on the plans and these specifications for the drainage of sanitary and/or storm sewage.

B. Sanitary and storm sewer lines constructed under these specifications shall be straight in grade and alignment between manholes. Manholes shall be constructed at any change in grade and at any change in alignment. In general manholes are to be constructed at 300 feet intervals or less with the maximum distance between manholes being 350 feet when approved by the Engineer.

1.02 QUALITY ASSURANCE

A. The Contractor, at the Engineer's request, shall furnish a certificate from the manufacturer of the pipe and fittings that the manufacturer is fully competent and capable of manufacturing sewer pipe, fittings, and accessories of the type, size and grade proposed for use in this project that are of uniform texture and strength that will fully comply with these specifications and have so manufactured this class of pipe in sufficient quantities to be certain that it will meet all normal field conditions of usage. The manufacturer must have adequate equipment and quality control facilities to be sure that each extrusion casting or run of pipe is uniform in texture, dimensions, and strength.

B. All PVC, HDPE, or plastic resin based pipe and fittings shall be covered during storage to protect them from excessive heat and direct sunlight.

C. All pipe and accessories shall be stored above ground and fully supported so that they will not bend or deflect excessively under their own weight.

D. Pipe in any way damaged or deformed during storage shall not be incorporated into this project, but at the direction of the Engineer, shall be permanently removed from the job site and project area.

1.03 TYPE OF PIPE

A. Pipe for sanitary sewers 15 inches in diameter and less shall be PVC. Pipe for storm drains 15 inches in diameter and less may be corrugated steel pipe when called for on the plans and in the bid proposal. Pipe 18 inches in diameter and larger shall be of the type shown on the plans and bid proposal.

B. The contractor may be allowed to bid a choice of two or more of the pipe materials when pipe 18 inches in diameter and larger are proposed for use on a project. When such choice is allowed the permissible choices will be clearly stated on the plans and/or bid proposal and a blank space will be provided for the contractor to write in the type of pipe proposed for use on the project. When such blank spaces are provided, the contractor must choose one of the permitted pipe materials as specified in part 2 “Materials” of these specifications and write in the type of pipe bid. Failure to write in the type of pipe bid may be reason to disqualify the bid. One or more types of pipe 18 inches in diameter and larger may be excluded from consideration on any given project by notes on the plans and/or the bid proposal.

PART 2 – MATERIALS

2.01 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS FOR SANITARY AND STORM SEWERS

A. GRAVITY SEWERS

(1) Pipe and fittings in nominal diameters from 4-inch through 15-inch shall be manufactured in accordance with ASTM D3034, “Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings” and pipe and fittings in diameter 18” through 36” shall be manufactured in accordance with ASTM F-679 or ASTM F-794, closed profile, subject to the modifications and limitations below.

B. MODIFICATIONS AND LIMITATIONS

(1) The concrete slab manhole tops shall be reinforced with number 4 steel reinforcing bars spaced at 12 inches on center each way. Additional diagonal bars shall be placed on 4 sides around the manway opening. The diagonal bars shall be number 4 rebar with a minimum length equal to the diameter of the manway opening plus 4 inches. The steel reinforcing mat shall be placed in the bottom of the slab with 1-1/2 inches protective covering.

(2) The term Dimension Ratio (DR) or standard dimension ratio (SDR) is the ratio of the average outside pipe diameter to the minimum wall thickness rounded to the nearest 0.5. The maximum DR for PVC sewer pipe shall be 35. PVC pipe sewers that will have less than 4 feet of cover shall be DR26.

(3) PVC pipe manufactured under ASTM F679 or F794 shall have a wall thickness that will meet or exceed the D.R. and stiffness specified herein. The minimum pipe stiffness for pipe having a DR of 26 shall be 115 psi. The minimum pipe stiffness for DR 35 pipe shall be 46 psi.

(4) Where DR 26 pipe is specified, all necessary fittings shall be the same as for SDR 35 PVC pipe.

(5) Minimum wall thickness for ASTM D-3034 PVC pipe shall be as follows:

Nominal Size (in.)	Min. Wall Thickness (in.)	
	DR 26	DR 35
4	0.162	0.120
6	0.241	0.180
8	0.323	0.240
10	0.404	0.300
12	0.481	0.360
15	0.588	0.437

The minimum wall thickness for PVC pipe meeting ASTM F-679 or F-794 requirements shall be the thickness as set forth in said ASTM specification that will meet or exceed the pipe stiffness and DR required.

(5) The identification markings as shown in Section 12 of ASTM 3034 shall note the specified DR of 26 where applicable.

(6) All pipe and fittings shall have the dimensions for inside diameter, outside diameter, etc. as shown in ASTM D3034 and/or ASTM F-679 except that the inside diameter DR 26 may be reduced by the added wall thickness.

(7) The pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density, and other physical properties.

(8) The Contractor shall provide wyes, tees, bends, adapters, and any other fittings called for in the specifications and/or shown on the plans or directed by the Engineer.

(9) The standard length of ASTM, D-3034 SDR 35 or SDR 26 PVC pipe under this specification shall be 20 feet with a minimum of 10 feet, except that all pipe used in service lines shall not exceed 10 feet in length unless otherwise approved by the Engineer. The standard laying length for ASTM F-679 PVC pipe shall be 13 feet. The Engineer must approve other laying lengths.

C. SEWER LATERALS AND CONNECTIONS

Pipe and fittings for service lines shall be the same material and thickness class as required for the main sewer. Schedule 40 PVC pipe may be used for 4" service lines when PVC pipe meeting requirements of ASTM 3034, SDR 35 is required.

D. JOINING SYSTEMS

(1) PIPE JOINTS

The pipe shall be joined with an integral bell, bell and spigot type rubber gasket joint. Each integral bell joint shall consist of a formed bell complete with a single rubber o-ring gasket. Gaskets shall be manufactured in accordance with ASTM F477 and shall be installed in accordance with the pipe manufacturer's instructions using all the necessary materials, lubricants and equipment recommended by the manufacturer.

For pipe 18" through 36" gaskets shall be factory installed and chemically bonded to the bell end of the pipe.

Lubricant shall be water soluble, non-toxic and have no deteriorating effects on gasket or pipe materials and shall not support the growth of bacteria. Lubricant shall be suitable for use at temperatures from 5^{o} to 120^{o} F (-15^{o} to 50^{o} C). Containers shall be labeled with the manufacturer's name and identified as PVC pipe joint lubricant. Each lubricant container shall have printed instructions for usage and joint assembly.

Field welded joints will not be allowed.

(2) FITTING JOINTS

All fittings shall utilize rubber gasket joints of the same type design and specifications as pipe joints.

(3) PIPE SPIGOT

The pipe spigot shall have a bevel and an insertion stop mark. The assembled joint shall be designed so the gasket shall be radially compressed to assure a positive water-tight seal for all installation conditions recommended by the manufacturer and under all combinations of production tolerances for the joint components. Each size joint shall be qualified to no leakage under various test conditions in conformance with ASTM Specification D-3212, "Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals."

E. INSPECTION AND TESTING

(1) INSPECTION REQUIREMENTS

Certification: as the basis of the acceptance of the material, the manufacturer will furnish a certificate of conformance to these specifications. The manufacturer will furnish other conformance certification in the form of affidavit of conformances, test results, and copies of test reports.

(2) PHYSICAL TEST REQUIREMENTS

For each 4,000 linear feet of pipe manufactured of each class and size of pipe, the following certified test data shall be required:

1. The basic dimensions shall be measured.
2. The allowable crush load (lbs/ft ^{2}) shall be calculated.
3. Impact resistance, fusion quality and ductility shall be tested.

F. MARKING AND DELIVERY

Each pipe shall be identified with the name of manufacturer, nominal size, cell classification, ASTM designation F794, Uni-Bell Plastic Pipe Association designation Uni-B-9, the pipe stiffness designation “PS-46 psi” and manufacturer’s date code.

1. MANHOLE CONNECTIONS

The Contractor shall provide smooth pieces of pipe for connecting sewer line into manholes. The Contractor shall be required to assist the manhole gasket supplier with the nominal outside diameter of these smooth pieces of pipe, as manufactured. There shall be only one plain end thickness for each diameter of pipe specified for the project.

2. DELIVERY

All pipe couplings and fittings shall be prepared for standard commercial shipment.

The pipe shall be inspected upon delivery to the job site for final acceptance. The contractor shall be responsible for all material furnished by him and he shall replace, at his own expense, all such material that is found to be defective in manufacture or which has become damaged in handling until final acceptance has been made. Pipe, which exhibits excessive ovalty or curvature, shall be rejected.

PVC pipe and fittings shall be covered during storage to protect them from excessive heat and direct sunlight.

All pipe and accessories shall be stored above ground and fully supported so as not to bend or deflect excessively under its own weight.

2.01(a) Metallic Marking Tape (For PVC Sewer Pipe)

2.01 (a).1 General

When non-metallic pipelines are to be installed, then the Contractor shall furnish and lay, above the pipeline, a continuous strip of metallic identification tape.

2.01 (a).2 Tape Material

The metallic identification tape shall be at least two inches (2”) in width and shall be of corrosive resistant metal of sufficient thickness to be stable and reflect electronic signals to electronic pipeline detector when buried to a dept of twenty-four (24”) below normal ground level.

The metallic tape shall be painted green on one side and shall have 1-inch high letters painted continuously on the same side of the tape which read, “CAUTION: BURIED SEWER LINE BELOW” or other words to this effect.

The marking tape shall be “Detectable Marking Tape”, as manufactured by the Omega Marking Company, or equal approved by the Engineer.

2.01(a).3 Construction Methods

The Contractor shall backfill over non-metallic pipelines to a depth which is less than twenty-four (24”) and not more than twelve inches (12) from the top of the cut of the ditch section in which the pipeline is laid. Contractor shall stop the backfilling material to a generally uniform level. All machine tamping, jetting and other compaction activities shall be accomplished up to this point of height in the backfilling the marking tape is placed in the trench.

The Contractor shall then lay the marking tape in the pipe trench and shall be held in position by the spot placement of backfill materials over it to keep it from sliding t the sides and/or from being blown about in the ditch by the wind. The tape shall be lid with the painted side, which shall also be the side with the identification lettering on it, in the “up” position. The tape shall be laid in the flat position and kept there until backfill is accomplished.

The Contractor shall then complete the backfilling operation in such a manner that the marking tape is not cut, crimped, ruptured or separated by the backfilling work.

2.01(a).4 Measurement and Payment

No separate pay item will be provided for furnish and placing the marking tape. This item shall be considered subsidiary to the non-metallic pipe being placed.

2.02 CORRUGATED STEEL PIPE (CSP) FOR STORM SEWERS AND CULVERTS ONLY

1. PIPE

A. STEEL SHEET STOCK

(1) Corrugated steel pipe shall be manufactured using galvanized steel sheet AASHTO M 218 or aluminized steel sheet AASHTO M 274.

(2) The lining for smooth lined corrugated steel pipe shall be polymer coated on both sides. The minimum thickness of the polymer coating shall be 10 mils.

B. PIPE DESIGNATION

(1) Pipe furnished shall be manufactured in accordance with AASHTO Specification M 36.

(2) Corrugated steel pipe shall be one or more of the following type as designated in AASHTO M 36.

Type I - Full circular cross section having helical corrugations.

Type IA - Full circular smooth lined pipe constructed of an outer shell having helical corrugations with a smooth sheet lining attached to the outer shell at helical lock seams.

Type IR - Full circular cross section with helical rib protruding outward.

Type II - Type I pipe formed into a pipe arch.

Type IIA - Type IA pipe formed into a pipe arch.

The type of pipe furnished on this project will be as shown on the plans and in the bid proposal.

When no type of pipe is called for on the plans or in the bid proposal helically corrugated circular single wall pipe (Type I or Type IR) shall be furnished.

C. MANUFACTURERS CERTIFICATION

(1) The pipe manufacturer will be required to certify the adequacy of the pipe furnished for the application and design life of the project.

(2) The design life for storm sewers constructed under this specification is 50 years.

(3) The pipe manufacturer will be required to run soil pH, soil resistivity and such other test as they deem necessary to design pipe thickness and protective coatings required to assure the adequacy of the pipe supplied.

D. CORRUGATION AND MINIMUM THICKNESS

(1) Thickness used in this specification refers to the bare steel thickness before coating is applied. The minimum thickness for any single wall corrugated steel pipe furnished under this specification is 16 gage.

(2) All corrugated steel pipe furnished under these specifications shall have helical corrugations.

(3) Circular corrugated steel pipe 48” in diameter and smaller shall have 2-2/3” x ½” corrugation and shall be a minimum of 16 gage in thickness.

Circular corrugated steel pipe larger than 48” in diameter may have either 2-2/3 x ½” or 3” x 1” corrugations. The minimum thickness for corrugated steel pipe larger than 48” in diameter and having 2-2/3 x ½” corrugation shall be as follows:

54” Diameter - 12 gage
60” Diameter - 10 gage
66” through 90” Diameter - 8 gage

The minimum thickness for circular corrugated steel pipe having 3” x 1” corrugation and diameters of 54” through 90” shall be 14 gage.

(4) For smooth lined corrugated steel pipe the minimum thickness for the lining shall be 20 gage and the minimum thickness for the outer shell shall be 18 gage.

The corrugations for the outer shell shall be 2-2/3” x ½” for pipe 48” diameter and smaller. Larger diameter pipe may use 3” x 1” corrugations in the outer shell. The sum of the thickness for the outer shell and the liner shall be a minimum of one thickness unit greater than the thickness that would be required for single wall pipe of the same diameter or span.

(5) Spiral rib steel pipe (Type IR) shall have outward projecting spiral corrugations of ¾” x 1” at 11-1/2” on center in accord with AASHTO specification M 36 or ¾” x ¾” at 7-1/2” on center as described in AASHTO specification M 196.

The minimum thickness for spiral rib pipe 48” in diameter and smaller shall be 16 gage.

The minimum thickness for spiral rib pipe 54” and 60” in diameter shall be 14 gage.

The minimum thickness for spiral rib pipe 66” and 72” in diameter shall be 12 gage.

The minimum thickness for spiral rib pipe larger than 72” in diameter shall be as shown on the plans.

(6) The corrugations and minimum thickness of corrugated steel pipe arch shall be in accord with the following table:

EQUIV. Dia. (in.)	2-2/3" x ½" Corrugations Span (in.)	Rise (in.)	Gage	3" x 1" Nominal Size Span (in.)	Rise (in.)	Gage
15"	17	13	14			
18"	21	15	14			
24"	28	20	14			
30"	35	24	14			
36"	42	29	14	40	31	16
42"	49	33	12	40	36	14
48"	57	38	10	53	41	12
54"	64	43	10	60	46	12
60"	71	47	8	66	51	12
66"	77	52	8	73	55	12
72"	83	57	8	81	59	12
78"				87	63	12
84"				95	67	12
90"				103	71	12

When 2-2/3" x ½" corrugations are called for on the plans and/or on the bid schedule the substitution of 3" x 1" corrugations will be allowed only upon the demonstration by the contractor that there is sufficient head room to accommodate the higher rise for arch pipe of this cross section.

E. END TREATMENT AND JOINING

(1) The ends of all corrugated steel pipe furnished for this project shall be rolled to provide circumferential corrugations for coupling. The end corrugations for all pipe 48" in diameter and less shall be 2-2/3 x ½". The end corrugations for single wall helically corrugated steel pipe or for smooth lined corrugated steel pipe 54" in diameter and larger shall be the same pitch as the pipe furnished and may be either 2-2/3" x ½" or 3" x 1". The end corrugations for spiral rib (Type IR) corrugated steel pipe shall be 2-2/3" x ½" or 3" x 1" for pipe 54" and larger in diameter.

(2) Coupling bands shall be made of the same material as the pipe and shall be not more than 3 nominal sheet thicknesses lighter than the pipe joined and in no case less than .052 inch.

Jointing devices for joining corrugated steel pipe shall have a gasket and shall produce a joint meeting the infiltration/exfiltration requirements of these specifications.

If it should be necessary to cut a joint of Helically corrugated pipe and join the unreformed end to another section of pipe or fitting extra width bands will be required and special care must be taken to insure a water tight connection.

Locking bands shall be corrugated and shall securely fit into at least one full annular corrugation. The corrugations on the locking band must match the corrugations on the pipe being joined.
The minimum width for locking bands is as follows:

for 2-2/3 x ½ inch corrugations	10-1/2 inches
3 x 1 inch corrugation	12 inches

For helical corrugations that have not been reformed the coupling bands must be at least 2 inches wider than the widths listed above.

Unless shown otherwise on the plans all bolts for coupling or locking bands shall be ½ inch in diameter. Bands 12 inches wide or less shall have a minimum of 2 bolts. Bands wider than 12 inches shall have a minimum of 3 bolts.

Bolts must be galvanized in accordance with AASHTO Designation M232 or ASTM A164 Type RS.

(3) Gaskets for corrugated steel pipe shall be closed cell expanded rubber and shall be formed into a continuous band. Gaskets may be either “O” ring or flat band as recommended by the pipe manufacturer. Flat band gaskets shall be a minimum of 7” wide and 3/8” thick. “O” ring gaskets shall be 13/16” diameter minimum for pipe 36” in diameter or less and 7/8” for pipe larger than 36” diameter and having ½” deep corrugations. “O” ring gaskets shall be a minimum of 1-3/8” diameter for pipe having 1” deep corrugations. When “O” ring gaskets are furnished, an additional flat gasket shall be furnished and placed between the overlapping ends of the coupling band. This flat gasket shall completely fill the gap between the “O” rings. All gasket materials shall be capable of producing a water tight joint that will meet the leakage requirements of these specifications.

2. CORRUGATED STEEL MANHOLE FITTINGS, AND CLEAN OUTS

A. FABRICATION

(1) Corrugated steel manholes and fittings shall be constructed of the same material and type of pipe furnished for the storm sewer line with the exception that manhole risers shall be helical corrugated single wall circular pipe when used with pipe arch sewers or smooth lined corrugated steel pipe. The thickness of the manhole riser shall be the same as would be required for the same type and diameter pipe if it were used for the storm sewer.

(2) Cleanouts for use on shallow storm sewer and inlet leads shall be manufactured from pipe meeting the requirements of these specifications. Cleanouts shall be constructed to the dimensions and in accord with the details shown on the plans.

B. CONNECTION TO MANHOLES AND CLEANOUTS

(1) Stub outs from manholes and cleanouts for connection to storm sewers and inlet leads shall have annular corrugations and shall be compatible with the type and size of pipe being connected. Stub outs provided for connection to PVC pipe storm sewers and inlet leads shall be sized so that the PVC pipe can be inserted into the stub leaving the least amount of annular space between the PVC pipe and the CSP practical. The PVC pipe shall be connected using an approved molded rubber or PVC sleeve connector clamped to both pipes with stainless steel straps.

The connector shall be a flexible coupling as manufactured by Fernco, 300 S. Dayton St., Davison, MI., or approved equal.

.

C. LEAKAGE

Manholes, fittings and cleanouts shall meet the leakage requirements of these specifications.

D. SHOP DRAWINGS

The contractor shall submit shop drawings of all manholes, fittings and cleanouts for approval prior to their fabrication. A minimum of 5 sets of drawings for each manhole, each fitting and each cleanout shall be submitted.

E. CONCRETE SLAB TOPS

A reinforced concrete slab top shall be constructed for each manhole and cleanout. The slab shall extend to one foot (1') outside the riser section on all sides and shall have an eccentric 2' diameter opening for the manway located at the outside edge of the riser section. For manholes and cleanouts designated for standard manhole rings and covers the concrete top shall be 8 inches thick and shall be finished smooth to receive the manhole ring.

For manholes designated to receive pressure type manhole rings and covers the concrete slab top shall be a minimum of 12 inches thick and shall have L bolts imbedded in the concrete to fit the requirements of the manhole ring furnished. The slab shall be finished smooth to receive the manhole ring. The manhole ring shall be securely bolted to the slab and sealed using "Ram Nek" or an approved equal bitumastic sealer between the manhole ring and the concrete slab.

The concrete slab manhole tops shall be reinforced with number 4 steel reinforcing bars spaced at 12 inches on center each way. Additional diagonal bars shall be placed on 4 sides around the manway opening. The diagonal bars shall be number 4 rebar with a minimum length equal to the diameter of the manway opening plus 4 inches. The steel reinforcing mat shall be placed in the bottom of the slab with 1-1/2 inches protective covering.

F. PRESSURE MANHOLE RING AND COVER

(1) Pressure type manhole rings and covers shall be Western Iron Works No. 380-24P or approved equal. The manhole cover shall be sealed with an "O" ring gasket in a ring groove and shall be secured to the ring by six (6) 5/8-inch stainless steel bolts.

(2) The ring shall have six (6) 1-1/4 inch bolt holes in the flange for securing the ring to the concrete slab top on the manhole.

3. CORRUGATED STEEL PIPE SLOTTED DRAIN

(1) Corrugated steel pipe slotted drains shall be fabricated from full circle corrugated steel pipe conforming to these specifications.

(2) C.S.P. Slotted drains shall be of a type as manufactured by "Contech Construction Products, Inc.", "Texas Corrugators", "Caldwell Culvert Company" or approved equal.

(3) The upstream end of CSP slotted drains shall be equipped with a bend and a ring and cover of the some size as the pipe from which the slotted drain was fabricated to allow cleaning equipment to be inserted into the slotted drain. The ring and cover shall be Nenah Foundry Co. R-5901 open grate or R-5900 solid lid or approved equal. Unless shown otherwise on the plans the open grate shall be furnished.

(4) When slotted drain is to be connected to PVC leads, molded rubber or PVC flexible connector as specified for connections to manholes and cleanouts shall be furnished.

4. DAMAGED COATING

A. PROTECTION OF PIPE

(1) Pipe fittings and specials shall be handled and stored in a manner that will minimize damage to the coating.

(2) The fabrication process shall be designed to minimize the burning of coatings during welding.

(3) Pipe and/or fittings showing excessive abuse or damage will be rejected.

B. REPAIRING DAMAGE

(1) Pipe on which the metallic coating has been burned by welding or has been otherwise damaged in fabricating or handling, shall be repaired. The repair shall be done so that the completed pipe shall show careful finished workmanship in all particulars.

(2) The damaged area shall be cleaned to bright metal by blast cleaning, power disk sanding, or wire brushing. The cleaned area shall extend at least ½ inch into the undamaged section of the coating. The cleaned area shall be coated within 24 hours and before any rusting or soiling.

(3) Zinc-rich paint shall be applied to a dry film thickness of at least 0.005 inches over the damaged section and surrounding cleaned area. Zinc-rich paint shall be used for repair of damage to all types of metallic coating -zinc, aluminum, and aluminum-zinc alloy.

2.03 CAST-IN-PLACE CONCRETE SEWER PIPE (NON-REINFORCED) FOR STORM SEWERS ONLY

1. DESCRIPTION

This item shall cover machine cast-in-place monolithic non-reinforced concrete pipe, which shall consist of Portland cement concrete placed in a prepared trench at such locations and grades shown on the plans and intended to be used for the conveyance of storm water. Items and item numbers referred to in this specification are the items as given in the "Texas State Department of Highways and Public Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges."

2. MATERIALS

The cast-in-place pipe shall be constructed of Class "C" concrete. The concrete shall meet the requirements of Item 421, "Concrete for Structures," and Special Provision thereto, except as otherwise noted herein or on the plans. Type III Portland Cement shall be used.

The minimum compressive strength for concrete used in this item is 4000 psi. Backfilling operations may proceed when the concrete has reached 2000 psi compressive strength.

The coarse aggregate grading for pipe diameters 48 inches or less shall conform to that of Aggregate Grade No. 3, one inch (1") maximum size aggregate under Item 421. For pipe diameters over 48 inches, Coarse Aggregate No. 2, one and one third inch (1-1/3") maximum size aggregate shall be used.

No concrete having a slump in excess of 2" will be permitted for use in pipes with diameters of 48 inches and over. For pipes with diameters less than 48 inches, no concrete having a slump in excess of 3" will be permitted for use. At the option of the Contractor, sections of precast reinforced concrete pipe (D-load) may be substituted for cast-in-place concrete pipe. Pipe and installation shall conform to the requirements of Item 465, "Pipe Sewers." Backfill shall be in accordance with the requirements for other storm sewers in these specifications using crusher fines (chat).

3. PIPE MAKING EQUIPMENT

The pipe shall be constructed with equipment specially designed for constructing cast-in-place monolithic concrete pipe. The equipment shall be acceptable to the Engineer and the Contractor may be required to furnish evidence of successful operation in other work of the equipment he proposes to use. Equipment not suitable to produce the quality of work required for the pipeline will not be permitted to operate on the project.

4. DIMENSIONS AND TOLERANCES

The design shell thickness shall be as specified in Table 1.

TABLE I

Internal Diameter inches	Min. Shell Thickness inches
18	2
24	2-1/2
30	3
36	3-1/2
42	4
48	5
54	5-1/2
60	6
66	6-1/2
72	7
84	8
96	9
108	10
120	11

Variation in the internal diameter shall not exceed plus or minus 3 percent. The maximum allowable deviation form the true grade of the design invert of the pipe shall not exceed ½ inch either side of true grade. Where deviation from true grade occurs, true grade shall be re-established at a maximum departure of one-eighth inch per foot.

5. EXCAVATION AND BACKFILL

Excavation shall be in accordance with the requirement for other types of storm drains, except as modified herein. The trench shall be excavated in the lines and grades shown on the plans or as directed by the Engineer. The width of the trench shall be sufficient to accommodate travel of the pipe machine only. The bottom of the trench shall be shaped to the nominal outside circumference of the pipe. Excavation shall be performed from the outlet to the inlet. If the trench is over-excavated for the bottom 210 degrees of the pipe the excess area shall be filled with concrete. If rock is encountered, it will be removed at least 6 inches below the bottom of the pipe and the trench refilled with material sufficiently compacted to

allow operation of the machine and provide a smooth firm surface. The sidewall of the pipe shall be placed against undisturbed material.

Backfill material will be a crusher fine (chat) as described elsewhere in these Specifications. No backfill other than permitted for curing purposes shall be placed until the line has been inspected and approved by the Engineer. The trench may be completely backfilled after the pipe has been in place at least 24 hours and concrete strength requirements have been reached. Light traffic, axle load less than 6,000 pounds, may be routed over the pipe after backfill has been completed for twenty-four (24) hours. Unrestricted traffic may be permitted over the pipe after the backfill has been in place for forty-eight (48) hours.

All backfill material shall be mechanically compacted to 95% modified proctor or as directed by the Engineer.

6. CONSTRUCTION

All surfaces against which concrete are to be placed shall be free from standing water, mud, and debris. Absorptive surfaces against which concrete are to be placed shall be moistened thoroughly so that moisture will not be drawn from the freshly placed concrete.

The concrete shall be placed in one operation around the full circumference of the pipe by means of a traveling form. The forms shall be of sufficient strength to withstand vibrating or tamping the concrete and to permit workmen to walk on the forms without causing springing or bulging at any point.

As the traveling form moves forward, forms shall be placed inside the newly formed pipe to support a minimum of 230 degrees of the upper portion of the pipe.

The concrete shall be vibrated, rammed, tamped or worked with suitable appliances until the concrete has been consolidated to the maximum practicable density, free of rock pockets, and closes snugly against all surfaces or forms and provides a bond between the pipe shell and supporting earth.

When placing operations cease for any reason, the end of the pipe shall be left rough with a slope of approximately 45 degrees. The ends of the pipeline shall be covered with canvas or other suitable cover material to prevent excessive loss of moisture from the interior of the pipe already placed.

When starting pipe laying operation from a previously laid cast-in-place pipe or section of pre-cast pipe, a construction joint shall be made by excavating a “bell” completely around the end of the existing pipe and constructing a concrete collar to extend at least one foot either side of the joint with a minimum thickness equal to that of the wall of the pipe. The end of the existing pipe shall be clean and damp before continuing pipe making operations. Cleaning of the construction joint shall consist of removing all latency, loose or defective concrete, coatings, and any other deleterious materials.

All forms shall be clean and shall be placed at the trench side at the location of their proposed use for inspection by the Engineer. Forms, which are defective in any way, will not be used, and upon condemnation they shall be removed from the site of the work. The forms shall not vary more than ½ inch from the lower edge of a straightedge laid parallel to the centerline of the form, and shall be free of any holes larger than 5/8 inch in greatest dimension. The pipe machine shall be thoroughly clean and serviced prior to the placing of the concrete. Particular attention will be given to all parts of the machine with which concrete comes into contact.

Concrete chutes or trunks shall be provided to reach within 1 foot of the pipe machine hopper. The end of the chute or trunk shall discharge the concrete at the center of the hopper. Provisions shall be maintained to minimize segregation of the concrete mix in all phases of the operation.

Delays in placing shall be handled as follows or as otherwise directed. The concrete hopper on the pipe laying machine shall be kept ½ full at all times, provided, however, that when placing operations cease or are delayed for any reason for more than 20 minutes, the pipe machine shall be pulled forward until all the concrete is exhausted and until the top troweling skirt is clear of the concrete. If the pipe laying operation proceeds within one hour of the time of the last placement, no further steps need to be taken. However, if longer than one hour has elapsed, then a construction joint must be made as previously described. The end of the pipe shall be left rough and at the natural slope when the machine is moved forward.

All junctions of pipe shall be provided for at the time the cast-in-place pipe is placed.

Inside forms shall be removed from the pipe not sooner than 4 hours nor longer than 24 hours after placement of the concrete. Care shall be taken when removing forms to prevent damage to the pipe. The inside of the pipe shall be carefully inspected for imperfections in placement, and any required repairs or smoothing shall be made immediately to provide a uniform interior surface. No wash, mortar or concrete shall be applied to a surface not properly moistened or cleaned. Visible cracks shall be brushed with cement paste or chipped out and pointed up with cement mortar. Any cracks that appear to go through the shell shall be grooved and filled with mortar. All construction operations and methods for providing a watertight pipeline shall be the responsibility of the Contractor. Mortar shall consist of one part cement; two parts well graded sand passing 1/8-inch sieve. Wash shall consist of four parts cement, one part fire clay. The finished surface of the concrete pipe shall be substantially free of fractures, cracks and surface roughness.

7. CURING CONCRETE

Immediately after the concrete is placed the exposed surface of the concrete shall be cured by covering the top with a sheet of polyethylene film sealed with dirt along the edges. During the curing period following the placement of the concrete, the ends of the pipeline and all other openings into the pipeline shall be covered with canvas or other suitable material, except at locations where work is actually in progress. The inside surface of the pipeline shall not be cured.

8. MANHOLES AND BENDS

Manhole bases shall be hand formed on top of the pipe as soon as the pipe-placing machine has passed. Where required, the extra width for manholes shall be excavated ahead of the pipe placing operation. The base for the manhole shall be formed to receive a standard precast concrete barrel section and shall be shaped and smoothed so that the joint can be sealed water tight by use of “Ram Nek” or other approved joint sealing material.

Bends may be formed and cast in place or fabricated using precast reinforced concrete pipe (load D). Design and shop drawings shall be submitted to and approved by the Engineer before the bends are fabricated or cast.

9. MEASUREMENT

Measurement of manholes shall be as specified elsewhere in these specifications. Measurement of bends shall be as for other storm sewer pipe. The method of pipe measurement shall conform to that for other types of storm drainpipe in the section or storm drains in these specifications.

10. PAYMENT

Payment for cast-in-place non-reinforced pipe sewers, measured as prescribed above, will be made at the unit price bid per linear foot for the various sizes of “Pipe Sewers (Cast-in-Place)” complete in place. Payment for manholes shall be as specified elsewhere in these specifications.

Such payment shall be full compensation for furnishing all concrete materials, precast reinforced concrete pipe used in place of cast-in-place pipe, and for all other materials, tools, labor, equipment, and incidentals required to perform the applicable work prescribed herein.

When precast reinforced concrete pipe at the Contractor’s option is used in a line of cast-in-place pipe the additional excavation for the pipe will be subsidiary.

2.04 CENTRIFUGALLY CAST FIBERGLASS REINFORCED RESIN PIPE SEWERS

A. DIRECT BURY PIPES

1. GENERAL

All pipes, joints and fittings shall be manufactured in accordance with the requirements of the applicable standard given below except as noted herein:

Service	Standard
Non pressure Sanitary Sewer	ASTM D3262
Sewer Force Main and Effluent Lines	ASTM D3754

Pipes shall be centrifugally cast, fiberglass-reinforced polyester resin as manufactured by Hobas USA, Inc. or approved equal.

Minimum pipe stiffness when tested in accordance with ASTM D2412 shall be 46 psi.

2. MATERIALS

The manufacturer shall use only approved polyester resin systems for which he can provide a proven history of performance in these particular applications. The historical data shall have been acquired from a composite material of similar construction and composition as the proposed product.

The reinforcing glass fibers used to manufacture the components shall be of highest quality commercial grade of E-glass filaments with binder and sizing compatible with impregnating resins. Sand shall be minimum 98% silica with a maximum moisture content of 0.2%

3. DIMENSIONS

Pipe outside diameters shall be in accordance with AWWA Standard C151 and C950. For diameters larger than covered in those documents, OD's shall be as shown in Table 1.

TABLE I

*WP/s		0/46		50/46		100/46		150/46		200/46	
Nomin Pipe Sz. (in.)	Pipe OD (in.)	Min. wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt. (lb/ ft)	Min. Wall (in.)	Wgt (lb/ ft.)
18	19.50	.42	20	.41	20	.40	19	.38	18	.37	18
20	21.60	.46	25	.45	24	.43	23	.42	22	.40	21
24	25.80	.54	35	.53	34	.51	33	.49	31	.47	30
30	32.00	.66	54	.65	53	.62	51	.60	49	.57	47
36	38.30	.78	77	.77	76	.74	73	.71	70	.68	67
42	44.50	.90	104	.88	101	.85	98	.82	94	.78	89
48	50.80	1.02	134	1.00	131	.96	126	.93	122	.88	115
54	57.10	1.14	169	1.12	166	1.08	160	1.04	155	.99	147
60	62.90	1.26	209	1.23	204	1.19	197	1.14	188	1.09	180
66	69.20	1.38	249	1.35	243	1.30	234	1.25	228		
72	75.40	1.50	298	1.47	292	1.41	280	1.36	270		
78	81.60	1.62	352	1.58	343	1.52	331	1.47	320		
84	88.00	1.74	409	1.70	399	1.64	385				
90	94.30	1.86	468	1.82	458	1.75	440				
96	100.6	1.98	531	1.94	520	1.87	501				

- **Maximum nominal working pressure in psi/pipe stiffness in psi**

Pipe shall be supplied in nominal lengths of 20 feet. Actual laying length shall be the nominal plus or minus 2 inches. At least 90% of the total footage of each size and class of pipe, excluding special order lengths, shall be furnished in nominal length sections.

4. **PRESSURE CLASS & TESTING FOR SEWER FORCE MAINS AND EFFLUENT LINES**

The pipe nominal pressure class (PN) shall be equal to or greater than the maximum sustained operating pressure of the line. The minimum pressure rating for non-pressure pipe shall be 15 psi.

The maximum transient (operating plus surge) pressure of the line shall not exceed the pipe nominal pressure class by more than 40%.

Pipe hoop tensile strength for pressure pipe shall be verified as specified in the applicable standard (D3754 or C950) or by random burst testing at the same sampling frequency. All pipes shall be capable of withstanding a test pressure of 2 times the maximum sustained operating pressure of the line without leaking or cracking. This performance shall be periodically verified at the factory for pressure pipe at least once per lot as defined in D3754, section 7.1.

A. JOINTS

Unless otherwise specified, the pipe shall be field connected with fiberglass sleeve couplings that utilize elastomeric sealing gaskets made of EPDM rubber compound as the sole means to maintain joint water tightness. The joints must meet the performance requirements of ASTM D4161.

B. FITTINGS

Flanges, elbows, reducers, tees, wyes, laterals and other fittings shall, when installed, be capable of withstanding all operating conditions. Acceptable configurations include contact molded or metered fiberglass or properly protected standard ductile iron.

Unbalanced thrust forces shall be restrained with thrust blocks or other approved suitable methods. Fiberglass tees, wyes, laterals, or other similar fittings shall be fully encased in reinforced concrete designed to withstand the pressure forces.

2.05 POLYETHYLENE SEWER PIPE

A. SCOPE

(1) This specification covers Polyethylene (PE) pipe with a corrugated outer wall and a smooth interior wall, for use with non-pressure sanitary sewer systems. The PVC fittings and joints are included in the specification.

B. MATERIAL AND MANUFACTURING

1. PIPE MATERIALS

The pipe shall be made from clean virgin Polyethylene compounds having a cell classification of 324420C as defined by ASTM D-3350.

2. FITTING MATERIALS

The fittings shall be made from clean virgin polyvinyl chloride (PVC) compounds having a cell classification of 12454B, 1245C or 13343C as defined by ASTM D-1784.

Pipe shall be manufactured by simultaneous extrusion of the corrugated and smooth walls with the smooth inner wall fused to the outer corrugated wall.

Fittings shall be molded or fabricated.

3. JOINING MATERIALS

a. Gaskets
b. Elastomeric gaskets shall meet the requirements of ASTM F-477.
c. Lubricants

The lubricants used for assembly shall have no detrimental effect on the gasket or the pipe, and shall be per published recommendations of the pipe manufacture.

4. MATERIAL CERTIFICATION

A manufacture's or an independent laboratory certification shall be furnished to the purchaser/engineer that the products were manufactured, sampled, tested, and inspected at the time of manufacture in accordance with this specification.

C. PIPE DIMENSIONS

Pipe dimensions shall meet the following requirements when tested in accordance with ASTM D-2122.

Nominal Size	Avg. O.D.	Avg. I.D.
4	4.790 (121.7)	4.00 (101.6)
6	6.930 (176.0)	6.00 (152.4)
8	9.145 (232.2)	8.00 (203.2)
10	11.405 (289.7)	10.00 (254.0)
12	14.450 (367.0)	12.00 (304.8)
15	17.530 (445.3)	15.00 (381.0)
18	21/150 (537.2)	18.00 (457.2)

D. INSTALLATION

1. Joint Tightness

Minimum joint performance shall show no leakage when tested in accordance with ASTM D-3212.

2. Supplier Assistance

A manufacturers representative of the above referenced pipe material shall be present at the beginning of the installation as required by the Design Engineer or Contractor and shall remain on site until released by the Design Engineer or Field Inspector/Engineer.

2.06 INLETS FOR STORM SEWERS

A. CURB TYPE INLETS

(1) Curb inlets shall be constructed at the locations and to the lines and grades or shown on the plans or as directed by the Engineer.

(2) Curb inlets shall be constructed of reinforced class “C” concrete in accordance with Section 1-B “Concrete Structures” and the plans and detail drawings.

(3) The curb section and the curb inlet shall conform to the curb and gutter section in which it is placed in so far as it is possible.

B. GRATE TYPE INLETS

(1) Grate inlets shall be constructed at the locations and the lines and grades as shown on the plans or as directed by the Engineer.

(2) Concrete boxes for grate inlets shall be constructed of reinforced Class “C” concrete in accordance with Section 1-B “concrete Structures” and the plans and detail drawings.

(3) Grates shall be constructed of ASTM A-48 gray iron having minimum tensile strength of 35,000 psi or ductile iron having a minimum tensile strength of 60,000 psi and a yield strength of 40,000 psi.

The size, style, shape, type, weight and class shall be as shown on the plans.

Grate frames shall be as manufactured for the grate by the grate fabricator. If more than one type or style or frame is available, the type and/or style shall be as indicated on the plans.

C. COMBINATION INLETS

(1) Combination curb and grate inlets shall be constructed at the locations and to the lines and grades as shown on the plans or as directed by the Engineer.

(2) Combination inlets shall be constructed in accordance with the applicable requirements for “Curb type inlets” and “Grate type inlets” above.

D. INLET LEADS

(1) Inlet leads may be PVC pipe or CSP as shown on the plans and called for in the bid proposal.

(2) Inlet leads shall be constructed in accordance with the specifications for type of material used and the plans and detail drawings.

(3) Where two or more leads are joined together to form a single lead to the storm sewer they shall be joined at a cleanout unless shown otherwise on the plans.

(4) Inlet leads shall be connected to the storm sewer at a manhole. The leads shall enter the manhole at a point that will match the .8 points of the two pipes as near as practical.

E. CLEANOUT FOR STORM SEWER INLET LEADS

Cleanouts at the juncture of inlet leads shall be constructed in accordance with the dimensions and requirements shown on the plans and detail drawings.

F. CORRUGATED STEEL SLOTTED DRAINS

(1) Corrugated steel slotted drains shall be as specified in section 2.02-3 of these specifications and shall be furnished in the lengths and diameters as shown on the drawings and in the bid proposal.

(2) Corrugated steel slotted drains are approved for nuisance water inlets only and are sized to allow for considerable clogging before they will cease to function in this capacity.

2.07 MANHOLES

1. GENERAL

A. **CONCRETE MANHOLES ARE NOT TO BE USED FOR SANITARY SEWERS AFTER DECEMBER 31, 2002. FIBERGLASS MANHOLES ARE TO BE USED FOR ALL SANITARY SEWERS**. Concrete manholes can be used for storm water sewers.

All manholes furnished for this project shall be precast unless noted otherwise on the plans and or bid proposal.

Precast manholes shall conform to the requirements of ASTM Specification C-478 with the modifications given in this article.

Concrete used for precast manholes shall have a minimum 28-day compressive strength of 4,000 psi and shall have a minimum cement content of 7 sacks per cubic yards.

All manhole sections shall be furnished with tongue and groove type joints suitable for sealing water tight with rubber or bituminous joint sealer or gaskets.

B. When cast in place components for manholes are called for on the plans the concrete used shall have a minimum 28 day compressive strength of 4,000 psi and a minimum cement content of 7 sacks per cubic yard and shall conform to the requirements of ASTM Specification C-478 with wall thickness as shown on the plans and detail drawings.

Aggregate for the concrete shall meet the sodium sulfate and magnesium sulfate test as required in ASTM Specification C-33.

C. Mortar for filling and shaping the inverts in precast manhole bases and for mortaring precast grade rings and cast iron rings and covers shall consist of one part Portland cement ASTM C150 Type 1 to 3 parts washed sand mixed with just enough water to make a workable mix.

D. Manholes for corrugated steel pipe may be precast concrete or corrugated steel as described in Article 2.02. The type and material shall be as shown on the plans and called for on the bid proposal.

2. PRECAST MANHOLES

A. Manhole base sections shall be cast with an integral floor and shall be constructed in accordance with the details shown on the plans.

B. Manhole riser sections shall be constructed in accordance with the plans and details and these specifications. When pipe openings are required in manhole riser sections they shall be of the same type and meet the same requirements as the pipe openings in the precast bases.

Manhole riser sections for each manhole shall be furnished in the proper combination of lengths to construct the manhole in conjunction with the other components to the finished grade shown on the plans.

C Eccentric cone sections shall be constructed in the same manner as other components except the top of the cone will have a flat surface to accommodate the manhole ring and cover or grade adjusting rings instead of a tongue or groove.

Generally openings will not be required in the wall of the cone section of the manhole.

D. Manhole grade rings shall comply with all the requirements for manhole riser sections except they shall be cast smooth both sides without tongues and/or grooves.

Manhole grade rings shall be sized to fit the smooth small end of the cone section and shall be cast in heights of 2", 4" or 6".

E. Joint seals for precast concrete manholes shall be a bitumastic sealer such as Ram-Nek or approved equal, a soft rubber sealer such as Butyl-Lok or approved equal or an approved "O" ring gasket or a combination of the above if required to achieve a water tight joint.

F. All water tight Storm Sewer Manholes constructed on this project shall have Neenah R-1755-C watertight manhole rings and covers or approved equal.

No separate payment will be made for the protective plastic manhole linings or for the water tight manhole rings and covers but the cost of these items shall be included in the price bid for water tight Storm Sewer Manholes.

In addition to the markings required by ASTM Specification C-478, all components of each manhole shall be, marked with location identifying information such as manhole number or line number and station value where manhole is to be installed. If the manhole has openings for installation of branch lines above the base section, each manhole section shall be clearly marked with the sequence of installation to assure the branch opening will be at the correct elevation.

3. FIBERGLASS MANHOLES

A. SCOPE

Fiberglass reinforced polyester manholes shall be manufactured from commercial grade polyester resin or other suitable polyester or vinyl resins, with fiberglass reinforcements and in accordance with the latest edition of ASTM D 3 753 (Standard Specification for Glass-Fiber Reinforced Polyester Manholes). Fiberglass manholes shall be used with fiberglass or plastic sewer pipe.

B. MATERIALS

1. **Resin:** The resins used shall be a commercial grade unsaturated polyester resin.

2. **Reinforcing Materials**: The reinforcing materials shall be commercial Grade "E" type glass in the form of mat, continuous roving, chopped roving, roving fabric, or a combination of the above, having a coupling agent that will provide a suitable bond with the resin and leave a resin rich surface.

3. **Surfacing Materials**: If reinforcing materials are used on the surface exposed to the contained substance, they shall be a commercial grade chemical-resistant glass organic surfacing mat having a coupling agent that will provide a suitable bond with the resin and leave a resin rich surface.

4. **Fillers and Additives**: Fillers, when used, shall be inert to the environment and wet well construction. Additives, such as thixotropic agents, catalysts, promoters, etc., may be added as required by the specific manufacturing process to be used. The resulting reinforced plastic material must meet the requirement of this specification.

C. FABRICATION

1. **Exterior Surface**: The exterior surface shall be relatively smooth with no sharp projections. Handwork finish is acceptable if enough resin is present to eliminate fiber show. The exterior surface shall be free of blisters larger than ½ inch in diameter, de-lamination and fiber show.

2. **Interior Surface**: The interior surface shall be resin rich with no exposed fibers. The surface shall be free of crazing, de-lamination, blisters larger than ½ inch in diameter, and wrinkles of 1/8 inch or greater in depth. Surface pits shall be permitted up to 6 per square foot if they are less than ¾ inch in diameter and less than 1/16 inch deep.

3. **Defects not permitted**:

Exposed fibers: glass fibers not wet out with resin.
Resin runs: runs of resin and sand on the surface
Dry areas: areas with glass not wet out with resin.
De-lamination: separation in the laminate.
Blisters: light colored areas larger than ½ inch in diameter.
Crazing: cracks caused by sharp objects
Pits or Voids: air pockets.
Wrinkles: smooth irregularities in the surface.
Sharp projection: fiber or resin projection necessitation gloves for handling.

D. PHYSICAL REQUIREMENTS

1. **Load Rating**: The complete manholes shall have a minimum dynamic-load rating of 16,000 ft-lbs. when tested in accordance with this standard. In order to establish this rating, the complete manhole shall not leak, crack, or suffer other damage when load

tested to 40,000 ft-lbs. and shall not deflect vertically downward more than ¼ inch at the point of load application when loaded to 24,000 lbs.

2. **Stiffness**: The manhole cylinder shall have a minimum pipe stiffness value as shown below when tested in accordance with A.S.T.M. 3753 8.5 (note 1)

Depth Ft.	F/dy.psi
3 – 6.5	0.75
7 – 12.5	1.26
13 – 20.5	2.01
21 – 25.5	3.02
26 – 35	5.24

3. **Soundness:** In order to determine soundness, apply an air or water pressure test to the manhole test sample. Test pressure shall not be less than 3 psig or greater than 5 psig. While holding at the established pressure, inspect the entire manhole for leaks. Any leakage through the laminate is cause for failure of the test. Refer to A.S.T.M. 3753 8.6.

4. **Chemical Resistance**: The fiberglass manhole and all related components shall be fabricated from corrosion proof material suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with the wastewater collection.

5. **Physical Properties**:

	Hoop Direction	Axial Direction
a. Tensile Strength (pi)	18,000	5,000
b. Tensile Modulus (pi)	0.6×10^6	0.7×10^6
c. Flexural Strength (psi)	26,000	4,500
d. Flexural Modulus (psi)	1.4×10^6	0.7×10^6
e. Compressive (psi)	18,000	10,000

6. **Minimum Wall Thickness**: Shall be 0.48” nominal at all depths of the manholes.

E. TEST METHODS: All tests shall be performed as specified in A.S.T.M 3753 latest edition, section 8. Test method D-790 (see note 5) and test method D-695.

F. QUALITY CONTROL: Each completed manhole shall be examined for dimensional requirements, hardness, and workmanship. All required A.S.T.M 3753 testing shall be completed and records of all testing shall be kept and copies of test records shall be presented to customer upon formal written request within a reasonable time period.

G. CERTIFICATIONS: As a basis of acceptance the manufacturer shall provide a independent certification which consist of a copy of the manufacturer’s test report and accompanied by a copy of the test results that the manhole has been sampled, tested,

and inspected in accordance with the provisions of this specification and meets all requirements.

H. SHIPPING AND HANDLING: Do not drop or impact the fiberglass manhole. Fiberglass manhole may be lifted by inserting a 4" x 4" x 30" timber into the top of manhole with cable attached or by a sling or "choker" connection around center of manhole, lift as required. Use of chains or cables in contact with the manhole surface is prohibited.

I. CONCRETE:

1. **Fiberglass Bottom**: Manholes may have fiberglass bottoms that are a minimum of 6" below the OD of the pipe invert when concrete is used to form the invert. Manufactured fiberglass inverts and bench areas are allowed, or concrete may be used to form bench area and invert. Concrete is to be used on top of anti-flotation ring and around the reducer section as required for buoyancy.

2. **Concrete Bottom**: Lower manhole into wet concrete until it rests at the proper elevation, with a minimum of 4 inches of fiberglass manhole inserted into the wet concrete below flow line, then move manhole to plumb. The concrete shall extend a minimum of one foot from the outside wall of the manhole and a minimum of 6 inches above incoming lines. On the inside concrete shall form the bench and invert area and rise a minimum of 4 inches above incoming lines. If required by Engineer concrete may be used around reducer section for buoyancy control.

BACKFILL:

1. **Backfill Material**: Unless shown otherwise on drawings and approved by the Engineer, sand, crushed stone, or crushed gravel shall be used for backfill around the manhole for a minimum distance of one foot from the outside surface and extending from the bottom of the excavation to the top of the reducer section. Suitable material chosen from the excavation may be used for the remainder of the backfill. The material chosen shall be free of large lumps or clods, which will not readily break down under compaction. This material will be subject to approval by Engineer.

2. **Backfill Procedure**: Backfill shall be placed in layers of not more than 12 loose measure inches and mechanically tamped to 95% Modified Proctor Density, unless otherwise approved by Engineer. Backfill shall be placed in such a manner as to prevent any wedging action against the fiberglass manhole structure.

K. MARKING and IDENTIFICATION: Each manhole shall be marked on the inside and outside with the following information:

Manufacturer's name or trademark
Manufacturer's factory location
Manufacturer's serial number
Total length

4. MANHOLE RINGS AND COVERS

A. Manhole rings and covers furnished for this project shall be pattern No. 300-24 as produced by Western Iron Works, Inc., 21 E. 6th St., San Angelo, Texas 76903-5493 or Bass and Hays Foundry, Inc., 238 South Bagdad Rd., Grand Prairie, Texas 75050, or approved equal.

B. WATER TIGHT MANHOLE COVERS

(1) Water tight manhole rings and covers furnished for this project shall be number R-1755-C as manufactured by Neenah Foundry Company, P.O. Box 729, Neenah, Wisconsin 54957, or approved equal.

(2) When watertight replacement sanitary sewer manhole rings and covers are called for on the plans and in the bid proposal they shall be Neenah Foundry Co. No. R-1755-C or approved equal.

No separate payment will be made for adjusting to grade of the replacement watertight manhole rings and covers. The contractor shall schedule this work to coincide with other manhole and water valve adjustments and any costs that might be involved shall be included in the price bid for replacement water tight manhole rings and covers.

(3) Manhole vents shall be used in conjunction with watertight rings and covers spaced every third manhole or as indicated on the plans. Vents shall be constructed as indicated on City design and construction standards.

C. Pressure type manhole rings and covers may be required for certain storm sewer applications. When pressure type manhole rings and covers are called for on the plans and/or bid schedule they shall be Western Iron Works Pattern #380-24P or approved equal. The manhole cover shall be sealed with an “O” ring gasket in a ring groove and shall be secured to the ring by six (6) five-eighths inch (5/8”) stainless steel bolts. The ring shall have six (6) one and one quarter inch (1-1/4”) bolt holes in the flanges for securing the ring to the concrete slab top on the manhole.

D. All manhole covers except grate type shall have two blind pick holes or pick bar cast into them. The blind pick holes or pick bars shall be placed on opposite sides of the cover.

E. All manhole covers except grate type shall have cast into their tops in letters 2 inches high minimum one of the following:

CITY OF MIDLAND
SANITARY SEWER
OR
CITY OF MIDLAND
STORM DRAIN

which ever is applicable.

2.08 GRANULAR MATERIALS

A. GRANULAR MATERIAL GRADATION CLASSIFICATIONS:

Granular materials furnished for foundation, bedding, encasement, backfill, or other purposes as may be specified, shall consist of any natural or synthetic mineral aggregate such as sharp grained sand, crushed gravel, crushed rock, crushed stone, or slag, and shall conform to the following specifications and/or gradation.

Note all materials used for these purposes shall be crushed and shall have at least two broken faces. Pea gravel will NOT be allowed.

	Foundation	Bedding	Encasement	Backfill
ASTM C33 Grade #57	x			
ASTM C33 Grade #67	x			
ASTM C33 Grade #8		x	x	
THD 1982 Item 302 Type D Grade 4		x	x	
THD 1982 Item 302 Type D Grade 5			x	
Crusher fines**			*x	x

*100 percent of crusher fines that are to be used within 12 inches of the top of pipe must pass the ¾" sieve.

** Approximate Gradation for Crusher Fines.

Sieve Size	% Passing
2 inch	100
# 4	35 - 100
# 10	20 - 100
# 40	5 - 35
#200	4 - 10

Crushed stone material proposed as an alternate for use on this project and not meeting the above specifications must be approved in writing at least 48 hours prior to the time scheduled for opening bids.

B. GRANULAR MATERIAL USE DESIGNATIONS:

Granular materials provided for Foundation, Bedding, Encasement, or Backfill use as required by the contract, either as part of the pipe item work unit or as a separate contract item, shall be classified as to use in accordance with the following:

MATERIAL USE DESIGNATION	ZONE DESIGNATION
Granular Foundation	Placed below the bottom of pipe grade as replacement for unsuitable or unstable soils, to achieve better foundation support.
Granular Bedding	Placed below the midpoint of the pipe prior to pipe installation, to facilitate proper shaping and achieve uniform pipe support. Also for Class B bedding where specified.
Granular Encasement	Placed below an elevation one half foot (6") above the top of pipe, after pipe installation, for protection of the pipe and to assure proper filling of voids and thorough consolidation of backfill.

In each case above, unless otherwise indicated, the lower limits of any particular zone shall be the top surface of the next lower course as constructed. The upper limits of each zone are established to define variable needs for material gradation and compaction or void content, taking into consideration the sequence of construction and other conditions. The material use and zone designations described above shall only serve to fulfill the objectives and shall not be construed to restrict the use of any particular material in other zones where the gradation requirements are met.

PART 3 – EXECUTION

3.01 LOCATION OF WORK

A. The work will be located as shown on the plans.

B. It may be necessary for the Engineer to shift lines as reasonable amount to avoid an obstruction to the construction or to reduce right of way difficulties. The Contractor will not be allowed any additional compensation due to shift of lines. Additional compensation will be allowed only for lengthening of lines.

3.02 PROTECTION OF SURFACE STRUCTURES

A. All surface structures and features located outside the permissible excavation limits for underground installations, together with those within the construction areas which are indicated in the Plans as being saved, shall be properly protected against damage and shall not be disturbed or removed without approval by the Engineer.

B. Obstructions such as street signs, guard posts, mail boxes and other items of prefabricated construction may be temporarily removed during construction provided that essential service is maintained in a relocated setting as

approved by the Engineer and that non-essential items are properly stored for the duration of construction. Upon completion of the underground work, all such items shall be replaced in their proper setting. This removal, relocation and replacement shall be at the sole expense of the Contractor.

In the event of damage to any surface structures or improvements, either privately or publicly owned, in the absence of construction necessity, the Contractor will be required to replace or repair the damaged property to the satisfaction of the Engineer and without cost to the Owner.

3.03 INTERFERENCE OF UNDERGROUND STRUCTURES

A. When any underground structure interferes with the planned placement of the pipeline or appurtenances to such an extent that alterations in the work are necessary to eliminate the conflict or avoid endangering effects on either the existing or proposed facilities, the Contractor shall immediately notify the Engineer and the Owner of the affected structure. When any existing facilities are endangered by the Contractor's operations, he shall cease his operations at the site and take such precautions as may be necessary to protect the in place structures until a decision is made as to how the conflict will be resolved.

B. Without specific authorization from the Engineer, no essential utility service shall be disrupted, nor shall any change be made in either the existing structures or the planned installations to overcome the interference. Alterations in existing facilities will be allowed only to the extent that service will not be curtailed unavoidably and then only when the encroachment or relocation will satisfy all applicable regulations and conditions.

C. Wherever alterations are required as a result of unforeseen underground interference not due to any fault or negligence of the Contractor, the Engineer will issue a written order covering any additional or extra work involved and specifying the revised basis of payment, if any. Any alterations made strictly for the convenience of the Contractor shall be subject to prior approval and shall be at the Contractor's expense.

D. No extra compensation will be allowed for delays caused by the interference of underground structures.

3.04 SEPARATION BETWEEN SANITARY SEWERS AND WATER MAINS

A. Sanitary sewers and service lines shall be installed so that the separation between the sewer and water mains is not less than 9 feet in all directions. The 9 feet shall be measured between the nearest outside edges of the pipe.

B. When the required 9 foot minimum separation cannot be maintained and a sanitary sewer must be constructed parallel to a water main, the sanitary sewer shall be constructed of ductile iron or PVC pipe meeting AWWA specification or having NSF approval for potable water pipe, with a pressure rating of 100 psi for both the pipe and the joint. The sanitary sewer line shall

be installed in a separate trench and may be placed no closer than 2 feet vertically and 4 feet horizontally from the water main, with the separation being measured from the nearest outside walls of the pipes. The sanitary sewer shall be constructed lower than the water main.

C. When a sanitary sewer must cross a water main and the 9 feet required separation cannot be maintained, the sanitary sewer may be constructed with a minimum clear separation between the outside diameters of the two pipes of 6 inches if that part of the sanitary sewer within 9 feet of the water main is constructed of ductile iron pipe or PVC pipe meeting AWWA specifications, having a 150 psi pressure rating and equipped with pressure type joints. One length of the sewer pipe must be centered on the water main and where possible, the sanitary sewer should pass under the water line.

D. When the 9 foot required separation cannot be maintained and a sanitary sewer force main must be constructed parallel to a water main, the sanitary sewer force main shall be constructed of ductile iron or PVC pipe meeting AWWA specifications and having a pressure rating of 150 psi and equipped with pressure type joints. The force main must be constructed with a minimum vertical separation of 2 feet and a minimum horizontal separation of 4 feet measured between the outside diameters of the pipes. The force main must be constructed lower than water main.

Table I showing separation of water and sewer lines and construction materials allowed:

TABLE 1
SEPARATION OF WATER AND SEWER LINES

Condition	Location	Material		Separation (Min.)		Comments
		Water	Sewer	Vert.	Horiz.	
NEW WATER AND NEW SEWER SYSTEM						
New Water & New Sewer Gravity Sanitary Sewer Parallel to Water Main	Water above Sewer	Std.	CI DI PVC 150 PSI	2’	4’	Separate Trenches
Gravity Sanitary Sewer Crossing Water Main	Water above Sewer or Sewer above Water	Std	CI DI PVC. 150 PSI	6”	NA	Center one joint of sewer pipe on water main
Gravity Sewer Crossing Water Main	Water above Sewer	Std	ABS, Clay Conc. composite	2’	NA	Cement stabilize sand initial backfill zone each side of crossing. Center of sewer for 9 ft one joint of sewer pipe on water Main
NEW WATER AND EXISTING SANITARY SEWER						
New Water Parallel Existing Sewer	Water above Sewer	Std.	Clay, Conc. ABS CI DI PVC	2’	4’	If sewer shows no sign of leakage, then leave sewer alone. If Sewer shows signs of leakage, then repair or replace.
New Water Crossing Existing Sewer	Water above Sewer	Std	Clay, ABS Conc. composite	2”	NA	If sewer shows no sign of leakage, then leave sewer alone if sewer shows signs of leakage then repair or replace.
New Water Crossing Existing Sewer	Sewer above Water	Std	Clay, ABS Conc. composite	2’	NA	Replace existing sewer with one joint CI,DI,PVC-150 Centering over waterline
New Water Parallel to Existing Sewer	Sewer above Water	Std	Clay, ABS Conc. composite	2’	4’	Replace existing sewer with CI, DI, PVC – 150 PSI or Cement Stabilized sand back- fill initial Backfill none of sewer where parallel closer than 9 ft., or Encase the water in 150 PSI Pipe two nominal sizes larger.

EXISTING WATER AND NEW SANITARY SEWER						
New Sewer parallel Existing Water	Water above Sewer Or Sewer above Water	Std	CI DI PVC 150 PSI	2'	4'	Separate trenches
New Sewer crossing Existing Water	Water above Sewer or Sewer above water	Std	CI DI PVC 150 PSI	6"	NA	Center one joint of sewer pipe on water main.
New Sewer crossing Existing Water	Water Above Sewer	Std	Clay, ABS Conc. composite	2'	NA	Cement Stabilize sand initial backfill zone of sewer for 9 ft each side of crossing. Center one joint of sewer pipe on water main.

3.05 EXCAVATION

A. Excavation of every description and of whatever materials encountered shall be made to the alignment and depth shown on the plans or as directed by the Engineer. Excavation shall be made by open cut. Sides of trenches shall be kept as nearly vertical as possible and the trench shall be so braced, sheeted and drained that workmen may work safely and efficiently therein. The trenches shall be sufficiently straight between designated angle points to permit the pipe to be laid true to line in the approximate center of the trench.

B. The trench width may vary with and depend upon the depth of trench, the diameter of pipe to be laid and the nature of the material to be excavated; but in any case shall be of ample width to permit the pipe to be laid and jointed properly and the backfill to be placed and compacted properly. The minimum width of unsheeted trench shall be 18 inches. The maximum clear width of trench at the top of the pipe shall be not more than two (2) feet greater than the outside diameter of the pipe for pipes up to 33" diameter except by consent of the Engineer. Whenever, for any reason, the maximum trench width is exceeded, the Contractor shall provide, at his own expense, pipe of higher class and/or bedding adequate to sustain the increased soil load as calculated by the Engineer.

C. Trenches shall be undercut to provide for the class bedding specified and/or shown on the plans. Bell holes shall be excavated to insure the pipe resting for its entire length upon the bedding material. Where trenches are under-cut beyond the depth required for bedding the trench shall be brought to grade by using crushed aggregate as specified for foundation herein. The use of loose native soil will NOT be permitted for this purpose.

D. No pipe shall be laid in water. Where the ground water table is at or above trench bottom, the Contractor shall de-water the trench to permit the pipe to be laid on a solid foundation.

   Costs for de-watering by whatever method selected shall be considered incidental to the price bid per foot of pipe.

   The Contractor shall discharge pumps to the natural drainage channels, or if permitted, to other sewer or drains.

Where sewer pipelines are located in or across streambeds or drainage ditches, the Contractor shall divert the stream flow and de-water each section as the work progresses.

E. Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, and other obstructions encountered in the progress of the work shall be furnished by the Contractor at his own expense under the direction of the Engineer.

F. Whenever wet, soft or unstable soil, incapable of properly supporting the pipe, manholes or other structure is encountered in the trench, a further depth and/or width shall be excavated and refilled to trench bottom grade with gravel or other approved suitable material thoroughly compacted to assure a firm foundation for the pipe.

G. Rock, boulders and large stones shall be removed to provide a clearance of at least six (6) inches below the outside barrel of the pipes, valves, or fittings and to a clear width of six (6) inches on each side of all pipe and appurtenances for pipe 15 inches in diameter or less, and a clear width of nine (9) inches on each side of all pipe and appurtenances for pipe larger than 15 inches in diameter. Adequate clearance for properly joining pipe laid in rock trenches shall be provided at bell holes. The space between the rock at the bottom of the trench and the bottom of the pipe barrel shall be filled with compacted bedding material.

H. The Engineer shall be notified of any need for blasting to remove materials which cannot be broken up mechanically, and there shall be no blasting operations conducted until the Engineer's approval has been secured. Blasting operations will be allowed only when proper precautions are taken to protect life and property, and then shall be restricted as the Engineer directs. The Contractor shall assume full responsibility for any damage caused by blasting, regardless of the requirements for notification and approval. The Contractor shall secure any required permits for blasting and shall conduct blasting operations in conformance with all applicable State and local laws, regulations and ordinances.

I. In the event the Contractor desires to employ tunneling in locations other than as shown on the Plans in order to avoid replacement of sidewalks, etc., he shall do so only upon receipt of specific permission from the Engineer. Tunneling of this nature shall be considered incidental.

J. Excavated materials will be classified for reuse as being either suitable or unsuitable for backfill or other specified use.

3.06 SPECIAL SAFETY PROVISIONS

1. TRENCH SAFETY SYSTEMS

A. DESCRIPTION

This item shall govern for the Trench Safety Systems required for the construction of all trench excavation to be utilized in the project and including all additional excavation and backfill necessitated by the safety system. A trench shall be defined as a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. The depth is five feet or more. Trench Safety Systems include but are not limited to sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, de-watering or diversion of water to provide adequate drainage.

B. CONSTRUCTION METHODS

Trench safety systems shall be accomplished in accordance with the detailed specifications set out in the provisions of Excavation, Trench, and Shoring, Federal Occupational Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, Subpart P, as amended, including Proposed Rules published in the Federal Register (Vol. 52, No. 72) on Tuesday, October 31, 1989. The sections that are incorporated into these specifications by reference include Sections 1926-650 through 1926-652. Legislation that has been enacted by the Texas Legislature, being Tex. Rev. Civ. Stat. Ann. Arts. 1015q, 2368a.6 (Vernon Supp. 1988) with regard to Trench Safety Systems, is hereby incorporated, by reference into these specifications.

A reproduction of the OSHA Publication 2226 is attached for the convenience of the Contractor. The City assumes no responsibility for the accuracy of the reproduction or that it reflects current law. The Contractor is responsible for obtaining a copy of this section of the Federal Register for his use.

If the contractor elects to use a trench protective system that, in the Proposed Rules, requires “Design by a qualified person or a qualified engineer,” [For example see 1926.652 (b) (3) and 1926.652 (c) (4)], a “qualified person or qualified engineer” shall be a Professional Engineer registered in the State of Texas. The Contractor is responsible for obtaining boring and soil analysis as required for the planned design. The trench excavation is to be designed in conformance with OSHA standards and regulations.

C. TRENCH SAFETY PROGRAM

The Contractor shall submit a safety program specifically for the construction of trench excavation. The trench safety program shall be in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.

D. INSPECTION

The Contractor shall make daily inspections of the Trench Safety Systems to ensure that the systems meet OSHA requirements. Daily inspection is to be made by a "competent person" provided by the Contractor. If evidence of possible cave-ins, or slides, is apparent, all work in the trench shall cease until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench. It is the sole duty, responsibility and prerogative of the Contractor, not the owner or the Engineer, to determine the specific applicability of the designed trench safety systems to each field condition encountered on the project. The Contractor shall maintain a permanent record of daily inspections.

2. SAFETY RESTRICTIONS - work near high voltage lines

The following procedures will be followed regarding the subject item on this contract:

A. Warning signs painted yellow with black letters that are legible at twelve feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows:

"WARNING - UNLAWFUL TO OPERATE THIS EQUIPMENT WITHIN SIX FEET OF HIGH VOLTAGE LINES."

B. All equipment except back hoes or dippers that may be operated within ten feet of high voltage lines shall have an insulating cage-type of guard about the boom or arm and insulator links on the lift hook connections.

C. When necessary to work within six feet of high voltage electric lines, notification shall be given the power company who will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. The notifying department shall maintain an accurate log of all such calls to the Power Company, and shall record action taken in each case.

D. The Contractor is required to make arrangements with the Power Company for the temporary relocation or raising of high voltage lines at the Contractor's sole cost and expense.

3.07 PIPE LAYING

A. All gravity pipe shall be laid using approved grade boards, furnished and set by the Contractor at no additional cost to the Owner, according to the grade stakes established by the Engineer. The maximum spacing of grade boards shall be fifty (50) feet. No sewer shall be laid unless there is a minimum of three grade boards set to check the proper grade and alignment ahead. The Contractor shall provide and use a suitable grade rod to insure the proper grade of the pipe.

B. The Contractor may use the laser beam method of setting a line and grade for the sewer by using the laser beam coaxially through the center of the sewer being laid. The laser beam projector is to be rigidly mounted to its support platforms, with a two-point suspension, or equivalent, assuring that all ground and equipment vibrations are kept to an absolute minimum. The Contractor shall furnish all equipment including equipment necessary to control atmospheric conditions in the pipe to keep line and grade to acceptable standards of accuracy. Competent experienced people who have been properly trained to operate the equipment used must operate the laser beam system.

C. The Contractor shall stake check pegs at all manholes throughout the job. Check pegs midway between manholes and any other checkpoints deemed necessary to assure accuracy of the equipment shall be provided by the contractor.

D. Each piece of pipe and special fitting shall be carefully inspected before it is placed and no defective pipe shall be laid in the trench. Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells uphill. No pipe shall be laid except in the presence of an inspector representing the Engineer. Any pipe laid except in the presence of an inspector representing the Engineer shall be subject, at the contractor's expense, to a television camera inspection and survey by the city. Trench bottoms found to be unsuitable for foundations after pipe laying operations have started shall be corrected and brought to exact line and grade with approved compacted granular material as specified for foundation in Item 2.07 A. of these specifications.

E. Pipe laying shall proceed up-grade with spigot or tongue ends pointing in the direction of flow. The spigot shall be centered in the bell, and pipe shoved into position, and brought into true alignment. It shall be secured there with bedding material carefully tamped under and on each side of it, excepting at bell holes. Care shall be taken to prevent dirt from entering the joint space.

F. Any defective or damaged pipe discovered after the line is laid or any gravity pipe, which has had its grade or joint, disturbed after laying shall be removed and replaced or relayed. The section of line in which such damaged or displaced section is discovered shall be retested after corrections are made.

G. Where excavation for buildings or other portions of the work have been carried below the line and grades of the pipe, thorough tamping of approved crushed stone backfill and the use of adequate bracing and blocking under the pipe will be required to insure against settling and shearing of the pipe. In areas where noted on plans, Portland cement stabilized material or concrete shall be used for backfill to provide adequate bracing for pipe and protection of structures.

H. All manhole connections for PVC or other Polymer based pipe shall be made using "A Lok Gaskets" or "Kor-N-Seal" boots or other approved water stop devices. Only Portland cement grout that expands upon curing or approved non-shrink grout will be incorporated into any manhole connection.

I. Connections to manholes for other types of pipe shall be in accord with the pipe manufacturers specifications and other applicable requirements of these specifications. The resulting joint shall meet the leakage test requirements of these specifications.

J. The exposed end of all pipes shall be fully protected with a stopper or bulkhead at the end of each day's work to prevent earth, debris, small animals, or other substances from entering the pipe. The interior of the sewer shall be carefully freed from all dirt, jointing compound, or superfluous material of every description as the work progresses.

3.08 CONNECTION AND ASSEMBLY OF JOINTS

1. JOINING PVC OR OTHER POLYMER BASED PIPE

A. The type of joint and the material to be used shall be as shown on the plans or specified herein. Factory cast compression joints shall be free of dirt and lubricated before inserting the barrel into the bell. After the spigot is centered in the bell, the pipe shall be shoved home solidly by using a wood block and bar. The Contractor shall keep the ends of the pipe closed to prevent dirt and other material from entering the pipe during placement. All joints must be water tight, and any leaks or defects discovered must be repaired immediately. Any pipe, which has been disturbed after being laid, must be taken up, the joint cleaned and properly relayed as directed by the Engineer.

Lubricant used shall be as recommended by the pipe manufacturer.

B. Field-cut pipe must be beveled for insertion into the gasketed bell or coupling. Bevels can be made with a hand or power tool. Bevels shall be made to pipe manufacturer's specifications. If pipe manufacturers specifications are not available the bevel may be made at 15 degrees to the longitudinal axis of the pipe through one half (l/2) the wall thickness.

C. After pipe has been cut and beveled, a new full insertion mark located as recommended by the pipe manufacture shall be made using a felt tip pen. The contractor may determine the location of the insertion mark by measuring the mark location on a factory marked joint of pipe if manufacturer's specifications are not available.

2. JOINTING CORRUGATED STEEL PIPE

A. Gaskets for corrugated steel pipe shall be "O" Ring or sleeve types. Sleeve gasket shall be carefully placed on one joint of pipe. When the pipe is aligned and brought end to end the gasket shall be carefully centered over the joint between the ends of the pipe. "O" ring gasket shall be installed in accordance with the manufacturer's recommendation.

B. When "O" ring gaskets are furnished a flat gasket shall be furnished and placed between the overlapping portions of the band. The gasket shall extend the full width of the band and shall be of sufficient depth to assure a watertight joint.

C. The coupling band shall be carefully centered over the joints and tightened to the pipe manufacturer specifications. Care shall be taken during the tightening process to assure a snug uniform fit for the entire circumference of the pipe.

3. PROTECTING AND COVERING JOINTS

A. The contractor shall keep the ends of the pipe closed during the time of construction to prevent the entry of dirt, debris, small animals and other foreign objects.

B. Joints shall not be covered until approved by Engineer or his representative. Connections, which are for future use, shall be properly capped.

3.09 CONNECTIONS TO EXISTING STRUCTURES

A. Where shown on the plans, the contractor shall connect the new sewer to existing manholes. If no stub out is present in the existing manhole for such connection, the contractor shall construct such connection by making a hole in the side of the existing manhole using a coring machine or other approved method and installing a “KOR N Seal” boot as manufactured by N.P.C. Systems, Inc. or other approved water tight manhole connector.

The contractor shall use caution in constructing the connection to the existing manhole. Damage to the manhole that, in the opinion of the Engineer, would impair the use and/or function of the manhole shall be just cause to require the contractor to reconstruct the manhole at contractor’s expense. Such damage shall include but not be limited to cracking of the manhole riser section, spalling around the connection significantly reducing manhole wall thickness or excessive oversize in the opening for the new connection requiring any filler other than the manhole connector and/or non-shrink grout specified.

The contractor shall make such changes in the invert of the manhole as may be necessary to provide a smooth flow of the water through the manhole. Any connection to existing structures required in the Plans shall be accomplished by the Contractor and shall be incidental item with no direct compensation being made unless listed as a pay item in the bid proposal.

B. If the work consists of the construction of a sewer that is to replace an existing sewer, all of the existing service lines shall be kept in operation and connected to the new line.

C. Connections shall be made to all existing sewer lines in the vicinity of the work by removing a section of the sewer for the existing line and inserting in the space a tee branch of proper size, or by the construction of a manhole, regulator chamber of other structure as shown on the Drawings.

D. Connections to building services shall be made in a neat and workman like manner. Clean out plugs shall be installed wherever feasible, by making the connections with a standard wye or tee-wye. When clean out plugs are installed they should be located as near the right of way line as practical.

3.10 BACKFILL OPERATIONS

1. GENERAL

A. All pipeline excavations shall be backfilled in a manner that will restore pre-existing conditions as the minimum requirement and fulfill all supplementary requirements indicated in the Plans and Specifications. The backfilling operations shall be started as soon as conditions will permit on each section of pipeline, so as to provide continuity in subsequent operations and restore normal public service as soon as practicable on a section-by-section basis. All operations shall be pursued diligently, with proper and adequate equipment, to assure acceptable results.

B. For this specification backfill is defined as any material placed in the trench above the bedding zone other than the pipe or conduit and appurtenance.

For flexible pipe the backfill between the bedding material and the crown of the pipe shall be crushed stone suitable for encasement as specified in article 2.07 of the specifications. When Portland cement stabilized backfill is used above the pipe zone; the crushed stone encasement shall extend to 1' above the crown of the pipe.

C. Depositing of the backfill shall be done so the shock of falling material will not injure the structure. Grading over and around all parts of the work shall be done as directed by the Engineer.

D. Whenever soil types which are determined by the Inspector to be undesirable for backfill are excavated from the trench, such material shall be hauled away and deposited at locations shown on the plans or as directed by the Engineer at no additional compensation.

E. Backfill materials placed in the pipe zone shall be carefully placed in relatively uniform depth layers spread over the full width and length of the trench section in a manner and/or sequence that will provide simultaneous support on both sides of the pipeline. Each layer shall be compacted effectively, by approved mechanical of hand methods, until there is no further visual evidence of increased consolidation. Above the pipe zone the backfill material shall be placed uniformly across and along the trench in depth suitable for the compaction method used and compacted to a minimum of the density specified for the material used and the trench location. Compaction of the in place layer shall be completed acceptably before placing material for a succeeding layer thereon.

The manner of placement, layer thickness, compaction equipment, and procedure effectiveness shall be subject to approval of the Engineer. Water jetting or flooding shall NOT be used to compact trench backfill.

F. Compaction of materials placed within the pipe bedding and encasement zones shall be accomplished with portable or hand equipment methods, so as to achieve thorough consolidation under and around the pipe and avoid damage to the pipe. Above the pipe zone, the use of heavy roller type compaction equipment shall be limited to safe pipe loading.

G. The maximum loose thickness of each backfill layer placed above the pipe zone shall be 12 inches, except that 16 inches will be permitted for Granular Materials placed above an elevation one foot above the top of pipe, and with the provision that, by authority of the Engineer and in consideration of the demonstrated capability of special type vibratory compactors, these maximums may be increased at his discretion. “Hydro tamps”, “vibra tamps” or other heavy compacting equipment shall not be used until the backfill has reached a depth of four (4) feet above the top of the pipe.

H. All surplus or waste materials remaining after completion of the backfilling operations shall be disposed of in an acceptable manner within 24 hours after completing the backfill work on each particular pipeline section. Disposal at any location within the project limits shall be as specified, or as approved by the Engineer; otherwise, disposal shall be accomplished outside the project limits at the Contractor’s discretion. The backfilling and surplus or waste disposal operations shall be a part of the work required under the pipeline installation items, not as work that may be delayed until final cleanup.

I. For the duration of the warranty period of the project, the Contractor shall assume full responsibility and expense for all backfill settlement and shall refill and restore the work as directed to maintain an acceptable surface condition. All additional materials required shall be furnished without additional cost to the Owner.

2. BACKFILL IN PUBLIC RIGHTS-OF-WAY AND OTHER AREAS WHERE SETTLEMENT IS CRITICAL

A. GENERAL REQUIREMENTS

(1). Backfill above the pipe zone in public rights-of-way and under paved parking lots, near structures or other utilities where settlement can cause damage shall be made using Portland cement stabilized backfill or crushed stone screenings (crusher fines).

The pipe zone is defined as that portion of the trench extending from the bottom of the trench to 12” above the crown of the pipe or conduit.

(2) Backfill around structures such as manholes, junction boxes, transformer boxes and valve boxes shall be made using Portland cement stabilized backfill material or crushed stone screening (crusher fines).

(3) The minimum depth of stabilized backfill or crusher fines shall be twelve (12”) inches.

When utilities are being constructed under existing paving, the stabilized backfill or crusher fines shall extend from top of the pipe zone to the top of the base course.
When utilities are being constructed under existing unpaved streets that are not scheduled for immediate pavement construction, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the existing roadway surface.

When utilities are being constructed in streets that are scheduled for immediate paving, the stabilized backfill or crusher fines shall extend from the top of the pipe zone to the bottom edge of the eight (8”) inches of subgrade, or, if the paving contractor has constructed a portion of the roadway prior to the construction of the utilities the backfill shall extend to the top of the course the contractor has finished, or the top of the base course, which ever is lower.

If the final course of asphaltic concrete has been placed, the street or alley surface shall not be cut for utility installation.

In streets where stabilized backfill is required only to the bottom of the subgrade course, the minimum depth of stabilized backfill may be reduced to six (6”) inches in which case the maximum depth of the “pipe zone” shall be limited to six (6”) inches above the top of the utility line or conduit.

B. BACKFILL MATERIALS

(1) Portland cement stabilized backfill shall consist of caliche base material, blow sand or native soil stabilized by the addition of Portland cement. Crushed stone or concrete aggregate shall NOT be used.

When Portland cement stabilized backfill is to be used, the contractor shall submit a mix design prepared by an approved commercial laboratory for approval before the trenching operation is begun. When native soil is to be used samples may be taken along the proposed route by boring or other approved means. Samples must be representative of the full trench depth.

The mix design shall be such that the minimum 7-day compressive strength is 150 psi when tested according to test method Tex 418-A.

The minimum cement content for Portland cement stabilized backfill shall be 1 sack per cubic yard.

Cement used in Portland cement stabilized backfill shall be Type I or Type II conforming to the requirements of ASTM Designation C150.

Caliche used for Portland cement stabilized backfill shall be crushed material conforming to Texas State Department of Highways and Transportation 1982 Standard Specifications for Construction of Highways, Streets and Bridges Item 248 Type F, Grade 2.

Blow sand used for Portland cement stabilized backfill shall be clean, free from organic matter, clay lumps, rock and other deleterious matter.

Native soil used for Portland cement stabilized backfill shall be clean, free of clods and organic matter, and free of rock in excess of 2”.

(2) Crushed stone screening (crusher fines) used for back fill shall be sharp grained particles of crushed stone conforming to the requirements of Article 2.07 of these specifications.

(3) Trencher excavated rock material shall be screened so that the largest diameter material is less than 2". The screened rock material used for backfill shall have sufficient moisture added so that the backfill will bind with the fines. The rock material backfill shall be tamped or compacted in two (2) foot lifts. A sheeps foot roller shall not be used unless there is two (2) feet or more compacted backfill above the pipe bedding.

C. BACKFILL CONSTRUCTION

(1) Portland cement stabilized caliche backfill or Portland cement stabilized native soil backfill may be constructed using either the "dry" method or the "wet" method.

(a) The dry method of stabilized backfill construction consists of dry mixing of the cement and caliche or soil to produce a homogenous mixture then adding and mixing sufficient water for proper compaction and hydration of the cement. The water content of the mixture will be approximately one to two percent above the optimum moisture for soil compaction. The mixing may be accomplished by using batch mixers or on the job site by "blade mixing" or other suitable method to produce the desired backfill material. The mixed material shall be placed in lifts of up to a maximum of 12 inches and compacted to ninety-five (95%) modified proctor densities by use of suitable compacting equipment.

(b) In the "wet" method of cement stabilized backfill construction, the materials shall be mixed in an approved concrete batching plant or mixer to the consistency of concrete and placed as concrete would be placed. The slump of the backfill material shall be such that all voids will be filled, approximately four (4") to six (6") inches. The backfill shall be consolidated by rodding or by the use of mechanical vibrators.

Portland cement stabilized blow sand backfill shall be mixed and placed by the "wet" method as described above.

Crushed stone screening (crusher fines) shall be wetted uniformly throughout with sufficient moisture to assure proper compaction before being placed in the trench. The moistened crushed stone screening (crusher fines) shall be placed in maximum lifts of twelve inches and consolidated using vibratory type compaction equipment except when it has been demonstrated that the compaction equipment employed will adequately compact deeper lifts in which case the maximum depth of a lift shall be limited by the capabilities of the equipment used.

Tests to determine the compacted density of the backfill shall be ordered by the Engineer if in his opinion the compaction is not adequate. Test showing a minimum compacted density of 90%-modified proctor will be deemed adequate.

3. BACKFILL OUTSIDE OF PUBLIC RIGHTS-OF-WAY WHERE SETTLEMENT IS NOT CRITICAL

A. In areas outside of public rights-of-way and in the absence of special work item requirements the backfilling shall be accomplished with the use of suitable materials selected from the excavated materials to the extent available and practical. Should the materials available from the trench section be unsuitable or insufficient, the required additional materials shall be furnished from outside sources at the Owners expense.

B. Suitable material shall be defined as a mineral soil reasonably free of foreign materials (rubbish, debris, etc.) frozen clumps, oversize stone, rock, concrete or bituminous chunks and other unsuitable materials, that may damage the pipe installation, prevent thorough compaction, or increase the risks of after settlement unnecessarily. Material selection shall be such as to make the best and fullest utilization of what is available, taking into consideration particular needs of different backfill zones. Material containing stone, rock, or chunks of any sort shall only be utilized where and to the extent there will be no detrimental effects.

C. The backfill material placed in this area shall be compacted by suitable means to a minimum density equal to the density of the undisturbed surrounding soil. City Engineer MUST approve water flooding as a means of compaction.

4. TRENCH BACKFILL BEHIND CURB AND GUTTER

A. When utilities are placed behind the curb in paved streets and other landscaped areas the backfill shall be the same as elsewhere in the right-of-way or other applicable location except that in grassed areas and in flower beds the top six (6") inches of backfill shall be good quality top soil. When utilities are placed behind the curb in grassed or landscaped areas where no sidewalk is to be constructed and the edge of the trench is a minimum of 2 feet from the back of curb or where sidewalk is to be constructed and the minimum distance from both the back of curb and the edge of the sidewalk to the edge of the trench is 2 feet the contractor may elect to use suitable native soil for backfill. The native soil backfill shall be compacted to 95% modified proctor density to within 6" of the top of curb height. The top 6" of backfill shall be good topsoil and shall be compacted to the density of the adjacent soil.

B. Sidewalks shall be repaired by removing and replacing the complete section or sections that have been damaged. Strip patching through sidewalks will not be permitted.

The replacement sidewalk shall be of the same design and section as the walk removed and shall be of equal or better workmanship.

C. When utilities are placed in paved areas behind curbs the pavement shall be repaired as specified for street pavement.

D. Grassed areas and flowerbeds shall be restored as nearly as possible to the original condition. Care shall be taken to avoid damage to sprinkler systems.

Mail boxes and other appurtenance in the construction area. Any damage to said items shall be repaired immediately.

E. All repairs made behind the curb shall be to the satisfaction of the property owner responsible for their maintenance and/or to the satisfaction to the City Engineer.

3.11 INLET STRUCTURES AND LEADS AND CLEANOUTS FOR STORM SEWERS

A. Corrugated Galvanized Steel Slotted Drains for Nuisance water inlets only.

(1) Slotted drains shall be the sizes and lengths as shown on the plans and constructed at the locations as shown on the plans or at locations to be established on the job site.

(2) Slotted drains shall not be installed under asphalt pavement but shall have a section of concrete gutter constructed around it as shown on the detail drawings.

Slotted drains shall be protected from the entrance of debris, concrete or HMAC by closing the slot with one or two layers of heavy duct tape or similar material. In addition, the slot for slotted drain shall have a 2-½ inch or ¾ inch board attached to use as a guide for placing and edging the concrete.

Unless otherwise approved or directed by the Engineer the removal of tape and planking from the slotted drain should be accomplished as part of the final clean up.

B. Curb inlets, grate inlets and combination inlets

(1) General

Curb inlets, grate inlets and combination inlets may be pre-cast or cast-in-place at the contractor's option unless specifically shown otherwise on the plans and bid proposal.

(2) Pre-cast inlet boxes

(a) Construction and finish for pre-cast inlet boxes shall conform to details shown on the plans and all applicable requirements for pre-cast manholes.

(b) Tops for curb inlets and combination inlets may be cast in place or pre-cast. Extra care will be required in setting pre-cast tops to assure curb and gutter match.

(c) Pipe connections, bedding, setting and backfill for pre-cast inlets shall be in accord with the applicable requirements for pre-cast manholes article 3.12 of these specifications.

(3) Cast in place inlets

(a) Cast in place inlets shall be constructed of class "C" reinforced concrete as specified in item 1-B "Concrete for Structure" in these specifications.

(b) Forms for cast in place inlets shall be straight, clean and in good condition. Forms shall be properly cleaned and oiled before concrete is placed.

(c) Construction joints may be placed in cast in place inlets at locations shown on the plans. When construction joints are used, extra care will be required to assure that the joints are watertight.

(d) Cast in place inlets may be cast without outside forms if the soil conditions are such that true vertical walls can be cut and will stand during construction without sloughing or otherwise incorporation foreign materials into the concrete.

(e) When inlets are cast without outside forms, a plastic sheet lining may be required to prevent excessive loss of moisture from the concrete and/or to prevent incorporation of foreign material into the concrete.

A. Inlet Leads

(1) Inlet leads shall be constructed of corrugated steel pipe, PVC pipe or other material as called for on the plans and in the bid proposal.

(2) Construction of inlet leads shall be in accord with the applicable requirements for the type of pipe used.

(3) Junctions where two or more inlet leads are joined shall be made at clean outs or manholes.

B. Cleanouts

(1) Clean outs shall be constructed in accord with the plans and detail drawings.

(2) Construction and connections shall be in accord with the applicable specifications for construction of corrugated steel pipe manholes.

3.12 SANITARY SEWER SERVICES AND PLUGGED STUBS

A. Sanitary Sewer Services:

(1) On new sewer main construction all sewer laterals shall be constructed as part of the initial installation. Sewer wye fittings for sewer laterals in new construction shall be molded or fabricated with all gasketed connections. Four (4”) inch laterals shall be installed at all single-family residences and duplex. Laterals installed for apartment complexes, commercial and industrial areas shall be a minimum of six (6”) inches. Depth of laterals will be determined by depth of sewer main and applicable building codes. Laterals shall be installed using tee wyes or wyes and bends so that they will be at 90 degrees to the sewer main. Laterals shall extend to 3’ minimum beyond the property line of the served lot or tract. The contractor shall install sewer laterals according to the typical sewer lateral detail and the most current revisions of the Plumbing Code.

(2) Taps into existing lines shall use a gasketed fitting in conjunction with a full circle repair sleeve coupling, except that taps into existing ductile iron sewer may be made using the Genco Model DF sewer pipe saddle (The General Engineering Co., Frederic, MD Drawing No. R-3220-D dated 12/29/82) or approved equal.

(3) Cemented mitered connections without socket reinforcement shall not be permitted. The contractor will be permitted to use fittings, which are prefabricated, using pipe sections, molded saddles and PVC solvent cement, provided the solvent cement used in fabrication has cured for at least 24 hours prior to the installation. All solvent cement fittings shall e manufactured in the shop under controlled conditions.

(4) All caps and plugs shall be braced, staked, anchored, wired on or otherwise secured to the pipe to prevent leakage under maximum anticipated thrust from internal abnormal operating conditions or test pressures from water or air.

(5) It shall be the duty of the Contractor to keep a record of sewer service wye locations with respect to the nearest downstream manhole, but the Engineer will record ties on the end of all sewer services at the property line. When installing sewer services the Contractor shall, before backfilling, contact the Engineer or his representatives, and assist him in making ties to the end of the service in the open trench. At least two ties shall be made for each service, and if backfilling proceeds before such ties are made, the Contractor shall dig up the end of all such services, with no additional compensation, for the purpose of making ties. During backfilling the Contractor shall furnish and place a vertical steel post or 2 inch by 2 inch wooden stake set flush with finished ground surface, and extending down to the end of the sewer service, a nail shall be placed in the top of the stake to allow location of the service by metal finder.

(6) The main sewer service connection shall consist of installing an in-line wye section in the main sewer line at designated locations. Saddle wye installations will be permitted only when specifically called for. Orientation of service connection fittings shall be as shown in the standard drawings unless otherwise directed by the Engineer.

(7) Where the depth of cover over the main sewer invert is greater than 8 feet (or such other maximum as may be indicated), the service connection shall be extended outward then upward by use of bends to prevent excess loading on the sewer main in accordance with the details shown in the drawings.

(8) The Contractor shall provide the necessary wyes, tees and bends to bring the service to the proper place at the property line.

(9) Wherever service line connections to the main sewer are permitted or required to be made by the open cutout method in the absence of a built-in tee or wye fitting, the connection shall be made by using an approved type coring machine or by other approved methods producing a uniform, smooth circular cut-out as required for proper fit. The cutout discs shall be retrieved and shall not be allowed to remain within the main sewer pipe. The saddle tee shall be securely fastened to the main sewer pipe by means of epoxy resin or other approved adhesive. The entire connection fitting shall be encased in concrete to a minimum thickness of six inches and as may be shown in the standard drawings.

(10)Wherever service line connections to the main sewer are required to be made by means of built-in branch tee or wye fittings, the Contractor shall, in the absence of such fitting, remove a section of the main sewer pipe and replace it with the required branch tee wye or wye section connected by means of an approved sleeve coupling.

(11)Connections of service lines to the main sewer are required to be made by means of built-in branch tee or wye fittings, the Contractor shall, in the absence of such fitting, remove a section of the main sewer pipe and replace it with the required branch tee wye or wye section connected by means of an approved sleeve coupling.

(12)The end of all service connections shall be plugged with PVC plug and sealed with plastic joint material.

(13)Crushed stone bedding and backfill material, concrete encasement and protection, etc., for service line installation shall be the same as for the sewer lines.

(14)No service connections or laterals shall be covered until they have been inspected and located by the Engineer.

B. INSTALLATION OF PLUGGED STUBS ON SANITARY SEWERS

Plugged pipe stubs for future connections to manholes and sewerage structures shall be installed where shown on the Drawings or directed by the Engineer. The pipe stubs shall be installed in accordance with the specifications and details shown on the Drawings for connecting the type of pipe used to manholes.

3.13 MANHOLES

1. General

The manholes shall be constructed at the locations shown on the plans or as directed by the Engineer and in accordance with the details shown on the plans and as specified herein. After the excavation has been completed, the subgrade for the manhole base shall be graded and leveled. A crushed stone foundation having a minimum thickness of 6 inches shall then be placed on the subgrade. The crushed stone foundation shall be leveled and consolidated before the section of the manhole is placed. Pre-cast base sections shall sit in place level and plumb and to the lines and grade as shown on the plans. Cast in place bases shall be placed around the existing sewer line in accord with the plans and detail sheet. When pre-cast manhole bases are used, riser construction may proceed when the base is set on line and grade. When cast in place manhole bases are used, riser construction may proceed when the base has set sufficiently to support the weight of the riser.

Manholes shall be of the type and material shown on the plans and called for in the bid proposal and shall conform to these specifications.

All lift holes shall be filled with approved non shrink grout and bituminous material before final acceptance. Use of bituminous material or other flowable material alone to plug lift holes will not be permitted. Voids in the invert around the sewer pipe on the

inside wall of the manhole shall be grouted with cement rich grout, to conform to the rest of the wash, in accordance with the standard manhole details.

The backfill around the manhole shall be done in accordance with the details shown on the plans and trench backfill specifications.

The Contractor shall take whatever precautions necessary to protect the manholes that are under construction. At the end of the day or at such time as the Contractor deems necessary, all manholes not completed shall be covered, sealed, plugged, etc. to prevent the inflow of storm water or other objectionable material, and to prevent animals and humans from getting into the manhole.

2. PRE-CAST CONCRETE

A. Pre-cast tub bottom sections of manholes shall be set on a crushed stone foundation or bedding according to the details shown on the plans. Care shall be exercised to assure true alignment and grade for the pipe openings.

The invert of the manhole shall be constructed of cement rich grout and shall be formed to true lines; grades and curvature to assure smooth flow through the manhole. The invert shall have a steel trowel finish.

Joints for pre-cast concrete manhole riser sections shall be made Watertight by use of bitumastic or rubber sealers or “O” ring gaskets. Both sides of the tongue and groove joint shall be painted with a bitumastic primer before assembly.

The bitumastic or rubber sealer shall be clean and pliable and shall deform under the pressure of joint closure to assure a complete water tight seal. Care shall be exercised to assure proper alignment of the joint. The walls of the completed manhole shall be straight and vertical.

B. Pre-cast eccentric cone sections and precast slab manhole tops with eccentrically located manway shall be set with the manway adjacent to the up stream side of the manhole. The joints between the cone or slab top and the manhole riser shall be sealed in the same manner as the joints between the riser section. Care shall be taken in placing the cone and or slab tops to assure the manhole ring and cover can be set to match the finished paving.

C. Pre-cast grade rings will be used, when required, to bring the manhole ring and cover up to the finished grade. Grade rings may be set using cement rich grout or bitumastic seal and such as Ram-Nek or approved equal. When cement rich grout is used, care shall be taken that the space between the cone or slab top and the first grade ring and between the grade rings are completely filled without voids.

When bitumastic sealer is used the joints shall be constructed in the same manner as the joints between the riser sections.

When pre-cast manholes with PVC or other approved polymer lining are called for on the plans and bid proposal and are furnished under this contract they shall be constructed as other pre-cast concrete manholes.

In addition the joints in the lining shall be sealed by hot air welding, use of epoxy coating, or other approved means.

3. CAST IN PLACE MANHOLE BASES

A. Cast in place manhole bases shall be used only where shown on the plans or as directed by the Engineer and shall be constructed in accord with the details shown on the plans.

B. Special care shall be taken in casting the surfaces that will mate with the first risersection to assure a smooth even fit and a watertight joint.

C. The first riser section to be used with cast in place manhole bases shall be castwithout tongue or groove. The joint between the riser section and the cast in place base shall be sealed with a bitumastic or rubber sealant in the same manner as the joints in the pre-cast riser sections.

D. Care shall be taken in forming the invert of the manhole around existing sewers to assure adequate opening for the insertion of a “go – no go” mandrel or other testing equipment and cleaning tools.

4. MANHOLE RING AND COVER

A. The tops of the manhole frame and cover (ring) shall be built to the grade shown on the plans. The cast iron frame shall be firmly embedded in mortar.

B. When pressure type manhole rings and cover are specified on storm sewer manholes they shall be bolted to the concrete slab top using the “L” bolts cast into the slab for this purpose. The joint between the ring and the concrete slab top shall be made watertight using a bitumastic or rubber seal and conforming to the requirements of these specifications.

5. CORRUGATED STEEL MANHOLES

A. Corrugated steel manholes shall be constructed in accord with the details shown on the plans and in accord with the applicable requirements for the construction of corrugated steel pipe sewers.

B. Care shall be taken during the placing of backfill around corrugated steel pipe manholes to maintain the horizontal and vertical alignment of the manhole.

C. Since full contact of the flat top slab with the cement stabilized backfill is critical the backfill shall be finished smooth and to the proper grade. A thin layer of cement rich grout shall be placed on the cement stabilized backfill immediately prior to placing the concrete slab top. The grout shall be sufficient t fill all voids between the backfill and the slab and of a consistency to be forced into the voids under the weight of the slab.

3.14 TESTING GRAVITY SEWER MAINS AND MANHOLES

A. Upon completion of the sewer construction including all wyes and service laterals and before any house drains or services are connected, all sewers shall be cleaned and lamped. All runs of sewer between manholes shall be straight and true. Leakage tests shall be made to determine the amount of ground water infiltration into the sewers. Infiltration tests shall be made when groundwater level is 18 inches or more above the top of the outside of the pipe. Measurement will be taken by means of a weir placed in the lines. The maximum allowable rate of leakage shall be 25 gallons per inch diameter per mile of pipe per 24 hours, for any section of pipe with a maximum total leakage of 200 gallons per mile per 24 hours for sanitary sewers with the exception that the maximum leakage for storm drains shall be 200 gallons per inch of diameter per mile per 24 hours with a total maximum leakage of 6,000 gallons per mile per 24 hours.

When the groundwater is not at sufficient height for infiltration testing the Contractor shall use exfiltration to test the sewer lines.

B. In lieu of the infiltration or exfiltration tests the Contractor may perform air tests on the sewers.

C. If the infiltration, exfiltration, or air tests fail to meet requirements specified herein, the Engineer reserves the right to request television work to be done to locate leaks. The Contractor shall furnish all materials and equipment necessary to accomplish all infiltration, exfiltration, air or television testing.

The Contractor shall receive no additional compensation for this testing or inspection work or for repairs of corrective work required to be done to the sewers. The exfiltration tests shall be used in areas where no ground water is present.

D. Test Procedure Hydrostatic (Exfiltration)

(1) The test section shall be bulk headed and the pipe subject to a hydrostatic pressure produced by a head of water at a depth of three (3) feet above the invert of the sewer at the upper manhole under test. In areas where ground water exists, this head of water shall be three feet above the existing water table.

(2) This head of water shall be maintained for a period of one hour during which it is presumed that full absorption of the concrete manhole body has taken place and thereafter for a further period of one (1) hour for the actual test of leakage. Fiber glass manholes are exempt from the one hour absorption requirement. During this one (1) hour test period, the measured maximum allowable rate of exfiltration for any section of sewer shall be the same as allowed for the infiltration test.

E. TEST PROCEDURE AIR

(1) Where the Contractor elects to air test, he shall perform these tests with equipment similar to Air-Loc equipment manufactured by Cherne Industrial, Inc. Hopkins, Minnesota.

(2) The air test shall be made when the sewer is clean. The line shall be plugged at each manhole with pneumatic balls. Low pressure air shall be introduced into the plugged line until the internal air pressure reaches 4.0 psig greater than the average

back pressure of any ground water pressure that may submerge the pipe. At least two (2) minutes shall be allowed for the air temperature to stabilize before readings are taken and the timing started.

(3) When testing pipes 14 inches and less in diameter between consecutive manholes, the portion being tested shall pass if it does not lose air at a rate to cause the pressure to drop from 4.0 to 3.0 psig (greater than the average back pressure of any groundwater that may submerge the pipe) in less time than listed as calculated from Table 1.

When testing pipes greater than 15 inches in diameter between consecutive manholes the portion being tested shall pass if it does not lose air at a rate to cause the pressure to drop from 3.5 psig 3.0 psig (greater than the average back pressure of any groundwater that may submerge the pipe) in less time than that shown in or calculated from Table II.

TABLE I
Specification Time Required for a 1.0 PSIG Pressure Drop for Size and Length of Pipe indicated for Q = 0.0015

Specification Time for Length (L) Shown (min: sec)											
1	2	3	4 (xL)	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	450 ft.
4	3:46	597	.380	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854	5:40	5:40	5:40	5:40	5:40	5:40	5:42	5:42
8	7:34	298	1.520	7:34	7:34	7:34	7:34:	7:36	8:52	10:08	11:24
10	9:26	239	2.374	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768	51:17	75:55	102.34	128:12	153:50	179:29	205:07	230:46

1. Pipe Diameter (in.)
Minimum Time (min:sec)
Length for Minimum Time (ft.)
Time for Longer Length (sec)

NOTE: When using column 4 multiply the number in column 4 opposite the pipe diameter by the length of pipe of that diameter and sum the times for the various pipe size in the run being tested. Computations shall include lengths for service connection laterals.

Table II
Specification Time Required for 0.5 PSIG Pressure Drop for Size and Length of Pipe Indicated for Q + 0.0015

Specification Time for Length (L) Shown (min: sec)											
1	2	3	4 (xL)	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	350 ft.	400 ft.	450 ft.
4	1:53	597	.190	1:53	1:53	1:53	1:53	1:53	1:53	1:53	1:53
6	2:50	398	.427	2:50	2:50	2:50	2:50	2:50	2:50	2:51	3:12
8	3:47	298	.760	3:47	3:47	3:47	3:47	3:48	4:26	5:04	5:42
10	4:43	239	1.187	4:43	4:43	4:43	4:57	5:56	6:55	7;54	8:54
12	5:40	199	1.709	5:40	5:40	5:40	7:08	8:33	9:58	11:24	12:50
15	7:05	159	2.671	7:05	7:05	8:54	11:08	13:21	15:35	17:48	20:02
18	8:30	133	3.846	8:30	9:37	12:49	16:01	19:14	22:26	25:38	28:51
21	9:55	114	5.235	9:55	13:05	17:27	21:49	26:11	30:32	34:54	39:16
24	11:20	99	6.837	11:24	17:57	22:48	28:30	34:11	39:53	45:35	51:17
27	12:45	88	8.653	14:25	21:38	28:51	36:04	43:16	50:30	57:42	46:54

30 33 36	14:10 15:35 17:00	80 72 66	10.683 12.926 15:384	17:48 21:33 25:39	26:43 32:19 38:28	35:37 43:56 51:17	44:31 53:52 64:06	53:25 64:38 75:55	62:19 75:24 89:44	71:13 86:10 102:34	80:07 96:57 115:23

1 Pipe Diameter (in.)
2 Minimum Time (min:sec)
3 Length for Minimum Time (ft.)
4 Time for Longer Length (sec)

NOTE: When using column 4 multiply the number in column 4 opposite the pipe diameter by the length of pipe of that diameter and sum the times for the various pipe size in the run being tested. Computations shall include lengths for service connection laterals. All service plugs shall be secured in place to prevent displacement during testing operation.

F: DEFLECTION TEST

Deflection tests shall be performed on all flexible pipe, the tests shall be conducted after the backfill has been in place at least 30 days. No pipe shall exceed a deflection of 5 percent. The deflection tests shall be run using a Go-No-Go mandrel having a diameter equal to 95 percent of the inside diameter of the pipe. The tests shall be performed without mechanical pulling device, any pipe not meeting the deflection test shall be excavated and re-bedded at no cost to the owner.

The Contractor at no additional cost to the owner shall furnish the Go-No-GO Mandrel.

Upon completion of all tests, the Contractor shall provide personnel to remove each manhole cover in the presence of the Engineer's representative for inspection and depth measurement.

G. TESTING SANITARY SEWER MANHOLES

All sanitary sewer manholes shall be tested for water tightness by one of the following methods.

Manholes, except those in streets scheduled for immediate paving, shall be complete, having all adjusting rings and cover rings in place and shall be backfilled prior to testing.

Manholes in streets scheduled for immediate paving shall be complete as described above except those acceptance tests shall be made at the top of the cone section.

(1.) Vacuum Test

a. General

This item will govern the testing of all sanitary sewer manholes. All connections to manholes including drop connections shall be in place before testing.

b. Equipment

Equipment for vacuum testing manholes shall be:
MANHOLE VACUUM TESTER as manufactured by:

P.A. Glazier, Inc.
P.O. Box 1002
Worcester, MA. 01613

Or

THE CHERNE AIR-LOC MANHOLE TESTER as manufactured by:

Cherne Industries, Inc.
5700 Lincoln Dr.
Minneapolis, MN 55436-1695

Or approved equal.

c. Preparation for Testing

All connections to the manhole; except plugged stubs for future line extensions, shall be plugged using suitable pneumatic plugs. Line plugs shall be placed at a point outside of the manhole wall (approximately 8" to 10" into the sewer pipe). Drop connections shall be plugged at a point up stream from the drop.
All plugs, pipe connections and plugged stub outs shall be adequately braced to prevent them being drawn into the manhole when vacuum is applied.

d. Testing

The contractor shall set the test equipment in place and operate it in accord with the manufacturer instructions. A copy of these instructions shall be kept on the job site and shall be available to the inspector when tests are performed. When equipment is properly set up a vacuum of 10" of mercury (Hg) shall be drawn and the vacuum line valve closed. After the vacuum pump is shut off the hose shall be disconnected before the test is started.

Note: Vacuum must be at 10" Hg when test is started. The contractor may wish to draw up to 10.5" Hg vacuum and then bleed back to 10" Hg before starting the test. The test shall pass when the minimum time for the vacuum to drop from 10" Hg to 9" Hg is greater than the time shown in the following table:

TABLE 1: Minimum test times for various manhole diameters.

	DIAMETER		
Depth Feet	48"	60"	72"
8'	0:20	0:26	0:33
10'	0:25	0:33	0:41
12'	0:30	0:39	0:49
14'	0:35	0:46	0:57
16'	0:40	0:52	1:05
18'	0:45	0:59	1:13
20'	0:50	1:05	1:21
* ADD	0:05	0:06.5	0:08

Any manhole that fails the test shall be repaired and retested until it passes the test.

e. Contractors Optional Test

The contractor, at his option may wish to test manholes before they are backfilled to assure himself that the manhole is sound.
Manholes that fail the test prior to being backfilled may be repaired under vacuum by coating the area of the leak with a liquid quick setting grout allowing the grout to be drawn into the opening until the leak is stopped.

Manholes will not be accepted on the bases of this test.

f. Fiberglass Manholes

Fiberglass manholes may be tested in the same manner as concrete manholes except that all repairs to the fiberglass body of the manhole shall be made using materials furnished by the manufacturer. Repairs shall be made in accord with the manufacturer instructions.

g. No separate payment will be made for vacuum testing of manholes, but the cost shall be considered incidental to furnishing and construction of manholes as bid in the bid proposal.

2. HYDROSTATIC TESTING

a. General

This item shall govern the hydrostatic testing of manholes and may be used as an alternative to vacuum testing by the contractor.

All connections to manholes including drop connections shall be in place prior to testing manholes.

b. Testing

All connections to the manhole, except plugged stubs installed for future line extensions, shall be plugged upstream from the drop.

Plugs in pipe connections must be placed outside the manhole wall (approximately 8” to 10” into the pipe).

The manhole shall then be filled to the top of the cast iron ring (or top of the cone section for manholes in streets scheduled for immediate paving) and allowed to stand for a minimum of one hour to allow for absorption by the components of the manhole. The inspector may extend the absorption period if it appears that the manhole has not reached a stable state.

The manhole shall then be refilled to the top of the ring (or cone) and allowed to stand for up to 24 hours.

The manhole shall be checked at the end of 4 hours and will be deemed to have passed if no perceptible loss has occurred – if loss has occurred the manhole will be checked after the 24 hour period and will be considered to have passed if loss does not exceed the following schedule

Depth Ft.	Loss Inches
0 - 10’	.2
10 – 20’	.4
20 - 30’	.6

c. No separate payment will be made for Hydrostatic Testing of manholes but the cost shall be considered as incidental to furnishing and constructing manholes as bid in the bid proposal.

H. TELEVISING NEW SEWER LINES

It is the city’s intention to televise all new sanitary sewer lines for record purposes.

Immediately after the contractor completes all testing of sanitary sewer lines and manholes he shall leave all manholes accessible for televising and make allowances for the city’s camera crews working on the project site.

The contractor at his own expense before final acceptance must correct any defects discovered during the televising of sanitary sewers.

3.15 RESTORATION

A. Whenever any surface improvements such as pavement, curbing, pedestrian walks, fencing, or turf have been removed, damaged or otherwise disturbed by the Contractor’s operations, they shall be repaired or replaced to the Engineers satisfaction, to restore the improvement in kind and structure to the pre-existing condition. Each item of restoration work shall be done as soon as practicable after completion of installation and backfilling operations on each section of pipeline.

B. In absence of specific payment provisions, as separate Contract Items, the restoration work shall be compensated for as part of the work required under those Contract Items, which necessitated the destruction and replacement or repair, and there will be no separate payment therefor. If separate pay items are provided for restoration work, only that portion of the repair or reconstruction, which was necessitated by the contract, will be measured for payment. Any improvements removed or damaged unnecessarily shall be replaced or repaired at the Contractor’s expense.

C. Turf restoration shall be accomplished by sod replacement except where seeding is specifically allowed or required.

Caliche or gravel surfaced streets and driveway shall be restored to their original condition by salvaging and replacing the pre-existing caliche or gravel. If the Contractor does not salvage sufficient material during excavation operation, he will be required to furnish material to restore the surface to the depth of the original section. This caliche or gravel restoration shall be considered a part of excavation and backfill and no extra compensation will be made.

E. Bituminous and concrete surfaced streets and driveways will be restored to equal or better condition than existed prior to sewer construction. Measurement will be made of the actual quantities required to be replaced by the sewer construction and paid for at the price bid in the appropriate bid items in the proposal.

No measurement or payment will be made for work done outside the lines considered necessary for sewer construction. The Contractor will be required to replace damage outside these lines at his own expense.

F. Reconstruction of caliche base courses and concrete or bituminous surface courses shall be in substantial compliance with all applicable City of Midland Specifications pertaining to the item being restored.

3.16 CLEANUP

After completing each section of the sewer line, the Contractor shall remove all debris, construction materials, and equipment from the site of the work, grade and smooth over the surface on both sides of the line and leave the entire right-of-way in a clean, neat, and serviceable condition. No separate compensation shall be made for clean up.

3.17 PAYMENT

A. General

Payment in accordance with the following items, at the unit price bid for the work, shall constitute full and complete payment for the entire project including all incidental terms necessary for the complete and successful prosecution of the work in accordance with the intent of the plans and specifications.

Materials and work required to complete the project for which there is no bid item in the bid proposal shall be considered as incidental and the cost shall be included in the prices bid for the various items in the bid proposal.

Where payment is to be made on a unit price basis, it shall be made on the actual measured quantities as constructed in the work.

B. Sewer Pipe in Place

Unit prices bid shall cover furnishing and installation of pipe and jointing materials, including tests and all other necessary work and material to install the pipe complete in place at the depth specified. The unit of work shall be the lineal foot of the various types and sizes as shown in the proposal form. The pipe installation shall be measured

along the centerline of the sewer from center to center of manholes with no deduction in footage for manholes, wye branches, riser bases or other structure.

C. Foundation Corrections Materials

Payment for foundation correction materials shall be made at the unit price bid per cubic yard for material furnished and placed to pro vide adequate pipe base in unstable soil. The unit price shall include extra excavation below pipe grade, the material, placing and tamping.

Additional material required to backfill excess depth of excavation caused by neglect or error on the part of the Contractor or wet conditions, shall be furnished and placed at his own expense.

Removal of Street Surfacing

The Contractor shall receive no extra compensation for the removal of street surfacing including cutting of a straight edge.

E. Trench Safety Systems, Sheeting and Shoring

Measurement: Trench Safety Systems shall be measured by the linear foot of "Trench Safety Systems": Payment for work prescribed under this item shall be full compensation for the Trench Safety Systems including any Engineering and/or consulting fees and any additional excavation and backfill required, for furnishing, placing, maintaining and removing all shoring, sheeting, or bracing; for de-watering or diversion of water; for all jacking and jack removal; and for all other labor, materials, tools, equipment and incidentals necessary to complete the work.

F. Manholes

Payment will be made for the various types of manholes at the unit prices bid for the various types of manholes 0 to 6' deep which price shall include excavation, furnishing and installing all materials pumping where necessary, and backfilling and all incidentals for the complete manhole in place. Measurement for manholes over 6 feet in depth shall be made of the depth of manhole in excess of six (6) feet. Manholes will be measured from the invert to the top of the casting as set.

Payment will be made for the manhole depth in excess of 6 feet at the vertical foot price bid in the bid proposal for extra depth of manhole over 6 feet for each type of manhole furnished.

G. Drop Connections to Manholes

Payment shall be made for drop connections to manhole for each drop connection made as counted in the field at the price bid in the proposal.

Said payment shall be complete compensation for furnishing all materials and fittings and making all connections to the manhole including 2' of vertical depth as measured from the invert of the incoming line to the invert of the manhole.

H. Drop Section for Manholes

Drop sections shall be paid for on a vertical footage basis as measured from the invert of the incoming line to the invert of the manhole less 2 feet and shall be paid for at the price bid per vertical foot for the various size drop connections in the bid proposal.

The price bid per vertical foot includes all fittings, granular material, if used and concrete and shall be full compensation for the complete in service drop connection.

I. Service Lines

Service lines will be measured from centerline of the sewer main to the plug end and paid for at the unit price bid per linear foot of each type of pipe as specified and as shown on the typical details.

J. Barricading and Traffic Control

The lump sum price bid in the bid proposal shall be full compensation for furnishing flag persons when required and all barricades, signs and other barricading and traffic control devices and for furnishing barricading plans and erecting and maintaining all such devices and signs as required for the duration of the period.

Updated
08/07

TXDOT PREQUALIFICATION CERTIFICATION

I hereby certify that the Texas Department of Transportation (check one):

__X__ HAS DETERMINED that the undersigned bidder is currently a prequalified contractor qualified under confidential questionnaire.

____ HAS NOT DETERMINED that the undersigned bidder is currently a prequalified contractor qualified under confidential questionnaire.

Jones Bros. Dirt & Paving Contractors, Inc.
Name of Contractor



Signature

Stacey Bryant, General Manager
Printed Name and Title

Odessa	Texas	79761
City	State	Zip

Texas Department of Transportation

125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

February 02, 2022

JONES BROS. DIRT & PAVING CONTRACTORS, INC.
1401 S GRANDVIEW AVE
ODESSA, TX. 79761

RE: TxDOT Vendor Number 01026

Dear Contractor:

Your Confidential Questionnaire is satisfactory and qualifies you to bid on Projects let by the Texas Department of Transportation (TxDOT) from the date of this letter through November 30, 2022.

Your bidding capacity has been set at $432,736,000.00. You may request and receive bidding proposals for projects on which the engineer's estimate does not exceed your bidding capacity less any uncompleted work currently under contract with TxDOT.

If we may be of further assistance, please contact our Pre-qualification Branch at 512/416-2584.

Sincerely,

Greg Williams

Greg Williams
Director, Letting Management Section
Construction Division

OUR VALUES: *People • Accountability • Trust • Honesty*
OUR MISSION: *Connecting You With Texas*

An Equal Opportunity Employer

Texas Department of Transportation

CONFIDENTIAL QUESTIONNAIRE

Date of Balance Sheet _____ . _____

_____
Name under which you wish to qualify

Mark only one:
- ☐ *Individual*
- ☐ *Limited Partnership*
- ☐ *General Partnership*
- ☐ *Corporation*
- ☐ *Limited Liability Company*

Post Office Box | City | State | Zip Code

Street Address (required) | City | State | Zip Code

Telephone (required) | Fax | E-mail Address (required)

Area Code Number | Area Code Number

☑ Display fax # on TxDOT website ☑ Display e-mail address on TxDOT website

Texas Taxpayer Identification No.

Federal Employers Identification No.

DUNS No. (if available)

Revised October 2017

EMAIL THIS QUESTIONNAIRE ALONG WITH FINANCIAL STATEMENTS TO:
CST_PREQUALIFICATION@TXDOT.GOV

OR MAIL TO:
TEXAS DEPARTMENT OF TRANSPORTATION
ATTENTION: CST-PREQUALIFICATION
200 E. RIVERSIDE DRIVE
AUSTIN, TEXAS 78704

PLEASE MARK THE ENVELOPE: "FINANCIAL FORMS"

SPECIAL NOTICE

A Confidential Questionnaire submitted by an individual or business entity must contain all of the assets and all of the liabilities of the individual or business entity.

Asset and financial information provided is considered confidential under the law and will not be voluntarily disclosed to other person(s).

A Texas corporation must have a Texas Corporate Charter and furnish the department its charter or file number in the Corporation Block on Page 21 of the Confidential Questionnaire.

A Texas Attorney General's opinion permits a foreign corporation to become a qualified bidder with the department and to be issued bidding documents prior to registering the corporation to do business in this state; however, the corporation must register to do business in Texas prior to the execution of a contract with the department. In this instance, the foreign corporation should ascertain the availability of its name in Texas and submit its questionnaire under that name. If the contractor has not yet registered the corporation, he/she must file a name registration with the Texas Secretary of State, and provide this department with evidence of such filing. This name registration must be renewed continually until the corporation becomes registered. In addition, it will be necessary that we be furnished a copy of the corporation's Corporate Charter as filed in the state of incorporation in order that our records will be complete.

A Texas Limited Liability Company must have Texas Articles of Organization or Certification of Formation and furnish the department its file number in the Limited Liability Company Block on page 21 of the questionnaire.

A Texas Limited Partnership must have a Texas Certificate of Limited Partnership and furnish the department its file number in the Limited Partnership Block on page 21 of the questionnaire.

WARNING TO BIDDERS

The signer of this Confidential Questionnaire guarantees, as evidenced by the sworn affidavit required herein, the truth and accuracy of all statements and of all responses made in the questionnaire.

In order for a contractor to be considered eligible to bid on Texas Department of Transportation work, he/she must file a satisfactory Confidential Questionnaire using this form, along with the required financial statements, with the Texas Department of Transportation at Austin, Texas. The statement shall be made as of the last day of any month, and must be on file in Austin 10 days prior to the date bids are to be opened, if a contractor is to be eligible to bid. (See Item 2.2 of the Standard Specifications.) In addition, the statement must be approved for at least one letting prior to its anniversary date. The department interprets this 10 day requirement as being 10 calendar days before the last day of the letting. For example, assume that a contractor wishes to submit bids on projects to be opened on the 12th and/or 13th of July. The statement must to be filed by the 3rd day of July in order to be eligible to bid on those projects.

A new statement must be filed annually. If a contractor files a satisfactory statement, he/she will be eligible to bid for a period of 12 months from the date of the statement. Also, contractors are automatically granted a 90 day grace period to prepare and submit a new statement.

The contractor should be aware that the 90 day grace period will allow him/her to bid in the three consecutive monthly lettings following the anniversary of the statement, inclusive of any cancelled letting date or supplementary lettings, or for a period not to exceed three months from the anniversary date of the statement. The contractor may bid on locally let projects during grace period. this time as well. The 10 day requirement must still be met if the contractor desires to submit bids in lettings following the grace period.

If discrepancies are found in this Confidential Questionnaire, the questionnaire will be considered unsatisfactory, and the contractor will be ineligible to bid until the discrepancies are satisfactorily explained to this department.

In compiling a Confidential Questionnaire, all items must be completed and "Total Assets" must equal "Total Liabilities and Equity." If there is nothing to report in certain schedules, then make the notation "None" or "N/A." The amount shown for each item must be actual, as taken from the company's books and verified, and must not be "approximate" amounts.

Firms based outside of the United States must furnish financial information converted to U.S. dollars at the exchange rate as of the balance sheet date. In addition, these firms should obtain the required firm registration as outlined above, and Assumed Name Certificate, if applicable.

In line with the Authorization for Verification and Affidavit found on pages 22 and 23 of the Confidential Questionnaire, the department may verify the status of any item contained in the statement. THIS MAY OCCUR AT ANY TIME DURING THE PERIOD YOUR STATEMENT IS IN FORCE. Disclosures made during this verification may result in the revision of your approved bidding capacity, or the requirement of a new statement.

INSTRUCTIONS

The Confidential Questionnaire is to be submitted along with audited financial statements by firms wishing to become eligible to bid on all classes of **construction and maintenance** projects, as well as **"emergency"** projects.

Emergency projects result from situations or conditions which pose an imminent threat to life or property of the traveling public or which substantially disrupt the orderly flow of traffic. These projects may require work which must begin instantaneously. These projects may include removal of hazardous material, clearing debris from the roadway, temporary traffic operations, and

mowing to eliminate safety hazards when such work meets the requisites of an emergency. Refueling vehicles may be requested for evacuations. Emergency situations provide for an alternate procedure for the expedited award of contracts to meet conditions in which essential corrective or preventive action would be unreasonably hampered or delayed by compliance with other laws. Contractors wishing to be considered for emergency contracts must furnish a 24-hour phone number and an email address.

Please answer in complete detail all questions in the Confidential Questionnaire. This applies particularly to dates when contracts are expected to be completed, and dates when notes or bills will become due or must be paid.

The financial statements must be audited by an independent certified public accounting firm meeting the requirements for public practice in Texas. The department may make adjustments to a contractor's net working capital as deemed necessary as a result of analysis of the full prequalification statement.

In the event affiliated firms desire to prequalify with the department, they must prequalify based on statements prepared as of the same date.

For the purposes of the Confidential Questionnaire, two or more firms are affiliated if:

(i) the firms share common officers, directors, or stockholders;
(ii) a family member of an officer, director, or stockholder of one firm serves in a similar capacity in another of the firms;
(iii) an individual who has an interest in, or controls a part of, one firm either directly or indirectly also has an interest in, or controls a part of another of the firms;
(iv) the firms are so closely connected or associated that one of the firms, either directly or indirectly, controls or has the power to control another firm;
(v) one firm controls or has the power to control another of the firms; or
(vi) the firms are closely allied through an established course of dealings, including but not limited to the lending of financial assistance.

A family member is considered to be an individual's parent, parent's spouse, step-parent, step-parent's spouse, sibling, sibling's spouse, spouse, child, child's spouse, spouse's child, spouse's child's spouse, grandchild, grandparent, uncle, uncle's spouse, aunt, aunt's spouse, first cousin, or first cousin's spouse.

Affiliates may not submit bids on the same project. Should we receive bids on the same project from two or more firms who are affiliated according to one or more of the above definitions, each of the bids will be declared non-responsive and neither will be considered.

If the entity filing this statement holds equity in another company or business, this should be shown under "Other Assets" and sufficient data must be given to thoroughly verify such assets shown. This shall also apply to joint ventures operating as separate entities.

Please complete Question No. 14, Page 20, in detail, listing not only the officers/owners of the company, but also the superintendents who will be in charge of the work. If more space is required, please insert additional sheets.

If there is not sufficient space in the Confidential Questionnaire, please use attached schedules to support the detailed information requested, and refer to the specific schedule where the details pertaining to the item total may be found. When attaching these schedules, please furnish detailed addresses when they are requested. Inadequate cross referencing will result in processing delays and the possible return of the statement.

The proper Authorization for Verification and Affidavit block on pages 22 and 23 of the Confidential Questionnaire must be executed by the person or persons authorized to do so and must be acknowledged by a Notary Public. The Notary Public must be an individual other than an officer, partner, or LLC manager. The department will presume, unless otherwise advised, that the general partners of a partnership or officers of a firm listed are authorized to enter into contract on behalf of their firm. If they desire that additional persons be authorized to execute instruments on behalf of the firm, they must provide these details on page 21, furnish a Power of Attorney, or a Corporate Resolution which contains this authority.

The Certification of Absence of Suspension, Debarment, Voluntary Exclusion, or Determination of Ineligibility should be completed if your firm is interested in bidding on federal-aid projects. The certification itself is comprised of two pages, page numbers 10 and 11. The second page (11) contains a notarization which is separate from the notarization required on the Authorization for Verification and Affidavit found on pages 22 and 23.

Please notify this office immediately upon making any changes in the organizational structure of your business entity (i.e., conversion from a corporation to a limited partnership or merger with another firm) in order that bidding proposals may be issued to the correct entity, and that any outstanding contracts may be reassigned to the present name and form of your business. If changes taken place which affect the structure of your firm, your prequalification may be rendered invalid.

SPECIAL NOTICE REGARDING SANCTIONS

Should a contractor become sanctioned at a level 2 or greater, he/she may continue to prequalify with the department, but will remain ineligible to bid until the expiration of the sanction period.

SPECIAL NOTICE REGARDING SUPPLEMENTAL INFORMATION

In order to expedite and facilitate the prompt approval of your prequalification statement, the following information **MUST** accompany your submission.

FAILURE TO PROVIDE ALL REQUESTED INFORMATION COULD RESULT IN THE RETURN OF YOUR STATEMENT.

1. A complete set of audited financial statements:
   a. Classified Balance Sheet
   b. Income Statement
   c. Statement of Cash Flows
   d. Statement of Changes in Equity
   e. Notes to the Financial Statements

Please note that any financial statements submitted to the department for the purposes of qualification must be prepared by an independent certified public accounting firm in current good standing with the Texas State Board of Public Accountancy. This is a requirement if your firm is based or located in Texas. Current licenses for CPA's may be verified online at www.tsbpa.state.tx.us/php/fpl/frmlookup.php. CPA firms located outside of Texas and preparing financial statements for firms or individuals located or based within Texas are also subject to this requirement. Please contact the Texas State Board of Public Accountancy at 512-305-7853 for questions concerning licensing requirements.

2. A Confidential Questionnaire completed in detail. In those schedules where there is nothing to report, the notation "None" or "N/A" should be inserted. Failure to complete the Confidential Questionnaire will result in the return of your prequalification statement. Please ensure that the totals in the questionnaire correspond with those totals in the financial statements.

3. A certified copy of your organizational documents (Corporate Charter, Articles of Incorporation, Articles of Organization, Certificate of Formation, LLC Regulations, Certificate of Limited Partnership or Limited Partnership Agreement) if you are a foreign entity filing your initial prequalification statement and your firm does not have a current Certificate of Authority or registration to do business in Texas as issued by the Texas Secretary of State's Office.

4. Resumes reflecting the construction experience of the principals of the firm and E-Verify Memorandum of Understanding for firms submitting their initial prequalification. These resumes should include the size and scope of the work performed. The Memorandum of Understanding is a one-time requirement, which can be resolved solely with the affirmation on page 9 in subsequent submissions.

5. The firm's Texas Taxpayer Identification Number as issued by the Texas Comptroller of Public Accounts. This information is necessary to process payments on projects awarded your firm.

6. Your firm's e-mail address and fax number. These are requested for the purpose of forwarding project addenda in a timely manner. Should you wish for either of these to not appear on our website, please uncheck the appropriate box. Otherwise, this information will be published.

7. Your firm's DUNS number as issued by Dun & Bradstreet. This number is used by the department for required reporting on Federal Aid projects. If you do not yet have one, you may obtain it at www.dnb.com.

8. Other information as requested by the department.

SPECIAL NOTICE REGARDING THE USE OF ASSUMED NAMES

If the contractor chooses to qualify under an assumed name, and is based in Texas, a certified copy of the Assumed Name Certificate as filed with the County Clerk in the county of residence must be provided with this questionnaire during the initial filing, and upon assumed name renewal. Additionally, if the firm is a corporation, limited partnership, registered limited liability partnership, or a limited liability company (within or outside of Texas), it must also provide proof of filing this assumed name with the Texas Secretary of State. Firms residing outside of Texas using an assumed name must also file an Assumed Name Certificate in the county of their registered or principal office in Texas, and furnish this department a certified copy of this certificate. If no office is maintained in Texas, this filing should be made with the Travis County Clerk's office in Austin, Texas. Excerpts from the Texas Assumed Business or Professional Name Act are shown on page 6.

Assumed Business or Professional Name Act
(From Business and Commerce Code - Title 5, Chapter 71)

SUBCHAPTER B. REQUIREMENTS APPLICABLE TO CERTAIN UNINCORPORATED PERSONS

Sec. 71.051. **CERTIFICATE FOR CERTAIN UNINCORPORATED PERSONS.**

A person must file a certificate under this subchapter if the person regularly conducts business or renders a professional service in this state under an assumed name other than as a corporation, limited partnership, limited liability partnership, limited liability company, or foreign filing entity.

SUBCHAPTER C. REQUIREMENTS APPLICABLE TO INCORPORATED BUSINESS OR PROFESSION AND CERTAIN OTHER ENTITIES

Sec. 71.101. **CERTIFICATE FOR INCORPORATED BUSINESS OR PROFESSION, LIMITED PARTNERSHIP, LIMITED LIABILITY PARTNERSHIP, LIMITED LIABILITY COMPANY, OR FOREIGN FILING ENTITY.**

A corporation, limited partnership, limited liability partnership, limited liability company, or foreign filing entity must file a certificate under this subchapter if the entity: (1) regularly conducts business or renders professional services in this state under an assumed name; or (2) is required by law to use an assumed name in this state to conduct business or render professional services.

Sec. 71.152. **MATERIAL CHANGE IN INFORMATION; NEW CERTIFICATE.**

(a) Not later than the 60th day after an event occurs that causes the information in a certificate to become materially misleading, a registrant must file a new certificate complying with this chapter in the office in which the original or renewal certificate was filed.

(b) An event that causes the information in a certificate to become materially misleading includes: (1) a change in the name, identity, entity, form of business or professional organization, or location of a registrant; (2) for a proprietorship or sole practitioner, a change in ownership; or (3) for a partnership: (A) the admission of a new partner or joint venturer; or (B) the end of a general partner's or joint venturer's association with the partnership.

(c) A new certificate filed under this section is effective for a term not to exceed 10 years from the date the certificate is filed.

Sec. 71.202. **CRIMINAL PENALTY: GENERAL VIOLATION.**

(a) A person commits an offense if the person:
  (1) conducts business or renders a professional service in this state under an assumed name; and
  (2) intentionally violates this Chapter.

(b) An offense under this section is a Class A misdemeanor.

Company Names
(From Business and Commerce Code - Title 2, Chapter 17)

SUBCHAPTER E. DECEPTIVE TRADE PRACTICES AND CONSUMER PROTECTION

Sec. 17.46. **DECEPTIVE TRADE PRACTICES UNLAWFUL.**

(a) False, misleading, or deceptive acts or practices in the conduct of any trade or commerce are hereby declared unlawful and are subject to action by the consumer protection division under Sections 17.47, 17.58, 17.60, and 17.61 of this code.

(b) Except as provided in Subsection (d) of this section, the term "false, misleading, or deceptive acts or practices" includes, but is not limited to, the following acts:

  (25) using the term "corporation," "incorporated," or an abbreviation of either of those terms in the name of a business entity that is not incorporated under the laws of this state or another jurisdiction;

SPECIAL NOTICE REGARDING CERTIFICATION OF ABSENCE OF SUSPENSION, DEBARMENT, VOLUNTARY EXCLUSION, OR DETERMINATION OF INELIGIBILITY

The U.S. Department of Transportation has adopted rules concerning nonprocurement debarment and suspension in accordance with the Office of Management and Budget (OMB) guidelines. Under these rules, the Federal Highway Administration will not be able to concur in the award of a contract for any federal aid project to any contractor that is currently suspended or debarred by any federal agency.

As a result of the above, the department has adopted rules concering the issuance and submission of proposals that preclude issuing a bidding proposal for a federal aid project to a firm that is currently suspended or debarred by any agency of the federal government. To facilitate the department's compliance with this rule, it will be necessary for all qualified contractors to complete and file a Certification of Absence of Suspension, Debarment, Voluntary Exclusion, or Determination of Ineligibility with the Construction Division of this department. This certification is included on page vii of this document. The certification will be incorporated in each bidder's respective file. To avoid delay in receiving bidding proposals for federal aid projects, bidders are encouraged to complete their certifications.

Form 2065

WORK CATEGORY INFORMATION SHEET

In an effort to identify the kind(s) of work you perform, please check one or more of the following blocks to indicate the categories of work your firm is involved with:

- ☐ Asphalt (ACP, LRA, Seal Coats)
- ☐ Concrete Paving & Incidentals
- ☐ Earthwork, Base & Subbase
- ☐ Emergency Contracts*

  Emergency Contact Individual**:

  Name: _____

  E-mail: _____

  Phone for 24-hour contact: _____

  **All fields are mandatory to be considered for emergency work.
- ☐ Fencing
- ☐ Hauling
- ☐ Lighting & Signal Maintenance
- ☐ Landscaping
- ☐ Major Structures
- ☐ Material Supplier
- ☐ Minor Structure/Misc. Concrete
- ☐ Painting & Striping
- ☐ Rest Areas (Construction)
- ☐ Traffic Control Devices
- ☐ Other: _____

  _____

  _____

  _____
- ☐ Guardrail Repair
- ☐ Debris Clearing/Removal
- ☐ Mowing
- ☐ Litter Pickup & Disposal
- ☐ Cleaning & Sweeping Highways
- ☐ Building Construction
- ☐ Rest/Picnic Area Maintenance
- ☐ Hazardous Material
- ☐ Underwater Inspection
- ☐ Stream Channel Restoration
- ☐ Pavement Markers

*Note: If indicating your availability for emergency contracts, please insure that the above contact information remains updated with this office at all times. In the event of an emergency, we may be inquiring about your availability as well as a list of equipment available for the emergency.

Check the Districts by city in which you are willing to work:

District Offices

☐ Paris	☐ Tyler	☐ Atlanta
☐ Fort Worth	☐ Lufkin	☐ Beaumont
☐ Wichita Falls	☐ Houston	☐ Pharr
☐ Amarillo	☐ Yoakum	☐ Laredo
☐ Lubbock	☐ Austin	☐ Brownwood
☐ Odessa	☐ San Antonio	☐ El Paso
☐ San Angelo	☐ Corpus Christi	☐ Childress
☐ Abilene	☐ Bryan	
☐ Waco	☐ Dallas	

☐ ALL

ELECTRONIC BIDDING SYSTEM

The Integrated Contractor Exchange (iCX) is the new TxDOT Web-based Electronic Bidding System. It is being utilized to handle project notifications, proposal requests, and electronic bidding. It is mandatory to have an account to receive project notifications. If the qualifying entity does not have an account, please provide an individual name and email address to be setup as an Administrator.

Administrator Name: _____

Administrator Email Address: _____

BIDDER'S RECIPROCITY

For the purpose of applying the Texas Bidder Preference Law under Transportation Code §223.050, please indicate the qualifying firm's principal place of business:

- ☐ Texas
- ☐ Louisiana
- ☐ Oklahoma
- ☐ New Mexico
- ☐ Arkansas
- ☐ Other

Note: Principal Place of Business - The primary location where a contractor's business is performed. The principal place of business is where the business' books and records are kept and is where the head of the firm or upper management is located.

If the qualifying firm's principal place of business lies outside of Texas, please answer the following items for further consideration:

1. Does your firm have a physical office located in the State of Texas that has functioned for the last 12 months?
   ☐ Yes ☐ No
2. If your firm has a physical office in Texas, please provide the complete address and a telephone number to reach it.
   _____
3. Has the above physical Texas office been functioning for the last 12 months and does it currently function with daily business matters being conducted?
   ☐ Yes ☐ No
4. Is there an employee of the qualifying firm, whom resides in the state of Texas that is authorized to execute contracts and other documents?
   ☐ Yes ☐ No
5. Does this office have professional staff and labor force that reside in this state?*
   ☐ Yes ☐ No
6. Are company vehicles registered in the state of Texas?
   ☐ Yes ☐ No
7. Have the company's business property taxes been and are paid in the state of Texas for equipment or property owned?
   ☐ Yes ☐ No

A parent or holding company cannot claim a Texas preference status under a subsidiary or affiliate.

*Professional staff and labor force employees are actual employees, not employees of an employee leasing firm.

Form 2065

The State of _____

County of _____

CERTIFICATION OF ABSENCE OF SUSPENSION, DEBARMENT, VOLUNTARY EXCLUSION, OR DETERMINATION OF INELIGIBILITY

The undersigned bidder, under penalty of perjury under the laws of the United States or the State of Texas, certifies that, except as noted herein, the bidder's firm and all persons associated therewith in the capacity of owner, partner, stockholder, director, officer, principal investigator, project director, member, manager, auditor, or any position involving the administration of any part of the firm's operations:

1. are not currently suspended, debarred, or voluntarily excluded from or determined to be ineligible for bidding by any Federal agency;
2. have not been suspended, debarred, voluntarily excluded from or determined to be ineligible for bidding by any Federal agency within the past three years;
3. do not have a proposed debarment pending with any Federal agency, and
4. have not been indicted, convicted, or had a civil judgment rendered against it or any person indicated above by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

All exceptions to the above are recorded in the following space:

_____

_____

_____

_____

_____

The undersigned bidder understands that exceptions will not necessarily preclude the issuance of a bidding proposal or result in the denial of award of the contract for a Federally funded project. It is also understood that exceptions will be carefully reviewed by the department and by the Federal Highway Administration and may result in rejection of the bid proposal and suspension and debarment of the contractor pursuant to Texas Administrative Code, Title 43, Part 1, Chapter 9, Subchapter G, *Highway Improvement Contract Sanctions,* Rules Sections 9.101 through 9.111, and/or CFR, Title 2, Part 180, *Debarment and Suspension (Non-procurement).*

For any exception noted, the following information explains to whom it applies, the initiating agency, and the dates of action.

The undersigned bidder understands that providing false information may result in criminal prosecution and/or administrative sanctions.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

The undersigned bidder, being fully cognizant of the facts stated in the certifications contained on page vii, certifies the truth and accuracy of those certifications, which are made by signing this document.

_____
Print Firm Name

_____
Signature/Title

Before me, the undersigned authority, a Notary Public, on this day personally appeared _____ who, being by me duly sworn, upon oath says that he/she is qualified and authorized to make affidavit for and on behalf of _____ bidder, of _____ County, and is fully cognizant of the facts herein set out and affirms to the truth and accuracy of the certifications made herein by signing the document above.

Subscribed and sworn to before me by the said _____
Officer's Name

this _____ day of _____ , 20_____ to certify which witness my hand and seal of office.

_____
Notary Public in and for

_____ County

NOTE: The Notary Public must be an individual other than an officer, partner, or LLC member/manager.

Form 2065

DETAILS RELATIVE TO ASSETS

Round to the nearest whole dollar amounts. Do not include cents in the figures.

1	**Cash**		$ _____ TOTAL
	NAME OF BANK AND DETAILED ADDRESS	DEPOSITED IN NAME OF	AMOUNT

2	**Certificates of Deposit**		$ _____ TOTAL
	NAME OF BANK AND DETAILED ADDRESS	DEPOSITED IN NAME OF	AMOUNT

3*	**Notes Receivable**		$ _____ TOTAL
	RECEIVABLE FROM: NAME AND DETAILED ADDRESS	CURRENT AMOUNT	AMOUNT

4*	**Accounts receivable from completed contracts exclusive of claims not approved for payment**			$ _____ TOTAL
	RECEIVABLE FROM: NAME AND DETAILED ADDRESS	CURRENT AMOUNT	AMOUNT OF CONTRACT	AMOUNT RECEIVABLE

*For Schedules with an asterisk (*), list separately each item amounting to 10 percent of the total and combine the remainder.

DETAILS RELATIVE TO ASSETS

Round to the nearest whole dollar amounts. Do not include cents in the figures.

5*	**Sums earned on incomplete contracts, as shown by engineer's or architect's estimate** (a) Amount receivable after deducting retainage $_____ (b) Retainage to date due upon completion of contract $_____	$ _____ TOTAL

**DESIGNATION OF CONTRACT, NAME AND DETAILED ADDRESS OF ENTITY LETTING CONTRACT	TOTAL AMOUNT OF CONTRACT	TOTAL BILLINGS TO DATE	RETAINAGE		CURRENT AMOUNT EXCLUSIVE OF RETAINAGE
			DUE DATE	AMOUNT	

** If contract is a joint venture, so indicate. If this is a subcontract, give name and detailed address of prime.

6	**Accounts Receivable <u>not</u> from Contracts**	(a) Officers & Employees $_____ (b) Other $_____ (c) Past Due $_____	$ _____ TOTAL

RECEIVABLE FROM: NAME AND DETAILED ADDRESS	DESCRIPTION	DUE DATE	AMOUNT

7	**Inventory - Materials in Stock and Not Included in Item 4, Assets In warehouse and on job site (present value)** $_____	$ _____ TOTAL

DESCRIPTION OF MATERIAL	QUANTITY	FAIR VALUE WAREHOUSE AND JOB SITE

8	**Costs In Excess Of Billings**	$ _____ TOTAL

*For Schedules with an asterisk (*), list separately each item amounting to 10 percent of the total and combine the remainder.

DETAILS RELATIVE TO ASSETS *(Continued)*

Round to the nearest whole dollar amounts. Do not include cents in the figures.

9 **Deposits with bids or otherwise as guaranties** — $_____ TOTAL

DEPOSITED WITH: NAME AND DETAILED ADDRESS	DESCRIPTION	AMOUNT

10 **Prepaid Expenses** — $_____ TOTAL

TO WHOM: NAME AND DETAILED ADDRESS	DESCRIPTION	TOTAL PREPAID

11 **Interest Accrued on Loans, Securities, etc.** — $_____ TOTAL

ACCRUAL ITEM	DATE OF PAYMENT	AMOUNT

12 **Cash Value of Life Insurance**
(a) Total pledged — $_____
(b) Total not pledged — $_____
$_____ TOTAL

13 **Stocks and Bonds**
(a) Listed (Present market value) — $_____
(b) Unlisted (Present market value) — $_____
$_____ TOTAL

DESCRIPTION	ISSUING COMPANY	PRESENT MARKET VALUE	QUANTITY	AMOUNT

Form 2065

DETAILS RELATIVE TO ASSETS *(Continued)*

Round to the nearest whole dollar amounts. Do not include cents in the figures.

14	**Investments**	$ _____ TOTAL
DESCRIPTION		TOTAL AMOUNT

15	**Real Estate Appraised or Book Value**	$ _____ TOTAL

16	**Furniture and Fixtures at Book Value**	$ _____ TOTAL

17*	**Equipment**		$ _____ TOTAL
ITEM	QUANTITY	ITEM DESCRIPTION	BALANCE SHEET VALUE
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			
		Various -	
		TOTAL	

* Similar types of equipment may be lumped together. If your firm has more than 30 types of equipment, you may show these 30 types and show the remainder as "Various." The Texas Department of Transportation, by allowing you to show only 30 types of equipment, reserves the right to request a complete detailed list of all of your equipment.

DETAILS RELATIVE TO ASSETS *(Continued)*

Round to the nearest whole dollar amounts. Do not include cents in the figures.

18	Other Assets	$ _____ TOTAL
DESCRIPTION		AMOUNT

TOTAL ASSETS	$ _____

DETAILS RELATIVE TO LIABILITIES AND EQUITY

19	Notes Payable			$ _____ TOTAL**
TO WHOM: NAME AND DETAILED ADDRESS	SECURITY	TERMS, INCLUDING DUE DATE	CURRENT PORTION	AMOUNT
TOTAL CURRENT PORTION				

** This total should include all notes payable (current and long-term).

DETAILS RELATIVE TO ASSETS *(Continued)*

Round to the nearest whole dollar amounts. Do not include cents in the figures.

20*	**Accounts Payable**			$ _____ TOTAL
TO WHOM: NAME AND DETAILED ADDRESS		ITEM DESCRIPTION	DATE PAYABLE	AMOUNT PAYABLE

*List separately each item amounting to 10 percent or more of the total and combine the remainder.

21	**Federal Income Tax Provision**	$ _____ TOTAL

22	**Other Liabilities**	$ _____ TOTAL
DESCRIPTION		AMOUNT

23	**Billing in Excess of Costs**	$ _____ TOTAL

DETAILS RELATIVE TO ASSETS *(Continued)*

Round to the nearest whole dollar amounts. Do not include cents in the figures.

24	**Corporate Equity**	$ _____ TOTAL
		AMOUNT
Common Stock		
Preferred Stock		
Contributed Capital in Excess of Par or Additional Paid-In Capital		
Treasury Stock		
Retained Earnings		
Retained Earnings Deficit		

25	**Partnership or LLC Equity**	$ _____ TOTAL
DESCRIPTION		AMOUNT

26	**Individual Equity Net Worth**	$ _____ TOTAL

TOTAL LIABILITIES AND EQUITY	$ _____

Form 2065

BIDDER'S EXPERIENCE QUESTIONNAIRE

1. List equipment which you do not own but which is available by renting.

DESCRIPTION OF EQUIPMENT	NAME AND DETAILED ADDRESS OF OWNER

2. How many years has your organization been in business as a general contractor under your present business name? _____

3. How many years experience in construction work does your organization have:
(a) As a General Contractor? _____ **(b) As a Sub-Contractor?** _____

4. What projects has your organization completed in Texas and elsewhere?*

CONTRACT AMOUNT	CLASS OF WORK	DATE COMPLETED	LOCATION CITY-COUNTY-STATE	NAME AND DETAILED ADDRESS OF OFFICIAL TO WHOM YOU REFER

*If requalifying only show work performed since last statement.

5. Have you ever failed to complete any work awarded to you? _____ **If so, where and why?** _____

6. Has any officer or owner of your organization ever been an officer or owner of another organization that failed to complete a contract?
_____ **If so, state name of individual, other organization and reason.** _____

7. Has any officer or owner of your organization ever failed to complete a contract executed in his/her own name?
If so, state name of individual, name of owner and reason. _____

8. In what other lines of business are you financially interested? _____

9. Have you ever performed work for the U.S. Government? If so, when and to whom do you refer? Provide a detailed address.

BIDDER'S EXPERIENCE QUESTIONNAIRE *(Continued)*

10. Give names and detailed addresses of all producers from whom you have purchased principal material during the last three years.

NAME OF FIRM OR COMPANY	DETAILED ADDRESS

11. Give the name, percentage owned and detailed address of each individual or entity owning five percent (5%) or more of your business. List the Social Security Number of each individual.*

NAME, PERCENTAGE OWNED AND DETAILED ADDRESS	SOCIAL SECURITY NUMBER

* This data is gathered and maintained in order to assure contractors' eligibility of obtaining State contracts under Texas Family Code 231.006 (c), enforcing the collection of child support. Providing this data is mandatory for those individuals owning 25% or more of the business entity.

12. Give the name and detailed address of each affiliated and/or subsidiary company. Please indicate any firms you are no longer affiliated with.

Definition of affiliated firms contained under "Instructions" on Page 3.

13. Give the names of any affiliates or relatives currently debarred by the department. Please indicate your relationship to this person or firm.

14. What is the construction experience of the principal individuals of your organization?

NAME	PRESENT POSITION OR OFFICE	YEARS OF CONSTRUCTION EXPERIENCE	MAGNITUDE AND TYPE OF WORK	IN WHAT CAPACITY

BIDDER'S EXPERIENCE QUESTIONNAIRE*(Continued)*

INFORMATION RELATING TO ACCOUNTANT PREPARING AUDIT REPORT

Name and Detailed Address of Accounting Firm

Name of Individual Accountant Conducting Examination

Area Code Telephone Number

CORPORATION BLOCK

If a corporation:

State of incorporation

Date of incorporation

Charter/File No.

President:

Vice President(s):

Secretary:

Treasurer:

PARTNERSHIP BLOCK

If a partnership:

State of organization

Date of organization

Is partnership general, limited or registered limited liability partnership?

File No. (if Limited Partnership)

General Partners/Officers:

Limited Partners (if applicable):

LIMITED LIABILITY COMPANY BLOCK

If an LLC:

State of organization

Date of organization

File No.

Officers or managers (with titles, if any):

Individuals authorized to sign for the partnership:

Except for limited partners, the individuals listed in the blocks above are presumed to have full signature authority for your firm unless otherwise advised. Should you wish to grant signature authority to additional individuals, please attach a certified copy of the corporate resolution, corporate minutes, partnership agreement, power of attorney or other legal documentation which grants this authority.

Form 2065

INDIVIDUAL
AUTHORIZATION FOR VERIFICATION AND AFFIDAVIT

STATE OF _____ }
COUNTY OF _____ }

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the individual herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that the accountant who prepared the balance sheet accompanying this report as well as any depository, vendor or any other agency herein named is hereby authorized to supply such party with any information, while this statement is in force, necessary to verify said statement.

_____, being duly sworn, deposes and says that the foregoing financial statement, taken from his/her books, is a true and accurate statement of his/her financial condition as of the date thereof, and that the answers to the interrogatories contained therein are true; that the statements and answers to the interrogatories of the foregoing equipment questionnaire are correct and true as of the date of this affidavit; and, that the statements and answers to the interrogatories of the foregoing experience questionnaire are correct and true as of the date of this affidavit.

Further, under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this application is not ineligible to receive the specified grant, loan, or payment and acknowledges that any contract may be terminated and payment may be withheld if this certification is inaccurate.

Sworn to before me this
_____ day of _____, _____

_____
Notary Public

Firm Name _____
Signature _____

PARTNERSHIP
AUTHORIZATION FOR VERIFICATION AND AFFIDAVIT

STATE OF _____ }
COUNTY OF _____ }

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the partnership herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that the accountant who prepared the balance sheet accompanying this report as well as any depository, vendor or any other agency herein named is hereby authorized to supply such party with any information, while this statement is in force, necessary to verify said statement.

_____, being duly sworn, deposes and says that he/she is a partner of the firm of _____; that the foregoing financial statement, taken from the books of said firm, is a true and accurate statement of the financial condition of said firm as of the date thereof and that the answers to the interrogatories contained therein are true and that the statements and answers to the interrogatories of the foregoing equipment questionnaire are correct and true as of the date of this affidavit; and, that the statements and answers to the interrogatories of the foregoing experience questionnaire are correct and true as of the date of this affidavit.

Further, under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this application is not ineligible to receive the specified grant, loan, or payment and acknowledges that any contract may be terminated and payment may be withheld if this certification is inaccurate.

Firm Name _____
Signature _____
(General partner of firm must sign)

Sworn to before me this
_____ day of _____, _____

_____
Notary Public

Notary Public must not be a partner.
Signature should be consistent with the individual's name appearing under the respective block on Page 21 of this document.

Form 2065

CORPORATION
AUTHORIZATION FOR VERIFICATION AND AFFIDAVIT

STATE OF _____ }
COUNTY OF _____ }

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the corporation herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that the accountant who prepared the balance sheet accompanying this report as well as any depository, vendor or any other agency herein named is hereby authorized to supply such party with any information, while this statement is in force, necessary to verify said statement.

_____, being duly sworn, deposes and says that he/she is

the _____ of _____, the corporation described in and which executed the foregoing statement; that he/she is familiar with the books of the said corporation showing

its financial condition; that the foregoing financial statement taken from the books of said corporation, is a true and accurate statement of the financial condition of said corporation as of the date thereof and that the answers to the interrogatories of the foregoing equipment questionnaire are correct and true as of the date of this affidavit; and, that the statements and answers to the interrogatories of the foregoing experience questionnaire are correct and true as of the date of this affidavit.

Further, under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this application is not ineligible to receive the specified grant, loan, or payment and acknowledges that any contract may be terminated and payment may be withheld if this certification is inaccurate.

_____
(Officer must sign here)

Sworn to before me this

_____ day of _____, _____

_____
Notary Public

NOTE: The Notary Public must be an individual other than an officer, director or stockholder.
Signature should be consistent with the individual's name appearing under the respective block on Page 21 of this document.

LIMITED LIABILITY COMPANY AUTHORIZATION FOR VERIFICATION AND AFFIDAVIT

STATE OF _____ }
COUNTY OF _____ }

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the limited liability company herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that the accountant who prepared the balance sheet accompanying this report as well as any depository, vendor or any other agency herein named is hereby authorized to supply such party with any information, while this statement is in force, necessary to verify said statement.

_____, being duly sworn, deposes and says that he/she is a

member/manager, or officer of _____, the limited liability company described in and which executed the foregoing statement; that he/she is familiar with the books of the said company showing its financial condition; that the foregoing financial statement taken from the books of said company, is a true and accurate statement of the financial condition of said company as of the date thereof and that the answers to the interrogatories of the foregoing equipment questionnaire are correct and true as of the date of this affidavit; and, that the statements and answers to the interrogatories of the foregoing experience questionnaire are correct and true as of the date of this affidavit.

Further, under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this application is not ineligible to receive the specified grant, loan, or payment and acknowledges that any contract may be terminated and payment may be withheld if this certification is inaccurate.

_____
(Member, manager, or officer must sign here)

Sworn to before me this

_____ day of _____, _____

_____
Notary Public

NOTE: The Notary Public must be an individual other than a member, manager or officer.
Signature should be consistent with the individual's name appearing under the respective block on Page 21 of this document.

The Texas Department of Transportation maintains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you. Under §§552.021 and 552.023 of the Texas Government Code, you also are entitled to receive and review the information. Under §559.004 of the Government Code, you are also entitled to have us correct information about you that is incorrect.

MIDLAND
Engineering Services

ADDENDUM #1

Project Number P17-03

TO ALL BIDDERS ON THE SUBJECT BID: North Fairgrounds Road, Loop 250 – Mockingbird Lane Paving Project

ADDENDUM #1

DATE: October 14, 2022

1. Q/A and Clarification
2. Attachments
    a. 2.0 Notice To Bid (Revised 10-14-22)
    b. 3.0 Instructions&InfoForBidders (Revised 10-14-22)
    c. 7.0 Proposal Pvng (Revised 10-14-22)
    d. 7.1 Pay Notes Pvng (Revised 10-14-22)
    e. 3D Surface File – 190070 Z-CORRIDOR Export
    f. Fairgrounds KMZ
    g. New Brick Herringbone – Stamped Concrete Pattern
    h. TxDOT Precast Safety End Treatment Type II – Cross Drainage Detail
    i. 190070 FAIRGROUNDS PAVING AND DRAINAGE CONSTRUCTION PLANS 10-14-2022 APPV Updated Plan Set
3. Non-Mandatory Pre-Bid Meeting Agenda
4. Non-Mandatory Pre-Bid Meeting Attendance

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

Jones Bros. Dirt & Paving Contractors, Inc.
Company Name

Bidder Authorized Signature

October 26, 2022
Date

Stacey Bryant
Please Print Above Name

432-332-0721
Phone

North Fairgrounds Road, Loop 250 – Mockingbird Lane Paving Project
Project Number P17-03

Q/A and Clarification

During the Pre-Bid Meeting, the following questions were raised by one or more bidders. Below is a list of the questions along with the answers and clarifications.

Clarifications

Clarification: All addendum acknowledgement forms must be included with the bid for the bid to be considered complete. Bidders have sole responsibility for making sure they have and acknowledge all addendums provided for this project bid. Bidder is responsible for replying to the City of Midland purchasing department for confirmation of electronic delivery of addendum and addendum attachments.

Clarification: Contractor must be willing to sign contract as is.

Clarification: Check that all insurance forms are in order when submitting bids.

Clarification: Check that all conflict of interest forms are completed if applicable.

Clarification: Contractor must fill out all bid items in the Proposal for the bid to be considered complete.

Clarification: Contractor is responsible for all construction staking.

Clarification: All traffic control requests must go through the City of Midland for approval. Contractor is responsible for all traffic control during this project.

Clarification: It is recommended that Bidders use the USPS mailing address rather than the physical City Hall address for bid submittals that are mailed in as the physical address has experienced issues on occasion in the past. The USPS mailing address is unchanged from what is listed in the original bid packet. If the bidder plans to mail their completed bid packet, it is the bidder's responsibility to ensure that the bid is received on time.

Clarification: Since there is no City Engineer employed by the City of Midland, the City person of contact will be Bobby Wojciechowski.

Questions and Answers

1. There's no bid item for (3 – 30") Flared End Treatment 2 EA at culvert No. 1? It's probably a typo for the (3 - 24") Flared End Treatment bid item since there's not a situation for that item.
    A. The bid item for 3-24" Flared End Treatment has been updated to 3-30" Flared End Treatment. This change is reflected on C102 of the plans, in the pay notes, and in the proposal.
2. There's no bid item for the 4" concrete riprap at the ends of the Flared End Treatments?
    A. Concrete end treatment pay note added. Updated sheets will be provided as part of this addendum.
3. There's no bid item for (1 - 30") Flared End Treatment 2 EA at Station 34+00?
    A. The bid item for 1-30" Flared End Treatment has been added. This change is reflected on C102 of the plans, in the pay notes, and in the proposal that are included in this addendum.
4. I can't find a location for a double 24" structure for bid item (2 - 24") Flared End Treatment?
    A. There are no "double 24" structures in the plan set.
5. Can TXDOT Type II, SETs be substituted for the Flared End Treatments? They are available in 3:1, 4:1, and 6:1. We are having trouble finding a Texas supplier and it would save a lot of money.
    A. TxDOT Precast Safety End Treatment (SET) Type II – Cross Drainage is an acceptable replacement. Included in this addendum will be the TxDOT Precast Safety End Treatment Type II – Cross Drainage details. There are applications for multiple pipes in the SET details.
6. There are several enclosed existing contours on sheet C-110 that do not have elevation, can this be provided?
    A. All contours have been provided.
7. C130 demo scale 1"=60'? What is scale?
    A. The scale has been updated on the sheet to 1"=40'. An updated sheet will be included with this addendum.
8. C130 demo- remove existing HC ramp (4sy). No detail or bid item for replacing concrete removed?
    A. Sheet C230 shows a handicapped ramp with its respective note that will replace the removed handicapped ramp. The replacement is accounted for in the "CONCRETE PEDESTRIAN ACCESS RAMP" line item in the proposal.
9. C230 (note 15) New perpendicular ramp. No bid item for removal of existing concrete?
    A. The removal of existing concrete is accounted for in the "REMOVAL & DISPOSAL OF EXISTING CONCRETE SIDEWALK & RAMPS" item in the proposal.
10. C430 Micro surfacing- scale shows 1"=50'. What is scale?

A. The scale has been updated on the sheet to 1"=30'. An updated sheet will be included with this addendum.

11. Existing contours. Can they be turned on for sheets 201 thru 204 P&P?
    A. Annotations and contours have been turned on for all plan and profile sheets. Updated sheets will be provided as part of this addendum.
12. C110 Can the existing contours be identified from STA 0+00 to the south on Fairgrounds Rd?
    A. Existing contours have been identified.
13. Bid item #3, 220 lbs / sy @ 1". Shouldn't this be 220 lbs / sy @ 2" or 110 lbs / sy @ 1"?
    A. Bid item #3 under the "Paving" section in the Proposal should read 220 lbs / SY @ 2".
14. Bid item #4, 330 lbs / sy @ 1". Shouldn't this be 330 lbs / sy @ 3" or 110 lbs / sy @ 1"?
    A. Bid item #4 under the "Paving" section in the Proposal should read 330 lbs / SY @ 3".
15. Bid item #5, Grade 4 base. Grade 4 is as shown on plans, what is required.
    A. Bid item #5 under the "Paving" section in the Proposal is accurate – Grade 4 base is acceptable.
16. Bid item #13, Stamped concrete, quantity seems low for the large island?
    A. This quantity has been revised. Updated sheets will be provided as part of this addendum.
17. No bid item for excavation / embankment?
    A. Excavation / Embankment pay note added. The contractor will be responsible for producing their own quantity for cut and fill. A 3-D surface file and updated sheets will be provided with this addendum.
18. Sheet 200, cattle guard at about station 2 + 50, bid item?
    A. This item is considered subsidiary to the clearing and grubbing pay note.
19. Sheet C200, C201, C203, and sheet C204, clear and grub bid item?
    A. Clearing and grubbing pay note added. Updated sheets will be provided as part of this addendum.
20. Sheet C200, C201, C203, and sheet C204, fast line removal? Bid item?
    A. Pioneer Energy will be responsible for this. There will be no bid item.
21. Fence removal at Sta 25 + 50 and 36 + 75, who removes? Bid item?
    A. Pioneer Energy will be responsible for removing this fence. There will be no bid item.
22. Sheet 304, detail 1, 6" item 247 base, type A, grade 1. Should this be grade 1-2 or 4? Bid item? Grade 2 is not available currently. In the past we have complied with the City specification along with City approval.
    A. City Base will be acceptable. This is considered subsidiary to the 7" jointed concrete bid item.
23. Sheet C230, note 1, 24" patching, bid item?

A. 2.0' Sawcut / Patching pay note added. Updated sheets will be provided as part of this addendum.

24. Sheet C230, note 4, adjust manhole, bid item?
    A. Adjust existing manhole pay item added. Updated sheets will be provided as part of this addendum.
25. Sheet C230, note, 12, when will poles be relocated?
    A. Oncor has been notified that power poles need to be relocated. All Pioneer power poles have been relocated.
26. Sheet C230, note 19, stand up curb in islands, bid item?
    A. Stand up curb pay item added. Updated sheets will be provided as part of this addendum.
27. Sheet C230, note 21, 422 lf of concrete safety barrier. Is this permanent? Bid item?
    A. This is a permanent barrier that is required by Pioneer Energy as part of the ROW agreement. The bid item is already included in the sheets.
28. Sheet C240, detail B/C/C/E, what is 24" over build, dirt/base?
    A. This is an area of "throwaway" asphalt typically provided for road expansion.
29. Is a Geotechnical Report available for review?
    A. There will be no provided geotechnical report for this project.
30. What is the application rate for the Micro-surfacing on the North Fairgrounds Road, Loop 250-Mockingbird Lane Paving Project?
    A. Application rate for this project will be 25-28 lbs / DY of dry aggregate minimum.
31. Any way we can get the linework laid out on Google Earth? I want to overlay & see how it falls on the ground. We typically use the CAD file for that. Can the Engineer put that together for us?
    A. A KMZ file will be provided with the issuance of this addendum.
32. Can 3-D files be available at Pre-Bid? in the 3-D information, we look at those to get cut/fills for our Take-Off. The Plans have existing and proposed in different sheets and the sheets are different scales.
    A. A 3-D surface file will be accessible with the issuance of this addendum.
33. Can we get the AutoCAD file for this project to assist in our bidding? We would need linework, existing & proposed grades.
    A. We do not provide AutoCAD base files during the bid process. A 3-D surface file will be accessible with the issuance of this addendum.
34. Are you looking to match the TxDOT stamped concrete pattern?
    A. The integral color is Butterfield U31 Weathered Terra Cotta. The release is dark gray. Included with this addendum is a picture of the herringbone pattern that will be expected.
35. Can we push the bid opening date back a week to give us more time to produce bid proposals?

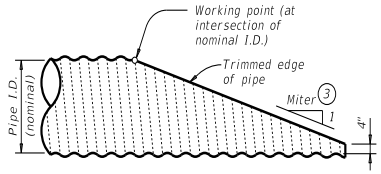
A. The new date of the bid opening for this project will be October 26, 2022 at 2:00 PM in Council Chambers at Midland's City Hall.

36. C101, Note 20.10 under "Erosion Control" section – can you confirm that the watering requirement is accurate.
    A. This is the total amount of watering for this project.
37. Due to excavation in some areas of the project, the fence will be high above finished grade. Should we taper up to the fence line?
    A. Please maintain a 4:1 slope up to existing fence lines in the applicable areas of the project.
38. C400, Note 1, There is no bid item for installing a roadway illumination pole.
    A. Install Roadway Illumination Pole pay note added. Updated proposal and pay notes will be included as part of this addendum.
39. There are very small quantities for micro surfacing in this project when the sole purpose is to black out stripes. Typically, TxDOT will use seal B, sack A, etc. to accomplish this. The City can save money by doing it this way. Is this acceptable for this project?
    A. Per TxDOT Odessa District office, chip sealing is acceptable. Grade 4 precoated sac A aggregate and AC 20xp asphalt is what is typically used.
40. Bid items 8 and 9 calls for prefab, plans show TY 1, which should be priced?
    A. Plans call for type 1 – prepare bids for type 1 reflective pavement markings. Updated pay notes and proposal will be provided as part of this addendum.
41. On Proposal Bid items 2 – 7 refers to Pay Note T2, which is elimination item please clarify?
    A. T2 pay note has been updated and is updated as part of this addendum. T2 pay note now reads: Includes the necessary equipment, labor, materials, and incidentals for the placement of Retroreflectorized Pavement Markings per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot placed.
42. Sheet 420 shows white edge line along the median, shouldn't this be yellow?
    A. This should be yellow. Updated sheets will be provided as part of this addendum.
43. Bid Item #9 Under Traffic Items (on proposal) calls for 18", plans call for 36", please clarify?
    A. The plans call for 24". Prepare bid for 24". Updated sheets will be provided as part of this addendum.
44. For stamped concrete it says to refer to sheet C302 detail 225, but it refers to sidewalk detail, so will the stamped concrete section be 4" thick, add saw cut joints or tooled joints every 5'? 3000 PSI?
    A. This callout is correct. The sidewalk detail is correct for the median concrete. Contractor to follow the required sawcut pattern per the detail.
45. Does the Stamped concrete require joints every 40'?
    A. The concrete will need expansion joints every 50'.
46. Stamped Concrete Detail?
    A. Included with this addendum is a picture of the herringbone pattern that will be expected. The integral color is Butterfield U31 Weathered Terra Cotta. The release is dark gray.

47. Bid Item P13, Stamped concrete, pattern / color?
    A. Included with this addendum is a picture of the herringbone pattern that will be expected. The integral color is Butterfield U31 Weathered Terra Cotta. The release is dark gray.
48. Bid item M6, Watering 1 ls, Sht C101, note 20.1, 0.2" for 10 days, is this all that is required?
    A. This is the total amount of watering for this project.
49. Steel in flatwork?
    A. Concrete flatwork has been removed as a bid item from this proposal. Updated sheets will be provided as part of this addendum.
50. Bid item #P-15, Micro-surfacing, is expensive. Would a Grade 4/5 seal be acceptable?
    A. Per TxDOT Odessa District office, chip sealing is acceptable. Grade 4 precoated sac A aggregate and AC 20xp asphalt is what is typically used.



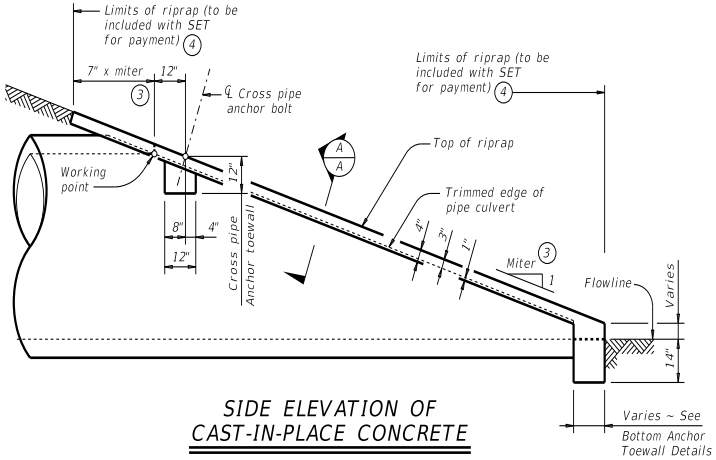
NEW BRICK HERRINGBONE



NOTE: All pipe runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

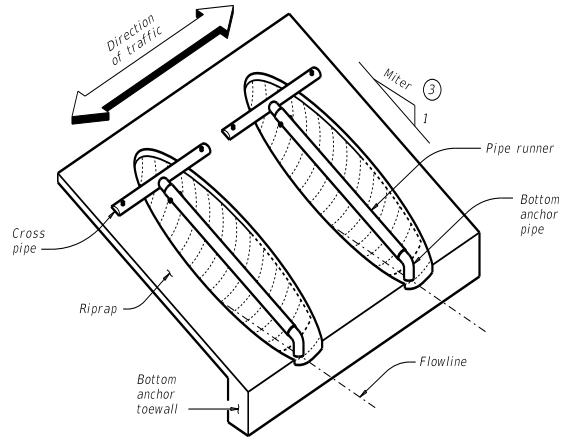
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert. Details of reinforced concrete pipe (RCP) culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Details of corrugated metal pipe (CMP) culvert are similar. Pipe runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS (1)(2)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1' - 7"	3' - 5"	N/A	N/A	N/A	5' - 10"	N/A	N/A	N/A	8' - 1"	N/A	N/A	N/A	12' - 9"
27"	1' - 8"	3' - 8"	N/A	N/A	5' - 5"	6' - 11"	N/A	N/A	7' - 7"	9' - 7"	N/A	N/A	11' - 11"	14' - 11"
30"	1' - 10"	3' - 11"	N/A	N/A	6' - 4"	8' - 0"	N/A	N/A	8' - 9"	11' - 0"	N/A	N/A	13' - 8"	17' - 0"
33"	1' - 11"	4' - 2"	6' - 2"	6' - 5"	7' - 3"	9' - 1"	8' - 6"	8' - 10"	10' - 0"	12' - 5"	13' - 3"	13' - 9"	15' - 5"	19' - 2"
36"	2' - 1"	4' - 5"	6' - 11"	7' - 3"	8' - 2"	10' - 2"	9' - 6"	9' - 11"	11' - 2"	13' - 10"	14' - 9"	15' - 3"	17' - 2"	21' - 3"
42"	2' - 4"	4' - 11"	8' - 6"	8' - 10"	9' - 11"	12' - 4"	11' - 7"	12' - 0"	13' - 6"	16' - 8"	17' - 9"	18' - 5"	20' - 8"	25' - 7"
48"	2' - 7"	5' - 5"	10' - 1"	10' - 5"	11' - 9"	N/A	13' - 7"	14' - 2"	15' - 10"	N/A	20' - 9"	21' - 6"	24' - 2"	N/A
54"	3' - 0"	5' - 11"	11' - 8"	12' - 1"	N/A	N/A	15' - 8"	16' - 3"	N/A	N/A	23' - 10"	24' - 8"	N/A	N/A
60"	3' - 3"	6' - 5"	13' - 3"	N/A	N/A	N/A	17' - 9"	N/A	N/A	N/A	26' - 10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS (3)

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED (2)

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS (1)

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10' - 0"
4" STD	4.500"	4.026"	19' - 8"
5" STD	5.563"	5.047"	34' - 2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

(1) Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

(2) This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap".

(5) Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

SHEET 1 OF 2

Texas Department of Transportation

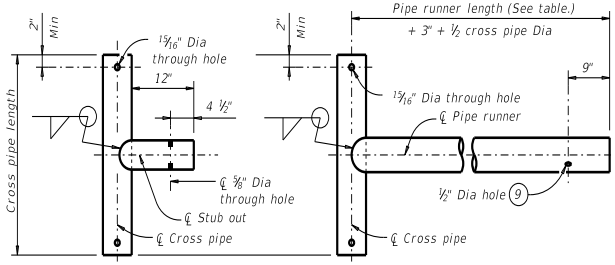
Bridge Division Standard

SAFETY END TREATMENT

FOR 12" DIA TO 60" DIA
PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE

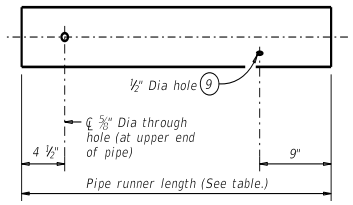
FILE: setp-cd-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF	
©TxDOT February 2020	CONT.	SECT	JOB	HIGHWAY	
REVISIONS					
	DIST	COUNTY		SHEET NO.	

SETP-CD



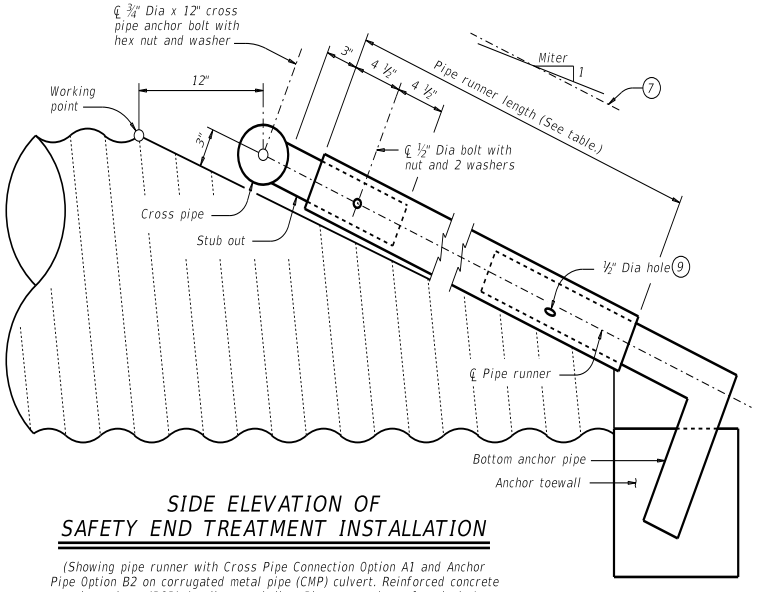
OPTION A1 OPTION A2

CROSS PIPE AND CONNECTIONS DETAILS



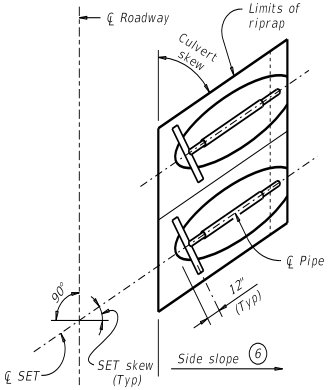
NOTE: The separate pipe runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS

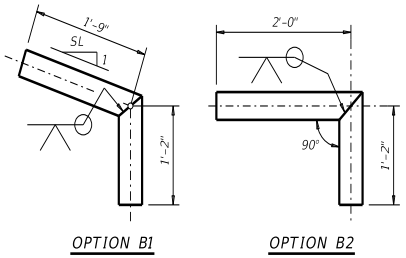


SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

(Showing pipe runner with Cross Pipe Connection Option A1 and Anchor Pipe Option B2 on corrugated metal pipe (CMP) culvert. Reinforced concrete pipe culvert (RCP) details are similar. Riprap not shown for clarity)

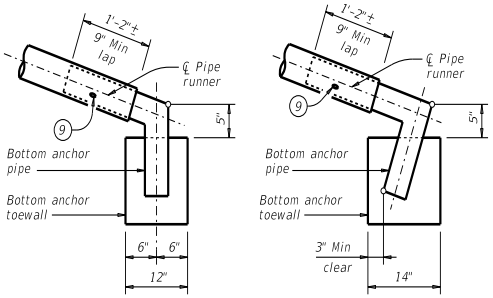


PLAN OF SKEWED INSTALLATION



OPTION B1 OPTION B2

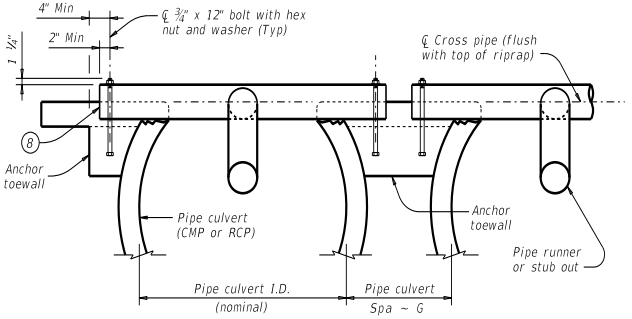
BOTTOM ANCHOR PIPE DETAILS (10)



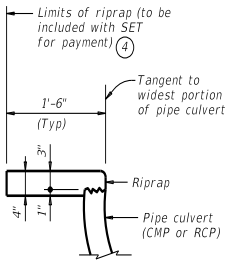
OPTION B1 OPTION B2

BOTTOM ANCHOR TOEWALL DETAILS

(Culvert and riprap not shown for clarity.)



SHOWING CROSS PIPE AND ANCHOR TOEWALL



SHOWING TYPICAL PIPE CULVERT AND RIPRAP

SECTION A-A

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap".

(6) Recommended values of side slope are 3:1, 4:1, and 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.

(7) Note that actual slope of pipe runner may vary slightly from side slope of riprap and trimmed culvert pipe edge.

(8) Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access.

(9) After installation, inspect the 1/2" hole to ensure that the lap of the pipe runner with the bottom anchor pipe is adequate.

(10) At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the runner) may be substituted for the mitered and welded joint in the bottom anchor pipe.

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide pipe runners, cross pipes, and anchor pipes conforming to the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.

Provide ASTM A307 bolts and nuts.

Galvanize all steel components, except concrete reinforcing, after fabrication.

Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

Pipe runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.

Payment for riprap and toewall is included in the price bid for each safety end treatment.

Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap".

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

SHEET 2 OF 2

Texas Department of Transportation | Bridge Division Standard

SAFETY END TREATMENT

FOR 12" DIA TO 60" DIA
PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE

SETP-CD

FILE: setp-cd-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
©TxDOT February 2020	CONT.	SECT	JOB	HIGHWAY
REVISIONS				
	DIST.	COUNTY		SHEET NO.

PACKET 4.297 November 15, 2022

NOTICE TO BIDDERS

ATTENTION: All bidders who choose to mail bid packets must address them to one of the addresses below:

USPS Mailing Address:		***Physical Address for mail carriers other than USPS:***
City of Midland, Texas		**City of Midland, Texas**
Attn: City Secretary's Office	**OR**	**Attn: City Secretary's Office**
P O Box 1152		**300 North Loraine St, Suite 330**
Midland, TX 79702		**Midland, TX 79701**

If bid packets are delivered in person, then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

Sealed proposals, addressed to the Mayor and City Council of the City of Midland, Texas, for the furnishing of materials and labor together with other miscellaneous and appurtenant work will be received at the office of the City Secretary, City Hall, Midland, Texas, until 2:00 p.m. on the 26th day of October, 2022, and publicly opened and read aloud at that time.

Delivery of Submittals

Bid packets must be received in the City Secretary's Office no later than October 26, 2022 at 2:00 p.m. Bidders are responsible for the means of timely delivering the bid packet. Delays due to any instrumentality used to transmit the bid packet (e.g., delay occasioned by a bidder, City's internal mailing system, etc.) are the sole responsibility of the bidder. **Late bid packets will not be accepted under any circumstances.**

ATTENTION: The public bid opening will be in the City Council Meeting Chambers.

The Proposed Work provides for the furnishing of materials and labor for North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project together with other miscellaneous and appurtenant work.

ATTENTION: A NON-MANDATORY PRE-BID MEETING will be held at 3:00 p.m. on Wednesday, October 12th, 2022 in the basement conference room of City Hall, 300 N. Loraine Street, Midland, Texas. Bidders may attend the meeting in person.

ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

bwojciechowski@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting is Noon on Friday, October 14th, 2022. Questions submitted before the Noon deadline will be included in the Addendum that will go out that same day along with all discussion items, questions, answers, and any new information resulting from the Non-Mandatory Pre-Bid Meeting. Questions submitted after the Noon deadline will not receive any additional information and will instead only be directed to the information already provided.

Bids will be received on a unit price basis.

No Bid may be withdrawn within a period of 60 days after the date fixed for opening Bids.

“FAX” or telephone bids or modifications will not be accepted.

Bid Envelopes shall be plainly marked "Proposal for City of Midland”.

ATTENTION: Information for bidders, proposal forms, specifications, and plans may be obtained by emailing purchasing@midlandtexas.gov.

A bid bond or proposal guaranty is to accompany the bid, thereby guaranteeing the good faith of the bidder and that the bidder will enter into the written contract. The guaranty is to amount to five percent (5%) 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 bid bond. If in the form of cash or certified check, it is expressly understood and agreed that the City of Midland is given the right to retain such as liquidated damages if such bidder withdraws its bid anytime after such bid is opened and before official rejection of such bid, or if successful in securing the awarded thereof, such bidder fails to enter into the contract and furnish satisfactory performance and payment bonds. If a bid bond is submitted, it shall be executed on forms contained in these contract documents by a corporate surety authorized to do business in the State of Texas and acceptable to the City of Midland.

WAIVER OF ATTORNEY FEES

BY SUBMITTING A BID, 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 OWNER, 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 OWNER AND THE BIDDER. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE BIDDER 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.

WAIVER

BIDDER’S 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).

City of Midland

Amy Turner
City Secretary

Form Revised October 2022

INSTRUCTION AND INFORMATION FOR BIDDERS

1. LOCATION AND EXTENT OF WORK

The work and construction contemplated to be accomplished under this Contract is located in the City of Midland, Texas, and consists of municipal public works projects as set forth in the proposal.

The location and details for the construction and related work are shown upon a set of drawings dated October 14, 2022 and numbered from (1) through (37) inclusive. These drawings and plans, together with the specifications, form a part of the Contract. Where figures are shown on the drawings, they shall take precedence over scaled distances and dimensions.

2. TIME AND PLACE OF RECEIVING BIDS

All bids shall be sealed, addressed to the Mayor and City Council of the City of Midland, Texas, and will be received by the City Secretary in her office at City Hall, 300 N. Loraine Street, Midland, Texas, mailing address is P.O. Box 1152, Midland, Texas 79702, until time stated on the Advertisement for Bids.

3. PREPARATION OF BID FORM

Bids shall be submitted only on the forms provided therefore in the Contract Documents, and must not be submitted in letter form or in any other form. They shall be filled out in ink in both script and figures. The Proposal form provided in the Contract Documents sets forth in detail the various items and approximate quantities thereof contained in the Project. Bids submitted in any other form will be considered irregular and will be returned to the Bidder without receiving consideration by the Owner.

All bids must be submitted in sealed envelopes bearing on the outside the name of the Bidder, his address, and the name of the Project for which the bid is submitted. It is the sole responsibility of the Bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the Bidder unopened.

The bid must be signed in the name of the Bidder and must bear the signature in longhand of the persons duly authorized to sign the bid.

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the Contract Documents may result in the Owner's rejection of the bid as not being responsive to the invitation. No oral or telephonic modification of any bid submitted will be considered and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the Bidder was placed in the mail prior to the opening of bids.

The bid submitted must not contain any erasures, interlineations or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surnames of the person or persons signing the bid.

4. EXAMINATION OF SITE, DRAWINGS, ETC

Each Bidder is requested to visit the site of the proposed work and fully acquaint himself with the conditions relating to the construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of the work under the Contract. Bidders shall thoroughly examine and be familiar with the Plans and the Specifications. The failure or omission of any Bidder to receive or examine any form, instrument, addendum or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any Bidder from obligations with respect to his bid or to the Contract. The submission of a bid shall be taken as prima-facie evidence of compliance with this section.

5. WITHDRAWAL OF BIDS

Any Bidder may withdraw his bid, either personally, by written request, or by telegraphic request confirmed in the manner specified above, at any time prior to the scheduled closing time for receipt of bids.

6. AGREEMENT AND BONDS

The successful Bidder will be required to furnish a Performance Bond, and a Payment Bond, 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, and 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.

7. INTERPRETATION OF PLANS AND DOCUMENTS

If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents or finds discrepancies in, or omissions from the Plans or Specifications, he may submit to the Owner written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by Addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of such Contract Documents. The Owner will not be responsible for any other explanations or interpretations of the Contract Documents. No oral interpretations of any provision in the Contract Documents will be made to any Bidder.

8. BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm or corporation shall be allowed to make, or file more than one bid for the same work unless alternate bids are specifically called for. A person, firm or corporation that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or making a prime proposal.

9. AWARD OF CONTRACT

The Owner reserves the right to reject any or all bids submitted and not make an award. The Owner also reserves the privilege of accepting any item as a separate contract or the combination of items of a contract. The Owner and Bidder agree that, if the Contract is awarded, that it will be awarded to either the lowest responsible bidder/proposer, or to the bidder/proposer 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. Further, the Owner reserves all rights granted by Section 271.027 of the Texas Local Government Code. The Owner reserves the right to award the bid to the lowest responsible bidder.

10. OPENING OF BIDS

Bidders are invited to be present at the opening of the Proposals. All Proposals shall be made and received with the understanding that the Bidder accepts the terms and conditions contained in the Contract Documents.

11. COMPARISON OF BIDS

All bids will be compared on the basis of the Proposal.

12. BID GUARANTY

A Certified Check, Bank Money Order, issued by a bank satisfactory to the Owner, or a Bidder's Bond on the form provided and approved by the City Attorney, in the amount of five percent (5%) of the largest possible lump sum bid submitted, payable without recourse to the Owner, must accompany the Bidder's Proposal, as a guaranty that the Bidder will enter into a Contract and execute the required Performance 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 Proposals shall remain in effect for a period of thirty (30) days after date of bid opening.

13. CONTRACT DOCUMENTS

The complete Contract Documents may include the following: (1) Notice to Bidders, (2) Instructions and Information for Bidders, (3) Proposal, (4) Experience Record, (5) Bid Bond, (6) Contract Agreement, (7) Performance Bond, (8) Payment Bond, (9) Insurance Certificate, (10) General Conditions, (11) Special Conditions, (12) Detailed Specifications all of which are bound together, and/or (13) Certificate of Payment. The Contract Documents shall also include Drawings or Detailed Plans for the proposed work. A complete set of the Contract Documents and the detailed plans are on file in the Office of the City Secretary.

14. TIME ELEMENT

The work to be done under this Contract shall be commenced within fifteen (15) days from the date of the notice from the City to the Contractor to commence work. The Contractor shall commence performance of the Contract on the date stated in the City's notice to the Contractor to proceed and shall complete the performance of the Contract without delay.

15. PAYMENTS

Payments to the Contractor will be based upon the prices stated in the proposal and upon basis of the work performed as determined by the Engineer. The Engineer's determination shall be considered as final unless changes are authorized by the City in writing which shall affect the work. Upon issuance of the Certificate of Completion, the Engineer shall proceed to take final measurements and prepare a final statement of the value of all work performed and materials furnished under the terms of the agreement and shall certify same to the Owner who shall pay to the Contractor on or after the 30th day, and before the 35th day, after the date of the

Certificate of Completion, the balance due the Contractor under the terms of this agreement, provided he has fully performed his contractual obligations under the terms of this Contract, and said payment shall become due in any event upon said performance by the Contractor. Notwithstanding any provision of these Contract documents to the contrary, it is expressly understood and agreed by the parties hereto that neither the Certificate of Acceptance, nor the final or any other payment hereunder, nor any partial or total occupancy or possession of the project by the Owner, shall relieve the Contractor of his responsibility for completion of the entire project in a good workmanlike manner and in full compliance with the plans and specifications and the fulfillment of any warranties which may be required in the Contract documents.

Revised October 2022

PROPOSAL

TO: Honorable Mayor and City Council
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the drawings, specifications 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 material, equipment, and to perform all labor and work necessary for the completion of the construction of the work described by and in accordance with the attached drawings, specifications, and contract, for the following prices, to wit:

Project Name: North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project

Project Number: P17-03

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	8 MO	Mobilization, furnished, installed, complete, and in place, for the sum of: _____ dollars and _____ cents per month. (Pay Note M1)	$_____	$_____
2)	8 MO	Erosion Control, furnished, installed, complete and in place, for the sum of: _____ dollars and _____ cents per month. (Pay Note M2)	$_____	$_____
3)	8 MO	Traffic Control, furnished, installed, complete and in place, for the sum of: _____ dollars and _____ cents per month. (Pay Note M3)	$_____	$_____
4)	8 MO	Job Site Safety, furnished, installed, complete and in place, for the sum of: _____ dollars and _____ cents per month. (Pay Note M4)	$_____	$_____
5)	3.67 AC	Seeded Erosion Control Mats, installed, complete and in place, for the sum of: _____dollars and _____cents per acre. (Pay Note M5)	$_____	$_____

Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
6)	1 LS	Spray Watering, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per lump sum. (Pay Note M6)	$_____	$_____
7)	480 LF	16" Poly Pipe (PVC Casing Pipe), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear feet. (Pay Note M7)	$_____	$_____
Total Miscellaneous Items 1-7		$_____		

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	380 SY	Removal & Dispose of Existing Unclassified Pavement, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D1)	$_____	$_____
2)	36 SY	Removal & Disposal of Existing Miscellaneous Concrete, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D2)	$_____	$_____
3)	25 SY	Removal & Disposal of Existing Concrete Sidewalk & Ramps, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D3)	$_____	$_____
4)	875 LF	Removal & Disposal of Existing Concrete Curb & Gutter, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note D4)	$_____	$_____
5)	109 SY	Removal & Disposal of Existing Driveway, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D5)	$_____	$_____
6)	1 EA	Removal & Disposal of Storm Drain Catch Basin, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D6)	$_____	$_____
7)	2 EA	Relocate Existing Pedestrian Crossing Signal, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note D7)	$_____	$_____

Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	4 EA	Relocate Traffic Sign, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D8)	$_____	$_____
9)	2 EA	Relocate Existing Traffic Control Box, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D9)	$_____	$_____
10)	1 EA	Relocate Existing Traffic Signal Light, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D10)	$_____	$_____
11)	2 EA	Relocate Existing Steet Light, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D11)	$_____	$_____
12)	3 EA	Relocate Existing Electrical Box, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note D12)	$_____	$_____
13)	18,070 SY	Clearing and Grubbing, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D13)	$_____	$_____
Total Demolition Items 1-13		$_____		

Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	808 LF	24" Reinforced Concrete Pipe (RCP), installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note SD1)	$_____	$_____
2)	570 LF	30" Reinforced Concrete Pipe (RCP), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note SD1)	$_____	$_____
3)	9 EA	(1-24") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per each. (Pay Note SD2)	$_____	$_____
4)	2 EA	(1-30") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note SD2)	$_____	$_____
5)	2 EA	(3-30") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note SD2)	$_____	$_____
6)	2 EA	(4-24") Flared End Treatment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note SD2)	$_____	$_____
7)	1 EA	16'x3' Precast Concrete Curb Inlet, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note SD3)	$_____	$_____
8)	1 EA	Connect to Existing RCP (24"), installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note SD4)	$_____	$_____

Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
9)	66 SY	Concrete End Treatment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note SD5)	$_____	$_____
10)	920 SY	Excavation and Embankment, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note SD6)	$_____	$_____
Total Storm Drain Items 1-10		$_____		

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	23,861 SY	Subgrade Preparation (Depth ≤ 8”), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P1)	$_____	$_____
2)	1405 SY	7” Jointed Concrete Pavement, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P2)	$_____	$_____
3)	2327 TON	2” Type D HMAC Asphalt Pavement Surface Course (PG70-22, 220 LBS / SY @ 2” Thick), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per ton. (Pay Note P3)	$_____	$_____
4)	3490 TON	3” Type C HMAC Asphalt Pavement Surface Course (PG64-22, 330 LBS / SY @ 3” Thick), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per ton. (Pay Note P4)	$_____	$_____
5)	22,599 SY	12” Flexible Base (Type A, Grade 4), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P5)	$_____	$_____
6)	4,520 GAL	Bituminous Prime Coat (MC-30, 0.20 Gal / SY), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per gallon. (Pay Note P6)	$_____	$_____
7)	2,260 GAL	Bituminous Tack Coat (MC-30, 0.10 Gal / SY), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per gallon. (Pay Note P7)	$_____	$_____

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	1262 SY	6" (Commercial) Jointed Concrete Driveways, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P8)	$_____	$_____
9)	1910 LF	Type A Concrete Curb & Gutter, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P9)	$_____	$_____
10)	1719 LF	Type C Concrete Curb & Gutter, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P9)	$_____	$_____
11)	136 LF	Ribbon Curb, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P10)	$_____	$_____
12)	39 SY	Concrete Pedestrian Access Ramp, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P11)	$_____	$_____
13)	763 SY	4" Stamped Island Median, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P12)	$_____	$_____
14)	328 SY	4" Concrete Sidewalk, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P13)	$_____	$_____

Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
15)	6744 SY	Micro-surfacing, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P14)	$_____	$_____
16)	456 LF	Sawcut and Asphalt Patch, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P15)	$_____	$_____
17)	1 EA	Adjust Existing Manhole, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note P16)	$_____	$_____
18)	79 LF	6" Stand Up Curb, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P17)	$_____	$_____
19)	423 LF	TxDOT CSB(1)-10 Concrete Safety Precast Barrier, furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note P18)	$_____	$_____
Total Paving Items 1-19		$_____		

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	320 LF	Install Signal Conduit, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T1)	$_____	$_____
2)	542 LF	Retro-reflectorized Pavement Markings (White, 4" Dashed 10'/30') (TxDOT Item 668), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
3)	1610 LF	Retro-reflectorized Pavement Markings (White, 8" Solid) (Type 1 TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
4)	10450 LF	Retro-reflectorized Pavement Markings (White, 4" Solid) (TxDOT Item 666, Type 1), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
5)	11671 LF	Retro-reflectorized Pavement Markings (Yellow, 4" Solid/ Solid) (TxDOT Item 666) furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
6)	615 LF	Retro-reflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
7)	180 EA	Retro-reflectorized Pavement Markings (TxDOT Item 672, Type i-A, IC, II-A -A, or II-C-R per plans), installed, complete, and in place, for the sum of: _____dollars and _____cents each. (Pay Note T2)	$_____	$_____

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	217 LF	Retro-reflectorized Pavement Markings (White, 24" Stop Bar) (TxDOT Item 668), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T2)	$_____	$_____
9)	20 EA	24” Reflective Pavement Markings (White), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents each. (Pay Note T3)	$_____	$_____
10)	24 EA	24” Reflective Pavement Markings (White), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note T3)	$_____	$_____
11)	1 EA	Sign (W1-4, 36), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per each. (Pay Note T4)	$_____	$_____
12)	2 EA	Signs (W1-6R,60x30, on TxDOT Slip Bases), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per each. (Pay Note T4)	$_____	$_____
13)	6 EA	PEXCO City Posts(Model EAC, 48 " Yellow/ Triple Wrap Reflective Sheeting), except post and mounting to be as per plans), furnished, installed, complete, and in place, for the sum of: _____dollars and _____cents per each. (Pay Note T5)	$_____	$_____
14)	265 LF	Crosswalk Striping installed, complete, and in place, for the sum of: _____dollars and _____cents per linear foot. (Pay Note T6)		

Traffic Items				
Item No.	Quantity	Description	Unit Price	Total Amount
15)	1 EA	Illumination Pole TxDOT Type AL 40 T-12-12 w/ 400W EQ LED Luminaires, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note T7)	$_____	$_____
Total Traffic Items 1-15		$_____		

Price For:	
1. Miscellaneous Items	$_____
2. Demolition Items	$_____
3. Storm Drain Items	$_____
4. Paving Items	$_____
5. Traffic Items	$_____
Total Price	$_____

In addition to providing the individual prices for the items above, Contract shall write the total bid amount in the sum of

_____dollars

and _____ cents 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. The selected contractor will receive written notice to proceed.

Bidder agrees to substantially complete all work within 210 calendar days after receipt of notice to proceed.

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 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.

Enclosed herewith in this proposal is a cashier's check, cash or bid bond on a form approved by the City Attorney, for

_____dollars

and _____ cents total. ($_____)

which it is agreed shall be collected and retained by the owner as liquidated damages in the event this proposal is accepted by the Owner within thirty days (30) after the date advertised for the reception of bids and the undersigned fails to execute the contract and required bonds with the owner, under the conditions thereof, within (15) days after the date said proposal is accepted; otherwise said check or bond shall be returned to the undersigned on demand.

_____

Name of Contractor

_____

Submitted By Print Name and Title

_____

Mailing Address

_____

City State Zip

PAY NOTES

(North Fairgrounds Road, Loop 250- Mockingbird Lane Paving Project)

Bid Item		Pay Quantity Note
Miscellaneous Items		
1	Mobilization	M1
2	Erosion Control	M2
3	Traffic Control	M3
4	Job Site Safety	M4
5	Seeded Erosion Control Mats	M5
6	Spray Watering	M6
7	16" Poly Pipe (PVC Casing Pipe) (SDR-26 D2241 or C900)	M7
Demolition Items		
1	Removal & Disposal of Existing Unclassified Pavement	D1
2	Removal & Disposal of Existing Miscellaneous Concrete	D2
3	Removal & Disposal of Existing Concrete Sidewalk & Ramps	D3
4	Removal & Disposal of Existing Concrete Curb & Gutter	D4
5	Removal of Existing Driveway	D5
6	Removal & Disposal of Existing Storm Drain Catch Basin	D6
7	Relocate Existing Pedestrian Crossing Signal	D7
8	Relocate Existing Traffic Sign	D8
9	Relocate Exisitng Traffic Control Box	D9
10	Relocate Existing Traffic Signal Light	D10
11	Relocate Existing Street Light	D11
12	Relocate Existing Electrical Box	D12
13	Clearing and Grubbing	D13
Storm Drain Items		
1	24" Reinforced Concrete Pipe (RCP)	SD1
2	30" Reinforced Concrete Pipe (RCP)	SD1
3	1-24" Flared End Treatment	SD2
4	1-30" Flared End Treatment	SD2
5	3-30" Flared End Treatment	SD2
6	4-24" Flared End Treatment	SD2
7	16'x3' Precast Concrete Curb Inlet	SD3
8	Connect to Existing RCP (24")	SD4
9	Concrete End Treatment	SD5
10	Excavation and Embankment	SD6
Paving Items		
1	Subgrade Preparation (Depth ≤ 8")	P1
2	7" Jointed Concrete Pavement	P2
3	2" Type D HMAC Asphalt Pavement Surface Course (PG70-22, 220 LBS / SY @ 2" Thick)	P3
4	3" Type C HMAC Asphalt Pavement Surface Course (PG64-22, 330 LBS / SY @ 3" Thick)	P4
5	12" Flexible Base (Type A, Grade 4)-6" Lifts	P5
6	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	P6
7	Bituminous Tack Coat (MC-30, 0.10 Gal / SY)	P7
8	6" (Commercial) Jointed Concrete Driveways	P8
9	Type A Concrete Curb & Gutter	P9
10	Type C Concrete Curb & Gutter	P9
11	Ribbon Curb	P10
12	Concrete Pedestrian Access Ramp	P11
13	4" Stamped Island Median	P12
14	4" Concrete Sidewalk	P13
15	Micro Surfacing	P14
16	Sawcut and Asphalt Patch	P15
17	Adjust Existing Manhole	P16
18	6" Stand Up Curb	P17
19	TxDOT CSB(1)-10 Concrete Safety Precast Barrier	P18

Traffic Items

1	Install Signal Conduit	T1
2	Retroreflectorized Pavement Markings (White, 4" Dashed 10'/30') (TxDOT Item 668)	T2
3	Retroreflectorized Pavement Markings (White, 8" Solid) (Type 1 TxDOT Item 668)	T2
4	Retroreflectorized Pavement Markings (White, 4" Solid) (TxDOT Item 666, Type 1)	T2
5	Retroreflectorized Pavement Markings (Yellow, 4" Solid/ Solid) (TxDOT Item 666)	T2
6	Retroreflectorized Pavement Markings (Yellow, 24" 40' O.C.) (TxDOT Item 668)	T2
7	Retroreflectorized Pavement Markings (TxDot Item 672, Type i-A, IC, II-A -A, or II-C-R per plans)	T2
8	Retroreflectorized Pavement Markings (White, 24" Stop Bar) (TxDOT Item 668)	T2
9	24" Reflective Pavement Markings Type 1 (White)	T3
10	24" Reflective Pavement Markings Type 1 (Yellow)	T3
11	Sign Assembly (W1-4, 36)	T4
12	Signs (W1-6R,60x30, on TxDOT Slip Bases)	T4
13	PEXCO City Posts(Model EAC, 48 " Yellow/ Triple Wrap Reflective Sheeting)	T5
14	Crosswalk Striping	T6
15	Illumination Pole TxDOT Type AL 40 T-12-12 w/ 400W EQ LED Luminaires	T7

PAY QUANTITY NOTES

M1 Includes the necessary equipment, labor, materials, and incidentals for all Mobilization to the job site complete and in place. Measurement and payment to be made per month.

M2 Includes the necessary equipment, labor, materials, and incidentals to implement the Erosion Control Plan per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per month.

M3 Includes the necessary equipment, labor, materials, and incidentals to implement the Traffic Control per the approved Traffic Control Plan. Any required traffic control devices are to meet the City of Midland Traffic Division Standards. Measurement and payment to be made per month.

M4 Includes the necessary equipment, labor, materials, and incidentals to implement Job Site Safety and to provide a safe work environment for the project work area (including all personal protection equipment, trench safety, etc.) per the construction drawings and in compliance with all applicable Federal, State, and Local requirements or regulations including those of OSHA and the City of Midland. JOB SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. Measurement and payment to be made per month.

M5 Includes the necessary equipment, labor, materials, and incidentals for Seeded Erosion Control Mats per the construction drawings and City of Midland standards and specifications, including all removal, storage, and replacement of existing topsoil as well as all mats, seeding, staking, and appurtenances. Watering is addressed in a separate pay note. Measurement and payment to be made per square yard measured along the ground surface.

M6 Includes the necessary equipment, labor, materials, and incidentals for Spray Watering per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per lump sum.

M7 Includes the necessary equipment, labor, materials, and incidentals for the installation of Poly Pipe (PVC Casing Pipe) per the construction drawings and City of Midland standards and specifications, including all spacers, grout, embedment, detector wire, tracer tape, and appurtenances. Measurement and payment to be per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, structures, and appurtenances.

D1 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Unclassified Pavement per the construction drawings and City of Midland standards and specifications including all pavement removal, saw-cutting, and appurtenances. Depths given are approximate and pavement material is to be removed in its entirety. No additional compensation will be made for increased pavement depth removal. Measurement and payment to be made per square yard measured along the ground surface.

D2 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Miscellaneous Concrete per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

D3 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Sidewalk & Ramps per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

D4 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Curb & Gutter per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot measured along the back of curb.

D5 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Driveway per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

D6 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Stormwater Catch Basin per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure removed.

D7 Includes the necessary equipment, labor, materials, and incidentals to Relocate Existing Pedestrian Crossing Signal per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D8 Includes the necessary equipment, labor, materials, and incidentals to Relocate Existing Traffic Sign per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D9 Includes the necessary equipment, labor, materials, and incidentals to Remove & Relocate Traffic Control Box per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D10 Includes the necessary equipment, labor, materials, and incidentals to Remove & Relocate Traffic Signal Light per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D11 Includes the necessary equipment, labor, materials, and incidentals to Remove & Relocate Street Light per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D12 Includes the necessary equipment, labor, materials, and incidentals to Remove & Relocate Electrical Box per the construction drawings and City of Midland standards and specifications, including all gates, attachments, and appurtenances. Measurement and payment to be made per each structure relocated.

D13 Includes the necessary equipment, labor, materials, and incidentals for Clearing and Grubbing per the construction drawings and City of Midland standards and specifications including removal and disposal of all obstructions from the right-of-way and easements where removal of such obstructions is not indicated in the construction drawings, all scraping and preservation of top soil, and including all clearing, grubbing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

SD1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Reinforced Concrete Pipe per the construction drawings and City of Midland standards and specifications, including all embedment, detector wire, tracer tape, necessary testing, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

SD2 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Flared End Treatment per the construction drawings and City of Midland standards and specifications, including all forms, reinforcment, placement, sealing, finishing, and appurtenances. Measurement and payment to be made per each headwall safety end treatment installed.

SD3 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Precast Concrete Curb Inlet per the construction drawings and City of Midland standards and specifications, including all embedment, base, forms, reinforcement, placement, sealing, finishing, necessary testing, and appurtenances. Measurement and payment to be made per each curb inlet installed.

SD4 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing RCP per the construction drawings and City of Midland standards and specifications, including all coring, repairs, and appurtenances. Measurement and payment to be made per each connection made.

SD5 Includes the necessary equipment, labor, materials, and incidentals for the installation of Concrete End Treatment per the construction drawings and City of Midland standards and specifications, including all forms, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

SD6 Includes the necessary equipment, labor, materials, and incidentals for Unclassified Excavation per the construction drawings and City of Midland standards and specifications including all existing pavement and sub-structure removal, unclassified excavation, material removal, and appurtenances. Masurment and payment to be per square yard of material removed.

P1 Includes the necessary equipment, labor, materials, and incidentals for Subgrade Preparation per the construction drawings and City of Midland standards and specifications, including all proof-rollling, sub-grade reworking, scarifying, compaction, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P2 Includes the necessary equipment, labor, materials, and incidentals for placement of Jointed Concrete Pavement per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P3 Includes the necessary equipment, labor, materials, and incidentals for the placement of Type "D" HMAC Asphalt Pavement Surface Course (PG 70-22, 220 LBS / SY at 2" thick) per the construction drawings and City of Midland standards and specifications, including all placement, compaction, and appurtenances. Measurement and payment to be made per ton of material placed.

P4 Includes the necessary equipment, labor, materials, and incidentals for the placement of Type "C" HMAC Asphalt Pavement Surface Course (PG 64-22, 330 LBS / SY at 3" thick) per the construction drawings and City of Midland standards and specifications, including all placement, compaction, and appurtenances. Measurement and payment to be made per ton of material placed.

P5 Includes the necessary equipment, labor, materials, and incidentals for placement of Flexible Base compacted to 95% Density, ASTM D1557, per the construction drawings and City of Midland standards and specifications including all placement, compaction, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P6 Includes the necessary equipment, labor, materials, and incidentals for application of Bituminous Prime Coat (MC-30, 0.20 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

P7 Includes the necessary equipment, labor, materials, and incidentals for application of BituminousTack Coat (MC-30, 0.10 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

P8 Includes the necessary equipment, labor, materials, and incidentals for placement of Jointed Concrete Driveway per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P9 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Curb & Gutter per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per linear foot measured along the back-of-curb.

P10 Includes the necessary equipment, labor, materials, and incidentals for placement of Ribbon Curb per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per linear foot measured along the back-of-curb.

P11 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Pedestrian Access Ramp per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P12 Includes the necessary equipment, labor, materials, and incidentals for placement of Stamped Concrete Island Median per the construction drawings and City of Midland standards and specifications including all forming, reinforcement, placement, jointing, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P13 Includes the necessary equipment, labor, materials, and incidentals for placement of Concrete Sidewalk per the construction drawings and City of Midland standards and specifications, including all forming, reinforcement, placement, jointing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P14 Includes the necessary equipment, labor, materials, and incidentals for installation of Micro-Surfacing per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P15 Includes the necessary equipment, labor, materials, and incidentals for Sawcutting and Asphalt Patching per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface.

P16 Includes the necessary equipment, labor, materials, and incidentals for installation to Adjust Existing Manholes per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per each manhole adjusted to finish grade.

P17 Includes the necessary equipment, labor, materials, and incidentals for installation of Stand Up Curb per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface.

P18 Includes the necessary equipment, labor, materials, and incidentals for installation of TxDOT Concrete Safety Precast Barrier per the construction drawings and City of Midland standards and specifications, including all reinforcement, placement, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface.

T1 Includes the necessary equipment, labor, materials, and incidentals for Signal Conduit per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment are to be made per linear foot of conduit assembled.

T2 Includes the necessary equipment, labor, materials, and incidentals for the placement of Retroreflectorized Pavement Markings per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot placed.

T3 Includes the necessary equipment, labor, materials, and incidentals for the placement of Reflective Pavement Marking Type 1 per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each marking placed.

T4 Includes the necessary equipment, labor, materials, and incidentals for Small Sign Assembly per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each sign assembled.

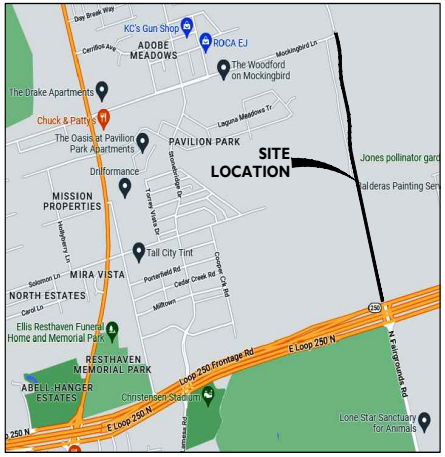
T5 Includes the necessary equipment, labor, materials, and incidentals for PEXCO City Posts per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment are to be made per each sign space assembled.

T6 Includes the necessary equipment, labor, materials, and incidentals for the installation of Crosswalk Striping per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot markings placed.

T7 Includes the necessary equipment, labor, materials, and incidentals for the installation of Illumination Pole TxDOT Type AL 40 T-12-12 w/ 400W EQ LED Luminaires per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per illumination pole.

CITY OF MIDLAND
NORTH FAIRGROUNDS ROAD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
2022 TRANSPORTATION PROJECT NUMBER: P17-03

SEPTEMBER 2022 ⚠



VICINITY MAP
N.T.S.

PATRICK PAYTON
MAYOR

1 - SCOTT DUFFORD 2 - JOHN NORMAN
3 - JACK LADD 4 - LORI BLONG
AT LARGE - ROBIN POOLE
AT LARGE - DAN CORRALES
COUNCIL MEMBERS

CONTRACTOR_____

DATE CONTRACTOR BEGAN WORK_____

DATE WORK WAS COMPLETED_____

DATE WORK WAS ACCEPTED_____

FINAL CONTRACT COST_____

SHEET INDEX	
SHEET	DESCRIPTION
C100	COVER PAGE
C101	GENERAL NOTES
C102	QUANTITY SUMMARY
C110	EXISTING SITE TOPOGRAPHY / MASTER LAYOUT
C111	EXISTING SITE TOPOGRAPHY / MASTER LAYOUT
C120	EROSION CONTROL PLAN
C121	EROSION CONTROL PLAN
C122	EROSION CONTROL DETAILS
C123	EROSION CONTROL DETAILS
C130	DEMOLITION PLAN
C200	N. FAIRGROUNDS ROAD P&P
C201	N. FAIRGROUNDS ROAD P&P
C202	N. FAIRGROUNDS ROAD P&P
C203	N. FAIRGROUNDS ROAD P&P
C204	N. FAIRGROUNDS ROAD P&P
C205	N. FAIRGROUNDS ROAD P&P
C210	N. FAIRGROUNDS ROAD PIPE CULVERT P&P
C220	N. FAIRGROUNDS ROAD DRIVEWAYS AND PIPE CULVERT P&P
C230	N. FAIRGROUNDS ROAD PAVING PLAN
C231	N. FAIRGROUNDS ROAD PAVING PLAN
C232	N. FAIRGROUNDS ROAD PAVING PLAN
C240	PAVING SECTIONS
C300	PAVING DETAILS
C301	PAVING DETAILS
C302	PAVING DETAILS
C303	PAVING DETAILS
C304	PAVING DETAILS
C305	PAVING DETAILS
C306	PAVING DETAILS
C307	PAVING DETAILS
C308	PAVING DETAILS
C400	LIGHTING PLAN
C410	TRAFFIC SIGNAL PLAN
C411	TRAFFIC DETAILS
C420	STRIPING PLAN
C421	STRIPING PLAN
C430	MICROSURFACING SYSTEM PLAN

JOSE E. ORTIZ, PE
DIRECTOR, ENGINEERING SERVICES DEPARTMENT

CITY OF MIDLAND
300 N. LORAINE ST.
MIDLAND, TX 79702

MIDLAND Engineering Services

811 Know what's below. Call before you dig.

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER 06/17/2022

© COPYRIGHT 2017 ALL RIGHTS RESERVED

BENCHMARK:

ALL BEARINGS, DIMENSIONS, AND COORDINATES SHOWN IN THIS CONSTRUCTION DRAWING SET ARE RELATED TO THE TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM 1983. ALL ELEVATIONS ARE RELATED TO THE NATIONAL GEODETIC VERTICAL DATUM 1988.

GENERAL:

1. THIS DESIGN IS FOR PUBLIC PAVING, DRAINAGE, STORM DRAIN, TRAFFIC, AND STABILIZATION IMPROVEMENTS AT FAIRGROUNDS ROAD BETWEEN LOOP 250 AND MOCKINGBIRD LANE.
2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MIDLAND STANDARD CONSTRUCTION REQUIREMENTS, SPECIFICATION AND DETAILS UNLESS OTHERWISE INDICATED IN THESE CONSTRUCTION DRAWINGS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A PROJECT SCHEDULE TO CITY STAFF PRIOR TO CONSTRUCTION. THE SCHEDULE WILL OUTLINE THE ANTICIPATED START AND END DATES FOR EACH PHASE OF THE MILL AND INLAY PROJECT.
4. THE CONTRACTOR IS RESPONSIBLE FOR OBSERVING AND COMPLYING WITH ALL FEDERAL AND STATE REGULATIONS AND REQUIREMENTS. WHEREVER CITY OF MIDLAND STANDARDS AND FEDERAL OR STATE REQUIREMENTS DIFFER **THE MORE RESTRICTIVE** STANDARD, REQUIREMENT, OR REGULATION WILL GOVERN.
5. EXISTING UTILITIES (OR OTHER OBJECTS) INDICATED IN THE PLANS HAVE BEEN LOCATED USING CITY OF MIDLAND RECORDS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS INFORMATION PRIOR TO CONSTRUCTION AND NOTIFYING THE CITY ENGINEER OF ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROJECT CONSTRUCTION.
6. THE INTENT OF THE MILL/OVERLAY PROJECT AT ALL ADJACENT STREET AND INTERSECTIONS INCLUDES SURFACE IMPROVEMENTS AND DRAINAGE IMPROVEMENTS. THE CONTRACTOR WILL ENSURE POSITIVE SURFACE DRAINAGE IN THE MILL AND INLAY AREAS WITH SPECIAL ATTENTION TO SURFACE DRAINAGE WITHIN ALL INTERSECTIONS AND MATCH THE ELEVATIONS SHOWN ON THE PLANS.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL REQUIRED TESTING FOR ANY AND ALL MATERIALS AND WORKMANSHIP PERFORMED OR INSTALLED AS PART OF THE PROJECT'S WORK. THE COST OF ALL SUCH TESTING SHALL BE BORNE SOLELY BY THE CONTRACTOR. THE COST OF TESTING REWORK RESULTING FROM A FAILED TEST WILL ALSO BE BORNE BY THE CONTRACTOR. CONTRACTORS' COOPERATION WILL BE REQUIRED FOR MATERIAL SAMPLING BY THE CITY'S MATERIAL TESTING CONSULTANT.
8. THE CONTRACTOR IS REMINDED THAT THIS PROJECT IS LOCATED IN AN URBAN ENVIRONMENT, TREES AND OVERHEAD UTILITY LINES ARE COMMON. THE CONTRACTOR SHALL PROVIDE THE PROPER EQUIPMENT TO COMPLETE THE WORK IN THE URBAN ENVIRONMENT.
9. ANY ISSUES, CONFLICTS, OR DISCREPANCIES ENCOUNTERED IN THE FIELD THAT CONFLICT WITH THE DESIGN DRAWINGS ARE TO BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO MAKING ANY DESIGN CHANGES IN THE FIELD.
10. OSHA REQUIREMENTS AND ALL OTHER APPLICABLE FEDERAL, STATE, OR CITY OF MIDLAND SAFETY REQUIREMENTS ARE TO BE FOLLOWED AND COMPLIED WITH AT ALL TIMES.
11. THE CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN ANY TRENCHING OR OTHER WORK IS TAKING PLACE NEAR OVERHEAD ELECTRIC, POWER, OR PHONE LINES.
12. CONTRACTOR IS TO NOTIFY ALL AFFECTED PROPERTIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY KNOWN OR PLANNED INTERRUPTION OF SERVICE OR ACCESS DUE TO ANY CONSTRUCTION ACTIVITY PERFORMED BY CONTRACTOR.
13. MATERIAL STORAGE IS TO BE PLACED IN FAIRGROUNDS ROAD WORK ZONE IDENTIFIED IN APPROVED TRAFFIC CONTROL PLAN.

REQUIRED TESTING AND PROOF OF REPORTING WILL INCLUDE:

BASE - ALL BASE COURSES SHALL BE PROOF ROLLED IN ACCORDANCE WITH CITY OF MIDLAND STANDARDS. ALL AREAS IDENTIFIED AS FAILING DURING PROOF ROLLING SHALL BE REPAIRED IN A METHOD APPROVED BY THE ENGINEER. EXCAVATE ANY SOFT MATERIAL AND SCARIFY EXCAVATED AREA PLUS SUFFICIENT DISTANCE BEYOND TO ENSURE PROPER MIXING AND BONDING.

ASPHALT HOT MIX - A NUCLEAR GAGE DENSITY TEST WILL BE REQUIRED FOR EVERY 250 LINEAR FEET OF ASPHALT PASS. THE ACCEPTABLE FIELD DENSITY RANGE FOR CONSTRUCTION OF THIS PROJECT SHALL BE 92% - 98% WITH A TARGET DENSITY OF 95%. TEST RESULTS SHALL BE GIVEN TO THE ENGINEER UPON COMPLETION OF EACH TEST.

CONCRETE - 1 SLUMP TEST FOR EVERY CYLINDER SET (3 TEST CYLINDERS), AND NO LESS THAN 1 CYLINDER SET PER DAY WHEN CONCRETE IS PLACED. TEST RESULTS SHALL BE GIVEN TO THE ENGINEER UPON COMPLETION OF EACH TEST, 1 CYLINDER SET FOR EVERY:

A. EVERY 50 CY OF CONCRETE PLACED ON CONCRETE STREET INTERSECTION
B. 2 SETS OF FILLETS AND VALLEY GUTTERS AT STREET APPROACHES
   (1 SET = 2 FILLETS AND 1 VALLEY GUTTER)
C. THERE WILL BE NO TESTING FOR CURB, RAMPS, AND SIDEWALKS.

14. THE EXISTING ALIGNMENT IS THE CONTROL FOR CONTRACTOR STAKING. ESTABLISH REFERENCE POINTS FOR THE CONTROL PRIOR TO REMOVING THE EXISTING SURFACE AND PAVEMENT MARKINGS. CONTRACTOR MUST COMPLY WITH ALL STAKING REQUIREMENTS AS DESCRIBED IN PROJECT BID PACKET.
15. ALL DIMENSIONS MEASURED TO CURB ARE MEASURED TO BACK-OF-CURB.
16. ALL DIMENSIONS BETWEEN UTILITIES ARE MEASURED TO UTILITY CENTERLINE.
17. ALL HORIZONTAL SEPARATION DIMENSIONS BETWEEN NEW AND EXISTING UTILITIES ARE APPROXIMATE.
18. ALL PROPOSED STORM DRAIN IMPROVEMENTS ARE TO CONNECT TO EXISTING STORM DRAIN SYSTEM REGARDLESS OF DIMENSIONS SHOWN.
19. INSTALL TRACER TAPE AND TRACER WIRE ALONG ALL UNDERGROUND STORM DRAIN PIPE, BOX CULVERTS, ETC. IN COMPLIANCE WITH CITY DETAILS (LIST DETAILS).
20. CONTRACTOR IS TO MATCH EXISTING GRADES AT ALL LOCATIONS INDICATED, INCLUDING FOR ALL GRADE DAYLIGHTING.
21. COORDINATE ALL SIGNAL POLE, SIGNAL CONDUIT, STRIPING, TRAFFIC SIGN, OR OTHER TRAFFIC INFRASTRUCTURE ISSUES WITH CITY TRAFFIC ENGINEER AND NOTIFY CITY INSPECTOR.
22. NOTIFY CITY INSPECTOR OF ALL FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE ISSUES AND COORDINATE WITH BOTH CITY AND FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE OWNER.

EXISTING INFRASTRUCTURE:

1. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING INFRASTRUCTURE, BOTH PUBLIC AND PRIVATE (INCLUDING CAST IRON FEATURES), FROM ANY DAMAGE DUE TO CONSTRUCTION ACTIVITY NOT CALLED FOR IN THE CONSTRUCTION DRAWING SET. THE CONTRACTOR WILL REPLACE OR REPAIR, AS DIRECTED BY THE CITY, ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT WILL BE MADE FOR REPAIR OR REPLACEMENT OF DAMAGED ITEMS.
2. REPLACEMENT OF CAST IRON RING & COVER (R&C) AND VALVE BOXES WILL BE ACCOMPLISHED BY REMOVING ALL NECESSARY CONCRETE/ASPHALT AND SALVAGING THE EXISTING R&C AND VALVE BOX (PRIOR TO THE MILLING OPERATION). UPON COMPLETION OF THE REMOVAL. THE AFFECTED AREAS WILL BE PLATED AND PREPARED FOR ASPHALT PLACEMENT. ONCE THE ASPHALT SURFACE COURSE HAS BEEN COMPLETED, THE ASPHALT WILL BE SAW CUT AND THE R&C OR VALVE BOX ADJUSTED TO THE APPROPRIATE GRADE AND CONSTRUCTED IN ACCORDANCE WITH STANDARD CITY SPECIFICATIONS. CONCRETE AROUND ALL COVERS WILL BE AT LEAST 1/2' WIDE MEASURED FROM THE EDGE OF UTILITY COVER TO OUTER EDGE OF CONCRETE RING.
3. EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION ACTIVITIES SHALL BE REPAIRED OR REPLACED WITH SAME PAVEMENT SECTION OR BETTER THAN THE EXISTING PAVEMENT SECTION.
4. ALL EXISTING MANHOLES AND VALVES SHALL BE ADJUSTED TO FINISHED ROADWAY ELEVATION, MATCHING THE FINISH CROSS-SLOPE, INCLUDING CONCRETE RINGS AS PER STANDARD DETAILS.
5. SEPARATE CONCRETE RINGS ARE PROVIDED AROUND ALL WATER VALVE AND MANHOLE COVERS, EVEN WHEN THEY ARE PLACED IN CONCRETE PAVEMENT.
6. CONTRACTOR IS TO NOTIFY PROJECT ENGINEER OF ANY ADDITIONAL DEMOLITION THAT MAY BE NEEDED AND RECEIVE WRITTEN CONFIRMATION THAT SUCH DEMOLITION IS APPROVED PRIOR TO ANY ADDITIONAL DEMOLITION TAKING PLACE. CONTRACTOR IS TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE REMOVING ANYTHING NOT NOTED FOR REMOVAL.

EXISTING INFRASTRUCTURE (continued):

7. ALL DEMOLITION DIMENSIONS ARE APPROXIMATE BASED ON MOST RELIABLE DATA AVAILABLE CONTRACTOR IS TO FIELD VERIFY ACTUAL DIMENSIONS AND NOTIFY ENGINEER OF QUANTITY INCREASE OR DISCREPANCIES.
8. ALL SAW-CUTS ARE TO HAVE CLEAN, STRAIGHT EDGES AND ARE CONSIDERED INCIDENTAL TO ALL PROJECT WORK.
9. EXISTING TREES NOTED FOR REMOVAL ON THIS SHEET ARE TO BE REMOVED IN THEIR ENTIRETY, INCLUDING ROOTS. ANY EXISTING TREE NOT NOTED FOR REMOVAL ON THIS SHEET IS TO REMAIN AND SHOULD NOT BE CLOSE ENOUGH TO INTERFERE WITH CONSTRUCTION ACTIVITIES. CONTRACTOR IS TO AVOID DAMAGING ANY EXISTING TREES NOT NOTED FOR REMOVAL ON THIS SHEET.

MILLING:

1. MILLING AND CLEANING OF EXISTING PAVEMENT. MILL DESIGNATED AREA TO A DEPTH OF 5". USING A SELF-PROPELLED ASPHALT PLANNER. CARE SHOULD BE TAKEN TO ENSURE THAT THE SPECIFIED DEPTH AND CROSS-SLOPE IS MAINTAINED. PERFORM MILLING OPERATION, INCLUDING REMOVAL OF THE MILLED MATERIAL, IN A MANNER THAT PREVENTS DUST AND OTHER PARTICULATE MATTER FROM ESCAPING INTO THE AIR. MILLINGS WILL BECOME THE PROPERTY OF THE CONTRACTOR AND ARE TO BE HAULED AWAY AND DISPOSED OF ACCORDING TO LOCAL, STATE AND FEDERAL REGULATIONS.
2. ENSURE THAT THE MILLED AREA IS FREE FROM GOUGES, CONTINUOUS GROOVES, RIDGES, AND DELAMINATED AREA AND HAS A UNIFORM TEXTURE. CORRECT DEVIATIONS GREATER THAN ¼ INCH IN 16 FT. MEASURED LONGITUDINALLY OR GREATER THAN ¼ INCH OVER THE ENTIRE WIDTH OF THE CROSS SECTION. CORRECT BY LOOSENING, ADDING, OR REMOVING MATERIAL AND RECOMPACT, AS NECESSARY. IF PAVEMENT BELOW THE SPECIFIED MILLING LEVEL BECOMES DISLODGED OR DELAMINATED, REMOVE AND REPLACE. WHEN THE UNDERLYING ROCK BASE IS EXPOSED AFTER MILLING, THE SURFACE SHALL BE FINISHED TO A SMOOTH SURFACE BY BLADING, WATERING, AND COMPACTING. ALL MILLED SURFACES SHALL BE PROOF - ROLLED IN ACCORDANCE WITH CITY OF MIDLAND STANDARDS PRIOR TO THE APPLICATION OF A TACK COAT. ALL AREA IDENTIFIED AS FAILING DURING PROOF - ROLLING SHALL BE REPAIRED PRIOR TO PAVING.
3. EXCEPT WHERE CONCRETE VALLEY GUTTERS EXIST, SAW CUT AT THE LIMITS OF PAVING AT INTERSECTIONS AND AT OTHER LIMITS REQUIRING A NEAT EDGE BETWEEN NEW AND EXISTING PAVEMENT. BLADE AND/OR CLEAN WITH MECHANICAL SWEEPER THE MILLED AREA BEFORE OPENING TO TRAFFIC OR BEFORE THE SUBSEQUENT TACK COAT AND RESURFACING.
4. WHEN THE MILLED SURFACE IS OPENED TO TRAFFIC A "WEDGE" OF MATERIAL WILL BE PLACED LONGITUDINALLY BETWEEN LANES, AT INTERSECTIONS AND AT DRIVEWAYS. THE "WEDGE" WILL BE REMOVED AND PROPERLY DISPOSED OF PRIOR TO PAVING OPERATIONS. MATERIAL WILL BE AS APPROVED BY ENGINEER. THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT WILL BE SUBSIDIARY TO VARIOUS BID ITEMS. AT TRANSVERSE EDGES OF MILLED AREAS, PROVIDE A SMOOTH TRANSITION FROM THE MILLED SURFACE TO THE EXISTING PAVEMENT.

PAVING AND CONCRETE:

1. PRIOR TO PAVING ACTIVITIES, ALL EXISTING BASE COURSE OR REMAINING MATERIAL WILL BE PROOF ROLLED WITH A MINIMUM 25 TON PNEUMATIC ROLLER.
2. SAWCUT AND REMOVE EXISTING ASPHALTIC PAVEMENT AT PROJECT OR DAILY LIMITS BY AN APPROVED METHOD. BEFORE PAVING, THE EXISTING SURFACE WILL BE SAW CUT AT LEAST 6 INCHES BEYOND ALL SIDES OF THE MILLED AREA, OR THE LIMITS OF BROKEN OR UNDERMINED PAVEMENT. SQUARE OFF EDGES OF THE SURFACE PAVEMENT TO A 90 DEGREE ANGLE TO THE ROADWAY CENTERLINE. OFFSET THE JOINT IN THE SURFACE COURSE FROM THE LANE LINES BY 6 INCHES. WHEN CONSTRUCTING A JOINT BETWEEN LANES OF OPPOSING TRAFFIC, OFFSET THE JOINT BY 6 INCHES INTO EITHER LANE.
3. ALL NEW PAVEMENT AND CONCRETE ARE TO BE PLACED CLEANLY AND FLUSH WITH ALL ADJACENT, EXISTING PAVEMENT OR CONCRETE INCLUDING CURBS.
4. ALL CONCRETE PAVEMENT, FILLET, VALLEY GUTTER, APPROACH, AND COLLAR JOINTS ARE TO BE SEALED IN COMPLIANCE WITH CITY OF MIDLAND STANDARDS. THIS REQUIREMENT DOES NOT APPLY TO PEDESTRIAN ACCESS RAMP, SIDEWALK, OR CURB JOINTS.
5. USE AND PLACE APPROVED EXPANSION JOINT MATERIAL BETWEEN THE EXISTING CURB AND THE PROPOSED CURB, AND WHERE SHOWN ON PLANS.
6. ALL CONCRETE FIBER REINFORCEMENT IS TO BE INSTALLED AT A RATE OF 3.0-POUNDS OF FIBER REINFORCEMENT PER EACH 1.0-CUBIC YARD OF CONCRETE PLACED (3.0-LBS / 1.0-CY) UNLESS OTHERWISE NOTED IN THIS CONSTRUCTION DRAWING SET.
7. PRIOR TO PAVING ACTIVITIES, APPLY PRIME COAT UNIFORMELY ON TOP OF ALL PREPARED FLEXIBLE BASE COURSE SURFACES. ADDITIONALLY, APPLY PRIME COAT TO ALL JOINTS INCLUDING COLD JOINTS WITH MATS PREVIOUSLY LAID, AND JOINTS WITH CONCRETE WHERE ASPHALT PAVEMENT WILL ABUT CONCRETE PAVEMENT INCLUDING AT LIP OF CURB.
8. APPLY TACK COAT UNIFORMLY TO ALL INTERMEDIATE ASPHALT PAVEMENT COURSES WHOSE SURFACE IS SCHEDULED TO RECEIVE AN OVERLAYING COURSE OF ASPHALT PAVEMENT. ADDITIONALLY, APPLY TACK COAT TO ALL JOINTS, INCLUDING COLD JOINTS WITH MATS PREVIOUSLY LAID, AND JOINTS WITH CONCRETE WHERE ASPHALT PAVEMENT WILL ABUT CONCRETE PAVEMENT INCLUDING AT LIP OF CURB.
9. BLOT AREAS SHOWNING AN EXCESS OF PRIME COAT OR TACK COAT WITH SAND OR OTHER SIMILAR MATERIAL AND REMOVE BLOTTING MATERIAL BEFORE PAVING.
10. CONSTRUCT HYDRAULIC CEMENT CONCRETE PAVEMENT IN ACCORDANCE WITH CITY OF MIDLAND STANDARD REQUIREMENTS, SPECIFICATIONS, AND DETAILS, AND TO THE LINES AND GRADES SHOWN ON THESE PLANS AND SPECIFICATIONS.
11. MAINTAIN SUBGRADE OF BASE IN A SMOOTH, CLEAN, COMPACTED CONDITION, IN CONFORMANCE WITH THE APPLICABLE CITY OF MIDLAND SPECIFICATIONS, AND ESTABLISHED LINE AND GRADE, UNTIL CONCRETE IS PLACED. KEEP SUBGRADE OR BASE DAMP WITH WATER UNTIL CONCRETE IS PLACED.
12. PROVIDE CONCRETE WITH A SLUMP IN ACCORDANCE WITH CITY OF MIDLAND SPECIFICATIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
13. PLACE CONCRETE WITHIN 45 MINUTES OF BATCHING. USE VIBRATORY EQUIPMENT TO CONSOLIDATE CONCRETE; DO NOT USE VIBRATORY EQUIPMENT TO DISTRIBUTE CONCRETE. SEGREGATED CONCRETE IS SUBJECT TO REJECTION.
14. CONTROL, EXPANSION, AND/OR CONSTRUCTION JOINTS. JOINT MATERIALS AND CONSTRUCTION METHODS MUST COMPLY WITH CITY OF MIDLAND SPECIFICATIONS. CONSTRUCT JOINTS TO DIMENSIONS AND AT SPACING SPECIFIED ON CITY OF MIDLAND STANDARD DETAILS DRAWINGS.
15. SAWCUT ALL CONTROL JOINTS. JOINT SPACING TO BE A MINIMUM 10'x10' AND MAXIMUM OF 15'x15' TYPICALLY. JOINT LAYOUT AROUND CURB RETURNS AND OTHER IRREGULAR FEATURES SUCH THAT JOINTS ARE PERPENDICULAR TO CURBS OR CONCRETE EDGES.
16. LAY-DOWN OPERATIONS:
    16.1. IN ADDITION TO OTHER REQUIREMENTS SPECIFIED IN CITY OF MIDLAND SPECIFICATIONS, PROVIDE ASPHALT PAVERS THAT DO NOT SUPPORT WEIGHT OF ANY PORTION OF HAULING EQUIPMENT OTHER THAN CONNIECTION.
    16.2. OFFSET JOINTS IN SURFACE COURSE FROM LANE LINES BY SIX INCHES (6"). WHEN CONSTRUCTING A JOINT BETWEEN LANES OF OPPOSING TRAFFIC, OFFSET JOINT BY SIX INCHES (6") INTO EITHER LANE.
17. ALL CONCRETE PAVEMENT SURFACES ARE TO BE BROOM FINISHED.

CONCRETE CURBS & FLATWORK:

1. CONSTRUCT CONCRETE CURB-AND-GUTTERS, FILLETS, AND VALLEY GUTTERS IN ACCORDANCE WITH CITY OF MIDLAND STANDARD REQUIREMENTS, SPECIFICATIONS, AND DETAILS, AND TO THE LINES AND GRADES SHOWN ON THESE PLANS AND SPECIFICATIONS, AND IN ACCORDANCE WITH CITY OF MIDLAND DETAIL DRAWINGS.
2. CURB-AND-GUTTERS CAN BE MANUALLY FORMED OR SLIPFORMED AND ARE TO BE PLACED SEPARATELY FROM PAVEMENTS EXCEPT FOR FILLETS OR IF OTHERWISE INDICATED IN THE CONSTRUCTION DRAWINGS. FOR FACE OF GUTTER, USE A TEMPLATE CONFORMING TO LINES AND DIMENSIONS SHOWN FOR APPROPRIATE CURB TYPE ON CITY OF MIDLAND STANDARD DETAIL DRAWINGS.
3. WHEN PLACING CONCRETE FOR CURB-AND-GUTTER, ENSURE THAT GUTTER LINE CONFORMS TO LINES AND GRADES SPECIFIED HERBIN ON THE PLANS AND SPECIFICATIONS. SET AND MAINTAIN A GUIDELINE TO MONITOR GUTTER LINE.
4. WHEN PLACING CONCRETE FOR SIDEWALKS, PEDESTRIAN RAMPS, AND OTHER FLATWORK, ENSURE THAT FORMWORK IS STABLE AND IS NOT PUSHED, BUMPED, OR SHOVED DURING PLACEMENT ACTIVITIES. AFTER PLACEMENT AND FINISHING, BUT BEFORE CONCRETE SETS, ENSURE THAT LINES AND GRADES, ESPECIALLY CROSS-SLOPES, COMPLY WITH THOSE SHOWN AND SPECIFIED HEREIN ON THE PLANS AND SPECIFICATIONS.

CONCRETE CURBS & FLATWORK (continued):

5. WHEN PLACED SEPARATELY FROM PAVEMENTS, TOOL JOINTS IN CURB-AND-GUTTERS, TAKING CARE NOT TO PULL PLASTIC CONCRETE OUT OF LINE WHEN RELEASING TOOL. IF PAVEMENT IS CONCRETE, MATCH JOINT LOCATIONS WITH PAVEMENT JOINTS. OTHERWISE, SPACED TOOLED CONTROLED JOINTS NO MORE THAN 10-LF AND NO LESS THAN 2-LF IN CURB-AND-GUTTERS; SUBSTITUTE AN EXPANSION JOINT FOR EVERY 6TH CONTROL JOINT. PROVIDE EXPANSION JOINTS BETWEEN NEW CURB-AND-GUTTERS AND EXISTING CURB-AND-GUTTERS.
6. SAWCUT OR TOOL JOINTS IN SIDEWALKS AND OTHER FLATWORK. SPACE CONTROL JOINTS NOT MORE THAN 5-LF IN SIDEWALKS. SUBSTITUTE AN EXPANSION CONTROL JOINT FOR EVERY 12TH CONTROL JOINT. PROVIDE EXPANSION JOINT BETWEEN NEW WORK AND EXISTING WORK. IN OTHER FLATWORK, SAWCUT JOINTS IN A MINIMUM 5'x5' AND MAXIMUM 10'x10' SQUARE PATTERN; PROVIDE EXPANSION JOINTS WHERE SHOWN ON THE PLANS AND BETWEEN FLATWORK AND VERTICAL FACE OF STRUCTURE.
7. CONSTRUCT PEDESTRIAN RAMPS IN COMPLIANCE WITH ADA RULES AND REGULATIONS AND CITY OF MIDLAND SPECIFICATIONS AND DETAILS.
8. EXISTING STAND-UP CURBS MAY NOT MATCH 6.0" CITY STANDARD CURBS AT SOME PROJECT LOCATIONS. MATCH EXISTING CURB HEIGHT AT TIE-IN LOCATIONS.
9. ALL PEDESTRIAN ACCESS RAMPS AND SIDEWALKS ARE TO BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE ADA REQUIREMENTS. ALL SIDEWALK IS TO BE INSTALLED FLUSH WITH ADJACENT TOP-OF-CURB WHEN LOCATED NEXT TO CURB. SIDEWALK NOT LOCATED NEXT TO CURB IS TO BE PLACED FLUSH WITH EXISTING GROUND SURFACE. ENGINEER IS TO BE NOTIFIED PRIOR TO INSTALLATION IF ANY SIDEWALK SLOPE EXCEEDS 5.0% SLOPE WHEN FOLLOWING EXISTING GROUND SURFACE, AND NO SIDEWALK IS TO HAVE CROSS-SLOPE GREATER THAN 2.0%.
10. CONCRETE FILLETS ARE TO BE PLACED INTEGRAL WITH ADJACENT CONCRETE CURB.
11. ALL CONCRETE SIDEWALK AND FLATWORK SURFACES ARE TO BE BROOM FINISHED.

PAVEMENT MARKING:

1. IF REQUIRED TO REMOVE EXISTING PAVEMENT MARKINGS AND MARKERS, CONTRACTOR IS TO REPAIR EXCESSIVE DAMAGE TO THE PAVEMENT WITH AN APPROVED MATERIAL AT THE CONTRACTOR'S EXPENSE.
2. WHEN REQUIRED, REMOVED PAVEMENT MARKERS WILL BE DISPOSED OF PROPERLY.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL AND PROPER DISPOSAL OF TEMPORARY MARKER TABS FROM THE PROJECT IN COORDINATION WITH THE PLACEMENT OF NEW MARKINGS.
4. NON-REMOVABLE WORK ZONE PAVEMENT MARKINGS WILL BE PAINT IN ACCORDANCE WITH TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) ITEM 666, TYPE II, OR OTHER APPROVED MATERIALS.
5. PERMANENT PAVEMENT MARKINGS WILL BE THERMOPLASTIC IN ACCORDANCE WITH TXDOT ITEM 666, TYPE I, FOR LONG-LINE MARKINGS, AND EITHER ITEM 666, TYPE I, OR ITEM 668, FOR SHORT-LINE AND SYMBOL MARKINGS.
6. GRINDING OFF ANY EXISTING MARKINGS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL PLANS WILL BE SUBSIDIARY TO THE JOBSITE SAFETY PAY ITEM.
7. COORDINATE ALL SIGNAL POLE, SIGNAL CONDUIT, STRIPING, TRAFFIC SIGN, OR OTHER TRAFFIC INFRASTRUCTURE ISSUES WITH CITY TRAFFIC ENGINEER AND NOTIFY CITY INSPECTOR.

EROSION CONTROL:

1. CONTRACTOR WILL INSTALL BMPS IN ACCORDANCE WITH CONSTRUCTION DRAWINGS, CITY OF MIDLAND STANDARDS AND SPECIFICATIONS, AND PER INDUSTRY STANDARDS AND REGULATIONS INCLUDING THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ) STORM WATER MANAGEMENT PROGRAM (SWMP) INSTALLATION OF BMPS TO OCCUR PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. REPAIR, ADJUST, OR MODIFY THE CONTROL MEASURES IF CONTROL MEASURES PROVE INEFFECTIVE OR IF ADDITIONAL CONTROL MEASURES ARE NEEDED.
2. INSTALL, USE, AND MAINTAIN A CONCRETE WASHOUT AT AN APPROVED LOCATION AND AS SHOWN HEREIN ON THESE PLANS AND SPECIFICATIONS.
3. COMPLY WITH THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ) STORM WATER MANAGEMENT PROGRAM (SWMP).
4. IMPLEMENT SOIL STABILIZATION PRACTICES, STRUCTURAL EROSION AND SEDIMENT CONTROLS, POLLUTION PREVENTION, AND SITE SPILL RESPONSE BEST MANAGEMENT PRACTICES, AND SITE INSPECTIONS IN ACCORDANCE WITH STORM WATER POLLUTION PREVENTION PLAN (SWP3 OR SWPPP) REQUIREMENTS AND SHEETS.
5. PROVIDE, PLACE, AND MAINTAIN EROSION CONTROL PROTECTION AT GUTTER LOCATIONS AT LIMITS OF WORK ZONE, INCLUDING INTERSECTIONS ADJACENT TO WORK ZONE. PROVIDE, PLACE, AND MAINTAIN EROSION CONTROL PROTECTION AT STORM DRAIN INLETS THAT ARE LOCATED WITHIN WORK ZONE.
6. DAMAGES TO ADJACENT PROPERTY OR TO RECEDING WATERS CAUSED BY IMPROPERLY INSTALLED OR POORLY MAINTAINED EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OR ANY OFF-SITE SILTATION CAUSED BY THEIR OPERATIONS AND/OR FAILURE OF EROSION CONTROL MEASURES, AT NO ADDITIONAL COST TO CITY.
8. CONTRACTOR MUST REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SILT AND SEDIMENT FROM EROSION CONTROLS WHEN IT REACHES A DEPTH EQUAL TO HALF THE HEIGHT OF THE CONTROL, OR IMPAIRS THE EFFECTIVENESS OF THE CONTROL.
9. INSPECT THE PROJECT AT A MINIMUM OF EVERY 14 DAYS AND AFTER EVERY RAINFALL OF 1/2 INCHES OR GREATER TO DETERMINE THE INTEGRITY AND EFFECTIVENESS OF THE EROSION CONTROL MEASURES. PREPARE A WRITTEN INSPECTION REPORT TO BE FILED WITH THE PROJECT RECORD DOCUMENTS.
10. ALL STOCKPILED SOILS SHALL BE SURROUNDED BY SILT FENCE, OR EQUIVALENT MEASURE AS APPROVED BY ENGINEER, TO PROPERTY CONTROL SEDIMENT RUNOFF.
11. TAKE NECESSARY MEASURES TO MINIMIZE OFF-SITE TRACKING OR TRANSPORT OF SEDIMENT AND DEBRIS. ANY CONSTRUCTION DEBRIS (MUD, GRAVEL, ETC.) THAT FALLS OUT ONTO AN ADJACENT AREA MUST BE PROMPTLY REMOVED AT NO ADDITIONAL COST TO THE CITY.
12. TO DEWATER EXCAVATIONS, USE A PROTECTED PUMP DISCHARGE TO FILTER THE DISCHARGE WATER.
13. ALL TEMPORARY EROSION CONTROL MEASURES MUST BE REMOVED FROM THE SITE UPON COMPLETION OF CONSTRUCTION WHEN STABILIZED.
14. CONTRACTOR IS TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES. REPAIRS TO EXISTING EROSION CONTROL MEASURES ARE TO BE MADE IMMEDIATELY UPON DISCOVERY THAT SUCH REPAIRS ARE NEEDED. ALL EROSION CONTROL MEASURES AT PROJECT SITE ARE TO BE INSPECTED IMMEDIATELY FOLLOWING ANY STORM EVENT.
15. CONTRACTOR IS TO MAINTAIN A REASONABLY CLEAN PROJECT SITE AT ALL TIMES. ANY SEDIMENT, DEBRIS, ETC. OUTSIDE PROJECT SITE ARE TO BE REMOVED PROMPTLY.
16. ANY ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE TO BE LOCATED WITHIN FAIRGROUNDS ROAD AREA DESIGNATED AS PART OF WORK ZONE AREA.
17. ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE NOT PERMITTED IN LOOP 250 OR MOCKINGBIRD RIGHT-OF-WAYS.
18. ALL STOCKPILES ARE TO BE SURROUNDED BY SILT FENCE OR EQUIVALENT MEASURES AS APPROVED BY ENGINEER TO PROPERLY CONTROL SEDIMENT RUNOFF.
19. CONCRETE TRUCKS CANNOT UNDER ANY CIRCUMSTANCE WASHOUT IN ANY EXCAVATION. CONTRACTOR IS TO PROVIDE A WASHOUT CONTAINER FOR CONCRETE TRUCKS AND MUST REMOVE ALL WASHOUT AND SPOILS FROM PROJECT SITE.
20. VEGETATION SEEDING AND WATERING:
    20.1. THIS REFERS TO ALL PORTIONS OF FAIRGROUNDS ROAD AREA DISTURBED BY CONSTURCTION ACTIVITY FOR THIS PROJECT.
    20.2. REVEGETATE ALL AREAS AND SURFACES DISTURBED BY ANY CONSTRUCTION ACTIVITY THAT ARE SCHEDULED TO REMAIN NATURAL RAGARDLESS OF WHETHER OR NOT THEY ARE WITHIN APPROVED PROJECT SITE OR WORK ZONE. NATURAL SURFACES ARE THOSE THAT WILL NOT RECEIVE A LAYER OF PAVEMENT, FLATWORK, STRUCTURE, OR OTHER IMPERVIOUS MATERIAL.
    20.3. REMOVE TOP SIX INCH (6") LAYER OF VEGETATION AND TOPSOIL EVENLY FOR ENTIRE DISTURBED AREA AND SET ASIDE DURING CONSTRUCTION.
    20.4. AFTER CONSTRUCTION PLACE SAVED VEGETATION AND TOPSOIL EVENLY ACROSS ENTIRE DISTURBED AREA AND RAKE SMOOTH. ADD ADDITIONAL TOPSOIL MATERIAL OF EQUAL OR BETTER QUALITY THAN ORIGINAL MATERIAL IF NECESSARY TO ACHIEVE A MINIMUM SIX INCH (6.0") TOPSOIL THICKNESS THROUGHOUT.
    20.5. DISK AREAS TO BE SEEDED TO A DEPTH OF FOUR INCHES (4") TO ALLOW GOOD CONTACT BETWEEN SEEDS AND SOIL.
    20.6. UNIFORMLY DISTRIBUTE SEEDS AS HEREIN SPECIFIED ON PLANS AND SPECIFICATIONS.
    20.7. IN ALL AREAS TO BE DRILL SEEDED, USE A PASTURE OR RANGELAND TYPE DRILL SEED
    20.8. USE SEPARATE BOXES ON DRILL TO APPLY FERTILIZER TO SEED.

EROSION CONTROL:

20. VEGETATION SEEDING AND WATERING (continued):
    20.9. BEFORE PLANTING OPERATIONS BEGIN, FURNISH SEED TAGS FROM SEED SUPPLIER. SEED TAGS MUST SHOW PERCENT PURITY, PERCENT GERMINATION, AND DATE SEED WAS HARVESTED. SUBMIT SEED TAGS TO PROJECT ENGINEER FOR VERIFICATION OF APPROPRIATE POUNDS P.L.S/ACRE RATES.
    20.10. SPRAY E

SUMMARY OF PAVING ITEMS

	SAWCUT AND ASPHALT PATCH	SUBGRADE PREPARATION	7" JOINTED CONCRETE	6" JOINTED CONCRETE DRIVEWAYS	2" TYPE D HMAC ASPHALT PAVEMENT SURFACE COURSE (PG70-22)	3" TYPE C HMAC ASPHALT PAVEMENT INTERMEDIATE COURSE (PG64-22)	12" FLEXIBLE BASE (TYPE A, GRADE 4) (4) - 3" LIFTS	BITUMINOUS PRIME COAT (MC-30 or AEP)	BITUMINOUS TACK COAT (MC-30 or AEP)	MICRO-SURFACING	ADJUST EXISTING MANHOLE	TYPE A CONCRETE CURB & GUTTER	TYPE C CONCRETE CURB & GUTTER	6" STAND UP CURB	RIBBON CURB	CONCRETE PEDESTRIAN ACCESS RAMP	4" STAMPED CONCRETE ISLAND MEDIAN	4" CONCRETE SIDEWALK	TxDOT CSB(1)-10 CONCRETE SAFETY PRECAST BARRIER	INSTALL TXDOT ILLUMINATION POLE T 12-12
UNIT	LF	SY	SY	SY	TON	TON	SY	GAL	GAL	SY	EA	LF	LF		LF	SY	SY	SY	LF	EA
DEPTH	2-4"	6-8" TYP.	7"	6"	2"	3"	12"	-	-	-	-	-	-		-	4"	4"	4"	-	
RATE	-	-	-	-	220 LBS/SY	330 LBS/SY	-	0.20 GAL/SY	0.10 GAL/SY	25-28 LB/SY	-	-	-		-	-	-	-	-	
SHEET C220	-	1,262		1,262							-								-	
SHEET C230	419	13,908	1,318	-	1,500	2,251	13,908	2,782	1,391	-	-	1,159	1,719	79	-	28	763	308	423	
SHEET C231	37	8,375	-	-	811	1,216	8,375	1,675	838	-	1	-	-	-	-	-	-	-	-	
SHEET C232	-	315	87	-	15	23	315	63	32	-	-	751	-	-	136	10	-	19	-	
SHEET C430	-									6,744	-		-	-	-					
SHEET C400																				1
TOTALS:		23,861	1,405	1,262	2,327	3,490	22,599	4,520	2,260	6,744		1,910	1,719		136	39	763	328	423	1

SUMMARY OF TRAFFIC ITEMS

	SIGNAL CONDUITS	PREFABRICATED PAVEMENT MARKINGS (WHITE 18" YIELD TRIANGLE)	RETRO-REFLECTORIZED PAVEMENT MARKINGS TYPE 1 (4" WHITE, SOLID)	RETRO-REFLECTORIZED PAVEMENT MARKINGS TYPE 1 (4" YELLOW, SOLID/ SOLID)	PREFABRICATED PAVEMENT MARKINGS (WHITE ARROW)	RETRO-REFLECTORIZED PAVEMENT MARKINGS TYPE 1 (24" WHITE STOP BAR)	RETRO-REFLECTORIZED PAVEMENT MARKINGS (24" YELLOW, 40' O.C.)	RETRO-REFLECTORIZED PAVEMENT MARKINGS TYPE 1 (4" WHITE DASHED, 10'/30')	RETRO-REFLECTORIZED PAVEMENT MARKINGS TYPE 1 (8" WHITE SOLID)	CROSSWALK STRIPING	SIGN (W1-4, 36)	PEXCO CITY POSTS (MODEL EAC, 48" YELLOW W/ TRIPLE WRAP REFLECTIVE SHEETING)	SIGNS (W1-6R, 60x30, ON TxDOT SLIP BASES)
UNIT	LF	EA	LF	LF	EA	LF	LF	LF	LF	LF	EA	EA	EA
DEPTH	-	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL	100 MIL
RATE		-	4"	4"	-	24"	24"	4" X 10FT.			-	-	-
SHEET C410	320												
SHEET C420	-	24	4,439	5,034	17	170	615	542	1,435	265	1	6	2
SHEET C421	-	-	6,011	6,637	3	47	-	-	175	-	-	-	-
TOTALS:	320	24	10,450	11,671	20	217	615	542	1,610	265	1	6	2

SUMMARY OF DEMOLITION ITEMS

	CLEARING AND GRUBBING	REMOVAL & DISPOSAL OF EXISTING UNCLASSIFIED PAVEMENT	REMOVAL & DISPOSAL OF EXISTING MISCELLANEOUS CONCRETE	REMOVAL & DISPOSAL OF EXISTING CONCRETE CURB & GUTTER	REMOVAL & DISPOSAL OF EXISTING CONCRETE SIDEWALK & RAMPS	REMOVAL OF EXISTING DRIVEWAY	REMOVAL & DISPOSAL OF EXISTING STORM DRAIN CATCH BASIN	RELOCATE EXISTING PEDESTRIAN CROSSING SIGNAL	RELOCATE EXISTING TRAFFIC SIGN	RELOCATE EXISTING TRAFFIC CONTROL BOX	RELOCATE EXISTING TRAFFIC SIGNAL LIGHT	RELOCATE EXISTING STREET LIGHT	RELOCATE EXISTING ELECTRICAL BOX
UNIT	SY	SY	SY	LF	SY	SY	EA	EA	EA	EA	EA	EA	EA
DEPTH	-	6" TYP.	4-6" TYP.	-	4-6" TYP.	4"-7"	-	-	-	-	-	-	-
RATE		-	-	-	-	-	-	-	-	-	-	-	-
SHEET C130		380	36	875	25	109	1	2	4	2	1	2	3
SHEET C200	5461												
SHEET C201	2278												
SHEET C202	3366												
SHEET C203	3623												
SHEET C204	3342												
TOTALS:	18,070	380	36	875	25	109	1	2	4	2	1	2	3

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

SUMMARY OF STORM DRAIN ITEMS

	24" REINFORCED CONCRETE PIPE (RCP)	30" REINFORCED CONCRETE PIPE (RCP)	FLARED END TREATMENT (1-24")	FLARED END TREATMENT (1-30")	FLARED END TREATMENT (3-30")	FLARED END TREATMENT (4-24")	16' X 3' PRECAST CONCRETE CURB INLET	CONNECT TO EXISTING RCP	CONCRETE END TREATMENT	EXCAVATION AND EMBANKMENT
UNIT	LF	LF	EA	EA	EA	EA	EA	EA	SY	SY
SIZE	24"	30"	1X24"	1X30"	3X30"	4X24"	16'X3'	24"	4-6" DIA.	VARIES
RATE	-	-	-	-	-	-	-	-	-	-
SHEET C210	648	410	5	2	2	2	1	1	54	791
SHEET C220	160	160	4	-	-	-	-	-	12	129
TOTALS:	808	570	9	2	2	2	1	1	66	920

SUMMARY OF MISCELLANEOUS ITEMS

	POLY PIPE PVC CASING PIPE (SDR-26 D2241 or C900)
UNIT	LF
SIZE	16"
RATE	-
SHEET C220	480
TOTALS:	480

SUMMARY OF SWPPP ITEMS

	STABILIZED CONSTRUCTION ENTRANCE	SILT FENCE	ROCK FILTER DAM	GRAVEL BAGS	CONCRETE WASHOUT	SEEDED EROSION CONTROL MATS
UNIT	SY	LF	SY	SY	EA	AC
SIZE	-	-	-	-	-	-
RATE	-	-	-	-	-	-
SHEET C120	-	1,590	79	8	1	1.79
SHEET C121	153	1,551	85	-	1	1.88
TOTALS:	153	3,141	164	8	1	3.67

P:\20\19\19070.CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\NGS\CIVIL CONSTRUCTION PLANS\19070 C102 QUANTITY SUMMARY.DWG

© COPYRIGHT 2014 ALL RIGHTS RESERVED

Know what's below. Call before you dig.

BY	DATE
MAL	10/11/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/11/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

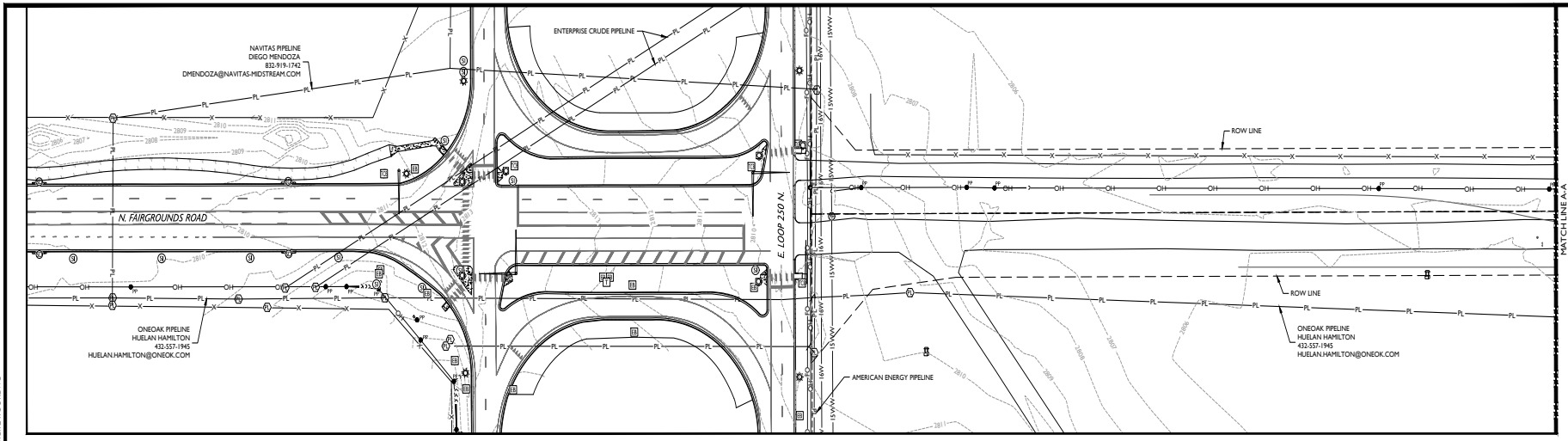
MIDLAND Engineering Services

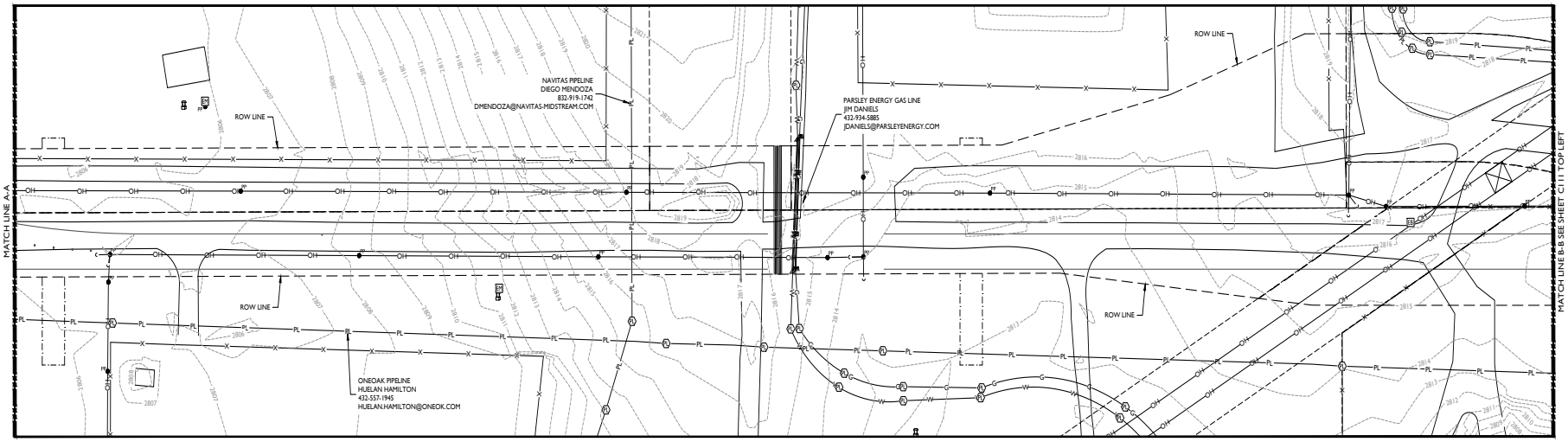
QUANTITY SUMMARY

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER 10/12/2022

SHEET C102





SURVEY NOTE:

THE SURVEY SHOWN ON THIS SHEET IS INCLUDED FOR REFERENCE PURPOSES ONLY. THE SEALING PROFESSIONAL FOR THIS CONSTRUCTION DRAWING SET TAKES NO OWNERSHIP OF THIS SHEET OR THE INFORMATION PROVIDED THEREON, BUT DOES AUTHORIZE IT TO BE PART OF THIS CONSTRUCTION DRAWING SET.

BENCHMARK:

SURVEY PERFORMED BY AARON S. BURRELL, RPLS. CONTACT AARON BURRELL LAND SURVEYORS, LLC. WITH ANY QUESTIONS ABOUT BENCHMARKS OR CONTRLS USED FOR DESIGN SURVEY AT (432) 848-4439 (OFFICE).

CITY OF MIDLAND TEXAS APPROVED 10/14/2022 ENGINEERING

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE

0' 60' 120' 180'
SCALE 1" = 60'

PACKET 4326 November 15, 2022

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C110 EXISTING SITE TOPOGRAPHY MASTER LAYOUT.DWG

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/12/22
ALM	

REVISIONS
CONTRACTOR QUESTION REVISIONS 10/12/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

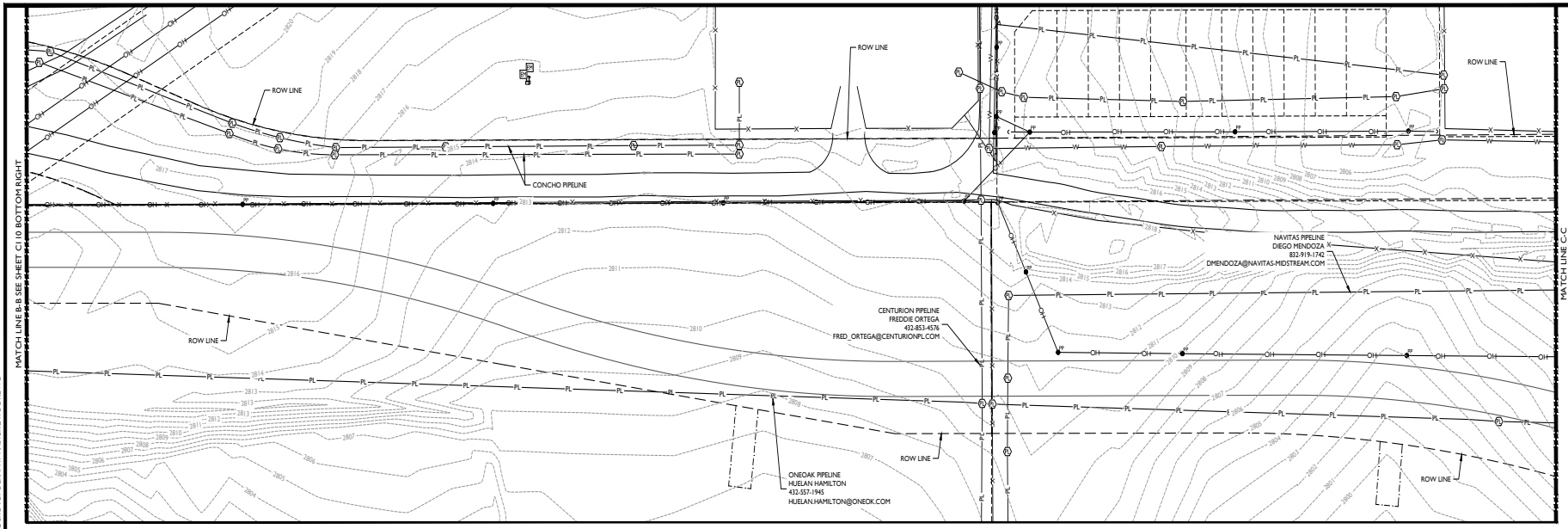
MIDLAND Engineering Services

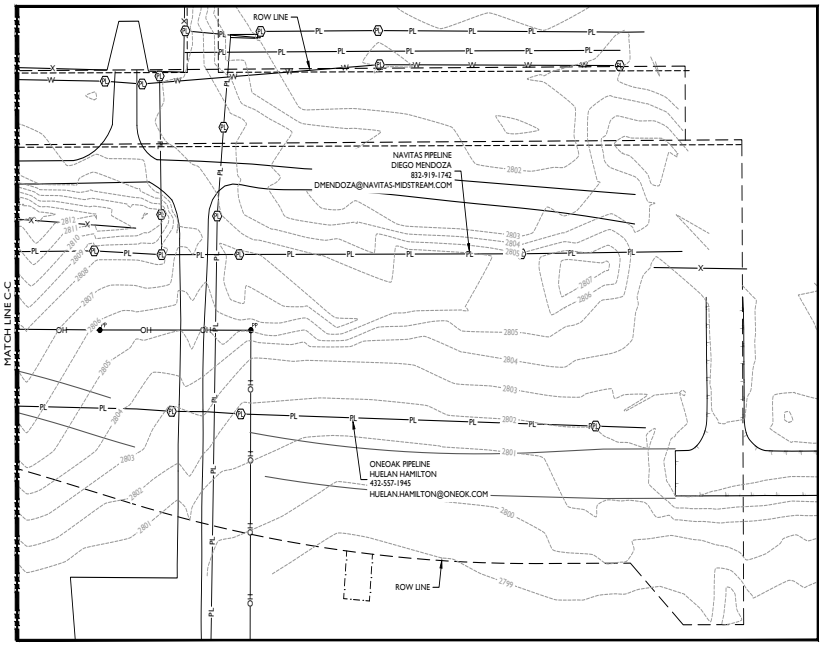
EXISTING SITE TOPOGRAPHY / MASTER LAYOUT

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER 06/13/2022

SHEET C110





SURVEY NOTE:

THE SURVEY SHOWN ON THIS SHEET IS INCLUDED FOR REFERENCE PURPOSES ONLY. THE SEALING PROFESSIONAL FOR THIS CONSTRUCTION DRAWING SET TAKES NO OWNERSHIP OF THIS SHEET OR THE INFORMATION PROVIDED THEREON, BUT DOES AUTHORIZE IT TO BE PART OF THIS CONSTRUCTION DRAWING SET.

BENCHMARK:

SURVEY PERFORMED BY AARON S. BURRELL, RPLS. CONTACT AARON BURRELL LAND SURVEYORS, LLC. WITH ANY QUESTIONS ABOUT BENCHMARKS OR CONTRLS USED FOR DESIGN SURVEY AT (432) 848-4439 (OFFICE).

0' 60' 120' 180'

SCALE 1" = 60'

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- PL — DENOTES EXISTING UNDERGROUND PIPELINE
- OH — DENOTES EXISTING OVERHEAD ELECTRIC LINE
- UE — DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- FO — DENOTES EXISTING FIBER OPTIC LINE
- 15WW — DENOTES EXISTING 15" WASTEWATER LINE
- 16W — DENOTES EXISTING 16" WATER MAIN LINE

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

APPROVAL BY ELECTRONIC SEAL REPRESENTATION

The issuance or granting of the APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Code, of any City Ordinance, of the City Standard Details, or of any other City Policy, Regulation, or Requirement in effect in the City of Midland jurisdiction. APPROVALS pertaining to any authority to violate or amend the provisions of of the City Code, of any City Ordinance, of the City Standard Details, or of any other City Policy, or other ordinance or adopted policy of the City of Midland jurisdiction shall not be valid. The issuance of this APPROVAL based on the representations made by the Engineer of Record that the Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the Construction Drawings and Specifications if the Engineering Services Department is authorized to deny acceptance or use of infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other City Policy or other adopted policy of the City of Midland jurisdiction.

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

△	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

EXISTING SITE TOPOGRAPHY / MASTER LAYOUT

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT

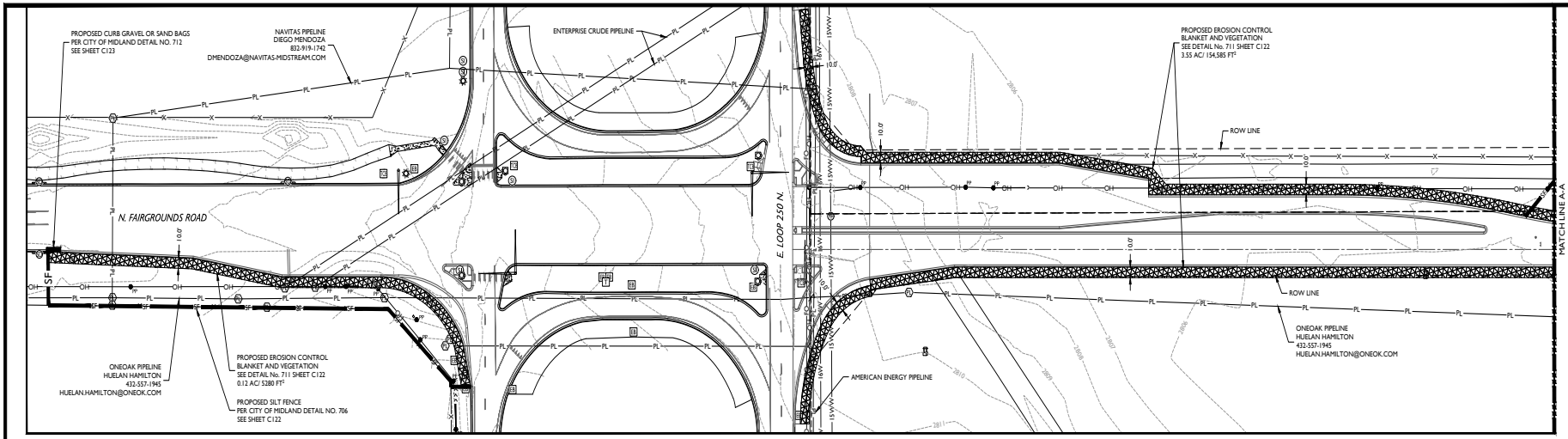
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

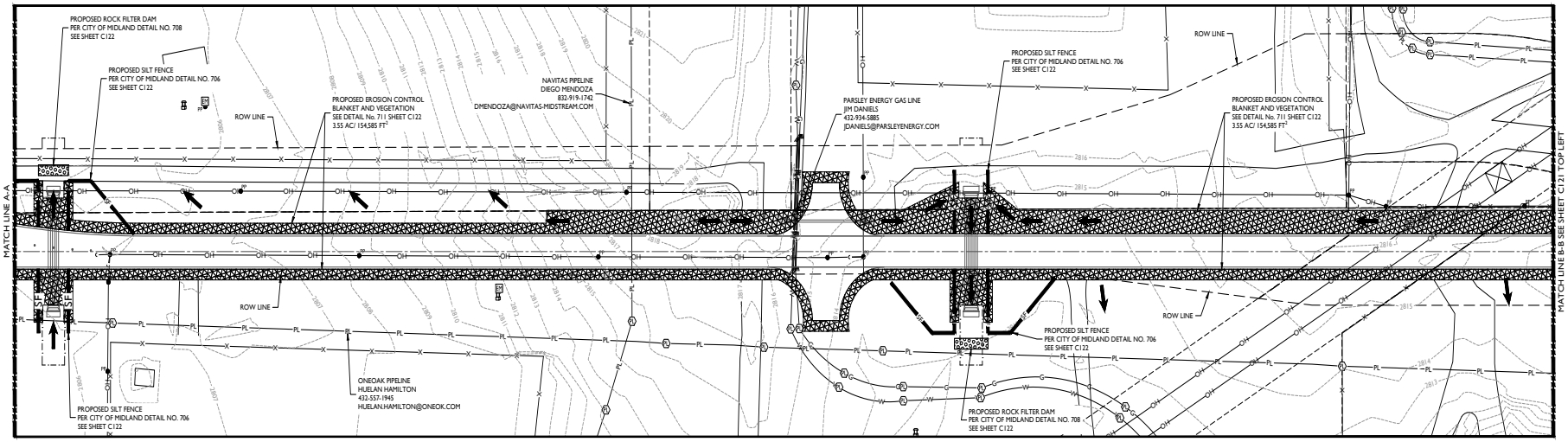
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET C1.1

© COPYRIGHT 2014 ALL RIGHTS RESERVED

P:\20\19\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\NGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C1.1 EXISTING SITE TOPOGRAPHY MASTER LAYOUT.DWG





LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- PL — DENOTES EXISTING UNDERGROUND PIPELINE
- OH — DENOTES EXISTING OVERHEAD ELECTRIC LINE
- UE — DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- FO — DENOTES EXISTING FIBER OPTIC LINE
- 15WW — DENOTES EXISTING 15" WASTEWATER LINE
- 16W — DENOTES EXISTING 16" WATER MAIN LINE
- SF — DENOTES PROPOSED SILT FENCE
- DENOTES PROPOSED CONSTRUCTION ENTRANCE
- DENOTES PROPOSED ROCK FILTER DAM

SWPPP NOTE:
FINAL SITE STABILIZATION IN ACCORDANCE WITH PARTS III.G.1 & III.G.2 OF THE CONSTRUCTION STORMWATER GENERAL PERMIT, STABILIZATION OF ALL DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY (I.E. AS SOON AS PRACTICABLE BUT NO LATER THAN THE END OF THE NEXT WORK DAY) WHENEVER ANY EARTHWORK ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE. THE CITY WILL NOT SUPPORT ACCEPTANCE OF ANY PUBLIC INFRASTRUCTURE OR A C.O. UNLESS THIS REQUIREMENT HAS BEEN FULFILLED.

CONTRACTOR BEWARE: THIS REQUIREMENT WILL BE ENFORCED WITH ZEAL.

THIS SITE QUALIFIES AS A LINEAR CONSTRUCTION SITE; THUS WILL REQUIRE NOTICE OF INTENT WITH TCEQ ASSIGNED OPERATOR #.

AREA OF DISTURBED LAND: 560,252 SF.

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

0' 60' 120' 180'
SCALE 1" = 60'

Know what's below. Call before you dig.

BY	DATE
MAL	10/11/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/11/2022

DRAWN BY: MD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

EROSION CONTROL PLAN

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT

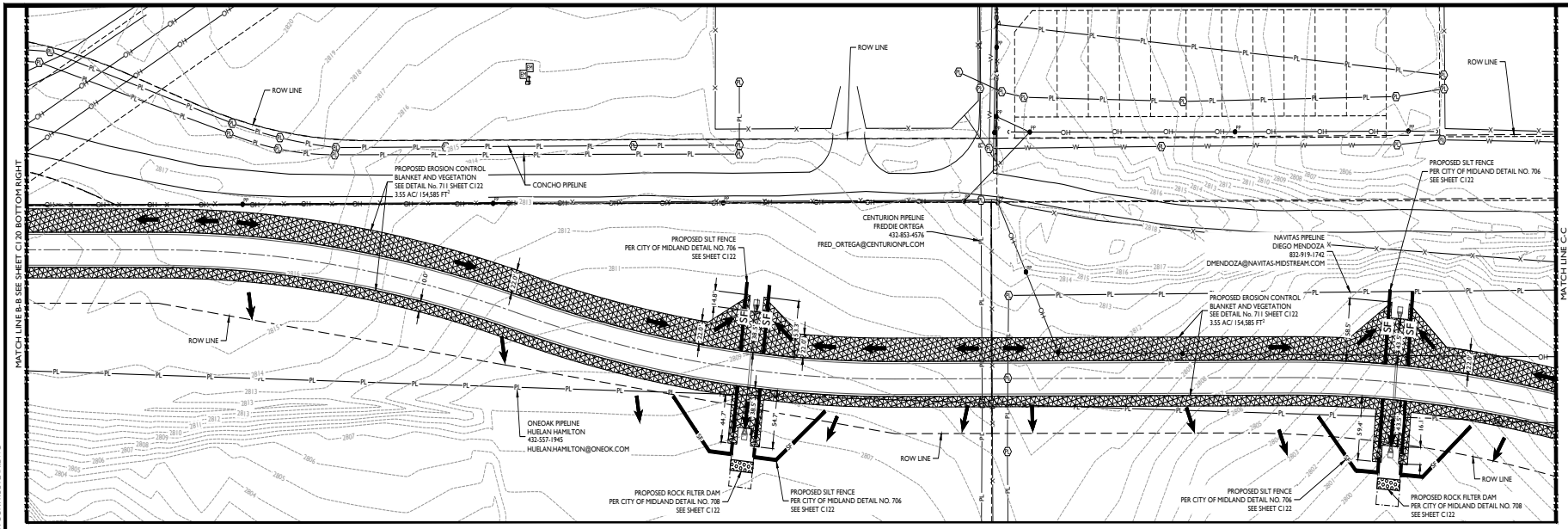
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

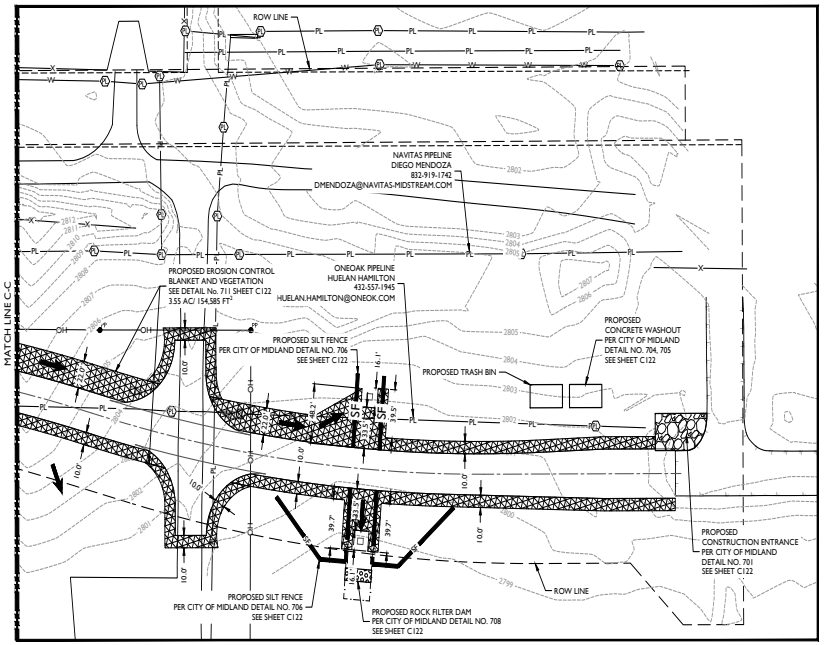
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C120

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\WINDOCIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C120 EROSION CONTROL PLAN.DWG





SWPPP NOTE:
FINAL SITE STABILIZATION IN ACCORDANCE WITH PARTS III.G.1 & III.G.2 OF THE CONSTRUCTION STORMWATER GENERAL PERMIT. STABILIZATION OF ALL DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY (I.E., AS SOON AS PRACTICABLE BUT NO LATER THAN THE END OF THE NEXT WORK DAY) WHENEVER ANY EARTHWORK ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE. THE CITY WILL NOT SUPPORT ACCEPTANCE OF ANY PUBLIC INFRASTRUCTURE OR A C.O. UNLESS THIS REQUIREMENT HAS BEEN FULFILLED.

CONTRACTOR BEWARE: THIS REQUIREMENT WILL BE ENFORCED WITH ZEAL.

THIS SITE QUAULIFES AS A LINEAR CONSTRUCTION SITE; THUS WILL REQUIRE NOTICE OF INTENT WITH TCEQ ASSIGNED OPERATOR #.

AREA OF DISTURBED LAND: 560,252 SF.

0' 60' 120' 180'
SCALE 1" = 60'

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- PL — DENOTES EXISTING UNDERGROUND PIPELINE
- OH — DENOTES EXISTING OVERHEAD ELECTRIC LINE
- UE — DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- FO — DENOTES EXISTING FIBER OPTIC LINE
- 15WW — DENOTES EXISTING 15" WASTEWATER LINE
- 16W — DENOTES EXISTING 16" WATER MAIN LINE
- SF — DENOTES PROPOSED SILT FENCE
- DENOTES PROPOSED CONSTRUCTION ENTRANCE
- DENOTES PROPOSED ROCK FILTER DAM

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

APPROVED FOR CONFORMITY WITH ORDINANCES

The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the Code of Ordinances, or of the Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS proceeding for plan review by the Engineering Department shall comply with the Code of Ordinances, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS proceeding for plan review by the Engineering Department shall not prevent the City of Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services shall not grant any APPROVAL for the construction of any infrastructure where such infrastructure is in violation of the City Code, of the City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

EROSION CONTROL PLAN

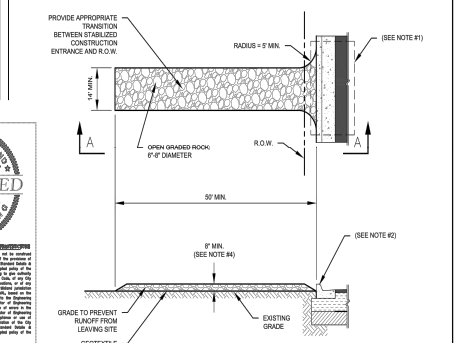
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET C121

P:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C121 EROSION CONTROL PLAN.DWG

© COPYRIGHT 2014 ALL RIGHTS RESERVED

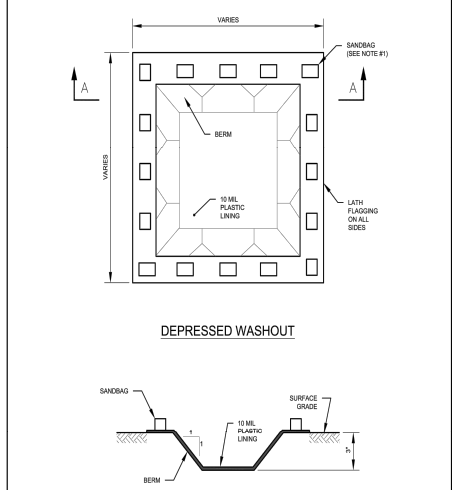


SECTION 'A-A'

NOTES:

1. IF CURB DOES NOT EXIST OR IF EXISTING CURB IS REMOVED DURING CONSTRUCTION THEN STABILIZED CONSTRUCTION ENTRANCE IS TO EXTEND TO THE EDGE OF PAVEMENT.
2. IF CURB IS LEFT IN PLACE DURING CONSTRUCTION THEN INSTALL TEMPORARY CURB PROTECTION AS PER CITY DETAIL 713.
3. LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS, BUT NOT LESS THAN FIFTY (50) FEET.
4. THICKNESS OF OPEN GRADED ROCK TO BE NO LESS THAN EIGHT (8) INCHES.
5. WIDTH SHALL BE NO LESS THAN FOURTEEN (14) FEET OR THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS, WHICHEVER IS WIDER.
6. STABILIZED CONSTRUCTION ENTRANCE TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
STABILIZED CONSTRUCTION ENTRANCE OPTION 1 — 701



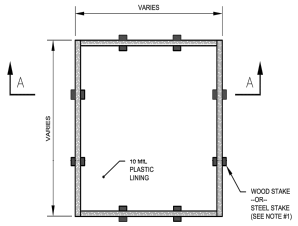
DEPRESSED WASHOUT

SECTION 'A-A'

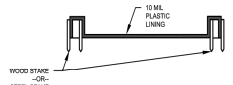
NOTES:

1. SECURE WASHOUT STRUCTURES AND LININGS WITH SANDBAGS OR TWO SECURELY FASTENED STAKES AROUND ENTIRE WASHOUT PERIMETER.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
CONCRETE WASHOUT OPTION 1 — 704



ELEVATED WASHOUT

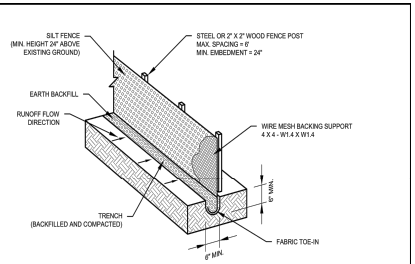


SECTION 'A-A'

NOTES:

1. THIS WASHOUT CONFIGURATION MAY NOT BE USED IN PAVED AREAS.
2. WOOD FRAME IS TO BE EQUAL TO OR BETTER THAN TWO-STACKED 2X12 ROUGH WOOD FRAME.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEERING.

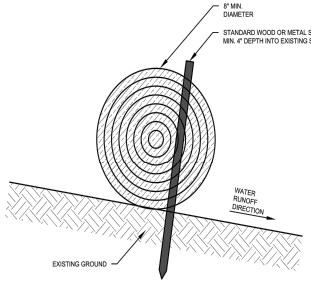
DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
CONCRETE WASHOUT OPTION 2 — 705



NOTES:

1. THIS DETAIL IS TO BE USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE SILT FENCE FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
2. INSTALL STEEL OR WOOD POSTS, WHICH SUPPORT THE SILT FENCE, WITH A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE (1) FOOT.
3. TRENCH THE TOE OF THE SILT FENCE IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE THE FENCE CANNOT BE TRENCHED IN (E.G.PAVEMENT), WEIGHT DOWN FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
4. THE TRENCH MUST BE A MINIMUM OF SIX (6) INCHES DEEP AND SIX (6) INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
5. SECURELY FASTEN SILT FENCE TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS TO BE ATTACHED TO THE STEEL OR WOOD FENCE POST. INCLUDE A SIX (6) INCH DOUBLE OVERLAP, SECURELY FASTENED, WHERE ENDS OF FABRIC MEET.
6. REMOVE SILT FENCE WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. REMOVE ACCUMULATED SILT WHEN IT REACHES A DEPTH OF SIX (6) INCHES. DISPOSE OF THE SILT ONSITE IN AN APPROVED LOCATION AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

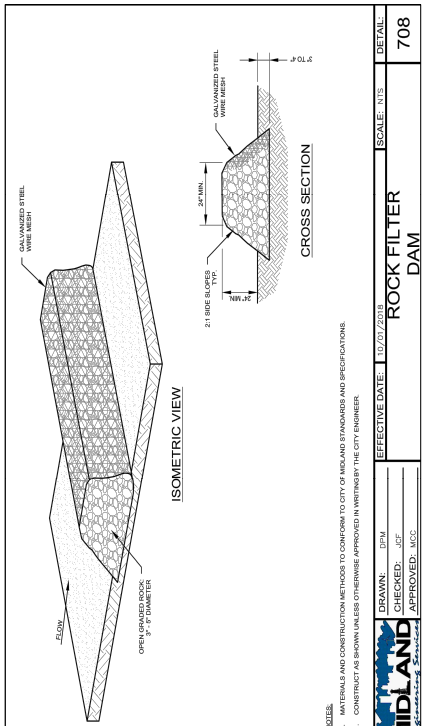
DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
SILT FENCE — 706



NOTES:

1. THIS DETAIL IS TO USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE FILTER SOCK FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
2. DO NOT USE FILTER SOCK FOR SHEET FLOW WATERSHEDS LARGER THAN ONE (1) ACRE.
3. USE POLYPROPYLENE NETTING, BURLAP, OR JUTE FABRIC TO CONSTRUCT THE FILTER SOCK.
4. FILL FILTER SOCK WITH STRAW, HAY, COCONUT FIBER, OR COMPOSITE MATERIAL.
5. PLACE STAKING EVERY THREE (3) TO FOUR (4) FEET AT A MINIMUM.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

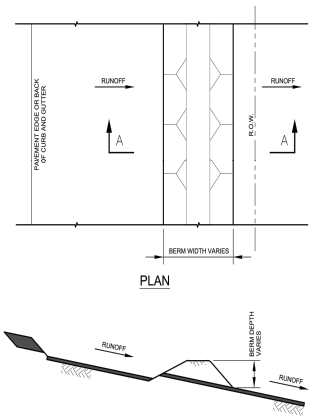
DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
FILTER SOCK — 707



NOTES:

1. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
2. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
ROCK FILTER DAM — 708

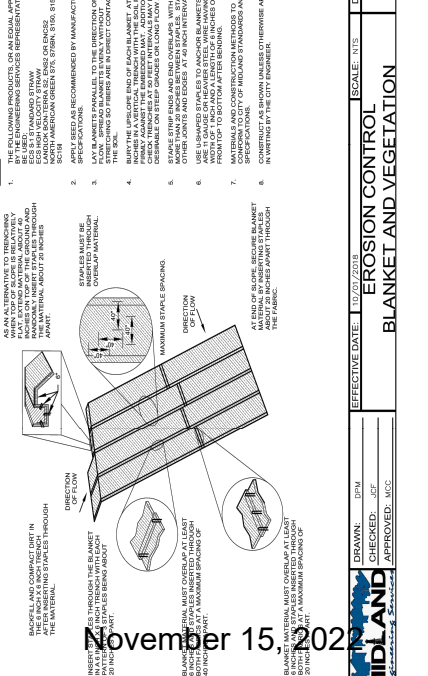


SECTION 'A-A'

NOTES:

1. CONSTRUCT WIND ROW BERM FROM EXISTING TOPSOIL (4" TO 6" USUAL) TO INTERCEPT RUNOFF.
2. WHERE OVERTOPPING OF BERM OCCURS, PLACE ADDITIONAL EROSION CONTROL DEVICES AS REQUIRED BY THE ENGINEER.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
WIND ROW BERM — 709



NOTES:

1. THE FOLLOWING PRODUCTS, OR AN EQUAL APPROVED BY THE ENGINEERING SERVICES REPRESENTATIVE MAY BE USED:
   ECS S1 S1 STANDARD STRAW
   LANDLOK 450 TERRA 1S; ENSI; OR ENCSS
   LANDLOK 3GN TERRA S2; ENSI; OR ENCSS
   SC150 / AMERICAN GREEN S75; S75BN; S150; S150BN; OR SC150
2. APPLY SEED AS RECOMMENDED BY MANUFACTURERS SPECIFICATIONS.
3. ROLL BLANKETS, PARALLEL TO THE DIRECTION OF WATER FLOW. SPREAD BLANKET S IN EN 'V' WITHOUT STRETCHING SO FIBERS ARE IN DIRECT CONTACT WITH THE SOIL.
4. BURY THE UPSLOPE END OF EACH BLANKET, AT LEAST 6 INCHES IN A VERTICAL TRENCH. OVERLAP ADJACENT PARALLEL BLANKETS A MINIMUM OF 4 INCHES. ADDITIONAL OVERLAP MAY BE REQUIRED FOR WIDER BLANKETS. DESIRABLE ON STEEP GRADES ON LONG FLOW AREAS.
5. STAPLE STRIP ENDS AND END OVERLAPS WITH NOT LESS THAN 2 STAPLES PER SQUARE YARD. STAPLE ALL OTHER JOINTS AND EDGES AT 40 INCH INTERVALS.
6. USE U-SHAPED STAPLES TO ANCHOR BLANKETS THAT ARE 6 INCHES OR MORE IN WIDTH. USE ONE STAPLE PER WIDTH OF 1 INCH AND A LENGTH OF 8 INCHES OR MORE.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM | CHECKED: JCF | APPROVED: MCC
EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:
MIDLAND Engineering Services
EROSION CONTROL BLANKET AND VEGETATION — 711

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022
APPROVED TO CONFORM CITY ORDINANCES
The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Code, or any Ordinance or Resolution of the City of Midland, or any Ordinance or Resolution of the City of Midland jurisdiction. APPROVALS proceeding to give authority to violate or cancel the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or regulation of the City of Midland shall not be valid. The issuance of the APPROVAL based on the construction drawings and other data submitted to the Engineering Services Department shall not prevent the Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services is authorized to grant variances to the requirements for infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or related policy of the City of Midland jurisdiction.

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\20\19\19070.CITY OF MIDLAND-ROCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\19070 C122 EROSION CONTROL DETAILS.DWG

PACKET 4330 November 15, 2022

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

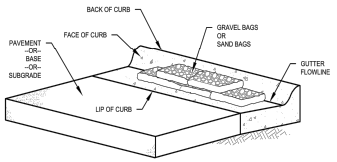
MIDLAND Engineering Services

EROSION CONTROL DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS — ANDREW L. MELLEN — 106572 — LICENSED PROFESSIONAL ENGINEER — 06/13/2022

SHEET C122

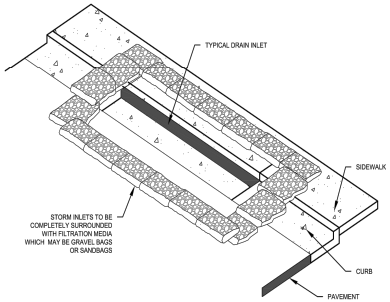


NOTES:

1. FILL BAGS TO 60% CAPACITY WITH EITHER CLEAN GRAVEL OR CLEAN SAND.
2. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
3. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE CURB.
4. PLACE BAGS AGAINST THE FACE-OF-CURB AND DO NOT PLACE BAGS BEYOND THE LIP-OF-CURB.
5. DO NOT BLOCK ADA RAMPS OR WALKWAYS WITH BAGS.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:

MIDLAND Engineering Services — CURB GRAVEL OR SAND BAGS — 712



GRAVEL BAGS OR SANDBAGS

NOTES:

1. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL OR CLEAN SAND.
2. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE SURFACE.
3. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:

MIDLAND Engineering Services — CURB INLET PROTECTION — 714

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

ADMINISTRATION OF CONSTRUCTION SITE INSPECTIONS

No Director, Inspector or any other employee shall be authorized to be an authorization of any violation of any of the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. Neither the Director nor any Inspector shall have the authority to waive or cancel the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. The Director of Engineering Services Department shall not approve the construction drawings and other data submitted to the Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services Department is authorized to deny acceptance or cure of improvements for noncompliance with the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALH	

Δ	REVISIONS	BY	APPR.
1	CONTRACTOR QUESTION REVISIONS 10/17/2022	MAL	ALH

DRAWN BY: MD
CHECKED BY: ALH
APPROVED BY: ALH
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

EROSION CONTROL DETAILS

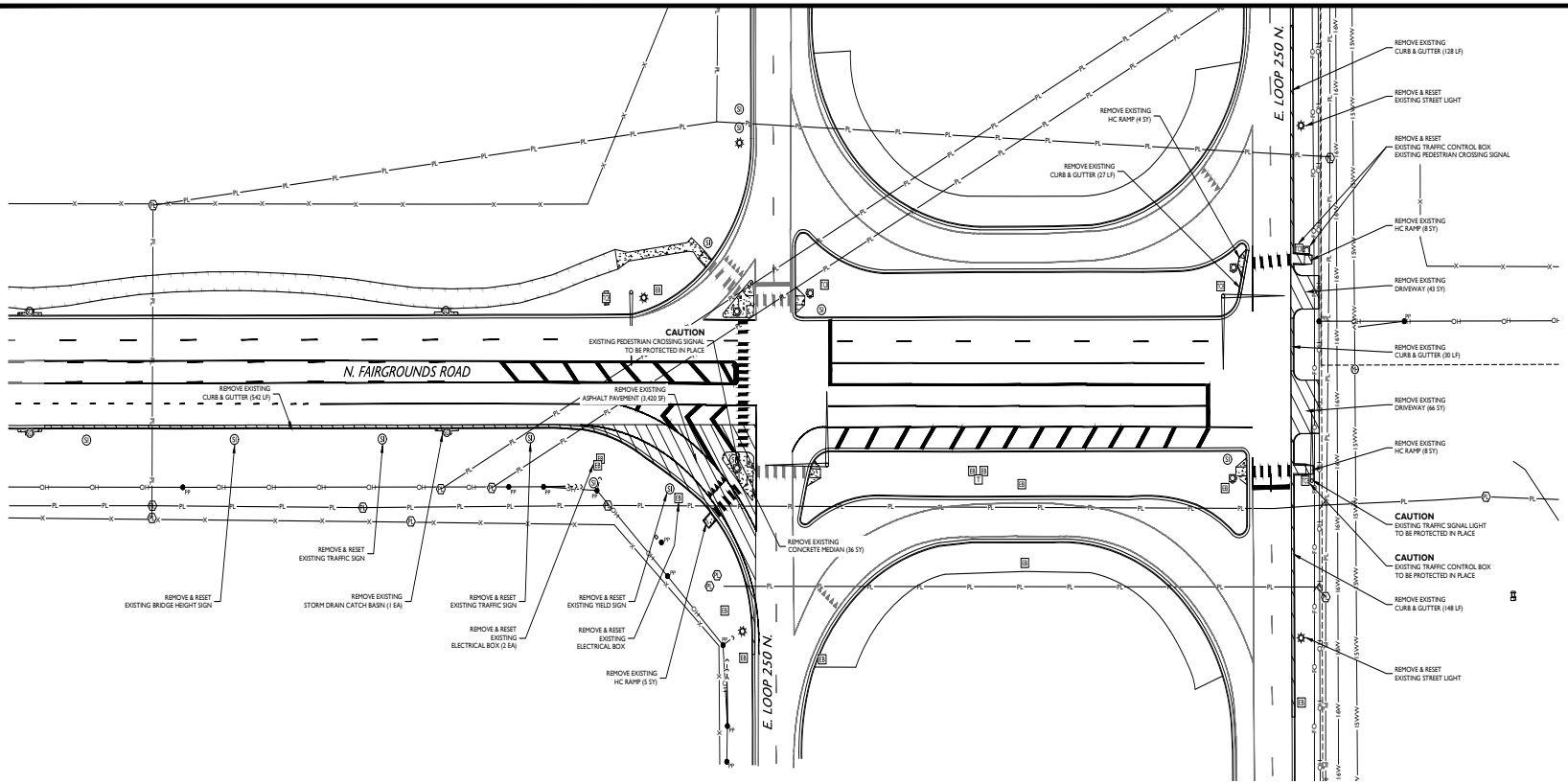
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS — ANDREW L. MELLEN — 106572 — LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET C123

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C123 EROSION CONTROL DETAILS.DWG

© COPYRIGHT 2014 ALL RIGHTS RESERVED



LEGEND

TC	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
■	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
^	DENOTES EXISTING GUY ANCHOR
	DENOTES EXISTING MANHOLE
	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
PL	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE

0' 40' 80' 120'
SCALE 1" = 40'

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

ADMINISTRATION OF AGREEMENTS; LIMIT OF AUTHORITY: The issuance or granting of this APPROVAL shall not be construed to be in authorization for any violation of any of the provisions of the City Code, of any City ordinance, of the City Standard Details & Specifications, or of any other law, rule or regulation in force in the City of Midland jurisdiction. APPROVALS proceeding to any authority of any other governmental entity may require the execution of agreements between the City and the other governmental entity. Execution of such agreements shall be the responsibility of the Engineering Services Department. Engineering Services Department from requiring the correction of errors in the plans and specifications or from preventing any violation thereof. Engineering Services Department is authorized to deny acceptance or use of infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other law, rule or regulation in force in the City of Midland jurisdiction.

Know what's below. Call before you dig.

REVISIONS	BY	DATE
1 CONTRACTOR QUESTION REVISIONS 10/12/2022	MAL	10/17/22

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

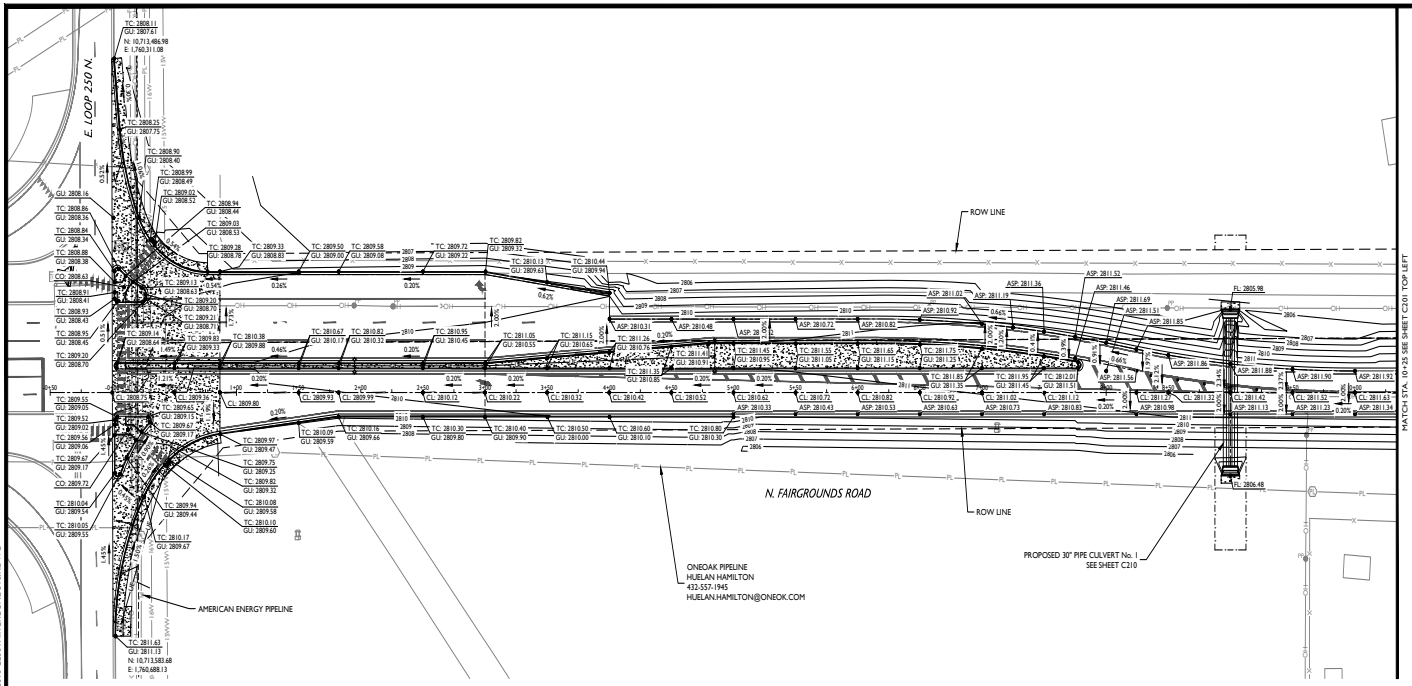
DEMOLITION PLAN

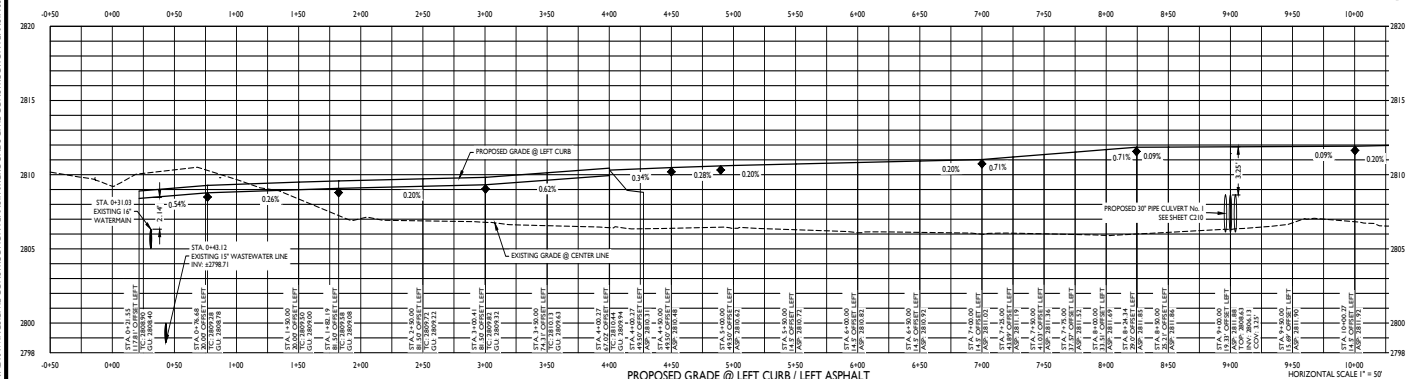
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

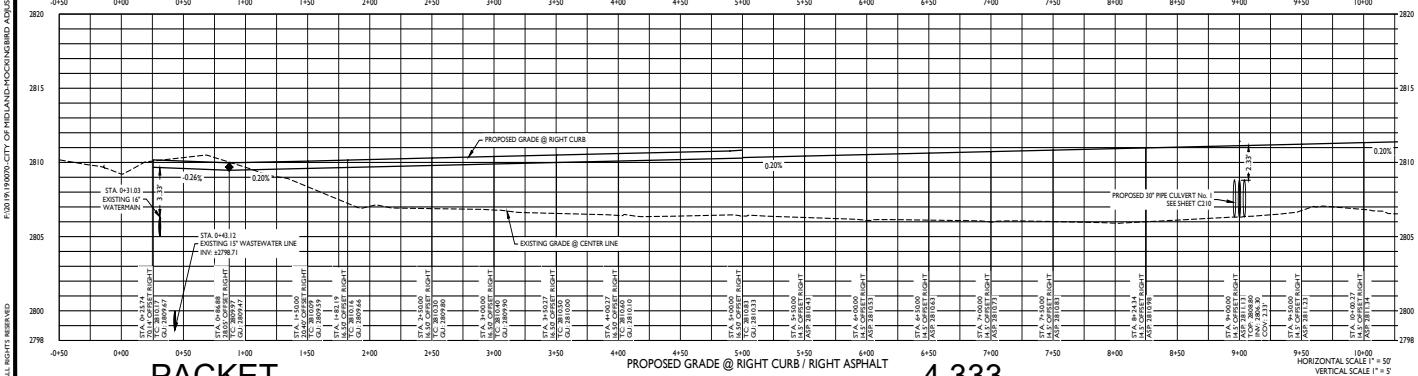
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

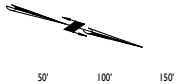
SHEET
C130

F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGDOCS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C130 DEMOLITION PLAN.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED









SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS

CITY OF MIDLAND
APPROVED
10/14/2022
ENGINEERING

The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS pertaining to plan authority is visible or viewed the provisions of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction shall not be valid. The issuance of this APPROVAL based on the representations made by the applicant to the City of Midland Development Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the plans and specifications when found to be in violation of the Development Services Department is authorized to deny connection or use of infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

LEGEND

TC	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
MH	DENOTES EXISTING MANHOLE
PM	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
WW	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
UR	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

811
Know what's below.
Call before you dig.

BY	DATE	REVISIONS	Δ
MAL	10/17/22	CONTRACTOR QUESTION REVISIONS 10/17/2022	1
ALM	APPR.		

DRAWN BY: MID
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB No. 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD P&P

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT

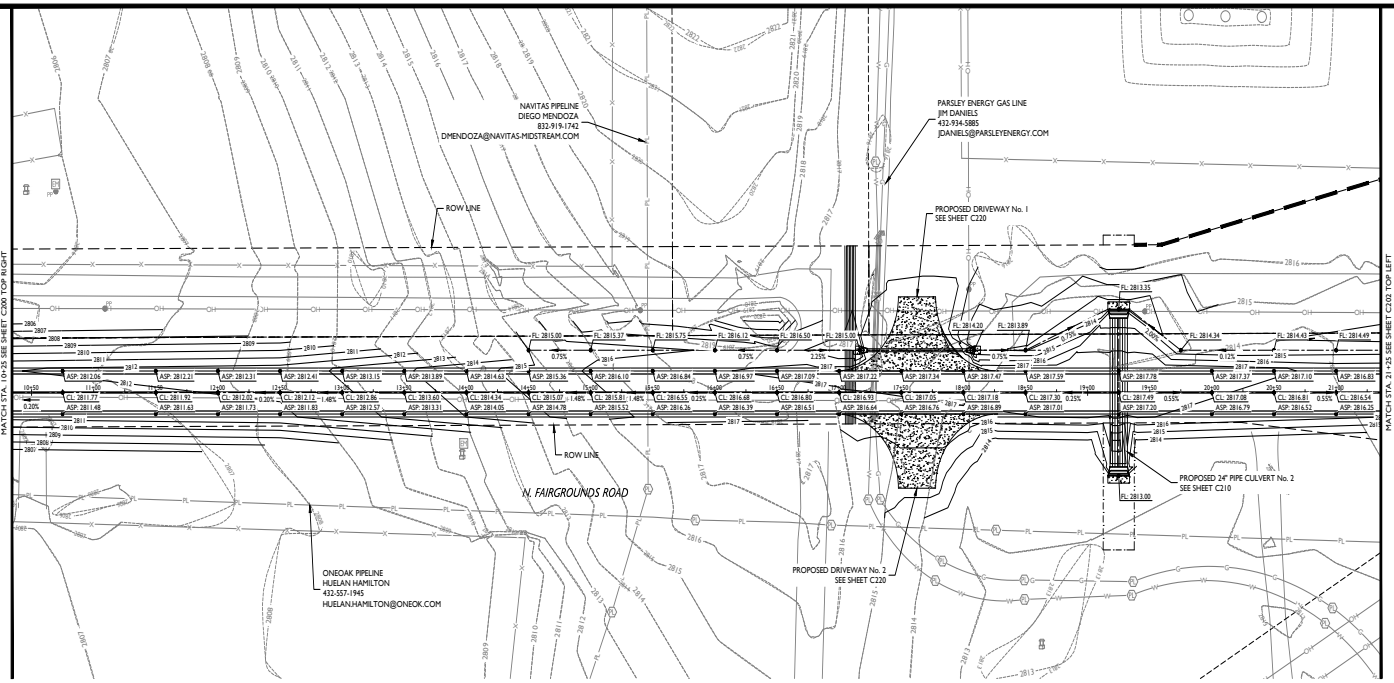
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

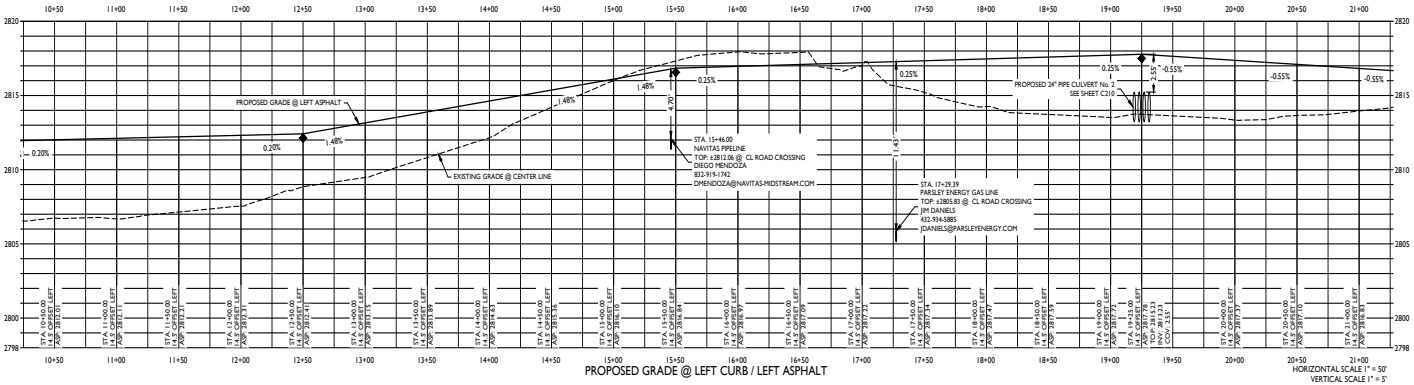
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

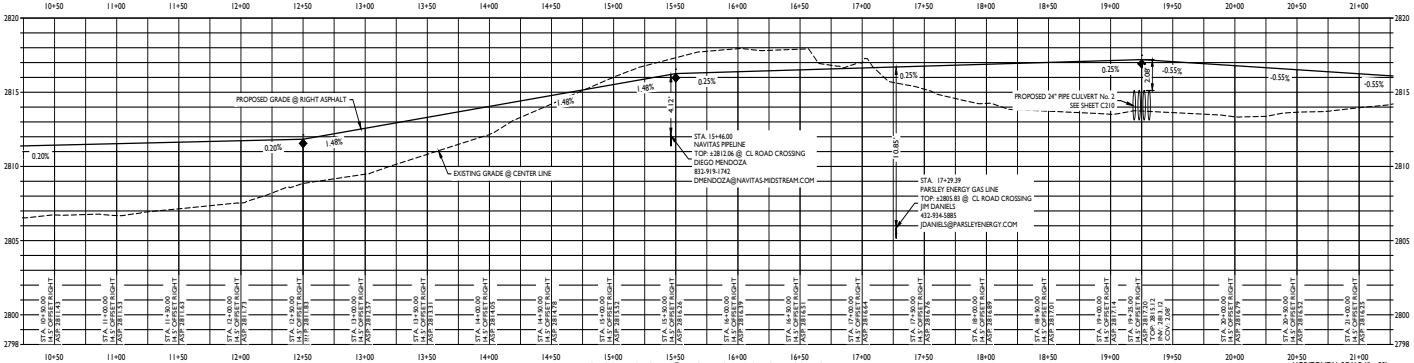
SHEET
C200

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\201\19\190070\CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C200 FAIRGROUNDS P&P.DWG







0' 50' 100' 150'
SCALE 1" = 50'

SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS

CITY OF MIDLAND
APPROVED
10/14/2022
ENGINEERING

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE
- TC DENOTES TOP OF CURB GRADE
- GU DENOTES GUTTER GRADE
- CL DENOTES CENTER LINE GRADE
- ASP DENOTES ASPHALT GRADE
- FL DENOTES FLOW OF SWALE GRADE
- PC DENOTES POINT OF CURVATURE
- PT DENOTES POINT OF TANGENCY
- ASP DENOTES ASPHALT GRADE
- INV DENOTES INVERT FLOW OF PIPE
- TOP DENOTES TOP OF PIPE GRADE
- CO DENOTES CONCRETE GRADE

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD P&P

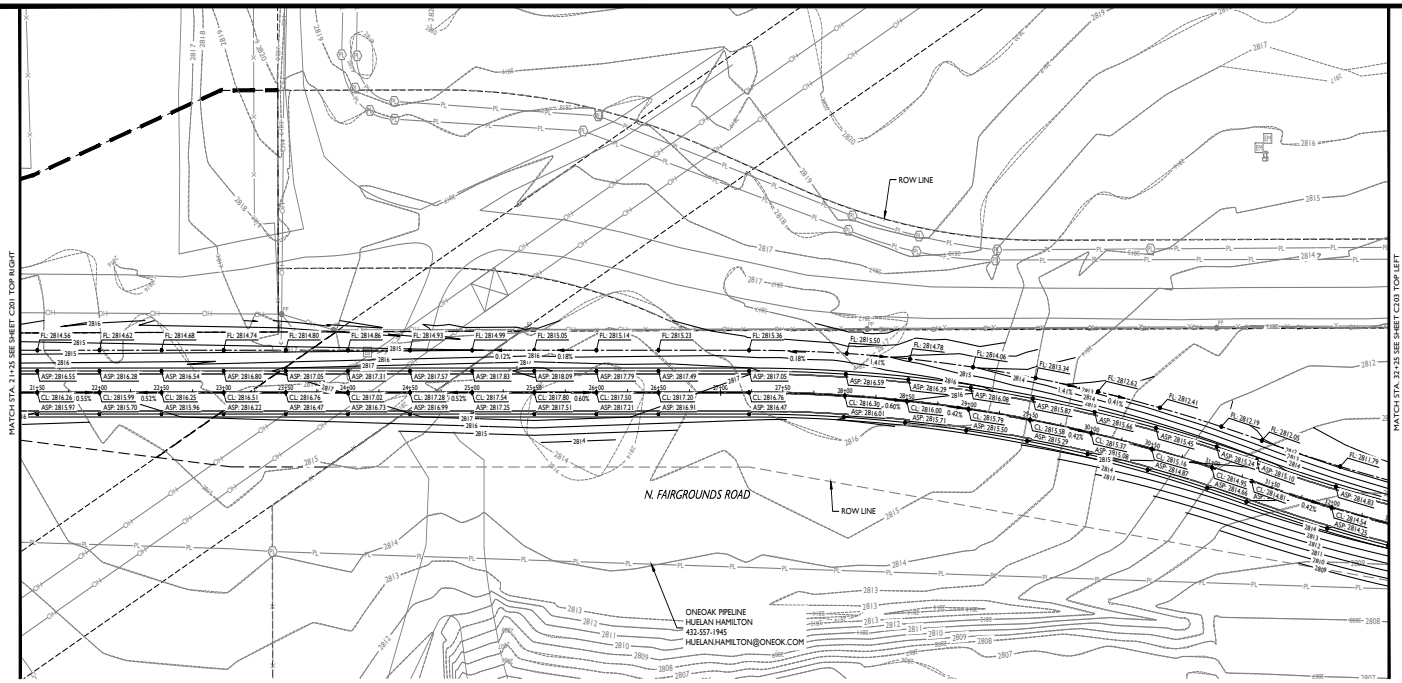
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT

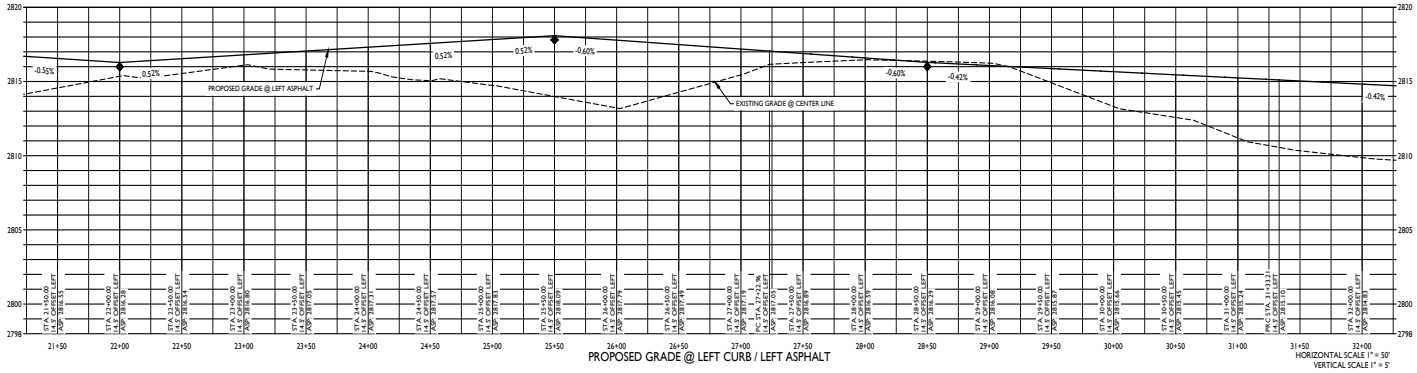
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

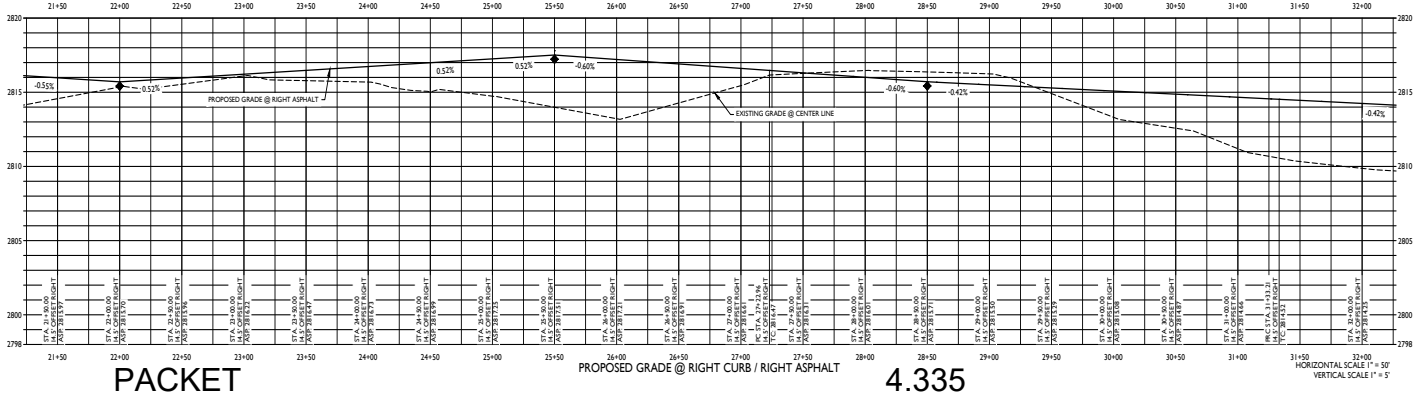
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C201

F:\2019\190070.CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C201 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED









SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS



LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE
- TC DENOTES TOP OF CURB GRADE
- GU DENOTES GUTTER GRADE
- CL DENOTES CENTER LINE GRADE
- ASP DENOTES ASPHALT GRADE
- FL DENOTES FLOW OF SWALE GRADE
- PC DENOTES POINT OF CURVATURE
- PT DENOTES POINT OF TANGENCY
- ASP DENOTES ASPHALT GRADE
- INV DENOTES INVERT FLOW OF PIPE
- TOP DENOTES TOP OF PIPE GRADE
- CO DENOTES CONCRETE GRADE

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS (10) 1/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

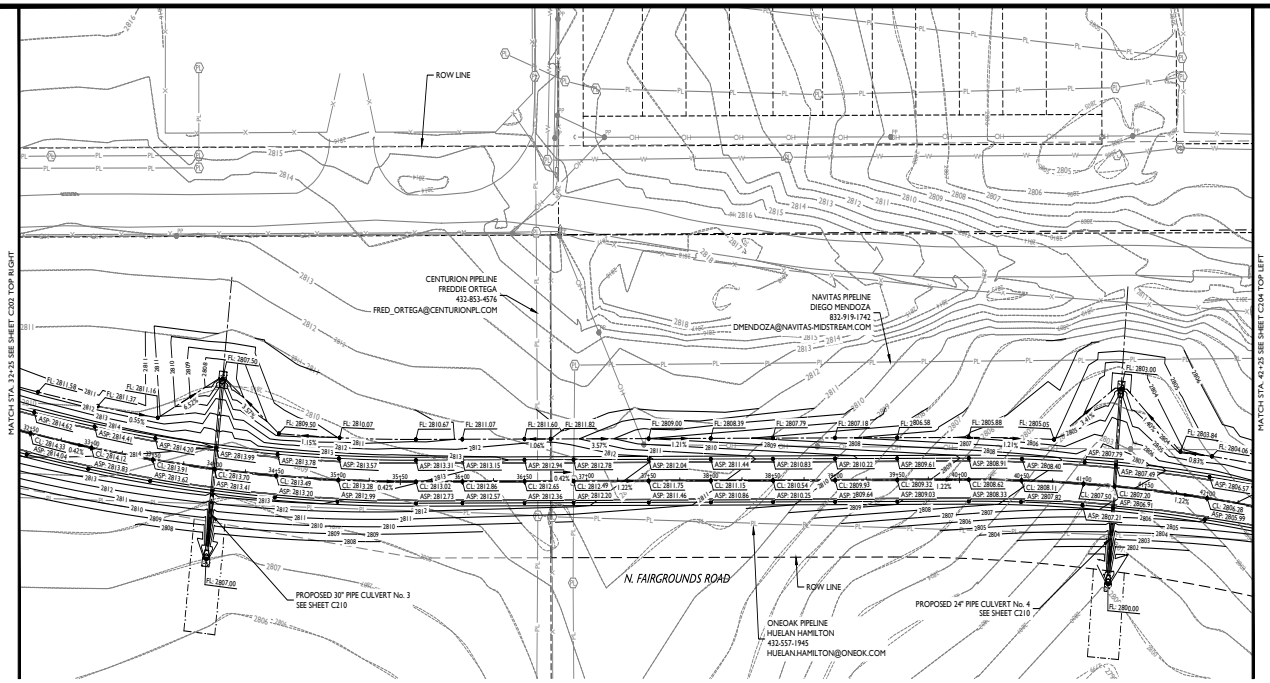
N. FAIRGROUNDS ROAD P&P

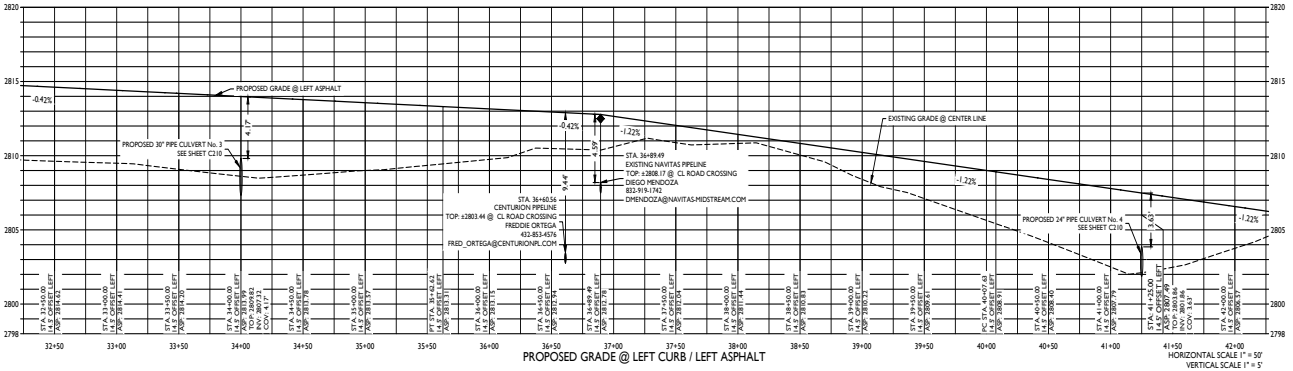
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

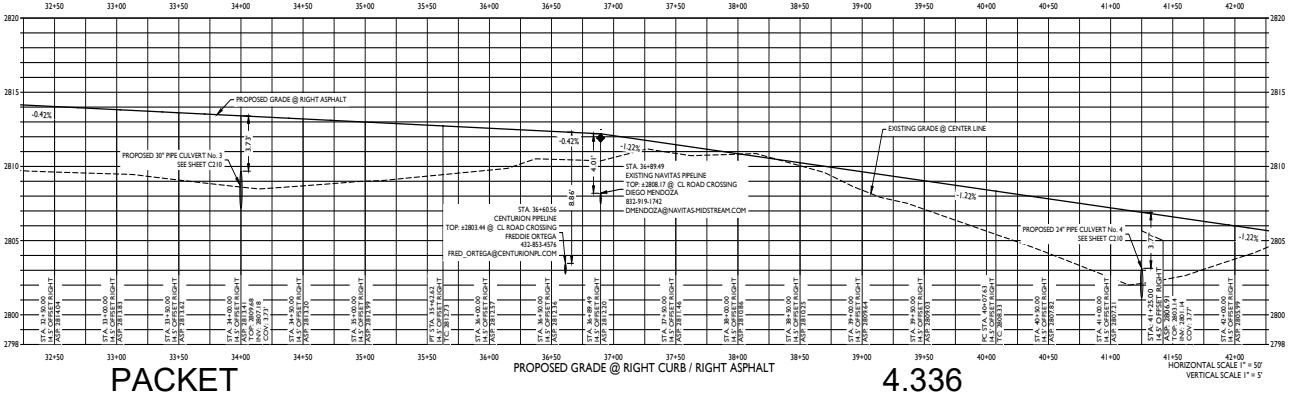
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

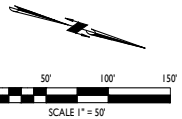
SHEET
C202

F:\201\19\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C202 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED









SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS

CITY OF MIDLAND
APPROVED
ENGINEERING
10/14/2022

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE

TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB	190070

MIDLAND Engineering Services

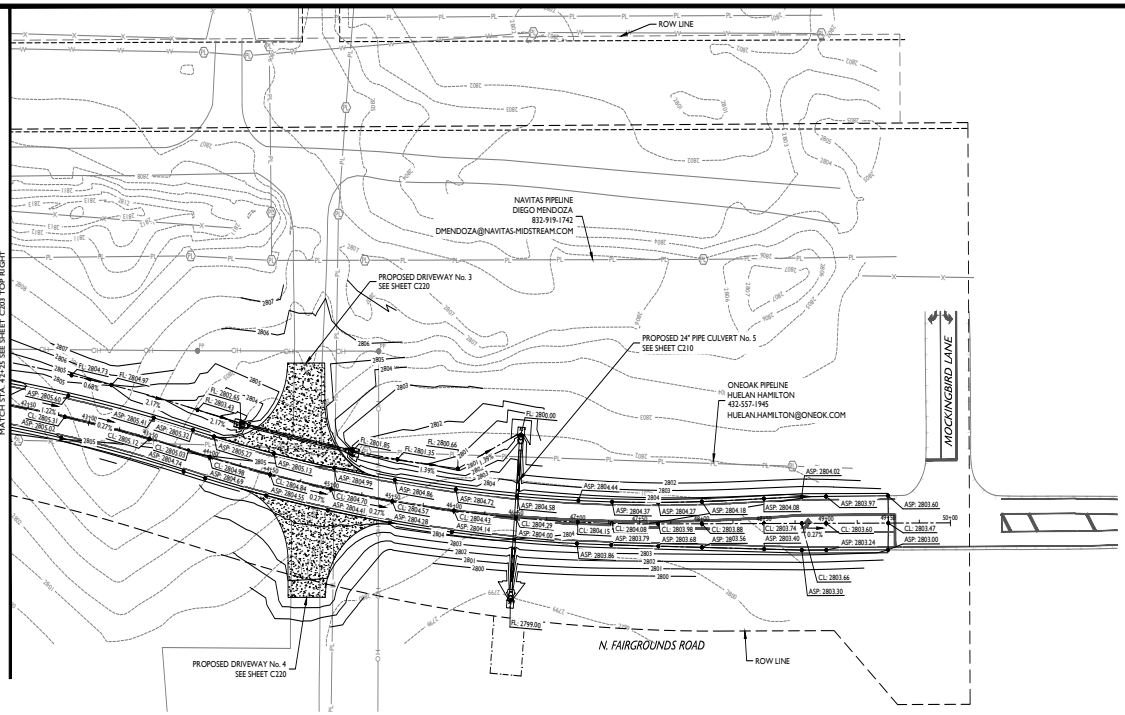
N. FAIRGROUNDS ROAD P&P

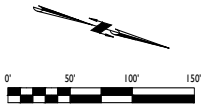
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

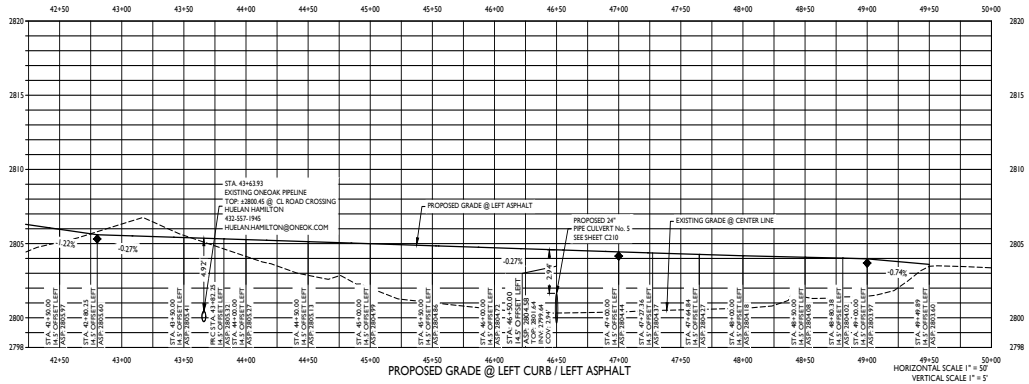
SHEET
C203

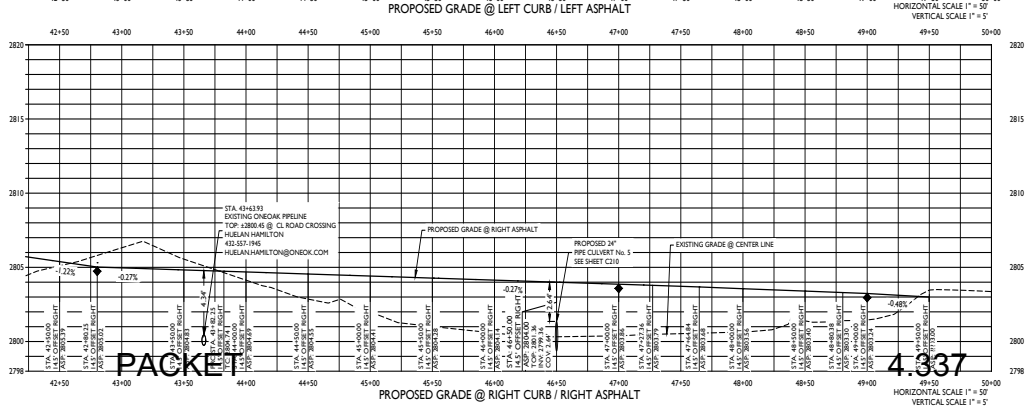
F:\2019\190070.CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C203 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED





SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS





LEGEND

TC	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
M	DENOTES EXISTING MANHOLE
M	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
W	DENOTES EXISTING WATER WELL
S	DENOTES EXISTING STREET SIGN
D	DENOTES EXISTING STORM DRAIN CATCH BASIN
P	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
-X-	DENOTES EXISTING FENCE
-FL-	DENOTES EXISTING UNDERGROUND PIPELINE
-OH-	DENOTES EXISTING OVERHEAD ELECTRIC LINE
-UE-	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
-FO-	DENOTES EXISTING FIBER OPTIC LINE
-15WW-	DENOTES EXISTING 15" WASTEWATER LINE
-16W-	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

CITY OF MIDLAND
APPROVED
10/14/2022
ENGINEERING

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD P&P

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

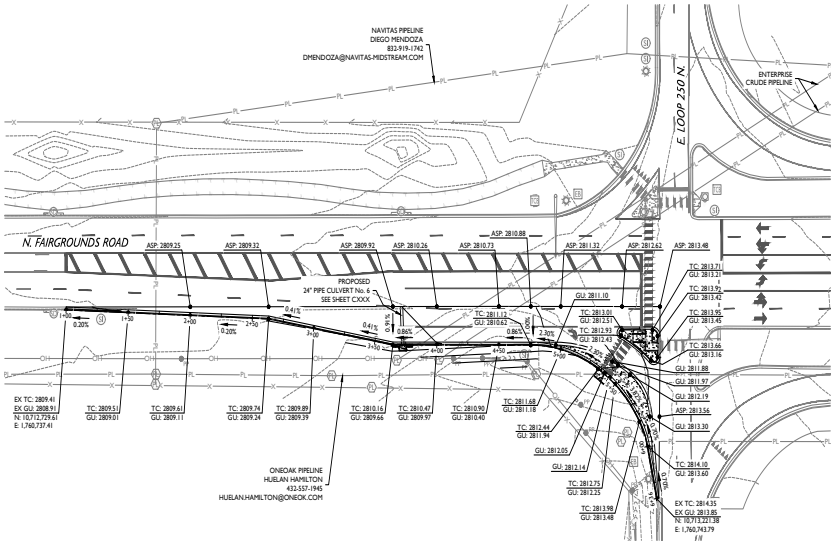
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

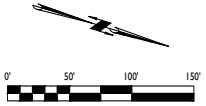
SHEET
C204

November 15, 2022

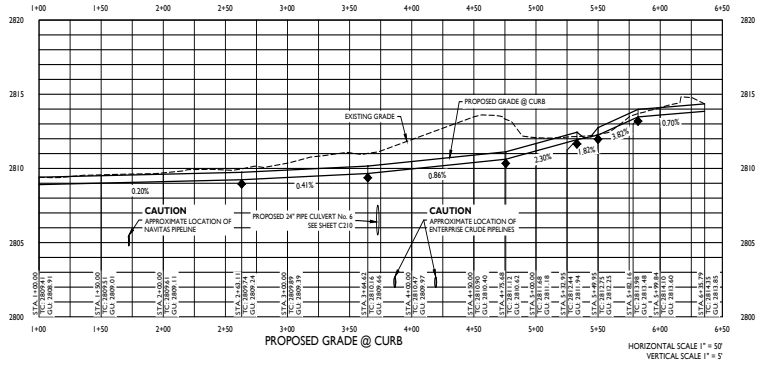
F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C204 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED

PACKET 4.337





SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS



LEGEND

	DENOTES EXISTING TRAFFIC CONTROL BOX
	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
	DENOTES EXISTING MANHOLE
	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
PL	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

ADMINISTRATION OF CONSTRUCTION AND MAINTENANCE

The issuance or granting of this approval shall not be construed to be an authorization for any violation of any of the provisions of the City Code, or any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVED presumes to give authority to violate or cancel the provisions of of the City Code, or any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. Approval of this plan does not constitute approval of any item not shown on the plan. Approval is not to be construed as approval of a violation of any provision of the City Code, or any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

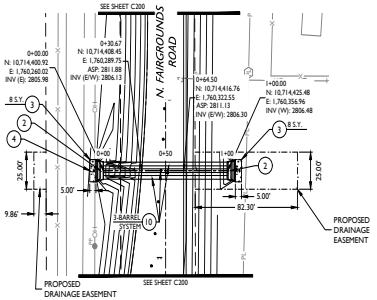
N. FAIRGROUNDS ROAD P&P

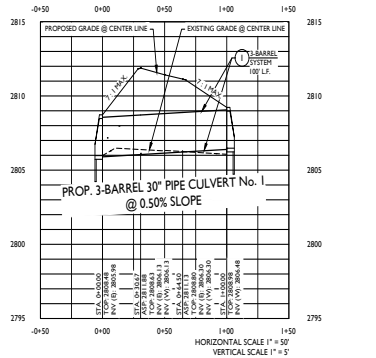
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

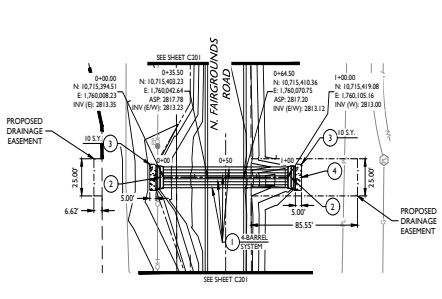
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

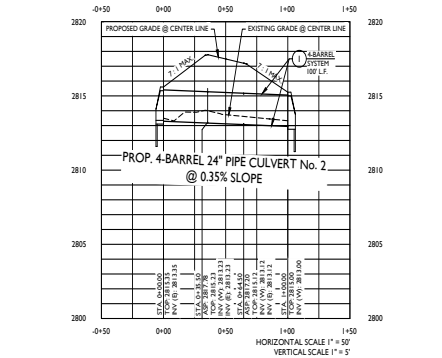
SHEET
C205

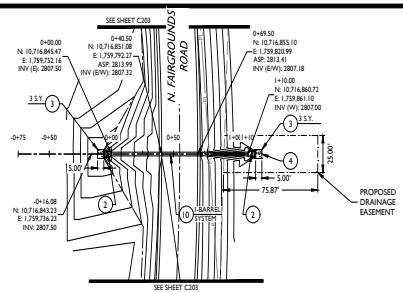
F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C205 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED

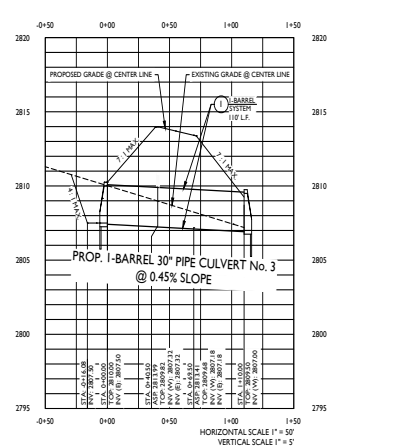


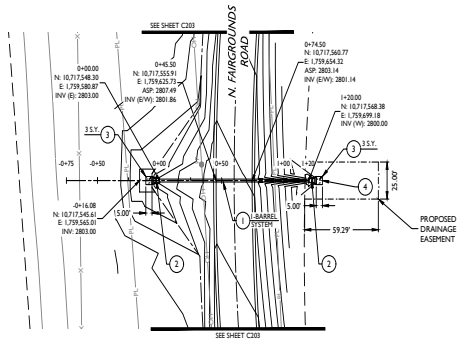


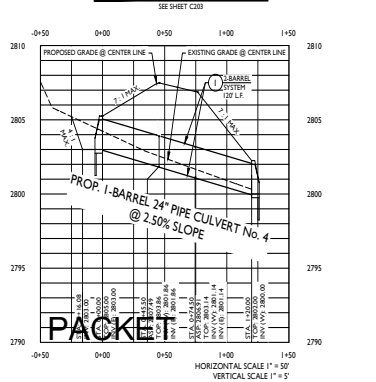


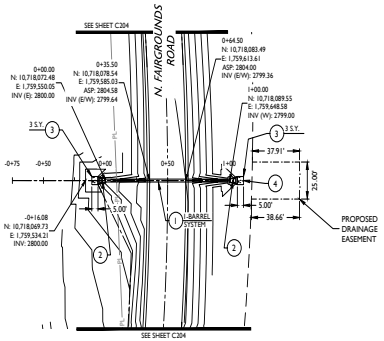


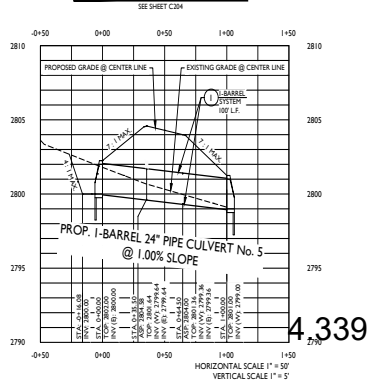


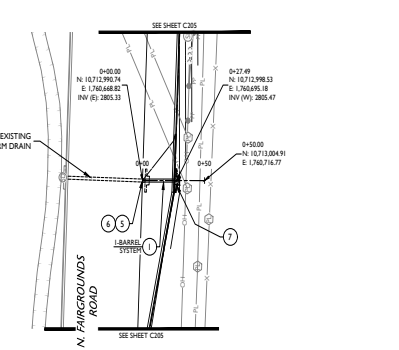


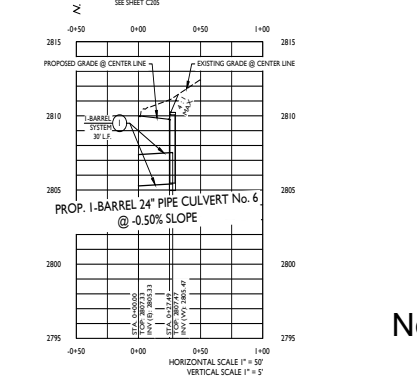


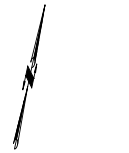












PIPE CULVERT CONSTRUCTION NOTES

Typ. (1) INSTALL 24" REINFORCED CONCRETE PIPE (RCP) OR APPROVED EQUAL.

2. CONSTRUCT FLARED END TREATMENT PER DETAIL No. 4 SEE SHEET C304.
3. CONCRETE TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI. USE REBAR REINFORCED OR FIBER REINFORCED CONCRETE PAVEMENT. CONCRETE TO BE 4" THICK.
4. GRADE TO DRAIN.
5. CAUTION: CONTRACTOR TO VERIFY UTILITY SIZE, LOCATION, ELEVATION AND TYPE PRIOR TO CONSTRUCTION AND INFORM ENGINEER OF CONFLICTS.
6. CONTRACTOR TO COUPLE PROPOSED RCP TO EXISTING RCP.
7. INSTALL 16'x3' PRECAST CURB INLET (PCO) WITH PRECAST BASE (PB). PER TxDOT DETAILS SEE SHEETS C305, C306, AND C307.
8. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF MIDLAND DETAIL No. 221(A) & 221(B) SEE SHEET C301.
9. INSTALL 4-16" POLY PIPE 8' DEEP. CONTRACTOR TO COORDINATE WITH PIONEER REPRESENTATIVE FOR EXACT LOCATION.
10. INSTALL 30" REINFORCED CONCRETE PIPE (RCP) OR APPROVED EQUAL.

LEGEND

TC	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
M	DENOTES EXISTING MANHOLE
PM	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
W	DENOTES EXISTING WATER WELL
S	DENOTES EXISTING STREET SIGN
D	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
-X-	DENOTES EXISTING FENCE
-FL-	DENOTES EXISTING UNDERGROUND PIPELINE
-OH-	DENOTES EXISTING OVERHEAD ELECTRIC LINE
-UE-	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
-FO-	DENOTES EXISTING FIBER OPTIC LINE
-15WW-	DENOTES EXISTING 15" WASTEWATER LINE
-16W-	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CONC	DENOTES CONCRETE GRADE

Know what's below. Call before you dig.

BY	DATE
MAL	10/12/22
ALM	APRIL

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/12/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD
PIPE CULVERT P&P

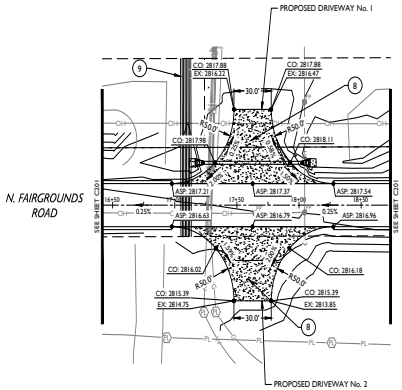
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

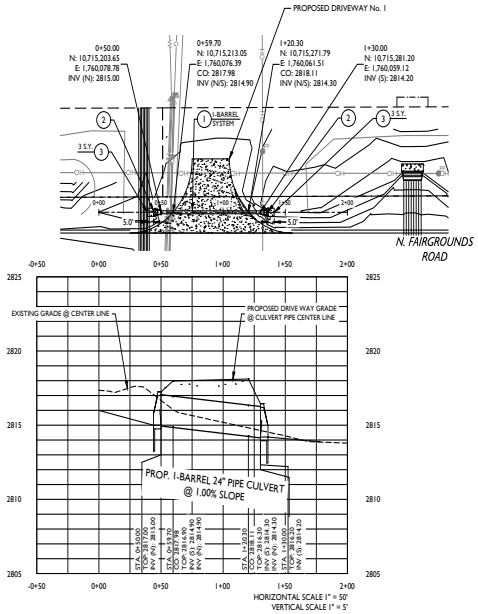
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET
C210

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C210 PIPE CULVERT P&P.DWG





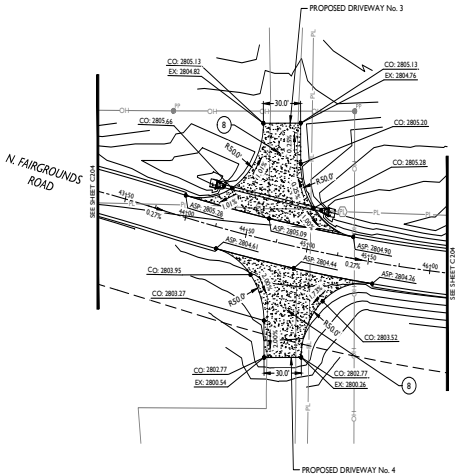
PROPOSED PIPE CULVERT DRIVEWAY No. 1

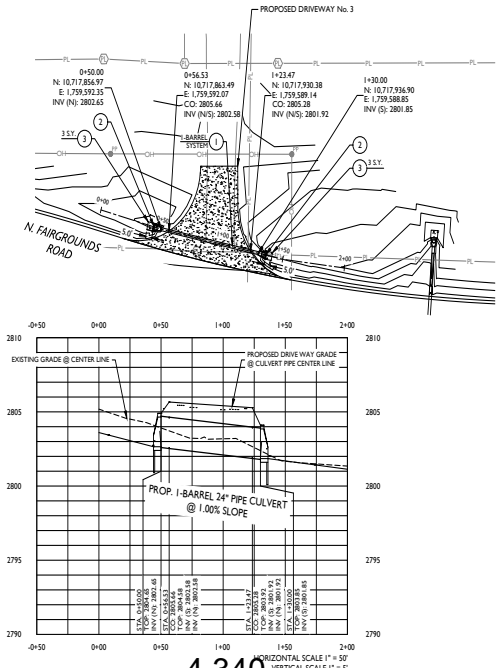


PIPE CULVERT CONSTRUCTION NOTES

Typ. (1) INSTALL 24" REINFORCED CONCRETE PIPE (RCP) OR APPROVED EQUAL.

2. CONSTRUCT FLARED END TREATMENT PER DETAIL No. 4 SEE SHEET C304.
3. CONCRETE TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI. USE REBAR REINFORCED OR FIBER REINFORCED CONCRETE PAVEMENT. CONCRETE TO BE 4" THICK.
4. GRADE TO DRAIN.
5. CAUTION: CONTRACTOR TO VERIFY UTILITY SIZE, LOCATION, ELEVATION AND TYPE PRIOR TO CONSTRUCTION AND INFORM ENGINEER OF CONFLICTS.
6. CONTRACTOR TO COUPLE PROPOSED RCP TO EXISTING RCP.
7. INSTALL 16'x3' PRECAST CURB INLET (PCO) WITH PRECAST BASE (PB), PER TxDOT DETAILS SEE SHEETS C305, C306, AND C307.
8. CONSTRUCT COMMERCIAL DRIVEWAY PER CITY OF MIDLAND DETAIL No. 221(A) & 221(B) SEE SHEET C301.
9. INSTALL 4-16" POLY PIPE 8' DEEP. CONTRACTOR TO COORDINATE WITH PIONEER REPRESENTATIVE FOR EXACT LOCATION.
10. INSTALL 30" REINFORCED CONCRETE PIPE (RCP) OR APPROVED EQUAL.





PROPOSED PIPE CULVERT DRIVEWAY No. 2



LEGEND

	DENOTES EXISTING TRAFFIC CONTROL BOX
	DENOTES EXISTING ELECTRIC BOX
	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
	DENOTES EXISTING MANHOLE
	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
PL	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

811 Know what's below. Call before you dig.

REVISIONS	BY	APPR.	DATE
1 CONTRACTOR QUESTION REVISIONS	MAL	ALM	10/17/22

DRAWN BY: MID
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

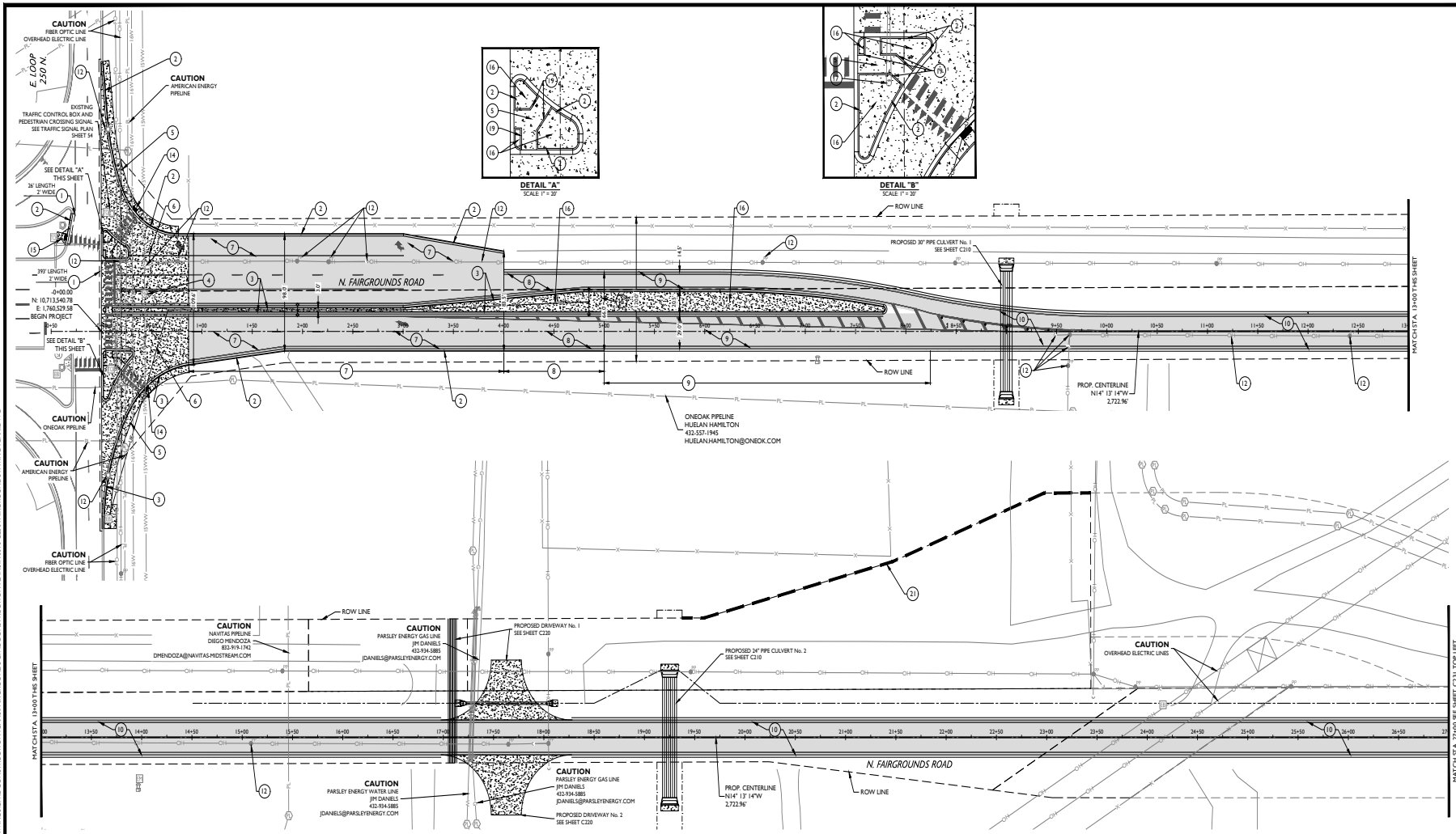
N. FAIRGROUNDS ROAD DRIVEWAYS AND PIPE CULVERT P&P

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C220

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C220 DRIVEWAYS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED



PAVING CONSTRUCTION NOTES

Type ①

1. CONTRACTOR TO SAWCUT AND REMOVE TWO (2) FEET MINIMUM ASPHALT FROM EXISTING CURB AND GUTTER LIP. THE EXISTING ASPHALT PAVEMENT REPLACED IS TO MATCH CURRENT SECTION OF EXISTING ROADWAY. CONTRACTOR IS TO CLEANLY TIE INTO EXISTING CURB. DETERMINATION OF EXACT LOCATION MAY NEED TO BE FIELD VERIFIED BY CONTRACTOR. CONTRACTOR TO NOTIFY ENGINEER OF RECORD OF ANY DAMAGE OR TIE IN PROBLEMS. SEE CITY OF MIDLAND DETAIL No. 224 SHEET C302.
2. CONSTRUCT TYPE "A" STANDARD CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 205 SEE SHEET C301.
3. CONSTRUCT TYPE "C" INVERT CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 207 SEE SHEET C301.
4. CONTRACTOR TO ADJUST EXISTING MANHOLE RING AND COVER PER CITY OF MIDLAND DETAIL No. 319 AND DETAIL No. 317 SEE SHEET C303.
5. CONSTRUCT 6' WIDE SIDEWALK PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302.
6. INSTALL CONCRETE PAVEMENT - HEAVY DUTY PER DETAIL No. 1 SEE SHEET C304.
7. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "A" SEE SHEET C240.
8. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "B". SEE SHEET C240.
9. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "C". SEE SHEET C240.
10. N. FAIRGROUNDS ROAD. CONSTRUCT 29' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "D" SEE SHEET C240.
11. N. FAIRGROUNDS ROAD. CONSTRUCT 36' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "E" SEE SHEET C240.
12. CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY FOR THE REMOVAL AND RELOCATION OF EXISTING POWER POLE, GUY WIRE, AND STREET LIGHT.
13. CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR THE REMOVAL AND RELOCATION OF EXISTING STREET SIGN.
14. CONSTRUCT PARALLEL CURB RAMP PER CITY OF MIDLAND DETAIL No. 230 SEE SHEET C302 AND DETAIL No. 233 SEE SHEET C303.
15. CONSTRUCT PERPENDICULAR RAMP PER CITY OF MIDLAND DETAIL No. 232 AND DETAIL No. 233 SEE SHEET C303.
16. CONSTRUCT STAMPED-CONCRETE ISLAND MEDIAN PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302. COLOR TO BE BUTTERFIELD U31 WEATHERED TERRA COTTA.
17. CAUTION: CONTRACTOR TO PROVIDE PROTECTION IN PLACE TO EXISTING TRAFFIC LIGHT POLE AND EXISTING PEDESTRIAN CROSSING SIGNAL.
18. N. FAIRGROUNDS ROAD SOUTH OF LOOP 250. CONSTRUCT PER ROAD CROSS SECTION "F". SEE SHEET C240.
19. CONSTRUCT 6" STAND UP CURB PER DETAIL No. 3 SEE SHEET C304.
20. CONSTRUCT RIBBON CURB PER DETAIL No. 2 SEE SHEET C304.
21. INSTALL 422 L.F. OF PROPOSED CONCRETE SAFETY BARRIER PRECAST BARRIER TYPE I TxDOT DETAIL CSB(1)-10 SEE SHEET C308.

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE

0' 50' 100' 150'
SCALE 1" = 50'

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

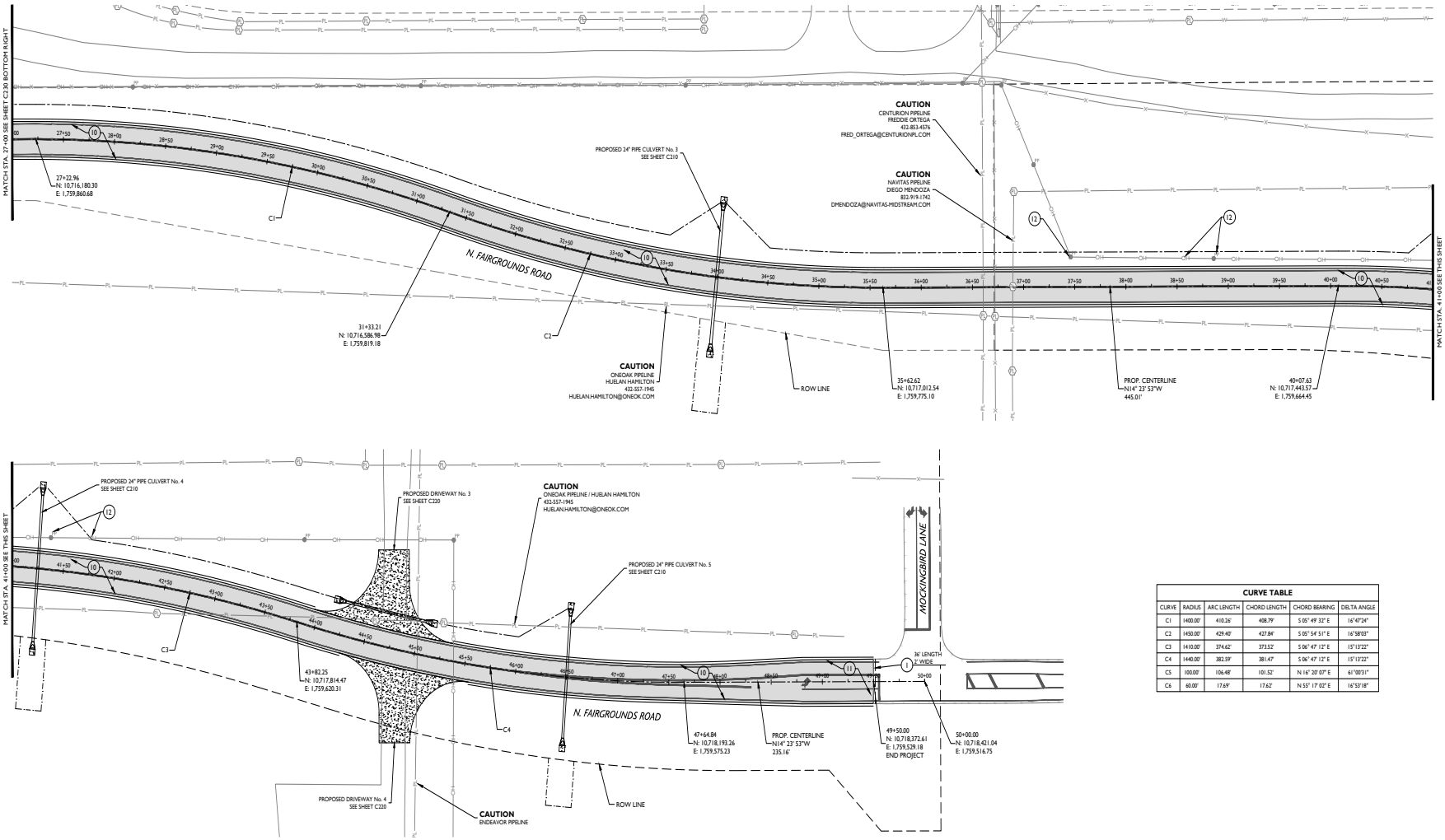
N. FAIRGROUNDS ROAD
PAVING PLAN

N. FAIRGROUNDS RAOD, LOOP 250 -
MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
10/17/2022

SHEET
C230

© COPYRIGHT 2014 ALL RIGHTS RESERVED



CURVE TABLE					
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1400.00'	410.26'	408.79'	S 05° 49' 32" E	16°47'24"
C2	1450.00'	429.40'	427.84'	S 05° 54' 51" E	16°58'03"
C3	1410.00'	374.62'	373.52'	S 06° 47' 12" E	15°13'22"
C4	1440.00'	382.59'	381.47'	S 06° 47' 12" E	15°13'22"
C5	100.00'	106.48'	101.52'	N 16° 20' 07" E	61°00'31"
C6	60.00'	17.69'	17.62'	N 55° 17' 02" E	16°53'18"

PAVING CONSTRUCTION NOTES

Type 1

1. CONTRACTOR TO SAWCUT AND REMOVE TWO (2) FEET MINIMUM ASPHALT FROM EXISTING CURB AND GUTTER LIP. THE EXISTING ASPHALT PAVEMENT REPLACED IS TO MATCH CURRENT SECTION OF EXISTING ROADWAY. CONTRACTOR IS TO CLEANLY TIE INTO EXISTING CURB. DETERMINATION OF EXACT LOCATION MAY NEED TO BE FIELD VERIFIED BY CONTRACTOR. CONTRACTOR TO NOTIFY ENGINEER OF RECORD OF ANY DAMAGE OR TIE IN PROBLEMS. SEE CITY OF MIDLAND DETAIL No. 224 SHEET C302.
2. CONSTRUCT TYPE "A" STANDARD CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 205 SEE SHEET C301.
3. CONSTRUCT TYPE "C" INVERT CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 207 SEE SHEET C301.
4. CONTRACTOR TO ADJUST EXISTING MANHOLE RING AND COVER PER CITY OF MIDLAND DETAIL No. 319 AND DETAIL No. 317 SEE SHEET C303.
5. CONSTRUCT 6' WIDE SIDEWALK PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302.
6. INSTALL CONCRETE PAVEMENT - HEAVY DUTY PER DETAIL No. 1 SEE SHEET C304.
7. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "A" SEE SHEET C240.
8. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "B". SEE SHEET C240.
9. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "C". SEE SHEET C240.
10. N. FAIRGROUNDS ROAD. CONSTRUCT 29' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "D" SEE SHEET C240.
11. N. FAIRGROUNDS ROAD. CONSTRUCT 36' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "E" SEE SHEET C240.
12. CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY FOR THE REMOVAL AND RELOCATION OF EXISTING POWER POLE, GUY WIRE, AND STREET LIGHT.
13. CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR THE REMOVAL AND RELOCATION OF EXISTING STREET SIGN.
14. CONSTRUCT PARALLEL CURB RAMP PER CITY OF MIDLAND DETAIL No. 230 SEE SHEET C302 AND DETAIL No. 233 SEE SHEET C303.
15. CONSTRUCT PERPENDICULAR RAMP PER CITY OF MIDLAND DETAIL No. 232 AND DETAIL No. 233 SEE SHEET C303.
16. CONSTRUCT STAMPED-CONCRETE ISLAND MEDIAN PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302. CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR STAMP DESIGN.
17. CAUTION. CONTRACTOR TO PROVIDE PROTECTION IN PLACE TO EXISTING TRAFFIC LIGHT POLE AND EXISTING PEDESTRIAN CROSSING SIGNAL.
18. N. FAIRGROUNDS ROAD SOUTH OF LOOP 250. CONSTRUCT PER ROAD CROSS SECTION "F". SEE SHEET C240.
19. CONSTRUCT 6" STAND UP CURB PER DETAIL No. 3 SEE SHEET C304.
20. CONSTRUCT RIBBON CURB PER DETAIL No. 2 SEE SHEET C304.
21. INSTALL 422 L.F. OF PROPOSED CONCRETE SAFETY BARRIER PRECAST BARRIER TYPE I TxDOT DETAIL CSB(1)-10 SEE SHEET C308.

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE

0' 50' 100' 150'
SCALE 1" = 50'

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

ATTENTION TO CONTRACTOR AND SUBCONTRACTOR
The issuance or granting of this APPROVAL shall not be construed to be a permit for, or an approval of, any violation of any provision of the City Code of the City Ordinances, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. The issuance of this APPROVAL based on the plans and other data submitted to the City of Midland shall not prevent the City of Midland from requiring the correction of errors in said plans and other data submitted to the City of Midland, or from preventing any violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS
CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB:	190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD PAVING PLAN

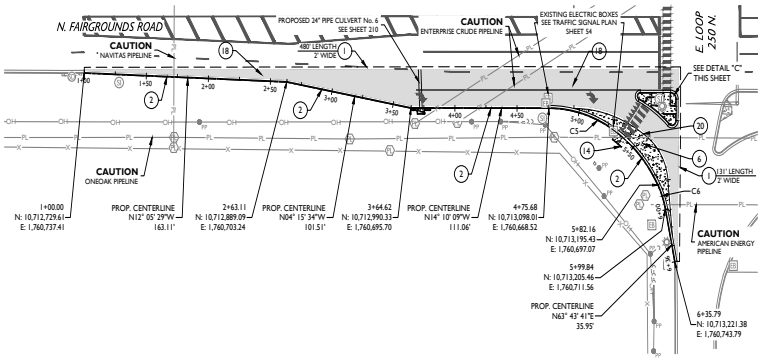
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

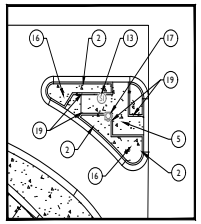
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C231

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\190\19\190070 CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\NGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C231 FAIRGROUNDS PAVING PLAN.DWG





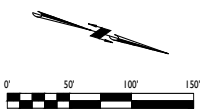
CURVE TABLE					
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1400.00'	410.26'	408.79'	S 05° 49' 32" E	16°47'24"
C2	1450.00'	429.40'	427.84'	S 05° 54' 51" E	16°58'03"
C3	1410.00'	374.62'	373.52'	S 06° 47' 12" E	15°13'22"
C4	1440.00'	382.59'	381.47'	S 06° 47' 12" E	15°13'22"
C5	100.00'	106.48'	101.52'	N 16° 20' 07" E	61°00'31"
C6	60.00'	17.69'	17.62'	N 55° 17' 02" E	16°53'18"

PAVING CONSTRUCTION NOTES

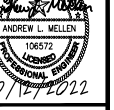
Type ①
1. CONTRACTOR TO SAWCUT AND REMOVE TWO (2) FEET MINIMUM ASPHALT FROM EXISTING CURB AND GUTTER LIP. THE EXISTING ASPHALT PAVEMENT REPLACED IS TO MATCH CURRENT SECTION OF EXISTING ROADWAY. CONTRACTOR IS TO CLEANLY TIE INTO EXISTING CURB. DETERMINATION OF EXACT LOCATION MAY NEED TO BE FIELD VERIFIED BY CONTRACTOR. CONTRACTOR TO NOTIFY ENGINEER OF RECORD OF ANY DAMAGE OR TIE IN PROBLEMS. SEE CITY OF MIDLAND DETAIL No. 224 SHEET C302.
2. CONSTRUCT TYPE "A" STANDARD CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 205 SEE SHEET C301.
3. CONSTRUCT TYPE "C" INVERT CURB AND GUTTER PER CITY OF MIDLAND DETAIL No. 207 SEE SHEET C301.
4. CONTRACTOR TO ADJUST EXISTING MANHOLE RING AND COVER PER CITY OF MIDLAND DETAIL No. 319 AND DETAIL No. 317 SEE SHEET C303.
5. CONSTRUCT 6' WIDE SIDEWALK PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302.
6. INSTALL CONCRETE PAVEMENT - HEAVY DUTY PER DETAIL No. 1 SEE SHEET C304.
7. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "A" SEE SHEET C240.
8. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "B". SEE SHEET C240.
9. N. FAIRGROUNDS ROAD. CONSTRUCT PER ROAD CROSS SECTION "C". SEE SHEET C240.
10. N. FAIRGROUNDS ROAD. CONSTRUCT 29' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "D" SEE SHEET C240.
11. N. FAIRGROUNDS ROAD. CONSTRUCT 36' WIDE SUPER ELEVATED ROAD SECTION PER CROSS SECTION "E" SEE SHEET C240.
12. CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY FOR THE REMOVAL AND RELOCATION OF EXISTING POWER POLE, GUY WIRE, AND STREET LIGHT.
13. CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR THE REMOVAL AND RELOCATION OF EXISTING STREET SIGN.
14. CONSTRUCT PARALLEL CURB RAMP PER CITY OF MIDLAND DETAIL No. 230 SEE SHEET C302 AND DETAIL No. 233 SEE SHEET C303.
15. CONSTRUCT PERPENDICULAR RAMP PER CITY OF MIDLAND DETAIL No. 232 AND DETAIL No. 233 SEE SHEET C303.
16. CONSTRUCT STAMPED-CONCRETE ISLAND MEDIAN PER CITY OF MIDLAND DETAIL No. 225 SEE SHEET C302. COLOR TO BE BUTTERFIELD U31 WEATHERED TERRA COTTA.
17. CAUTION: CONTRACTOR TO PROVIDE PROTECTION IN PLACE TO EXISTING TRAFFIC LIGHT POLE AND EXISTING PEDESTRIAN CROSSING SIGNAL.
18. N. FAIRGROUNDS ROAD SOUTH OF LOOP 250. CONSTRUCT PER ROAD CROSS SECTION "F". SEE SHEET C240.
19. CONSTRUCT 6' STAND UP CURB PER DETAIL No. 3 SEE SHEET C304.
20. CONSTRUCT RIBBON CURB PER DETAIL No. 2 SEE SHEET C304.
21. INSTALL 422 L.F. OF PROPOSED CONCRETE SAFETY BARRIER PRECAST BARRIER TYPE I TxDOT DETAIL CSB(1)-10 SEE SHEET C308.

LEGEND

- TC — DENOTES EXISTING TRAFFIC CONTROL BOX
- EB — DENOTES EXISTING ELECTRIC BOX
- EM — DENOTES EXISTING ELECTRIC METER
- ■ — DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- PP — DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- MH — DENOTES EXISTING MANHOLE
- PM — DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- X — DENOTES EXISTING FENCE
- PL — DENOTES EXISTING UNDERGROUND PIPELINE
- OH — DENOTES EXISTING OVERHEAD ELECTRIC LINE
- UE — DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- FO — DENOTES EXISTING FIBER OPTIC LINE
- 15WW — DENOTES EXISTING 15" WASTEWATER LINE
- 16W — DENOTES EXISTING 16" WATER MAIN LINE







Know what's below. Call before you dig.

BY	DATE	REVISIONS
MAL	10/12/22	CONTRACTOR QUESTION REVISIONS 10/12/2022
ALM		

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

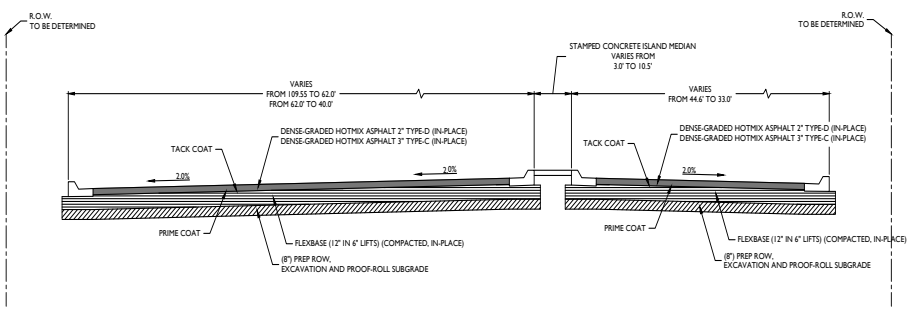
MIDLAND Engineering Services

N. FAIRGROUNDS ROAD PAVING PLAN

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

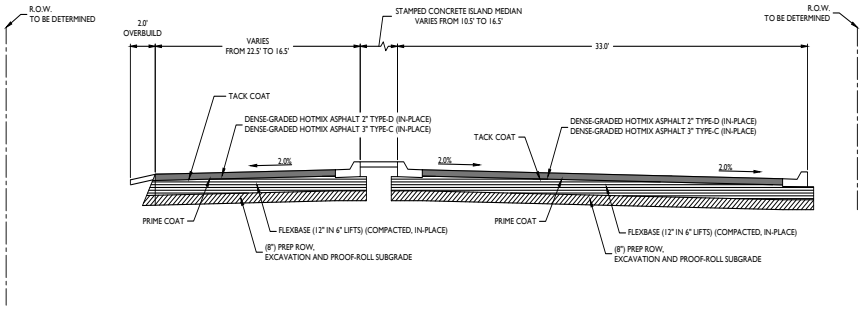
SHEET C232

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C232 FAIRGROUNDS PAVING PLAN.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED



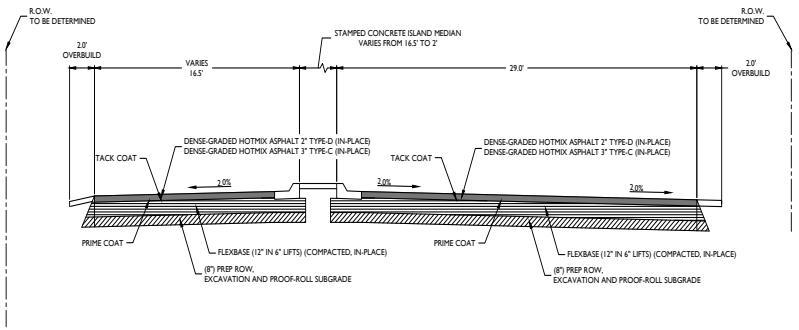
A **N. FAIRGROUNDS ROAD CROSS SECTION A** **SCALE: 1" = 5'**

FROM STA. 0+86.63 TO STA. 4+00.27



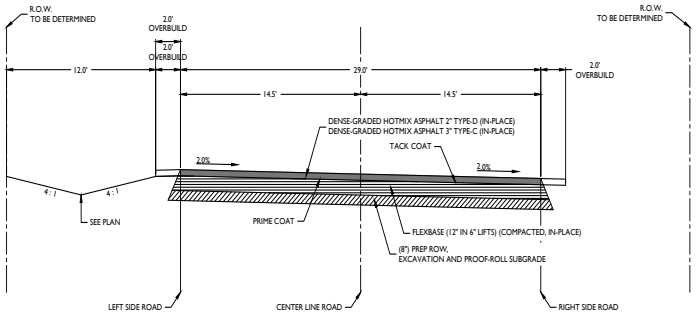
B **N. FAIRGROUNDS ROAD CROSS SECTION B** **SCALE: 1" = 5'**

FROM STA. 4+00.27 TO STA. 4+89.75



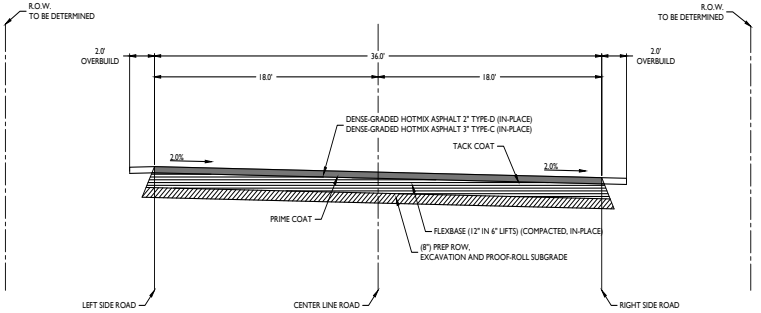
C **N. FAIRGROUNDS ROAD CROSS SECTION C** **SCALE: 1" = 5'**

FROM STA. 4+89.75 TO STA. 8+24.34



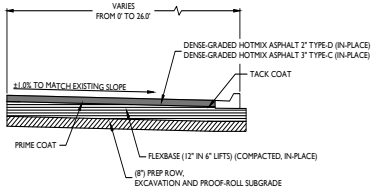
D **N. FAIRGROUNDS ROAD CROSS SECTION D** **SCALE: 1" = 5'**

FROM STA. 8+24.34 TO STA. 47+27.36



E **N. FAIRGROUNDS ROAD CROSS SECTION E** **SCALE: 1" = 5'**

FROM STA. 47+27.36 TO STA. 49+50



F **N. FAIRGROUNDS ROAD CROSS SECTION F** **SCALE: 1" = 5'**

FROM STA. 1+00 TO STA. 6+35.79 (SOUTH OF LOOP 250)

CITY OF MIDLAND
APPROVED
10/14/2022
ENGINEERING

APPROVAL TO CONSTRUCT CITY INFRASTRUCTURE

The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS proceeding to plan submittal are valid for a period of one year from the date of issuance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction shall not be valid. The issuance of this APPROVAL based on the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services Department is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each. The infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

PAVING SECTIONS

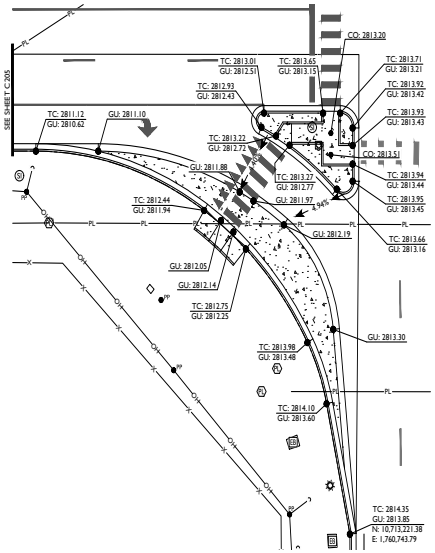
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

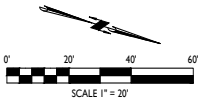
STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

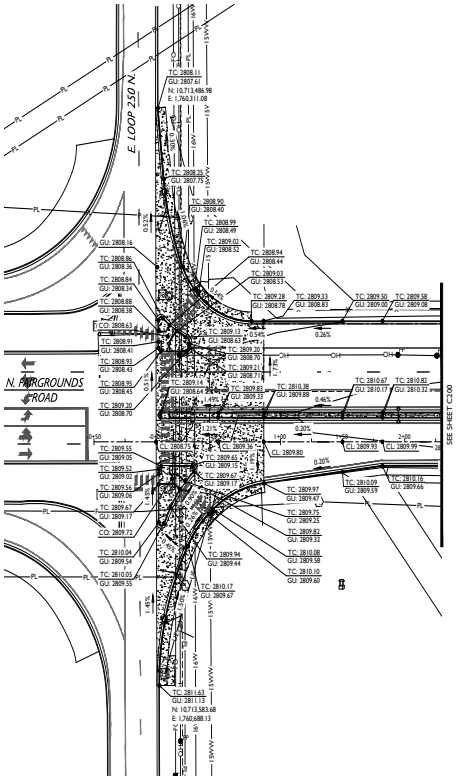
SHEET
C240

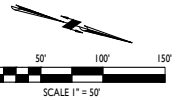
© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\190\19\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C240 PAVING SECTIONS.DWG









LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE
- TC DENOTES TOP OF CURB GRADE
- GU DENOTES GUTTER GRADE
- CL DENOTES CENTER LINE GRADE
- ASP DENOTES ASPHALT GRADE
- FL DENOTES FLOW OF SWALE GRADE
- PC DENOTES POINT OF CURVATURE
- PT DENOTES POINT OF TANGENCY
- ASP DENOTES ASPHALT GRADE
- INV DENOTES INVERT FLOW OF PIPE
- TOP DENOTES TOP OF PIPE GRADE
- CO DENOTES CONCRETE GRADE

APPROVED
10/14/2022
CITY OF MIDLAND ENGINEERING

Know what's below. Call before you dig.

REVISIONS	BY	APPR.	DATE
1 CONTRACTOR QUESTION REVISIONS 10/17/2022	MAL	ALM	10/17/22

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

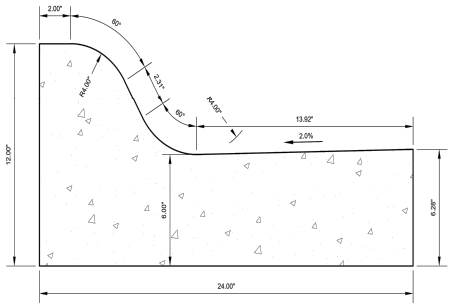
PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C300

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C300 PAVING DETAILS.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED

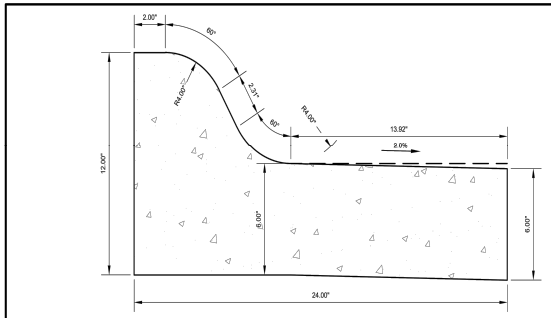


NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SEAL CONCRETE JOINT AT FACE OF CURB WHEN ADJACENT TO CONCRETE PAVEMENT AND NOT INTEGRAL WITH THAT PAVEMENT.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	TYPE A STANDARD CURB AND GUTTER		205
APPROVED: MCC			



NOTES:

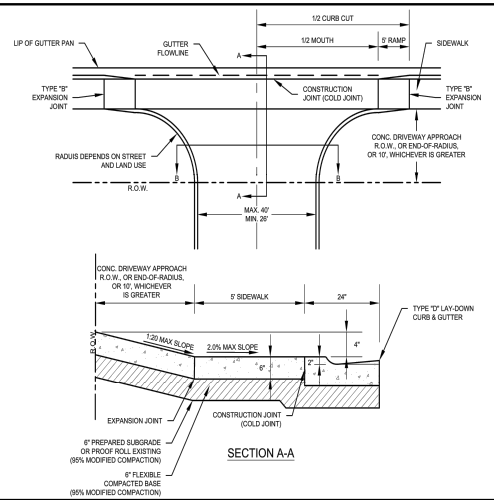
1. CONCRETE WILL BE THE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SEAL CONCRETE JOINT AT FACE OF CURB WHEN ADJACENT TO CONCRETE PAVEMENT AND NOT INTEGRAL WITH THAT PAVEMENT.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	TYPE C INVERT CURB AND GUTTER		207
APPROVED: MCC			

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

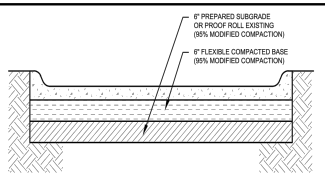
APPROVAL IS CONDITIONAL ONLY. The issuance or granting of this APPROVAL shall not be construed to be a permit for, or an approval of, any violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. The issuance of this APPROVAL shall not prevent the City Engineer from thereafter requiring the correction of errors in the construction drawings and other data submitted to the Engineering Services Department and not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction while the work is being done, or from revoking any APPROVAL issued by the Engineering Services Department or authorized to stop construction or use of infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.



SECTION A-A

MIDLAND Engineering Services

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	MULTI-FAMILY & COMMERCIAL DRIVEWAY		221(A)
APPROVED: MCC			



SECTION B-B

NOTES:

1. REMOVE AND REPLACE EXISTING CURB AND GUTTER TO NEAREST JOINT IF LESS THAN 4' SECTION OF EXISTING CURB AND GUTTER REMAINS AFTER DRIVEWAY APPROACH PLACED.
2. LANDING MAY BE CLOSER THAN 5' FROM PROPERTY LINE WITH ADJOINING PROPERTY OWNER'S CONSENT. CONSENT FORMS ARE AVAILABLE IN ENGINEERING SERVICES. APPROVAL FROM ADJOINING PROPERTY OWNER DOES NOT GUARANTEE ENGINEERING SERVICES APPROVAL.
3. THIS DETAIL ONLY APPLIES WHEN ADJACENT PROPERTY IS NOT AN ALLEY. A MINIMUM 10' IS REQUIRED BETWEEN DRIVEWAY CURB OPENING AND ALLEY PAVING.
4. MATCH GUTTER/ FLOWLINE ELEVATION ON EACH END OF DRIVEWAY APPROACH. WATER MUST FLOW IN GUTTER ACROSS THE DRIVEWAY APPROACH.
5. THE CITY ENGINEER OR TRAFFIC ENGINEER MAY APPROVE WIDER OPENINGS FOR COMMERCIAL DRIVES TO ACCOMMODATE DIVIDED ENTRY/EXIT AND ANGLED DRIVES OR HIGH VOLUME, HIGH SPEED STREETS.
6. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
7. CONTRACTOR, AT THEIR OPTION, MAY ELECT TO PLACE 8" CONCRETE PAVEMENT WITHOUT FLEXIBLE COMPACTED BASE RATHER THAN 6" CONCRETE PAVEMENT WITH COMPACTED FLEXIBLE BASE.
8. OVER-EXCAVATION BELOW THE GRADE REQUIRED TO BE CORRECTED BY PLACING EXTRA CONCRETE AT THE TIME THE DRIVEWAY IS PLACED OR BY PLACING ADDITIONAL CITY STANDARD FLEXIBLE COMPACTED BASE.
9. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
10. SIDEWALKS AND RAMPS TO HAVE COURSE BROOM FINISH.
11. SEAL ALL CONCRETE JOINTS.
12. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
13. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	MULTI-FAMILY & COMMERCIAL DRIVEWAY		221(B)
APPROVED: MCC			

Know what's below. Call before you dig.

BY	APPR.	DATE
MAL	ALH	10/17/22

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MID
CHECKED BY: ALH
APPROVED BY: ALH
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

PAVING DETAILS

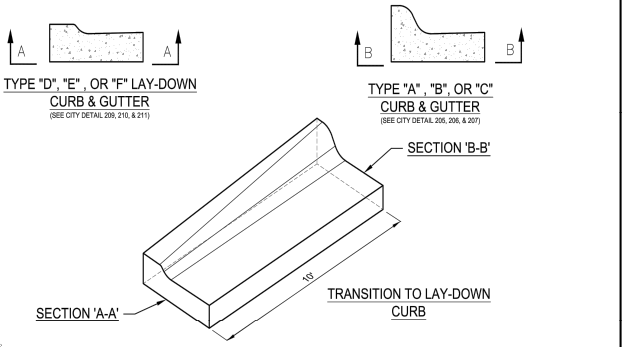
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET C301

F:\301 PI\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\ENGR\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070_C301 PAVING DETAILS.DWG

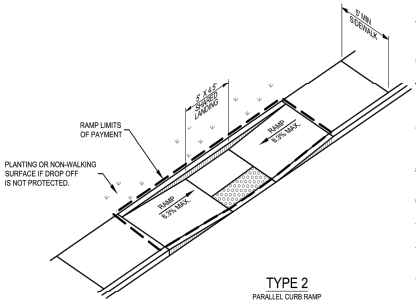
© COPYRIGHT 2014 ALL RIGHTS RESERVED



NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SEAL CONCRETE JOINT AT FACE OF CURB WHEN ADJACENT TO CONCRETE PAVEMENT AND NOT INTEGRAL WITH THAT PAVEMENT.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
TRANSITION TO LAY-DOWN CURB			DETAIL: 208



TYPE 2
PARALLEL CURB RAMP

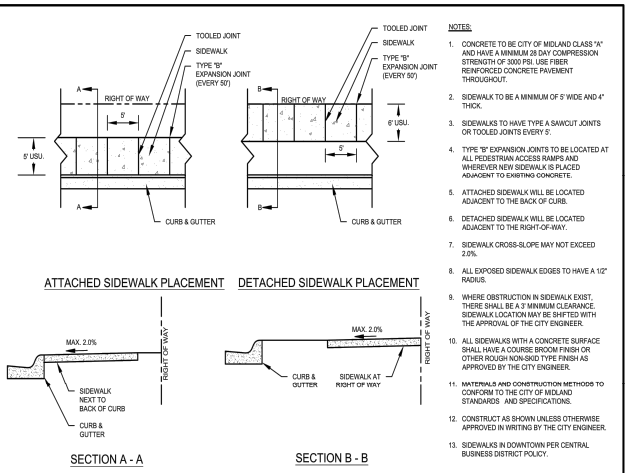
CURB RAMP NOTES:

1. ADJUST CURB RAMP LOCATION AND OR TYPE SO THAT NO OBSTRUCTION IS LOCATED WITHIN THE LANDING AREA.
2. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED.
3. LANDINGS SHALL BE 5'X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION. WHERE OBSTRUCTIONS EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE IN WIDTH AND LENGTH OF THE LANDING.
4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND TO THE ENTIRE OUTSIDE OF THE PARALLEL VEHICULAR TRAVEL PATH.
5. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
6. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP, EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
8. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS,OR AS DIRECTED BY THE ENGINEER.
9. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
10. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
11. ALL RAMPS AND LANDINGS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE ENGINEER.
12. PLACE 6" OF CONCRETE IN RAMPS, LANDINGS, AND FLARES THAT ARE LOCATED AT THE RETURNS ADJACENT TO THE BACK OF CURB OF ARTERIAL STREETS AND COMMERCIAL SITES.

GENERAL NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
PARALLEL CURB RAMP			DETAIL: 230



NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" AND HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SIDEWALK TO BE A MINIMUM OF 5' WIDE AND 4" THICK.
3. SIDEWALKS TO HAVE TYPE A SAWCUT JOINTS OR TOOLED JOINTS EVERY 5'.
4. TYPE "B" EXPANSION JOINTS TO BE LOCATED AT ALL PEDESTRIAN ACCESS RAMPS AND WHEREVER NEW SIDEWALK IS PLACED ADJACENT TO EXISTING CONCRETE.
5. ATTACHED SIDEWALK WILL BE LOCATED ADJACENT TO THE BACK OF CURB.
6. DETACHED SIDEWALK WILL BE LOCATED ADJACENT TO THE RIGHT-OF-WAY.
7. SIDEWALK CROSS-SLOPE MAY NOT EXCEED 2.0%.
8. ALL EXPOSED SIDEWALK EDGES TO HAVE A 1/2" RADIUS.
9. WHERE OBSTRUCTION IN SIDEWALK EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE. SIDEWALK LOCATION MAY BE SHIFTED WITH THE APPROVAL OF THE CITY ENGINEER.
10. ALL SIDEWALKS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE CITY ENGINEER.
11. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
12. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.
13. SIDEWALKS IN DOWNTOWN PER CENTRAL BUSINESS DISTRICT POLICY.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
STANDARD SIDEWALK			DETAIL: 225

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

AUTHORIZATION TO CONSTRUCT CITY INFRASTRUCTURE
The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS presuming to give authority to violate or cancel the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction are null and void. The Engineering Services Department shall not accept for Director of Engineering Services Department have expiring the issuance of errors in the construction drawings and other data submitted to the Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction drawings and other data submitted to the Engineering Services Department or prevent the Director of Engineering Services Department from requiring the correction of errors in the infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\19070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\NEW\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\19070_C302 PAVING DETAILS.DWG

Know what's below. Call before you dig.

REVISIONS	BY	DATE
1 CONTRACTOR QUESTION REVISIONS 10/ 1/2022	MAL	10/ 1/22
	APPR.	ALH

DRAWN BY: MJD
CHECKED BY: ALH
APPROVED BY: ALH
DATE: 04/13/2022
JOB: 190070

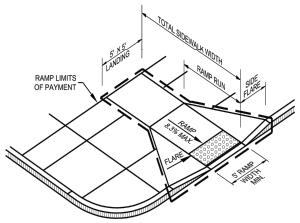
MIDLAND Engineering Services

PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET C302



TYPE 1

PERPENDICULAR CURB RAMP

CURB RAMP NOTES:

1. ADJUST CURB RAMP LOCATION AND OR TYPE SO THAT NO OBSTRUCTION IS LOCATED WITHIN THE LANDING AREA.
2. ALL SLOPES ARE MAXIMUM ALLOWABLE. THE LEAST POSSIBLE SLOPE THAT WILL STILL DRAIN PROPERLY SHOULD BE USED.
3. LANDINGS SHALL BE 5'X 5' MINIMUM WITH A MAXIMUM 2% SLOPE IN ANY DIRECTION. WHERE OBSTRUCTIONS EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE IN WIDTH AND LENGTH OF THE LANDING.
4. MANEUVERING SPACE AT THE BOTTOM OF CURB RAMPS SHALL BE A MINIMUM OF 4'X4' WHOLLY CONTAINED WITHIN THE CROSSWALK AND TO THE ENTIRE OUTSIDE OF THE PARALLEL VEHICULAR TRAVEL PATH.
5. MAXIMUM ALLOWABLE CROSS SLOPE ON SIDEWALK AND CURB RAMP SURFACES IS 2%.
6. CURB RAMPS WITH RETURNED CURBS MAY BE USED ONLY WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. EITHER BECAUSE THE ADJACENT SURFACE IS PLANTING OR OTHER NON-WALKING SURFACE OR BECAUSE THE SIDE APPROACH IS SUBSTANTIALLY OBSTRUCTED. OTHERWISE, PROVIDE FLARED SIDES.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, LIGHT REFLECTIVE VALUE AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND 16 TAC 68.102.
8. AT INTERSECTIONS WHERE CROSSWALK MARKINGS ARE NOT REQUIRED, CURB RAMPS SHALL BE ALIGNED WITH THEORETICAL CROSSWALKS,OR AS DIRECTED BY THE ENGINEER.
9. PROVIDE A SMOOTH TRANSITION WHERE THE CURB RAMPS CONNECT TO THE STREET.
10. FLARE SLOPE SHALL NOT EXCEED 10% MEASURED ALONG CURB LINE.
11. ALL RAMPS AND LANDINGS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE ENGINEER.
12. PLACE 6" OF CONCRETE IN RAMPS, LANDINGS, AND FLARES THAT ARE LOCATED AT THE RETURNS ADJACENT TO THE BACK OF CURB OF ARTERIAL STREETS AND COMMERCIAL SITES.

GENERAL NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.

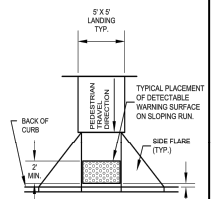
DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	PERPENDICULAR CURB RAMP		232
APPROVED: MCC			

DETECTABLE WARNING SURFACE NOTES:

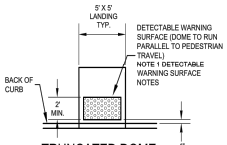
1. DETECTABLE WARNING SURFACE SUCH AS ARMOR-TILE ADA SOUND AMPLIFYING DETECTABLE/TACTILE WARNING SURFACE TILE OR EQUAL AND APPROVED BY THE ENGINEER AS MEETING ALL REQUIREMENTS OF ASTM C-936, C-33.
2. CURB RAMPS MUST CONTAIN A DETECTABLE WARNING SURFACE THAT CONSISTS OF RAISED TRUNCATED DOMES COMPLYING WITH SECTION 7.05 DETACHABLE WARNINGS OF THE TEXAS ACCESSIBILITY STANDARDS (TAS). THE SURFACE MUST CONTRAST VISUALLY WITH ADJOINING SURFACES, INCLUDING SIDE FLARES. FURNISH DARK BROWN OR DARK RED DETECTABLE WARNING SURFACE ADJACENT TO UNCOLORED CONCRETE,UNLESS SPECIFIED ELSEWHERE IN THE PLANS.
3. DETECTABLE WARNING SURFACES MUST BE SLIP RESISTANT AND NOT ALLOW WATER TO ACCUMULATE.
4. ALIGN TRUNCATED DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL WHEN ENTERING THE STREET.
5. SHADED AREAS INDICATE THE APPROXIMATE LOCATION FOR THE DETECTABLE WARNING SURFACE FOR EACH CURB RAMP TYPE.
6. DETECTABLE WARNING SURFACES SHALL BE A MINIMUM OF 24" IN DEPTH IN THE DIRECTION OF PEDESTRIAN TRAVEL.
7. DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS A MINIMUM OF 8" AND A MAXIMUM OF 10" FROM THE EXTENSION OF THE FACE OF CURB. DETECTABLE WARNING SURFACES MAY BE CURVED ALONG THE CORNER RADIUS.
8. SINGLE TILE PLATES COLONIAL RED COLOR.

GENERAL NOTES:

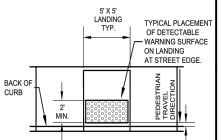
1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" WITH A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE THROUGHOUT.
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE DIRECTED BY ADA STANDARDS AND RESOURCES.



PERPENDICULAR CURB RAMP

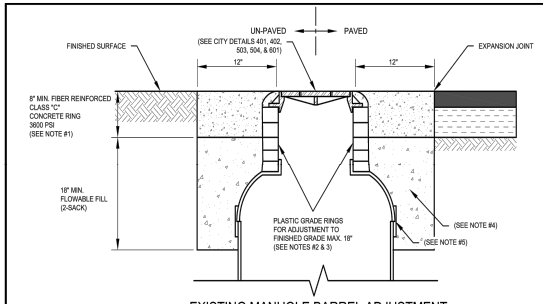


TRUNCATED DOME PATTERN



PARALLEL CURB RAMP

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	DETECTABLE WARNING SURFACE		233
APPROVED: MCC			

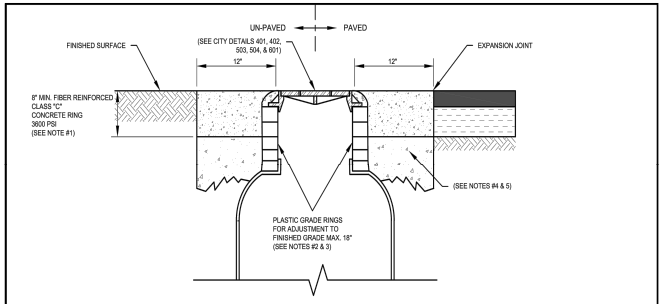


EXISTING MANHOLE BARREL ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING, 3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION, AND FILL TO FINISHED BASE ELEVATION WITH FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT).
5. MANUFACTURED WATERTIGHT CONNECTOR, CORE DRILL AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	EXISTING MANHOLE BARREL ADJUSTMENT		317
APPROVED: MCC			



EXISTING MANHOLE RING & COVER ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING, 3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION.
5. FILL ANY OVER-EXCAVATION WITH FLOWABLE FILL 2-SACK (2-SACK = 188 LBS/CY, PORTLAND CEMENT).
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	EXISTING MANHOLE RING & COVER ADJUSTMENT		319
APPROVED: MCC			

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

AUTHORIZATION TO CONSTRUCT CITY INFRASTRUCTURE

The issuance or granting of this approval shall not be construed to be an authorization for any violation of any of the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other reference or adopted policy of the City of Midland jurisdiction. Permission is not given hereby to violate or cancel the provisions of of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other reference or adopted policy of the City of Midland jurisdiction, and shall not be valid. The issuance of this APPROVAL based on the construction drawings and other data submitted to the Engineering Services Department does not prevent the Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services reserves the right to require the correction of errors in infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other reference or adopted policy of the City of Midland jurisdiction.

811 Know what's below. Call before you dig.

BY	DATE
MAL	10 / 1 / 22
ALM	

REVISIONS

1 CONTRACTOR QUESTION REVISIONS 10/1/2022

DRAWN BY: MID
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

PAVING DETAILS

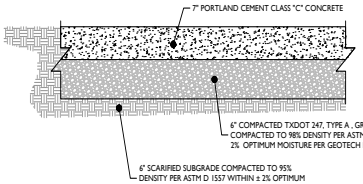
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET
C303

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\90\19\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\WORK\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070_C303 PAVING DETAILS.DWG

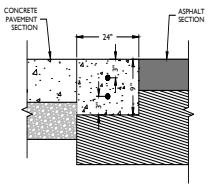


NOTES:

- WHERE NOT SPECIFIED ELSEWHERE, CONCRETE IS TO HAVE THE FOLLOWING PROPERTIES;
  - 3,600 PSI COMPRESSIVE STRENGTH @ 28 DAYS.
  - COARSE AGGREGATE IS TO BE ASTM C33, GRADE NO. 67 COMPLIANT.
  - CEMENT IS TO BE ASTM C150 TYPE I OR II COMPLIANT.
- THE MAXIMUM CONTROL JOINT SPACING SHOULD BE HELD AT A RANGE FROM 24 TO 36 TIMES THE SLAB THICKNESS, WITH A MAXIMUM LENGTH TO WIDTH RATIO OF 1.5.
- REINFORCE WITH #6 BARS @ 18" O.C.E.W. JOINT LAYOUT DESIGN IS TYPICALLY PROVIDED BY THE CONTRACTOR. USE FIBER REINFORCEMENT THROUGHOUT.
- CONCRETE IS TO BE PLACED IN ACCORDANCE WITH TXDOT ITEM 421.
- CITY STANDARD TYPE "A" SAW-CUT JOINTS ARE TO BE LOCATED THROUGHOUT AT EQUIDISTANT SPACING, , TYPICALLY NO LESS THAN 10' X 10' AND NO GREATER THAN 15' X 15', UNLESS OTHERWISE NOTED ON CONSTRUCTION DRAWINGS. SEAL ALL CONCRETE JOINTS PER CITY STANDARDS.

1 CONCRETE PAVEMENT - HEAVY DUTY

N.T.S.

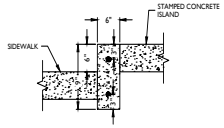


NOTES:

- WHERE NOT SPECIFIED ELSEWHERE, CONCRETE IS TO HAVE THE FOLLOWING PROPERTIES;
  - 3,600 PSI COMPRESSIVE STRENGTH @ 28 DAYS.
  - REINFORCE WITH FIBERMESH (TYP) SYNTHETIC FIBER REINFORCEMENT - FIBERMESH 150 MATERIAL: 100 PERCENT VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS, CONTAINING NO REPROCESSED OLEFIN MATERIALS. CONFORMANCE: ASTM C 1116, TYPE III. APPLICATION RATE: 1.5 POUNDS PER CUBIC YARD OF CONCRETE (OR APPROVED EQUAL).
  - COARSE AGGREGATE IS TO BE ASTM C33, GRADE NO. 67 COMPLIANT.
  - CEMENT IS TO BE ASTM C150 TYPE I OR II COMPLIANT.
- REINFORCE AS SHOWN. REINFORCEMENT IS TO COMPLY WITH ASTM A615 AND HAVE A MINIMUM TENSILE YIELD STRENGTH OF 60,000 PSI.
- BACKFILLING AGAINST CURB IS NOT TO BE PERMITTED UNTIL CONCRETE HAS REACHED ITS FULL 28 DAY STRENGTH. CARE IS TO BE TAKEN TO AVOID EXERTING LARGE IMPACT FORCE ON THE CURB.
- PROVIDE 3 INCH CLEAR CONCRETE COVER AT ALL REINFORCEMENT STEEL, TYPICAL.
- BASE AND COMPACTED SUBGRADE ARE TO EXTEND A MINIMUM OF 4" BEYOND THE BACK OF CURB.

2 RIBBON CURB DETAIL

N.T.S.

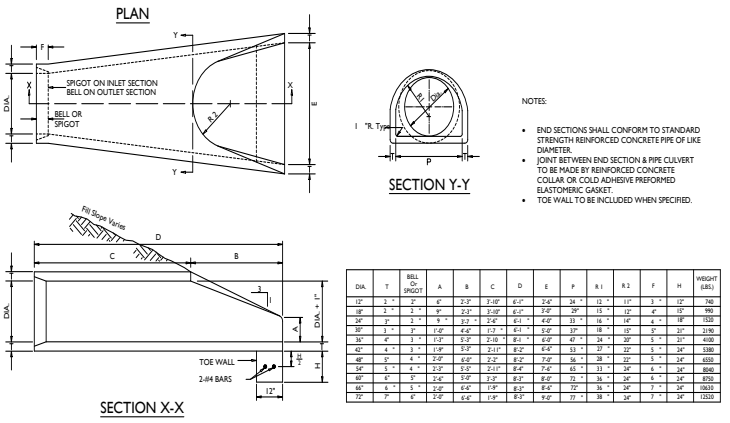


NOTES:

- WHERE NOT SPECIFIED ELSEWHERE, CONCRETE IS TO HAVE THE FOLLOWING PROPERTIES;
  - 3,600 PSI COMPRESSIVE STRENGTH @ 28 DAYS.
  - REINFORCE WITH FIBERMESH (TYP) SYNTHETIC FIBER REINFORCEMENT - FIBERMESH 150 MATERIAL: 100 PERCENT VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS, CONTAINING NO REPROCESSED OLEFIN MATERIALS. CONFORMANCE: ASTM C 1116, TYPE III. APPLICATION RATE: 1.5 POUNDS PER CUBIC YARD OF CONCRETE (OR APPROVED EQUAL).
  - COARSE AGGREGATE IS TO BE ASTM C33, GRADE NO. 67 COMPLIANT.
  - CEMENT IS TO BE ASTM C150 TYPE I OR II COMPLIANT.
- REINFORCE AS SHOWN. REINFORCEMENT IS TO COMPLY WITH ASTM A615 AND HAVE A MINIMUM TENSILE YIELD STRENGTH OF 60,000 PSI.
- BACKFILLING AGAINST CURB IS NOT TO BE PERMITTED UNTIL CONCRETE HAS REACHED ITS FULL 28 DAY STRENGTH. CARE IS TO BE TAKEN TO AVOID EXERTING LARGE IMPACT FORCE ON THE CURB.
- PROVIDE 3 INCH CLEAR CONCRETE COVER AT ALL REINFORCEMENT STEEL, TYPICAL.
- BASE AND COMPACTED SUBGRADE ARE TO EXTEND A MINIMUM OF 4" BEYOND THE BACK OF CURB.

3 STAND UP CURB DETAIL

N.T.S.



DIA.	T	BELL to SPIGOT	A	B	C	D	E	P	R1	R2	F	H	WEIGHT (LBS.)
12"	2 "	2"	6"	2'-3"	3'-10"	6'-1"	2'-6"	24 "	12 "	11"	3 "	12"	740
18"	2 "	2 "	9"	2'-3"	3'-10"	6'-1"	3'-0"	28"	15 "	12"	4"	15"	990
24"	2"	2 "	9 "	2'-3 "	3'-8"	6'-1 "	4'-0"	33 "	16 "	14"	6 "	18"	1560
30"	3 "	3"	1'-0"	4'-6"	1'-3 "	6'-1 "	5'-0"	37"	18 "	15"	5"	21"	2190
36"	4"	3 "	1'-3"	5'-3"	2'-10 "	8'-2 "	6'-0"	47 "	24 "	20"	5 "	21"	4030
42"	4 "	3 "	1'-9"	5'-3"	2'-11"	8'-2"	6'-8"	53 "	27 "	22"	5 "	24"	5380
48"	5"	4 "	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	56 "	28 "	22"	5 "	24"	6550
54"	5 "	4 "	2'-2"	5'-5"	2'-11"	8'-4"	7'-6"	65 "	33 "	24"	6 "	24"	8040
60"	6"	5"	2'-6"	5'-0"	3'-2"	8'-5"	8'-0"	72 "	36 "	24"	6 "	24"	8750
66"	6 "	5 "	2'-0"	6'-6"	1'-9"	8'-3"	8'-6"	72"	36 "	24"	7 "	24"	10630
72"	7"	6"	2'-0"	6'-6"	1'-9"	8'-3"	9'-0"	77 "	38 "	24"	7 "	24"	12520

NOTES:

- END SECTIONS SHALL CONFORM TO STANDARD STRENGTH REINFORCED CONCRETE PIPE OF LIKE DIAMETER.
- JOINT BETWEEN END SECTION & PIPE CULVERT TO BE MADE BY REINFORCED CONCRETE COLLAR OR COLD ADHESIVE PREFORMED ELASTOMERIC GASKET.
- TOE WALL TO BE INCLUDED WHEN SPECIFIED.

4 FLARED END TREATMENT

N.T.S.

APPROVED
CITY OF MIDLAND
ENGINEERING
10/14/2022
APPROVED for GENERAL CITY REQUIREMENTS
The issuance or granting of this APPROVAL shall not be construed to be a permit for, or an approval of, any violation of any provision of the City's codes or laws. The following, or the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVAL assuming no plan conformity to codes or errors in the provisions of the City Codes, or any City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVAL shall not be valid. The issuance of this APPROVAL based on the plans, specifications and other data shall not prevent the Director of Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the plans, specifications and other data. The Director of Engineering Services Department is authorized to stop construction or any of infrastructure where such infrastructure is in violation of the City Codes, or any City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C304 PAVING DETAILS.DWG

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

Δ	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
06/13/2022

SHEET
C304

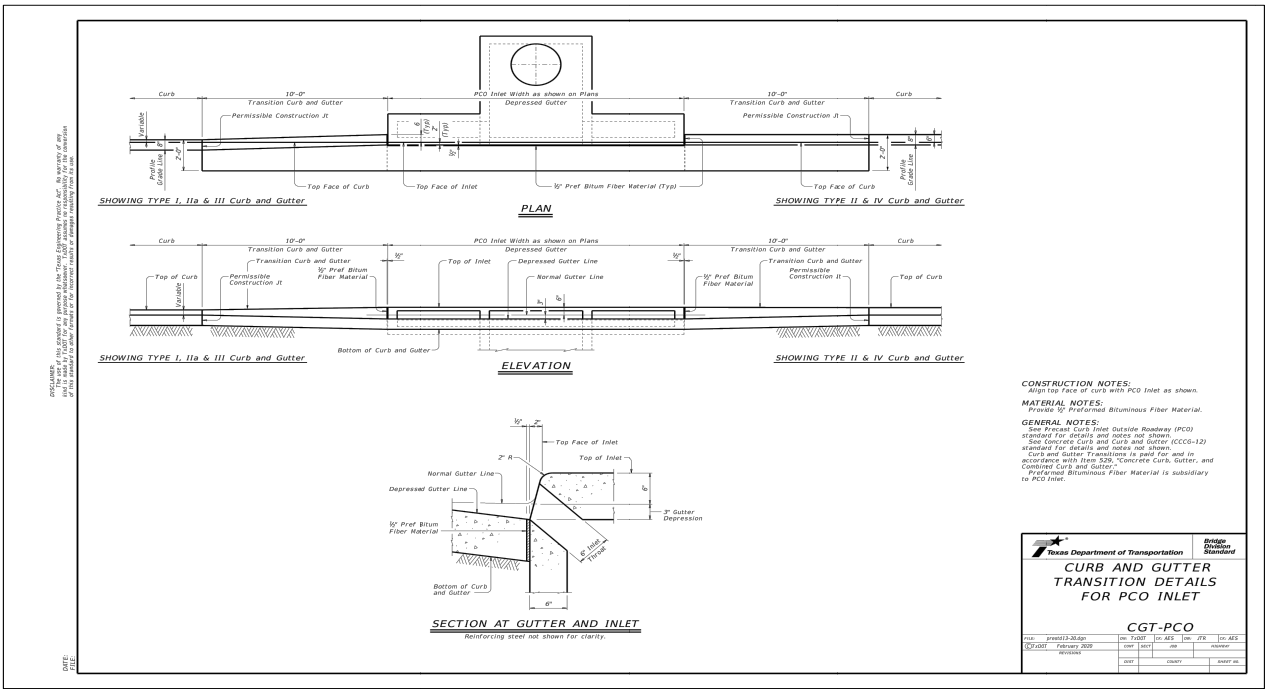
© COPYRIGHT 2016 ALL RIGHTS RESERVED

F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C305 PAVING DETAILS.DWG

PACKET

4.350

November 15, 2022



CONSTRUCTION NOTES:
Align top face of curb with PCO Inlet as shown.

MATERIAL NOTES:
Provide ½" Preformed Bituminous Fiber Material.

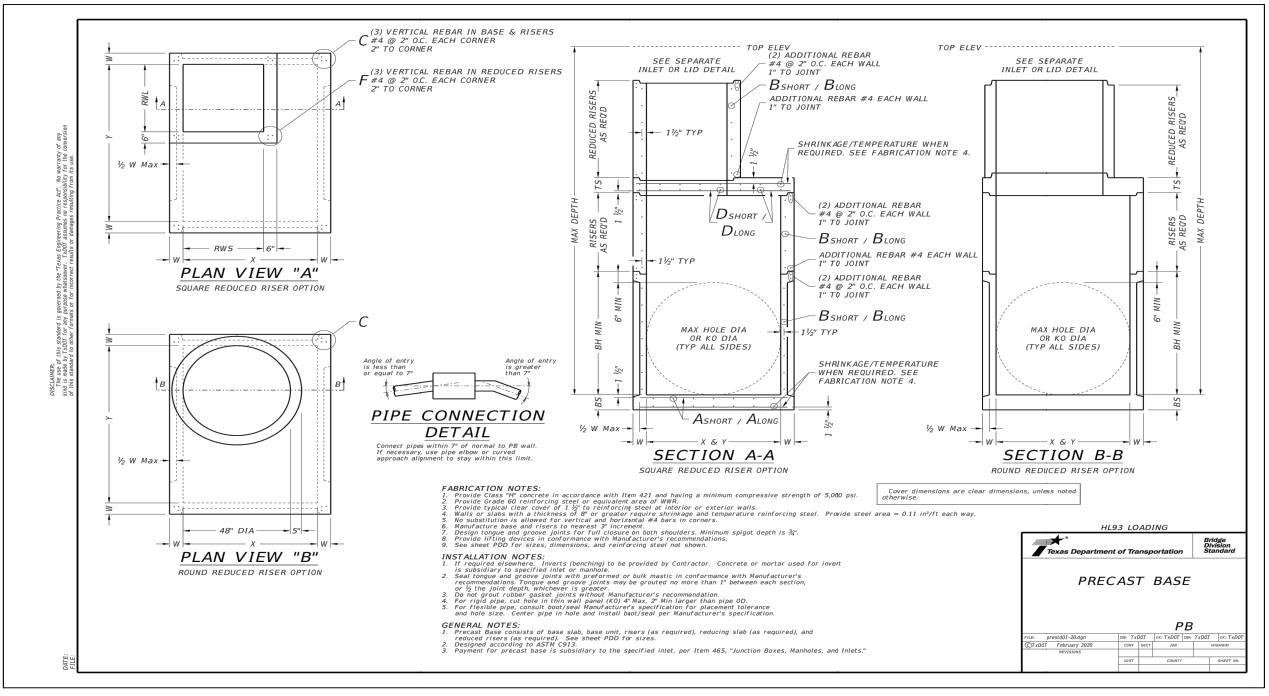
GENERAL NOTES:
See Precast Curb Inlet Outside Roadway (PCO) standard for details and notes not shown.
See Concrete Curb and Curb and Gutter (CCCG-12) standard for details and notes not shown.
Curb and Gutter Transitions is paid for and in accordance with Item 529, "Concrete Curb, Gutter, and Combined Curb and Gutter."
Preformed Bituminous Fiber Material is subsidiary to PCO Inlet.

Texas Department of Transportation — Bridge Division Standard

CURB AND GUTTER TRANSITION DETAILS FOR PCO INLET

CGT-PCO

FILE:	prestd13-20.dgn	DN: TxDOT	CK: AES	DW: JTR	CK: AES
©TxDOT	February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY		SHEET NO.



FABRICATION NOTES:
1. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
2. Provide Grade 60 reinforcing steel or equivalent area of WWR.
3. Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel. Provide steel area = 0.11 in²/ft each way.
4. Walls or slabs with a thickness of 8" or greater require shrinkage and temperature reinforcing steel. Provide steel area = 0.11 in²/ft each way.
5. No substitution is allowed for vertical and horizontal #4 bars in corners.
6. Manufacture base and risers to nearest 2" increment.
7. Design tongue and groove joints for full closure on both shoulders. Minimum spigot depth is ¾".
8. Provide lifting devices in conformance with Manufacturer's recommendations.
9. See sheet PDD for sizes, dimensions, and reinforcing steel not shown.

Cover dimensions are clear dimensions, unless noted otherwise.

INSTALLATION NOTES:
1. If required elsewhere. Inverts (benching) to be provided by Contractor. Concrete or mortar used for invert is subsidiary to specified inlet or manhole.
2. Seal tongue and groove joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or ½ the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.
4. For rigid pipe, cut hole in thin wall panel (KO) 4" Max, 2" Min larger than pipe OD.
5. For flexible pipe, consult boot/seal Manufacturer's specification for placement tolerance and hole size. Center pipe in hole and install boot/seal per Manufacturer's specification.

GENERAL NOTES:
1. Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PDD for sizes.
2. Designed according to ASTM C913.
3. Payment for precast base is subsidiary to the specified inlet, per Item 465, "Junction Boxes, Manholes, and Inlets."

HL93 LOADING

Texas Department of Transportation — Bridge Division Standard

PRECAST BASE

PB

FILE:	prestd31-20.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT	February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY		SHEET NO.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

SHEET
C305

PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

MIDLAND Engineering Services

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB:	190070

Δ	REVISIONS	BY	APPR.	DATE
1	CONTRACTOR QUESTION REVISIONS 10/11/2022	MAL	ALM	10/11/22

Know what's below. Call before you dig. 811

© COPYRIGHT 2016 ALL RIGHTS RESERVED

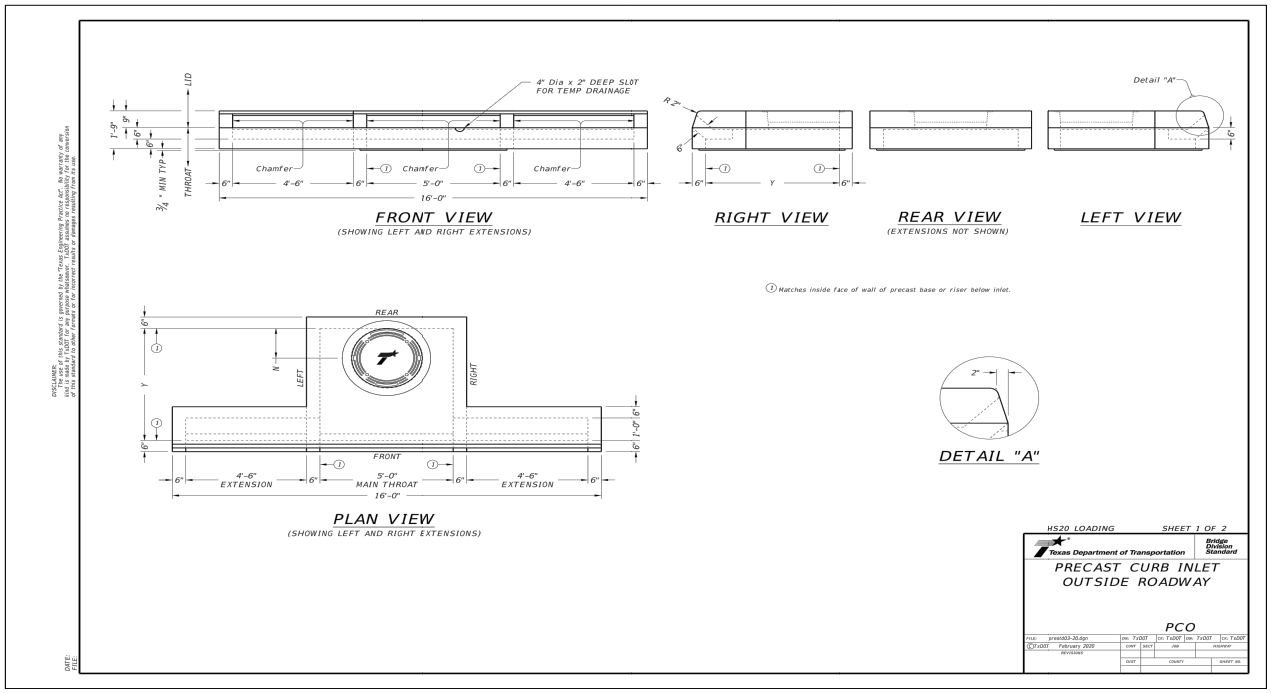
F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C306 PAVING DETAILS.DWG

PACKET

4.351

November 15, 2022





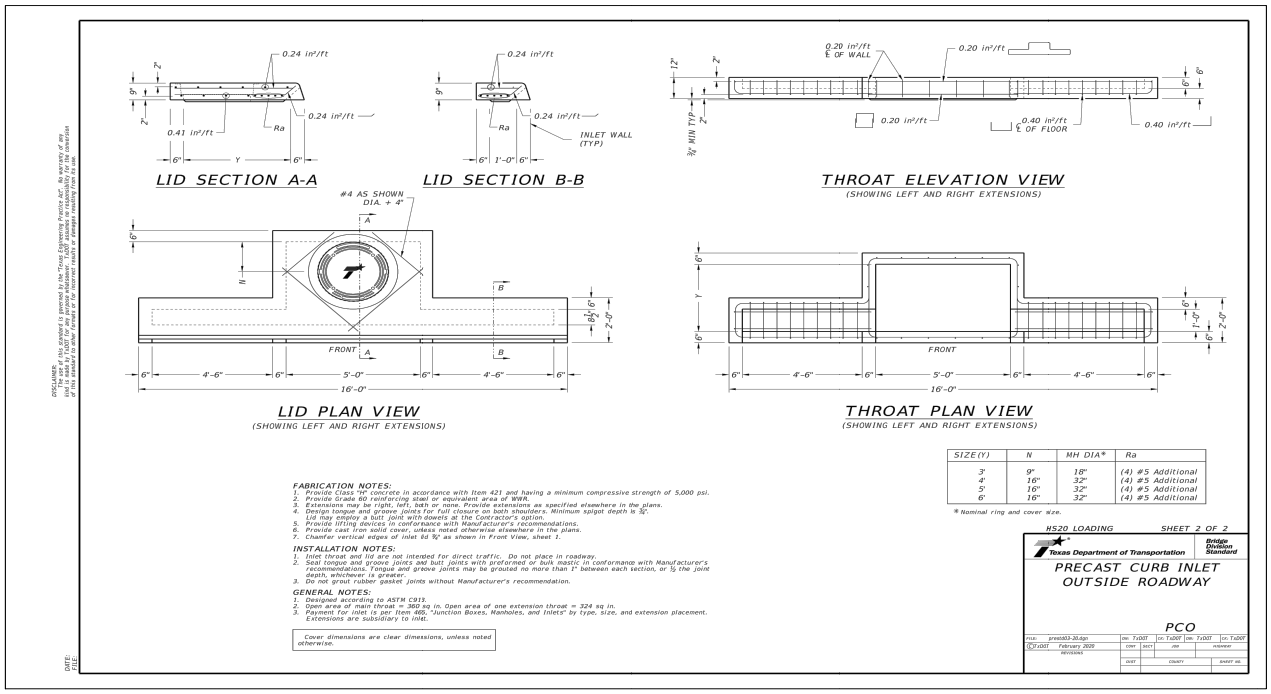
HS20 LOADING SHEET 1 OF 2

Texas Department of Transportation | Bridge Division Standard

PRECAST CURB INLET
OUTSIDE ROADWAY

PCO

FILE:	preset03-20.dgn	dn: TxDOT	ck: TxDOT	dw: TxDOT	ck: TxDOT
©TxDOT	February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY		SHEET NO.



SIZE(Y)	N	MH DIA*	Ra
3'	9"	18"	(4) #5 Additional
4'	16"	32"	(4) #5 Additional
5'	16"	32"	(4) #5 Additional
6'	16"	32"	(4) #5 Additional

* Nominal ring and cover size.

FABRICATION NOTES:
1. Provide Class "H" concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
2. Provide Grade 60 reinforcing steel or equivalent area of WWR.
3. Extensions may be right, left, both or none. Provide extensions as specified elsewhere in the plans.
4. Design tongue and groove joints For full closure on both shoulders. Minimum spigot depth is ¾".
   Lid may employ a butt joint with dowels at the Contractor's option.
5. Provide lifting devices in conformance with Manufacturer's recommendations.
6. Provide cast iron solid cover, unless noted otherwise elsewhere in the plans.
7. Chamfer vertical edges of inlet 6d ½" as shown in Front View, sheet 1.

INSTALLATION NOTES:
1. Inlet throat and lid are not intended for direct traffic. Do not place in roadway.
2. Seal tongue and groove joints and butt joints with preformed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or ½ the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.

GENERAL NOTES:
1. Designed according to ASTM C913.
2. Open area of main throat = 360 sq in, Open area of one extension throat = 324 sq in.
3. Payment for inlet is per Item 465, "Junction Boxes, Manholes, and Inlets" by type, size, and extension placement. Extensions are subsidiary to inlet.

Cover dimensions are clear dimensions, unless noted otherwise.

HS20 LOADING SHEET 2 OF 2

Texas Department of Transportation | Bridge Division Standard

PRECAST CURB INLET
OUTSIDE ROADWAY

PCO

FILE:	preset03-20.dgn	dn: TxDOT	ck: TxDOT	dw: TxDOT	ck: TxDOT
©TxDOT	February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY		SHEET NO.

SHEET
C306



PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

MIDLAND Engineering Services

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB:	190070

Δ	REVISIONS	BY	APPR.	DATE
1	CONTRACTOR QUESTION REVISIONS 10/11/2022	MAL	ALM	10/11/22

Know what's below. Call before you dig. 811

© COPYRIGHT 2016 ALL RIGHTS RESERVED

PACKET

4.352

November 15, 2022

DISCLAIMER:
Use of this standard is granted to the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: 12/21

		HAX DEPTH = 15 ft. to top of BASE SLAB										HAX DEPTH = 25 ft. to top of BASE SLAB												
		Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/P,IB) Reducing Slab (w/PB)				Base Slab			Base Unit or Riser Walls			Below Grade Slab (w/P,IB) Reducing Slab (w/PB)				Min Height (See Grid Note 3)	Max HOLE DIA (See Fab Note 2)	Max K0 DIA (See Fab Note 2)
	Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness	Reduced Riser Size	Short Span Reinf Steel Area	Long Span Reinf Steel Area	Thickness			
	X x Y	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong	TS	Ashort	Along	BS	Bshort	Blong	W	RWSxRWL or ID	Dshort	Dlong	TS	BH MIN	HOLE DIA	K0 DIA
	ft.	in²/ft	in²/ft	in.	in²/ft	in²/ft	in.	ft. **	in²/ft	in²/ft	in.	in²/ft	in²/ft	in.	in²/ft	in²/ft	in.	ft. **	in²/ft	in²/ft	in.	ft.	in.	in.
Precast Junction Box (PJB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	0.37	0.37	9	0.29	0.29	6	0.24	0.24	6	N/A	0.37	0.37	9	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	0.41	0.41	9	0.47	0.47	6	0.38	0.38	6	N/A	0.41	0.41	9	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	N/A	0.48	0.48	9	0.39	0.18	6	0.23	0.59	6	N/A	0.48	0.48	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	N/A	0.42	0.42	9	0.53	0.26	6	0.39	0.59	6	N/A	0.42	0.42	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	N/A	0.43	0.43	9	0.62	0.62	6	0.59	0.59	6	N/A	0.43	0.43	9	5.5	60	60
	5x6	0.27	0.27	9	0.34	0.45	6	N/A	0.48	0.48	9	0.47	0.45	9	0.38	0.54	8	N/A	0.48	0.48	9	5.5	60/72	60/72
	6x6	0.27	0.27	9	0.45	0.45	6	N/A	0.56	0.56	9	0.52	0.52	9	0.54	0.54	8	N/A	0.56	0.56	9	6.5	72	72
	8x8	0.46	0.46	9	0.51	0.51	8	N/A	0.45	0.45	12	0.87	0.87	9	0.59	0.59	10	N/A	0.45	0.45	12	8.5	96	72
Precast Base (PB)	3x3	0.23	0.23	6	0.19	0.19	6	N/A	N/A	N/A	N/A	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	3.5	36	36
	4x4	0.29	0.29	6	0.24	0.24	6	N/A	N/A	N/A	N/A	0.47	0.47	6	0.38	0.38	6	N/A	N/A	N/A	N/A	4.5	48	48
	3x5	0.29	0.18	6	0.19	0.35	6	3x3	0.30	0.24	9	0.39	0.18	6	0.23	0.59	6	3x3	0.40	0.40	9	3.5	36/60	36/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x3	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	3x3	0.46	0.37	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	4x4	0.30	0.30	9	0.53	0.26	6	0.39	0.59	6	4x4	0.39	0.39	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	48"	0.39	0.39	9	0.53	0.26	6	0.39	0.59	6	48"	0.47	0.47	9	4.5	48/60	48/60
	4x5	0.36	0.18	6	0.22	0.34	6	3x5	0.33	0.40	9	0.53	0.26	6	0.39	0.59	6	3x5	0.48	0.48	9	4.5	48/60	48/60
	5x5	0.36	0.36	6	0.34	0.34	6	3x3	0.34	0.34	9	0.62	0.62	6	0.59	0.59	6	3x3	0.53	0.53	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	4x4	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	4x4	0.64	0.64	9	5.5	60	60
	5x5	0.38	0.38	6	0.34	0.34	6	48"	0.36	0.36	9	0.62	0.62	6	0.59	0.59	6	48"	0.64	0.64	9	5.5	60	60
	5x5	0.36	0.36	6	0.34	0.34	6	3x5	0.34	0.40	9	0.62	0.62	6	0.59	0.59	6	3x5	0.53	0.53	9	5.5	60	60
	5x6	0.31	0.31	9	0.34	0.45	6	3x3	0.34	0.34	9	0.47	0.45	9	0.38	0.54	8	3x3	0.61	0.50	9	5.5	60/72	60/72
	5x6	0.27	0.27	9	0.34	0.45	6	4x4	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	4x4	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	48"	0.36	0.45	9	0.47	0.45	9	0.38	0.54	8	48"	0.74	0.57	9	5.5	60/72	60/72
	5x6	0.29	0.29	9	0.34	0.45	6	3x5	0.45	0.45	9	0.47	0.45	9	0.38	0.54	8	3x5	0.61	0.61	9	5.5	60/72	60/72
	6x6	0.29	0.29	9	0.45	0.45	6	3x3	0.41	0.41	9	0.52	0.52	9	0.54	0.54	8	3x3	0.74	0.74	9	6.5	72	72
	6x6	0.27	0.27	9	0.45	0.45	6	4x4	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	4x4	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	48"	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	48"	0.87	0.87	9	6.5	72	72
	6x6	0.29	0.29	9	0.45	0.45	6	3x5	0.45	0.45	9	0.52	0.52	9	0.54	0.54	8	3x5	0.87	0.87	9	6.5	72	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x3	0.61	0.61	12	0.91	0.91	9	0.70	0.70	10	3x3	0.85	0.85	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	4x4	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	4x4	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	48"	0.70	0.70	12	0.87	0.87	9	0.70	0.70	10	48"	1.01	1.01	12	8.5	96	72
	8x8	0.52	0.52	9	0.51	0.51	8	3x5	0.70	0.85	12	0.87	0.87	9	0.70	0.70	10	3x5	1.01	1.01	12	8.5	96	72

** Unless otherwise indicated.

FABRICATION NOTES:
1. Maximum spacing of reinforcement is 8".
2. At manufacturer's option, provide cast or cored holes or thin wall panels (KO) to the maximum diameter shown for each. When no penetration is required, it is acceptable to provide a wall with no sectional reduction.

GENERAL NOTES:
1. Precast Junction Box consists of base slab, base unit, risers (as required), and below grade slab. See sheet PJB for details.
2. Precast Base consists of base slab, base unit, risers (as required), reducing slab (as required), and reduced risers (as required). See sheet PB for details.
3. Min Height shown is for stock base units. Use stock base units whenever practical. Smaller height base units can be used in special installation circumstances, when noted elsewhere in the plans. Absolute minimum height of base units is 2'-6".

HL93 LOADING

Texas Department of Transportation | Bridge Division Standard

DESIGN DATA FOR PRECAST BASE AND JUNCTION BOX

PDD

FILE:	pressd10-20.dgn	dn: TxDOT	ck: TxDOT	dw: TxDOT	ck: TxDOT
©TxDOT	February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY		SHEET NO.



SHEET
C307



PAVING DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

MIDLAND Engineering Services

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB:	190070

Δ	REVISIONS	BY	APPR.	DATE
1	CONTRACTOR QUESTION REVISIONS 10/11/2022	MAL	ALM	10/11/22

Know what's below. Call before you dig. 811

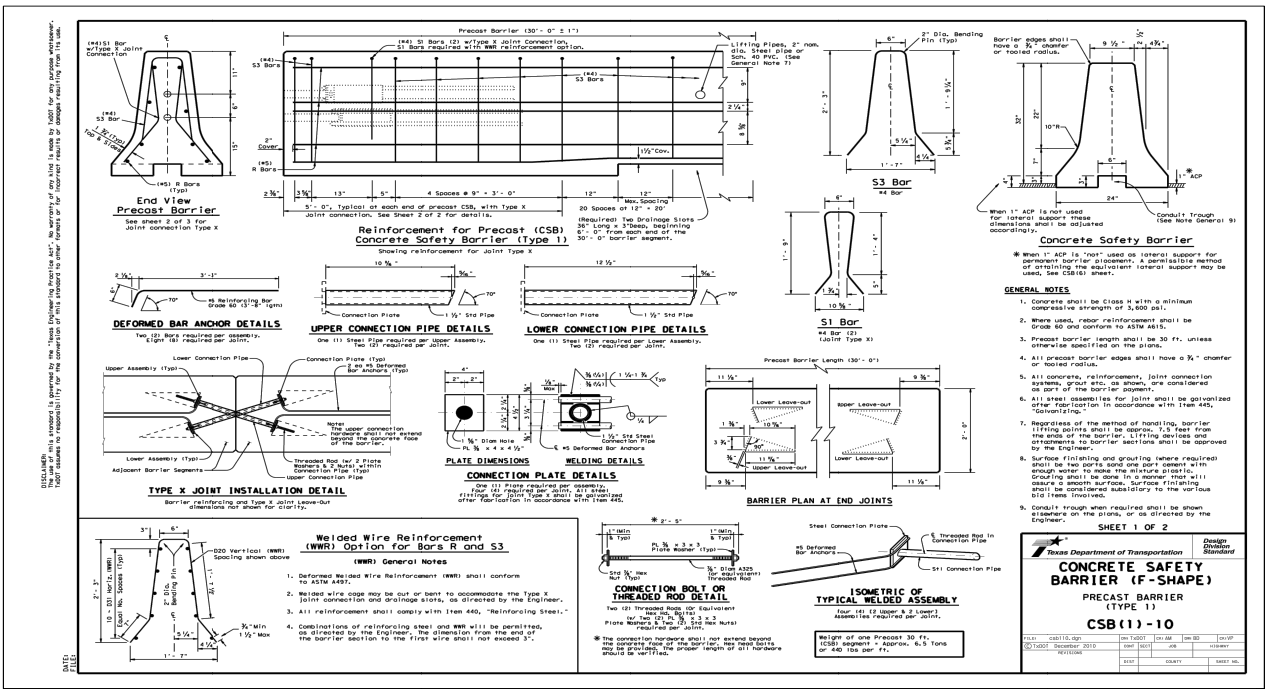
© COPYRIGHT 2016 ALL RIGHTS RESERVED

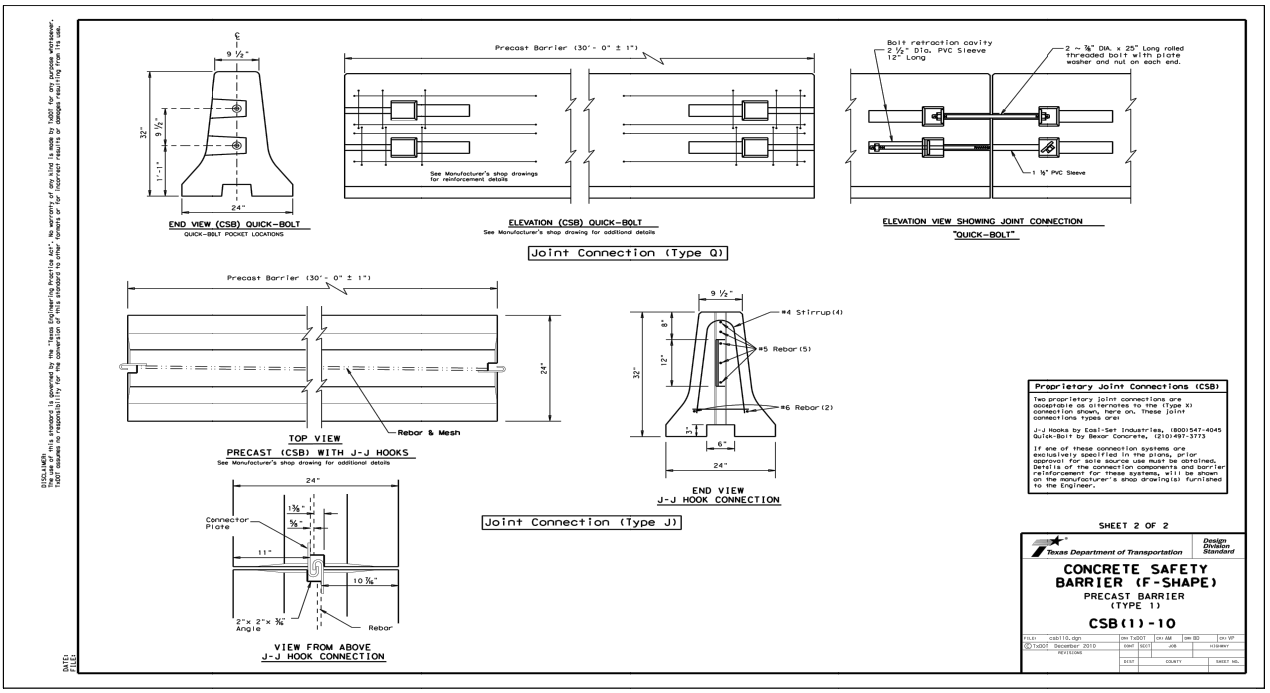
F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C308 PAVING DETAILS.DWG

PACKET

4.353

November 15, 2022





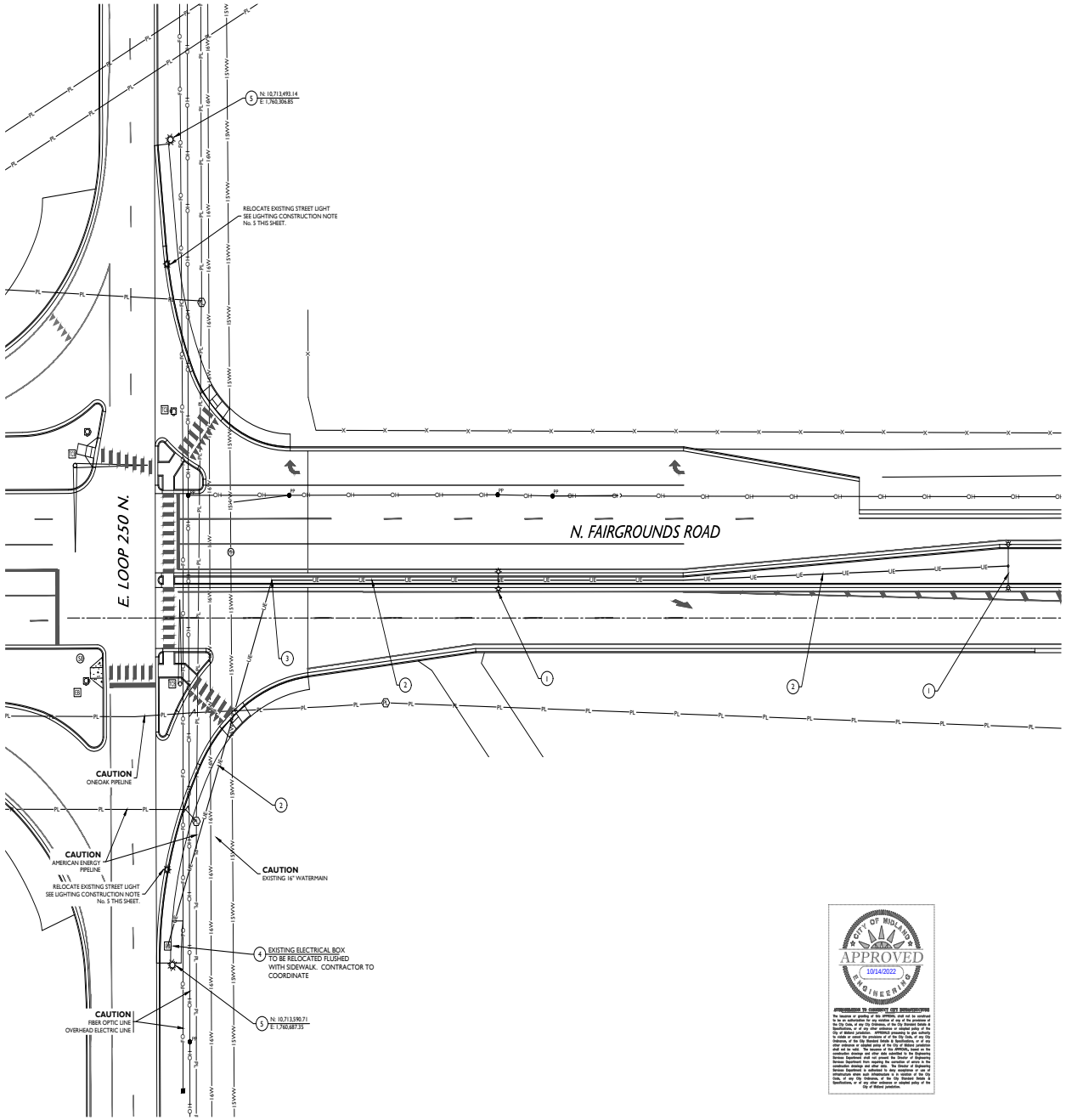
SHEET C308	PAVING DETAILS	DRAWN BY: MJD CHECKED BY: ALM APPROVED BY: ALM DATE: 06/13/2022 JOB: 190070

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

MIDLAND Engineering Services

Δ	REVISIONS	BY	APPR.	DATE
1	CONTRACTOR QUESTION REVISIONS 10/11/2022	MAL	ALM	10/11/22

Know what's below. Call before you dig. 811



0' 30' 60' 90'

SCALE 1" = 30'

LIGHTING CONSTRUCTION NOTES

Typ. (1) INSTALL ROADWAY ILLUMINATION POLE, TxDOT TYPE AL 40 T-12-12 W/ 400W EQ. LED LUMINARES. FOUNDATION POLE FINISHED GRADE TO BE AT 2" ABOVE TOP OF CURB GRADE.

2. INSTALL 2" PVC CONDUIT WITH:
   (2) ELEC COND (NO. 8) INSULATED
   (1) ELEC COND (NO. 8) BARE
   IN ACCORDANCE WITH TxDOT SPECIFICATIONS.
3. INSTALL TxDOT TYPE "A" GROUND BOX WITH APRON.
4. TIE-IN CONDUIT TO EXISTING LIGHTING GROUND BOX. SPLICE CONDUCTORS TO EXISTING LIGHTING CIRCUIT. COORDINATE WITH CITY OF MIDLAND TRAFFIC SIGNAL GROUP PRIOR TO CONNECTION.
5. PROPOSED LOCATION OF EXISTING STREET LIGHT. CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR EXACT LOCATION.

LEGEND

TCB	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
■	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
	DENOTES EXISTING MANHOLE
PM	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
PL	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

APPROVED SUBJECT TO CURRENTLY CITY SPECIFICATIONS

The issuance or granting of this APPROVAL shall not be construed to be a permit for, or an approval of, any violation of any provision of the City Code, of any City Ordinance, or the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland. The issuance of this APPROVAL shall not prevent the City from thereafter requiring the correction of errors in the construction drawings and other data. The Director of Engineering may withdraw this APPROVAL upon discovery that the approved plans and specifications are in violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

811 Know what's below. Call before you dig.

BY	APPR.	DATE
MAL	ALM	10/17/22

△	REVISIONS
1	CONTRACTOR QUESTION REVISIONS 10/17/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD LIGHTING PLAN

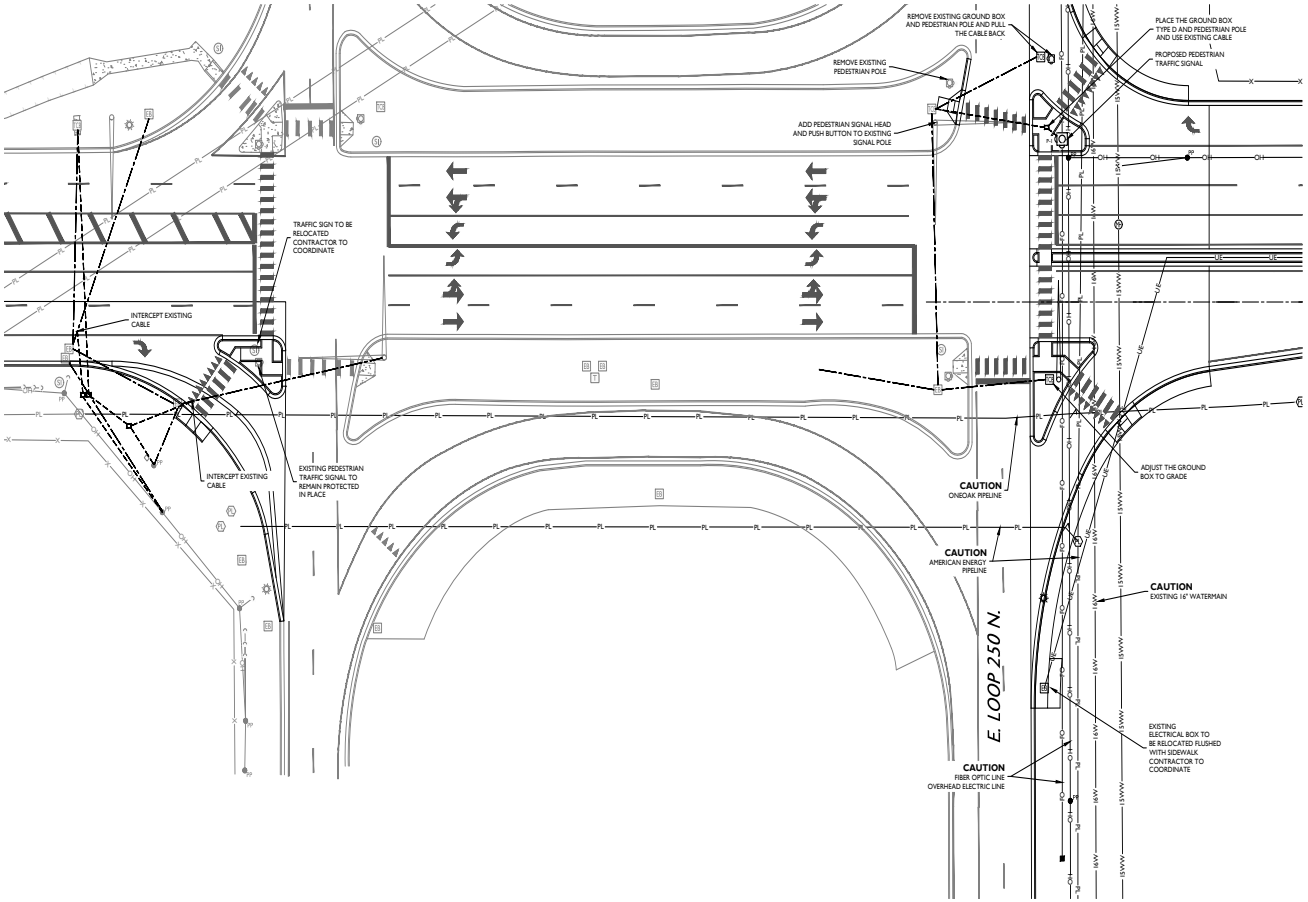
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET **C400**

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\NGSI\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C400 LIGHTING PLAN.DWG



0' 60' 120' 180'

SCALE 1" = 60'

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING UNDERGROUND PIPELINE
- DENOTES EXISTING OVERHEAD ELECTRIC LINE
- DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- DENOTES EXISTING FIBER OPTIC LINE
- DENOTES EXISTING 15" WASTEWATER LINE
- DENOTES EXISTING 16" WATER MAIN LINE
- DENOTES PROPOSED PEDESTRIAN TRAFFIC SIGNAL
- DENOTES PROPOSED TXDOT TYPE D GROUND BOX
- DENOTES PROPOSED CONTROLLER BOX
- DENOTES PROPOSED SIGNAL CONDUIT RUN (R)
- DENOTES EXISTING SIGNAL CONDUIT RUN

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

THE ISSUANCE OF GRANTING OF THIS APPROVAL shall not be construed to be a permit for, or an approval of, any violation of any provision of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS presuming to give authority to violate or cancel the provisions of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. shall not be valid. The issuance of this APPROVAL based on the plans, specifications, and other data shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the plans, specifications, and other data. The Director of Engineering Services Department is authorized to stop operations or any of infrastructure work upon discovering any violation of the City Code, of any City Ordinance, of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

REVISIONS	BY	APPR.	DATE
1 CONTRACTOR QUESTION REVISIONS 10/17/2022	MAL	ALH	10/17/22

DRAWN BY: MJD
CHECKED BY: ALH
APPROVED BY: ALH
DATE: 04/13/2022
JOB: 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD TRAFFIC SIGNAL PLAN

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

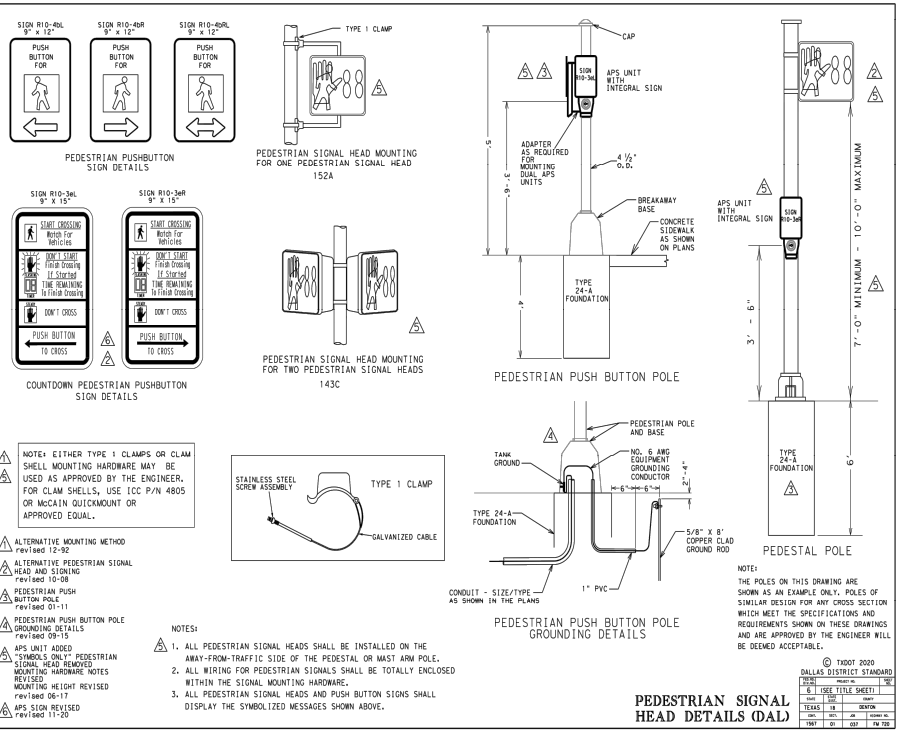
STATE OF TEXAS ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET **C410**

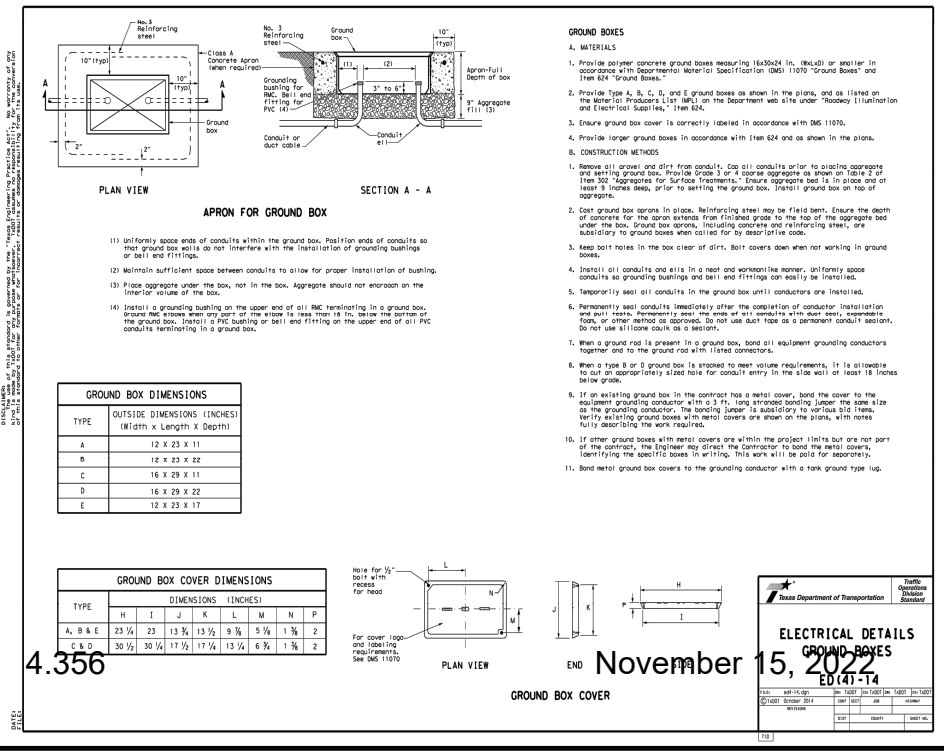
Know what's below. Call before you dig.

F:\2019\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C410 TRAFFIC SIGNAL PLAN.DWG

© COPYRIGHT 2014 ALL RIGHTS RESERVED









BY	DATE
MAL	10/12/22
ALM	

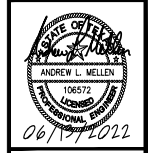
REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/12/2022

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	06/13/2022
JOB:	190070

MIDLAND Engineering Services

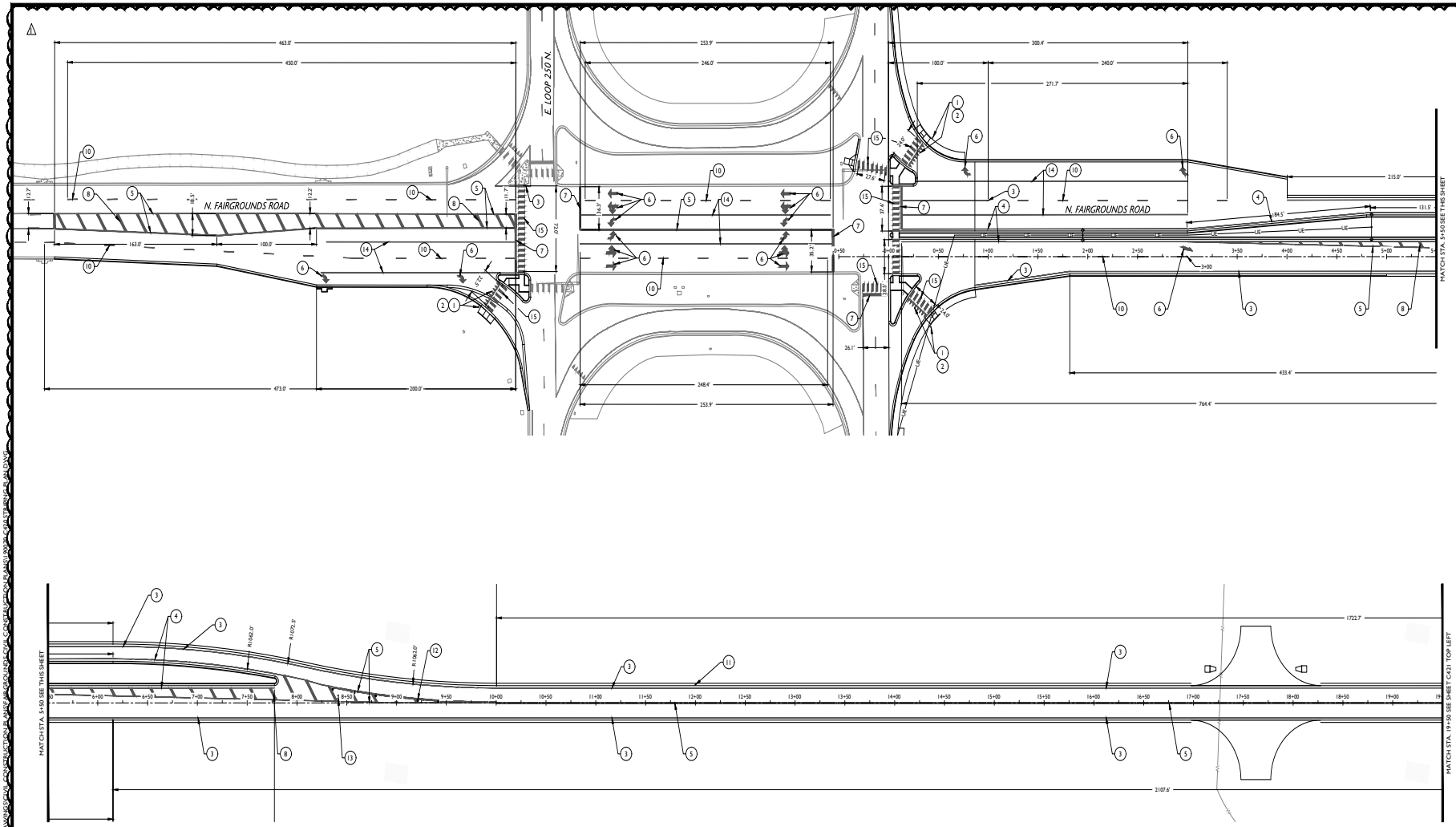
TRAFFIC DETAILS

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS



SHEET
C411

F:\201\P\190070_CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\PLANS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C411 TRAFFIC DETAILS.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED



STRIPING NOTES

Typ. (1) CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR THE INSTALLATION OF SIGN.
2. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, YIELD TRIANGLES (24"x36").
3. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 4 INCH, SOLID.
4. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID.
5. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID/SOLID.
6. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, ARROW.
7. 24" REFLECTIVE PAVEMENT MARKING TYPE I, WHITE.
8. 24" REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 40' O.C.
9. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID/BROKEN (10'/30').
10. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 4 INCH, BROKEN (10'/30').
11. INSTALL W1-4, 36.
12. INSTALL 6 PEXCO CITY POSTS (MODEL EAC, 48" YELLOW WITH TRIPLE WRAP REFLECTIVE SHEETING).
13. INSTALL W1-6R, 60x30, ON TxDOT SLIP BASES.
14. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 8 INCH, SOLID.
15. CROSSWALK STRIPING PER DETAIL No. 1 SEE SHEET C420.

NOTES:

ALL PAVEMENT MARKING WORK SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD DRAWINGS AND SPECIFICATIONS OF THE TEXAS DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE SHOWN ON THESE PLANS OR DIRECTED BY THE ENGINEER.

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

[redacted]

MARKING ALIGNED TO AVOID VEHICLE WHEEL PATHS TYPICALLY APPROX. 3'

1.5' x 6' CROSSWALK BAR CENTERED ON LANE LINE OR CENTER OF LANE (TYPICAL).

NOTES:

- MATERIAL IS TO BE THERMOPLASTIC COMPLIANT WITH TXDOT DMS-8220 OR DMS-8240.
- MARKINGS ARE TO BE APPLIED PER TXDOT ITEM 666, RETROREFLECTORIZED PAVEMENT MARKINGS.
- WHERE THERMOPLASTIC IS TO BE APPLIED TO CONCRETE (ANY AGE) OR OLD ASPHALT (3 YEARS+), A PRIMER IS TO BE APPLIED PRIOR TO APPLICATION. PRIMER IS TO BE COMPATIBLE WITH THERMOPLASTIC AND SURFACE MATERIALS, SEE TXDOT PAVEMENT MARKING HANDBOOK, TABLE 2-3, MATERIAL COMPATIBILITY MATRIX.
- AS NOTED IN TXDOT ITEM 666, THE SURFACE MUST BE THOROUGHLY CLEANED AND DRY PRIOR TO INSTALLATION.

(1) CONTINENTAL CROSSWALK (THERMO)
N.T.S.

LEGEND

TC	DENOTES EXISTING TRAFFIC CONTROL BOX
EB	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
MH	DENOTES EXISTING MANHOLE
PM	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
WW	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
DI	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
X	DENOTES EXISTING FENCE
PL	DENOTES EXISTING UNDERGROUND PIPELINE
OH	DENOTES EXISTING OVERHEAD ELECTRIC LINE
UE	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
FO	DENOTES EXISTING FIBER OPTIC LINE
15WW	DENOTES EXISTING 15" WASTEWATER LINE
16W	DENOTES EXISTING 16" WATER MAIN LINE

0' 50' 100' 150'
SCALE 1" = 50'

811 Know what's below. Call before you dig.

BY	DATE
MAL	10/11/22
ALM	

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/11/2022

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

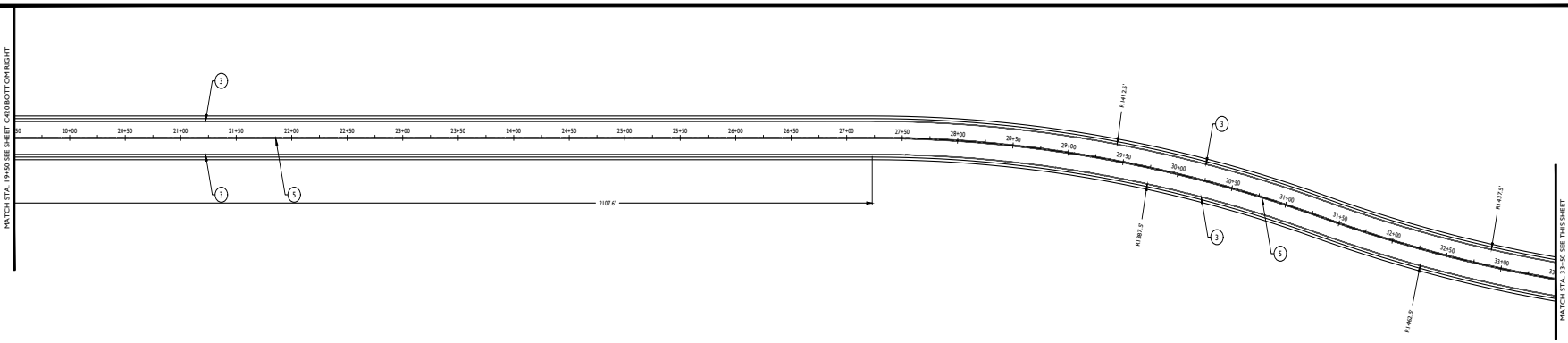
N. FAIRGROUNDS ROAD STRIPING PLAN

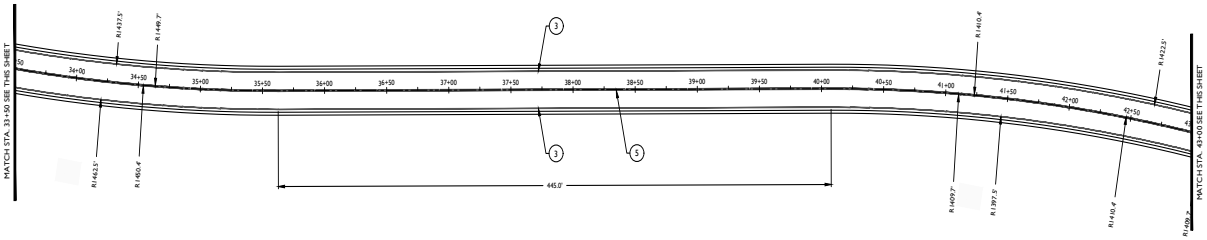
N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

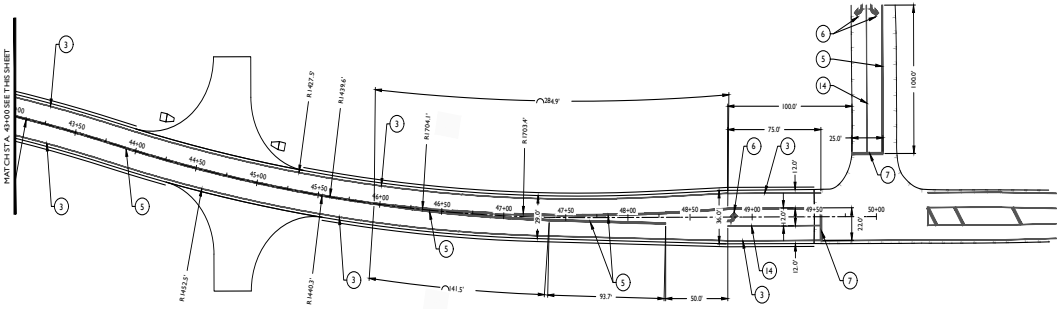
STATE OF TEXAS ANDREW L. MELLEN 106572 LICENSED PROFESSIONAL ENGINEER 10/12/2022

SHEET C420

© COPYRIGHT 2014 ALL RIGHTS RESERVED







STRIPING NOTES

Typ. (1) CONTRACTOR TO COORDINATE WITH CITY OF MIDLAND FOR THE INSTALLATION OF SIGN.

2. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, YIELD TRIANGLES (24"x36").
3. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 4 INCH, SOLID.
4. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID.
5. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID/SOLID.
6. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, ARROW.
7. 24" REFLECTIVE PAVEMENT MARKING TYPE I, WHITE.
8. 24" REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 40' O.C.
9. REFLECTIVE PAVEMENT MARKING TYPE I, YELLOW, 4 INCH, SOLID/BROKEN (10'/30').
10. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 4 INCH, BROKEN (10'/30').
11. INSTALL W1-4, 36.
12. INSTALL 6 PEXCO CITY POSTS (MODEL EAC, 48" YELLOW WITH TRIPLE WRAP REFLECTIVE SHEETING).
13. INSTALL W1-6R, 60x30, ON TxDOT SLIP BASES.
14. REFLECTIVE PAVEMENT MARKING TYPE I, WHITE, 8 INCH, SOLID.
15. CROSSWALK STRIPING PER DETAIL No. 1 SEE SHEET C420.

NOTES:

ALL PAVEMENT MARKING WORK SHALL BE IN ACCORDANCE WITH THE LATEST STANDARD DRAWINGS AND SPECIFICATIONS OF THE TEXAS DEPARTMENT OF TRANSPORTATION UNLESS OTHERWISE SHOWN ON THESE PLANS OR DIRECTED BY THE ENGINEER.

LEGEND

- DENOTES EXISTING TRAFFIC CONTROL BOX
- DENOTES EXISTING ELECTRIC BOX
- DENOTES EXISTING ELECTRIC METER
- DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
- DENOTES EXISTING POWER POLE
- DENOTES EXISTING LIGHT POLE
- DENOTES EXISTING GUY ANCHOR
- DENOTES EXISTING MANHOLE
- DENOTES EXISTING PIPELINE MARKER
- DENOTES EXISTING PIPELINE VENT
- DENOTES EXISTING WATER WELL
- DENOTES EXISTING STREET SIGN
- DENOTES EXISTING STORM DRAIN CATCH BASIN
- DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
- DENOTES SURROUNDING PROPERTY
- DENOTES EXISTING EASEMENT LINE
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- PL — DENOTES EXISTING UNDERGROUND PIPELINE
- OH — DENOTES EXISTING OVERHEAD ELECTRIC LINE
- UE — DENOTES EXISTING UNDERGROUND ELECTRIC LINE
- FO — DENOTES EXISTING FIBER OPTIC LINE
- 15WW — DENOTES EXISTING 15" WASTEWATER LINE
- 16W — DENOTES EXISTING 16" WATER MAIN LINE

0' 50' 100' 150'
SCALE 1" = 50'

CITY OF MIDLAND APPROVED ENGINEERING 10/14/2022

APPROVAL TO CONSTRUCT SITE IMPROVEMENTS

The issuance or granting of this APPROVAL shall not be construed to be an authorization for any violation of any of the provisions of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. APPROVALS presuming to give authority to violate or cancel the provisions of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction shall not be valid. The issuance of this APPROVAL based on the construction drawings and other data submitted to the Engineering Services Department shall not prevent the Engineering Services Department from requiring the correction of errors in the construction drawings and other data. The Director of Engineering Services may withdraw or modify this APPROVAL at any time in the event of any violation of the City Standard Details & Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

© COPYRIGHT 2014 ALL RIGHTS RESERVED

F:\20\19\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\MOCIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C421 STRIPING PLAN.DWG

Know what's below. Call before you dig. 811

BY	DATE
MAL	10/17/22

REVISIONS
1 CONTRACTOR QUESTION REVISIONS 10/17/2022 — ALM

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

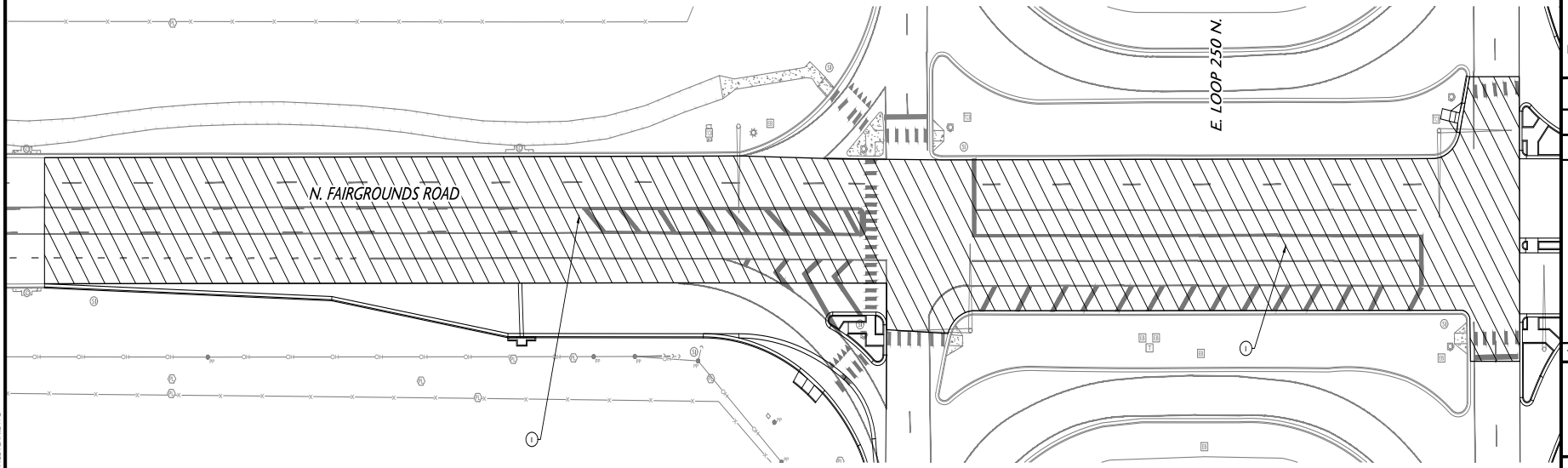
MIDLAND Engineering Services

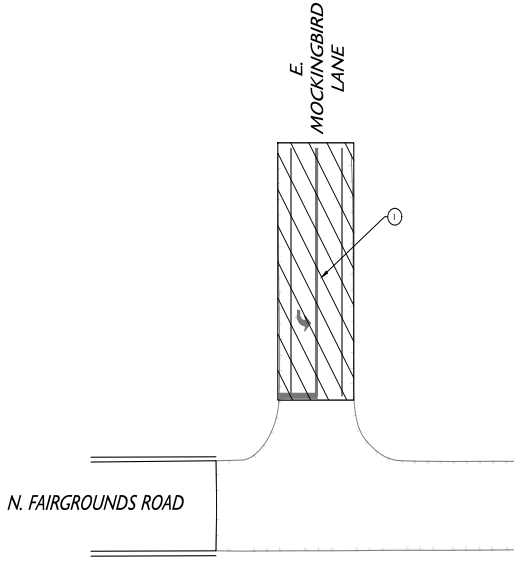
N. FAIRGROUNDS ROAD STRIPING PLAN

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET
C421





MICROSURFACING CONSTRUCTION NOTES

Typ. (1) CONTRACTOR TO MICROSURFACE SYSTEM PER TxDOT ITEM 350.

0' 30' 60' 90'

SCALE 1" = 30'

CITY OF MIDLAND APPROVED 10/14/2022 ENGINEERING

APPROVED TO CONSTRUCT AND ENGINEERING

The issuance or granting of this APPROVAL shall not be construed to be a permit for, or an approval of, any violation of any provision of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. The issuance of a permit shall not prevent or restrict the prevention of all of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction. The City Engineer or Director of Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction drawings and other data submitted by the Engineering Services Department shall not prevent the Director of Engineering Services Department from requiring the correction of errors in the construction drawings and other data submitted by the Engineering Services Department is authorized to deny completion of use of infrastructure where such infrastructure is in violation of the City Code, of any City Ordinance, of the City Standard Details or Specifications, or of any other ordinance or adopted policy of the City of Midland jurisdiction.

Know what's below. Call before you dig.

BY	DATE
MAL	10/17/22
ALM	

REVISIONS	BY	APPR.	DATE
1 CONTRACTOR QUESTION REVISIONS 10/17/2022	MAL	ALM	10/17/22

DRAWN BY: MJD
CHECKED BY: ALM
APPROVED BY: ALM
DATE: 06/13/2022
JOB: 190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD
MICROSURFACING SYSTEM PLAN

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED PROFESSIONAL ENGINEER
06/13/2022

SHEET
C430

F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DRAWINGS\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C430 MICROSURFACE PLAN.DWG

© COPYRIGHT 2014 ALL RIGHTS RESERVED

MIDLAND
Engineering Services

ADDENDUM #2

Project Number P17-03

TO ALL BIDDERS ON THE SUBJECT BID: North Fairgrounds Road, Loop 250 – Mockingbird Lane Paving Project

ADDENDUM #2

DATE: October 19, 2022

1. Q/A and Clarification
2. Attachments
    a. 190070 C205 FAIRGROUNDS P&P
3. Non-Mandatory Pre-Bid Meeting Agenda
4. Non-Mandatory Pre-Bid Meeting Attendance

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

Jones Bros. Dirt & Paving Contractors, Inc.
Company Name

Bidder Authorized Signature

October 26, 2022
Date

Stacey Bryant
Please Print Above Name

432-332-0721
Phone

North Fairgrounds Road, Loop 250 – Mockingbird Lane Paving Project
Project Number P17-03

Clarifications

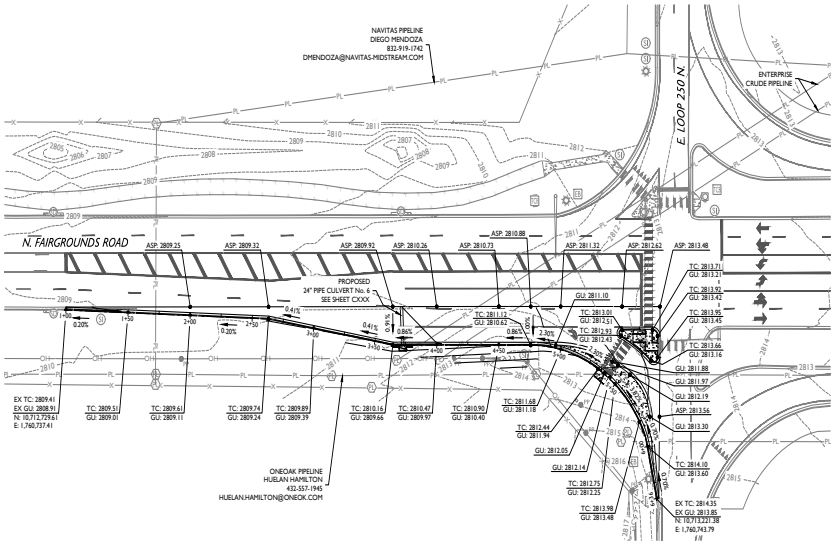
Clarification: All information provided in Addendum 01 for this project remains in effect unless specifically addressed in this Addendum 02.

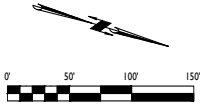
Clarification: All addendum acknowledgement forms must be included with the bid for the bid to be considered complete. Bidders have sole responsibility for making sure they have and acknowledge all addendums provided for this project bid. Bidder is responsible for replying to the City of Midland purchasing department for confirmation of electronic delivery of addendum and addendum attachments.

Clarification: 3D surface files have already been provided to produce quantities. Provided with this addendum is an additional plan and profile sheet.

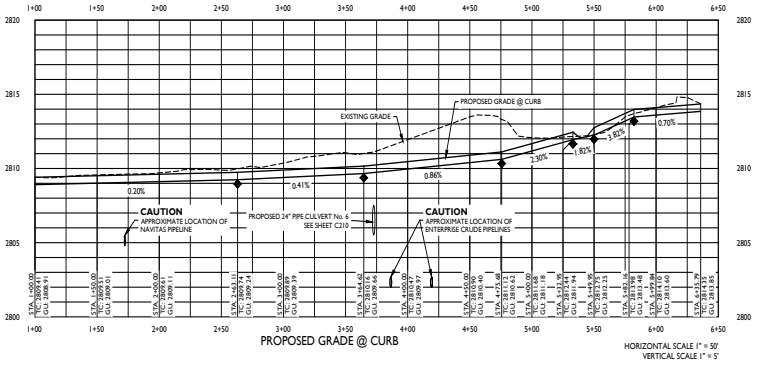
Clarification: Pay Note T3 is applicable for both white and yellow markings. Payment will be made per marking.

Clarification: Bids should be made based on the quantities provided in the Bid Proposal.





SEE PAVING PLAN SHEETS
WITH PAVING SECTION SHEETS
FOR ROAD DIMENSIONS



LEGEND

	DENOTES EXISTING TRAFFIC CONTROL BOX
	DENOTES EXISTING ELECTRIC BOX
EM	DENOTES EXISTING ELECTRIC METER
	DENOTES EXISTING TELEPHONE PEDESTAL / FIBER OPTIC SIGN
PP	DENOTES EXISTING POWER POLE
	DENOTES EXISTING LIGHT POLE
	DENOTES EXISTING GUY ANCHOR
MH	DENOTES EXISTING MANHOLE
PM	DENOTES EXISTING PIPELINE MARKER
	DENOTES EXISTING PIPELINE VENT
	DENOTES EXISTING WATER WELL
	DENOTES EXISTING STREET SIGN
	DENOTES EXISTING STORM DRAIN CATCH BASIN
	DENOTES EXISTING PEDESTRIAN CROSSING SIGNAL
	DENOTES SURROUNDING PROPERTY
	DENOTES EXISTING EASEMENT LINE
	DENOTES EDGE OF ASPHALT
-X-	DENOTES EXISTING FENCE
-PL-	DENOTES EXISTING UNDERGROUND PIPELINE
-OH-	DENOTES EXISTING OVERHEAD ELECTRIC LINE
-UE-	DENOTES EXISTING UNDERGROUND ELECTRIC LINE
-FO-	DENOTES EXISTING FIBER OPTIC LINE
-15WW-	DENOTES EXISTING 15" WASTEWATER LINE
-16W-	DENOTES EXISTING 16" WATER MAIN LINE
TC	DENOTES TOP OF CURB GRADE
GU	DENOTES GUTTER GRADE
CL	DENOTES CENTER LINE GRADE
ASP	DENOTES ASPHALT GRADE
FL	DENOTES FLOW OF SWALE GRADE
PC	DENOTES POINT OF CURVATURE
PT	DENOTES POINT OF TANGENCY
ASP	DENOTES ASPHALT GRADE
INV	DENOTES INVERT FLOW OF PIPE
TOP	DENOTES TOP OF PIPE GRADE
CO	DENOTES CONCRETE GRADE

Know what's below. Call before you dig.

BY	DATE	REVISIONS
MAL	10/17/22	CONTRACTOR QUESTION REVISIONS 10/17/2022
APPR.		
ALM		

DRAWN BY:	MJD
CHECKED BY:	ALM
APPROVED BY:	ALM
DATE:	04/13/2022
JOB:	190070

MIDLAND Engineering Services

N. FAIRGROUNDS ROAD P&P

N. FAIRGROUNDS RAOD, LOOP 250 - MOCKINGBIRD LANE PAVING PROJECT
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

STATE OF TEXAS
ANDREW L. MELLEN
106572
LICENSED
PROFESSIONAL ENGINEER
10/17/2022

SHEET
C205

F:\2019\190070-CITY OF MIDLAND-MOCKINGBIRD ADJUSTMENT\DWG\CIVIL CONSTRUCTION PLANS\FAIRGROUNDS CIVIL CONSTRUCTION PLANS\190070 C205 FAIRGROUNDS P&P.DWG
© COPYRIGHT 2014 ALL RIGHTS RESERVED

Fairgrounds North (LP250 to Mockingbird Ln) Pre-Bid Meeting Agenda
Project No. P17-03
October 12, 2022

Discussion Items

1. Sign-In Sheet

2. Personnel Overview

    - Jose Ortiz – Director Engineering Services
    - Gabe McClelland – Senior Engineering Manager
    - Josh Ferguson – Assistant City Engineer – project engineer
    - Bobby Wojciechowski – Capital Improvement Project manager
    - Carl Craigo – Utilities Director
    - Rex Swearinger – Water & Wastewater Operations Superintendent, utility coordination
    - Taha Sakrani – Associate Traffic Engineer
    - Troy Clabaugh – Traffic Operations Superintendent
    - Jesse Trejo – Construction Manager, construction management & inspections
    - Madison Brasuell – Project Manager
    - Andy Navarro – Franchise Utility Coordinator
    - Michael Williams – Stormwater Manager
    - Natalie Burgard – Administrative Assistant, document processing & payments
    - Erika Martinez – Purchasing Manager, conduct bid process & bid opening

3. Project Overview and Scope
    - The project will include the removal, replacement, and installation of existing and proposed paving, sidewalk, and structure infrastructure and appurtenances including all necessary mobilization, pavement removal, excavation, embankment, backfill, compaction, formwork, pavement placement, sidewalk placement, structure placement, vegetation and stabilization, as well as erosion control, traffic control, stabilization, storm drain installation, coordination with City of Midland staff and organizations such as TxDOT, OSHA, franchise utilities, etc. as needed, One Call (Texas 811) notifications for pending work, notifications to adjacent property owners as directed by City of Midland staff, and all other work to be performed as outlined in the Construction Drawings and Specifications, to satisfactorily complete the work.
4. Bid Process
    - Pre-Bid meeting attendance is non-mandatory to bid on this project.
    - ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

bwojciechowski@midlandtexas.gov

- Purpose of bids is to establish unit prices.
- Quantities listed in the Proposal are not indicative of or guarantees of the actual project.
- Addendum distributed by email the Friday afternoon following the Pre-Bid Meeting.
  - The deadline to ask or send questions for the addendum is this Friday, October 14, 2022 at Noon.
  - Questions asked after the Noon deadline will be directed to the information already provided in the bid documents or included in the Addendum.
- ATTENTION: Bidders are to submit bids either by mail or in person. If bidders choose to mail their bid packets in, then they are to mail the bid packet to one of the addresses listed below:

  USPS Mailing Address:
  City of Midland, Texas
  Attn: City Secretary's Office
  P.O. Box 1152
  Midland, TX 79702

  – OR –

  Physical Address for mail carriers other than USPS:
  City of Midland, Texas
  Attn: City Secretary's Office
  300 North Loraine St., Suite 330
  Midland, TX 79701

  If bid packets are delivered in person then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

- **Bid Opening is Wednesday, October 19, 2022 at 2:00 PM** in the City Hall Council Chamber located on the 1st Floor of Midland's City Hall.
  - The Bid Opening will be open to the public, and bidders are free to attend in person.
  - No late bids will be accepted.
  - Bidders must be willing to sign the contract as is.
  - Bidders must complete the conflict of interest forms if applicable.
  - Bidders must fill out all bid items in the Proposal. If bid items are left blank then the bid will be considered non-responsive.
  - Bidders have sole responsibility for making sure they have and acknowledge all addendums provided. If all acknowledgement forms are not included with the bid packet submittal then the bid will be considered non-responsive.

5. Notice to Proceed
   - Date of Notice to Proceed to be determined at the Pre-Construction Meeting.
   - Pre-Construction Meeting date will be set after the program bid is awarded.
6. Payment
   - Payment will be as described in the Bid Packet's Special Provisions, 4. Payment.
   - Payment to be made for material delivered only for bid items specifically indicated in Special Provisions, 4. Payment. All other payments to be made after 100% work completion, with no other material delivery payments, partial payments, or payments for mobilization.
   - Work is considered 100% complete when the project Work Order is completed and signed by both the City Inspector and the Contractor.
     - When a project has items paid upon material delivery, there are to be two Work Orders. The first Work Order will include all items to be paid upon material

delivery, and the second will include all other items applicable to the project in question.
    - Work Orders and invoices are to be itemized and match the bid items listed in the bid packet Proposal.
    - Recommended that invoices state “Invoice Due Upon Receipt”, or have a due date that is two (2) weeks after the date the invoice is submitted.
7. Address Project Specifics
    - City Inspector must be notified of all work occurring and be able to perform inspections on any construction or installation that occurs.
    - Typically work times are Monday – Friday from 8:00 AM – 5:00 PM. No work earlier than 7:00 AM or later than 8:00 PM without City permission unless for emergency conditions.
    - Work is not to occur on Sundays or legal holidays unless required for emergency situations.
    - Work is not to occur on Saturdays unless requested by Contractor in writing at least 48-hours in advance and approved by the City Engineer.
    - Contractor needs to coordinate with TxDOT
    - Contractor will be responsible for coordinating with landowners in regards to fence removals, property access, etc.

8. Address Pre-Bid Question
    - An addendum will be issued sometime after noon on Friday, October 14, 2022.
9. Any Additional Questions

Please direct all questions or comments following the Pre-Bid Meeting to Bobby Wojciechowski with the City of Midland.

Engineering Services

Bobby Wojciechowski
Phone: (432) 685-7519
Email: bwojciechowski@midlandtexas.gov

Madison Brasuell
Phone: (432) 685-7289
Email: mbrasuell@midlandtexas.gov

Pre-Bid Meeting Attendance

P17-03

Fairgrounds North (LP250 to Mockingbird Ln)

Date: 10-12-2022 - 3:00 PM

☑	Name *(Please Print)*	Company Name *(Please Print)*	Phone Number	Fax Number	Email
✓	Madison Brasuell	City of Midland	(432) 685-7289	-	mbrasuell@midlandtexas.gov
✓	Bobby Wojciechowski	City of Midland	(432) 685-7519	-	bwojciechowski@midlandtexas.gov
	Carolina Jimenez	COM	432-685-7418		Cjimenez@midlandtexas.gov
	LARRY QUINNEY	JONES BROS.	432-664-1473		l.quinney@jonesdp.com
	George Williams	Reece Albert	432-528-4450		georgew@reecealbert.inc
	Jesse Ramirez	Reece Albert	432-570-0481		jesser@reecealbertinc.com
	Mike Heiter	" "	" " "		mikeh@REECEALBERTInc.com
	Salvador Armenta	Jones Bros	432 634-43 15		S.armenta@jonesdp.com
	Everardo Rodriguez	ENTRENCH Inc	5754921914		everee entrenchinc.com
	Taha Sakeami	COM	432-685-7511		
	JAKE LAWSON	DNT CONSTRUCTION	325 669 1852		JLAWSON@DNTCONSTRUCTION.COM
	Nora Lopez	com	432-685-7901		
	JESSE TREJO	com	432-685-7905		JTREJO@MIDLANDTEXAS.GOV
	ANDRES NAVARRO	Com	432-234-5040		anavarro@midland texas.gov

City Council Meeting

Item Number: 5

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH PARKHILL, SMITH & COOPER, INC., D/B/A PARKHILL TO PROVIDE AN EVALUATION AND ANALYSIS OF TREATMENT TECHNIQUES FOR THE PAUL DAVIS WELLFIELD FOR THE UTILITIES DEPARTMENT FOR AN AMOUNT OF $325,500.00; APPROVING $48,825.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS (DISTRICT: NONE) (GENERAL SERVICES)**

Purpose:

Resolution authorizing a professional services agreement with Parkhill, Smith & Cooper, Inc. dba Parkhill to provide an analysis, design, and reporting of the Paul Davis Wellfield Treatment.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the Utilities Operating Fund and will be transferred and appropriated to a project for the said purposes.

Discussion:

Resolution 2020-091 approved the selection of engineering firms for on-call engineering services for the Utilities Department. Parkhill, Smith & Cooper, Inc. dba Parkhill, an on-call engineer was selected to perform the task. This project is necessary to provide an analysis, design, and reporting of the Paul Davis Wellfield treatment techniques to determine if a project is economically viable to provide advanced treatment for the wellfield for greater use as a source of water for the City. Please see the attached memo from Carl Craigo, Utilities Director, for more information.

Therefore, please consider a resolution authorizing the execution of a professional services agreement to provide an analysis, design, and reporting of the Paul Davis Wellfield Treatment for the On-Call Engineering support services with Parkhill, Smith & Cooper, Inc. dba Parkhill, of Midland, Texas for the amount of $325,500.00 plus $48,825.00 in contingencies to not to exceed a total amount of $374,325.00.

Tina Gaugy

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Martinez, Purchasing Manager

FROM: Carl Craigo, PE, Utilities Director

SUBJECT: Consider a resolution authorizing the evaluation of treatment techniques at Paul Davis Well Field.

DATE: November 15, 2022

The project generally includes the evaluation of advanced treatment techniques for the Paul Davis well fields. This well field is currently the emergency water supply for the City but is under the order of minimal normal operating use because of its quality. This project will validate if a project is economically viable to provide advanced treatment for the well field for greater use of the water source. This project will have Parkhill an approved on-call engineer (Resolution 2020-091) perform the task.

The funding for this phase of the project will be out of Utilities administration operations budget. Fees for the scope of services are $325,500 with a 15% contingency to not exceed $374,325.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH PARKHILL, SMITH & COOPER, INC., D/B/A PARKHILL TO PROVIDE AN EVALUATION AND ANALYSIS OF TREATMENT TECHNIQUES FOR THE PAUL DAVIS WELLFIELD FOR THE UTILITIES DEPARTMENT FOR AN AMOUNT OF $325,500.00; APPROVING $48,825.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS

WHEREAS, the City Council approved Resolution No. 2020-091 selecting six engineering firms to provide professional services for engineering services for the Utilities Department; and

WHEREAS, the Utilities Department has selected Parkhill, Smith & Cooper, Inc., d/b/a Parkhill ("Parkhill"), to provide an evaluation and analysis of treatment techniques for the Paul Davis Wellfield; and

WHEREAS, Parkhill has agreed to perform said professional services at a cost of $325,500.00; and

WHEREAS, the City Council finds that Parkhill is qualified to perform said professional services; and

WHEREAS, the City Council finds that the professional fees proposed by Parkhill are consistent with, and not higher than, the recommended practices and fees published by the applicable professional associations and do not exceed any maximum provided by law; and

WHEREAS, the City Council finds that Parkhill provides professional services for a fair and reasonable price; and

WHEREAS, the City Council finds it to be in the public interest to execute a professional services agreement with Parkhill, as the most highly qualified provider of said professional services based on demonstrated competence, knowledge, and qualifications and on the reasonableness of the proposed fee for the services; and

WHEREAS, the City Council finds it to be in the public interest to approve

$48,825.00 for contingencies;

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 professional services agreement with Parkhill for said professional services. A copy of said agreement is attached hereto as Exhibit "1" and incorporated herein for all purposes.

SECTION TWO. That the sum of $48,825.00 for contingencies is hereby approved for said agreement.

SECTION THREE. That funds are available in the Utilities Operating Fund and will be transferred and appropriated to a project for said purposes.

SECTION FOUR. That the City Comptroller is hereby authorized and directed to pay Parkhill from funds available in a project for said purposes 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

PROFESSIONAL SERVICES AGREEMENT
#23000877

THIS AGREEMENT is made and effective the 26th day of October, 2022, by and between the CITY OF MIDLAND, TEXAS, a municipal corporation, hereinafter called "CITY," and, PARKHILL, SMITH & COOPER, INC., DBA, PARKHILL hereinafter referred to as "COMPANY."

ARTICLE I. PURPOSE

The purpose of this Agreement is to state the terms and conditions under which COMPANY shall perform resolution approving a professional services agreement with PARKHILL. to provide an operations analysis, design, and reporting of the Paul Davis Wellfield Treatment.

ARTICLE II. SERVICES TO BE PERFORMED

1. COMPANY shall provide those services described in Exhibit "A".

2. COMPANY shall perform the services described in Exhibit "A" (1) with the professional skill and care ordinarily provided by competent engineers practicing in the same or similar locality and under the same or similar circumstances and professional license and (2) as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer. COMPANY represents that any employee who performs services under this Agreement shall be fully qualified and competent to perform the services described in Exhibit "A".

ARTICLE III. FINANCIAL CONSIDERATIONS

CITY agrees to pay COMPANY in an amount not to exceed $325,500.00 for the professional services described in Exhibit “A.” CITY agrees to pay COMPANY according to the schedule set forth in Exhibit “A”, which is attached hereto and incorporated herein for all purposes, 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" incurred during the previous month which have received advance written approval from the City Manager. The City Manager must approve all additional expenses and reimbursable expenses in advance. Within 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 15 days of the date of receipt of the invoice, and the parties immediately shall make every effort to settle the disputed portion of the invoice. CITY in any event 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 the 26 day of October, 2022 until the 25 day of October, 2023, unless the project is completed sooner or the Agreement is terminated as provided below. Thereafter, this agreement may be renewed for up to two (2) additional terms of one (1) year each, upon the CITY providing notice of intent to renew to the COMPANY not less than 30 days prior to the expiration of this contract.

ARTICLE V. TERMINATION AT WILL

CITY may terminate this Agreement at will for no or any reason upon giving at least one-hundred-eighty (180) days written notice to COMPANY. The parties to this Agreement understand and agree that it is in CITY'S sole discretion to cancel the Agreement during the term of the Agreement without penalty to CITY. COMPANY has no expectation and has received no guarantees that this Agreement will not be terminated before the end of the Agreement term. The parties have bargained for the flexibility of terminating this Agreement upon tender of the requisite notice at any time during the term of the Agreement. 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 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.

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 documents or items shall become the sole property of CITY and shall be delivered to CITY, without restriction, except that COMPANY may make copies of any and all instruments of service for its files. CITY shall not make any modification to the plans and specifications or make them available for use by third parties without the prior written authorization of COMPANY, which consent shall not be unreasonably withheld.

ARTICLE VIII. INDEPENDENT CONTRACTOR

It is expressly understood and agreed that COMPANY shall perform all work and services described herein as an independent contractor and not as an officer, agent, servant or employee of CITY; that COMPANY 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 CITY and COMPANY, its officers, agents, employees, contractors and subcontractors; and that nothing herein 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 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. COMPANY 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. 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.

ARTICLE IX. INSURANCE

COMPANY 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
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 Agreement. 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 Agreement. The Workers' Compensation shall waive all rights of subrogation in favor of CITY.

All insurance required pursuant to this Agreement shall provide for a waiver of subrogation in favor of CITY. All insurance required pursuant to this Agreement, 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 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).

The parties agree that, prior to the execution of the Agreement, 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 Agreement.

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.

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'S FEES, WHICH ARE IN ANY WAY RELATED TO THE AGREEMENT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE 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'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 THE 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 AND CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS AGREEMENT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

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 BENEFICIARIES

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 OTHER PROVISIONS, 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 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.

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. 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. This Agreement shall be governed by, interpreted, enforced and construed under the laws of the State of Texas. The laws of the State of Texas shall govern, construe and enforce all the rights and duties of the parties, including but not limited to tort claims and any and all 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.

C. Notice. Any notice or demand that shall be made regarding this Agreement, shall be made in writing and delivered either in person or by certified or registered mail. 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 addressed as follows:

If to CITY: City Manager's Office
P.O. Box 1152
Midland, Texas 79702

If to COMPANY: Parkhill, Smith & Cooper, Inc., DBA Parkhill
4222 85th Street
Lubbock, Texas 79423

The parties hereto may change the above-designated addresses by giving notice pursuant to the terms of this Section.

D. Severability. In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, this invalidity, illegality, or unenforceability shall not affect any other provision of the Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provision had never been 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 the terms of this Agreement shall be binding unless it is in writing, dated subsequent to the date of this Agreement, and duly executed by the parties to this Agreement.

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 laws, by such incorporation, are made terms and requirements of this Agreement, to which the parties to this Agreement 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 his legal representative, shall give the City Manager, or any other reasonable official of CITY, 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 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 COMPANY will 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 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 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 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, 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 if 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.

[Signature Page(s) Follows]

EXECUTED IN DUPLICATE the day and year first above mentioned.

THE CITY OF MIDLAND, TEXAS

By: _____
Robert Patrick, City Manager

ATTEST

_____
Amy M. Turner, 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 _____, 2022 personally appeared, _____, an officer of Parkhill, Smith & Cooper, Inc. dba Parkhill, 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

August 23, 2022

Carl Craigo, PE, Director of Utilities
City of Midland
Utilities Laboratory
305 Edgewood Dr.
Midland, Texas 79703

RE: Proposal for Professional Services
City of Midland Paul Davis Water Treatment Report
5000 Midland Dr.
Midland, TX 79707

Dear Mr. Craigo:

Parkhill is pleased to have the opportunity to provide this proposal for Engineering services to the City of Midland (Owner) for the referenced Project.

SCOPE OF SERVICES

We understand the scope of Basic Services you require to be:

Task 1: Preliminary Alternative Analysis

1. Assemble water quality for Paul Davis Well Field and treated water from the City of Midland Water Purification Plant.
2. Establish water quality goals for treatment.
3. Perform alternative analysis for water treatment of both water sources.
   a. Identify a minimum of three but no more than six potential treatment alternatives for initial review with Owner.
   b. Receive staff feedback at analysis workshop and include no more than three final or best fit alternatives for enhanced study.

Task 2: Engineering Report

1. Complete water quality modeling for selected alternatives to estimate recovery, pre-treatment, post-treatment and blending ratios.
2. Engineer will carry out a site analysis for the selected options, complete with treatment building sizes and proposed piping plans.
3. Engineer will prepare Opinion of Probable Cost (OPC) for the options in the report.
4. Engineer will meet with Owner and establish a non-monetary ranking matrix for the options. Engineer will perform initial ranking of options and report findings to Owner prior to finalization.
5. Engineer will prepare engineering report to Owner detailing the selected options and rankings. Engineer will propose to pilot up to three options for further analysis.

Task 3: Pilot Protocol and Regulatory Coordination (Three Options)

1. Engineer will prepare the necessary documentation for the development of a pilot protocol for submission to the Texas Commission of Environmental Quality (TCEQ). The pilot protocol will detail the necessary equipment, sampling, schedule, and procedures to be taken during the pilot study.
2. Engineer will coordinate a pre-submittal meeting to engage the TCEQ on behalf of the Owner to determine regulatory expectations for the pilot protocol development. Engineer will also attend

4222 85th Street | Lubbock, Texas 79423 | 806.473.2200 Parkhill.com

meetings and provide supplemental data as necessary to complete the TCEQ requests in the approval of the protocol.

Task 4: Pilot Phase Services

1. Engineer will assist with layout of piloting equipment as detailed in approved pilot protocol.
2. Engineer will coordinate testing events.
3. Owner is responsible for performing daily log.
4. Engineer will perform site visits for the piloting two days a week for an estimated pilot for estimated 13 weeks.
5. Engineer will assemble running logs and testing data for reporting.

Task 5: Pilot Report

1. Engineer will prepare the necessary documentation for the development of a Pilot Report for submission to the TCEQ. The Pilot Report will detail results of the piloting phase and establish design criteria for treatment alternatives.
2. Engineer will also attend meetings and provide supplemental data as necessary to complete the TCEQ requests in the approval of the report.
3. Engineer will meet with Owner and amend the engineering report to include the Pilot Report data should adjustments to expected data occur.

Task 6: Preliminary Design Services

1. Preliminary design shall commence upon Owner selecting option based on Engineering and Pilot Reports. The agreement will be amended to include these services at that time.

Services specifically excluded from our Scope of Services include, but are not limited to, the following:

- Laboratory testing for initial water quality
- Surveys and Geotechnical Reports
- Pilot equipment rentals
- Pilot laboratory testing
- Construction services necessary for pilot installation

DELIVERABLES

1. Preliminary Alternative Analysis
2. Engineering Report
3. Pilot Protocol
4. Pilot Report

SCHEDULE

A tentative schedule for submitting our work is as following based on milestones:
Notice to Proceed provided to Engineer

1.	Initial alternative analysis	(NTP + 60 Days)
2.	Finalize alternatives	(Previous + 20 days)
3.	Draft engineering report	(Previous + 90 days)
4.	Finalize engineering report	(Previous + 30 days)
5.	Draft and submit pilot protocol	(Previous + 60 days)
6.	Protocol approval with TCEQ	(Previous + 90 days)
7.	Pilot phase	(Previous + 120 days)
8.	Complete Pilot Report	(Previous + 40 days)
9.	Complete any changes to Engineering Report	(Previous + 30 days)
10.	Begin Preliminary Design	(To Be Determined)

COMPENSATION

Our fee for the Scope of Services described above will be based on a lump sum amount of $325,500.00 and will be billed on a percentage complete method. A breakout of the services is provided below:

Task 1: Preliminary Alternative Analysis	
Initial water quality and goal development	$20,000.00
Alternative analysis	$25,000.00
Task 2: Engineering Report	
Water quality modeling	$15,000.00
Site analysis	$30,000.00
OPC	$15,000.00
Ranking and selection matrix	$35,000.00
Final Report	$20,000.00
Task 3: Pilot Protocol and Regulatory Coordination (3 Protocols)	
Pilot Protocol and regulatory Coordination	$55,000.00
Task 4: Pilot Phase Services	
Initial installation	$ 5,500.00
Site visits and testing coordination	$65,000.00
Task 5: Pilot Report	
Prepare Pilot Report and submit to TCEQ	$40,000.00
Task 6: Preliminary Design	
To be determined at a later date.	TBD
Subtotal	**$325,500.00**

If this proposal meets your expectations, you may indicate your acceptance by returning one signed copy to our office. Upon receipt, we will wait to receive your Agreement and will consider receipt of the executed document as authorization to proceed.

We appreciate the opportunity to provide professional services to you and look forward to the successful completion of your project. If you have any questions, please do not hesitate to call us.

Sincerely,

PARKHILL

By_____
Brian Stephens, PE
Director of Treatment | Principal

By_____
Daniel Albus, PE
Civil Engineer | Principal

CITY OF MIDLAND

Accepted By:_____

Title:_____

Date:_____

BS/*dwa/*ac

City Council Meeting

Item Number: 6

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **RESOLUTION AWARDING A CONTRACT FOR THE PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION PROJECT TO TEC EXCAVATION, INC., FOR THE UTILITIES DEPARTMENT FOR THE TOTAL COST OF $925,277.00; APPROVING $185,055.40 FOR CONTINGENCIES; AND TRANSFERRING AND APPROPRIATING FUNDS (DISTRICT 2) (GENERAL SERVICES)**

Purpose:

Resolution awarding the execution of a contract for the Peck/Terrell Lift Station Elimination and New Sewer Installation Project.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the Utilities Operating Fund and will be transferred and appropriated to a project for the said purposes.

Discussion:

Motion 102-2022 approved plans and specifications and authorized advertisement for sealed bids for the Peck/Terrell Lift Station Elimination and New Sewer Installation Project for the Utilities Department. The bid request was sent to ninety (90) companies. We received three (3) bids. Staff recommends awarding a contract to TEC Excavation Inc. for the amount of $925,277.00. Please see the attached memo from Carl Craigo, Utilities Director, for more information.

Therefore, please consider a resolution awarding a contract for the Peck/Terrell Lift Station

Elimination and New Sewer Installation Project for the Utilities Department to TEC Excavation Inc. of Midland, Texas for the amount of $925,277.00. Staff is also requesting an additional $185,055.40 in contingences for a total cost of $1,110,332.40.

Tina Gaug

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Munoz Martinez, Purchasing Manager

FROM: Carl Craigo, PE, Utilities Director

SUBJECT: Consider a Resolution approving the bid for the construction of the wastewater extension to remove the Terrell/Peck lift station and reroute the discharge.

DATE: September 27, 2022

This project will remove the lift station at the intersection of Terrell and Peck which is in the front yard of a residence. Jacobs Engineering an approved on-call engineer (Resolution 2020-091) prepared the plans and specs for the wastewater extension.

Utilities request to accept the bid for the construction of the project. The low bidder was TEC Excavation for the amount of $925,277.00. Utilities is requesting a not to exceed amount of $1,110,332.40 including a 20% contingency. Funds will be allocated from the Utilities operations capitol funds.

RESOLUTION NO. _____

RESOLUTION AWARDING A CONTRACT FOR THE PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION PROJECT TO TEC EXCAVATION, INC., FOR THE UTILITIES DEPARTMENT FOR THE TOTAL COST OF $925,277.00; APPROVING $185,055.40 FOR CONTINGENCIES; AND TRANSFERRING AND APPROPRIATING FUNDS

WHEREAS, Motion 102-2022 approved plans and specifications and authorized advertisement for sealed bids for the Peck/Terrell Lift Station Elimination and New Sewer Installation Project; and

WHEREAS, Bid No. 23000011 was opened on October 19, 2022 with the lowest and most responsible bid being submitted by TEC Excavation, Inc., as shown on the bid tabulation attached hereto as Exhibit A and incorporated herein for all purposes; and

WHEREAS, the City Council finds the amount proposed by TEC Excavation, Inc., to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to award a contract to TEC Excavation, Inc., for the Peck/Terrell Lift Station Elimination and New Sewer Installation Project; and

WHEREAS, the City Council finds it to be in the public interest to approve $185,055.40 for contingencies;

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 TEC Excavation, Inc., for the total cost of $925,277.00 for the Peck/Terrell Lift Station Elimination and New Sewer Project. Said contract being attached hereto as Exhibit B and incorporated herein for all purposes.

SECTION TWO. That the sum of $185,055.40 for contingencies is hereby approved for said contract.

SECTION THREE. That funds are available in the Utilities Operating Fund and will be transferred and appropriated to a project for the said purposes.

SECTION FOUR. That the City Comptroller is hereby authorized and directed to pay TEC Excavation, Inc., pursuant to the terms of said contract from funds available in the project for said purposes 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____

John Ohnemiller, City Attorney

Attachment A: BID TABULATION
Owner: City of Midland
Project No.: WFXQ8300
Bid No.: 23000011
Project Name: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
Bids Opened: October 19, 2022
Developed By: Purnima Praturi
Checked By: Jeff Miner, PE

Lowest Bidder

				Engineers Estimate		Edgardo Madrid & Associates, LLC 6216 Spahn St		TEC Excavation		Boler Equipment Service	
			Mob/Demob % of Bid (5% Max)	4.14%		0.75%		3.89%		3.97%	
Item No.	Description	Quantity	Unit	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total
1	Mobilization and Demobililzation	6	MO	$ 9,000	$ 54,000	$ 1,500	$ 9,000	$ 6,000.00	$ 36,000.00	$ 7,963.04	$ 47,778.24
2	Erosion/Sediment Control (SWPPP)	6	MO	$ 1,700	$ 10,200	$ 1,500	$ 9,000	$ 1,500.00	$ 9,000.00	$ 1,500.00	$ 9,000.00
3	Job Site Safety	6	MO	$ 10,000	$ 60,000	$ 3,000	$ 18,000	$ 1,000.00	$ 6,000.00	$ 2,500.00	$ 15,000.00
4	Material Mark-up	N/A	%	$ 0	$ -	20%	$ -	15%	$ -	18%	$ -
5	Labor Mark-up (Regular Work Hours)	N/A	%	$ 0	$ -	15%	$ -	15%	$ -	18%	$ -
6	Equipment Rental Mark-up (Non-Standard Equipment Only)	N/A	%	$ 0	$ -	20%	$ -	15%	$ -	18%	$ -
7	Seeding & Stabilization	1	AC	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 7,700.00	$ 7,700.00	$ 5,000.00	$ 5,000.00
	Miscellaneous Items SUBTOTAL				**$ 129,200**		**$ 41,000**		**$ 58,700.00**		**$ 76,778.24**
8	Clearing and Grubbing	1	LS	$ 10,000	$ 10,000	$ 16,000	$ 16,000	$ 22,000.00	$ 22,000.00	$ 5,000.00	$ 5,000.00
9	Removal & Disposal of Existing Lift Station	1	LS	$ 15,000	$ 15,000	$ 40,000	$ 40,000	$ 20,000.00	$ 20,000.00	$ 12,000.00	$ 12,000.00
10	Removal & Disposal of Existing Sewer Main	615	LF	$ 12	$ 7,380	$ 35.20	$ 21,648	$ 15.00	$ 9,225.00	$ 35.00	$ 21,525.00
11	Flowable Fill for Existing Pipes Abandoned In Place	3.5	CY	$ 150	$ 525	$ 200	$ 700	$ 320.00	$ 1,120.00	$ 240.00	$ 840.00
12	Removal & Disposal of Existing 48" Manhole (0'-5' Deep)	8	EA	$ 1,200	$ 9,600	$ 5,600	$ 44,800	$ 1,600.00	$ 12,800.00	$ 4,000.00	$ 32,000.00
13	Removal & Disposal of Existing 48" Manhole Additional Depth (> 5' Deep)	9	VF	$ 150	$ 1,350	$ 480	$ 4,320	$ 800.00	$ 7,200.00	$ 1,000.00	$ 9,000.00
14	Removal & Disposal of Existing Unclassified Pavement	2879	SY	$ 20	$ 57,580	$ 11	$ 32,244.80	$ 8.00	$ 23,032.00	$ 8.00	$ 23,032.00
15	Removal & Disposal of Existing Miscellaneous Concrete	605	SY	$ 25	$ 15,125	$ 24	$ 14,520	$ 15.00	$ 9,075.00	$ 10.00	$ 6,050.00
16	Removal & Disposal of Existing Concrete Curb & Gutter	20	LF	$ 20	$ 400	$ 11.20	$ 224	$ 35.00	$ 700.00	$ 30.00	$ 600.00
17	Removal & Disposal of Existing Concrete Sidewalk	4	SY	$ 39	$ 154	$ 24	$ 96	$ 80.00	$ 320.00	$ 50.00	$ 200.00
18	Removal & Disposal of Existing Concrete Rip Rap	66	SY	$ 20	$ 1,320	$ 24	$ 1,584	$ 50.00	$ 3,300.00	$ 30.00	$ 1,980.00
19	Removal & Disposal of Existing Concrete Ditch Bottom	32	SY	$ 39	$ 1,232	$ 24	$ 768	$ 50.00	$ 1,600.00	$ 30.00	$ 960.00
	Demolition Items SUBTOTAL				**$ 119,666**		**$ 176,905**		**$ 110,372.00**		**$ 113,187.00**
20	8" SDR 35 ASTM D3034, PS46, PVC, Sewer Main	2034	LF	$ 200	$ 406,800	$ 53.55	$ 108,920.70	$ 85.00	$ 172,890.00	$ 161.00	$ 327,474.00
21	6" SDR 35 ASTM D3034, PS46, PVC, Sewer Main	395	LF	$ 160	$ 63,200	$ 46.20	$ 18,249.00	$ 77.00	$ 30,415.00	$ 111.00	$ 43,845.00
22	Standard 4' Diamater Fiberglass Manhole & Cover (0-5' Deep)	9	EA	$ 15,000	$ 135,000	$ 10,896	$ 98,064	$ 5,500.00	$ 49,500.00	$ 7,782.00	$ 70,038.00
23	Standard 4' Diamater Fiberglass Manhole & Cover Addtl Bury Depth (> 5' Deep)	27	VF	$ 750	$ 20,250	$ 632	$ 17,064	$ 570.00	$ 15,390.00	$ 424.00	$ 11,448.00
24	Standard 4' Diamater Manhole Drop Structure (0-5' Deep, External)	1	EA	$ 17,000	$ 17,000	$ 15,100.80	$ 15,100.80	$ 6,400.00	$ 6,400.00	$ 8,650.00	$ 8,650.00
25	Standard 4' Diamater Manhole Drop Structure Additional Bury Depth (> 5' Deep, External)	8	VF	$ 750	$ 6,000	$ 632	$ 5,036	$ 600.00	$ 4,800.00	$ 524.00	$ 4,192.00
26	Open Trenching of Sewer Main (0-10' Deep)	2104	LF	$ 20	$ 42,080	$ 16	$ 33,664	$ 21.00	$ 44,184.00	$ 45.00	$ 94,680.00
27	Open Trenching of Sewer Main (10-13' Deep)	325	LF	$ 25	$ 8,125	$ 32	$ 10,400	$ 27.00	$ 8,775.00	$ 45.00	$ 14,625.00
28	Temporary Bypass Pumping	1	LS	$ 25,000	$ 25,000	$ 128,000	$ 128,000	$ 17,000.00	$ 17,000.00	$ 10,000.00	$ 10,000.00
29	Sewer Service Connection	13	EA	$ 1,500	$ 19,500	$ 1,280	$ 16,640	$ 1,300.00	$ 16,900.00	$ 1,928.00	$ 25,064.00
	Sewer Items SUBTOTAL				**$ 742,955**		**$ 451,139**		**$ 366,254.00**		**$ 610,016.00**
30	Replace Concrete Rip Rap	66	SY	$ 100	$ 6,600	$ 334.40	$ 22,070.40	$ 130.00	$ 8,580.00	$ 165.00	$ 10,890.00
31	Replace Concrete Ditch Bottom	32	SY	$ 150	$ 4,800	$ 334.40	$ 10,700.80	$ 170.00	$ 5,440.00	$ 165.00	$ 5,280.00
	Storm Drain Items SUBTOTAL				**$ 11,400**		**$ 32,771.20**		**$ 14,020.00**		**$ 16,170.00**
32	8" Concrete Pavement Repair	182	SY	$ 250	$ 45,500	$ 184	$ 33,488	$ 160.00	$ 29,120.00	$ 162.00	$ 29,484.00
33	Concrete Curb & Gutter Repair	20	LF	$ 55	$ 1,100	$ 34.40	$ 688	$ 60.00	$ 1,200.00	$ 80.00	$ 1,600.00
34	4" Concrete Sidewalk Repair	4	SY	$ 65	$ 260	$ 75.60	$ 302.40	$ 350.00	$ 1,400.00	$ 165.00	$ 660.00
35	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	2727	SY	$ 42	$ 114,534	$ 43.20	$ 117,806.40	$ 45.00	$ 122,715.00	$ 54.00	$ 147,258.00
36	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	546	GAL	$ 8	$ 4,368	$ 4	$ 2,184	$ 6.00	$ 3,276.00	$ 15.00	$ 8,190.00
37	Tack Coat (MC-30, 0.10 Gal / SY)	274	GAL	$ 4	$ 1,096	$ 4	$ 1,096	$ 5.00	$ 1,370.00	$ 15.00	$ 4,110.00
38	Flowable Fill / 2-Sack Backfill	1565	SY	$ 70	$ 109,550	$ 152	$ 237,880	$ 95.00	$ 148,675.00	$ 100.00	$ 156,500.00
39	10" Base Rock Pavement Repair (Flexible Base)	2727	SY	$ 6	$ 17,044	$ 40	$ 109,080	$ 25.00	$ 68,175.00	$ 15.00	$ 40,905.00
40	Sleeper Slab Transition	1	LS	$ 7,500	$ 7,500						
	Paving Items SUBTOTAL				**$ 300,951.75**		**$ 502,524.80**		**$ 375,931.00**		**$ 388,707.00**
			GRAND TOTAL BASE BID:	$ -	**$ 1,304,172.75**		**$ 1,204,339.30**		**$ 925,277.00**		**$ 1,204,858.24**
			Add/Deduct		$ (7,500)						
			Bid Total		**$ 1,296,672.75**		**$ 1,204,339.30**		**$ 925,277.00**		**$ 1,204,858.24**

Responsiveness	Addenda Acknowledged		yes	yes	yes
	Bid Bond Included		yes	yes	yes
	Math Errors (See Note 1)		yes	no	yes
	Numbers and Words Match		yes	yes	yes
	Mob Max <5%		yes	yes	yes
	Irregularities (incomplete, unsigned, stipulation added, discrepancies) (See Note 2)		yes	no	no
	Conflict of Interest Questionaire		yes	yes	yes
	Affidavit of Eligibility		yes	yes	yes
	Liability Insurance Certificate (See Note 3)		yes	no	yes
	Must provide active licences equal to Water Operator D and either a Wastewater D license or a Class 1 Collections license		yes	yes	yes
	Qualifications: 1. Experience with similar work 2. Financial ability to complete the work 3. Safety record 4. References		City is familiar with all of the above contractors and considers them to be qualified to perform the work.		

Note 1 - Edgardo Madrid & Associates, LLC, had a small math error within the bid total of $20 more than their listed total. Total in this bid tab is $1,204,339.30 instead of $1,204,359.30. Boler Equipment Service had a large math error within the bid total of $47,778.25 resulting in the total bid being $1,204,858.24 instead of $1,252,636.49

Note 2 - Edgardo Madrid & Associates, LLC did not provide a demolition total within their bid

Note 3 - Although Liability insurance was not provided by TEC Excavation, it appears that Liability Insurance is not required to be provided until Contract is awarded.

Re-Bid Documents

Peck/Terrell Lift Station Elimination and New Sewer Installation

City of Midland

Midland, Texas



Specifications

July 2022

Prepared By:

Jacobs

City of Midland

Midland, Texas

BIDDING REQUIREMENTS
AND
CONTRACT DOCUMENTS

for the construction of the

Peck/Terrell Lift Station Elimination and New Sewer Installation

****

****

JACOBS

Dallas, Texas

July 2022

© Jacobs 2022. All rights reserved.
This document and the ideas and designs incorporated herein, as an instrument of professional service, is the property of Jacobs and is not to be used in whole or part, for any other project without the written authorization of Jacobs.
Any reuse, modification, or alteration of this document and the ideas and designs incorporated herein is at the sole risk of the party(ies) reusing, modifying, or altering it. All references to Jacobs and its employees and all professional seals shall be removed prior to any reuse, modification, or alteration of this document.

Project No. WFXQ8300

NOTICE TO BIDDERS

ATTENTION: All bidders who choose to mail bid packets must address them to one of the addresses below:

USPS Mailing Address:		***Physical Address for mail carriers other than USPS:***
City of Midland, Texas		**City of Midland, Texas**
Attn: City Secretary's Office	**OR**	**Attn: City Secretary's Office**
P O Box 1152		**300 North Loraine St, Suite 330**
Midland, TX 79702		**Midland, TX 79701**

If bid packets are delivered in person then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

Sealed proposals, addressed to the Mayor and City Council of the City of Midland, Texas, for the furnishing of materials and labor together with other miscellaneous and appurtenant work will be received at the office of the City Secretary, City Hall, Midland, Texas, until 2:00 p.m. on the 19th day of October, 2022, and publicly opened and read aloud at that time.

ATTENTION: The public bid opening will be in the City Council Meeting Chambers

The Proposed Work provides for the furnishing of materials and labor for Peck/Terrell Lift Station Elimination and New Sewer Installation together with other miscellaneous and appurtenant work.

ATTENTION: A NON-MANDATORY PRE-BID MEETING will be held at 3:00 p.m. on Wednesday, October 12, 2022 in the basement conference room of City Hall, 300 N. Loraine Street, Midland, Texas. Bidders may attend the meeting in person.

ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

purchasing@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting is Noon on Friday, October 14, 2022. Questions submitted before the Noon deadline will be included in the Addendum that will go out that same day along with all discussion items, questions, answers, and any new information resulting from the Non-Mandatory Pre-Bid Meeting. Questions submitted after the Noon deadline will not receive any additional information and will instead only be directed to the information already provided.

Bids will be received on a unit price basis.

No Bid may be withdrawn within a period of 60 days after the date fixed for opening Bids.

"FAX" or telephone bids or modifications will not be accepted.

Bid Envelopes shall be plainly marked "Proposal for City of Midland".

ATTENTION: Information for bidders, proposal forms, specifications, and plans may be obtained by emailing purchasing@midlandtexas.gov.

THE CITY OF MIDLAND

CONTRACT

23000011

THIS CONTRACT, effective the 16th day of November, 2022, by and between the City of Midland, hereinafter referred to as "CITY", and TEC Excavation, Inc., hereinafter referred to as "COMPANY", is made for the following considerations:

1. **Cost:** Total Proposal: $ 925,277.00 DOLLARS

2. **Scope of Work:** COMPANY shall perform all work described for Peck/Terrell Lift Station Elimination and New Sewer Installation in the following documents, attached hereto and incorporated herein by reference for all legal 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 Carl Craigo 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 180 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 any 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: _____
Robert Patrick, City Manager

ATTEST

_____
Amy M. Turner, 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 TEC Excavation, Inc. , 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

PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
CITY OF MIDLAND

SECTION 00 41 13

BID PROPOSAL

Bid of TEC EXCAVATION, INC. Date 10/19/22
(Name of Firm)

TO: Honorable Mayor and City Council
City of Midland
300 North Lorraine
Midland, Texas 79701

FOR: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

Gentlemen: The undersigned, as Bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that his proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the form of contract, Invitation for Bids, Instructions to Bidders, the General and Supplementary Conditions, Specifications, and the Drawings herein referred to, and has carefully examined the locations, conditions, and classes of materials of the proposed work; and agrees that he will provide all the necessary labor, machinery, tools, apparatus, and other items incidental to construction, and will do all the work and furnish all the materials as called for in the Contract Documents in the manner prescribed and according to the Plans and Specification requirements of the OWNER as herein set forth.

Accompanying this proposal is a (certified or cashier's check payable to the OWNER (Bid Bond) in the amount of 5% of the Total Bid.

The bid security accompanying this Proposal shall be returned to the Bidder, unless in case of the acceptance of the Proposal, the Bidder shall fail to execute a Contract and file Performance and Payment Bonds within ten (10) days after its acceptance, in which case the bid security shall become the property of the OWNER, and shall be considered as payment for damages due to delay and other inconveniences suffered by the OWNER on account of such failure of the Bidder. It is understood that the OWNER reserves the right to reject any and all bids received.

Prices shall be shown in words and figures. In the event of a discrepancy, the words shall govern.

Contractor shall refer to Section 01 29 00, Payment Procedures.

The Bid Proposal includes the demolition of an existing lift station and the construction of 8-inch sewer, 6-inch sewer, and associated manholes and pavement repair work. The undersigned hereby proposes and agrees to perform all work of whatever nature required, in strict accordance with the Plans and Specifications, for the following sum of prices, to wit (see following pages):

©COPYRIGHT 2022 JACOBS

PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION BID PROPOSAL

BID ITEMS					
Item No.	Approximate Quantity		Description of Item With Bid Price Written In Words	Unit Price	Amount Bid
			Base Bid: Miscellaneous Items		
1	6	MOS	Mobilization and Demobilization, a maximum of 5% of the SUBTOTAL SHOWN BELOW (Items 1 - 36) for SIX THOUSAND Dollars and NO Cents per Month (pay note M1)	$ 6,000.00	$ 36,000.00
2	6	MOS	Design and implementation of a Storm Water Pollution Prevention Plan (designed by licensed Engineer in the State of Texas) and control in accordance with specifications, laws, rules and assumption of responsibility for plan and control, for FIFTEEN HUNDRED Dollars and NO Cents per Month (pay note M2)	$ 1,500.00	$ 9,000.00
3	6	MOS	Job Site Safety, furnished, installed, complete and in place, for ONE THOUSAND Dollars and NO Cents per Month (pay note M3)	$ 1,000.00	$ 6,000.00
4	N/A	N/A	Material Mark-up, complete and in place, for the sum of: FIFTEEN percent (pay note M4)	% 15	$ N/A
5	N/A	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: FIFTEEN percent (pay note M5)	% 15	$ N/A
6	N/A	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: FIFTEEN percent (pay note M6)	% 15	$ N/A
7	1	AC	Seeding and Stabilization in open areas (seed mixture to match native grasses), complete and in place, for SEVENTY SEVEN HUNDRED Dollars and NO Cents per Acre. (pay note M7)	$ 7,700.00	$ 7,700.00
			MISCELLANEOUS ITEMS SUBTOTAL	$ 58,700.00	

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	Approximate Quantity		Description of Item With Bid Price Written In Words	Unit Price	Amount Bid
Base Bid: Demolition Items					
8	1	LS	Clearing and Grubbing, including tree, debris, obstruction removal (any trees removed shall be approved by owner and recorded by size and type) and refilling of depressions, all work fully performed, for TWENTY TWO THOUSAND Dollars and NO Cents per Acre (pay note D1)	$ 22,000.00	$ 22,000.00
9	1	LS	Removal, Disposal and Salvage of existing lift Station, wet well, and associated electrical equipment, all work fully performed for TWENTY THOUSAND Dollars and NO Cents per Lump Sum (pay note D2)	$ 20,000.00	$ 20,000.00
10	615	LF	Removal and Disposal of Existing Sewer Main, complete and in place, for FIFTEEN Dollars and NO Cents per LF (pay note D3)	$ 15.00	$ 9,225.00
11	3.5	CY	Flowable Fill for Existing Pipes Abandoned in Place, furnished, installed, complete and in place for THREE HUNDRED TWENTY Dollars and NO Cents per LF (pay note D4)	$ 320.00	$ 1,120.00
12	8	EA	Removal and Disposal of Existing Manhole (0'-5' Deep), complete and in place for SIXTEEN HUNDRED Dollars and NO Cents per EA (pay note D5)	$ 1,600.00	$ 12,800.00
13	9	VF	Removal and Disposal of Existing Manhole Additional Depth (>5' Deep), complete and in place for EIGHT HUNDRED Dollars and NO Cents per EA (pay note D6)	$ 800.00	$ 7,200.00
14	2,879	SY	Removal and Disposal of Existing Unclassified Pavement, complete and in place for EIGHT Dollars and NO Cents per SY (pay note D7)	$ 8.00	$ 23,032.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
15	605	SY	Removal and Disposal of Existing Miscellaneous Concrete, complete and in place for FIFTEEN Dollars and NO Cents per SY (pay note D8)	$ 15.00	$ 9,075.00
16	20	LF	Removal and Disposal of Existing Concrete Curb and Gutter, complete and in place for THIRTY FIVE Dollars and NO Cents per LF (pay note D9)	$ 35.00	$ 700.00
17	4	SY	Removal and Disposal of Existing Concrete Sidewalk, complete and in place for EIGHTY Dollars and NO Cents per SY (pay note D10)	$ 80.00	$ 320.00
18	66	SY	Removal and Disposal of Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of FIFTY Dollars and NO Cents per Square Yard (pay note D11)	$ 50.00	$ 3,300.00
19	32	SY	Removal and Disposal of Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of FIFTY Dollars and NO Cents per Square Yard (pay note D12)	$ 50.00	$ 1,600.00
			DEMOLITION ITEMS SUBTOTAL	$ 110,372.00	
			Base Bid: Sewer Items		
20	2,034	LF	8-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for EIGHTY FIVE Dollars and NO Cents per Each (pay note S1)	$ 85.00	$ 172,890.00
21	395	LF	6-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for SEVENTY SEVEN Dollars and NO Cents per Each (pay note S2)	$ 77.00	$ 30,415.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	Approximate Quantity		Description of Item With Bid Price Written In Words	Unit Price	Amount Bid
22	9	EA	Standard 4' Diameter Fiberglass Manhole and Cover, (0-5' Deep), furnished, installed, complete and in place, for the sum of FIFTY FIVE HUNDRED Dollars and NO Cents per Each (pay note S3)	$ 5,500.00	$ 49,500.00
23	27	VF	Standard 4' Diameter Manhole Additional Bury Depth, (>5' Deep), furnished, installed, complete and in place, for the sum of FIVE HUNDRED SEVENTY Dollars and NO Cents per Vertical Foot (pay note S4)	$ 570.00	$ 15,390.00
24	1	EA	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover, (0-5' Deep, External), furnished, installed, complete and in place, for the sum of SIXTY FOUR HUNDRED Dollars and NO Cents per Each (pay note S5)	$6,400.00	$6,400.00
25	8	VF	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover Additional Bury Depth, (>5' Deep, External), furnished, installed, complete and in place, for the sum of SIX HUNDRED Dollars and NO Cents per Vertical Foot (pay note S6)	$600.00	$4,800.00
26	2104	LF	Open Trenching of Sewer Main, (0-10' Deep), furnished, installed, complete and in place, for the sum of TWENTY ONE Dollars and NO Cents per Linear Foot (pay note S7)	$ 21.00	$ 44,184.00
27	325	LF	Open Trenching of Sewer Main, (10-13' Deep), furnished, installed, complete and in place, for the sum of TWENTY SEVEN Dollars and NO Cents per Linear Foot (pay note S8)	$ 27.00	$ 8,775.00
28	13	EA	Sewer Service Connection, furnished, installed, complete and in place, for the sum of THIRTEEN HUNDRED Dollars and NO Cents per Linear Foot (pay note S9)	$ 1,300.00	$ 16,900.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
29	1	LS	Temporary bypass pumping, all work fully performed for SEVENTEEN THOUSAND Dollars and NO Cents per Lump Sum (pay note S10)	$ 17,000.00	$ 17,000.00
			SEWER ITEMS SUBTOTAL	$ 366,254.00	
			Base Bid: Storm Drain Items		
30	66	SY	Replace Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of ONE HUNDRED THIRTY Dollars and NO Cents per Square Yard (pay note SD1)	$ 130.00	$ 8,580.00
31	32	SY	Replace Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of ONE HUNDRED SEVENTY Dollars and NO Cents per Square Yard (pay note SD2)	$ 170.00	$ 5,440.00
			STORM DRAIN ITEMS SUBTOTAL	$ 14,020.00	
			Base Bid: Paving Items		
32	182	SY	8" Concrete Pavement Repair, furnished, installed, complete and in place for the sum of ONE HUNDRED SIXTY Dollars and NO Cents per Square Yard (pay note P1)	$ 160.00	$ 29,120.00
33	20	LF	Concrete Curb and Gutter Repair, furnished, installed, complete and in place, for the sum of SIXTY Dollars and NO Cents per Linear Foot (pay note P2)	$ 60.00	$ 1,200.00
34	4	SY	4" Concrete Sidewalk Repair, furnished, installed, complete and in place, for the sum of THREE HUNDRED FIFTY Dollars and NO Cents per Square Yard (pay note P3)	$ 350.00	$ 1,400.00
35	2727	SY	2" Type D HMAC Asphalt Pavement Repair (PG70-22), furnished, installed, complete and in place, for the sum of FORTY FIVE Dollars and NO Cents per Square Yard (pay note P4)	$ 45.00	$ 122,715.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
36	546	GAL	Bituminous Prime Coat (MC-30, 0.20 Gal/SY), furnished, installed, complete and in place, for the sum of SIX Dollars and NO Cents per Gallon (pay note P5)	$ 6.00	$ 3,276.00
37	274	GAL	Tack Coat (MC-30, 0.10 Gal/SY), furnished, installed, complete and in place, for the sum of FIVE Dollars and NO Cents per Gallon (pay note P6)	$ 5.00	$ 1,370.00
38	1565	SY	Flowable Fill / 2 Sack Backfill, furnished, installed, complete and in place, for the sum of NINETY FIVE Dollars and NO Cents per Square Yard (pay note P7)	$ 95.00	$ 148,675.00
39	2727	SY	10" Base Rock Pavement Repair (Flexible Base) furnished, installed, complete and in place, for the sum of TWENTY FIVE Dollars and NO Cents per Square Yard (pay note P8)	$ 25.00	$ 68,175.00
40	1	LS	Sleeper Slab Transition furnished, installed, complete and in place for the sum of DELETED PER ADDENDUM 2 Dollars and DELETED Cents (see pay note P9)	$ DELETED	$ DELETED
			PAVING ITEMS SUBTOTAL	$ 375,931.00	
			GRAND TOTAL	$ 925,277.00	
*BID AWARD WILL BE BASED ON THE LOWEST GRAND TOTAL					

- All Bid Items shall be in Accordance with Plans and Specifications.
- All Bid Items shall be complete in place, unless otherwise noted.
- All Bid Items shall be furnishing and installing, unless otherwise noted.
- All Bid Items shall be independent of depth, unless otherwise noted.
- All Bid Items shall include materials and labor, unless otherwise noted.

DURING BID VERIFICATION PROCESS, BONDS AND MOBILIZATION WILL BE ADJUSTED IF THE VALUES EXCEED ALLOWABLE PERCENTAGE.

©COPYRIGHT 2022 JACOBS

The undersigned agrees to substantially complete all work covered by these Contract Documents in accordance with limitations outlined in the SUPPLEMENTARY CONDITIONS. In the event that the project is not complete within the allotted time as specified herein, the OWNER will assess liquidated damages in accordance with the SUPPLEMENTARY CONDITIONS.

In the event of award of a Contract to the undersigned, the undersigned will furnish Performance and Payment Bonds for the full amount of the Contract to secure proper compliance with the terms and provisions of the Contract, to insure and guarantee the work until final completion and acceptance, and to guarantee payment of all lawful claims for labor performed and materials furnished in fulfillment of the Contract.

The work proposed to be done shall be accepted when fully complete and finished in accordance with the Plans and Specifications, to the satisfaction of the OWNER.

The undersigned certifies that the bid prices contained in this Proposal have been carefully checked and are submitted as correct and final.

Receipt is hereby acknowledged of the following addenda to the Contract Documents:

Addendum No. 1 dated 10/4/22 Received ERIC CLUTTER

Addendum No. 2 dated 10/14/22 Received ERIC CLUTTER

Addendum No. 3 dated _____ Received _____

Addendum No. 4 dated _____ Received _____

Addendum No. 5 dated _____ Received _____

Addendum No. 6 dated _____ Received _____

©COPYRIGHT 2022 JACOBS

Respectfully submitted,

Twyla Clutter
Signature

Twyla Clutter Pres.
Printed Name and Title

Attested by:

Lynette Gonzalez
Signature

Lynette Gonzalez Secretary
Printed Name and Title

TEC EXCAVATION, INC.
Company Name

P.O. BOX 80455 MIDLAND, TX 79708
Mailing Address

1538 COTTON FLAT ROAD MIDLAND, TX 79706
Street Address

MIDLAND, TX 79706
City, State, Zip

432-682-2619 eclutter@tecexcavation.com
Telephone Number/Email Address

Seal and Authorization
(If Corporation)

Note: Bid forms may be detached from this bound document. Fill in with ink and submit complete with attached papers. Do not insert additional or conditional statements or deletions to this Proposal. Any additional or conditional statements or deletions shall be considered as a non-responsive bid and rejected accordingly.

©COPYRIGHT 2022 JACOBS



CITY OF MIDLAND

ADDENDUM

BID # 23000011

TO ALL BIDDERS ON THE SUBJECT BID:

ADDENDUM # 1

DATE: October 4, 2022

The following changes have been made to the specifications.

A non-mandatory pre-bid meeting will be held on Wednesday, October 12, 2022 at 10:00 a.m. in the 5th Floor Utilities Conference Room, City Hall 300 N. Loraine.

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

TEC EXCAVATION INC
Company Name

Twyla Clutter
Bidder Authorized Signature

10·19·22
Date

Twyla Clutter
Please Print Above Name

432·687·5346
Phone

ADDENDUM NO. 2 Date: Oct 14, 2022
TO THE CONTRACT DOCUMENTS Midland Bid No.: 23000011
for the
Peck/Terrell Lift Station Elimination and New Sewer Installation Project
City of Midland, Texas

To All Planholders of Record and/or Prospective Bidders:

Changes/additions in specifications are detailed below.

Changes to drawings are highlighted by clouding the change with triangle that notes the addenda number.

Below are list of specifications and drawings that have changes, additions, and /or deletions.

SPECIFICATIONS

1. DIVISION 0 - CONTRACTING AND PROCUREMENT REQUIREMENTS

- 00 41 13 Bid Proposal

  1) Page 00 41 13 - 7 , **REMOVE ITEM 40,** *"Sleeper Slab Transition furnished, installed, complete and in place for the sum of_____Dollars and_____Cents*

  2) Page 00 41 13 - 10 , **REMOVE ITEM 40,** *"Sleeper Slab Transition"*

  3) Page 00 41 13 - 15 , **REMOVE ITEM P9** *"Includes the necessary equipment, labor, materials, and incidentals for installation of a Sleeper Slab Transition between pavement and concrete per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per lump sum.,*

DRAWINGS

The following drawings have been revised and are included in this set

1. CIVIL SHEETS

- DWG C-203 Existing Condition - View 3
- DWG C-403 Demolition Plan - Enlarged View 3 of 6
- DWG C-404 Demolition Plan - Enlarged View 4 of 6
- DWG C-405 Demolition Plan - Enlarged View 5 of 6
- DWG C-406 Demolition Plan - Enlarged View 6 of 6
- DWG C-705 Detail 5

PRE BID MEETING MINUTES

The Pre bid Meeting Minutes are included within this package.

BID PERIOD QUESTIONS

The following questions were asked via email during the bid period. Answers are also included.

1. **Questions**

- Josh, do you know the diameter and the approximate depth of the existing wet well?
    1) The well depth and diameter have been added to the drawings.
- Is there a specific size of casing for the boring under the pipelines?
    1) No casing size is specified. It will need to be big enough for the pipe to fit in and will need to be coordinated with the utility owner.
- Are yall wanting 2-Sack on the entire ditch line (paved and non-paved areas)?
    1) 2-Sack is only required under paved areas.
- Can you clarify where the 10" base rock pavement repair is?
    1) The 10" base rock is required under the 2" Type D HMAC Asphalt Pavement Repair (PG70-22).

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 in the Proposal or by submitting the Addendum (excluding the Site Certificate) with the bid package. Bidders shall also acknowledge all addendum on the outside of their sealed bid envelope. Proposals submitted without acknowledgement or without this Addendum will be considered informal.

Jacobs Engineering Group, Inc.

Jeff Miner, P.E.
Project Manager

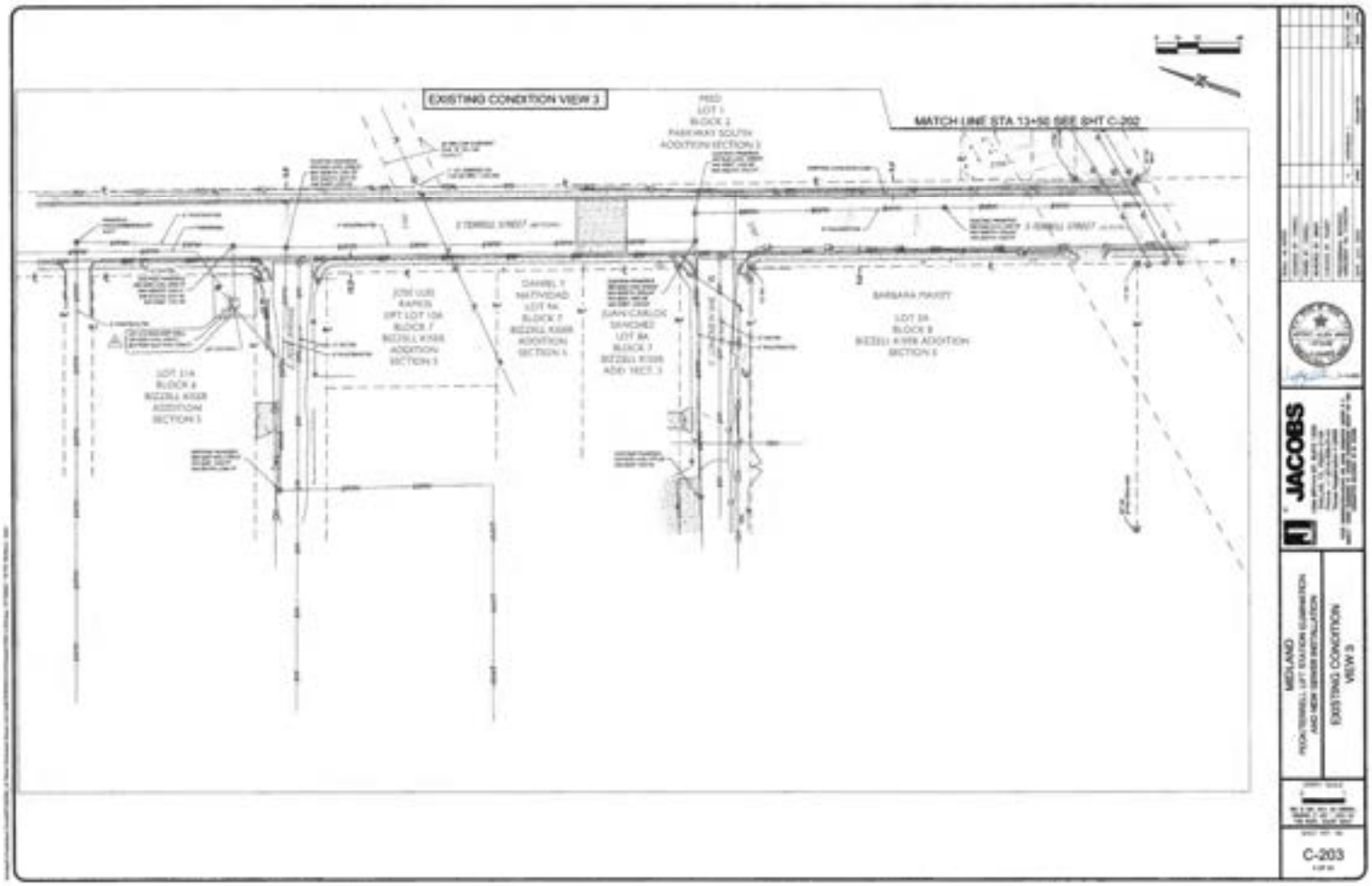


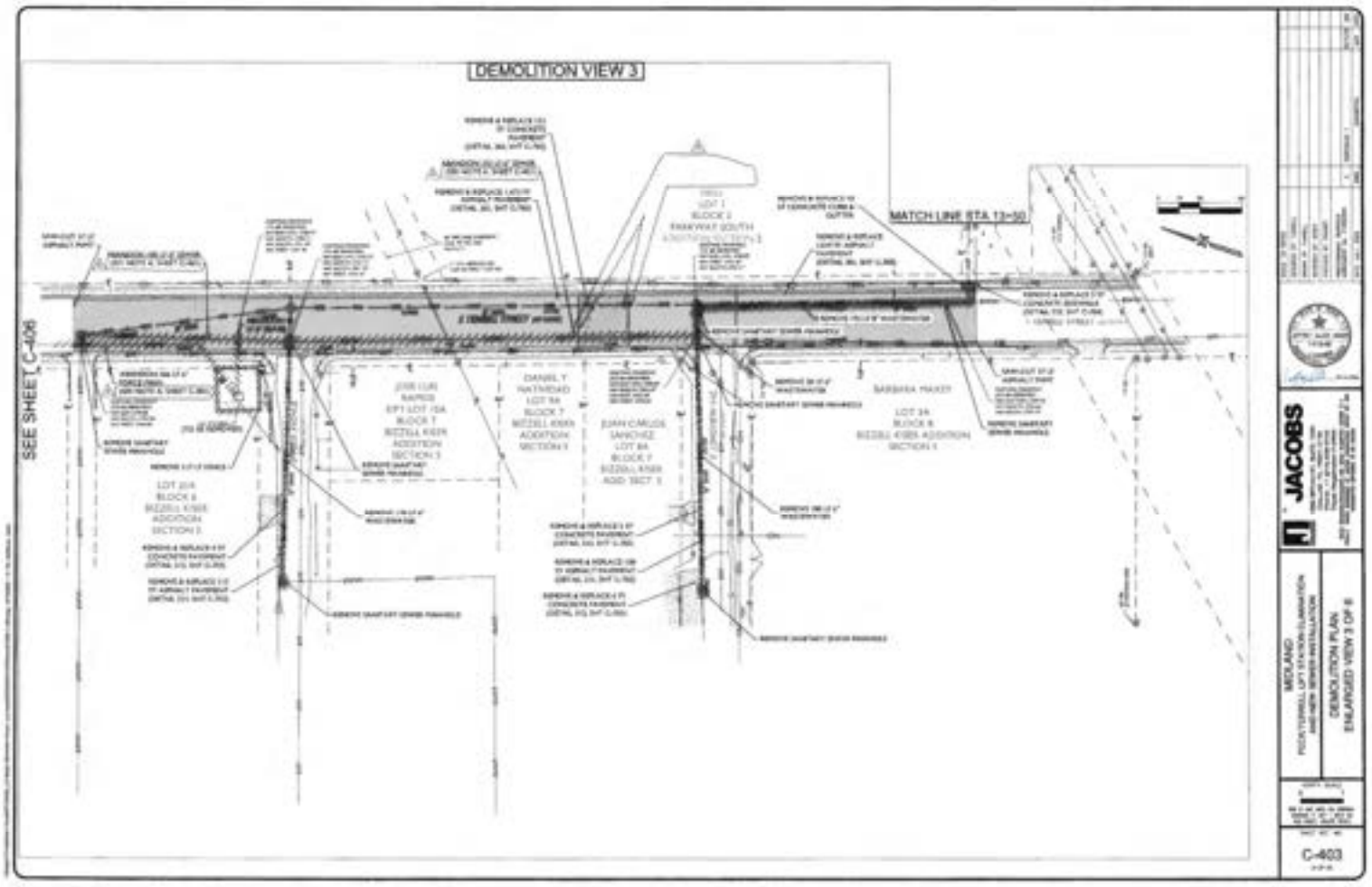
10/14/2022

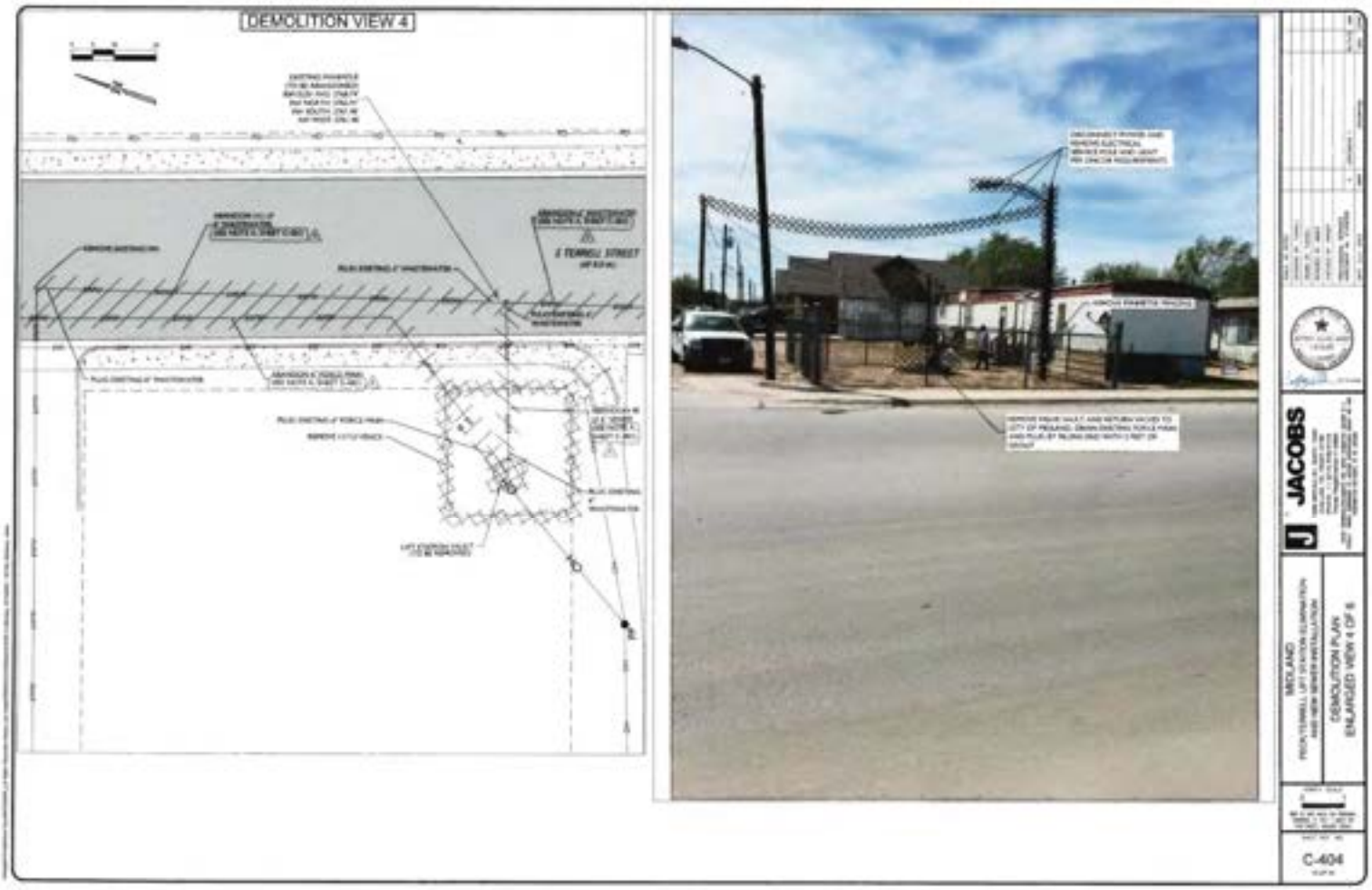
ATTACHMENTS:

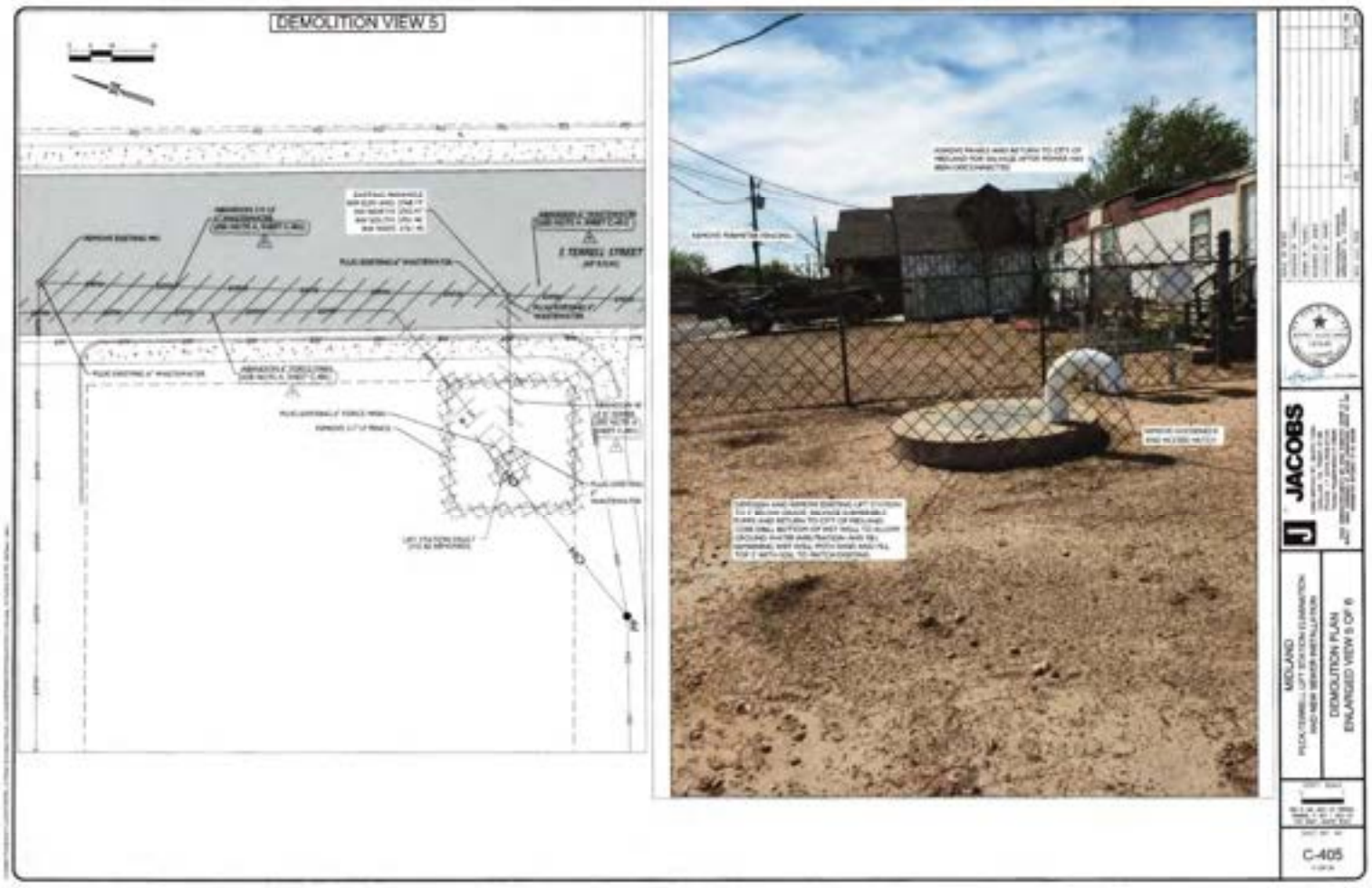
1) DRAWINGS (6 pages)
2) MINUTES (6 pages)

END OF ADDENDUM NO. 2

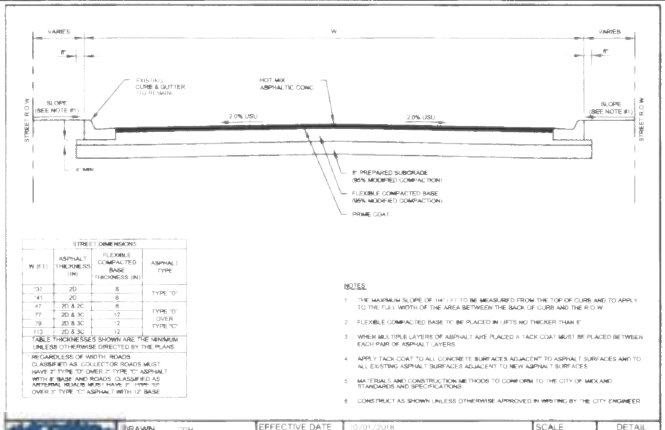

EXISTING CONDITION VIEW 3
MATCH LINE STA 13+50 SEE SHT C-202
JACOBS
MIDLAND
EXISTING CONDITION
VIEW 3
C-203


DEMOLITION VIEW 3
MATCH LINE STA 13+50
SEE SHEET C-406
JACOBS
MIDLAND
DEMOLITION PLAN
ENLARGED VIEW 3 OF 8
C-403


DEMOLITION VIEW 4
JACOBS
C-404


DEMOLITION VIEW 5
JACOBS
MIDLAND
DEMOLITION PLAN
ENLARGED VIEW 5 OF 6
C-405


DEMOLITION VIEW 6
SEE SHEET C-403
JACOBS
C-406



STREET DIMENSIONS

W (FT)	ASPHALT THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	ASPHALT TYPE
33'	2D	8	TYPE "D"
41'	2D	8	
47'	2D & 2C	8	
77'	2D & 2C	12	TYPE "D" OVER TYPE "C"
79'	2D & 2C	12	
113'	2D & 2C	12	

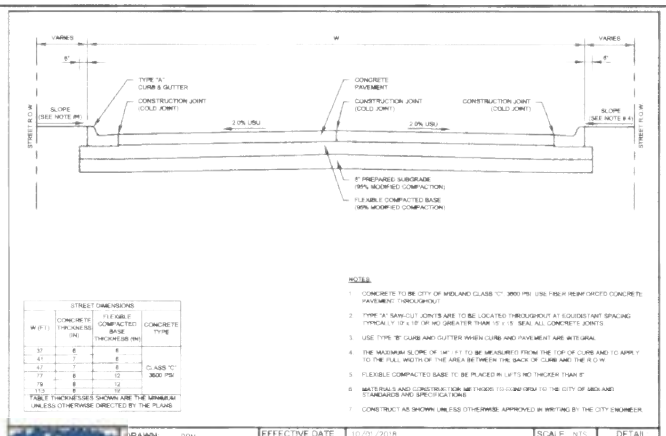
TABLE THICKNESSES SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS

REGARDLESS OF WIDTH, ROADS CLASSIFIED AS COLLECTOR ROADS MUST HAVE 2" TYPE "D" OVER 2" TYPE "C" ASPHALT WITH 8" BASE AND ROADS CLASSIFIED AS ARTERIAL ROADS MUST HAVE 2" TYPE "D" OVER 2" TYPE "C" ASPHALT WITH 12" BASE

NOTES:

1. THE MAXIMUM SLOPE OF THE 1/4" FT TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
2. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 8"
3. WHEN MULTIPLE LAYERS OF ASPHALT ARE PLACED A TACK COAT MUST BE PLACED BETWEEN EACH PAIR OF ASPHALT LAYERS
4. APPLY TACK COAT TO ALL CONCRETE SURFACES ADJACENT TO ASPHALT SURFACES AND TO ALL EXISTING ASPHALT SURFACES ADJACENT TO NEW ASPHALT SURFACES
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER

MIDLAND	DRAWN: DPW	EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL
	CHECKED: XG	STANDARD STREET CROWN CROSS SECTION		201
	APPROVED: MCC			



STREET DIMENSIONS

W (FT)	CONCRETE THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	CONCRETE TYPE
33'	6	8	
41'	7	8	
47'	7	8	CLASS "C" 3600 PSI
77'	8	12	
79'	8	12	
113'	8	12	

TABLE THICKNESSES SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS

NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C" 3600 PSI USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT
2. TYPE "A" SAW-CUT JOINTS ARE TO BE LOCATED THROUGHOUT AT EQUIDISTANT SPACING TYPICALLY 12' x 12' OR NO GREATER THAN 15' x 15' SEAL ALL CONCRETE JOINTS
3. USE TYPE "B" CURB AND GUTTER WHEN CURB AND PAVEMENT ARE INTEGRAL
4. THE MAXIMUM SLOPE OF THE 1/4" FT TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
5. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 8"
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER

MIDLAND	DRAWN: DPW	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL
	CHECKED: XG	CONCRETE PAVEMENT STREET CROWN CROSS SECTION		202
	APPROVED: MCC			

JACOBS

MIDLAND
PECK TERRELL ESTATES ELIMINATION AND NEW SEWER INSTALLATION

DETAIL 5

C-705

Peck/Terrell Lift Station Elimination and New Sewer Installation
Non-Mandatory Pre-Bid Meeting Minutes
Bid No. 23000011
October 12, 2022
10:00 AM CDT

Discussion Items

1. Sign-in Sheet

2. Personnel Overview
   - Carl Craigo – Utilities Director
   - Rex Swearinger – Water and Wastewater Operations Superintendent, utility coordination
   - Jose Ortiz – Director Engineering Services
   - Gabe McClelland – Senior Engineering Manager
   - Josh Ferguson – Assistant City Engineer
   - Bobby Wojciechowski – Capital Improvement Project Manager
   - Taha Sakrani – Associate Traffic Engineer
   - Troy Clabaugh – Traffic Operations Superintendent
   - Jesse Trejo – Construction Manager, construction management & inspections
   - Madison Brasuell – Project Manager
   - Andy Navarro – Franchise Utility Coordinator
   - Michael Williams – Stormwater Manager
   - Natalie Burgard – Administrative Assistant, document processing & payments
   - Erika Martinez – Purchasing Manager, conduct bid process & bid opening
   - Jeff Miner – Design Engineer of Record (Jacobs Engineering)

3. Project Overview and Scope
   - This project will include the decommissioning and removal of an existing lift station and will include the installation of approximately 2,500 linear feet of new sewer pipe, with associated manholes, trenching, pavement and concrete repair as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Bid Packet, Construction Drawings, and Specifications, and to satisfactorily complete the work.

Peck/Terrell Lift Station Elimination and New Sewer Installation
Non-Mandatory Pre-Bid Meeting Minutes
Bid No. 23000011
October 12, 2022
10:00 AM CDT

Discussion Items

1. Sign-in Sheet

2. Personnel Overview
   - Carl Craigo – Utilities Director
   - Rex Swearinger – Water and Wastewater Operations Superintendent, utility coordination
   - Jose Ortiz – Director Engineering Services
   - Gabe McClelland – Senior Engineering Manager
   - Josh Ferguson – Assistant City Engineer
   - Bobby Wojciechowski – Capital Improvement Project Manager
   - Taha Sakrani – Associate Traffic Engineer
   - Troy Clabaugh – Traffic Operations Superintendent
   - Jesse Trejo – Construction Manager, construction management & inspections
   - Madison Brasuell – Project Manager
   - Andy Navarro – Franchise Utility Coordinator
   - Michael Williams – Stormwater Manager
   - Natalie Burgard – Administrative Assistant, document processing & payments
   - Erika Martinez – Purchasing Manager, conduct bid process & bid opening
   - Jeff Miner – Design Engineer of Record (Jacobs Engineering)

3. Project Overview and Scope
   - This project will include the decommissioning and removal of an existing lift station and will include the installation of approximately 2,500 linear feet of new sewer pipe, with associated manholes, trenching, pavement and concrete repair as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Bid Packet, Construction Drawings, and Specifications, and to satisfactorily complete the work.

4. Bid Process
    - Pre-Bid meeting attendance is non-mandatory to bid on this project.
    - ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

      ccraigo@midlandtexas.gov

    - Purpose of this bid is to solicit bids to complete the work in accordance with the contract documents.
    - The amount to be awarded for the Peck/Terrell Lift Station Elimination and New Sewer Installation will be determined upon receipt of bids.
    - Quantities listed in the Proposal are not indicative of or guarantees of the actual project work quantities that may be assigned under this program.
    - Addendum distributed by email the Friday afternoon the week following the Pre-Bid Meeting (10/14/2022)
        - The deadline to ask or send questions for the addendum is Friday October 14, 2022, noon.
        - Questions asked after the noon deadline will be directed to the information already provided in the bid documents or included in the Addendum.
    - ATTENTION: Bidders are to submit bids either by mail or in person. If bidders choose to mail their bid packets in, then they are to mail the bid packet to one of the addresses listed below:

      USPS Mailing Address:
      City of Midland, Texas
      Attn: City Secretary's Office
      P.O. Box 1152
      Midland, TX 79702

      -OR-

      Physical Address for mail carriers other than USPS:
      City of Midland, Texas
      Attn: City Secretary's Office
      300 North Loraine St., Suite 330
      Midland, TX 79701

      If bid packets are delivered in person then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

- **Bid Opening is Wednesday, October 19, 2022 at 2:00 PM** in the City Hall Council Chamber located on the 1st Floor of Midland's City Hall
    - The Bid Opening will be open to the public, and bidders are free to attend in person
    - No late bids will be accepted
    - Bidders must be willing to sign the contract as is.
    - Bidders must complete the conflict of interest forms, if applicable.
    - Bidders must fill out all bid items in the Proposal. If bid items are left blank then the bid will be considered non-responsive.
    - Bidders have sole responsibility for making sure they have and acknowledge all addenda provided. If all acknowledgement forms are not included with the bid packet submittal then the bid will be considered non-responsive.
    - Bidders must provide proof that they possess active licenses equal to or a higher class than a Water Operator D licenses and either a Wastewater D license or a Class 1 Collections license as outlined in the last paragraph of the Special Provisions section of the bid packet.

5. Notice to Proceed
    - Date of Notice to Proceed to be determined at the Pre-Construction Meeting
    - Pre-Construction Meeting date will be set after the bid is awarded.

6. Payment
    - Payment will be as described in the specifications section 01 29 00 Payment Procedures and as described in Section 00 41 13 Bid Proposal.
    - Payment to be made for material delivered only for bid items specifically indicated in Special Provisions, 4. Payment. All other payments to be made after 100% work completion, with no other material delivery payments, partial payments, or payments for mobilization.
    - Work is considered 100% complete when the project Work Order is completed and signed by both the City Inspector and the Contractor.
        - When a project has items paid upon material delivery, there are to be two Work Orders. The first Work Order will include all items to be paid upon material delivery, and the second will include all other items applicable to the project in question.
    - Work Orders and invoices are to be itemized and match the bid items listed in the bid packet Proposal.
    - Recommend that invoices state "Invoice Due Upon Receipt", or have a due date that is two (2) weeks after the date the invoice is submitted.

7. Project Schedule
    - City Inspector must be notified of all work occurring and be able to perform inspections on any construction or installation that occurs.
    - Typically work times are Monday – Friday from 8:00 AM – 5:00 PM. No work earlier than 7:00 AM or later than 8:00 PM without City permission unless for emergency conditions.
    - Work is not to occur on Sundays or legal holidays unless for emergency situations
    - Work is not to occur on Saturdays unless requested by Contractor in writing at least 48-hours in advance and approved by the Utilities Director.

8. Project Specifics
    - Project Overview
        - Demolition Items
            - Lift Station, electrical, sewer pipe and sewer manholes, abandonments of force main and sewer.
            - Comment regarding abandonment of sewer lines – sewer lines shall be filled with 2 sack wherever the pipe to be abandoned is under pavement.
        - Sewer Items
            - (New sewer pipe routing, Sewer manholes, utility crossings, deep sewer installation and deep manhole installation.
            - Question was asked where contact information for 3rd party utilities was – they are located on the bottom left corner of C-102 under "Third Party Utility Notes"
            - Comment was made regarding boring/trenchless and casings required under oil pipelines. Contractors are directed to bid on open trench with casing and that the city will set aside contingency if method other than open cut is required.
        - Storm Drain Items
            - Rip Rap Replacement, concrete channel bottom replacement
        - Pavement Items
            - Replacement of Pavement (concrete and asphalt), mill and inlay extents of construction on Terrell.
            - Comment in meeting that sleeper slab transition will not be required on this project. Will remove in addendum.
        - Comply with all OSHA and other applicable safety requirements and regulations at all times. They City reservices the right to require additional safety measures if it deems them necessary to ensure the safety of work crews and/or public.
    - Erosion Control – Will be emphasized. Contractor is responsible for all Erosion Control for this project.

- Contractor is required to place erosion control BMPs as needed and to regularly maintain any BMPs placed. Project site is to be kept reasonably clean, and any piles or spoils, backfill material, etc. are to include sand bag BMPs or similar temporary erosion protection emplacements at all times.

- Traffic Control – Traffic control for work performed in arterial streets under this program will be the Contractors responsibility. Contractor is responsible for all Traffic Control for this project. Contractor is to adhere to all requirements outlined in the Specifications Sections 00 41 13 Bid Proposal and 01 50 00 Temporary Facilities and Controls.
    - Contractor is responsible for coordinating with the City on all projects.
    - Contractor is responsible for coordinating with TxDOT if needed.
    - Contractor is responsible for maintaining access to all adjacent properties during this project.
        - Contractor is responsible for notifying affected property owners at least two (2) business days in advance of any planned access interruptions.
        - Contractor is directed to use steel plates or other means to enable access to adjacent properties when work is not actively occurring at an otherwise blocked point of access so long as this does not conflict with the approved traffic control plan.
- Contractor is responsible for maintaining service to adjacent lots during this program.
    - Contractor must notify affected properties at least two (2) business days prior to any planned service interruption.
- Material stored on the project site must be properly stored and protected from damage and weathering.
- Construction staking is solely the responsibility of the Contractor.
- Construction testing is solely the responsibility of the Contractor.
- Weekly or Bi-Weekly Progress Meetings – Mandatory attendance.
- Program Duration & Renewals
- There is a one (1) year calendar warranty period on this project for all work performed or materials installed upon acceptance of the project.
- Inspection prior to acceptance is required for this project. All underground installations must be inspected by the City Inspector before backfilling occurs.

9. Additional Information, Clarifications, and Corrections
    - Bidders must provide documentation as part of the bid packet submittal proving that they possess both an active license equal to or a higher class than a Water Operator D license and an active license equal to or a higher class than either a Wastewater D license or Class 1 Collections license, and the Contractor must maintain both of these active licenses for the entirety of the project. Bids without

this proof of active licensure will be deemed non-responsive and will not be accepted.

- Bidders are directed to bid the item quantities listed in the Bid Packet's Proposal.
- Contractor is reminded that this project is located in an urban environment. Structures, trees, and overhead lines are common, and contractor is to provide proper equipment to complete all work required for this project in an urban environment.

10. Questions?

Pre-Bid Meeting Attendance
RFB 23000011
Perk/Terrell Lift Station Elimination and New Sewer Installation
Date: October 12, 2022 at 300 N Loraine 5th Floor

Name *(please print)*	Company Name *(please print)*	Phone Number	Email
Tyler Clutter	TEC	432-967-0031	tylerclutter@tecexcavation.com
Trey Chandler	Red Bear Construction	432-556-9768	trey@redbearconstructiontx.com
Eric Clutter	TEC	940-521-6933	eclutter@tecexcavation.com
Carl Crango	City of Midland		
Bobby Wojciechanski	City of Midland		
Liz Sanchez	City of Midland		
Jeff Meier	JACOBS		

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.**

TEC EXCAVATION INC

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.**

N/A

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 Myrla Clutter

Signature of vendor doing business with the governmental entity

10-19-22

Date

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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.

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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: TEC EXCAVATION, INC.

Local Address (must be within the City limits): 1538 COTTON FLAT ROAD MIDLAND, TX 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? 35
3. Year your business was established in the City of Midland: 2001
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: Tidyla Clutter Date: 10-19-22

Printed Name and Title: Tidyla Clutter Pres.

TEC EXCAVATION, INC.

P.O. Box 80455
MIDLAND, TX 79708

PH. 432-682-2619
FAX 432-684-1151

October 19, 2022

Joshua Ferguson
City of Midland
300 N. Loraine
Midland, TX 79701

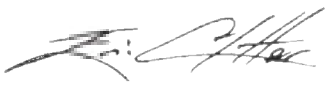
Project: Peck/Terrell Lift Station Elimination and New Sewer Installation Project

Josh,

As per conditions of the Contract, TEC Excavation, Inc. is currently contracted with Jessie Montez to meet TCEQ requirements on the above-mentioned project.

Jessie Montez
TCEQ Class A Water Operator Licensing Number: W00027888
TCEQ Class C Wastewater Operator Licensing Number: WW0025723

Eric Clutter, Vice-President
TEC Excavation, Inc.



Bid Bond

Surety Department

KNOW ALL MEN BY THESE PRESENTS,

That we, **TEC Excavation, Inc.**, as Principal, hereinafter called the Principal, and the **Merchants Bonding Company (Mutual)**, a Corporation created and existing under the laws of the State of **Iowa**, whose principal office is in Des Moines, Iowa, as Surety, hereinafter called the Surety, are held and firmly bound unto the **City of Midland, Texas**, as Obligee, hereinafter called the Obligee, in the sum of **Five Percent (5%) of the Greatest Amount Bid** Dollars ($ ------5%------), for the payment of which sum, well and truly to be made, the said Principal and the 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

Peck/Terrell Lift Station Elimination and New Sewer Installation

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 which 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 **19th** day of **October**, A.D. 20**22**.

Attest:

TEC Excavation, Inc.
(Principal)

By: _____ By _____ (SEAL)

Witness:

Merchants Bonding Company (Mutual)

_____ By _____ (SEAL)
Kevin J. Dunn, Attorney-in-Fact

Form S-3266-4 Printed in U.S.A. 12-70





MERCHANTS
BONDING COMPANY

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,
Bennett Brown; Kevin J Dunn; Roberta Erb; Steven Tucker; Tracy Tucker; W Lawrence Brown

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authonty hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 23rd day of February , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.
On this 23rd day of February 2022 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

POLLY MASON
Commission Number 750576
My Commission Expires
January 07, 2023

Polly Mason
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 19th day of October , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

William Warner Jr.
Secretary

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.

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

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.

"General Decision Number: TX20220002 02/25/2022

Superseded General Decision Number: TX20210002

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. . The contractor must pay all covered workers at least $15.00 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 2022.
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. . The contractor must pay all covered workers at least $11.25 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 2022.

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 https://www.dol.gov/agencies/whd/government-contracts.

Modification Number	Publication Date
0	01/07/2022

1 02/25/2022

* 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 **	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($15.00) or 13658 ($11.25). 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)).

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.

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.

==========

END OF GENERAL DECISIO"

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 6:70

Signature of vendor doing business with the governmental entity

November 15, 2022

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.

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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: _____

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.

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. <u>ATTORNEY FEES</u> - 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.

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 6:82 November 15, 2022

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.

TABLE OF CONTENTS

Pages

SPECIFICATIONS

PROCUREMENT REQUIREMENTS

00 41 13 Bid Proposal 1- 14

DIVISION 01—GENERAL REQUIREMENTS

01 11 00 Summary of Work 1- 2
01 24 13 Value Engineering 1- 4
01 26 00 Contract Modification Procedures 1- 4
01 29 00 Payment Procedures 1- 14
01 31 13 Project Coordination 1- 5
01 31 19 Project Meetings 1- 2
01 32 00 Construction Progress Documentation 1- 7
01 33 00 Submittal Procedures 1- 8
Transmittal of Contractor's Submittal 1- 1
01 42 13 Abbreviations and Acronyms 1- 5
01 43 33 Manufacturers' Field Services 1- 2
Manufacturer’s Certificate of Proper Installation 1- 1
01 45 16.13 Contractor Quality Control 1- 8
01 50 00 Temporary Facilities and Controls 1- 9
01 57 13 Temporary Erosion and Sediment Control 1- 27
01 57 28 Temporary Flow Control 1- 7
01 61 00 Common Product Requirements 1- 7
Manufacturer's Certificate of Compliance 1- 1
01 77 00 Closeout Procedures 1- 4

DIVISION 02—EXISTING CONDITIONS

02 41 00 Demolition 1- 7
02 41 01 Electric Utilities Demolition 1- 1

DIVISION 03—CONCRETE

03 15 00 Concrete Joints and Accessories 1- 11
03 24 00 Fibrous Reinforcing 1- 3
03 30 00 Cast-in-Place Concrete 1- 16
03 39 00 Concrete Curing 1- 5
03 62 00 Grouting 1- 8
24-Hour Evaluation of Nonshrink Grout Test Form
and Grout Testing Procedures 1- 3

©COPYRIGHT 2022 JACOBS

Pages

DIVISION 04—30 (NOT USED)

DIVISION 31—EARTHWORK

31 10 00	Site Clearing	1- 4
31 23 13	Subgrade Preparation	1- 3
31 23 16	Excavation	1- 5
31 23 19.01	Dewatering	1- 2
31 23 23	Fill and Backfill	1- 8
31 23 23 .15	Trench Backfill	1- 16

DIVISION 32—EXTERIOR IMPROVEMENTS

32 11 23	Aggregate Base Courses	1- 5
32 12 16	Asphalt Paving	1- 9
32 13 13	Concrete Paving	1- 18
32 16 00	Curbs and Gutters	1- 5
32 91 13	Soil Preparation	1- 4

DIVISION 33—UTILITIES

33 01 30.51	Gravity Sewer Pipeline Cleaning	1- 5
	Sanitary Sewer Cleaning Form	1- 1
33 05 01	Conveyance Piping—General	1- 9
33 05 01.12.03	Polyvinyl Chloride Gravity Sanitary Sewer Data Sheet	1- 1
33 05 14	Glass-Fiber Reinforced Polyester(FRP) Manholes	1- 13

DIVISION 34—49 (NOT USED)

GEOTECH REPORT

DRAWINGS (BOUND SEPARATELY)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 00 41 13

BID PROPOSAL

Bid of _____ Date _____
(Name of Firm)

TO: Honorable Mayor and City Council
City of Midland
300 North Lorraine
Midland, Texas 79701

FOR: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

Gentlemen: The undersigned, as Bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that his proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the form of contract, Invitation for Bids, Instructions to Bidders, the General and Supplementary Conditions, Specifications, and the Drawings herein referred to, and has carefully examined the locations, conditions, and classes of materials of the proposed work; and agrees that he will provide all the necessary labor, machinery, tools, apparatus, and other items incidental to construction, and will do all the work and furnish all the materials as called for in the Contract Documents in the manner prescribed and according to the Plans and Specification requirements of the OWNER as herein set forth.

Accompanying this proposal is a (certified or cashier's check payable to the OWNER (Bid Bond) in the amount of 5% of the Total Bid.

The bid security accompanying this Proposal shall be returned to the Bidder, unless in case of the acceptance of the Proposal, the Bidder shall fail to execute a Contract and file Performance and Payment Bonds within ten (10) days after its acceptance, in which case the bid security shall become the property of the OWNER, and shall be considered as payment for damages due to delay and other inconveniences suffered by the OWNER on account of such failure of the Bidder. It is understood that the OWNER reserves the right to reject any and all bids received.

Prices shall be shown in words and figures. In the event of a discrepancy, the words shall govern.

Contractor shall refer to Section 01 29 00, Payment Procedures.

The Bid Proposal includes the demolition of an existing lift station and the construction of 8-inch sewer, 6-inch sewer, and associated manholes and pavement repair work. The undersigned hereby proposes and agrees to perform all work of whatever nature required, in strict accordance with the Plans and Specifications, for the following sum of prices, to wit (see following pages):

©COPYRIGHT 2022 JACOBS

PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION BID PROPOSAL

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
Base Bid: Miscellaneous Items					
1	6	MOS	Mobilization and Demobilization, a maximum of 5% of the SUBTOTAL SHOWN BELOW (Items 1 - 36) for _____ Dollars and _____ Cents per Month (pay note M1)	$_____	$_____
2	6	MOS	Design and implementation of a Storm Water Pollution Prevention Plan (designed by licensed Engineer in the State of Texas) and control in accordance with specifications, laws, rules and assumption of responsibility for plan and control, for _____ Dollars and _____ Cents per Month (pay note M2)	$_____	$_____
3	6	MOS	Job Site Safety, furnished, installed, complete and in place, for _____Dollars and _____Cents per Month (pay note M3)	$_____	$_____
4	N/A	N/A	Material Mark-up, complete and in place, for the sum of: _____percent (pay note M4)	%_____	$_____
5	N/A	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: _____percent (pay note M5)	%_____	$_____
6	N/A	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: _____percent (pay note M6)	%_____	$_____
7	1	AC	Seeding and Stabilization in open areas (seed mixture to match native grasses), complete and in place, for _____ Dollars and _____ Cents per Acre. (pay note M7)	$_____	$_____
MISCELLANEOUS ITEMS SUBTOTAL				$_____	

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
Base Bid: Demolition Items					
8	1	LS	Clearing and Grubbing, including tree, debris, obstruction removal (any trees removed shall be approved by owner and recorded by size and type) and refilling of depressions, all work fully performed, for _____ Dollars and _____ Cents per Acre (pay note D1)	$_____	$_____
9	1	LS	Removal, Disposal and Salvage of existing lift Station, wet well, and associated electrical equipment, all work fully performed for_____ Dollars and _____ Cents per Lump Sum (pay note D2)	$_____	$_____
10	615	LF	Removal and Disposal of Existing Sewer Main, complete and in place, for _____ Dollars and _____ Cents per LF (pay note D3)	$_____	$_____
11	3.5	CY	Flowable Fill for Existing Pipes Abandoned in Place, furnished, installed, complete and in place for_____ Dollars and _____ Cents per LF (pay note D4)	$_____	$_____
12	8	EA	Removal and Disposal of Existing Manhole (0'-5' Deep), complete and in place for _____ Dollars and _____ Cents per EA (pay note D5)	$_____	$_____
13	9	VF	Removal and Disposal of Existing Manhole Additional Depth (>5' Deep), complete and in place for _____ Dollars and _____ Cents per EA (pay note D6)	$_____	$_____
14	2,879	SY	Removal and Disposal of Existing Unclassified Pavement, complete and in place for _____ Dollars and _____ Cents per SY (pay note D7)	$_____	$_____

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
15	605	SY	Removal and Disposal of Existing Miscellaneous Concrete, complete and in place for _____ Dollars and _____ Cents per SY (pay note D8)	$_____	$_____
16	20	LF	Removal and Disposal of Existing Concrete Curb and Gutter, complete and in place for _____ Dollars and _____ Cents per LF (pay note D9)	$_____	$_____
17	4	SY	Removal and Disposal of Existing Concrete Sidewalk, complete and in place for _____ Dollars and _____ Cents per SY (pay note D10)	$_____	$_____
18	66	SY	Removal and Disposal of Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of _____ Dollars and _____ Cents per Square Yard (pay note D11)	$_____	$_____
19	32	SY	Removal and Disposal of Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of _____ Dollars and _____ Cents per Square Yard (pay note D12)	$_____	$_____
			DEMOLITION ITEMS SUBTOTAL	$_____	
			Base Bid: Sewer Items		
20	2,034	LF	8-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for_____ Dollars and _____ Cents per Each (pay note S1)	$_____	$_____
21	395	LF	6-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for_____ Dollars and _____ Cents per Each (pay note S2)	$_____	$_____

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
22	9	EA	Standard 4' Diameter Fiberglass Manhole and Cover, (0-5' Deep), furnished, installed, complete and in place, for the sum of _____ Dollars and _____ Cents per Each (pay note S3)	$_____	$_____
23	27	VF	Standard 4' Diameter Manhole Additional Bury Depth, (>5' Deep), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Vertical Foot (pay note S4)	$_____	$_____
24	1	EA	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover, (0-5' Deep, External), furnished, installed, complete and in place, for the sum of _____ Dollars and _____ Cents per Each (pay note S5)		
25	8	VF	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover Additional Bury Depth, (>5' Deep, External), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Vertical Foot (pay note S6)		
26	2104	LF	Open Trenching of Sewer Main, (0-10' Deep), furnished, installed, complete and in place, for the sum of_____ Dollars and _____Cents per Linear Foot (pay note S7)	$_____	$_____
27	325	LF	Open Trenching of Sewer Main, (10-13' Deep), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Linear Foot (pay note S8)	$_____	$_____
28	13	EA	Sewer Service Connection, furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Linear Foot (pay note S9)	$_____	$_____

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
29	1	LS	Temporary bypass pumping, all work fully performed for _____ Dollars and _____ Cents per Lump Sum (pay note S10)	$_____	$_____
			SEWER ITEMS SUBTOTAL	$_____	
			Base Bid: Storm Drain Items		
30	66	SY	Replace Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of _____ Dollars and _____ Cents per Square Yard (pay note SD1)	$_____	$_____
31	32	SY	Replace Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of _____ Dollars and _____ Cents per Square Yard (pay note SD2)	$_____	$_____
			STORM DRAIN ITEMS SUBTOTAL	$_____	
			Base Bid: Paving Items		
32	182	SY	8” Concrete Pavement Repair, furnished, installed, complete and in place for the sum of _____Dollars and _____Cents per Square Yard (pay note P1)	$_____	$_____
33	20	LF	Concrete Curb and Gutter Repair, furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Linear Foot (pay note P2)	$_____	$_____
34	4	SY	4” Concrete Sidewalk Repair, furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Square Yard (pay note P3)	$_____	$_____
35	2727	SY	2” Type D HMAC Asphalt Pavement Repair (PG70-22), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Square Yard (pay note P4)	$_____	$_____

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
36	546	GAL	Bituminous Prime Coat (MC-30, 0.20 Gal/SY), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Gallon (pay note P5)	$_____	$_____
37	274	GAL	Tack Coat (MC-30, 0.10 Gal/SY), furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Gallon (pay note P6)	$_____	$_____
38	1565	SY	Flowable Fill / 2 Sack Backfill, furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Square Yard (pay note P7)	$_____	$_____
39	2727	SY	10” Base Rock Pavement Repair (Flexible Base) furnished, installed, complete and in place, for the sum of _____Dollars and _____Cents per Square Yard (pay note P8)	$_____	$_____
40	1	LS	Sleeper Slab Transition furnished, installed, complete and in place for the sum of _____Dollars and _____Cents (see pay note P9)	$_____	$_____
			PAVING ITEMS SUBTOTAL	$_____	
			GRAND TOTAL	$_____	
*BID AWARD WILL BE BASED ON THE LOWEST <u>GRAND TOTAL</u>					

- All Bid Items shall be in Accordance with Plans and Specifications.
- All Bid Items shall be complete in place, unless otherwise noted.
- All Bid Items shall be furnishing and installing, unless otherwise noted.
- All Bid Items shall be independent of depth, unless otherwise noted.
- All Bid Items shall include materials and labor, unless otherwise noted.

DURING BID VERIFICATION PROCESS, BONDS AND MOBILIZATION WILL BE ADJUSTED IF THE VALUES EXCEED ALLOWABLE PERCENTAGE.

©COPYRIGHT 2022 JACOBS

The undersigned agrees to substantially complete all work covered by these Contract Documents in accordance with limitations outlined in the SUPPLEMENTARY CONDITIONS. In the event that the project is not complete within the allotted time as specified herein, the OWNER will assess liquidated damages in accordance with the SUPPLEMENTARY CONDITIONS.

In the event of award of a Contract to the undersigned, the undersigned will furnish Performance and Payment Bonds for the full amount of the Contract to secure proper compliance with the terms and provisions of the Contract, to insure and guarantee the work until final completion and acceptance, and to guarantee payment of all lawful claims for labor performed and materials furnished in fulfillment of the Contract.

The work proposed to be done shall be accepted when fully complete and finished in accordance with the Plans and Specifications, to the satisfaction of the OWNER.

The undersigned certifies that the bid prices contained in this Proposal have been carefully checked and are submitted as correct and final.

Receipt is hereby acknowledged of the following addenda to the Contract Documents:

Addendum No. 1 dated _____ Received _____

Addendum No. 2 dated _____ Received _____

Addendum No. 3 dated _____ Received _____

Addendum No. 4 dated _____ Received _____

Addendum No. 5 dated _____ Received _____

Addendum No. 6 dated _____ Received _____

©COPYRIGHT 2022 JACOBS

Respectfully submitted,

Attested by:

Signature

Signature

Printed Name and Title

Printed Name and Title

Company Name

Mailing Address

Street Address

City, State, Zip

Telephone Number/Email Address

Seal and Authorization
(If Corporation)

Note: Bid forms may be detached from this bound document. Fill in with ink and submit complete with attached papers. Do not insert additional or conditional statements or deletions to this Proposal. Any additional or conditional statements or deletions shall be considered as a non-responsive bid and rejected accordingly.

©COPYRIGHT 2022 JACOBS

PAY NOTES

Peck/Terrell Lift Station Elimination and New Sewer Installation

Miscellaneous items	
1. Mobilization and Demobilization	**M1**
2. Design and implementation of a Storm Water Pollution Prevention	**M2**
3. Job Site Safety.	**M3**
4. Material Mark-up,	**M4**
5. Labor Mark-up	**M5**
6. Equipment Rental Mark-up	**M6**
7. Seeding and Stabilization	**M7**
Demolition Items	
8. Clearing and Grubbing	
9. Demolition of existing lift Station	**D1**
10. Removal and Disposal of Existing Sewer Main	**D2**
11. Flowable Fill for Existing Pipes Abandoned in Place	**D3**
12. Removal and Disposal of Existing Manhole (0'-5' Deep)	**D4**
13. Removal and Disposal of Existing Manhole Additional Depth (>5' Deep)	**D5**
14. Removal and Disposal of Existing Unclassified Pavement	**D6**
15. Removal and Disposal of Existing Miscellaneous Concrete	**D7**
16. Removal and Disposal of Existing Concrete Curb and Gutter	**D8**
17. Removal and Disposal of Existing Concrete Sidewalk	**D9**
18. Removal and Disposal of Concrete Rip Rap	**D10**
19. Removal and Disposal of Concrete Ditch Bottom	**D11**
	D12
Sewer Items	
20. 8-inch Sewer Main	**S1**
21. 6-inch Sewer Main	**S2**
22. Standard 4' Diameter Fiberglass Manhole (0-5' Deep)	**S3**
23. Standard 4' Diameter Manhole Additional Bury Depth, (>5' Deep)	**S4**
24. Standard 4' Diameter Fiberglass Manhole with Drop Structure (0-5' Deep, External)	**S5**
25. Standard 4' Diameter Fiberglass Manhole with Drop Structure (>5' Deep, External)	**S6**
26. Open Trenching of Sewer Main, (0-10' Deep)	**S7**
27. Open Trenching of Sewer Main, (10-13' Deep)	**S7**
28. Sewer Service Connection	**S8**
29. Temporary bypass pumping	**S9**
Storm Drain Items	
30. Replace Concrete Rip Rap	**SD1**
31. Replace Concrete Ditch Bottom Repair	**SD2**
Paving Items	
32. 8" Concrete Pavement Repair	**P1**
33. Concrete Curb and Gutter Repair	**P2**
34. 4" Concrete Sidewalk Repair	**P3**
35. 2" Type D HMAC Asphalt Pavement Repair	**P4**
36. Bituminous Prime Coat	**P5**
37. Tack Coat (MC-30, 0.10 Gal/SY	**P6**
38. Flowable Fill / 2 Sack Backfill	**P7**
39. 10" Base Rock Pavement Repair (Flexible Base)	**P8**
40. Sleeper Slab Transition	**P9**

©COPYRIGHT 2022 JACOBS

PAY QUANTITY NOTES

M1 Includes the necessary equipment, labor, materials, and incidentals for all Mobilization and Demobilization to and from the job site complete and in place. Measurement and payment to be made per month.

M2 Includes the necessary equipment, labor, materials, and incidentals to implement the Erosion Control Plan per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per month.

M3 Includes the necessary equipment, labor, materials, and incidentals to implement the Traffic Control per the approved Traffic Control Plan. Any required traffic control devices are to meet the City of Midland Traffic Division Standards. Measurement and payment to be made per month.

M4 Includes the Material Mark-up for materials and material sizes (pipe, valve, manhole, etc.) required to complete work for improvements not covered by the bid items listed in the Proposal for this project per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be made per the cost of the material in question plus the set percent increase established by this bid item. The Contractor must provide a copy of the invoice for the material cost from the supplier to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any material. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M5 Includes the Labor Mark-up (Regular Work Hours) for labor required to complete work for improvements not covered by the bid items listed in the Proposal for this project per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be made per the cost of labor in question plus the set percent increase established by this bid item. The Contractor must provide a typical hourly pay rate for work crews prior to the percent increase along with the number of workers on the crew and the number of hours worked by the crew for the project in question to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any labor. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M6 Includes the Equipment Rental Mark-up (non-standard equipment only) required to complete work for improvements not covered by the bid items listed in the Proposal for this project per the construction drawings and the City of Midland standards and specifications. Measurement and payment to be made per the cost of the equipment rental in question plus the set percent increase established by this bid item. The Contractor must provide a copy of the invoice for the rented equipment from the equipment supplier to the Engineer of Record or the City of Midland designee before this bid item may be claimed for any rented equipment. This will be applied solely at the discretion of the Engineer of Record or the City of Midland designee.

M7 Includes the necessary equipment, labor, materials, and incidentals for the Seeding and Stabilization of the finished construction site and channel embankment per the construction drawings and City of Midland standards and specifications. Measurement and payment will be made per acre.

D1 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Utility Mains per the construction drawings and City of Midland standards and specifications, including the removal and disposal of all pipes, fittings, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all valves, manholes, fittings, junctions, structures, and appurtenances.

©COPYRIGHT 2022 JACOBS

D2 Includes the necessary equipment, labor, materials, and incidentals for the demolition, removal and disposal (or salvage) of all materials and equipment associated with the lift station at Peck Ave and Terrell Street. Equipment includes pumps, concrete underground structures, electrical supply and controls equipment and all other equipment used for proper function of the lift station. Salvage equipment as dictated in the contract documents. Measurement and payment shall be made per lump sum.

D3 Includes the necessary equipment, labor, materials, and incidentals for the removal and disposal of 6-inch and 8-inch sewer pipe per the construction drawings and City of Midland standards and specifications, including the removal of all associated appurtenances. Measurement and payment shall be made per linear foot

D4 Includes the necessary equipment, labor, materials, and incidentals for the placement of Flowable Fill for Existing Pipes Abandoned In Place (Portland Cement 2-Sack = 188 LBS/CY) per the construction drawings and City of Midland standards and specifications, including all plugging or caping the pipe to be abandoned, and appurtenances. Measurement and payment to be made per cubic yard volume of flowable fill placed in pipe abandoned in place.

D5 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Manholes to a depth of 5' per the construction drawings and City of Midland standards and specifications, including the removal and disposal of all drop structures, other structures, base, and appurtenances. Measurement and payment to be made per each manhole removed.

D6 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Manholes at depths exceeding 5' per the construction drawings and City of Midland standards and specifications, including the removal and disposal of all drop structures, other structures, and appurtenances. Measurement and payment to be per vertical foot of existing manhole removed below a depth of 5' measured from the lowest invert at the manhole flowline and rounded up to the nearest 0.5'.

D7 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Unclassified Pavement per the construction drawings and City of Midland standards and specifications including all saw-cutting and appurtenances. Depths given are approximate and pavement material is to be removed in its entirety. No additional compensation will be made for increased pavement depth removal. Saw-cut pavement edges are to be full pavement depth, cleanly cut, and clearly defined edges free of breaks. Measurement and payment to be made per square yard of unclassified pavement removed.

D8 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Miscellaneous Concrete per the construction drawings and City of Midland standards and specification including all saw-cutting and appurtenances. Depths given are approximate and concrete material is to be removed in its entirety. No additional compensation will be made for increased concrete depth removal. Saw-cut concrete edges are to be full pavement depth, cleanly cut, and clearly defined edges free of breaks. Measurement and payment to be made per square yard of concrete removed.

D9 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Curb & Gutter per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per linear foot.

©COPYRIGHT 2022 JACOBS

D10 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Sidewalk & Ramps per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard.

D11 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Rip Rap per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per Square Yard of Rip Rap.

D12 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Concrete Ditch bottom per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per Square Yard of Concrete.

S1 Includes the necessary equipment, labor, materials, and incidentals for the installation of 8” SDR 35, ASTM D3034, PS46, PVC Sewer Main per the construction drawings and City of Midland standards and specifications, including all embedment, detector wire, tracer tape, necessary testing, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

S2 Includes the necessary equipment, labor, materials, and incidentals for the installation of 6” SDR 35, ASTM D3034, PS46, PVC Sewer Main per the construction drawings and City of Midland standards and specifications, including all embedment, detector wire, tracer tape, necessary testing, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures and appurtenances.

S3 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Cover to a depth of 5 feet per the construction drawings and City of Midland standards and specifications, to the depth shown on the construction drawings and including all embedment, base, necessary testing, concrete collars, and appurtenances. Measurement and payment to be made per each manhole installed.

S4 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole Additional Bury Depth (> 5' pipe invert bury depth) per the construction drawings and City of Midland standards and specifications, including all embedment and appurtenances. Measurement and payment to be made per vertical foot measured from the lowest flowlline invert at the manhole to 5 fee' below the rim elevation.

S5 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole with Drop Structure & Cover to a depth of 5 feet per the construction drawings and City of Midland standards and specifications, to the depth shown on the construction drawings and including all embedment, base, necessary testing, concrete collars, and appurtenances. Measurement and payment to be made per each manhole installed.

S6 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole with Drop Structure Additional Bury Depth (> 5' pipe invert bury depth) per the construction drawings and City of Midland standards and specifications, including all embedment and appurtenances. Measurement and payment to be made per vertical foot measured from the lowest flowlline invert at the manhole to 5' below the rim elevation.

S7 Includes the necessary equipment, labor, materials, and incidentals for Open Trenching of Sewer Main per the construction drawings and City of Midland standards and specifications, including all unclassified excavation, backfill not including flowable fill backfill, providing trench safety and protection for workers to install pipe, structures, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all structures, fittings, and appurtenances.

©COPYRIGHT 2022 JACOBS

S8 Includes the necessary equipment, labor, materials, and incidentals for Sewer Service Connections per the City of Midland Standards and specifications, including all materials needed for connection of the new sewer to the existing service connections. Existing Sewer service connections are not shown on the plans. Contractor to locate service connections prior to commencing work and notify the Engineer if service connections are greater than 13. Measurement and payment shall be per each.

S9 Includes the necessary materials, equipment, transportation, labor, and other items required for the completion of the work including pumps, piping, generators, traffic control for lane closures, redundancy of all equipment, contingency and emergency cleanup plans and equipment, complete with all appurtenances to completely bypass the sewer line during installation in accordance with construction drawings and City of Midland standards and specifications. Measurement and payment shall be per week.

SD1 Includes the necessary equipment, labor, materials, and incidentals for the replacement of Concrete Rip Rap per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per square yard.

SD2 Includes the necessary equipment, labor, materials, and incidentals for the replacement of Concrete Ditch Bottom per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per square yard.

P1 Includes the necessary equipment, labor, materials, and incidentals for Concrete Pavement Repair per the construction drawings and City of Midland standards and specifications, including all forming, placement, jointing, fiber or rebar reinforcement, sealing, finishing, and appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P2 Includes the necessary equipment, labor, materials, and incidentals for Concrete Curb & Gutter Repair per the construction drawings and City of Midland standards and specifications including all forming, placement, jointing, fiber reinforcement, finishing, and appurtenances. Measurement and payment to be made per linear foot measured along the back-of-curb.

P3 Includes the necessary equipment, labor, materials, and incidentals for Concrete Sidewalk Repair per the construction drawings and City of Midland standards and specifications, including all forming, placement, jointing, fiber reinforcement, finishing, and appurtenances. Measurement and payment to be made per square yard.

P4 Includes the necessary equipment, labor, materials, and incidentals for the installation of Type "D" HMAC Asphalt Pavement Repair (110 LBS / SY at 1" thick, PG 70-22) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P5 Includes the necessary equipment, labor, materials, and incidentals for application of Bituminous Prime Coat (MC-30, 0.20 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

P6 Includes the necessary equipment, labor, materials, and incidentals for application of Tack Coat (MC-30, 0.10 GAL / SY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per gallon of material applied at the designated rate.

©COPYRIGHT 2022 JACOBS

P7 Includes the necessary equipment, labor, materials, and incidentals for installation of Flowable Fill / 2-Sack Backfill (Portland Cement 2 Sack = 188 LBS/CY) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per square yard measured along the ground surface.

P8 Includes the necessary equipment, labor, materials, and incidentals for installation of 10” Base Rock Pavement Repair for Flexible Pavement per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment shall be made per square yard.

P9 Includes the necessary equipment, labor, materials, and incidentals for installation of a Sleeper Slab Transition between pavement and concrete per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per lump sum.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SPECIFICATIONS

SECTION 01 11 00
SUMMARY OF WORK

PART 1 GENERAL

1.01 SECTION INCLUDES

A. This section describes the Project and the Work to be performed under this Contract. Detailed requirements and extent of work are stated in applicable Specification sections and shown on Drawings.

B. Work to be performed includes but not limited to the installation of approximately 2,000 lf of 8-inch PVC sewer pipe, seven (10) 48-inch Manholes, three connections at existing sewer main, decommission of existing lift station, flow fill of existing sewer lines, decommission of existing manholes, and all associated bypass pumping, dewatering, traffic control, and surface restoration. The work to be performed consists of furnishing and installing the equipment, facilities, services, and appurtenances indicated in the Contract Documents.

1.02 ORGANIZATION AND INTERPRETATION OF CONTRACT DOCUMENTS

A. Specifications and Drawings included in these Contract Documents establish the performance quality requirements, location and general arrangement of materials and equipment, and establish the minimum standards for quality of workmanship and appearance.

B. Specification sections have not been divided into groups for work by subcontractors or various trades. Should there be questions concerning the applicability or interpretation of a specific section or part of a section or Drawing, direct questions to the Engineer.

C. Civil work shown on the Drawings is intended to be depictive and may not be an exact and complete representation of the actual finished work. Include fittings, joints, supports, nuts, bolts, and other accessories required to provide complete and satisfactory piping and electrical connections, as specified, even though some items may not be specifically shown on the Drawings.

D. Work not specifically included in the Specifications or on the Drawings that is necessary or required to make each installation satisfactory and operable for its intended purpose shall be performed as incidental work as if it were described in the Specifications and shown on the Drawings.

E. The City of Midland Standard Specifications and Standard Details are applicable to this project and shall be followed in conjunction with the Specifications and Drawings.

©COPYRIGHT 2022 JACOBS

1.03 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of this Construction Contract comprises but not limited to the installation of approximately 2,050 lf of 8-inch PVC sewer pipe, 400 lf of 6-inch sewer pipe, ten (10) 48-inch Manholes, three (3) connections at existing sewer main, decommission of existing lift station, flow fill of existing sewer lines, decommission of existing manholes, and all associated bypass pumping, dewatering, traffic control, and surface restoration. The work to be performed consists of furnishing and installing the equipment, facilities, services, and appurtenances indicated in the Contract Documents.

1. The location of the work is: Runs along South Terrell Street and ends on Interstate Highway I-20 in Midland, Texas.

B. The construction contract for this sewer main is being administered by City of Midland and these sewer mains and all appurtenances are subject to City of Midland standards. All sewer shutdowns shall be coordinated through City of Midland Department of Public Utilities. As much of the work will be constructed in right-of-way administrated by entities other than City of Midland, trench backfill, and surface restoration will be subject to the standards of the administering jurisdiction and the Contractor shall obtain the required permits to conduct operation within those right-of way.

1.04 CONTRACT METHOD

A. Construct the Work under a single unit price contract.

1.05 SEQUENCE AND CONSTRAINTS OF WORK

A. Plan the work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the Owner's Representative develop an approved work schedule which will permit the facilities to function as normally as practical.

B. The Contractor shall not conduct construction and testing activities on nationally recognized holidays. For scheduling purposes, work shall be conducted between 8 am and 5 pm, Monday through Friday. Contractor may request that work be conducted beyond these hours, however, a request must be submitted two weeks before scheduling the work for Owner approval.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 24 13
VALUE ENGINEERING

PART 1 GENERAL

1.01 SUMMARY

A. This section applies to cost reduction proposals, hereinafter referred to as Value Engineering Cost Proposal (VECP), initiated and developed by Contractor to change requirements of the Contract for sole purpose of reducing total cost of construction. It is the intent that the VECP Construction Savings Amount, as defined herein, will be shared between Contractor and Owner.

B. VECP proposal shall be identified as such at the time of submission to Engineer.

C. VECP, if adopted, shall result in a savings to Owner by providing a decrease in cost for performing the Work without impairing any of the essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance, desired appearance, and safety features.

D. VECP shall not be based solely upon a change in specified quantities.

E. Contractor may withdraw the whole or part of a submitted VECP prior to acceptance by Engineer and Owner.

1.02 SUBCONTRACT FLOW DOWN

A. Contractor shall include these VECP provisions in subcontracts of $25,000 or greater. VECP provisions may be included in subcontracts of lesser value. Subcontracts shall state that benefits accruing to Contractor as a result of an accepted VECP initiated by a Subcontractor shall be shared by Contractor and Subcontractor, in a manner specified in the subcontract. Concurrent contract savings on other Owner contracts where Subcontractor is participating are not allowed.

1.03 DEFINITIONS

A. Collateral Savings: Measurable net reductions in Owner’s costs of operation that result from VECP including maintenance, logistics and Owner-furnished equipment.

©COPYRIGHT 2022 JACOBS

B. Concurrent Savings: Savings from other Owner contracts where Contractor is participating.

C. Contractor Costs: Reasonable costs incurred by Contractor in preparing VECP and making the change, such as cancellation or restocking charges.

D. Future Contract Savings: Reductions in cost of performance of future contracts for essentially the same item resulting from VECP submitted by Contractor.

E. Gross Savings Amount: The gross savings amount to Contract, before deductions of Owner and Contractor Costs.

F. Owner Costs: Reasonable costs, including associated engineering costs, incurred by Owner for evaluating and implementing VECP, such as redesign, testing, and effect on other contracts, including right of way acquisition costs.

G. VECP Construction Savings Amount: Net amount of Contract Price reduction to be realized by implementation of VECP; the Gross Savings Amount less Owner and Contractor Costs.

1.04 AREAS NOT TO BE CONSIDERED (NOT USED)

1.05 PRE-PROPOSAL SCREENING

A. VECP Proposals will not be accepted or reviewed prior to Bid Proposal. Project shall be bid as shown on the Contract Documents.

1.06 VECP PROPOSAL SUBMITTAL

A. Contractor shall prepare and submit three copies to Engineer.

B. Include, as a minimum, the following information with each VECP:

1. Description of the difference between existing Contract requirement and VECP.
2. Comparative advantages and disadvantages between Contract requirement and VECP.
3. Itemization of requirements of Contract which must be changed if VECP is adopted, and a recommendation as to how to make such change (e.g. drawing numbers and specifications).
4. Justification for change in function or characteristic of each affected item and effect of change on performance of end item.

©COPYRIGHT 2022 JACOBS

5. Detailed cost estimate, with itemized breakdown containing quantities and unit prices for both original design and proposed change. Cost estimate shall include Contractor Costs, including amounts attributable to subcontracts. Basis for estimate shall also be included.
6. Prediction of effects VECP would have on Owner Costs, such as additional engineering costs, Owner-furnished equipment costs, costs of related items, and costs of maintenance and operation.
7. Statement of time by which a Change Order adopting VECP must be issued, so as to obtain maximum cost reduction.
8. Proposed revisions to construction schedule, if any.

C. Engineer has right to reject, without review, any VECP that does not contain herein required documentation.

1.07 CONSTRUCTION SAVINGS SHARING

A. If VECP is accepted, resulting deductive Change Order to Contract will be in an amount equal to 50 percent of VECP Construction Savings Amount, determined as follows, V = G-(C+O), where:

G = Gross Savings Amount;
C = Contractor Costs;
O = Owner Costs;
V = VECP Construction Savings Amount.

1.08 EXECUTABLE VECP

A. If the VECP is accepted, a deductive Change Order will be prepared, in accordance with this section and “change” clause of these Contract Documents, adjusting Contract Price and other affected provisions.

B. Unless and until a VECP Change Order is executed by both parties, Contractor shall remain obligated to perform in accordance with terms of the Contract.

C. Acceptance of VECP and performance of the Work thereunder shall not extend Contract Times, unless specifically provided for in the Change Order authorizing VECP.

D. Contractor’s profit shall not be reduced by application of VECP.

E. Contractor is not entitled to share in concurrent, collateral, or future contract savings.

©COPYRIGHT 2022 JACOBS

F. Owner may accept, in whole or in part, submitted VECP. Owner may modify a VECP, with concurrence of Contractor, to make it acceptable.

G. Neither Owner nor Engineer shall be liable for delays in acting upon, or for failure to act upon, a submitted VECP.

H. Decisions of Owner as to acceptance of VECP under these Contract Documents shall be final and shall not be subject to the "Claims" clause of Contract.

I. Contractor may restrict Owner's right to use any portion of a VECP or its supporting data, submitted pursuant to this section, in accordance with the terms of the following if it is noted on such.

"These data are furnished pursuant to a value engineering change proposal and shall not be disclosed to an entity other than Owner and Engineer, or to be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal. This restriction does not limit Owner's right to use information contained in these data if it is or has been obtained from another source, or is otherwise available without limitations. If such a proposal is accepted by Owner by issuance of a Change Order, Owner shall have the right to duplicate, use and disclose any data pertinent to the proposal as accepted, in any manner and for any purpose whatsoever."

J. In the event of acceptance of VECP, Contractor hereby grants to Owner all rights to use, duplicate or disclose in whole or part, in any manner and for purpose whatsoever, and to have or permit others to do so, any data reasonably necessary to fully utilize such proposal.

1.09 NONEXECUTABLE VECP

A. If VECP is not accepted, Engineer will notify Contractor in writing, explaining reasons. Contractor's costs of development of VECP are nonrecoverable in such an event.

B. In the event Contractor withdraws from VECP that has been previously agreed upon by all parties, Engineer's costs for evaluating VECP will be deducted from Contract Price via a Change Order.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 26 00
CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.01 PROPOSAL REQUESTS

A. Owner may, in anticipation of ordering an addition, deletion, or revision to the Work, request Contractor to prepare a detailed proposal of cost and times to perform contemplated change.

B. Proposal request will include reference number for tracking purposes and detailed description of and reason for proposed change, and such additional information as appropriate and as may be required for Contractor to accurately estimate cost and time impact on Project.

C. Proposal request is for information only; Contractor is neither authorized to execute proposed change nor to stop Work in progress as result of such request.

D. Contractor's written proposal shall be transmitted to Engineer promptly, but not later than 14 days after Contractor's receipt of Owner's written request. Proposal shall remain firm for a maximum period of 45 days after receipt by Engineer.

E. Owner's request for proposal or Contractor's failure to submit such proposal within the required time period will not justify a Claim for an adjustment in Contract Price or Contract Times (or Milestones).

1.02 CLAIMS

A. Include, at a minimum:

1. Specific references including (i) Drawing numbers, (ii) Specification section and article/paragraph number, and (iii) Submittal type, Submittal number, date reviewed, Engineer's comment, as applicable, with appropriate attachments.
2. Stipulated facts and pertinent documents, including photographs and statements.
3. Interpretations relied upon.
4. Description of (i) nature and extent of Claim, (ii) who or what caused the situation, (iii) impact to the Work and work of others, and (iv) discussion of claimant's justification for requesting a change to price or times or both.

©COPYRIGHT 2022 JACOBS

5. Estimated adjustment in price claimant believes it is entitled to with full documentation and justification.
6. Requested Change in Contract Times: Include at least (i) Progress Schedule documentation showing logic diagram for request, (ii) documentation that float times available for Work have been used, and (iii) revised activity logic with durations including sub-network logic revisions, duration changes, and other interrelated schedule impacts, as appropriate.
7. Documentation as may be necessary as set forth below for Work Change Directive, and as Engineer may otherwise require.

1.03 WORK CHANGE DIRECTIVES

A. Procedures:

1. Engineer will:
   a. Initiate, including a description of the Work involved and any attachments.
   b. Affix signature, demonstrating Engineer's recommendation.
   c. Transmit five copies to Owner for authorization.
2. Owner will:
   a. Affix signature, demonstrating approval of the changes involved.
   b. Return four copies to Engineer, who will retain one copy, send one copy to the Resident Project Representative or other field representative, and forward two copies to Contractor.
3. Upon completion of Work covered by the Work Change Directive or when final Contract Times and Contract Price are determined, Contractor shall submit documentation for inclusion in a Change Order.
4. Contractor's documentation shall include but not be limited to:
   a. Appropriately detailed records of Work performed to enable determination of value of the Work.
   b. Full information required to substantiate resulting change in Contract Times and Contract Price for Work. On request of Engineer, provide additional data necessary to support documentation.
   c. Support data for Work performed on a unit price or Cost of the Work basis with additional information such as:
      1) Dates Work was performed, and by whom.
      2) Time records, wage rates paid, and equipment rental rates.
      3) Invoices and receipts for materials, equipment, and subcontracts, all similarly documented.

B. Effective Date of Work Change Directive: Date of signature by Owner, unless otherwise indicated thereon.

©COPYRIGHT 2022 JACOBS

1.04 CHANGE ORDERS

A. Procedure:

1. Engineer will prepare one copy of proposed Change Order and transmit such with Engineer's written recommendation and request to Contractor for signature.
2. Contractor shall, upon receipt, promptly sign and return it to the Engineer for Owner's signature or return it unsigned with written justification for not executing Change Order.
3. Engineer will, upon receipt of Contractor signed copies, promptly forward Engineer's written recommendation and partially executed copy for Owner's signature, or if Contractor fails to execute the Change Order, Engineer will promptly so notify Owner and transmit Contractor's justification to Owner.
4. Upon receipt of Contractor-executed Change Order, Owner will promptly either:
   a. Execute Change Order, and provide an electronic copy to Engineer; or
   b. Return to Engineer unsigned copy with written justification for not executing Change Order.
5. Upon receipt of Owner-executed Change Order, Engineer will transmit electronic copy to Contractor, Resident Project Representative or other field representative, or if Owner fails to execute the Change Order, Engineer will promptly so notify Contractor and transmit Owner's justification to Contractor.
6. Upon receipt of Owner-executed Change Order, Contractor shall:
   a. Perform Work covered by Change Order.
   b. Revise Schedule of Values to adjust Contract Price and submit with next Application for Payment.
   c. Revise Progress Schedule to reflect changes in Contract Times, if any, and to adjust times for other items of Work affected by change.
   d. Enter changes in Project record documents after completion of change related Work.

B. In signing a Change Order, Owner and Contractor acknowledge and agree that:

1. Stipulated compensation (Contract Price or Contract Times, or both) set forth includes payment for (i) the Cost of the Work covered by the Change Order, (ii) Contractor's fee for overhead and profit, (iii) interruption of Progress Schedule, (iv) delay and impact, including cumulative impact, on other Work under the Contract Documents, and (v) extended overheads.

©COPYRIGHT 2022 JACOBS

2. Change Order constitutes full mutual accord and satisfaction for the change to the Work.
3. Unless otherwise stated in the Change Order, all requirements of the original Contract Documents apply to the Work covered by the Change Order.

1.05 FIELD ORDER

A. Engineer will issue Field Orders, with three copies to Contractor.

B. Effective date of the Field Order shall be the date of signature by Engineer, unless otherwise indicated thereon.

C. Contractor shall acknowledge receipt by signing and returning one copy to Engineer.

D. Field Orders will be incorporated into subsequent Change Orders, as a no-cost change to the Contract.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 29 00
PAYMENT PROCEDURES

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Schedule of Values: Submit on Contractor's standard form.
2. Application for Payment.
3. Final Application for Payment.

1.02 CASH ALLOWANCES

A. Consult with Engineer in selection of products or services. Obtain proposals from Suppliers and installers, and offer recommendations.

B. Cash allowances will be administered in accordance with Paragraph 13.02 of General Conditions.

C. Submit, with application for payment, invoice showing date of purchase, from whom the purchase was made, the date of delivery of the product or service, and the price, including delivery to the Site and applicable taxes.

D. Cash allowances are further described as:

1. Unforeseen Conditions Contingency: Consists of miscellaneous work consistent with and related to the project not indicated in the Contract Documents, but necessary to the successful completion of the Work and accomplished at the direction of the Owner.
2. Owner-directed Additional Work: Consists of related sewer assessment work to be performed in conjunction with this Project at the direction of the Owner.
3. Owner-Directed Site Restoration/Landscaping.

1.03 SCHEDULE OF VALUES

A. Prepare a separate Schedule of Values for each schedule of the Work under the Agreement.

B. Upon request of Engineer, provide documentation to support the accuracy of the Schedule of Values.

©COPYRIGHT 2022 JACOBS

C. Unit Price Work: Reflect unit price quantity and price breakdown from conformed Bid Form.

D. Lump Sum Work:

1. Reflect specified cash and contingency allowances and alternates, as applicable.
2. List bonds and insurance premiums, mobilization, demobilization, preliminary and detailed progress schedule preparation, equipment testing, facility startup, and contract closeout separately.
   a. Include item(s) for monthly progress schedule update.

E. An unbalanced or front-end loaded schedule will not be acceptable.

F. Summation of the complete Schedule of Values representing all the Work shall equal the Contract Price.

1.04 APPLICATION FOR PAYMENT

A. Transmittal Summary Form: Attach one Summary Form with each detailed Application for Payment for each schedule and include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized officer of Contractor.

B. Use detailed Application for Payment Form suitable to Engineer.

C. Provide separate form for each schedule as applicable.

D. Include accepted Schedule of Values for each schedule or portion of lump sum Work and the unit price breakdown for the Work to be paid on a unit priced basis.

E. Include separate line item for each Change Order and Work Change Directive executed prior to date of submission. Provide further breakdown of such as requested by Engineer.

F. Preparation:

1. Round values to nearest dollar.
2. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form(s) for each schedule as applicable, a listing of materials on hand for each schedule as applicable, and such supporting data as may be requested by Engineer.

©COPYRIGHT 2022 JACOBS

1.05 MEASUREMENT—GENERAL

A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.

B. Whenever pay quantities of material are determined by weight, weigh material on scales furnished by Contractor and certified accurate by state agency responsible. Obtain weight or load slip from weigher and deliver to Owner's representative at point of delivery of material.

C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through mixing plants.

D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by Engineer. Each vehicle shall bear a plainly legible identification mark.

E. Haul materials that are specified for measurement by the cubic yard measured in the vehicle in transport vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Load vehicles to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.

F. Quantities will be based on ground profiles shown. Field surveys will not be made to confirm accuracy of elevations shown.

G. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.

H. Units of measure shown on Bid Form shall be as follows, unless specified otherwise.

Item	Method of Measurement
AC	Acre—Field Measure by Engineer

©COPYRIGHT 2022 JACOBS

Item	Method of Measurement
CY	Cubic Yard—Field Measure by Engineer within limits specified or shown
CY-VM	Cubic Yard—Measured in Vehicle by Volume
EA	Each—Field Count by Engineer
GAL	Gallon—Field Measure by Engineer
HR	Hour
LB	Pound(s)—Weight Measure by Scale
LF	Linear Foot—Field Measure by Engineer
MFBM	Thousand Foot Board Measure—[Delivery Invoice] [Field Measure by Engineer]
SF	Square Foot
SY	Square Yard
TON	Ton—Weight Measure by Scale (2,000 pounds)

1.06 PAYMENT

A. Payment for all Lump Sum Work shown or specified in Contract Documents is included in the Contract Price. Payment will be based on a percentage complete basis for each line item of the accepted Schedule of Values.

1.07 SCOPE OF WORK

A. Included in this Project will be the Peck/Terrell Lift Station Elimination and New Sewer Installation Project to be performed as outlined in the Plans and Specifications, which are necessary to satisfactorily complete the work.

B. The project will include the removal, abandonment, replacement, relocation and installation of existing lift station and existing and proposed sewer and appurtenances including all necessary mobilization, sawcutting, pavement removal, excavation, backfill, pavement repair, sidewalk repair, concrete joint sealing, erosion control, traffic control, coordination with City of Midland staff and organizations such as OSHA, franchise utilities, etc. as needed, One Call (Texas 811) notifications for pending work, notifications to adjacent property owners as directed by City of Midland Staff, and all other work to be performed as outlined in the Construction Drawings and Specifications, to satisfactorily complete the work.

C. The Owner reserves the right to abandon, without obligation to the Contractor, any part of the project, or the entire project, at any time before the Contractor begins any construction work authorized by the Owner.

©COPYRIGHT 2022 JACOBS

D. Standard Specifications for Construction of the City of Midland will govern all construction, except as modified by these Special Provisions.

1.08 ORDER OF PRECEDENCE

A. The Special Provisions take precedence over the General Conditions in this bid packet anywhere these two sections are not in agreement.

B. The Special Provisions take precedence over the City of Midland Specifications in this bid packet anywhere these two sections are not in agreement.

C. The Contractor is to bid the quantities in the Proposal section of the bid packet even if there is a discrepancy between the Proposal quantities and those noted or measured in the construction drawing set.

D. In the Proposal the long-hand dollar amount written in the Description column for each bid item will take precedence over the numerical dollar amount listed in the Unit Price column if there is a discrepancy between the two.

E. In the construction drawing set any written or noted dimension takes precedence over dimensions measured based on the drawing scale unless otherwise directed by the Engineer.

F. Any changes or revisions made as part of an Addendum for this project take precedence over the original bid packet and construction drawing set where the documents are in conflict.

1.09 EXAMINATION OF SITE

A. Prospective bidders are to make a careful examination of the entire site of the project and are to make such explorations as may be necessary to determine the subsoil and/or water conditions to be encountered; improvements and obstructions which may be encountered; methods of providing ingress-egress to private as well as public property; methods of handling traffic during construction and maintenance of the entire project as well as any section thereof, protection of all existing structures both above and below ground, and how the plans fit the proposed project and especially if any discrepancies exist.

1.10 PAYMENT

A. Payment and retainage (five percent, 5%) shall be per the General Conditions.

©COPYRIGHT 2022 JACOBS

B. Retainage will apply the same to all bid items and invoices regardless of whether an invoice is for bid items paid upon material delivery or not.

C. Any and all payments for bid items that are paid upon material delivery are paid with the expectation that the material will be installed per the construction drawings and specifications, and that the material delivered will be protected and kept in good condition until it is installed. Material that is not properly stored or protected and becomes weathered or damaged before installation must be replaced with new material meeting the standards and requirement of the construction drawings and specifications before it can be installed, and this will be done an no additional cost to the City of Midland.

1.11 SAFETY REQUIREMENTS

A. It is the responsibility of the Contractor to follow and comply at all times with Occupational Safety and Health Administration (OSHA) and all other applicable safety regulations and requirements throughout the course of the project's work.

B. The area around IDEA Travis School Campus is a very active area for pedestrian traffic, including children, and especially when school I in session. The Contractor is directed to take every precaution to protect the public and secure the project site when working in areas that impact vehicular or pedestrian traffic. Previous projects in this area have needed to utilize additional pedestrian barriers such as orange plastic safety fencing to ensure pedestrian traffic from the school stayed outside the project work zones, and the Contractor for this project should be prepared for the possibility that this or similar measures will be needed for this project as well.

1.12 TRAFFIC CONTROL

A. Traffic control for this project will be the Contractor's responsibility. Traffic control is to adhere to the requirements outlined in Special Provisions that follow after this paragraph.

B. All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to an approved by the Traffic Operations Division no less than two (2) business days prior to starting the construction work. Traffic control for each phase of work must be approved prior to starting that work.

C. Generic traffic control plans or typical details may be submitted for shoulder work on any class of roadway, or for work on local or collector streets that does not require the closure of any travel lanes (i.e. all lanes are open to traffic on striped roadways, or adequate width remains available for two-way traffic

©COPYRIGHT 2022 JACOBS

on unstriped roadways). Once a generic traffic control plan or typical detail for a certain type of setup has been approved one time, the Contractor shall only be responsible for notifying the Traffic Operations Division of the location, type of setup, and dates on which they intend to utilize the pre-approved traffic control for the duration of the contract. No additional plan submittals will be required in these cases, except that the City reserves the right to suspend this exception at its discretion. For any work not fitting the above exception, or in the event that the exception is suspended by the City, a site-specific traffic control plan will be required for each work location and time period.

1. All temporary traffic control shall be in general conformance with the Texas Manual on Uniform Traffic Control Devices (TMUTCD) (latest edition as adopted by the Texas Department of Transportation), except as specifically directed by the City Engineer or City Traffic Engineer.
2. All temporary traffic control shall be designed, installed, and maintained by competent and qualified personnel with adequate experience in traffic control.
3. All temporary traffic control involving multiple lane closures or traffic shifts, full closures of collector or arterial streets, traffic control extending through a railroad crossing, or any setup reasonably determined by the City to be “complex”, shall be implemented only by a contractor with specific experience and expertise in the field of traffic control (i.e. a qualified “barricade company”).
4. A Traffic Control Plan (TCP) shall be submitted to the Engineering Services Department, Traffic Operations Division, in advance of any work in the right-of-way that impacts traffic. No work shall occur until an approved TCP has been returned to the Contractor.
5. A copy of the approved TCP shall be kept in the possession of the person responsible for supervising the traffic control at all times while working in the right-of-way. The approved TCP shall be presented to City staff of law enforcement upon demand at any time.
6. Depending on site conditions and the nature of the work, temporary traffic control may be approved by the City for either of the following:
    a. All times – All traffic control, including closures, may remain in place 24 hours per day until expiration of the approved TCP
    b. Off-Peak Only – Lane or road closures are NOT permitted from 6:00-9:00 AM and 4:00-7:00 PM on weekdays (Monday through Friday). Other traffic control not related to lane or road closures may remain in place 24 hours per day until expiration of the approved TCP.
7. The Contractor setting the temporary traffic control shall be responsible for the maintenance and upkeep of all signs, barricades, and other devices, at all times.

©COPYRIGHT 2022 JACOBS

a. All temporary traffic control setups shall be maintained at least one time per day, including weekends and holidays.
b. More frequent maintenance shall be performed as needed, with particular emphasis to following up after severe weather events or during times of high winds
c. Maintenance shall include:
    1) Verifying and correcting the location and orientation of all signs, barricades, an other devices;
    2) Keeping signs and reflective areas of barricades and other devices clean and free of dirt buildup so as to maintain appropriate visibility and legibility; and
    3) Ensuring the proper location, orientation, and operation of arrow boards or message boards, if present.

8. Arrow boards shall be required for lane closures under the following conditions:
    a. On roadways with a posted speed limit of 55 MPH or greater, for closures lasting more than one (1) hours;
    b. On roadways with a posted speed limit of 45 MPH or greater, for closures lasting more than four (4) hours;
    c. On any roadway if lanes will remain open to traffic traveling in the same direction on both sides of a closed lane during any overnight hours (from 7:00 PM to 6:00 AM); and at other times as shown on the approved TCP, or as otherwise directed by the City.

1.13 DETOURS

A. The Contractor is to prosecute his work in such a manner as to create a minimum of interruption to traffic and pedestrian facilities and to the flow of vehicular and pedestrian traffic within the project area.

1.14 PROPERTY AND RIGHT-OF-WAY ACCESS

A. Access to adjacent properties must be maintained at all times unless otherwise directed by the Engineer. If the contractor will not be working in an area for a period of one week or more, special care is to be taken to address any unsafe conditions such as excavated areas or obstructions outside the worked area that could be tripping hazards, etc.

1.15 PROPERTY AND RIGHT-OF-WAY SERVICE

A. Service to adjacent properties must be maintained at all times unless otherwise directed by the Engineer. Such services include water, wastewater, fiber, cable, electric, and gas. Contractor must notify affected properties no less than two (2) business days prior to any planned service interruption.

©COPYRIGHT 2022 JACOBS

B. Contractor must coordinate with the City of Midland regarding any planned service interruptions for public water or wastewater, or to restore any public infrastructure damaged during construction activities.

C. Contractor must coordinate with private service providers for any necessary service interruptions to their infrastructure or to restore service to their infrastructure in the event that a private service is disrupted, damaged, etc. during construction.

1.16 CONSTRUCTION SCHEDULE:

A. It is the responsibility of the Contractor to furnish the Construction Engineer, prior to construction, with a schedule outlining the anticipated time each phase of construction will begin and be completed, including sufficient time being allowed for cleanup.

1.17 CONSTRUCTION STAKING:

A. It is the responsibility of the Contractor to provide the project construction staking at fifty foot (50') intervals along the entire length of the project as well as at such control points as the Contractor deems necessary for proper execution of the work. Construction staking is to include grading and cuts as well as horizontal alignments and construction control points. Cut sheets are to be provided to the Engineer by the Contractor for review and approval.

1.18 SURVEY:

A. The Contractor is to provide GPS survey shots for all meters replaced to the City of Midland with each completed work order submittal. Survey data is to be shot in Texas Central Zone with 1983 NAD at 1.0' accuracy or better. Survey data is to be provided in Excel csv. file format with all rounding functions turned off.

1.19 CONSTRUCTION MATERIALS:

A. The Contractor is to only provide new materials for permanent installation in any and all parts of this project, and all such materials must comply with the General Conditions, the Bid Packet Specification, and all applicable City of Midland Standards and Specifications.

B. For this project, the Standard Specification is hereby amended to read:

1. Qualifications of Material Sources – Contractor is only to use pavement mixtures that have a proven record of acceptance by the City of Midland, or another Texas municipality, or have a proven record of meeting similar standards for state highway projects.

©COPYRIGHT 2022 JACOBS

C. Concrete is only to be placed when the ambient temperature is between 40 degrees and 95 degrees Fahrenheit and the ambient temperature in the shade is higher than 40 degrees Fahrenheit or is 40 degrees Fahrenheit and rising.

D. All concrete pavement joints are to be sealed with Texas Department of Transportation (TxDOT) DMS-6310 SL-2 sealant, an American Society for Testing and Materials (ASTM)_D 1190 Hot-Applied Single Component Joint Sealant, or a City of Midland approved equal. This will not apply to curb or sidewalk joints.

E. No construction materials are to be placed or installed during rain events unless they are necessary to resolve an emergency situation or to facilitate the project site erosion control measures.

1.20 EROSION CONTROL:

A. Erosion control is the responsibility of the Contractor and erosion control measures are to be implemented so as to prevent sediment erosion from wind, rain, and other elements from the project site. Should the Owner feel that supplementary erosion control measures are required in addition to those implemented by the Contractor then the Contractor will include additional erosion control measures within reason to the Owner's satisfaction and/or TCEQ requirements.

B. Reasonable erosion control measures include but are not limited to: construction entrance(s), concrete washout(s), perimeter silt fence or fiber wattle, rock rip-rap dams for concentrated runoff control, gutter and inlet protection measures such as sand bags, and stabilization of the construction area surfaces when construction work is not actively occurring by means of vegetative cover or seeded erosion control blankets.

C. Supplemental erosion control measures are ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

D. Site cleanup work is to be done for this project as soon as possible as per the General Conditions and will be ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes. Site cleanup is to take place throughout the project's construction as needed to maintain a clean and professional looking work area. No more than three calendar days are to elapse after completion of construction before the final roadway and right-of-way cleanup has been completed to the satisfaction of the Engineer.

©COPYRIGHT 2022 JACOBS

1.21 WASTE MATERIAL:

A. Excess material from excavation and other construction or demolition activity will become the property of the Contractor. Excess excavation will be disposed of at locations secured by the Contractor and if necessary, approved by the Engineer. No material is to be placed on private property or City property without the approval of the Engineer and the property owner. Removal of excess material, excavation, and waste material are ancillary to the project and not paid as a separate item, unless otherwise noted in the Proposal or Pay Notes.

B. Excess concrete material must be washed out in a concrete washout within the project's job site area, or else any and all other concrete material washout must occur away from the job site area in the Contractor's or concrete Supplier's own operation yards or properties. Under no circumstances are concrete trucks allowed to washout in any job site excavations, channels, public right-of-way, or on private property.

C. Existing fire hydrants and existing water meters indicated for removal as part of the project are to be returned to the City of Midland by the Contractor and remain City property. These are ancillary to the project and will not be paid as separate items.

1.22 TESTING:

A. It is the Contractor's responsibility to perform all required testing for any and all materials and workmanship performed or installed as part of the project's work. The cost of all such testing is to be borne solely by the Contractor unless required by the Engineer for work or materials that had previously been tested and approved and had not experienced any change in condition since that time as a result of the Contractor's work or actions; or unless additional testing outside of the project scope is performed at the request of the Engineer.

B. Required testing includes:

1. Concrete Pavement For Trench Repair – A Slump Test is required only if directed by the Engineer for pavement patches that are equal to or greater than 50 cubic yards (roughly equal to an 8' wide by 340' long by 6" thick pavement section). The slump test is to be performed once for every cylinder set (3 cylinders), and no less than 1 cylinder set per day when concrete is placed. Test results are to be given to the engineer upon completion of each test. There will be no testing for curb, ramps, and sidewalks.

©COPYRIGHT 2022 JACOBS

2. Asphalt Hot-Mix Pavement For Trench Repair – A Nuclear Gauge Density Test is required only if directed by the Engineer for pavement patches that are equal to or greater than 620 square yards (roughly equal to an 8’ wide by 700’ long pavement section). The laboratory density limits will be a minimum limit of 96 percent, a maximum limit of 98 percent, and an optimum limit of 97 percent. The acceptable field density limit will be a minimum limit of 93 percent, a maximum limit of 98 percent, and an optimum limit of 95 percent. Test results are to be given to the Engineer upon completion of each test.
3. Wastewater Pipes and Structures – Perform as-built survey and closed circuit televising (CCTV) for all wastewater pipes and structures that are installed to verify the sewer grades, including all manholes.
    a. As-Built Survey of Wastewater Structures – Provide as-built survey shots at the inverts of all wastewater structures
    b. Closed Circuit Televising (CCTV) – Provide CCTV video of the storm drain for the full length of the storm drain system installed, including through all storm drain structures. CCTV video is not required for storm drain laterals unless directed by the Engineer.

1.23 COMPLIANCE

A. The said Contractor further agrees to comply with all applicable provisions of the laws and building and construction codes of the City of Midland and the State of Texas, and with any regulations for the protection of workers which may be promulgated by the Government, and will protect such work with all necessary lights, barriers, safeguards, and warnings as provided for in said specifications and the Ordinance regulations.

1.24 PERSONNEL

A. It is the Contractor’s responsibility to have a supervising representative of the Contractor on the construction site any time that construction work is taking place. The Contractor’s representative must be on the Contractor’s direct payroll. Sub-contractors or paid consultants will not satisfy this requirement.

B. It is also the Contractor’s responsibility to provide the City with a reliable contact for issue escalation coordination. Such contacts would include the Contractor’s site foreman, the Contractor’s construction project manager, etc.

1.25 INTENT OF THE PROPOSAL

A. The intent of the proposal is to determine the lowest responsible bidder based on the total of the quantities and unit prices. Once the lowest responsible bidder is selected, the project will be awarded based on the terms and requirements of the contract outlined in the bid packet and construction drawings.

©COPYRIGHT 2022 JACOBS

1.26 CONTRACT START DATE AND DEADLINES:

A. The start date for this project is <DATE>. This will also serve as the Notice to Proceed date for this project.

B. The deadline for substantial completion of this entire project is 180 calendar days total starting from the Notice to Proceed date.

C. Extensions of the project deadline may be requested by the Contractor for documented excepting conditions such as weather days, delays due to conflicts with existing franchise lines, etc. which are reasonably beyond the Contractor's control. Any and all deadline extensions must be submitted by the Contractor in writing to Engineer for review, and the approval or denial of the request rests solely with the Engineer.

D. Unless specifically granted in writing by the Engineer, there will be no suspension of project time between phases of construction.

1.27 WARRANTY PERIOD

A. There is a one (1) year calendar warranty period on this project for all work performed or materials installed effective immediately upon acceptance of the improvements by the Owner. The warranty period will be based on the acceptance date of the project as a whole, and not any individual phases of the project.

1.28 BID PACKET COMPLETION ITEMS OF NOTE:

A. Bidders must be willing to sign the Contract as is if a bid is submitted. Revisions, alterations, deletions, additions, or any other changes of any kind by the bidder to the bid packet or other bid documents (such as the construction drawing set, addendums, etc.) will result in the bid submittal being deemed 'Non-Responsive' and the bid will not be accepted.

B. Bidders are reminded to make sure that the Conflict of Interest forms are completed if applicable before submitting a bid.

C. All bid items in the Proposal section must be completed for a bid submittal to be considered complete. Any bid item left blank, only partially completed, or that the bidder indicates they chose to not provide a bid for will be considered incomplete, and the entire bid submittal will also be deemed incomplete, the bid submittal will be deemed 'Non-Responsive', and the bid will not be accepted. Bidders bear sole responsibility for making sure that the Proposal is complete and in accordance with the instructions provided to bidders in the bid packet.

©COPYRIGHT 2022 JACOBS

D. All acknowledgement forms for all addendums that are issued during the bid process for this project must be filled out and be included with any bid submittal for that bid submittal to be considered complete. Any bid submittal lacking these completed addendum acknowledgement forms will be deemed 'Non-Responsive' and the bid will not be accepted. Bidders bear sole responsibility for making sure that they have obtained all addendums issued prior to submitting their bid.

E. Bidders must provide documentation as part of the bid packet submittal proving that they possess active licenses that are equivalent to or a higher class than a Water Operator D license and also equivalent to or a higher class than either a Wastewater D license or a Class 1 Collections license, and the Contractor must maintain both of these active licenses for the entirety of the project. Any bid submittal that does not include this required documentation for both licenses will be rejected as a non-responsive bid. If a Contractor allows either or both of the required licenses to lapse at any time during the course of the project then all work under this project will be halted and the City of Midland will have sole discretion to either allow the Contractor to renew both of their active licenses before resuming work or to end the project immediately.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 31 13
PROJECT COORDINATION

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational:

1. Photographs:
   a. Digital Images: Submit one copy of DVD disc or external hard drive (HD) containing images within 5 days of being taken. Each image is to have a minimum file size of 1.4 Mb (1,400 Kb) so viewed resolution is high quality. The production of larger file sizes with higher resolution is encouraged.

1.02 UTILITY NOTIFICATION AND COORDINATION

A. Coordinate the Work with various utilities within Project limits. Notify applicable utilities prior to commencing Work, if damage occurs, or if conflicts or emergencies arise during the Work.

1. Centurion Pipeline LP:
   a. Contact Person: Christopher Cantrell
   b. Telephone: 346-803-2815
2. Holly Energy Partners:
   a. Contact Person: Kennith “Bo” Garvin
   b. Telephone: 432-254-3657
3. Atmos Energy:
   a. Contact Person: Mark Lieb
   b. Telephone: 432-967-0370
4. Oncor Power:
   a. Contact Person: TBD
   b. Telephone: TBD
5. Grande Communications:
   a. Contact Person: TBD
   b. Telephone: TBD

1.03 WORK SEQUENCING/CONSTRAINTS

A. Include the following work sequences in the Progress Schedule.

©COPYRIGHT 2022 JACOBS

1.04 FACILITY OPERATIONS

A. Continuous operation of Owner's facilities is of critical importance. Schedule and conduct activities to enable existing facilities to operate continuously, unless otherwise specified.

B. Perform Work continuously during critical connections and changeovers, and as required to prevent interruption of Owner's operations.

C. When necessary, plan, design, and provide various temporary services, utilities, connections, temporary piping and heating, access, and similar items to maintain continuous operations of Owner's facility.

D. Do not close lines, open or close valves, or take other action which would affect the operation of existing systems, except as specifically required by the Contract Documents and after authorization by Owner and Engineer. Such authorization will be considered within 48 hours after receipt of Contractor's written request.

E. Construct Work in the following stages to allow for Owner's continuous occupancy and for uninterrupted operation during construction.

F. Install and maintain bypass facilities and temporary connections required to keep Owner's sewerage system online. Sequences other than those specified will be considered upon written request to Owner and Engineer, provided they afford equivalent continuity of operations.

G. Do not proceed with Work affecting a facility's operation without obtaining Owner's and Engineer's advance approval of the need for and duration of such Work.

H. Relocation of Existing Facilities:

1. During construction, it is expected that minor relocations of Work will be necessary.
2. Provide complete relocation of existing structures and Underground Facilities, including piping, utilities, equipment, structures, electrical conduit wiring, electrical duct bank, and other necessary items.
3. Use only new materials for relocated facility. Match materials of existing facility, unless otherwise shown or specified.
4. Perform relocations to minimize downtime of existing facilities.
5. Install new portions of existing facilities in their relocated position prior to removal of existing facilities, unless otherwise accepted by Engineer.

©COPYRIGHT 2022 JACOBS

1.05 ADJACENT FACILITIES AND PROPERTIES

A. Examination:

1. After Effective Date of the Agreement and before Work at Site is started, Contractor, Engineer, and affected property owners and utility owners shall make a thorough examination of pre-existing conditions including existing buildings, structures, and other improvements in vicinity of Work, as applicable, which could be damaged by construction operations.
2. Periodic reexamination shall be jointly performed to include, but not limited to, cracks in structures, settlement, leakage, and similar conditions.

B. Documentation:

1. Record and submit documentation of observations made on examination inspections in accordance with Article Construction Photographs.
2. Such documentation shall be used as indisputable evidence in ascertaining whether and to what extent damage occurred as a result of Contractor's operations, and is for the protection of adjacent property owners, Contractor, and Owner.

1.06 CONSTRUCTION PHOTOGRAPHS

A. General:

1. Photographically document all phases of the Project including preconstruction, construction progress, and post-construction.
2. Engineer shall have right to select subject matter and vantage point from which photographs are to be taken.
3. Digital Images: No post-session electronic editing of images is allowed. Stored image shall be actual image as captured without cropping or other edits.

B. Preconstruction and Post-Construction:

1. After Effective Date of the Agreement and before Work at Site is started, and again upon issuance of Substantial Completion, take a minimum of 50 photographs of Site and property adjacent to perimeter of Site.
2. Particular emphasis shall be directed to structures both inside and outside the Site.
3. Format: Digital, minimum resolution of 2176 by 3264 and 24-bit, millions of color.

©COPYRIGHT 2022 JACOBS

C. Documentation:

1. Digital Images:
   a. Electronic image shall have date taken embedded into image.
   b. Archive using a commercially available photo management system that provides listing of photographs including date, keyword description, and direction of photograph.
   c. Label file folders or database records with Project and Owner's name, and month and year images were produced.

1.07 REFERENCE POINTS AND SURVEYS

A. The elevation of principal components of the Work are as shown on Drawings. Any measurements and/or elevations required for design or construction of improvements must be field verified by Contractor.

B. Contractor's Responsibilities:

1. Provide additional survey and layout required to layout the Work.
2. Check and establish exact location of existing facilities prior to construction of new facilities and any connections thereto.
3. In event of discrepancy in data or staking provided by Owner, request clarification before proceeding with Work.
4. Retain professional land surveyor or civil engineer registered in state of Texas who shall perform or supervise engineering surveying necessary for additional construction staking and layout.
5. Maintain complete accurate log of survey work as it progresses as a Record Document.
6. On request of Engineer, submit documentation.
7. Provide competent employee(s), tools, stakes, and other equipment and materials as Engineer may require to:
   a. Establish control points, lines, and easement boundaries.
   b. Check layout, survey, and measurement work performed by others.
   c. Measure quantities for payment purposes.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 CUTTING, FITTING, AND PATCHING

A. Cut, fit, adjust, or patch Work and work of others, including excavation and backfill as required, to make Work complete.

©COPYRIGHT 2022 JACOBS

B. Obtain prior written authorization of Engineer and Owner before commencing Work to cut or otherwise alter:

1. Structural or reinforcing steel, structural column or beam, elevated slab, trusses, or other structural member.
2. Weather-resistant or moisture-resistant elements.
3. Efficiency, maintenance, or safety of element.
4. Work of others.

C. Refinish surfaces to provide an even finish.

1. Refinish continuous surfaces to nearest intersection.
2. Refinish entire assemblies.
3. Finish restored surfaces to such planes, shapes, and textures that no transition between existing work and the Work is evident in finished surfaces.

D. Restore existing work, Underground Facilities, and surfaces that are to remain in completed Work including concrete-embedded piping, conduit, and other utilities as specified and as shown on Drawings.

E. Make restorations with new materials and appropriate methods as specified for new Work of similar nature; if not specified, use recommended practice of manufacturer or appropriate trade association.

F. Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces and fill voids.

G. Remove specimens of installed Work for testing when requested by Engineer.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 31 19
PROJECT MEETINGS

PART 1 GENERAL

1.01 GENERAL

A. Contractor shall schedule physical arrangements for meetings throughout progress of the Work, prepare meeting agenda with regular participant input and distribute with written notice of each meeting, preside at meetings, record minutes to include significant proceedings and decisions, and reproduce and distribute copies of minutes within 5 days after each meeting to participants and parties affected by meeting decisions.

1.02 PRECONSTRUCTION CONFERENCE

A. Contractor shall be prepared to discuss the following subjects, as a minimum:

1. Required schedules.
2. Status of Bonds and insurance.
3. Sequencing of critical path work items.
4. Progress payment procedures.
5. Project changes and clarification procedures.
6. Use of Site, access, office and storage areas, security and temporary facilities.
7. Major product delivery and priorities.
8. Contractor’s safety plan and representative.

B. Attendees will include:

1. Owner’s representatives.
2. Contractor’s office representative.
3. Contractor’s resident superintendent.
4. Contractor’s quality control representative.
5. Subcontractors’ representatives whom Contractor may desire or Engineer may request to attend.
6. Engineer’s representatives.
7. Others as appropriate.

1.03 PRELIMINARY SCHEDULES REVIEW MEETING

A. As set forth in General Conditions and Section 01 32 00, Construction Progress Documentation.

©COPYRIGHT 2022 JACOBS

1.04 PROGRESS MEETINGS

A. Engineer will schedule regular progress meetings at Site, conducted monthly to review the Work progress, Progress Schedule, Schedule of Submittals, Application for Payment, contract modifications, and other matters needing discussion and resolution.

B. Attendees will include:

1. Owner's representative(s), as appropriate.
2. Contractor, Subcontractors, and Suppliers, as appropriate.
3. Engineer's representative(s).
4. Others as appropriate.

1.05 PREINSTALLATION MEETINGS

A. When required in individual Specification sections, convene at Site prior to commencing the Work of that section.

B. Require attendance of entities directly affecting, or affected by, the Work of that section.

C. Notify Engineer 7 days in advance of meeting date.

D. Provide suggested agenda to Engineer to include reviewing conditions of installation, preparation and installation or application procedures, and coordination with related Work and work of others.

1.06 OTHER MEETINGS

A. In accordance with Contract Documents and as may be required by Owner and Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 32 00
CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Preliminary Progress Schedule: Submit at least 7 days prior to preconstruction conference.
2. Days shall mean calendar days unless specifically “work or working” precedes days.
3. Detailed Progress Schedule:
   a. Submit initial Detailed Progress Schedule within 60 days after Effective Date of the Agreement.
   b. Submit an Updated Progress Schedule at each update, in accordance with Article Detailed Progress Schedule.
   c. Updated Progress Schedule indicate a late substantial or final completion date, a Critical Path Method network shall be submitted for review and approval for the steps/changes proposed by the Contractor to bring the project back on schedule. Changes to the Progress Schedule shall not be made prior to approval of changes.
4. Submit with Each Progress Schedule Submission:
   a. Contractor’s certification that Progress Schedule and Critical Path Method submission is actual schedule being used for execution of the Work.
   b. Progress Schedule: Two legible copies.
   c. Narrative Progress Report: Same number of copies as specified for Progress Schedule.
5. Prior to final payment, submit a final Updated Progress Schedule.

1.02 PRELIMINARY PROGRESS SCHEDULE

A. In addition to basic requirements outlined in General Conditions, show a detailed schedule, beginning with Notice to Proceed, for minimum duration of 90 days, and a summary of balance of Project through Final Completion.

B. Show activities including, but not limited to the following:

1. Notice to Proceed.
2. Permits.

©COPYRIGHT 2022 JACOBS

3. Submittals, with review time. Contractor may use Schedule of Submittals specified in Section 01 33 00, Submittal Procedures.
4. Early procurement activities for long lead equipment and materials.
5. Initial Site work.
6. Earthwork.
7. Specified Work sequences and construction constraints.
8. Contract Milestone and Completion Dates.
9. Owner-furnished products delivery dates or ranges of dates.
10. Major structural, mechanical, equipment, electrical, architectural, and instrumentation and control Work.
11. System startup summary.
12. Project close-out summary.
13. Demobilization summary.

C. Update Preliminary Progress Schedule monthly as part of progress payment process. Failure to do so may result in the Owner withholding all or part of the monthly progress payment until the Preliminary Progress Schedule is updated in a manner acceptable to Engineer.

D. Format: In accordance with Article Progress Schedule—Critical Path.

1.03 DETAILED PROGRESS SCHEDULE

A. In addition to requirements of General Conditions, submit Detailed Progress Schedule beginning with Notice to Proceed and continuing through Final Completion. Contractor shall submit Owner approved Critical Path network within 30 days following notice to proceed.

B. Show the duration and sequences of activities required for complete performance of the Work reflecting means and methods chosen by Contractor.

C. When accepted by Engineer, Detailed Progress Schedule will replace Preliminary Progress Schedule and become Baseline Schedule. Subsequent revisions will be considered as Updated Progress Schedules.

D. Format: In accordance with Article Progress Schedule—Critical Path.

E. Update monthly to reflect actual progress and occurrences to date, including weather delays.

1.04 PROGRESS SCHEDULE—CRITICAL PATH NETWORK

A. General: Comprehensive computer-generated schedule using CPM, generally as outlined in Associated General Contractors of America (AGC) 580, “Construction Project Planning and Scheduling Guidelines.” If a conflict occurs between the AGC publication and this specification, this specification shall govern.

©COPYRIGHT 2022 JACOBS

B. Contents:

1. Schedule shall begin with the date of Notice to Proceed and conclude with the date of Final Completion.
2. Identify Work calendar basis using days as a unit of measure.
3. Show complete interdependence and sequence of construction and Project-related activities reasonably required to complete the Work.
4. Identify the Work of separate stages and other logically grouped activities, and clearly identify critical path of activities.
5. Reflect sequences of the Work, restraints, delivery windows, review times, Contract Times and Project Milestones set forth in the Agreement and Section 01 31 13, Project Coordination.
6. Include as applicable, at a minimum:
    a. Obtaining permits, submittals for early product procurement, and long lead time items.
    b. Mobilization and other preliminary activities.
    c. Initial Site work.
    d. Specified Work sequences, constraints, and Milestones, including Substantial Completion date(s) Subcontract Work.
    e. Major equipment design, fabrication, factory testing, and delivery dates.
    f. Delivery dates for Owner-furnished products, as specified in Section 01 11 00, Summary of Work.
    g. Sitework.
    h. Concrete Work.
    i. Structural steel Work.
    j. Architectural features Work.
    k. Conveying systems Work.
    l. Equipment Work.
    m. Mechanical Work.
    n. Electrical Work.
    o. Instrumentation and control Work.
    p. Interfaces with Owner-furnished equipment.
    q. Other important Work for each major facility.
    r. Equipment and system startup and test activities.
    s. Project closeout and cleanup.
    t. Demobilization.
7. No activity duration, exclusive of those for Submittals review and product fabrication/delivery, shall be less than 1 day nor more than 14 days, unless otherwise approved.
8. Activity duration for Submittal review shall not be less than review time specified unless clearly identified and prior written acceptance has been obtained from Engineer.

©COPYRIGHT 2022 JACOBS

C. Network Graphical Display:

1. Plot or print on paper not greater than 30 inches by 42 inches or smaller than 22 inches by 34 inches, unless otherwise approved.
2. Title Block: Show name of Project, Owner, date submitted, revision or update number, and the name of the scheduler. Updated schedules shall indicate data date.
3. Identify horizontally across top of schedule the time frame by year, month, and day.
4. Identify each activity with a unique number and a brief description of the Work associated with that activity.
5. Indicate the critical path.
6. Show, at a minimum, the controlling relationships between activities.
7. Plot activities on a time-scaled basis, with the length of each activity proportional to the current estimate of the duration.
8. Plot activities on an early start basis unless otherwise requested by Engineer.
9. Provide a legend to describe standard and special symbols used.

D. Schedule Report:

1. On 8-1/2-inch by 11-inch white paper, unless otherwise approved.
2. List information for each activity in tabular format, including at a minimum:
   a. Activity Identification Number.
   b. Activity Description.
   c. Original Duration.
   d. Remaining Duration.
   e. Early Start Date (Actual start on Updated Progress Schedules).
   f. Early Finish Date (Actual finish on Updated Progress Schedules).
   g. Late Start Date.
   h. Late Finish Date.
   i. Total Float.
3. Sort reports, in ascending order, as listed below:
   a. Activity number sequence with predecessor and successor activity.

1.05 PROGRESS OF THE WORK

A. Updated Progress Schedule shall reflect:

1. Progress of Work to within 5 working days prior to submission.
2. Approved changes in Work scope and activities modified since submission.

©COPYRIGHT 2022 JACOBS

3. Delays in Submittals or resubmittals, deliveries, or Work.
4. Adjusted or modified sequences of Work.
5. Other identifiable changes.
6. Revised projections of progress and completion.
7. Report of changed logic.

B. Produce detailed subschedules during Project, upon request of Owner or Engineer, to further define critical portions of the Work such as facility shutdowns.

C. If an activity is not completed by its latest scheduled completion date and this failure is anticipated to extend Contract Times (or Milestones), submit, within 7 days of such failure, a written statement as to how nonperformance will be corrected to return Project to acceptable current Progress Schedule. Actions by Contractor to complete the Work within Contract Times (or Milestones) will not be justification for adjustment to Contract Price or Contract Times.

D. Owner may order Contractor to increase plant, equipment, labor force, or working hours if Contractor fails to:

1. Complete a Milestone activity by its completion date.
2. Satisfactorily execute Work as necessary to prevent delay to overall completion of Project, at no additional cost to Owner.

1.06 NARRATIVE PROGRESS REPORT

A. Format:

1. Organize same as Progress Schedule.
2. Identify, on a cover letter, reporting period, date submitted, and name of author of report.

B. Contents:

1. Number of days worked over the period, work force on hand, construction equipment on hand (including utility vehicles such as pickup trucks, maintenance vehicles, stake trucks).
2. General progress of Work, including a listing of activities started and completed over the reporting period, mobilization/demobilization of subcontractors, and major milestones achieved.
3. Contractor’s plan for management of Site (for example, lay down and staging areas, construction traffic), use of construction equipment, buildup of trade labor, and identification of potential Contract changes.
4. Identification of new activities and sequences as a result of executed Contract changes.

©COPYRIGHT 2022 JACOBS

5. Documentation of weather conditions over the reporting period, and any resulting impacts to the work.
6. Description of actual or potential delays, including related causes, and the steps taken or anticipated to mitigate their impact.
7. Changes to activity logic.
8. Changes to the critical path.
9. Identification of, and accompanying reason for, any activities added or deleted since the last report.
10. Steps taken to recover the schedule from Contractor-caused delays.

1.07 SCHEDULE ACCEPTANCE

A. Engineer's acceptance will demonstrate agreement that:

1. Proposed schedule is accepted with respect to:
   a. Contract Times, including Final Completion and all intermediate Milestones, are within the specified times.
   b. Specified Work sequences and constraints are shown as specified.
   c. Specified Owner-furnished Equipment or Material arrival dates, or range of dates, are included.
   d. Access restrictions are accurately reflected.
   e. Startup and testing times are as specified.
   f. Submittal review times are as specified.
   g. Startup testing duration is as specified and timing is acceptable.
2. In all other respects, Engineer's acceptance of Contractor's schedule indicates that, in Engineer's judgment, schedule represents reasonable plan for constructing Project in accordance with the Contract Documents. Engineer's review will not make any change in Contract requirements. Lack of comment on any aspect of schedule that is not in accordance with the Contract Documents will not thereby indicate acceptance of that change, unless Contractor has explicitly called the nonconformance to Engineer's attention in submittal. Schedule remains Contractor's responsibility and Contractor retains responsibility for performing all activities, for activity durations, and for activity sequences required to construct Project in accordance with the Contract Documents.

B. Unacceptable Preliminary Progress Schedule:

1. Make requested corrections; resubmit within 10 days.
2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process, including updating schedule on a monthly basis to reflect actual progress and occurrences to date.

©COPYRIGHT 2022 JACOBS

C. Unacceptable Detailed Progress Schedule:

1. Make requested corrections; resubmit within 10 days.
2. Until acceptable to Engineer as Baseline Progress Schedule, continue review and revision process.

D. Narrative Report: All changes to activity duration and sequences, including addition or deletion of activities subsequent to Engineer's acceptance of Baseline Progress Schedule, shall be delineated in Narrative Report current with proposed Updated Progress Schedule.

1.08 ADJUSTMENT OF CONTRACT TIMES

A. Reference General Conditions and Section 01 26 00, Contract Modification Procedures.

B. Evaluation and reconciliation of Adjustments of Contract Times shall be based on the Updated Progress Schedule at the time of proposed adjustment or claimed delay.

C. Claims Based on Contract Times:

1. Where Engineer has not yet rendered formal decision on Contractor's Claim for adjustment of Contract Times, and parties are unable to agree as to amount of adjustment to be reflected in Progress Schedule, reflect an interim adjustment in the Progress Schedule as acceptable to Engineer.
2. It is understood and agreed that such interim acceptance will not be binding on either Contractor or Owner and will be made only for the purpose of continuing to schedule Work until such time as formal decision has been rendered as to an adjustment, if any, of the Contract Times.
3. Revise Progress Schedule prepared thereafter in accordance with Engineer's formal decision.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.01 DEFINITIONS

A. Action Submittal: Written and graphic information submitted by Contractor that requires Engineer's approval.

B. Informational Submittal: Information submitted by Contractor that requires Engineer's review and determination that submitted information is in accordance with the Conditions of the Contract.

1.02 PROCEDURES

A. Direct submittals to Engineer at the following, unless specified otherwise.

1. Available at preconstruction conference.

B. Electronic Submittals: Submittals may be made in electronic format.

1. Each submittal shall be an electronic file in Adobe Acrobat Portable Document Format (PDF). Use the latest version available at time of execution of the Agreement.
2. Electronic files that contain more than 10 pages in PDF format shall contain internal bookmarking from an index page to major sections of the document.
3. PDF files shall be set to open "Bookmarks and Page" view.
4. Add general information to each PDF file, including title, subject, author, and keywords.
5. PDF files shall be set up to print legibly at 8.5-inch by 11-inch, 11-inch by 17-inch, or 22-inch by 34-inch. No other paper sizes will be accepted.
6. Submit new electronic files for each resubmittal.
7. Include a copy of the Transmittal of Contractor's Submittal form, located at end of section, with each electronic file.
8. Provide Engineer with authorization to reproduce and distribute each file as many times as necessary for Project documentation.
9. Detailed procedures for handling electronic submittals will be discussed at the preconstruction conference.

©COPYRIGHT 2022 JACOBS

C. Transmittal of Submittal:

1. Contractor shall:
   a. Review each submittal and check for compliance with Contract Documents.
   b. Stamp each submittal with uniform approval stamp before submitting to Engineer.
      1) Stamp to include Project name, submittal number, Specification number, Contractor's reviewer name, date of Contractor's approval, and statement certifying submittal has been reviewed, checked, and approved for compliance with Contract Documents.
      2) Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.

2. Complete, sign, and transmit with each submittal package, one Transmittal of Contractor's Submittal form attached at end of this section.

3. Identify each submittal with the following:
   a. Numbering and Tracking System:
      1) Sequentially number each submittal.
      2) Resubmission of submittal shall have original number with sequential alphabetic suffix.
   b. Specification section and paragraph to which submittal applies.
   c. Project title and Engineer's project number.
   d. Date of transmittal.
   e. Names of Contractor, Subcontractor or Supplier, and manufacturer as appropriate.
4. Identify and describe each deviation or variation from Contract Documents.

D. Format:

1. Do not base Shop Drawings on reproductions of Contract Documents.
2. Package submittal information by individual specification section. Do not combine different specification sections together in submittal package, unless otherwise directed in specification.
3. Present in a clear and thorough manner and in sufficient detail to show kind, size, arrangement, and function of components, materials, and devices, and compliance with Contract Documents.
4. Index with labeled tab dividers in orderly manner.

E. Timeliness: Schedule and submit in accordance Schedule of Submittals and requirements of individual specification sections.

©COPYRIGHT 2022 JACOBS

F. Processing Time:

1. Time for review shall commence on Engineer's receipt of submittal.
2. Engineer will act upon Contractor's submittal and transmit response to Contractor not later than 14 days after receipt, unless otherwise specified.
3. Resubmittals will be subject to same review time.
4. No adjustment of Contract Times or Price will be allowed as a result of delays in progress of Work caused by rejection and subsequent resubmittals.

G. Resubmittals: Clearly identify each correction or change made.

H. Incomplete Submittals:

1. Engineer will return entire submittal for Contractor's revision if preliminary review deems it incomplete.
2. When any of the following are missing, submittal will be deemed incomplete:
   a. Contractor's review stamp; completed and signed.
   b. Transmittal of Contractor's Submittal; completed and signed.
   c. Insufficient number of copies.

I. Submittals not required by Contract Documents:

1. Will not be reviewed and will be returned stamped "Not Subject to Review."
2. Engineer will keep one copy and return submittal to Contractor.

1.03 ACTION SUBMITTALS

A. Prepare and submit Action Submittals required by individual specification sections.

B. Shop Drawings:

1. Identify and Indicate:
   a. Applicable Contract Drawing and Detail number, products, units and assemblies, and system or equipment identification or tag numbers.
   b. Equipment and Component Title: Identical to title shown on Drawings.
   c. Critical field dimensions and relationships to other critical features of Work. Note dimensions established by field measurement.
   d. Project-specific information drawn accurately to scale.

©COPYRIGHT 2022 JACOBS

2. Manufacturer's standard schematic drawings and diagrams as follows:
   a. Modify to delete information that is not applicable to the Work.
   b. Supplement standard information to provide information specifically applicable to the Work.
3. Product Data: Provide as specified in individual specifications.
4. Foreign Manufacturers: When proposed, include names and addresses of at least two companies that maintain technical service representatives close to Project.

C. Samples:

1. Copies: Two, unless otherwise specified in individual specifications.
2. Preparation: Mount, display, or package Samples in manner specified to facilitate review of quality. Attach label on unexposed side that includes the following:
   a. Manufacturer name.
   b. Model number.
   c. Material.
   d. Sample source.
3. Manufacturer's Color Chart: Units or sections of units showing full range of colors, textures, and patterns available.
4. Full-size Samples:
   a. Size as indicated in individual specification section.
   b. Prepared from same materials to be used for the Work.
   c. Cured and finished in manner specified.
   d. Physically identical with product proposed for use.

D. Action Submittal Dispositions: Engineer will review, comment, stamp, and distribute as noted:

1. Approved:
   a. Contractor may incorporate product(s) or implement Work covered by submittal.
   b. Distribution: Electronic.
2. Approved as Noted:
   a. Contractor may incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
   b. Distribution: Electronic.
3. Partial Approval, Resubmit as Noted:
   a. Make corrections or obtain missing portions, and resubmit.
   b. Except for portions indicated, Contractor may begin to incorporate product(s) or implement Work covered by submittal, in accordance with Engineer's notations.
   c. Distribution: Electronic.

©COPYRIGHT 2022 JACOBS

4. Revise and Resubmit:
   a. Contractor may not incorporate product(s) or implement Work covered by submittal.
   b. Distribution: Electronic.

1.04 INFORMATIONAL SUBMITTALS

A. General:

1. Refer to individual specification sections for specific submittal requirements.
2. Engineer will review each submittal. If submittal meets conditions of the Contract, Engineer will forward copy to appropriate parties. If Engineer determines submittal does not meet conditions of the Contract and is therefore considered unacceptable, Engineer will retain one copy and return remaining copy with review comments to Contractor, and require that submittal be corrected and resubmitted.

B. Certificates:

1. General:
   a. Provide notarized statement that includes signature of entity responsible for preparing certification.
   b. Signed by officer or other individual authorized to sign documents on behalf of that entity.
2. Welding: In accordance with individual specification sections.
3. Installer: Prepare written statements on manufacturer's letterhead certifying installer complies with requirements as specified in individual specification section.
4. Material Test: Prepared by qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements.
5. Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by Laws and Regulations or governing agency or specified in individual specification sections.
6. Manufacturer's Certificate of Compliance: In accordance with Section 01 61 00, Common Product Requirements.
7. Manufacturer's Certificate of Proper Installation: In accordance with Section 01 43 33, Manufacturers' Field Services.

C. Construction Photographs: In accordance with Section 01 31 13, Project Coordination, and as may otherwise be required in Contract Documents.

D. Closeout Submittals: In accordance with Section 01 77 00, Closeout Procedures.

©COPYRIGHT 2022 JACOBS

E. Contractor-design Data (related to temporary construction):

1. Written and graphic information.
2. List of assumptions.
3. List of performance and design criteria.
4. Summary of loads or load diagram, if applicable.
5. Calculations.
6. List of applicable codes and regulations.
7. Name and version of software.
8. Information requested in individual specification section.

F. Manufacturer's Instructions: Written or published information that documents manufacturer's recommendations, guidelines, and procedures in accordance with individual specification section.

G. Payment:

1. Application for Payment: In accordance with Section 01 29 00, Payment Procedures.
2. Schedule of Values: In accordance with Section 01 29 00, Payment Procedures.

H. Quality Control Documentation: As required in Section 01 45 16.13, Contractor Quality Control.

I. Schedules:

1. Schedule of Submittals: Prepare separately or in combination with Progress Schedule as specified in Section 01 32 00, Construction Progress Documentation.
   a. Show for each, at a minimum, the following:
      1) Specification section number.
      2) Identification by numbering and tracking system as specified under Paragraph Transmittal of Submittal.
      3) Estimated date of submission to Engineer, including reviewing and processing time.
   b. On a monthly basis, submit updated Schedule of Submittals to Engineer if changes have occurred or resubmittals are required.
2. Progress Schedules: In accordance with Section 01 32 00, Construction Progress Documentation.

J. Special Guarantee: Supplier's written guarantee as required in individual specification sections.

©COPYRIGHT 2022 JACOBS

K. Statement of Qualification: Evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty Subcontractor, trade, Specialist, consultant, installer, and other professionals.

L. Submittals Required by Laws, Regulations, and Governing Agencies:

1. Promptly submit promptly notifications, reports, certifications, payrolls, and otherwise as may be required, directly to the applicable federal, state, or local governing agency or their representative.
2. Transmit to Engineer for Owner's records one copy of correspondence and transmittals (to include enclosures and attachments) between Contractor and governing agency.

M. Test, Evaluation, and Inspection Reports:

1. General: Shall contain signature of person responsible for test or report.
2. Factory:
    a. Identification of product and specification section, type of inspection or test with referenced standard or code.
    b. Date of test, Project title and number, and name and signature of authorized person.
    c. Test results.
    d. If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
    e. Provide interpretation of test results, when requested by Engineer.
    f. Other items as identified in individual specification sections.
3. Field:
    a. As a minimum, include the following:
        1) Project title and number.
        2) Date and time.
        3) Record of temperature and weather conditions.
        4) Identification of product and specification section.
        5) Type and location of test, Sample, or inspection, including referenced standard or code.
        6) Date issued, testing laboratory name, address, and telephone number, and name and signature of laboratory inspector.
        7) If test or inspection deems material or equipment not in compliance with Contract Documents, identify corrective action necessary to bring into compliance.
        8) Provide interpretation of test results, when requested by Engineer.
        9) Other items as identified in individual specification sections.

©COPYRIGHT 2022 JACOBS

N. Training Data: In accordance with Section 01 43 33, Manufacturers' Field Services.

1.05 SUPPLEMENTS

A. The supplements listed below, following "End of Section", are part of this specification.

1. Forms: Transmittal of Contractor's Submittal.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

JACOBS®

TRANSMITTAL OF CONTRACTOR'S SUBMITTAL

(ATTACH TO EACH SUBMITTAL)

DATE: _____

TO: _____ _____ _____ _____ _____ **FROM**: _____ Contractor _____ _____ _____	Submittal No.: _____ ☐ New Submittal ☐ Resubmittal Project: _____ Project No.: _____ Specification Section No.: _____ **(Cover only one section with each transmittal)** Schedule Date of Submittal: _____

SUBMITTAL TYPE:	☐ Shop Drawing	☐ Sample	☐ Informational
	☐ Deferred		

The following items are hereby submitted:

Number of Copies	Description of Item Submitted (Type, Size, Model Number, Etc.)	Spec. and Para. No.	Drawing or Brochure Number	Contains Variation to Contract	
				No	Yes

Contractor hereby certifies that (i) Contractor has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and requirements of laws and regulations and governing agencies.

By: _____
Contractor (Authorized Signature)

SECTION 01 42 13
ABBREVIATIONS AND ACRONYMS

PART 1 GENERAL

1.01 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES

A. Work specified by reference to published standard or specification of government agency, technical association, trade association, professional society or institute, testing agency, or other organization shall meet requirements or surpass minimum standards of quality for materials and workmanship established by designated standard or specification.

B. Where so specified, products or workmanship shall also meet or exceed additional prescriptive or performance requirements included within Contract Documents to establish a higher or more stringent standard of quality than required by referenced standard.

C. Where two or more standards are specified to establish quality, product and workmanship shall meet or exceed requirements of most stringent.

D. Where both a standard and a brand name are specified for a product in Contract Documents, proprietary product named shall meet or exceed requirements of specified reference standard.

E. Copies of standards and specifications of technical societies:

1. Copies of applicable referenced standards have not been bound in these Contract Documents.
2. Where copies of standards are needed by Contractor, obtain a copy or copies directly from publication source and maintain in an orderly manner at the Site as Work Site records, available to Contractor's personnel, Subcontractors, Owner, and Engineer.

1.02 ABBREVIATIONS

A. Abbreviations for trade organizations and government agencies: Following is a list of construction industry organizations and government agencies to which references may be made in the Contract Documents, with abbreviations used.

1.	AA	Aluminum Association
2.	AABC	Associated Air Balance Council

©COPYRIGHT 2022 JACOBS

3.	AAMA	American Architectural Manufacturers Association
4.	AASHTO	American Association of State Highway and Transportation Officials
5.	ABMA	American Bearing Manufacturers' Association
6.	ACI	American Concrete Institute
7.	AEIC	Association of Edison Illuminating Companies
8.	AGA	American Gas Association
9.	AGMA	American Gear Manufacturers' Association
10.	AI	Asphalt Institute
11.	AISC	American Institute of Steel Construction
12.	AISI	American Iron and Steel Institute
13.	AITC	American Institute of Timber Construction
14.	ALS	American Lumber Standards
15.	AMCA	Air Movement and Control Association
16.	ANSI	American National Standards Institute
17.	APA	APA – The Engineered Wood Association
18.	API	American Petroleum Institute
19.	APWA	American Public Works Association
20.	AHRI	Air-Conditioning, Heating, and Refrigeration Institute
21.	ASA	Acoustical Society of America
22.	ASABE	American Society of Agricultural and Biological Engineers
23.	ASCE	American Society of Civil Engineers
24.	ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
25.	ASME	American Society of Mechanical Engineers
26.	ASNT	American Society for Nondestructive Testing
27.	ASSE	American Society of Sanitary Engineering
28.	ASTM	ASTM International
29.	AWI	Architectural Woodwork Institute
30.	AWPA	American Wood Preservers' Association
31.	AWPI	American Wood Preservers' Institute
32.	AWS	American Welding Society
33.	AWWA	American Water Works Association
34.	BHMA	Builders Hardware Manufacturers' Association
35.	CBM	Certified Ballast Manufacturer
36.	CDA	Copper Development Association
37.	CGA	Compressed Gas Association
38.	CISPI	Cast Iron Soil Pipe Institute
39.	CMAA	Crane Manufacturers' Association of America
40.	CRSI	Concrete Reinforcing Steel Institute
41.	CS	Commercial Standard

©COPYRIGHT 2022 JACOBS

42.	CSA	Canadian Standards Association
43.	CSI	Construction Specifications Institute
44.	DIN	Deutsches Institut für Normung e.V.
45.	DIPRA	Ductile Iron Pipe Research Association
46.	EIA	Electronic Industries Alliance
47.	EJCDC	Engineers Joint Contract Documents' Committee
48.	ETL	Electrical Test Laboratories
49.	FAA	Federal Aviation Administration
50.	FCC	Federal Communications Commission
51.	FDA	Food and Drug Administration
52.	FEMA	Federal Emergency Management Agency
53.	FIPS	Federal Information Processing Standards
54.	FM	FM Global
55.	Fed. Spec.	Federal Specifications (FAA Specifications)
56.	FS	Federal Specifications and Standards (Technical Specifications)
57.	GA	Gypsum Association
58.	GANA	Glass Association of North America
59.	HI	Hydraulic Institute
60.	HMI	Hoist Manufacturers' Institute
61.	IBC	International Building Code
62.	ICBO	International Conference of Building Officials
63.	ICC	International Code Council
64.	ICEA	Insulated Cable Engineers' Association
65.	IFC	International Fire Code
66.	IEEE	Institute of Electrical and Electronics Engineers, Inc.
67.	IESNA	Illuminating Engineering Society of North America
68.	IFI	Industrial Fasteners Institute
69.	IGMA	Insulating Glass Manufacturer's Alliance
70.	IMC	International Mechanical Code
71.	INDA	Association of the Nonwoven Fabrics Industry
72.	IPC	International Plumbing Code
73.	ISA	International Society of Automation
74.	ISO	International Organization for Standardization
75.	ITL	Independent Testing Laboratory
76.	JIC	Joint Industry Conferences of Hydraulic Manufacturers
77.	MIA	Marble Institute of America
78.	MIL	Military Specifications
79.	MMA	Monorail Manufacturers' Association
80.	MSS	Manufacturer's Standardization Society

©COPYRIGHT 2022 JACOBS

81.	NAAMM	National Association of Architectural Metal Manufacturers
82.	NACE	NACE International
83.	NBGQA	National Building Granite Quarries Association
84.	NEBB	National Environmental Balancing Bureau
85.	NEC	National Electrical Code
86.	NECA	National Electrical Contractor's Association
87.	NEMA	National Electrical Manufacturers' Association
88.	NESC	National Electrical Safety Code
89.	NETA	InterNational Electrical Testing Association
90.	NFPA	National Fire Protection Association
91.	NHLA	National Hardwood Lumber Association
92.	NICET	National Institute for Certification in Engineering Technologies
93.	NIST	National Institute of Standards and Technology
94.	NRCA	National Roofing Contractors Association
95.	NRTL	Nationally Recognized Testing Laboratories
96.	NSF	NSF International
97.	NSPE	National Society of Professional Engineers
98.	NTMA	National Terrazzo and Mosaic Association
99.	NWWDA	National Wood Window and Door Association
100.	OSHA	Occupational Safety and Health Act (both Federal and State)
101.	PCI	Precast/Prestressed Concrete Institute
102.	PEI	Porcelain Enamel Institute
103.	PPI	Plastic Pipe Institute
104.	PS	Product Standards Section-U.S. Department of Commerce
105.	RMA	Rubber Manufacturers' Association
106.	RUS	Rural Utilities Service
107.	SAE	SAE International
108.	SDI	Steel Deck Institute
109.	SDI	Steel Door Institute
110.	SJI	Steel Joist Institute
111.	SMACNA	Sheet Metal and Air Conditioning Contractors National Association
112.	SPI	Society of the Plastics Industry
113.	SSPC	The Society for Protective Coatings
114.	STI/SPFA	Steel Tank Institute/Steel Plate Fabricators Association
115.	SWI	Steel Window Institute
116.	TEMA	Tubular Exchanger Manufacturers' Association
117.	TCA	Tile Council of North America
118.	TIA	Telecommunications Industry Association

©COPYRIGHT 2022 JACOBS

119.	UBC	Uniform Building Code
120.	UFC	Uniform Fire Code
121.	UL	formerly Underwriters Laboratories Inc.
122.	UMC	Uniform Mechanical Code
123.	USBR	U.S. Bureau of Reclamation
124.	WCLIB	West Coast Lumber Inspection Bureau
125.	WI	Wood Institute
126.	WWPA	Western Wood Products Association

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 43 33
MANUFACTURERS' FIELD SERVICES

PART 1 GENERAL

1.01 DEFINITIONS

A. Person-Day: One person for 8 hours within regular Contractor working hours.

1.02 QUALIFICATION OF MANUFACTURER'S REPRESENTATIVE

A. Authorized representative of the manufacturer, factory trained, and experienced in the technical applications, installation, operation, and maintenance of respective equipment, subsystem, or system, with full authority by the equipment manufacturer to issue the certifications required of the manufacturer. Additional qualifications may be specified in the individual specification section.

B. Representative subject to acceptance by Owner. No substitute representatives will be allowed unless prior written approval by such has been given.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 FULFILLMENT OF SPECIFIED MINIMUM SERVICES

A. Furnish manufacturers' services, when required by an individual specification section, to meet the requirements of this section.

B. Where time is necessary in excess of that stated in the Specifications for manufacturers' services, or when a minimum time is not specified, time required to perform specified services shall be considered incidental.

C. Schedule manufacturer' services to avoid conflict with other onsite testing or other manufacturers' onsite services.

D. Determine, before scheduling services, that conditions necessary to allow successful testing have been met.

E. Only those days of service approved by Engineer will be credited to fulfill specified minimum services.

©COPYRIGHT 2022 JACOBS

F. When specified in individual specification sections, manufacturer's onsite services shall include:

1. Assistance during product (system, subsystem, or component) installation to include observation, guidance, instruction of Contractor's assembly, erection, installation or application procedures.
2. Inspection, checking, and adjustment as required for product (system, subsystem, or component) to function as warranted by manufacturer and necessary to furnish Manufacturer's Certificate of Proper Installation.
3. Providing, on a daily basis, copies of manufacturers' representatives field notes and data to Engineer.
4. Revisiting the Site as required to correct problems and until installation and operation are acceptable to Engineer.
5. Resolution of assembly or installation problems attributable to or associated with respective manufacturer's products and systems.
6. Assistance during functional and performance testing, and facility startup and evaluation.
7. Training of Owner's personnel in the operation and maintenance of respective product as required.

3.02 MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION

A. When so specified, a Manufacturer's Certificate of Proper Installation form, a copy of which is attached to this section, shall be completed, and signed by equipment manufacturer's representative.

B. Such form shall certify signing party is a duly authorized representative of manufacturer, is empowered by manufacturer to inspect, approve, and operate their equipment and is authorized to make recommendations required to ensure equipment is complete and operational.

3.03 SUPPLEMENTS

A. The supplement listed below, following "End of Section," is part of this specification.

1. Manufacturer's Certificate of Proper Installation.

END OF SECTION

©COPYRIGHT 2022 CH2M HILL

MANUFACTURER'S CERTIFICATE OF PROPER INSTALLATION

OWNER _____ EQPT SERIAL NO: _____

EQPT TAG NO: _____ EQPT/SYSTEM: _____

PROJECT NO: _____ SPEC. SECTION: _____

I hereby certify that the above-referenced equipment/system has been:

(Check Applicable)

☐ Installed in accordance with Manufacturer's recommendations.

☐ Inspected, checked, and adjusted.

☐ Serviced with proper initial lubricants.

☐ Electrical and mechanical connections meet quality and safety standards.

☐ All applicable safety equipment has been properly installed.

☐ Functional tests.

☐ System has been performance tested, and meets or exceeds specified performance requirements. (When complete system of one manufacturer)

Note: Attach any performance test documentation from manufacturer.

Comments: _____

_____

_____

_____

I, the undersigned Manufacturer's Representative, hereby certify that I am (i) a duly authorized representative of the manufacturer, (ii) empowered by the manufacturer to inspect, approve, and operate their equipment and (iii) authorized to make recommendations required to ensure equipment furnished by the manufacturer is complete and operational, except as may be otherwise indicated herein. I further certify that all information contained herein is true and accurate.

Date: _____, 20___

Manufacturer:_____

By Manufacturer's Authorized Representative: _____

(Authorized Signature)

©COPYRIGHT 2022 JACOBS

SECTION 01 45 16.13
CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. D3740, Evaluation of Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
   b. E329, Use in the Evaluation of Testing and Inspection Agencies as Used in Construction.

1.02 DEFINITIONS

A. Contractor Quality Control (CQC): The means by which Contractor ensures that the construction, to include that performed by subcontractors and suppliers, complies with the requirements of the Contract.

1.03 SUBMITTALS

A. Informational Submittals:

1. CQC Report: Submit, weekly, an original and one copy in report form.

1.04 OWNER'S QUALITY ASSURANCE

A. All Work is subject to Owner's quality assurance inspection and testing at all locations and at all reasonable times before acceptance to ensure strict compliance with the terms of the Contract Documents.

B. Owner's quality assurance inspections and tests are for the sole benefit of Owner and do not:

1. Relieve Contractor of responsibility for providing adequate quality control measures;
2. Relieve Contractor of responsibility for damage to or loss of the material before acceptance;
3. Constitute or imply acceptance; or
4. Affect the continuing rights of Owner after acceptance of the completed Work.

©COPYRIGHT 2022 JACOBS

C. The presence or absence of a quality assurance inspector does not relieve Contractor from any Contract requirement.

D. Promptly furnish all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by Engineer.

E. Owner may charge Contractor for any additional cost of inspection or test when Work is not ready at the time specified by Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary. Quality assurance inspections and tests will be performed in a manner that will not unnecessarily delay the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Maintain an adequate inspection system and perform such inspections as will ensure that the Work conforms to the Contract Documents.

B. Maintain complete inspection records and make them available at all times to Owner and Engineer.

C. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the Contract Documents. The system shall cover all construction and demolition operations, both onsite and offsite, including Work by subcontractors, fabricators, suppliers and purchasing agents, and shall be keyed to the proposed construction sequence.

3.02 COORDINATION MEETING

A. After the Preconstruction Conference, but before start of construction, and prior to acceptance of the CQC Plan, schedule a meeting with Engineer and Owner to discuss the quality control system.

B. Develop a mutual understanding of the system details, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite Work, and the interrelationship of Contractor’s management and control with the Owner’s Quality Assurance.

©COPYRIGHT 2022 JACOBS

C. There may be occasions when subsequent conferences may be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures that may require corrective action by Contractor.

3.03 QUALITY CONTROL ORGANIZATION

A. CQC System Manager:

1. Designate an individual within Contractor's organization who will be responsible for overall management of CQC and have the authority to act in CQC matters for the Contractor.
2. Identify an alternate for CQC System Manager to serve with full authority during the System Manager's absence. The requirements for the alternate will be the same as for designated CQC System Manager.

B. CQC Staff:

1. Designate a CQC staff, available at the Site at all times during progress, with complete authority to take any action necessary to ensure compliance with the Contract. CQC staff members shall be subject to acceptance by Engineer.
2. CQC staff shall take direction from CQC System Manager in matters pertaining to QC.
3. CQC staff must be of sufficient size to ensure adequate QC coverage of Work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities.
4. The actual strength of the CQC staff may vary during any specific Work period to cover the needs of the Project. Add additional staff when necessary for a proper CQC organization.

C. Organizational Changes: Obtain Engineer's acceptance before replacing any member of the CQC staff. Requests for changes shall include name, qualifications, duties, and responsibilities of the proposed replacement.

3.04 QUALITY CONTROL PHASING

A. CQC shall include at least three phases of control to be conducted by CQC System Manager for all definable features of Work, as follows:

1. Preparatory Phase:
   a. Notify Owner at least 48 hours in advance of beginning any of the required action of the preparatory phase.

©COPYRIGHT 2022 JACOBS

b. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The CQC System Manager shall instruct applicable CQC staff as to the acceptable level of workmanship required in order to meet Contract requirements.
c. Document the results of the preparatory phase meeting by separate minutes prepared by the CQC System Manager and attached to the QC report.
d. Perform prior to beginning Work on each definable feature of Work:
    1) Review applicable Contract Specifications.
    2) Review applicable Contract Drawings.
    3) Verify that all materials and/or equipment have been tested, submitted, and approved.
    4) Verify that provisions have been made to provide required control inspection and testing.
    5) Examine the Work area to verify that all required preliminary Work has been completed and is in compliance with the Contract.
    6) Perform a physical examination of required materials, equipment, and sample Work to verify that they are on hand, conform to approved Shop Drawing or submitted data, and are properly stored.
    7) Review the appropriate activity hazard analysis to verify safety requirements are met.
    8) Review procedures for constructing the Work, including repetitive deficiencies.
    9) Document construction tolerances and workmanship standards for that phase of the Work.
    10) Check to verify that the plan for the Work to be performed, if so required, has been accepted by Engineer.

2. Initial Phase:
    a. Accomplish at the beginning of a definable feature of Work:
        1) Notify Owner at least 48 hours in advance of beginning the initial phase.
        2) Perform prior to beginning Work on each definable feature of Work:
            a) Review minutes of the preparatory meeting.
            b) Check preliminary Work to verify compliance with Contract requirements.
            c) Verify required control inspection and testing.

©COPYRIGHT 2022 JACOBS

d) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Comparison with sample panels is appropriate.
e) Resolve all differences.
f) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

3) Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
4) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3. Follow-up Phase:
   a. Perform daily checks to verify continuing compliance with Contract requirements, including control testing, until completion of the particular feature of Work.
   b. Daily checks shall be made a matter of record in the CQC documentation and shall document specific results of inspections for all features of Work for the day or shift.
   c. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of Work that will be affected by the deficient Work. Constructing upon or concealing nonconforming Work will not be allowed.
4. Additional Preparatory and Initial Phases: Additional preparatory and initial phases may be conducted on the same definable features of Work as determined by Owner if the quality of ongoing Work is unacceptable; or if there are changes in the applicable QC staff or in the onsite production supervision or work crew; or if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.05 CONTRACTOR QUALITY CONTROL REPORT

A. As a minimum, prepare a CQC report for every 7 calendar days. Account for all days throughout the life of the Contract. Reports shall be signed and dated by CQC System Manager. Include copies of test reports and copies of reports prepared by QC staff.

B. Maintain current records of quality control operations, activities, and tests performed, including the Work of subcontractors and suppliers.

©COPYRIGHT 2022 JACOBS

C. Records shall be on an acceptable form and shall be a complete description of inspections, the results of inspections, daily activities, tests, and other items, including but not limited to the following:

1. Contractor/subcontractor and their areas of responsibility.
2. Operating plant/equipment with hours worked, idle, or down for repair.
3. Work performed today, giving location, description, and by whom. When a network schedule is used, identify each phase of Work performed each day by activity number.
4. Test and/or control activities performed with results and references to specifications/plan requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
5. Material received with statement as to its acceptability and storage.
6. Identify submittals reviewed, with Contract reference, by whom, and action taken.
7. Offsite surveillance activities, including actions taken.
8. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
9. List instructions given/received and conflicts in Drawings and/or Specifications.
10. Contractor’s verification statement.
11. Indicate a description of trades working on the Project; the number of personnel working; weather conditions encountered; and any delays encountered.
12. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in file work and workmanship comply with the Contract.

3.06 SUBMITTAL QUALITY CONTROL

A. Submittals shall be as specified in Section 01 33 00, Submittal Procedures. The CQC organization shall be responsible for certifying that all submittals are in compliance with the Contract requirements. Owner will furnish copies of test report forms upon request by Contractor. Contractor may use other forms as approved.

3.07 TESTING QUALITY CONTROL

A. Testing Procedure:

1. Perform tests specified or required to verify that control measures are adequate to provide a product which conforms to Contract requirements.

©COPYRIGHT 2022 JACOBS

Procure services of a licensed testing laboratory. Perform the following activities and record the following data:

a. Verify testing procedures comply with contract requirements.
b. Verify facilities and testing equipment are available and comply with testing standards.
c. Check test instrument calibration data against certified standards.
d. Verify recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
e. Documentation:
    1) Record results of all tests taken, both passing and failing, on the CQC report for the date taken.
    2) Include specification paragraph reference, location where tests were taken, and the sequential control number identifying the test.
    3) Actual test reports may be submitted later, if approved by Engineer, with a reference to the test number and date taken.
    4) Provide directly to Engineer an information copy of tests performed by an offsite or commercial test facility. Test results shall be signed by an engineer registered in the state where the tests are performed.
    5) Failure to submit timely test reports, as stated, may result in nonpayment for related Work performed and disapproval of the test facility for this Contract.

B. Testing Laboratories: Laboratory facilities, including personnel and equipment, utilized for testing soils, concrete, asphalt and steel shall meet criteria detailed in ASTM D3740 and ASTM E329, and be accredited by the American Association of Laboratory Accreditation (AALA), National Institute of Standards and Technology (NIST), National Voluntary Laboratory Accreditation Program (NVLAP), the American Association of State Highway and Transportation Officials (AASHTO), or other approved national accreditation authority. Personnel performing concrete testing shall be certified by the American Concrete Institute (ACI).

3.08 COMPLETION INSPECTION

A. CQC System Manager shall conduct an inspection of the Work at the completion of all Work or any milestone established by a completion time stated in the Contract.

©COPYRIGHT 2022 JACOBS

B. Punchlist:

1. CQC System Manager shall develop a punchlist of items which do not conform to the Contract requirements.
2. Include punchlist in the CQC report, indicating the estimated date by which the deficiencies will be corrected.
3. CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Owner.
4. These inspections and any deficiency corrections required will be accomplished within the time stated for completion of the entire Work or any particular increment thereof if the Project is divided into increments by separate completion dates.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Association of Nurserymen (AAN): American Standards for Nursery Stock.
2. Federal Emergency Management Agency (FEMA).
3. National Fire Prevention Association (NFPA): 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations.
4. Telecommunications Industry Association (TIA); Electronic Industries Alliance (EIA): 568B, Commercial Building Telecommunications Cabling Standard.
5. U.S. Department of Agriculture (USDA): Urban Hydrology for Small Watersheds.
6. U.S. Weather Bureau: Rainfall-Frequency Atlas of the U.S. for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years.

1.02 SUBMITTALS

A. Informational Submittals:

1. Copies of permits and approvals for construction as required by Laws and Regulations and governing agencies.
2. Temporary Construction Submittals:
   a. Fencing and protective barrier locations and details.
   b. Staging area location plan
      Traffic and Pedestrian Control and Routing Plans: As specified herein, and proposed revisions thereto.
3. Temporary Control Submittals:
   a. Bypass pumping plan
   b. Sewer spill response plan.
   c. Plan for disposal of waste materials and intended haul routes.

1.03 MOBILIZATION

A. Mobilization includes, but is not limited to, these principal items:

1. Obtaining required permits.

©COPYRIGHT 2022 JACOBS

2. Moving Contractor's field office and equipment required for first month operations onto Site.
3. Installing temporary construction power, wiring, and lighting facilities.
4. Providing onsite sanitary facilities and potable water facilities as specified and as required by Laws and Regulations, and governing agencies.
5. Arranging for and erection of Contractor's work and storage yard.
6. Posting OSHA required notices and establishing safety programs and procedures.
7. Having Contractor's superintendent at Site full time.

1.04 PROTECTION OF WORK AND PROPERTY

A. Comply with Owner's safety rules while on Owner's property.

B. Keep Owner informed of serious onsite accidents and related claims.

C. Use of Explosives: No blasting or use of explosives will be allowed onsite.

1.05 VEHICULAR TRAFFIC

A. Traffic Control Plan: Contractor shall provide and submit traffic control plan in accordance with the requirements of the Texas Department of Transportation (TXDOT) Design Standards for Design, Construction, and Maintenance and Utility Operations.

B. Traffic Routing Plan: Show sequences of construction affecting use of roadways, time required for each phase of the Work, provisions for decking over excavations and phasing of operations to provide necessary access, and plans for signing, barricading, and striping to provide passages for pedestrians and vehicles.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 TEMPORARY UTILITIES

A. Power:

1. No electric power is available at Site. Make arrangements to obtain and pay for electrical power used until final payment and acceptance by Owner, unless otherwise recommended by Engineer at Substantial Completion.

©COPYRIGHT 2022 JACOBS

B. Lighting: Provide temporary lighting to meet applicable safety requirements to allow erection, application, or installation of materials and equipment, and observation or inspection of the Work.

C. Heating, Cooling, and Ventilating:

1. Provide as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for installation of materials, and to protect materials, equipment, and finishes from damage because of temperature or humidity.
2. Provide adequate forced air ventilation of enclosed areas to cure installed materials, to dispense humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases.
3. Pay costs of installation, maintenance, operation, removal, and fuel consumed.
4. Provide portable unit heaters, complete with controls, oil- or gas-fired, and suitably vented to outside as required for protection of health and property.
5. If permanent natural gas piping is used for temporary heating units, do not modify or reroute gas piping without approval of utility company. Provide separate gas metering as required by utility.

D. Water: No construction or potable water is available at Site. Make arrangements for and bear costs of providing water required for construction purposes and for drinking by construction personnel during construction.

E. Sanitary and Personnel Facilities: Provide and maintain facilities for Contractor’s employees, Subcontractors, and other onsite employers’ employees. Service, clean, and maintain facilities and enclosures.

F. Fire Protection: Furnish and maintain on Site adequate firefighting equipment capable of extinguishing incipient fires. Comply with applicable parts of NFPA 241.

3.02 PROTECTION OF WORK AND PROPERTY

A. General:

1. Perform Work within right-of-way and easements in a systematic manner that minimizes inconvenience to property owners and the public.
2. No residence or business shall be cut off from vehicular traffic for a period exceeding 4 hours unless special arrangements have been made.

©COPYRIGHT 2022 JACOBS

3. Maintain in continuous service existing oil and gas pipelines, underground power, telephone or communication cable, water mains, irrigation lines, sewers, poles and overhead power, and other utilities encountered along line of the Work, unless other arrangements satisfactory to owners of said utilities have been made.
4. Where completion of the Work requires temporary or permanent removal or relocation of existing utility, coordinate activities with owner of said utility and perform work to their satisfaction.
5. Protect, shore, brace, support, and maintain underground pipes, conduits, drains, and other underground utility construction uncovered or otherwise affected by construction operations.
6. Keep fire hydrants and water control valves free from obstruction and available for use at all times.
7. In areas where Contractor's operations are adjacent to or near a utility, such as gas, telephone, television, electric power, water, sewer, or irrigation system, and such operations may cause damage or inconvenience, suspend operations until arrangements necessary for protection have been made by Contractor.
8. Notify property owners and utility offices that may be affected by construction operation at least 2 days in advance: Before exposing a utility, obtain utility owner's permission. Should service of utility be interrupted due to Contractor's operation, notify proper authority immediately. Cooperate with said authority in restoring service as promptly as possible and bear costs incurred.
9. Do not impair operation of existing sewer system. Prevent construction material, pavement, concrete, earth, volatile and corrosive wastes, and other debris from entering sewers, pump stations, or other sewer structures.
10. Maintain original Site drainage wherever possible.

B. Barricades and Lights:

1. Provide as required by the Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges Index No. 500 and in sufficient quantity to safeguard public and the Work.
2. Provide as necessary to prevent unauthorized entry to construction areas and affected roads, streets, and alleyways, inside and outside of fenced area, and as required to ensure public safety and the safety of Contractor's employees, other employer's employees, and others who may be affected by the Work.
3. Provide to protect existing facilities and adjacent properties from potential damage.
4. Locate to enable access by facility operators and property owners.

©COPYRIGHT 2022 JACOBS

5. Protect streets, roads, highways, and other public thoroughfares that are closed to traffic by effective barricades with acceptable warning signs.
6. Locate barricades at the nearest intersecting public thoroughfare on each side of blocked section.
7. Illuminate barricades and obstructions with warning lights from sunset to sunrise.

C. Signs and Equipment:

1. Conform to requirements of manual published by the Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges Index No. 500.
2. Traffic Cones: Provide to delineate traffic lanes to guide and separate traffic movements.
3. High-Level Warning Flag Units: Provide two in advance of traffic approaching the Work, each displaying three flags mounted at a height of 9 feet.
4. ROAD CONSTRUCTION AHEAD Signs: Provide four, size 48 inches by 48 inches. Place in conspicuous locations, approximately 200 feet in advance of the Work, and facing approaching traffic.
5. DETOUR Signs: Provide two, right arrow or left arrow, placed as approved by Engineer.
6. RIGHT or LEFT LANE CLOSED AHEAD Signs: Provide two, place in advance of lane to be closed.
7. Provide at obstructions, such as material piles and equipment.
8. Use to alert general public of construction hazards, which would include surface irregularities, unramped walkways, grade changes, and trenches or excavations in roadways and in other public access areas.

D. Trees and Plantings:

1. Protect from damage and preserve trees, shrubs, and other plants outside limits of the Work and within limits of the Work, which are designated on Drawings to remain undisturbed.
    a. Where practical, tunnel beneath trees when on or near line of trench.
    b. Employ hand excavation as necessary to prevent tree injury.
    c. Do not stockpile materials or permit traffic within drip lines of trees.
    d. Provide and maintain temporary barricades around trees.
    e. Water vegetation as necessary to maintain health.
    f. Cover temporarily exposed roots with wet burlap, and keep burlap moist until soil is replaced around roots.

©COPYRIGHT 2022 JACOBS

g. No trees, except those specifically shown on Drawings to be removed, shall be removed without written approval of Engineer.
h. Dispose of removed trees in a legal manner off the Site.

2. Balling and burlapping of trees indicated for replacement shall conform to recommended specifications set forth in the American Standards for Nursery Stock, published by American Association of Nurserymen. Balls shall be firm and intact and made-balls will not be accepted. Handle ball and burlap trees by ball and not by top.
3. In event of damage to bark, trunks, limbs, or roots of plants that are not designated for removal, treat damage by corrective pruning, bark tracing, application of a heavy coating of tree paint, and other accepted horticultural and tree surgery practices.
4. Replace each plant that dies as a result of construction activities.

E. Existing Structures:

1. Where Contractor contemplates removal of small structures such as mailboxes, signposts, and culverts that interfere with Contractor's operations, obtain approval of property owner and Engineer.
2. Move mailboxes to temporary locations accessible to postal service.
3. Replace items removed in their original location and a condition equal to or better than original.

F. Finished Construction: Protect finished floors and concrete floors exposed as well as those covered with composition tile or other applied surfacing.

G. Waterways: Keep ditches, culverts, and natural drainages continuously free of construction materials and debris.

H. Dewatering: Construct, maintain, and operate cofferdams, channels, flume drains, sumps, pumps, or other temporary diversion and protection works. Furnish materials required, install, maintain, and operate necessary pumping and other equipment for the environmentally safe removal and disposal of water from the various parts of the Work. Maintain foundations and parts of the Work free from water.

I. Endangered and Threatened Species:

1. Take precautions necessary and prudent to protect native endangered and threatened flora and fauna.
2. Notify Engineer of construction activities that might threaten endangered and threatened species or their habitats.
3. Engineer will mark areas known as habitats of endangered and threatened species prior to commencement of onsite activities.
4. Additional areas will be marked by Engineer as other habitats of endangered and threatened species become known during construction.

©COPYRIGHT 2022 JACOBS

3.03 TEMPORARY CONTROLS

A. Air Pollution Control:

1. Minimize air pollution from construction operations.
2. Conduct operations of dumping rock and of carrying rock away in trucks to cause a minimum of dust. Give unpaved streets, roads, detours, or haul roads used in construction area a dust-preventive treatment or periodically water to prevent dust. Strictly adhere to applicable environmental regulations for dust prevention.
3. Provide and maintain temporary dust-tight partitions, bulkheads, or other protective devices during construction to permit normal operation of existing facilities. Construct partitions of plywood, insulating board, plastic sheets, or similar material. Construct partitions in such a manner that dust and dirt from demolition and cutting will not enter other parts of existing building or facilities. Remove temporary partitions as soon as need no longer exists.

B. Noise Control:

1. Provide acoustical barriers so noise emanating from tools or equipment will not exceed legal noise levels.
2. Noise Control Plan: Propose plan to mitigate construction noise and to comply with noise control ordinances, including method of construction, equipment to be used, and acoustical treatments.

C. Water Pollution Control:

1. Divert sanitary sewage and non-storm waste flow interfering with construction and requiring diversion to sanitary sewers. Do not cause or permit action to occur which would cause an overflow to existing waterway.
2. Prior to commencing excavation and construction, obtain Owner’s agreement with detailed plans showing procedures intended to handle and dispose of sewage, groundwater, and dewatering pump discharges.
3. Comply with Section 01 57 13, Temporary Erosion and Sedimentation Control, for stormwater flow and surface runoff.
4. Do not dispose of volatile wastes such as mineral spirits, oil, chemicals, or paint thinner in storm or sanitary drains. Disposal of wastes into streams or waterways is prohibited. Provide acceptable containers for collection and disposal of waste materials, debris, and rubbish.

©COPYRIGHT 2022 JACOBS

D. Erosion, Sediment, and Flood Control: Provide, maintain, and operate temporary facilities as specified in Section 01 57 13, Temporary Erosion and Sedimentation Control, to control erosion and sediment releases, and to protect the Work and existing facilities from flooding during construction period.

3.04 STORAGE YARDS AND BUILDINGS

A. Handle and store products in accordance with manufacturer's written instruction and in a manner to prevent damage.

B. Coordinate requirements with Section 01 61 00, Common Product Requirements.

3.05 PARKING AREAS

A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.

3.06 VEHICULAR TRAFFIC

A. Comply with Laws and Regulations regarding closing or restricting use of public streets or highways. No public or private road shall be closed, except by written permission of proper authority. Ensure the least possible obstruction to traffic and normal commercial pursuits.

B. Conduct the Work to interfere as little as possible with public travel, whether vehicular or pedestrian.

C. Whenever it is necessary to cross, close, or obstruct roads, driveways, and walks, whether public or private, provide and maintain suitable and safe bridges, detours, or other temporary expedients for accommodation of public and private travel.

D. Road Closures: Maintain satisfactory means of exit for persons residing or having occasion to transact business along route of the Work. If it is necessary to close off roadway or alley providing sole vehicular access to property for periods greater than 2 hours, provide written notice to each owner so affected 3 days prior to such closure. In such cases, closings of up to 4 hours may be allowed. Closures of up to 10 hours may be allowed if a week's written notice is given and undue hardship does not result.

E. Maintenance of traffic is not required if Contractor obtains written permission from Owner and tenant of private property, or from authority having jurisdiction over public property involved, to obstruct traffic at designated point.

©COPYRIGHT 2022 JACOBS

F. In making street crossings, do not block more than one-half the street at a time. Whenever possible, widen shoulder on opposite side to facilitate traffic flow. Provide temporary surfacing on shoulders as necessary.

G. Maintain top of backfilled trenches before they are paved, to allow normal vehicular traffic to pass over. Provide temporary access driveways where required. Cleanup operations shall follow immediately behind backfilling.

H. When flaggers and guards are required by regulation or when deemed necessary for safety, furnish them with approved orange wearing apparel and other regulation traffic control devices.

I. Provide snow removal to facilitate normal vehicular traffic on public or private roads affected by construction. Perform snow removal promptly and efficiently by means of suitable equipment whenever necessary for safety, and as may be directed by proper authority.

J. Notify fire department and police department before closing street or portion thereof. Notify said departments when streets are again passable for emergency vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without written permission from fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access. Furnish Contractor's night emergency telephone numbers to police department.

K. Coordinate traffic routing with that of others working in same or adjacent areas.

3.07 CLEANING DURING CONSTRUCTION

A. In accordance with General Conditions, as may be specified in other Specification sections, and as required herein.

B. Wet down exterior surfaces prior to sweeping to prevent blowing of dust and debris. At least weekly, sweep floors (basins, tunnels, platforms, walkways, roof surfaces), and pick up and dispose of debris.

C. Provide approved containers for collection and disposal of waste materials, debris, and rubbish. At least weekly, dispose of such waste materials, debris, and rubbish offsite.

D. At least weekly, brush sweep entry drive, roadways, and other streets and walkways affected by the Work and where adjacent to the Work.

END OF SECTION

PACKET 6.181 November 15, 2022
©COPYRIGHT 2022 JACOBS

SECTION 01 57 13
TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.01 SUMMARY

A. This section covers Work to implement structural and nonstructural Best Management Practices (BMP) to control soil erosion by wind or water and keep eroded sediments and other construction-generated pollutants from moving off project sites. Requirements described in this specification and shown on the Drawings are part of the project Temporary Erosion and Sediment Control Plan (TESC Plan) and are the minimum for all project construction sites and conditions. This specification covers all project activities, including material sources, disposal sites, and offsite mitigation areas unless specific project activities are excluded elsewhere in this specification or in other Contract Documents controlling the Work.

B. National Pollutant Discharge Elimination System: Comply with Federal, state, and local laws, rules and regulations, and the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit or Permits applicable to the project. A copy of the Project's General Construction Permit, if applicable to the Project, is available from Owner. NPDES General Construction permits are required on projects that involve disturbance of 1 acre or more with potential to discharge stormwater to surface waters.

C. Other Regulations: A local government erosion and sediment control permit may apply and some local agency requirements may be more stringent than this specification. Adequate erosion and sediment control is essential for complying with the federal Endangered Species Act where construction runoff enters waters inhabited by protected species.

1.02 REFERENCES

A. Activities shall conform to the City of Midland Standard Details Erosion Control, Texas Department of Transportation (TXDOT) Design Standards, Texas Commission on Environmental Quality (TCEQ) and Drawings. In the event of a conflict, the more stringent requirement shall apply.

©COPYRIGHT 2022 JACOBS

B. The following is a list of standards that may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO): M252, Standard Specification for Corrugated Polyethylene Drainage Pipe.
2. ASTM International (ASTM):
   a. D638, Standard Test Method for Tensile Properties of Plastics.
   b. D2974, Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils.
   c. D3776/D3776M, Standard Test Methods for Mass Per Unit Area (Weight) of Fabric.
   d. D4355, Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus.
   e. D4397, Standard Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications.
   f. D4491, Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
   g. D4533, Standard Test Method for Trapezoid Tearing Strength of Geotextiles.
   h. D4632/D4632M, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.
   i. D4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile
   j. D6241, Standard Test Method for Static Puncture Strength of Geotextiles and Geotextile-Related Products Using a 50-mm Probe.
   k. D6459, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Hillslopes from Rainfall-Induced Erosion.
   l. D6460, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion.
   m. D6475, Standard Test Method for Measuring Mass Per Unit Area of Erosion Control Blankets.
   n. D7322, Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Ability to Encourage Seed Germination and Plant Growth Under Bench-Scale Conditions.
   o. D7367, Standard Test Method for Determining Water Holding Capacity of Fiber Mulches for Hydraulic Planting.
3. National Weather Service:
   a. Precipitation-Frequency of the United States by State/Territory, 2012.
   b. Precipitation Frequency Data Server, 2012.

©COPYRIGHT 2022 JACOBS

4. North American Weed Management Association (NAWMA).
5. U.S. Department of Agriculture, Natural Resources Conservation Service: *Urban Hydrology for Small Watersheds*; 1986. Technical Release 55.
6. U.S. Environmental Protection Agency:
   a. Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites, 2007. EPA-833-R-06-004.
   b. National Menu of BMPs, 2012.
7. The sections of the standards referenced above which apply to this Project include, but are not limited to:

Standard	Specification or Detail No.	Symbol	Title
TXDOT			
City of Midland			Sediment Control Barrier
City of Midland			Silt (Sediment) Fence

1.03 SYSTEM DESCRIPTION

A. Erosion and Sediment Control: Provide, maintain, and operate temporary facilities to control erosion and sediment releases during construction period.

B. Erosion and Sediment Control (ESC) Lead:

1. Identify the ESC Lead at the preconstruction discussions and in the TESC Plan. The ESC Lead shall have certification in construction site erosion and sediment control from a course approved by Owner.
2. The ESC Lead shall implement the TESC Plan, including, but not limited to:
   a. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the TESC Plan to assure continued performance of their intended function. Damaged or inadequate TESC BMPs shall be corrected immediately.
   b. Updating TESC Plan to reflect current field conditions.
   c. Terminating TESC Plan.
3. When a TESC Plan is included in the Contract Plans, ESC Lead shall also inspect all areas disturbed by construction activities, all onsite erosion and sediment control BMPs, all stormwater discharge points, and all temporarily stabilized inactive sites per schedule in the Construction Stormwater Discharge Permit(s) or as directed by Engineer. Complete erosion and sediment control inspection form provided by water resource agency or Owner for each inspection and submit a copy to Engineer no later than end of the next working day following inspection.

©COPYRIGHT 2022 JACOBS

C. Personnel Training: Prior to commencement of construction, applicable personnel must have an understanding of the Construction Stormwater Discharge Permit's requirements and their specific responsibilities under the permit. At a minimum, personnel must be trained to understand the following as it relates to the scope of their job duties:

1. The location of all stormwater controls and how to maintain them.
2. Procedures for complying with the pollution prevention requirements.
3. Procedures for conducting inspections, recording findings, and taking corrective action.

D. Temporary Erosion and Sediment Control Plan (Stormwater Pollution Prevention Plan):

1. A TESC Plan is furnished as part of the Drawings, which helps fulfill part of the plan requirement of the NPDES Permit. This initial TESC Plan, when adopted by Contractor, may be used as the basis of the construction TESC Plan. Additional or revised erosion and sediment control features, not shown on the initial TESC Plan, may be required depending on Contractor's methods of operation and schedule.
2. For each phase of the scheduled work, indicate on the TESC Plan all the BMPs proposed and installed for erosion and sediment control to minimize clearing, stabilize exposed soil, divert or temporarily store flows, limit runoff from exposed areas, and filter transported sediment. Include all temporary slopes, constructed for staging or other reasons, which may not have been identified in the original Contract plans. Refer to the current local jurisdiction's erosion and sediment control manual.
3. Some TESC Plan required elements typically required by NPDES permits:
    a. Narrative Site Description:
        1) Nature of construction activity planned for the Site.
        2) Estimates of total site area and the areas of the Site expected to be disturbed.
        3) Soil types found onsite and their erosion potential.
        4) The types of fill materials to be used.
        5) Timetable for sequence of major construction events.
    b. Site Map:
        1) All areas of development.
        2) Drainage patterns.
        3) Areas of soil disturbance, including pre-development and post-development elevation contours.
        4) Areas used for storage of soils or wastes.
        5) Areas where vegetative practices are to be implemented.

©COPYRIGHT 2022 JACOBS

6) Location of all erosion and sediment control BMP or structures.
7) Location of all impervious structures and surfaces after project is completed.
8) Springs, wetlands, and other surface waters located onsite.
9) Boundaries of the 100-year floodplain, if determined.
10) Ordinary High Water line, if determined.
11) Location of storm drainage outfalls to receiving waters, if applicable.
12) Details of sediment and erosion controls.
13) Details of detention ponds, storm drain piping, inflow and outflow details.

c. Required BMPs and Procedures for Erosion Prevention, Runoff Control, and Sediment Control:
1) Construction entrances and parking areas.
2) Unpaved site roads such as haul roads.
3) Hauling saturated soils from the Site.
4) Water washed from concrete trucks.
5) Correct installation of erosion and sediment control BMPs.
6) Prompt maintenance and repair of BMPs.
7) Clearing and grading practices to minimize area of exposed soil throughout life of the Project.
8) Schedule of phased clearing operations to limit soils to what can be stabilized.
9) Vegetative practices, including preservation of existing vegetation, seeding, mulching, and buffer strips.
10) Preventing erosion of exposed areas.
11) Diverting flows from exposed slopes.
12) Limiting runoff from exposed areas.
13) Limiting sediment transport within work sites and keeping it from moving off of project areas.
14) Perimeter controls for all clearing and grubbing, both planned and installed.
15) Additional controls for wet season work and temporary work suspensions.
16) Sensitive areas such as wetlands.
17) Offsite material source and waste areas.
18) Dust.
19) Emergency materials stockpiled onsite.
20) Storing flows and filtering sediment.
21) Soil stockpiles.

©COPYRIGHT 2022 JACOBS

4. Contractor's construction TESC Plan and implementation schedules must be prepared by a competent individual. Furnish a signed copy of the TESC Plan with individual's name, title, state certifications, and employing firm if different than Contractor's firm.
5. Do not begin any Site activities that have potential to cause erosion or sediment movement until the TESC Plan and implementation schedules are approved by Engineer.
6. Keep a copy of the approved TESC Plan with updated changes onsite during all construction activities. During inactive periods longer than 7 calendar days, keep the TESC Plan onsite or provide a copy to Engineer to retain.
7. Continually update the TESC Plan and schedules as needed for unexpected storm or other events to ensure that sediment-laden water does not leave the construction site. Add approved changes to the TESC Plan no later than 24 hours after implementation.

E. Install clearing limit fence along the Site shown on the Drawings or as instructed by Engineer. Space posts and attach fence fabric to posts as shown on the Drawings. Do not fasten fence to trees. Throughout the life of the Project, preserve and protect delineated area, acting immediately to repair or restore any fencing damaged or removed.

F. Preventing erosion, and controlling runoff, sedimentation, and non-stormwater pollution, requires Contractor to perform temporary Work items including, but not limited to:

1. Providing ditches, berms, culverts, and other measures to control surface water.
2. Building dams, settling basins, energy dissipaters, and other measures, to control downstream flows.
3. Controlling underground water found during construction.
4. Covering or otherwise protecting slopes until permanent erosion control measures are working.

G. To the degree possible, coordinate this temporary Work with permanent drainage and erosion control work the Contract requires.

H. Engineer may require additional temporary control measures if it appears pollution or erosion may result from weather, nature of materials, or progress on the Work.

I. When natural elements rut or erode the slope, restore and repair damage with eroded material where possible, and remove and dispose of any remaining material found in ditches and culverts. When Engineer orders replacement with additional or other materials, unit Contract prices will cover quantities needed.

©COPYRIGHT 2022 JACOBS

J. Install all sediment control devices including, but not limited to, sediment ponds, perimeter silt fencing, or other sediment trapping BMPs prior to any ground disturbing activity. Do not expose more erodible earth than necessary during clearing, grubbing, excavation, borrow, or fill activities without written approval by Engineer. Engineer may increase or decrease the limits based on project conditions. Erodible earth is defined as any surface where soils, grindings, or other materials may be capable of being displaced and transported by rain, wind, or surface water runoff. Cover inactive areas of erodible earth, whether at final grade or not, within specified time period (see [NPDES] Erosion and Sediment Control Permit), using an approved soil covering practice. Phase clearing and grading to maximum extent practical to prevent exposed inactive areas from becoming a source of erosion.

K. Water Management:

1. Manage site water in accordance with the conditions of the waste discharge permit from a local permitting authority. If site water management is not subject to permit, manage as follows:
   a. Groundwater. When groundwater is encountered in an excavation, treat and discharge as follows:
      1) When groundwater conforms to TCEQ Water Quality Standards, it may bypass detention and treatment facilities and be routed directly to its normal discharge point at a rate and method that will not cause erosion.
      2) When turbidity of groundwater is similar to turbidity of site runoff, groundwater may be treated using same detention and treatment facilities being used to treat the site runoff and then discharged at a rate that will not cause erosion.
      3) When groundwater turbidity is greater than turbidity of site runoff, treat ground water separately until turbidity is similar to or better than site runoff, and then it may be combined with site runoff and treated as described above.
   b. Process Water:
      1) Do not discharge high pH process water or wastewater (non-stormwater) that is generated onsite, including water generated during concrete grinding, rubblizing, washout, and hydrodemolition activities, to waters of the TCEQ**,** including wetlands. Water may be infiltrated upon approval of Engineer. Offsite disposal of concrete process water is subject to approval of Engineer.
      2) Treat all water generated onsite from construction or washing activities that is more turbid than site runoff separately until turbidity is the same or less than site runoff, and then it may be combined with site runoff and treated as described above. Water may be infiltrated upon approval of Engineer.

©COPYRIGHT 2022 JACOBS

c. Offsite Water: Prior to disruption of normal watercourse, intercept offsite stormwater and pipe it either through or around the Project Site. This water shall not be combined with onsite stormwater. Discharge offsite water at its preconstruction outfall point preventing an increase in erosion below the site. Submit proposed method for performing this Work for Engineer's approval.

L. Dispersion/Infiltration: Convey water only to dispersion or infiltration areas designated in the TESC Plan or to sites approved by Engineer. Water shall be conveyed to designated dispersion areas at a rate such that, when runoff leaves the area and enters waters of the TCEQ, turbidity standards are achieved. Convey water to designated infiltration areas at a rate that does not produce surface runoff.

M. Detention/Retention Pond Construction: Whether permanent or temporary, construct before beginning other grading and excavation Work in the area that drains into that pond. Install temporary conveyances concurrently with grading in accordance with the TESC Plan so that newly graded areas drain to the pond as they are exposed.

N. Pollution Control: Use BMPs to prevent or minimize stormwater exposure to pollutants from spills; vehicle and equipment fueling, maintenance, and storage; other cleaning and maintenance activities; and waste handling activities. These pollutants include fuel, hydraulic fluid, and other oils from vehicles and machinery, as well as debris, leftover paints, solvents, and glues from construction operations. Implement the following BMPs when applicable:

1. Written spill prevention and response procedures.
2. Employee training on spill prevention and proper disposal procedures.
3. Spill kits in all vehicles.
4. Regular maintenance schedule for vehicles and machinery.
5. Material delivery and storage controls.
6. Training and signage.
7. Covered storage areas for waste and supplies.

O. If Engineer orders the Work suspended, continue to control erosion, pollution, and runoff during the shutdown.

P. Nothing in this section shall relieve Contractor from complying with other Contract requirements.

©COPYRIGHT 2022 JACOBS

1.04 SUBMITTALS

A. Informational Submittals:

1. When a TESC Plan is included in the Drawings, either adopt or modify the TESC Plan. Provide a schedule for TESC Plan implementation and incorporate it into Contractor's progress schedule. Obtain Engineer's approval of the TESC Plan and schedule before any Work begins.
2. Modified TESC Plans shall meet all requirements of the applicable jurisdictions.
3. The TESC Plan shall cover all areas that may be affected inside and outside the limits of the Project (including all Owner-provided sources, disposal sites, and haul roads, and all nearby land, streams, and other bodies of water).
4. Allow at least 5 working days for Engineer to review any original or revised TESC Plan. Failure to approve all or part of any such Plan shall not make Owner liable to Contractor for any Work delays.

PART 2 PRODUCTS

2.01 CHECK DAMS

A. Specified by Contractor with approval of Engineer.

2.02 COIR LOG

A. Logs made of 100 percent durable coconut (coir) fiber uniformly compacted within woven netting.

B. Netting: Made of bristle coir twine with minimum strength of 80 pounds tensile strength. Nominal 2-inch by 2-inch openings.

C. Log Segments: Maximum length of 20 feet, with a minimum diameter as shown on the Drawings.

D. Log Minimum Density: 7 lbs/cf.

E. Stakes: Untreated softwood species with a notch to secure rope ties.

F. Rope Ties: 1/4-inch diameter commercially available hemp rope.

©COPYRIGHT 2022 JACOBS

2.03 COMPOST BLANKET

A. Composed of products resulting from the biological degradation and transformation of plant-derived materials under controlled conditions designed to promote aerobic decomposition and:

1. Stable in oxygen consumption and carbon dioxide generation.
2. Mature and suitable for serving as a soil amendment or an erosion control BMP.
3. Appropriate in Moisture Content: No visible free water or dust produced when handling material.
4. Test compost products in accordance with U.S. Composting Council Testing Methods for the Examination of Compost and Composting (TMECC) 02.02-B, "Sample Sieving for Aggregate Size Classification."

B. Meet the following criteria for Coarse Compost:

1. Gradation:

Sieve Size	Percent Passing	
	Minimum	**Maximum**
3"	100	
1"	90	100
3/4"	70	100
1/4"	40	60
Maximum particle length of 6 inches.		

2. pH: Between 6.0 and 8.5 when tested in accordance with U.S. Composting Council TMECC 04.11-A, "1:5 Slurry pH".
3. Manufactured Inert Material (Plastic, Concrete, Ceramics, Metal, etc.): Less than 1.0 percent by weight per U.S. Composting Council TMECC 03.08-A "Classification of Inerts by Sieve Size".
4. Minimum Organic Matter: 40 percent by dry weight basis as determined by U.S. Composting Council TMECC 05.07A "Loss-On-Ignition Organic Matter Method (LOI)".
5. Soluble salt content: less than 4.0 mmhos/cm when tested in accordance with U.S. Composting Council TMECC 04.10 "Electrical Conductivity".
6. Maturity: Greater than 80 percent in accordance with U.S. Composting Council TMECC 05.05-A, "Germination and Root Elongation".

©COPYRIGHT 2022 JACOBS

7. Stability: 7 mg CO2–C/g OM/day or below in accordance with U.S. Composting Council TMECC 05.08-B “Carbon Dioxide Evolution Rate”.
8. The compost product must originate a minimum of 65 percent by volume from recycled plant waste. A maximum of 35 percent by volume of feedstocks, source-separated food waste, and/or biosolids may be substituted for recycled plant waste. Provide a list of feedstock sources by percentage in final compost product.
9. Engineer may evaluate compost for maturity using U.S. Composting Council TMECC 05.08-E “Solvita® Maturity Index”. Coarse Compost shall score a 5 or above on the Solvita® Compost Maturity Test.

2.04 COMPOST SOCK

A. Provide socks fabricated from of extra heavy weight biodegradable fabric, with a minimum strand thickness of 5 mils.

B. Fill fabric with Coarse Compost.

C. Diameter: 8 inches minimum.

D. Fabric: Clean, evenly woven, and free of encrusted concrete or other contaminating materials. Shall be free from cuts, tears, broken or missing yarns. Shall be free of thin, open, or weak areas. Shall be free of any type of preservative.

E. Wood Stakes: Untreated softwood species, be 2-inch by 2-inch nominal dimension and 36 inches in length.

2.05 EROSION CONTROL BLANKET (MATTING), BIODEGRADABLE

A. Temporary erosion control blanket shall be made of natural plant fibers. Supply independent test results meeting the following:

Properties	ASTM Test Method	Requirements
Protecting Slopes from Rainfall-Induced Erosion	D6459: Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	Maximum C factor of 0.15 using Revised Universal Soil Loss Equation (RUSLE)
Dry Weight per Unit Area	D6475	0.36 lb/sq. yd. minimum

©COPYRIGHT 2022 JACOBS

Properties	ASTM Test Method	Requirements
Performance in Protecting Earthen Channels from Stormwater-Induced Erosion	D6460: Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle.	1.0 lb/sq. ft. minimum
Seed Germination Enhancement	D7322	200 percent minimum
Netting, if present, shall be biodegradable with a life span not to exceed 1 year.		

B. For permanent erosion control blanket, see Section 31 32 00, Soil Stabilization.

2.06 FILTRATION SYSTEM

A. Sand: The sand filtration system shall be rapid or slow. Rapid sand filters achieve relatively high hydraulic flow rates, on the order of 2 gpm/sf to 20 gpm/sf, because they have automatic backwash systems to remove accumulated solids. Slow sand filters have very low hydraulic rates, on the order of 0.02 gpm/sf, because they do not have backwash systems.

B. Chemical: The chemical treatment system shall consist of a stormwater collection system (either temporary diversion or the permanent site drainage system), a storage pond (or portable trailer-mounted tanks), pumps, a chemical feed system, treatment cells, and interconnecting piping.

2.07 GEOTEXTILE

A. Geotextiles shall consist only of long chain polymeric fibers or yarns formed into a stable network such that the fibers or yarns retain their position relative to each other during handling, placement, and design service life. At least 95 percent by weight of the material shall be polyolefins or polyesters. The material shall be free from defects or tears. Geotextile shall also be free of any treatment or coating which might adversely alter its hydraulic or physical properties after installation. Geotextile properties shall be as described in Table 1 through Table 3.

©COPYRIGHT 2022 JACOBS

Table 1
Geotextile for Permanent Erosion Control

Geotextile Property	ASTM Test Method	Geotextile Property Requirements					
		Permanent Erosion Control				Ditch Lining	
		Moderate Survivability		High Survivability			
		Woven	Nonwoven	Woven	Nonwoven	Woven	Nonwoven
AOS	D4751	See Table 2		See Table 2		U.S. No. 30 max.	
Water Permittivity	D4491	See Table 2		See Table 2		0.02 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D4632/ D4632M	250 lb min.	160 lb min.	315 lb min.	200 lb min.	250 lb min.	160 lb min.
Grab Failure Strain, in machine and x-machine direction	D4632/ D4632M	15% -50%	≥50%	15% -50%	≥50%	<50%	≥50%
Seam Breaking Strength	D4632/ D4632M	220 lb min.	140 lb min.	270 lb min.	180 lb min.	220 lb min.	140 lb min.
Puncture Resistance	D6241	495 lb min.	310 lb min.	620 lb min.	430 lb min.	495 lb min.	310 lb min.
Tear Strength, in machine and x-machine direction	D4533	80 lb min.	50 lb min.	112 lb min.	79 lb min.	80 lb min.	50 lb min.
Ultraviolet (UV) Radiation Stability	D4355	70% strength retained min., after 500 hours in xenon arc device					

Table 2
Filtration Properties for Geotextile for Permanent Erosion Control

Geotextile Property	ASTM Test Method	Geotextile Property Requirements		
		Class A	Class B	Class C
AOS	D4751	U.S. No. 40 max.	U.S. No. 60 max.	U.S. No. 70 max.
Water Permittivity	D4491	0.7 sec^{-1} min.	0.4 sec^{-1} min.	0.2 sec^{-1} min.

©COPYRIGHT 2022 JACOBS

Table 3
Geotextile for Temporary Silt Fence

Geotextile Property	ASTM Test Method	Geotextile Property Requirements	
		Unsupported Between Posts	Supported Between Posts with Wire or Polymeric Mesh
AOS	D4751	U.S. No. 30 max. for silt wovens, U.S. No. 50 for all other geotextile types, U.S. No. 100 min.	
Water Permittivity	D4491	0.2 sec^{-1} min.	
Grab Tensile Strength, in machine and x-machine direction	D4632/ D4632M	180 lb min. in machine direction, 100 lb min. in x-machine direction	100 lb min.
Grab Failure Strain, in machine and x-machine direction	D4632/ D4632M	30% max. at 180 lb or more	
Ultraviolet (UV) Radiation Stability	D4355	70% strength retained min., after 500 hours in xenon arc device	

2.08 GRAVEL FILTER, WOOD CHIP OR COMPOST BERM

A. Rock Material Used for Filter Berms: Clean 3/4-inch rock, with no recycled materials.

B. Wood Chips Used for Wood Chip Berm: As specified in Article Wood Chips and Wood Shavings.

C. Compost Used for Compost Berms: Coarse compost as specified in Article Compost Blanket.

2.09 HIGH VISIBILITY FENCING CLEARING LIMIT FENCE

A. High Visibility Fence: UV stabilized, orange, high-density polyethylene or polypropylene mesh.

B. Height: 4 feet minimum.

C. Support Posts: Wood or steel with sufficient strength and durability to support the fence through the life of the Project.

2.10 INLET PROTECTION

A. As specified under Article Geotextile.

©COPYRIGHT 2022 JACOBS

2.11 MULCH

A. Short-Term: Provide independent test results documenting that the mulch meets the requirements in Table 4, Short-Term Mulch Test Requirements.

Table 4
Short-Term Mulch Test Requirements

Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the National Resources Conservation Service (NRCS) Soil Texture Triangle.	C Factor = 0.15 maximum using Revised Universal Soil Loss Equation (RUSLE)

B. Moderate-Term: Within 48 hours of application, the Moderate-Term Mulch shall bond with soil surface to create a continuous, absorbent, flexible, erosion-resistant blanket that allows for seed germination and plant growth and conforms to the requirements in Table 5, Moderate-Term Mulch Test Requirements. Provide test results documenting that the mulch meets the requirements in Table 5, Moderate-Term Mulch Test Requirements. Supply independent test results.

Table 5
Moderate-Term Mulch Test Requirements

Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	C Factor = 0.05 maximum using Revised Universal Soil Loss Equation (RUSLE)

C. Long-Term:

1. Provide Long-Term Mulch with demonstrated ability:
   a. To adhere to soil and create a blanket-like mass within 2 hours of application.
   b. To bond with the soil surface to create a continuous, porous, absorbent, and flexible erosion-resistant blanket that allows for seed germination and plant growth.
   c. To conform to the requirements in Table 6, Long-Term Mulch Test Requirements.
   d. Provide test results documenting that mulch meets requirements in Table 6, Long-Term Mulch Test Requirements. Supply independent test results.

©COPYRIGHT 2022 JACOBS

Table 6
Long-Term Mulch Test Requirements

Properties	Test Method	Requirements
Performance in Protecting Slopes from Rainfall-Induced Erosion.	ASTM D6459. Test in one soil type. Soil tested shall be sandy loam as defined by the NRCS Soil Texture Triangle.	C Factor = 0.01 maximum using Revised Universal Soil Loss Equation (RUSLE)

2.12 OUTLET PROTECTION

A. Size riprap or quarry spall to resist movement under design flows. Install at least 8 inches deep. Provide riprap or quarry spall material free of extraneous material.

2.13 PLASTIC COVERING

A. Clear plastic meeting requirements of ASTM D4397 for polyethylene sheeting having a minimum thickness of 6 mils.

2.14 POLYACRYLAMIDE (PAM)

A. Meet ANSI/NSF Standard 60 for drinking water treatment with an AMD content not to exceed 0.05 percent.

B. Anionic, linear, and not cross-linked.

C. Minimum average molecular weight greater than 5 mg/mole and minimum 30 percent charge density.

D. 80 percent active ingredients minimum with moisture content not exceeding 10 percent by weight.

E. Delivered in a dry granular or powder form.

2.15 SEDIMENT CONTROL BARRIERS

A. Specified by Contractor with approval of Engineer. May include Compost Filter Sock or Compost Filter Berm.

2.16 SILT (SEDIMENT) FENCE

A. Geotextile: As specified in Article Geotextile.

©COPYRIGHT 2022 JACOBS

B. Reinforcing : Welded wire fabric, 14-gauge minimum with 2-inch by 4-inch mesh.

C. Support Posts: As recommended by manufacturer of geotextile.

D. Fasteners: Heavy-duty wire staples at least 1-inch long, tie wires, or hog rings, as recommended by manufacturer of geotextile.

2.17 STABILIZED CONSTRUCTION ENTRANCE

A. Construct a pad from stone 3 inches to 6 inches in size, placed at least 8 inches deep and not less than 50 feet long.

B. Provide aggregate free of extraneous materials that may cause or contribute to track out.

C. Place separation geotextile under the rock to prevent fine sediment from pumping up into the rock pad. See Article Geotextile for required geotextile properties.

D. Use of constructed or constructed/manufactured steel plates with ribs (such as, shaker/rumble plates or corrugated steel plates) for entrance/exit access is allowable.

2.18 STRAW

A. Straw:

1. Air dried condition free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable. Provide weed-free documentation:
   a. Certified Weed Free Straw using North American Weed Management Association (NAWMA) standards.
   b. Provide documentation that material is steam or heat treated to kill seeds.
   c. Provide U.S. or state's Department of Agriculture laboratory test reports, dated within 90 days prior to date of application, showing there are no viable seeds in the straw.

B. Straw Mulch: Suitable for spreading with mulch blower equipment.

C. Posts for Straw Bales: 2-inch by 2-inch untreated wood or commercially manufactured metal posts.

©COPYRIGHT 2022 JACOBS

2.19 STREET CLEANING

A. Use self-propelled pickup street sweeper(s). Mechanical broom sweepers are not allowed where environmental concerns exist about storm water pollution or air quality.

2.20 TACKIFIERS

A. Biodegradable Hydraulically Applied Erosion Control Products (HECPs) in a dry condition, free of noxious weeds, seeds, chemical printing ink, germination inhibitors, herbicide residue, chlorine bleach, rock, metal, plastic, and other materials detrimental to plant life. Up to 5 percent by weight may be photodegradable material.

B. Suitable for spreading with a hydroseeder.

C. Furnish HECPs premixed by the manufacturer. Under no circumstances will field mixing of additives or components be acceptable.

D. Provide test results, dated within 3 years prior to the date of application, from an independent, accredited laboratory, as approved by Engineer, showing that the product meets the HECP requirements in Table 7.

Table 7
HECP Requirements

Properties	Test Method	Requirements
Acute Toxicity	EPA-821-R-02-012 Methods for Measuring Acute Toxicity of Effluents. Test leachate from recommended application rate receiving 2 inches of rainfall per hour using static test for No-Observed-Adverse-Effect-Concentration (NOEC).	Four replicates are required with no statistically significant reduction in survival in 100 percent leachate for a Daphnid at 48 hours and Oncorhynchus mykiss (rainbow trout) at 96 hours.
Solvents	EPA 8260B	Benzene: < 0.03 mg/kg Methylene chloride: < 0.02 mg/kg Naphthalene: < 5 mg/kg Tetrachloroethylene: < 0.05 mg/kg Toluene: < 7 mg/kg Trichloroethylene: < 0.03 mg/kg Xylenes: < 9 mg/kg

©COPYRIGHT 2022 JACOBS

Table 7
HECP Requirements

Properties	Test Method	Requirements	
Heavy Metals	EPA 6020A Total Metals	Antimony:	< 4 mg/kg
		Arsenic:	< 6 mg/kg
		Barium:	< 80 mg/kg
		Boron:	< 100 mg/kg
		Cadmium:	< 2 mg/kg
		Chromium:	< 2 mg/kg
		Copper:	< 5 mg/kg
		Lead:	< 5 mg/kg
		Mercury:	< 2 mg/kg
		Nickel:	< 2 mg/kg
		Selenium:	< 10 mg/kg
		Strontium:	< 30 mg/kg
		Zinc:	< 5 mg/kg
Water Holding Capacity	ASTM D7367	900 percent minimum	
Organic Matter Content	ASTM D2974	90 percent minimum	
Moisture Content	ASTM D2974	15 percent	
Seed Germination Enhancement	ASTM D7322	Long-Term: 420 percent minimum Moderate-Term: 400 percent minimum Short-Term: 200 percent minimum	

2.21 TEMPORARY CURB

A. Temporary curbs may consist of asphalt, concrete, sand bags, compost socks, wattles, or geotextile/plastic encased berms of sand or gravel, or as approved by Engineer.

2.22 TEMPORARY PIPE SLOPE DRAIN

A. Corrugated polyethylene drain pipe, couplings and fittings (up to 10-inch) meeting the requirements of AASHTO M252 Type C (corrugated both inside and outside) or Type S (corrugated outer wall and smooth inner liner).

1. Maximum Pipe Size: 10 inches in diameter.

©COPYRIGHT 2022 JACOBS

2.23 TEMPORARY SEDIMENT TRAP

A. Temporary ponding area with a rock weir or perforated riser pipe at the outlet, formed by excavation or constructing a weir. Specified by Contractor with approval of Engineer.

PART 3 EXECUTION

3.01 PREPARATION

A. Engineer's acceptance of the TESC Plan is required prior to starting earth disturbing activities.

B. Include proposed stockpile areas and installation of temporary erosion control devices, ditches, or other facilities in Work phasing plans.

C. Areas designated for Contractor's use during Project may be temporarily developed as specified to provide working, staging, and administrative areas. Include control of sediment from these areas in the TESC Plan.

D. Check Dams: Install check dams as soon as construction will allow, or when designated by Engineer. Contractor may substitute a different check dam, in lieu of what is specified in the Contract, with approval of Engineer. Check dam is a temporary or permanent structure, built across a minor channel. Water shall not flow through check dam structure. Construct check dams to create a ponding area upstream of dam to allow pollutants to settle, with water from increased flows channeled over a spillway in check dam. Construct check dam to prevent erosion in area below spillway. Place check dams perpendicular to flow of water and install in accordance with the Drawings. Extend outer edges up sides of conveyance to prevent water from going around check dam. Provide check dams of sufficient height to maximize detention, without causing water to leave ditch. Place sandbags so that initial row makes tight contact with ditch line for length of dam. Stagger subsequent rows so center of bag is placed over space between bags on previous lift.

E. Coir Log: Install coir logs in accordance with the Drawings.

F. Compost Blanket: Place compost blanket to a depth of 3 inches over bare soil prior to seeding or other planting. Place an organic tackifier over entire composted area when dry or windy conditions are present or expected before final application of mulch or erosion control blanket. Apply tackifier immediately after compost application to prevent compost from leaving area.

©COPYRIGHT 2022 JACOBS

G. Compost Sock: Exercise care when installing compost socks to ensure method of installation minimizes disturbance of waterways and prevents sediment or pollutant discharge into waterbodies. Lace compost socks together, end-to-end, with coir rope to create a continuous length. Bury loose ends of continuous length 3 feet to 5 feet laterally into the bankslope. Install the upper surface of compost sock parallel to slope. Provide finished grades of a natural appearance with smooth transitions. Secure compost sock with wood stakes or live stakes of species as indicated on the Drawings. Drive stakes into place centered on top of compost sock and spaced 3 feet on center throughout length of sock.

H. Erosion Control Blanket (Matting), Biodegradable: Temporary Erosion Control Blankets are used as an erosion prevention device and to enhance establishment of vegetation. Install erosion control blankets according to manufacturer's recommendations.

1. Erosion control blankets with an open area of 60 percent or greater may be installed prior to seeding and fertilizing. Install blankets with less than 60 percent open space immediately following seeding and fertilizing operation.
2. Select erosion control blanket material for an area based on the intended function; slope or ditch stabilization and Site-specific factors including soil, slope gradient, rainfall, and flow exposure. Do not use erosion Control Blankets on slopes or in ditches that exceed manufacturer's recommendations.

I. Filtration System:

1. Sand: Rapid sand filtration systems shall have stormwater pumped from a trap, pond, or tank through filtration system. Slow sand filtration systems shall have flow through using gravity. Sand media filter shall have automatic backwashing features that can filter to 50 μm particle size. Screen or bag filters shall filter down to 5 μm. Fiber wound filters shall remove particles down to 0.5 μm. Sequence filters from the largest to the smallest pore opening. Filtration may be used in conjunction with polymer treatment in a portable system to assure capture of the flocculated solids.
2. Chemical: Prior to discharge, sample each batch of treated and test for compliance with pH and turbidity limits, which may be established by water quality standards or a Site-specific discharge permit. Sampling and testing for other pollutants may be necessary. Obtain regulatory approval and provide a qualified, trained operator, if required by law.

©COPYRIGHT 2022 JACOBS

J. Gravel Filter, Wood Chip, or Compost Berm: Construct filter berms to retain sediment and direct flows.

1. Gravel Filter Berm: 1-foot minimum height. Maintain at this height for entire time berm is in use.
2. Wood Chip Berm: 2-foot minimum height. Maintain at this height for entire time berm is in use.
3. Construct compost berm of course compost in accordance with the detail on the Drawings.

K. High Visibility Fencing: Install high visibility fencing in accordance with the Drawings.

L. Inlet Protection: Install inlet protection below or above, or as a prefabricated cover at each inlet grate, as shown on the Drawings. Install inlet protection devices prior to beginning clearing, grubbing or earthwork activities. Geotextile fabric used in prefabricated inlet protection devices must meet or exceed the requirements for Moderate Survivability and minimum filtration properties. When depth of accumulated sediment and debris reaches approximately one-half the height of an internal device or one-third the height of external device (or less when so specified by the manufacturers) or as designated by Engineer, remove deposits and stabilize onsite.

1. Below Inlet Grate:
   a. Prefabricated units specifically designed for inlet protection.
   b. Must remain securely attached to drainage structure when fully loaded with sediment and debris or at the maximum level of sediment and debris specified by manufacturer.
2. Above Inlet Grate:
   a. Devices may be silt fence, sandbags, or prefabricated units specifically designed for inlet protection.
   b. Must remain securely in place around drainage structure under all conditions.
3. Inlet Grate Cover:
   a. Prefabricated units specifically designed for inlet protection and:
      1) Be a sewn geotextile fabric unit fitted to individual grate and completely enclosing grate.
      2) Have built-in lifting devices to allow manual access of stormwater system.
      3) Use an orange monofilament geotextile fabric.
   b. Check dams or functionally equivalent devices may be used as inlet protection devices with approval of Engineer.

©COPYRIGHT 2022 JACOBS

M. Mulch: Furnish, haul, and evenly apply at rates indicated and spread on seeded areas within 48 hours after seeding unless otherwise specified.

1. Distribute straw mulch material with an approved mulch spreader that uses forced air to blow mulch material on seeded areas.
2. Apply wood strand mulch by hand or by straw blower on seeded areas.
3. Hydraulically apply Short-Term Mulch at the rate of 2,500 pounds per acre. May be applied in one lift.
4. Hydraulically apply Moderate-Term Mulch and Long-Term Mulch at the rate of 3,500 pounds per acre with no more than 2,000 pounds applied in any single lift. Mulch may be applied with seed and fertilizer in moist climates. In dry climates, apply seed and fertilizer in a single application followed by mulch application. Provide mulch suitable for application with a hydroseeder.
5. Mulch areas not accessible by mulching equipment by approved hand methods.

N. Outlet Protection: Provide outlet protection to prevent scour at outlets of ponds, pipes, ditches, or other conveyances.

O. Plastic Covering: Use clear plastic covering to promote seed germination when seeding is performed outside of specified dates. Use black plastic covering for stockpiles or other areas where vegetative growth is unwanted. Place plastic with at least a 12-inch overlap of all seams. Install and maintain plastic cover tolon prevent water from cutting under the plastic and to prevent cover from blowing open in the wind.

P. Polyacrylamide (PAM): See Tackifiers.

Q. Sediment Control Barriers: Install sediment control barriers in accordance with TESC Plan or manufacturer’s recommendations in the areas of clearing, grubbing, earthwork, or drainage prior to starting those activities. Maintain sediment control barriers until soils are stabilized.

R. Silt (Sediment) Fence:

1. Silt fence shall be installed in accordance with the Drawings. When backup support is used, use steel wire with a maximum mesh spacing of 2 inches by 4 inches, or plastic mesh as resistant to ultraviolet radiation as the geotextile it supports. Provide wire or plastic mesh with strength equivalent to or greater than as required for unsupported geotextile (for example, 180 pounds grab tensile strength in the machine direction).

©COPYRIGHT 2022 JACOBS

2. Attach geotextile to posts and support system using staples, wire, or in accordance with manufacturer's recommendations. Geotextile shall be sewn together at the point of manufacture, or at a location approved by Engineer, to form geotextile lengths as required.
3. Provide wood or steel support posts at sewn seams and overlaps and as shown on the Drawings and necessary to support fence.
4. Wood Posts: Minimum dimensions of 1-1/4-inch by 1-1/4-inch by the minimum length shown on the Drawings.
5. Steel Posts: Minimum weight of 0.90 lb/ft.
6. When sediment deposits reach approximately one-third the height of the silt fence, remove and stabilize deposits.

S. Stabilized Construction Entrance: Construct temporary stabilized construction entrance in accordance with the Drawings, prior to beginning any clearing, grubbing, earthwork, or excavation. When stabilized entrance no longer prevents track out of sediment or debris, either rehabilitate existing entrance to original condition or construct a new entrance.

T. Street Cleaning: Use self-propelled pickup street sweepers whenever required by Engineer to prevent transport of sediment and other debris off Project Site. Provide street sweepers designed and operated to meet air quality standards. Street washing with water will require approval by Engineer. Intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.

U. Tackifiers:

1. Mix and apply tackifier in accordance with manufacturer's recommendations. If applied with a hydroseeder, add Short-Term Mulch as a tracer at a rate of 125 pounds to 250 pounds per acre to visibly aid uniform application.
2. Soil Binding Using Polyacrylamide (PAM): Apply PAM on bare soil completely dissolved and mixed in water or applied as a dry powder. Apply dissolved PAM at a rate of not more than 2/3 pound per 1,000 gallons of water per acre. Apply a minimum of 200 pounds per acre of Short-Term Mulch with the dissolved PAM. Dry powder applications may be at a rate of 5 pounds per acre using a hand-held fertilizer spreader or a tractor-mounted spreader.
    a. Apply PAM only to areas that drain to completed sedimentation control BMPs in accordance with the TESC Plan. PAM may be reapplied on actively worked areas after a 48-hour period.
    b. PAM shall not be applied during rainfall or to saturated soils.

©COPYRIGHT 2022 JACOBS

V. Temporary Curb: Provide temporary curbs to divert or redirect water around erodible soils. Temporary curbs shall be installed along pavement edges to prevent runoff from flowing onto erodible slopes. Water shall be directed to areas where erosion can be controlled. Temporary curbs shall be a minimum of 4 inches in height. Ponding shall not be in roadways.

W. Temporary Pipe Slope Drain: Corrugated polyethylene drain pipe constructed in accordance with the Drawings. Use water interceptor dikes or temporary curbs to direct water into pipe slope drain. Entrance to drain may consist of a prefabricated funnel device specifically designed for application, rock, sand bags, or as approved by Engineer. Construct pipe with gasketed watertight fittings and secure to slope with metal "T" posts, wood stakes, sand bags, or as approved by Engineer. Discharge water to a stabilized conveyance, sediment trap, stormwater pond, rock splash pad, vegetated strip, or as approved by Engineer. Install pipe so that water does not pond on road surface.

X. Temporary Sediment Trap: Form trap by constructing a berm or by partial or complete excavation. Direct the discharge flow to a stabilized conveyance outlet or level spreader.

3.02 ADDITIONAL REQUIREMENTS

A. Natural Buffer or Equivalent:

1. Unless natural buffer between the Project Site and receiving waters has previously been eliminated by pre-existing development disturbances, comply with one of the following alternatives if stormwater from construction will discharge to surface water:
   a. Provide a 50-foot, undisturbed natural buffer between construction disturbances and surface water.
   b. Provide an undisturbed natural buffer that is less than 50 feet supplemented by additional erosion and sediment controls, which in combination, achieve a sediment load reduction that is equivalent to a 50-foot buffer.
   c. If it is infeasible to provide an undisturbed natural buffer of any size, implement erosion and sediment controls that achieve a sediment load reduction that is equivalent to a 50-foot buffer.

3.03 MAINTENANCE

A. The ESCP measures described in this specification are minimum requirements for anticipated Site conditions. During the construction period, upgrade these measures as needed to comply with all applicable local, state, and federal erosion and sediment control regulations.

©COPYRIGHT 2022 JACOBS

B. Maintain erosion and sediment control BMPs so they properly perform their function until Engineer determines they are no longer needed.

C. Construction activities must avoid or minimize excavation and creation of bare ground during wet weather.

D. The intentional washing of sediment into storm sewers or drainage ways must not occur. Vacuuming or dry sweeping and material pickup must be used to cleanup released sediments.

E. Inspect BMPs in accordance with the schedule in the Construction Stormwater Discharge Permit(s) or as directed by Engineer.

F. Complete an inspection report within 24 hours of an inspection. Each inspection report shall be signed and identify corrective actions. Document that corrective actions are performed within 7 days of identification. Keep a copy of all inspection reports at the Site or at an easily accessible location.

G. Unless otherwise specified, remove deposits before the depth of accumulated sediment and debris reaches approximately height of BMP. Dispose of debris or contaminated sediment at approved locations. Clean sediments may be stabilized onsite using BMPs as approved by Engineer.

H. Sediment Fence: Remove trapped sediment before it reaches one-third of the above ground fence height and before fence removal.

I. Other Sediment Barriers (such as biobags): Remove sediment before it reaches 2 inches depth above ground height and before BMP removal.

J. Catch Basins: Clean before retention capacity has been reduced by 50 percent.

K. Sediment Basins and Sediment Traps: Remove trapped sediments before design capacity has been reduced by 50 percent and at completion of Project.

L. Initiate repair or replacement of damaged erosion and sediment control BMPs immediately, and work completed by end of next work day. Significant replacement or repair must be completed within 7 days, unless infeasible.

M. Within 24 hours, remediate any significant sediment that has left construction site. Investigate cause of the sediment release and implement steps to prevent a recurrence of discharge within same 24 hours. Perform in-stream cleanup of sediment according to applicable regulations.

©COPYRIGHT 2022 JACOBS

N. At end of each work day, stabilize or cover soil stockpiles or implement other BMPs to prevent discharges to surface waters or conveyance systems leading to surface waters.

O. Temporarily stabilize soils at end of shift before holidays and weekends, if needed. Ensure soils are stable during rain events at all times of year.

P. Initiate stabilization by no later than end of next work day after construction work in an area has stopped permanently or temporarily.

Q. Within 14 days of initiating stabilization or as specified in permit, either seed or plant stabilized area; or apply non-vegetative measures and cover all areas of exposed soil. Seed dry areas as soon as Site conditions allow. Ensure that vegetation covers at least 70 percent of stabilized area. In areas where Contractor's activities have compromised erosion control functions of existing grasses, overseed existing grass. Non-vegetative measures may include blown straw and a tackifier, loose straw, or an adequate covering of compost mulch. Complete initial stabilization within 7 days if storm water discharges to surface waters impaired for sediment or nutrients, or high quality waters.

R. Provide permanent erosion control measures on all exposed areas. Do not remove temporary sediment control practices until permanent vegetation or other cover of exposed areas is established. However, do remove all temporary erosion control measures as exposed areas become stabilized, unless doing so conflicts with local requirements. Properly dispose of construction materials and waste, including sediment retained by temporary BMPs.

3.04 REMOVAL

A. When Engineer determines that an erosion control BMP is no longer required, remove BMP and all associated hardware from the Project limits. When materials are biodegradable, Engineer may approve leaving temporary BMP in place.

B. Permanently stabilize all bare and disturbed soil after removal of erosion and sediment control BMPs. Dress sediment deposits remaining after BMPs have been removed to conform to existing grade. Prepare and seed graded area. If installation and use of erosion control BMPs have compacted or otherwise rendered soil inhospitable to plant growth, such as construction entrances, take measures to rehabilitate soil to facilitate plant growth. This may include, but is not limited to, ripping the soil, incorporating soil amendments, or seeding with specified seed.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 57 28
TEMPORARY FLOW CONTROL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. Institute of Inspection, Cleaning, and Restoration Certification (IICRC): S500, Standard and Reference Guide for Professional Water Damage Restoration.

1.02 DEFINITIONS

A. Bypass Pumping: Temporary flow control accomplished by diverting flow away from the Work area using one or more pumps.

B. Temporary Flow Control: Reducing, limiting, or excluding flow in or to a sanitary sewer, storm sewer, pump station, force main, or other facility as required for performing the Work under the Contract. Draining, handling, and disposal of sanitary sewage and stormwater from pipelines and other facilities as required for performing the Work under the Contract is also part of temporary flow control.

C. Temporary Flow Control Plan: Plan prepared by Contractor containing complete information on how Contractor proposes to perform temporary flow control in accordance with specified requirements.

1.03 SYSTEM DESCRIPTION

A. According to the data provided by the City, it is estimated that the peak flow is approximately 50 gallons per minute (gpm). Contractor to field verify.

B. It is essential to operation of existing sewerage system that there be no interruption in flow of sewage throughout duration of Project.

C. Provide facilities and controls required to intercept, convey, and discharge flow to be controlled; include standby and emergency equipment.

D. Conform to regulatory requirements.

E. Protect water resources, wetlands, and other natural resources.

©COPYRIGHT 2022 JACOBS

F. Temporary flow control shall be done in a manner that will not damage private or public property, or create a nuisance or public menace. Flow shall be conveyed in enclosed pipes that are adequately protected from traffic or other hazards.

G. Discharge:

1. To sanitary sewer system.
2. Dumping or free flow on private or public property, gutters, streets, or sidewalks is prohibited.
3. Discharge of sanitary sewage to storm sewers, to surface waters or wetlands, or into the ground, is prohibited.

1.04 SITE CONDITIONS

A. Obtain approval and secure permits for placement of temporary flow control facilities within public right-of-ways.

B. Existing facilities are shown on Drawings.

1.05 SUBMITTALS

A. Informational Submittals:

1. Temporary Flow Control Plan: Submit at least 48 hours prior to controlling flows. Include, as a minimum, the following:
   a. Confirm city's estimate of peak flow to be controlled
   b. Detailed procedures for handling peak estimated flow.
   c. Schedule.
   d. Drawing of plug and/or bypass pump and pipeline locations.
   e. Listing of equipment.
      1) Bypass pump sizes, capacities, number of size to be onsite, and power requirements including standby equipment.
      2) Bypass pipeline sizes and material types.
2. Sewer user notification plan.
3. Operation plan.
4. Emergency Cleanup Plan.
5. Special permits required for temporary flow control.

©COPYRIGHT 2022 JACOBS

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL REQUIREMENTS

A. Notify Owner at least 48 hours prior to complementing flow control system.

B. Install temporary flow control facilities only within public right-of-way, Owner's property, temporary construction easement, permanent easement, or easement obtained by Contractor.

C. Operate and maintain temporary flow control 24 hours per day, 7 days per week, including without limitation, holidays, as required to control flows.

D. Promptly remove temporary flow control facilities as soon as they are no longer needed.

3.02 REQUIRED TEMPORARY FLOW CONTROL

A. Except at pipe sags, depth of flow during television inspection shall not exceed that shown below for respective pipe sizes:

Maximum Depth of Flow in Inches	
Pipe Size (Inches)	**Television Inspection**
6	1.20
8	1.60
10	2.00
12	3.00
15	3.75
18	4.50
21	5.25
24	6.00
27	8.00
30	9.00
33 and up	30% of Pipe Diameter

©COPYRIGHT 2022 JACOBS

B. Eliminate flow from sewer manhole to manhole segments during spot repair, service connection rehabilitation, manhole construction, and sewer pipe replacement or lining within that segment.

3.03 EQUIPMENT AND MATERIALS

A. General:

1. Provide materials and equipment that will ensure continuous and successful operation of temporary flow control systems.
2. Repair or modify systems as necessary.
3. Unless otherwise shown or specified, materials and equipment may be new or used at Contractor's option.

B. Plugs:

1. Provide with taps for connection of pressure gauges and air hoses, and flow-through capability.
2. Pipe Diameters 24 Inches and Smaller: Use mechanical plugs with rubber gaskets or pneumatic plugs with rubber boots.
3. Pipe Diameters Larger than 24 Inches:
   a. Use inflatable bag stoppers made in two or more pieces.
   b. Manufacturers:
      1) Lansas.
      2) Cherne Industries.

C. Pumps:

1. Fully automatic, self-priming units that do not require use of foot valves or vacuum pumps in priming system.
2. Solids handling design with ability to pump minimum 3-inch diameter sphere.
3. Able to run dry for long periods of time to accommodate cyclical nature of flows.
4. Engine: Equipped to minimize noise. Noise levels shall not exceed 86 dBA at a distance of 50 feet from source.

D. Electric Power Generators:

1. Be able to simultaneously start and run electric powered pumps required for flow to be controlled.
2. Equipped to minimize noise. Noise levels shall not exceed 86 dBA at a distance of 50 feet from source.
3. Include automatic transfer switch if flow control system is to operate unattended.

©COPYRIGHT 2022 JACOBS

E. Standby Equipment:

1. Standby Pump: One of each size to be available onsite.
2. Electric Power Generators: Minimum of one if temporary flow control system contains electric powered pump. Able to simultaneously start and run electric powered pumps required for flow to be controlled.

3.04 TEMPORARY FLOW CONTROL PLAN

A. Prepare and submit Temporary Flow Control Plan at least 14 days before starting the Work requiring temporary flow control; include following information:

1. Drawings indicating location of temporary sewer plugs and bypass discharge lines.
2. Traffic Control Plan specifically applicable to temporary flow control adhering to requirements of applicable agencies and as may be specified in Contract Documents.
3. Locations where flow will be intercepted and discharged.
4. If trucks are to be employed include the following:
   a. Numbers and sizes of trucks.
   b. Configuration of facilities to be used to load trucks at each interception location.
   c. Locations where trucks will unload.
   d. Time for loading, unloading, and travel.
5. Complete descriptions and performance characteristics of pumps, electric power generators, and standby equipment.
6. Acoustical information for equipment to be used showing compliance with noise control requirements of Section 01 50 00, Temporary Facilities and Control.
7. Details of temporary force mains, including horizontal and vertical alignments, pipe materials, protection of existing buried and aboveground facilities and improvements, maintenance of traffic and access to properties.
8. Design calculations proving adequacy of temporary system and selected equipment to convey all flows.
9. Drawings showing layouts and configurations of temporary flow control facilities and also showing locations relative to right-of-way easement, and property boundaries.
10. Drawings and design calculations of temporary bulkheads and plugs.
11. Drawings and design calculations for thrust restraint of temporary piping.
12. Details of system controls and control logic; include diagrams and narrative.

©COPYRIGHT 2022 JACOBS

13. Anticipated schedule for the Work.
14. Other information to completely describe temporary flow control facilities and conformance to specified requirements.

3.05 EMERGENCY CLEANUP PLAN

A. Prepare and submit not less than 60 days before scheduled date of temporary flow control activities. As a minimum plan shall include the following:

1. Procedures for removal of water.
2. Procedures for determining nature and extent of damage and required restoration where restoration is possible.
3. Provide for industrial hygienist and standby Subcontractor for cleanup of exterior and building interior spaces that might be affected by a spill, backup, or overflow. Industrial hygienist and cleanup Subcontractor shall be certified by IICRC and follow IICRC S500 for cleanup of Category 3 water.

B. Implement for Full Scale Test and during temporary flow control.

3.06 BLOCKING FLOW

A. Flow control may consist of blocking flow with mechanical or pneumatic plugs if only small amount of flow needs to be controlled and adequate storage is available.

B. Use primary and secondary plugs for each flow control location.

C. When blocking flow is no longer needed for performance and acceptance of the Work, remove plugs in a manner that permits sewage flow to slowly return to normal without surcharging or causing other major disturbances downstream.

D. Remove temporary plugs at end of each working day and restore normal flow. If downstream work is not or cannot be completed during workday provide, operate, and maintain bypass pumping system or other method of flow control to accommodate flows.

3.07 PIPING

A. Minimize disturbance of existing utilities.

B. Where temporary flow control pipelines cross streets and private driveways, install pipeline in trench and cover with temporary pavement.

©COPYRIGHT 2022 JACOBS

C. Installation of bypass pipelines is prohibited in salt marsh/wetland areas.

3.08 TEMPORARY SANITARY SEWAGE FLOW REDUCTION

A. Contractor may request sewer service customers upstream of the Work area to reduce or curtail sewer flow.

1. First Notice: Not less than 1 week nor more than 2 weeks prior to when sewer flow deduction or curtailment is requested.
2. Second Notice: Not more than 24 hours nor less than 12 hours prior to when sewer flow deduction or curtailment is requested.

B. When service lateral must be disconnected from main for more than 1 day, lateral shall be positively drained or pumped a minimum of once every 24 hours. Monitor status of flow and storage. Pump lateral more frequently where flows exceed storage capacity of lateral or temporary storage as may be provided by Contractor.

C. Temporarily restore full flow services in uncompleted sections during nonwork hours.

D. Promptly notify sewer service customers that were requested to reduce or curtail sewer flow when the Work is complete and full uninterrupted service restored.

E. Contractor shall be responsible for control of sewage flows and under no circumstances be entitled to rely on flow reduction or curtailment by upstream sewer service customers.

3.09 DRAINING EXISTING PIPELINE

A. Before initiating shutdown, ensure required materials, equipment, and labor are available onsite. Excavate and expose portions of existing pipeline to be removed.

B. Provide tap and piping in place to drain sewage from existing pipeline before it is cut and to capture contents that may drain out when pipe is cut.

3.10 FIELD QUALITY CONTROL

A. Hydrostatic Pressure Test for Pump Bypass Systems:

1. Prior to operation, test each section of discharge piping with maximum pressure equal to 1.5 times maximum operating pressure of system.
2. Notify Owner 24 hours prior to testing.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 01 61 00
COMMON PRODUCT REQUIREMENTS

PART 1 GENERAL

1.01 DEFINITIONS

A. Products:

1. New items for incorporation in the Work, whether purchased by Contractor or Owner for the Project, or taken from previously purchased stock, and may also include existing materials or components required for reuse.
2. Includes the terms material, equipment, machinery, components, subsystem, system, hardware, software, and terms of similar intent and is not intended to change meaning of such other terms used in Contract Documents, as those terms are self-explanatory and have well recognized meanings in construction industry.
3. Items identified by manufacturer's product name, including make or model designation, indicated in manufacturer's published product literature, that is current as of the date of the Contract Documents.

1.02 PREPARATION FOR SHIPMENT

A. When practical, factory assemble products. Mark or tag separate parts and assemblies to facilitate field assembly. Cover machined and unpainted parts that may be damaged by the elements with strippable protective coating.

B. Package products to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, contents by name, name of Project and Contractor, equipment number, and approximate weight. Include complete packing list and bill of materials with each shipment.

C. Extra Materials, Special Tools, Test Equipment, and Expendables:

1. Furnish as required by individual Specifications.
2. Schedule:
   a. Ensure that shipment and delivery occurs concurrent with shipment of associated equipment.
   b. Transfer to Owner shall occur immediately subsequent to Contractor's acceptance of equipment from Supplier.

©COPYRIGHT 2022 JACOBS

3. Packaging and Shipment:
   a. Package and ship extra materials and special tools to avoid damage during long term storage in original cartons insofar as possible, or in appropriately sized, hinged-cover, wood, plastic, or metal box.
   b. Prominently displayed on each package, the following:
      1) Manufacturer's part nomenclature and number, consistent with Operation and Maintenance Manual identification system.
      2) Applicable equipment description.
      3) Quantity of parts in package.
      4) Equipment manufacturer.
      5) Deliver materials to Site.
4. Replace extra materials and special tools found to be damaged or otherwise inoperable at time of transfer to Owner.

D. Request a minimum 7-day advance notice of shipment from manufacturer.

E. Factory Test Results: Reviewed and accepted by Engineer before product shipment as required in individual Specification sections.

1.03 DELIVERY AND INSPECTION

A. Deliver products in accordance with accepted current Progress Schedule and coordinate to avoid conflict with the Work and conditions at Site. Deliver anchor bolts and templates sufficiently early to permit setting prior to placement of structural concrete.

B. Deliver products in undamaged condition, in manufacturer's original container or packaging, with identifying labels intact and legible. Include on label, date of manufacture and shelf life, where applicable.

C. Unload products in accordance with manufacturer's instructions for unloading or as specified. Record receipt of products at Site. Promptly inspect for completeness and evidence of damage during shipment.

D. Remove damaged products from Site and expedite delivery of identical new undamaged products, and remedy incomplete or lost products to provide that specified, so as not to delay progress of the Work.

1.04 HANDLING, STORAGE, AND PROTECTION

A. Handle and store products in accordance with manufacturer's written instructions and in a manner to prevent damage. Store in approved storage yards or sheds provided in accordance with Section 01 50 00, Temporary Facilities and Controls. Provide manufacturer's recommended maintenance during storage, installation, and until products are accepted for use by Owner.

©COPYRIGHT 2022 JACOBS

B. Manufacturer's instructions for material requiring special handling, storage, or protection shall be provided prior to delivery of material.

C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to ensure that products are maintained under specified conditions, and free from damage or deterioration. Keep running account of products in storage to facilitate inspection and to estimate progress payments for products delivered, but not installed in the Work.

D. Store electrical, instrumentation, and control products, and equipment with bearings in weather-tight structures maintained above 60 degrees F. Protect electrical, instrumentation, and control products, and insulate against moisture, water, and dust damage. Connect and operate continuously space heaters furnished in electrical equipment.

E. Store fabricated products above ground on blocking or skids, and prevent soiling or staining. Store loose granular materials in well-drained area on solid surface to prevent mixing with foreign matter. Cover products that are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.

F. Store finished products that are ready for installation in dry and well-ventilated areas. Do not subject to extreme changes in temperature or humidity.

G. After installation, provide coverings to protect products from damage due to traffic and construction operations. Remove coverings when no longer needed.

H. Hazardous Materials: Prevent contamination of personnel, storage area, and Site. Meet requirements of product specification, codes, and manufacturer's instructions.

PART 2 PRODUCTS

2.01 GENERAL

A. Provide manufacturer's standard materials suitable for service conditions, unless otherwise specified in the individual Specifications.

B. Where product specifications include a named manufacturer, with or without model number, and also include performance requirements, named manufacturer's products must meet the performance specifications.

©COPYRIGHT 2022 JACOBS

C. Like items of products furnished and installed in the Work shall be end products of one manufacturer and of the same series or family of models to achieve standardization for appearance, operation and maintenance, spare parts and replacement, manufacturer's services, and implement same or similar process instrumentation and control functions in same or similar manner.

D. Do not use materials and equipment removed from existing premises, except as specifically permitted by Contract Documents.

E. Provide interchangeable components of the same manufacturer, for similar components, unless otherwise specified.

F. Equipment, Components, Systems, and Subsystems: Design and manufacture with due regard for health and safety of operation, maintenance, and accessibility, durability of parts, and shall comply with applicable OSHA, state, and local health and safety regulations.

G. Regulatory Requirement: Coating materials shall meet federal, state, and local requirements limiting the emission of volatile organic compounds and for worker exposure.

H. Safety Guards: Provide for all belt or chain drives, fan blades, couplings, or other moving or rotary parts. Cover rotating part on all sides. Design for easy installation and removal. Use 16-gauge or heavier; galvanized steel, aluminum coated steel, or galvanized or aluminum coated 1/2-inch mesh expanded steel. Provide galvanized steel accessories and supports, including bolts. For outdoors application, prevent entrance of rain and dripping water.

I. Authority Having Jurisdiction (AHJ):

1. Provide the Work in accordance with NFPA 70, National Electrical Code (NEC). Where required by the AHJ, material and equipment shall be labeled or listed by a nationally recognized testing laboratory or other organization acceptable to the AHJ in order to provide a basis for approval under NEC.
2. Materials and equipment manufactured within the scope of standards published by Underwriters Laboratories, Inc. shall conform to those standards and shall have an applied UL listing mark.

J. Equipment Finish:

1. Provide manufacturer's standard finish and color, except where specific color is indicated.

©COPYRIGHT 2022 JACOBS

2. If manufacturer has no standard color, provide equipment with gray finish as approved by Owner.

K. Special Tools and Accessories: Furnish to Owner, upon acceptance of equipment, all accessories required to place each item of equipment in full operation. These accessory items include, but are not limited to, adequate oil and grease (as required for first lubrication of equipment after field testing), light bulbs, fuses, hydrant wrenches, valve keys, handwheels, chain operators, special tools, and other spare parts as required for maintenance.

L. Lubricant: Provide initial lubricant recommended by equipment manufacturer in sufficient quantity to fill lubricant reservoirs and to replace consumption during testing, startup, and operation until final acceptance by Owner.

M. Components and Materials in Contact with Water for Human Consumption: Comply with the requirements of the Safe Drinking Water Act and other applicable federal, state, and local requirements. Provide certification by manufacturer or an accredited certification organization recognized by the Authority Having Jurisdiction that components and materials comply with the maximum lead content standard in accordance with NSF/ANSI 61 and NSF/ANSI 372.

1. Use or reuse of components and materials without a traceable certification is prohibited.

2.02 FABRICATION AND MANUFACTURE

A. General:

1. Manufacture parts to U.S.A. standard sizes and gauges.
2. Two or more items of the same type shall be identical, by the same manufacturer, and interchangeable.
3. Design structural members for anticipated shock and vibratory loads.
4. Use 1/4-inch minimum thickness for steel that will be submerged, wholly or partially, during normal operation.
5. Modify standard products as necessary to meet performance Specifications.

B. Lubrication System:

1. Require no more than weekly attention during continuous operation.
2. Convenient and accessible; oil drains with bronze or stainless steel valves and fill-plugs easily accessible from the normal operating area or platform. Locate drains to allow convenient collection of oil during oil changes without removing equipment from its installed position.

©COPYRIGHT 2022 JACOBS

3. Provide constant-level oilers or oil level indicators for oil lubrication systems.
4. For grease type bearings, which are not easily accessible, provide and install stainless steel tubing; protect and extend tubing to convenient location with suitable grease fitting.

2.03 SOURCE QUALITY CONTROL

A. Where Specifications call for factory testing to be witnessed by Engineer, notify Engineer not less than 14 days prior to scheduled test date, unless otherwise specified.

B. Calibration Instruments: Bear the seal of a reputable laboratory certifying instrument has been calibrated within the previous 12 months to a standard endorsed by the National Institute of Standards and Technology (NIST).

C. Factory Tests: Perform in accordance with accepted test procedures and document successful completion.

PART 3 EXECUTION

3.01 INSPECTION

A. Inspect materials and equipment for signs of pitting, rust decay, or other deleterious effects of storage. Do not install material or equipment showing such effects. Remove damaged material or equipment from the Site and expedite delivery of identical new material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays within Contractor's control.

3.02 MANUFACTURER'S CERTIFICATE OF COMPLIANCE

A. When so specified, a Manufacturer's Certificate of Compliance, a copy of which is attached to this section, shall be completed in full, signed by entity supplying the product, material, or service, and submitted prior to shipment of product or material or execution of the services.

B. Engineer may permit use of certain materials or assemblies prior to sampling and testing if accompanied by accepted certification of compliance.

C. Such form shall certify proposed product, material, or service complies with that specified. Attach supporting reference data, affidavits, and certifications as appropriate.

©COPYRIGHT 2022 JACOBS

D. May reflect recent or previous test results on material or product, if acceptable to Engineer.

3.03 INSTALLATION

A. Equipment Drawings show general locations of equipment, devices, and raceway, unless specifically dimensioned.

B. No shimming between machined surfaces is allowed.

C. Install the Work in accordance with NECA Standard of Installation, unless otherwise specified.

D. Repaint painted surfaces that are damaged prior to equipment acceptance.

E. Do not cut or notch any structural member or building surface without specific approval of Engineer.

F. Handle, install, connect, clean, condition, and adjust products in accordance with manufacturer's instructions, and as may be specified. Retain a copy of manufacturers' instruction at Site, available for review at all times.

G. For material and equipment specifically indicated or specified to be reused in the Work:

1. Use special care in removal, handling, storage, and reinstallation to assure proper function in the completed Work.
2. Arrange for transportation, storage, and handling of products that require offsite storage, restoration, or renovation. Include costs for such Work in the Contract Price.

3.04 ADJUSTMENT AND CLEANING

A. Perform required adjustments, tests, operation checks, and other startup activities.

3.05 SUPPLEMENTS

A. The supplement listed below, following "End of Section", is part of this specification.

1. Form: Manufacturer's Certificate of Compliance.

END OF SECTION

©COPYRIGHT 2022 JACOBS

MANUFACTURER'S CERTIFICATE OF COMPLIANCE

OWNER: _____

PROJECT NAME: _____

PROJECT NO: _____

PRODUCT, MATERIAL, OR SERVICE SUBMITTED: _____

Comments: _____

_____

_____

_____

_____

_____

I hereby certify that the above-referenced product, material, or service called for by the Contract for the named Project will be furnished in accordance with all applicable requirements. I further certify that the product, material, or service are of the quality specified and conform in all respects with the Contract requirements, and are in the quantity shown.

Date of Execution: _____, 20___

Manufacturer: _____

Manufacturer's Authorized Representative *(print)*: _____

_____

(Authorized Signature)

©COPYRIGHT 2022 JACOBS

SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Submit prior to application for final payment.
   a. Record Documents: As required in General Conditions.
   b. Special bonds, Special Guarantees, and Service Agreements.
   c. Consent of Surety to Final Payment: As required in General Conditions.
   d. Releases or Waivers of Liens and Claims: As required in General Conditions.
   e. Releases from Agreements.
   f. Final Application for Payment: Submit in accordance with procedures and requirements stated in Section 01 29 00, Payment Procedures.
   g. Extra Materials: As required by individual Specification sections.

1.02 RECORD DOCUMENTS

A. Quality Assurance:

1. Furnish qualified and experienced person, whose duty and responsibility shall be to maintain record documents.
2. Accuracy of Records:
   a. Coordinate changes within record documents, making legible and accurate entries on each sheet of Drawings and other documents where such entry is required to show change.
   b. Purpose of Project record documents is to document factual information regarding aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive Site measurement, investigation, and examination.
3. Make entries within 24 hours after receipt of information that a change in the Work has occurred.
4. Prior to submitting each request for progress payment, request Engineer's review and approval of current status of record documents. Failure to properly maintain, update, and submit record documents may result in a deferral by Engineer to recommend whole or any part of Contractor's Application for Payment, either partial or final.

©COPYRIGHT 2022 JACOBS

1.03 RELEASES FROM AGREEMENTS

A. Furnish Owner written releases from property owners or public agencies where side agreements or special easements have been made, or where Contractor's operations have not been kept within the Owner's construction right-of-way.

B. In the event Contractor is unable to secure written releases:

1. Inform Owner of the reasons.
2. Owner or its representatives will examine the Site, and Owner will direct Contractor to complete the Work that may be necessary to satisfy terms of the side agreement or special easement.
3. Should Contractor refuse to perform this Work, Owner reserves right to have it done by separate contract and deduct cost of same from Contract Price, or require Contractor to furnish a satisfactory bond in a sum to cover legal Claims for damages.
4. When Owner is satisfied that the Work has been completed in agreement with Contract Documents and terms of side agreement or special easement, right is reserved to waive requirement for written release if: (i) Contractor's failure to obtain such statement is due to grantor's refusal to sign, and this refusal is not based upon any legitimate Claims that Contractor has failed to fulfill terms of side agreement or special easement, or (ii) Contractor is unable to contact or has had undue hardship in contacting grantor.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 MAINTENANCE OF RECORD DOCUMENTS

A. General:

1. Promptly following commencement of Contract Times, secure from Engineer at no cost to Contractor, one complete set of Contract Documents.
2. Label or stamp each record document with title, "RECORD DOCUMENTS," in neat large printed letters.
3. Record information concurrently with construction progress and within 24 hours after receipt of information that change has occurred. Do not cover or conceal Work until required information is recorded.

©COPYRIGHT 2022 JACOBS

B. Preservation:

1. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
2. Make documents and Samples available at all times for observation by Engineer.

C. Making Entries on Drawings:

1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe change by graphic line and note as required.
   a. Color Coding:
      1) Green when showing information deleted from Drawings.
      2) Red when showing information added to Drawings.
      3) Blue and circled in blue to show notes.
2. Date entries.
3. Call attention to entry by "cloud" drawn around area or areas affected.
4. Legibly mark to record actual changes made during construction, including, but not limited to:
   a. Depths of various elements of foundation in relation to finished first floor data if not shown or where depth differs from that shown.
   b. Horizontal and vertical locations of existing and new Underground Facilities and appurtenances, and other underground structures, equipment, or Work. Reference to at least two measurements to permanent surface improvements.
   c. Location of internal utilities and appurtenances concealed in the construction referenced to visible and accessible features of the structure.
   d. Locate existing facilities, piping, equipment, and items critical to the interface between existing physical conditions or construction and new construction.
   e. Changes made by Addenda and Field Orders, Work Change Directive, Change Order, and Engineer's written interpretation and clarification using consistent symbols for each and showing appropriate document tracking number.
5. Dimensions on Schematic Layouts: Show on record drawings, by dimension, the centerline of each run of items such as are described in previous subparagraph above.
   a. Clearly identify the item by accurate note such as "cast iron drain," "galv. water," and the like.
   b. Show, by symbol or note, vertical location of item ("under slab," "in ceiling plenum," "exposed," and the like).
   c. Make identification so descriptive that it may be related reliably to Specifications.

©COPYRIGHT 2022 JACOBS

3.02 FINAL CLEANING

A. At completion of the Work or of a part thereof and immediately prior to Contractor's request for certificate of Substantial Completion; or if no certificate is issued, immediately prior to Contractor's notice of completion, clean entire Site or parts thereof, as applicable.

1. Leave the Work and adjacent areas affected in a cleaned condition satisfactory to Owner and Engineer.
2. Remove grease, dirt, dust, paint or plaster splatter, stains, labels, fingerprints, and other foreign materials from exposed surfaces.
3. Repair, patch, and touch up marred surfaces to specified finish and match adjacent surfaces.
4. Clean all windows.
5. Clean and wax wood, vinyl, or painted floors.
6. Broom clean exterior paved driveways and parking areas.
7. Hose clean sidewalks, loading areas, and others contiguous with principal structures.
8. Rake clean all other surfaces.
9. Remove snow and ice from access to buildings.
10. Replace air-handling filters and clean ducts, blowers, and coils of ventilation units operated during construction.
11. Leave water courses, gutters, and ditches open and clean.

B. Use only cleaning materials recommended by manufacturer of surfaces to be cleaned.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 02 41 00
DEMOLITION

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this Section:

1. Air-Conditioning, Heating, and Refrigeration Institute (AHRI): Guideline K, Containers for Recovered Non-flammable Fluorocarbon Refrigerants.
2. American National Standards Institute (ANSI): A10.6, Safety Requirements for Demolition Operations.
3. Occupational Safety and Health Administration (OSHA), U.S. Code of Federal Regulations (CFR) Title 29 Part 1926—Occupational Safety and Health Regulations for Construction.
4. Environmental Protection Agency (EPA), U.S. Code of Federal Regulations (CFR), Title 40:
   a. Part 61—National Emission Standards for Hazardous Air Pollutants.
   b. Part 82—Protection of Stratospheric Ozone.
   c. Part 273—Standards for Universal Waste Management.

1.02 DEFINITIONS

A. ACM: Asbestos-containing material.

B. Demolition: Dismantling, razing, destroying, or wrecking of any fixed building or structure or any part thereof. Demolition also includes removal of pipes, manholes tanks, conduit, and other underground facilities, whether as a separate activity or in conjunction with construction of new facilities.

C. Modify: Provide all necessary material and labor to modify an existing item to the condition indicated or specified.

D. Relocate: Remove, protect, clean and reinstall equipment, including electrical, instrumentation, and all ancillary components required to make the equipment fully functional, to the new location identified on the Drawings.

E. Renovation: Altering a facility or one or more facility components in any way.

©COPYRIGHT 2022 JACOBS

F. Salvage/Salvageable: Remove and deliver, to the specified location(s), the equipment, building materials, or other items so identified to be saved from destruction, damage, or waste; such property to remain that of Owner. Unless otherwise specified, title to items identified for demolition shall revert to Contractor.

Contact: Cory Moose
Email: cmoose@midlandtexas.gov
Phone: 432-685-7937

G. Universal Waste Lamp: In accordance with 40 CFR 273, the bulb or tube portion of an electric lighting device, examples of which include, but are not limited to, fluorescent, high-intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide lamps.

H. Universal Waste Thermostat: A temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 40 CFR 273.

1.03 SUBMITTALS

A. Informational Submittals:

1. Submit proposed Demolition/Renovation Plan, in accordance with requirements specified herein, for approval before such Work is started.
2. Submit copies of any notifications, authorizations and permits required to perform the Work.
3. Copies of reports and other documentation required for abandoning wells.

1.04 REGULATORY AND SAFETY REQUIREMENTS

A. When applicable, demolition Work shall be accomplished in strict accordance with 29 CFR 1926-Subpart T.

B. Comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the General Conditions, Contractor's safety requirements shall conform to ANSI A10.6.

C. Furnish timely notification of this demolition project to applicable federal, state, regional, and local authorities in accordance with 40 CFR 61-Subpart M.

©COPYRIGHT 2022 JACOBS

1.05 DEMOLITION/RENOVATION PLAN

A. Demolition/Renovation Plan shall provide for safe conduct of the Work and shall include:

1. Detailed description of methods and equipment to be used for each operation;
2. The Contractor's planned sequence of operations, including coordination with other work in progress;
3. Disconnection schedule of utility services.

1.06 SEQUENCING AND SCHEDULING

A. The Work of this Specification shall not commence until Contractor's Demolition/Renovation Plan has been approved by Engineer.

B. Include the Work of this Specification in the progress schedule, as specified in Section 01 32 00, Construction Progress Documentation.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 EXISTING FACILITIES TO BE DEMOLISHED OR RENOVATED

A. Utilities and Related Equipment:

1. Notify Owner or appropriate utilities to turn off affected services at least 48 hours before starting demolition activities.
2. Remove existing utilities as indicated and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by Engineer.
3. When utility lines are encountered that are not indicated on the Drawings, notify Engineer and Owner prior to further work in that area.
4. Remove meters and related equipment and deliver to a location as determined by the Owner.
5. Excavate and remove utility lines serving buildings to be demolished to a distance of 5 feet beyond the outside perimeter of the demolition.
6. Plug sewer lines with concrete to a minimum plug length of 2 feet to prevent groundwater infiltration.

B. Electrical:

1. Cut off concealed or embedded conduit, boxes, or other materials a minimum of 3/4 inch below final finished surface.

©COPYRIGHT 2022 JACOBS

2. When removing designated equipment, conduit and wiring may require rework to maintain service to other equipment.
3. Rework existing circuits, or provide temporary circuits as necessary during renovation to maintain service to existing lighting and equipment not scheduled to be renovated. Existing equipment and circuiting shown are based upon limited field surveys. Verify existing conditions, make all necessary adjustments, and record the Work on the Record Drawings. This shall include, but is not limited to, swapping and other adjustments to branch circuits and relocation of branch circuit breakers within panelboards as required to accomplish the finished work.
4. Reuse of existing luminaires, devices, conduits, boxes, or equipment will be permitted only where specifically indicated.
5. Raceways and cabling not scheduled for reuse.
6. Inaccessibly Concealed: Cut off and abandon in place.
7. Exposed or Concealed Above Accessible Ceilings: Remove.
8. Raceways and Cabling Scheduled for Future Use: Cap/seal and tag.
9. Relocating Equipment: Extend existing wiring or run new wiring from the source.
10. Where the existing raceway is concealed, the outlet box shall be cleaned, and a blank cover plate installed.
11. Where the concealed raceway is uncovered remove raceway (or extended to new location if appropriate).
12. Provide new typewritten panelboard circuit directory cards.

3.02 PROTECTION

A. Dust and Debris Control: Prevent the spread of dust and debris to occupied portions of the jobsite and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.

B. Traffic Control Signs: Where pedestrian and driver safety is endangered in the area of removal Work, use traffic barricades with flashing lights.

C. Existing Work:

1. Survey the site and examine the Drawings and Specifications to determine the extent of the Work before beginning any demolition or renovation.
2. Take necessary precautions to avoid damage to existing items scheduled to remain in place, to be reused, or to remain the property of Owner; any Contractor-damaged items shall be repaired or replaced as directed by Engineer.

©COPYRIGHT 2022 JACOBS

3. Provide temporary weather protection during interval between removal of existing exterior surfaces and installation of new to ensure that no water leakage or damage occurs to structure or interior areas of existing building.
4. Ensure that structural elements are not overloaded as a result of or during performance of the Work. Responsibility for additional structural elements or increasing the strength of existing structural elements as may be required as a result of any Work performed under this Contract shall be that of the Contractor. Repairs, reinforcement, or structural replacement must have Engineer approval.
5. Do not overload pavements to remain.

D. Weather Protection: For portions of the building scheduled to remain, protect building interior and materials and equipment from weather at all times. Where removal of existing roofing is necessary to accomplish the Work, have materials and workmen ready to provide adequate and temporary covering of exposed areas so as to ensure effectiveness and to prevent loss.

E. Trees: Protect trees within the Site that might be damaged during demolition and are indicated to be left in place, by a 6-foot-high fence. The fence shall be securely erected a minimum of 5 feet from the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to remain that is damaged during the Work shall be replaced in kind, as approved by the Engineer.

F. Facilities:

1. Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities.
2. Floors, roofs, walls, columns, pilasters, and other structural elements that are designed and constructed to stand without lateral support or shoring, and are determined by Contractor to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the Engineer.
3. Protect all facility elements not scheduled for demolition.
4. Provide interior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities.

G. Protection of Personnel:

1. During demolition, continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition site.

©COPYRIGHT 2022 JACOBS

2. Provide temporary barricades and other forms of protection to protect Owner's personnel and the general public from injury due to demolition Work.
3. Provide protective measures as required to provide free and safe passage of Owner's personnel and the general public to occupied portions of the structure.

3.03 BURNING

A. The use of burning at the Site for the disposal of refuse and debris will not be permitted.

3.04 RELOCATIONS

A. Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Clean all items to be relocated prior to reinstallation, to the satisfaction of Engineer. Repair items to be relocated which are damaged or replace damaged items with new undamaged items as approved by Engineer.

3.05 BACKFILL

A. Do not use demolition debris as backfill material.

B. Fill excavations, open basements and other hazardous openings to existing ground level or foundation level of new construction in accordance with Section 31 23 23, Fill and Backfill.

3.06 TITLE TO MATERIALS

A. All salvaged equipment will remain the property of Owner.

B. With the exception of the following listed salvaged equipment, all items designated to be removed shall become the property of Contractor:

1. Lift station Pumps.
2. Lift Station Electrical Panels.

3.07 DISPOSITION OF MATERIAL

A. Do not remove equipment and materials without approval of Contractor's Demolition/Renovation Plan by Engineer.

B. Salvage equipment to the maximum extent possible.

©COPYRIGHT 2022 JACOBS

3.08 REUSE OF MATERIALS AND EQUIPMENT

A. Remove and store materials and equipment listed in Article Title To Materials to be reused or relocated to prevent damage, and reinstall as the Work progresses.

B. Properly store and maintain equipment and materials in same condition as when removed.

C. Equipment and material designated to be reused shall be cleaned, serviced, and checked for proper operability before being put back into service.

D. Engineer will determine condition of equipment and materials prior to removal.

E. The fill in the disposal area shall remain below elevation and after disposal is completed, the disposal area shall be uniformly graded to drain.

F. Combustible material shall be disposed of off the Site.

G. Universal Waste Lamps and Thermostats: Dispose of in strict accordance with 40 CFR 273.

3.09 CLEANUP

A. Debris and rubbish shall be removed from basement and similar excavations. Debris and rubbish shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 02 41 01
ELECTRIC UTILITIES DEMOLITION

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals:

1. Subschedule of demolition.
2. Methods of demolition and equipment proposed to remove each assembly unit.
3. Copies of any authorizations and permits required to perform the Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 POLES

A. Do not remove ground wire or pole numbering attached to pole.

B. Remove pole and backfill, tamp, and mound holes, unless holes will be reused.

3.02 CONDUCTOR UNIT

A. Remove conductor or cable without cutting and reel for reuse by Owner; measure in 1,000-foot increments.

B. Retain as Salvage: Jumpers, tie wire, armor rods, connectors, and other conductor accessories.

3.03 SERVICE UNITS

A. Remove assembly and untie, resag, and retie secondary conductor or cables when existing service conductor or cable will be reused.

3.04 OTHER ASSEMBLIES

Unit	Description
Street Light	Attached to service pole and is used primarily for light to the lift station site

END OF SECTION

PACKET 6.241 November 15, 2022
©COPYRIGHT 2022 JACOBS

SECTION 03 15 00
CONCRETE JOINTS AND ACCESSORIES

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. A36/A36M, Specification for Carbon Structural Steel.
   b. A615/A615M, Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
   c. A653/A653M, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
   d. A767/A767M, Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
   e. C920, Specification for Elastomeric Joint Sealants.
   f. D226, Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
   g. D227, Specification for Coal-Tar Saturated Organic Felt Used in Roofing and Waterproofing.
   h. D994, Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
   i. D1056, Specification for Flexible Cellular Materials—Sponge or Expanded Rubber.
   j. D1171, Standard Guide for Evaluating Nonwoven Fabrics.
   k. D1751, Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
   l. D1752, Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
   m. D2240, Standard Test Method for Rubber Property – Durometer Hardness.
2. Corps of Engineers (COE): CRD-C-572, Corps of Engineers Specifications for Polyvinylchloride Waterstop.

©COPYRIGHT 2022 JACOBS

1.02 SUBMITTALS

A. Action Submittals:

1. Shop Drawings:
   a. Waterstop: Details of splices, method of securing and supporting waterstop in forms to maintain proper orientation and location during concrete placement.
   b. Construction Joints, Expansion Joints and Control Joints: Layout and location for each type. Include joints locations shown on Drawings, additional required joint locations and any proposed alternate locations.
2. Product Data:
   a. Waterstops.
   b. Bond breaker.
   c. Premolded joint fillers.
   d. Pourable joint fillers.
   e. Preformed control joints.
   f. Epoxy-coated dowels.
   g. Roofing felt.
   h. Accessories not specified in other sections.
3. Samples: PVC waterstop splice, joint, and fabricated cross of each size, shape, and fitting of waterstop.

B. Informational Submittals:

1. Certification:
   a. Letter stating compatibility between liquids being contained and materials used for:
      1) Waterstops.
      2) Joint fillers.
   b. Manufacturer's application instructions for:
      1) Bonding agent.
      2) Bond breaker.
2. Manufacturer's written instructions for product shipment, storage, handling, installation/application, and repair for:
   a. Waterstops.
   b. Bond breaker.
   c. Bonding agent.
   d. Premolded joint fillers.
   e. Pourable joint fillers (sealant proportions not required as products used only as a filler).
   f. Preformed control joints.

©COPYRIGHT 2022 JACOBS

1.03 DELIVERY, STORAGE, AND HANDLING

A. Acceptance at Site: Verify delivered materials are in accordance with Specifications, regulatory agencies, and Manufacturer's product data sheets prior to unloading and storing onsite.

B. Storage: Store materials under tarps to protect from oil, dirt, and sunlight or as required by Manufacturer.

PART 2 PRODUCTS

2.01 PLASTIC WATERSTOP

A. Extruded from elastomeric plastic compound of which basic resin shall be prime virgin polyvinyl chloride (PVC). Compound shall not contain scrapped material, reclaimed material, or pigment.

B. Specific Gravity: Approximately 1.37.

C. Shore Durometer Type A Hardness: Approximately 80.

D. Performance Requirements: COE Specification CRD-C-572.

E. Type Required in All Expansion, Contraction, and Control Joints: 6 inches wide or 9 inches wide with center bulb and parallel longitudinal ribs or protrusions on each side of strip center, as indicated on Drawings.

F. Type Required in Construction Joints: Flat ribbed, 6 inches wide or 9 inches wide with parallel longitudinal ribs or protrusions on each side of strip center. Center bulb is optional.

G. Corrugated or tapered type waterstops are not acceptable.

H. Thickness: Constant from bulb edge (or center of waterstop) to outside stop edge.

I. Minimum Weight per Foot of Waterstop:

1. 0.50 pound for 3/16 inch by 4 inches.
2. 1.60 pounds for 3/8 inch by 6 inches.
3. 2.30 pounds for 3/8 inch by 9 inches.

J. Factory Fabrications: Use only factory fabrications for intersections, transitions, and changes of direction.

©COPYRIGHT 2022 JACOBS

K. Manufacturers and Products for Center Bulb Type:

1. Use same manufacturers for flat ribbed profile:
   a. Vinylex Corp., St Louis, MO.; No. RB638H (6 inches by 3/8 inch) and No. RB938H (9 inches by 3/8 inch).
   b. Greenstreak, St. Louis, MO; Style No. 702, (4 inches by 3/16 inch), Style 732 (6 inches by 3/8 inch) and Style 735 (9 inches by 3/8 inch).
   c. Durajoint, Garrettsville, OH.; Type 3, (4 inches by 3/16 inch,), Type 9 (6 inches by 3/8 inch), and Type 10 (9 inches by 3/8 inch).
   d. BoMetals, Carrollton, GA.: No. RCB-4316LB (4 inches by 3/16 inch), No. RCB-638LB (6 inches by 3/8 inch) and No. RCB-938NT (9 inches by 3/8 inch).
   e. Dacon Plastics LLC, Jacksonville, TX; No. RCB11, (4 inches by 3/16 inch), No. RCB17 (6 inches by 3/8 inch) and No. RCB18 (9 inches by 3/8 inch).

2.02 WIRE LOOPED PLASTIC WATERSTOP

A. Furnish as alternative to plastic waterstops.

B. Same material and geometry as plastic waterstops.

C. Furnish with continuous galvanized wire looping at edge for convenience in positioning and securing stop in place in forms.

D. Manufacturer and Product: Paul Murphy Plastics, Roseville, MI; “Wire Stop Waterstop”; geometry numbers ACR 6380, ACR 9380, as shown on Paul Murphy Plastics Co. Drawing No. CCP-120-12M.

2.03 HYDROPHILIC WATERSTOP

A. For use at construction joints only, where new concrete is placed against existing concrete and as shown on Drawings.

B. Material shall be a nonbentonite hydrophilic rubber compound.

C. Manufacturers and Products:

1. Greenstreak Plastic Products, St. Louis, MO; Hydrotite CJ-1020-2K with Leakmaster LV-1 adhesive and sealant.
2. Adeka Ultra Seal, JLM Associates, Spearfish, SD; MC-2010M with 3M-2141 adhesive and P-201 sealant.

©COPYRIGHT 2022 JACOBS

2.04 INJECTION-TYPE WATERSTOP

A. Reinjectable waterstop hose system for use where shown on Drawings.

B. Reinjectable Water Stop Hose:

1. Fabricated of polyvinyl chloride (PVC) compound.
2. Contain discharge openings to allow for disbursement of an injection material into expansion joint.
   a. Discharge openings designed to be sealed tight during concreting operation to prevent entry of mixing water and cement slurry.
3. Allows free and uniform discharge of injection material over entire length of hose during injection process.
4. Able to be internally cleaned by using water and vacuum pressure.

C. Injection Material: Hydrophilic or hydrophobic resin grout for use in expansion joints as recommended by reinjectable waterstop hose manufacturer.

D. Manufacturers and Products:

1. Greenstreak/BBZ, St. Louis, MO.; Fuko Injection Hose System with Multigel 850.
2. Deneef Construction Chemicals, Inc., Houston, TX.; TRIOject Injection Hose System with Hydro Active Grout.

2.05 RETROFIT PVC WATERSTOP

A. Material: See Article Plastic Waterstop.

B. Factory Fabrications: Use only factory fabrications for intersections, transitions, and changes of direction

C. Stainless Steel Batten Bar: AISI Type 304. Size and configuration in accordance with manufacturer’s instructions.

D. Manufacturers and Products:

1. Vinylex Corp., St Louis, MO; No. RET638 (6 inches by 3/8 inch) and No. RET912 (9 inches by 3/8 inch).
2. Greenstreak, St. Louis, MO; Style 609 (6 inches by 3/8 inch) and Style 667 (9 inches by 1/2 inch).
3. BoMetals, Carrollton, GA; No. RF-912 (9 inches by 1/2 inch).

©COPYRIGHT 2022 JACOBS

2.06 BOND BREAKER

A. Tape for Joints: Adhesive-backed glazed butyl or polyethylene tape. Same width as joint that will adhere to premolded joint material or concrete surface.

B. Use bond prevention material as specified in Section 03 30 00, Cast-in-Place Concrete, except where bond breaker tape is specifically called for on Drawings.

2.07 PREMOLDED JOINT FILLER

A. Bituminous Type: ASTM D994 or ASTM D1751.

B. Sponge Rubber:

1. Neoprene, closed-cell, expanded; ASTM D1056, Type 2C5, with compression deflection, 25 percent deflection (limits), 119 kPa to 168 kPa (17 psi to 24 psi) minimum. Use in joints for potable and nonpotable water containment structures.
2. Manufacturer and Product: Monmouth Rubber and Plastics, Corp, Long Branch, NJ; Durafoam DK5151.

2.08 POURABLE JOINT FILLERS

A. General: Although product is a sealant, it is being specified as a filler to prevent debris accumulation and allow expansion and contraction under shrinkage and thermal loads. It does not need to meet proportional sealant geometry requirements.

B. Filler for Potable or Non-Potable Water Containment Structures:

1. Multicomponent sealant, self-leveling or nonsag as required for level, sloping, or vertical joints.
2. Color: White.
3. Manufacturer and Product: Sika Corp., Lyndhurst, NJ; Sikaflex-2c SL.

C. Filler for Nonpotable Water Containment Structures Only:

1. Pourable, two-component, cold-applied compound meeting ASTM C920, Type M, Grade P, Class 25, Use T.
2. Color: Black.
3. Manufacturer and Product: W.R. Meadows, Inc., Elgin, IL; Gardox.

©COPYRIGHT 2022 JACOBS

PART 3 EXECUTION

3.01 GENERAL

A. Commence concrete placement after joint preparation is complete.

B. Time Between Concrete Pours: As specified in Section 03 30 00, Cast-in-Place Concrete.

3.02 SURFACE PREPARATION

A. Construction Joints: Prior to placement of abutting concrete, clean contact surface.

1. Remove laitance and spillage from steel reinforcement and dowels.
2. Roughen surface to minimum of 1/4-inch amplitude:
   a. Sandblast after concrete has fully cured.
   b. Water blast after concrete has partially cured.
   c. Green cut fresh concrete with high-pressure water and hand tools.
3. Perform cleaning so as not to damage waterstop, if one is present.

B. Expansion Joint:

1. Use wire brush or motorized device to mechanically roughen and thoroughly clean concrete surfaces on each side of joint from plastic waterstop to top of joint.
2. Use dry, high-pressure air to remove dust and foreign material, and dry joint.
3. Prime surfaces as required before placing joint filler.
4. Avoid damage to waterstop.

C. Contraction Joint and Control Joint:

1. Coat concrete surfaces above and below plastic waterstop with bond breaker.
2. Do not damage or coat waterstop.

D. Construction Joint with Hydrophilic Waterstop:

1. Follow hydrophilic waterstop manufacturer’s written instructions.
2. Clean debris, dirt, dust, and foreign material from concrete surface. Concrete surface must be smooth, clean, and dry. Grind concrete as required.

©COPYRIGHT 2022 JACOBS

3.03 INSTALLATION OF WATERSTOPS

A. General:

1. Continuous waterstop shall be installed in all construction joints in walls and slabs of water holding basins and channels and in walls of belowgrade structures, unless specifically noted otherwise.
2. Join waterstop at intersections to provide continuous seal.
3. Center waterstop on joint.
4. Secure waterstop in correct position. Tie waterstop to steel reinforcement using grommets, “Hog Rings,” or tiewire at maximum spacing of 12 inches. Do not displace waterstop during concrete placement.
5. Repair or replace damaged waterstop.
6. Place concrete and vibrate to obtain impervious concrete in vicinity of joints.
7. Joints in Footings and Slabs:
    a. Ensure that space beneath horizontal waterstop is completely filled with concrete.
    b. During concrete placement, make visual inspection of waterstop area.
    c. Limit concrete placement to elevation of waterstop in first pass, vibrate concrete under waterstop, lift ribbed waterstop to confirm full consolidation without voids, then place remaining concrete to full height of slab.

B. Plastic Waterstops:

1. Install in accordance with manufacturer’s written instructions.
2. Splice in accordance with waterstop manufacturer’s written instructions using Teflon-coated thermostatically controlled heating iron at approximately 380 degrees F.
    a. Allow at least 10 minutes before new splice is pulled or strained in any way.
    b. Finished splices shall provide cross section that is dense and free of porosity with tensile strength of not less than 80 percent of unspliced materials.
    c. Use only factory made waterstop fabrications for all intersections, changes of directions and transitions.
    d. Field splice permitted only for straight butt welds.
3. Wire looped plastic waterstop may be substituted for plastic waterstop.

©COPYRIGHT 2022 JACOBS

C. Hydrophilic Waterstop:

1. Install in accordance with manufacturer's written instructions.
2. Provide minimum of 2-1/2 inches of concrete cover over waterstop. When structure has two layers of steel reinforcement, locate centered between layers of steel or as shown.
3. Apply adhesive to concrete surface and allow to dry for specified time before applying waterstop strip.
4. Lap ends of waterstop strip together at splices and corners and join with sealant.
5. Verify that waterstop is anchored firmly in place before placing concrete. Do not allow vibrator to come into contact with waterstop.
6. Lap hydrophilic waterstop 2 feet minimum with intersecting plastic waterstops.

D. Injection-Type Waterstop:

1. Install reinjectable waterstop hose in accordance with manufacturer's instructions.
2. After concrete has been placed and cured for a minimum of 28 days, inject specified injection material into reinjectable waterstop hose in accordance with manufacturer's instructions.
3. Upon completion of injection process, clean out remaining injection material in hose in accordance with manufacturer's instructions to allow for future injections.

E. Retrofit PVC Waterstop:

1. Install retrofit PVC waterstop in accordance with manufacturer's instructions.
2. Prepare surface of existing concrete in accordance with manufacturer's instructions. Apply a bed of epoxy, approximately 1/8 inch thick and slightly wider than waterstop base, to concrete surface.
3. Place the retrofit waterstop in place prior to the curing of the epoxy, securing waterstop with stainless steel batten bars and stainless steel post-installed anchors. Fasten one side at a time, making sure retrofit profile is positioned to eliminate any air pockets or voids between waterstop and existing concrete.
4. Butt splice by thermally fusing the free ends together prior to attaching to wall in accordance with manufacturer's instructions.

©COPYRIGHT 2022 JACOBS

3.04 EXPANSION JOINT INSTALLATION

A. Premolded Joint Filler:

1. Sufficient in width to completely fill joint space where shown.
2. Install per manufacturer's written instructions.
3. If waterstop is in joint, cut premolded joint filler to butt tightly against waterstop and concrete face.
4. Precut premolded joint filler to required depth at locations where joint filler or sealant is to be applied.
5. Form cavities for joint filler with either precut, premolded joint filler, or smooth removable accurately shaped material. Entire joint above waterstop, in slabs, shall be formed and removed so that entire space down to waterstop can be filled with the pourable joint filler.
6. Vibrate concrete thoroughly along joint form to produce dense, smooth surface.

B. Bituminous Type Premolded Joint Filler:

1. Drive nails approximately 1 foot 6 inches on center through filler, prior to installing, to provide anchorage embedment into concrete during concrete placement.
2. Secure premolded joint filler in forms before concrete is placed.

C. Pourable Joint Filler:

1. General:
   a. Install in accordance with the manufacturer's written instructions, except as specified below:
      1) Apply primer prior to pouring joint filler.
      2) Fill entire joint above the waterstop with joint filler as shown.
      3) Use masking tape on top of slabs at sides of joints; clean spillage. Remove masking tape afterwards.
      4) Sealant products used as fillers need not meet sealant geometry parameters. Do not use backing rods.

3.05 CONTRACTION JOINT INSTALLATION

A. Place bond breaker above and below waterstop.

B. Vibrate concrete thoroughly along the joint form to produce a dense, smooth surface. Do not roughen surface.

©COPYRIGHT 2022 JACOBS

3.06 CONTROL JOINT INSTALLATION

A. Install waterstop.

B. Vibrate concrete thoroughly along the joint form to produce a dense, smooth surface. Do not roughen surface.

C. Install bond breaker to concrete surfaces above and below waterstop.

3.07 PREFORMED CONTROL JOINTS

A. Use only where specifically shown; do not use in water-holding basins.

B. Locate slightly below top of slab.

C. Install in accordance with manufacturer's written instructions in straight, full-length pieces.

D. Steel Strip Type with Preformed Groove: Brace to withstand pressure of concrete during and after placement using only approved stakes and other secondary installation materials.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 03 24 00
FIBROUS REINFORCING

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. C78, Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading).
   b. C1116, Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
   c. E119, Standard Test Methods for Fire Tests of Building Construction and Materials.

1.02 DEFINITIONS

A. Aspect Ratio: The ratio of length to diameter of the fiber.

B. Fibrillated Fibers: Fibers in bundles that, when added to concrete during mixing, separate into uniformly distributed angular fibrils (fiber strands) which act as secondary concrete reinforcement.

C. Macro-Fibers: Longer length, higher volume, typically 0.4 percent to 0.7 percent by volume fiber, sometimes referred to as structural fibers.

D. Micro-Fibers: Shorter length, low dose, typically 0.1 percent by volume fibers designed to control plastic shrinkage cracking.

E. Monofilament Fiber: Single filament fiber.

1.03 SYSTEM DESCRIPTION

A. Performance Requirements:

1. Minimum residual strength index of 50 psi.
2. 2-hour fire resistance rating when tested under ASTM E119 on Series 700, Series 800, and Series 900 composite metal deck assemblies.

1.04 SUBMITTALS

A. Action Submittals: Product data for fibrillated fibers.

©COPYRIGHT 2022 JACOBS

B. Informational Submittals: Manufacturer's written instructions for mixing and batching of fibrillated fibers.

PART 2 PRODUCTS

2.01 MATERIALS

A. Micro-Fibers:

1. 100 percent virgin polypropylene self-fibrillating fibers.
2. Multidesign gradation.
3. Fibrillated bundles to allow uniform distributed angular fibrils (fiber strands) when mixed into concrete.
4. Specific Gravity: 0.91 minimum.
5. Reprocessed olefin materials are not allowed.
6. Type III fibers conforming to ASTM C1116, Part 4.1.3.
7. Fiber Length: 0.50 inch to 1.0 inch.
8. Manufacturers and Products:
   a. Euclid Chemical Company, Cleveland OH; Fiberstrand F.
   b. Propex Concrete Systems Corporation, Chattanooga, TN; Fibermesh 300.

B. Macro-Fibers:

1. Polypropylene/polyethylene monofilament.
2. Specific Gravity: 0.92.
3. Tensile Strength: 85 ksi minimum.
4. Type III fibers conforming to ASTM C1116.
5. Aspect Ratio: 70 minimum.
6. Fiber Length: 1.50 inch to 2.0 inch.
7. Manufacturer:
   a. Euclid Chemical Company, Cleveland, OH; Tuf-Strand SF.
   b. W. R. Grace & Company, Cambridge, MA; Strux 90/40.
   c. Propex Concrete Systems Corporation, Chattanooga, TN; Fibermesh 650.

C. Concrete: Components shall conform to Section 03 30 00, Cast-in-Place Concrete.

2.02 CONCRETE MIX DESIGN AND CONCRETE MIXING

A. In accordance with Section 03 30 00, Cast-in-Place Concrete.

B. Add 1.5 pounds minimum per cubic yard at the time concrete is batched.

C. Mix fibers into concrete in accordance with fiber manufacturer's instructions.

©COPYRIGHT 2022 JACOBS

PART 3 EXECUTION

3.01 PLACING, PROTECTING, CURING, AND FINISHING

A. In accordance with Section 03 30 00, Cast-in-Place Concrete.

3.02 FIELD QUALITY CONTROL

A. Test as specified in Section 03 30 00, Cast-in-Place Concrete.

B. Test fiber reinforced concrete with a modified version of ASTM C78 test using the printed test procedure provided by Fibermesh.

C. Test minimum of two beam Samples prior to casting the concrete.

D. Test minimum of two additional beam Samples for each 25 cubic yards or any portion thereof used on the Project.

3.03 MANUFACTURER'S SERVICE

A. Provide the services of a technical representative to instruct the concrete supplier in proper batching and mixing of materials.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards that may be referenced in this section:

1. American Concrete Institute (ACI):
   a. 117, Specification for Tolerances for Concrete Construction and Materials.
   b. 301, Specifications for Structural Concrete.
   c. 305.1, Specification for Hot Weather Concreting.
   d. 306.1, Standard Specification for Cold Weather Concreting.
   e. 350.1, Specification for Tightness Testing of Environmental Engineering Concrete Containment Structures.
   f. CP-1, Technical Workbook for ACI Certification of Concrete Field Testing Technician – Grade 1.
2. ASTM International (ASTM):
   a. C31/C31M, Standard Practice for Making and Curing Concrete Test Specimens in the Field.
   b. C33/C33M, Standard Specification for Concrete Aggregates.
   c. C39/C39M, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
   d. C94/C94M, Standard Specification for Ready-Mixed Concrete.
   e. C109/C109M, Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).
   f. C143/C143M, Standard Test Method for Slump of Hydraulic-Cement Concrete.
   g. C150/C150M, Standard Specification for Portland Cement.
   h. C157/C157M, Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete.
   i. C227, Standard Test Method for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar-Bar Method).
   j. C231/C231M, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
   k. C260/C260M, Standard Specification for Air-Entraining Admixtures for Concrete.
   l. C494/C494M, Standard Specification for Chemical Admixtures for Concrete.

©COPYRIGHT 2022 JACOBS

m. C595/C595M, Standard Specification for Blended Hydraulic Cements.
n. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
o. C881/C881M, Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
p. C979/C979M, Standard Specification for Pigments for Integrally Colored Concrete.
q. C989, Standard Specification for Slag Cement for Use in Concrete and Mortars.
r. C1012/C1012M, Standard Test Method for Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution.
s. C1017/C1017M, Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
t. C1074, Standard Practice for Estimating Concrete Strength by the Maturity Method.
u. C1077, Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
v. C1218/C1218M, Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
w. C1240, Standard Specification for Silica Fume Used in Cementitious Mixtures.
x. C1260, Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method).
y. C1293, Standard Test Method for Determination of Length Change of Concrete Due to Alkali-Silica Reaction.
z. C1567, Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method).
aa. C1582/C1582M, Standard Specification for Admixtures to Inhibit Chloride-Induced Corrosion of Reinforcing Steel in Concrete.
bb. C1602/C1602M, Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.
cc. D4580, Standard Practice for Measuring Delaminations in Concrete Bridge Decks by Sounding.
dd. E329, Standard Specification for Agencies Engaged in Construction Inspection, Special Inspection, or Testing Materials Used in Construction.
ee. E1155, Standard Test Method for Determining F_F Floor Flatness and F_L Floor Levelness Numbers.

3. National Ready Mixed Concrete Association (NRMCA).

©COPYRIGHT 2022 JACOBS

1.02 DEFINITIONS

A. Defective Area: Surface defects that include honeycomb, rock pockets, indentations, and surface voids greater than 3/16-inch deep, surface voids greater than 3/4 inch in diameter, cracks in liquid containment structures and below grade habitable spaces that are 0.005-inch wide and wider, and cracks in other structures that are 0.010-inch wide and wider, spalls, chips, embedded debris, sand streaks, mortar leakage from form joints, deviations in formed surface that exceed specified tolerances and include but are not limited to fins, form pop-outs, and other projections. At exposed concrete, defective areas also include texture irregularities, stains, and other color variations that cannot be removed by cleaning.

B. Exposed Concrete: Concrete surface that can be seen inside or outside of structure regardless of whether concrete is above water, dry at all times, or can be seen when structure is drained.

C. New Concrete: Less than 60 days old.

1.03 SUBMITTALS

A. Action Submittals:

1. Shop Drawings:
   a. Product Data: Admixtures, binding agent, bond breaker, and patching materials.
   b. Design Data: Concrete mix designs signed by qualified mix designer.
   c. Placement Drawings:
      1) Concrete, identifying location of each type of construction joint.
      2) Tremie concrete.
   d. Graduation for coarse and fine aggregate and combined together. List gradings, percent passing through each sieve size.
   e. Detailed plan for hot weather placements including curing and protection for concrete placed in ambient temperatures over 80 degrees F.
   f. Concrete repair methods and materials.

B. Informational Submittals:

1. Preinstallation Conference minutes.
2. Manufacturer’s application instructions for bonding agent and bond breaker.

©COPYRIGHT 2022 JACOBS

3. Manufacturer's Certificate of Compliance to specified standards:
   a. Portland cement.
   b. Admixtures.
   c. Fly ash.
   d. Aggregates.
   e. Bonding agent.
   f. Bond breaker.
   g. Patching materials.
   h. Admixtures: Manufacturer's Certificate of Proper Installation.
4. Statement of Qualification:
   a. Contractor's resident superintendent for concrete installation.
   b. Batch Plant.
   c. Mix designer.
5. Test reports:
   a. Admixtures, test reports, showing chemical ingredients and percentage of chloride in each admixture and fly ash.
   b. Source test analysis report for fly ash, including percentage of chloride content.
   c. Statement identifying aggregates reactivity. Determine water soluble chloride in each component of aggregates in accordance with ASTM C1218/C1218M
   d. For each trial concrete mix design and signed by a qualified mix designer.
   e. Cylinder compressive test results for laboratory concrete mixes.
6. Concrete Delivery Tickets:
   a. For each batch of concrete before unloading at Site.
   b. In accordance with ASTM C94/C94M, including requirements 14.2.1. through 14.2.10.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Mix Designer: Person responsible for developing concrete mixture proportions certified as NRMCA Concrete Technologist Level 2 or DOT certified mix designer in jurisdiction of the Work. Requirement may be waived if individual is Contractor's Licensed Design Engineer.

2. Batch Plant: Currently certified by the National Ready Mixed Concrete.

B. Preinstallation Conference:

1. Required Meeting Attendees:
   a. Contractor, including pumping, placing and finishing, and curing subcontractors.
   b. Ready-mix producer.

©COPYRIGHT 2022 JACOBS

c. Admixture representative.
d. Testing and sampling personnel.
e. Engineer.

2. Schedule and conduct prior to incorporation of respective products into Project. Notify Engineer of location and time.
3. Agenda shall include:
   a. Admixture types, dosage, performance, and redosing at Site.
   b. Mix designs, test of mixes, and Submittals.
   c. Placement methods, techniques, equipment, consolidation, and form pressures.
   d. Slump and placement time to maintain slump.
   e. Finish, curing, and water retention.
   f. Protection procedures for weather conditions.
   g. Other specified requirements requiring coordination.
4. Conference minutes as specified in Section 01 31 19, Project Meetings.

PART 2 PRODUCTS

2.01 MATERIALS

A. Cementitious Materials:

1. Cement:
   a. Portland Cement: Unless otherwise specified, conform to requirements of ASTM C150/C150M.
   b. Furnish from one source.

B. Aggregates: Furnish from one source.

1. Nature Aggregates:
   a. Free from deleterious coatings and substances in accordance with ASTM C33/C33M, except as modified herein.
   b. Free of materials and aggregate types causing popouts, discoloration, staining, or other defects on surface of concrete.
2. Fine Aggregates:
   a. Clean, sharp, natural sand.
   b. ASTM C33/C33M.
   c. Limit deleterious substances in accordance with ASTM C33/C33M, Table 2 with material finer than 200 sieve limited to 3 percent, coal and lignite limited to 0.5 percent.

©COPYRIGHT 2022 JACOBS

3. Coarse Aggregate:
   a. Natural gravels, combination of gravels and crushed gravels, crushed stone, or combination of these materials containing no more than 15 percent flat or elongated particles (long dimension more than five times the short dimension).
   b. Limit deleterious substances in accordance with ASTM C33/C33M, Table 4 for specified class designation.

C. Admixtures: Furnish from one manufacturer.

1. Characteristics:
   a. Compatible with other constituents in mix.
   b. Contain at most, only trace amount chlorides in solution.
   c. Furnish type of admixture as recommended by manufacturer for anticipated temperature ranges.
2. Air-Entraining Admixture: ASTM C260/C260M.
3. Water-Reducing Admixture: ASTM C494/C494M, Type A or Type D.
4. Retarding Admixture: ASTM C 494/C 494M, Type B.
5. Accelerating Admixture: ASTM C 494/C 494M, Type C.
6. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F or Type G.

D. Water : Clean and potable containing less than 500 ppm of chloride.

2.02 ANCILLARY MATERIALS

A. Bonding Agent: Unless otherwise specified, in accordance with the following:

1. ASTM C881/C881M, Type V.
2. Two-component, moisture insensitive, 100 percent solids epoxy.
3. Consult manufacturer for surface finish, pot life, set time, vertical or horizontal application, and forming restrictions.

B. Bond Breaker: Nonstaining type, providing positive bond prevention.

C. Repair Material:

1. Contain only trace amounts of chlorides and other chemicals that can potentially cause steel to oxidize.
2. Where repairs of exposed concrete are required, prepare mockup using proposed repair materials and methods, for confirmation of appearance compatibility prior to use.
3. Obtain Manufacturer’s Certificate of Compliance that products selected are appropriate for specific applications.
4. Repair mortar shall be site mixed.

©COPYRIGHT 2022 JACOBS

5. Prepare concrete substrate and mix, place, and cure repair material in accordance with manufacturer's written recommendations.

2.03 CONCRETE MIX DESIGN

A. General:

1. Prepare design mixtures for each type and strength of concrete, selecting and proportioning ingredients in accordance with requirements of ACI 301, unless otherwise specified.
2. Selection of constituent materials and products in mix design are optional, unless specified otherwise.
3. Unless otherwise permitted, use water-reducing admixture or water-reducing admixture and high-range, water-reducing admixture in pumped concrete, in concrete with a water-cementitious materials ratio below 0.50, and in concrete that is part of a liquid-containment structure.
4. Unless otherwise permitted, use water-reducing admixture and high-range, water-reducing admixture in columns, piers, pilasters, and walls.
5. Use water-reducing admixture or high-range, water-reducing admixture to achieve fresh properties that facilitate handling, placing, and consolidating of concrete, and specified hardened properties.
6. Use water-reducing and retarding admixture when anticipated high temperatures, low humidity, or other adverse placement conditions can adversely affect fresh properties of concrete.
7. Unless otherwise specified, desired fresh properties of concrete shall be determined by Contractor, and coordinated with concrete producer. Fresh properties of concrete shall remain stable to satisfaction of Contractor, for duration of placement and consolidation, and shall remain in conformance with requirements of Contract Documents.
8. Contractor is encouraged to consider using environmentally sustainable concrete mix design technologies such as use of supplementary cementitious materials and aggregate packing.

B. Potential alkali-aggregate reactivity of concrete:

1. Do not use aggregates known to be susceptible to alkali-carbonate reaction (ACR).
2. Aggregates shall have been tested to determine potential alkali-aggregate reactivity in concrete in accordance with ASTM C1260 or ASTM C1567.
    a. Aggregates that indicate expansion greater than 0.10 percent at 16 days after casting shall not be used unless they have been shown to be nondeleteriously reactive in accordance with

©COPYRIGHT 2022 JACOBS

ASTM C227 or ASTM C1293, with less than 0.04 percent expansion at 1 year for cement-aggregate combinations or less than 0.04 percent expansion at 2 years for combinations with pozzolan or slag.

b. Alkali content of cement used in proposed concrete mixture shall not be greater than alkali content of cement used in test for potential alkali-aggregate reactivity.

c. Use low-alkali cement or incorporate pozzolans into concrete mixture as necessary to satisfy testing for potential alkali reactivity.

C. Proportions:

1. Design mix to meet aesthetic, durability, and strength requirements.
2. Where fly ash is included in mix, minimum fly ash content shall be a minimum of 15 percent of weight of total cementitious materials.

D. Slump Range at Site:

1. Unless otherwise permitted, target slump value is 4 inches at point of delivery, for concrete without high-range, water reducing admixture.
2. Slump tolerance shall meet requirements of ACI 117.

E. Combined Aggregate Gradation:

1. Combined Gradation Limits: Limits shown are for coarse aggregates and fine aggregates mixed together (combined).

	Combined Gradation Percentage Passing		
Sieve Sizes	**1-1/2" Max.**	**1" Max.**	**3/4" Max.**
2"	100	-	-
1-1/2"	95 - 100	100	-
1"	65 - 85	90 - 100	100
3/4"	55 - 75	70 - 90	92 - 100
1/2"	-	-	68 - 86
3/8"	40 - 55	45 - 65	57 - 74
No. 4	30 - 45	31 - 47	38 - 57
No. 8	23 - 38	23 - 40	28 - 46
No. 16	16 - 30	17 - 35	20 - 36

©COPYRIGHT 2022 JACOBS

Sieve Sizes	Combined Gradation Percentage Passing		
	1-1/2" Max.	**1" Max.**	**3/4" Max.**
No. 30	10 - 20	10 - 23	14 - 25
No. 50	4 - 10	2 - 10	5 - 14
No. 100	0 - 3	0 - 3	0 - 5
No. 200	0 - 2	0 - 2	0 - 2

2.04 CONCRETE MIXING

A. General: In accordance with ACI 301, except as modified herein.

B. Truck Mixers:

1. For every truck, test slump of samples taken per ASTM C94/C94M, paragraph 12.5.1.
2. Where specified slump is more than 4 inches, and if slump tests differ by more than 2 inches, discontinue use of truck mixer, unless causing condition is corrected and satisfactory performance is verified by additional slump tests.

2.05 SOURCE QUALITY CONTROL

A. Source Quality Control Inspection: Engineer shall have access to and have right to inspect batch plants, cement mills, and supply facilities of suppliers, manufacturers, and Subcontractors, providing products included in this section.

PART 3 EXECUTION

3.01 PLACING CONCRETE

A. Preparation: Meet requirements ACI 301, except as modified herein.

B. Inspection: Notify Engineer and Special Inspector at least 1 full working day in advance before starting to place concrete.

C. Placement into Formwork:

1. Reinforcement: Secure in position before placing concrete.

©COPYRIGHT 2022 JACOBS

2. Place concrete as soon as possible after leaving mixer, without segregation or loss of ingredients, without splashing forms or steel above, and in layers not over 1.5 feet deep, except for slabs which shall be placed full depth. Place and consolidate successive layers prior to initial set of first layer to prevent cold joints.
3. Placement frequency shall be such that lift lines will not be visible in exposed concrete finishes.
4. Use placement devices, for example chutes, pouring spouts, and pumps as required to prevent segregation.
5. Vertical Free Fall Drop to Final Placement:
    a. Forms 8 Inches or Less Wide: 5 feet.
    b. Forms Wider than 8 Inches: 8 feet, except as specified.
6. For placements where drops are greater than specified, use placement device such that free fall below placement device conforms to required value.
    a. Limit free fall to prevent segregation caused by aggregates hitting steel reinforcement.
7. Do not use aluminum conveying devices.
8. Provide sufficient illumination in the interior of forms so concrete deposition is visible, permitting confirmation of consolidation quality.
9. Joints in Footings and Slabs:
    a. Ensure space beneath plastic waterstop completely fills with concrete.
    b. During concrete placement, make visual inspection of entire waterstop area.
    c. Limit concrete placement to elevation of waterstop in first pass, vibrate concrete under waterstop, lift waterstop to confirm full consolidation without voids, and place remaining concrete to full height of slab.
    d. Apply procedure to full length of waterstop.
10. Trowel and round off top exposed edges of walls with 1/4-inch radius steel edging tool.
11. Cure concrete as specified in Section 03 39 00, Concrete Curing.

D. Conveyor Belts and Chutes:

1. Design and arrange ends of chutes, hopper gates, and other points of concrete discharge throughout conveying, hoisting, and placing system for concrete to pass without becoming segregated.
2. Do not use chutes longer than 50 feet.
3. Minimum Slopes of Chutes: Angled to allow concrete to readily flow without segregation.
4. Conveyor Belts:
    a. Approved by Engineer.

©COPYRIGHT 2022 JACOBS

b. Wipe clean with device that does not allow mortar to adhere to belt.
c. Cover conveyor belts and chutes.

E. Retempering: Not permitted for concrete where cement has partially hydrated.

F. Pumping of Concrete:

1. Provide standby pump, conveyor system, crane and concrete bucket, or other system onsite during pumping, for adequate redundancy to ensure completion of concrete placement without cold joints in case of primary placing equipment breakdown.
2. Minimum Pump Hose (Conduit) Diameter: 4 inches.
3. Replace pumping equipment and hoses (conduits) that are not functioning properly.

G. Maximum Size of Concrete Placements:

1. Limit size of each placement to allow for strength gain and volume change as a result of shrinkage.
2. Locate expansion, control, and contraction joints where shown on Drawings.
3. Construction Joints: Unless otherwise shown or permitted, locate construction joints as follows:
   a. Locate construction joints as shown on Drawings or where approved in joint location submittal required in Section 03 15 00, Concrete Joints and Accessories.
   b. Provide vertical construction joints in walls and slabs at maximum spacing of 40 feet, unless shown or approved otherwise.
   c. When vertical expansion, contraction, or control joint spacing does not exceed 60 feet, intermediate construction joints are not required.
   d. Uniformly space vertical construction joints within straight sections of walls and slabs, avoiding penetrations.
4. Consider beams, girders, brackets, column capitals, and haunches as part of floor or roof system and place monolithically with floor or roof system.
5. Should placement sequence result in cold joint located below finished water surface, install waterstop in joint.

H. Minimum Time between Adjacent Placements:

1. Construction or Control Joints: 14 days (7 days wet cure and 7 days dry cure) unless otherwise specified.

©COPYRIGHT 2022 JACOBS

2. Construction joint between top of footing or slab, and column or wall: As soon as can safely be done without damaging previously cast concrete or interrupting curing thereof, but not less than 24 hours.
3. Expansion or Contraction Joints: 1 day.
4. For columns and walls with a height in excess of 10 feet, wait at least 2 hours before depositing concrete in beams, girders, or slabs supported thereon.
5. For columns and walls 10 feet in height or less, wait at least 1 hour prior to depositing concrete in beams, girders, brackets, column capitals, or slabs supported thereon.

I. Consolidation and Visual Observation:

1. Consolidation Equipment and Methods: ACI 301.
2. Provide at least one standby vibrator in operable condition at Site prior to placing concrete.
3. Provide sufficient windows in forms or limit form height to allow for concrete placement through windows and for visual observation of concrete.
4. Vibrate concrete in vicinity of joints to obtain impervious concrete.

J. Hot Weather:

1. Prepare ingredients, mix, place, cure, and protect in accordance with ACI 301, ACI 305.1, and as follows:
   a. Maintain concrete temperature below 90 degrees F at time of placement, or furnish test data or other proof that admixtures and mix ingredients do not produce flash set plastic shrinkage, or cracking as a result of heat of hydration. Cool ingredients before mixing to maintain fresh concrete temperatures as specified or less.
   b. Provide for windbreaks, shading, fog spraying, sprinkling, ice, wet cover, or other means as necessary to maintain concrete at or below specified temperature.
2. Concrete Curing: As specified in Section 03 39 00, Concrete Curing.

3.02 CONCRETE BONDING

A. Construction Joints in New Concrete Members:

1. Prepare surface of construction joint as specified in Section 03 15 00, Concrete Joints and Accessories.
2. Horizontal Construction Joints Containing Waterstop in New Concrete Walls:
   a. Use positive measuring device such as bucket or other device that will contain only enough slurry mixture for depositing in visually

©COPYRIGHT 2022 JACOBS

measurable area of wall to ensure that portion of form receives appropriate amount of slurry mixture to satisfy placement thickness requirements.

b. Do not deposit slurry mixture from pump hoses or large concrete buckets, unless specified placement thickness can be maintained and verified through inspection windows close to joint, or by other means.

c. Limit concrete placed immediately on top of slurry mixture to 12 inches thick. Thoroughly vibrate to mix concrete and slurry mixture together.

B. Construction Joints at Existing Concrete:

1. Thoroughly clean and mechanically roughen existing concrete surfaces to roughness profile of 1/4 inch.
2. Saturate surface with water for 24 hours prior to placing new concrete.

3.03 CONCRETE SLAB FINISHES

A. General:

1. Use manual screeds, vibrating screeds, or roller compacting screeds to place concrete level and smooth.
2. Do not use “jitterbugs” or other special tools designed for purpose of forcing coarse aggregate away from surface and allowing layer of mortar, which will be weak and cause surface cracks or delamination, to accumulate.
3. Finish slab in accordance with specified slab finish.
4. Do not dust surfaces with dry materials nor add water to surfaces.
5. Cure concrete as specified in Section 03 39 00, Concrete Curing.

B. Type S-5 (Broomed Finish):

1. Finish as specified for Type S-1 floor finish, except use only a light-steel troweled finish, and then finish surface by drawing fine-hair broom lightly across surface.
2. Broom in same direction and parallel to expansion joints, or, in case of inclined slabs, perpendicular to slope, except for round roof slab, broom surface in radial direction.

C. Type S-6 (Sidewalk Finish):

1. Slope walks down 1/4 inch per foot away from structures, unless otherwise shown.

©COPYRIGHT 2022 JACOBS

2. Strike off surface by means of strike board and float with wood or cork float to true plane, then flat steel trowel before brooming.
3. Broom surface at right angles to direction of traffic or as shown.
4. Lay out sidewalk surfaces in blocks, as shown or as directed by Engineer, with grooving tool.

D. Concrete Curbs:

1. Float top surface of curb smooth, and finish all discontinuous edges with steel edger.
2. After concrete has taken its initial set, remove front form and give exposed vertical surface an ordinary wall finish, Type W-1.

3.04 FIELD QUALITY CONTROL

A. General:

1. Provide adequate facilities for safe storage and proper curing of concrete test specimens onsite for first 24 hours, and for additional time as may be required before transporting to test lab.
2. Evaluation will be in accordance with ACI 301 and Specifications.
3. Test specimens shall be made, cured, and tested in accordance with ASTM C31/C31M and ASTM C39/C39M.
4. Frequency of testing may be changed at discretion of Engineer.
5. Pumped Concrete: Take concrete samples for slump, ASTM C143/C143M, and test specimens, ASTM C31/C31M and ASTM C39/C39M.
6. If measured air content at delivery is greater than specified limit, check test of air content will be performed immediately on a new sample from delivery unit. If check test fails, concrete has failed to meet requirements of Contract Documents. If measured air content is less than lower specified limit, adjustments will be permitted in accordance with ASTM C94/C94M, unless otherwise specified. If check test of adjusted mixture fails, concrete has failed to meet requirements of Contract Documents. Concrete that has failed to meet requirements of Contract Documents shall be rejected.

B. Shrinkage Tests:

1. When required to conform to shrinkage limits, collect actual concrete materials being batched and before liquids have been added to mix.
2. Mix sampled material in a laboratory at proportions matching batched concrete.

©COPYRIGHT 2022 JACOBS

3. Test shrinkage characteristics every 5,000 cubic yards of concrete used on job and every 3 months during construction when compression test cylinders are made.
4. Concrete Shrinkage Limits: Test in accordance with ASTM C157/C157M, with the following modifications:
    a. Prisms shall be moist cured for 7 days prior to 28-day drying period.
    b. Comparator reading at end of 7-day moist cure shall be used as initial length in length change calculation.
    c. Reported results shall be average of three prisms.
    d. If drying shrinkage of a specimen departs from average of that test age by more than 0.004 percent, disregard results obtained from that specimen.
    e. Results at end of 28-day drying period shall not exceed 0.040 percent if 3-inch prisms are used, or exceed 0.038 percent if 4-inch prisms are used.
    f. If 7-day or 14-day shrinkage tests results exceed shrinkage limits established by design mix testing, furnish additional 14 days of water curing beyond original curing period, for concrete surfaces of hydraulic structures represented by prisms. Modify concrete mix design to reduce shrinkage prior to casting additional concrete on Project.

C. High-Range, Water-Reducer (Superplasticizer) Admixture Segregation Test: Test each truck prior to use on Project.

1. Segregation Test Objective: Concrete with 4-inch to 8-inch slump shall stay together when slumped. Segregation is assumed to cause mortar to flow out of mix even though aggregate may stay piled enough to meet slump test.
2. Test Procedure: Make slump test and check for excessive slump and observe to see if mortar or moisture flows from slumped concrete.
3. Reject concrete if mortar or moisture separates and flows out of mix.

D. Tolerances:

1. Slab Finish Tolerances and Slope Tolerances:
    a. Make floor flatness measurements day after floor is finished and before shoring is removed to eliminate effects of shrinkage, curing, and deflection.
    b. Support 10-foot long straightedge at each end with steel gauge blocks of thicknesses equal to specified tolerance.

©COPYRIGHT 2022 JACOBS

c. Compliance with designated limits in four of five consecutive measurements is satisfactory, unless defective conditions are observed.

3.05 MANUFACTURER'S SERVICES

A. Provide the following representative at Site for installation assistance, inspection, and certification of proper installation for concrete ingredients, mix design, mixing, and placement.

1. Concrete Producer Representative:
   a. Assist with concrete mix design, performance, placement, weather problems, and problems as may occur with concrete mix throughout Project, including instructions for redosing.
   b. Establish control limits on concrete mix designs.
   c. Provide equipment for control of concrete redosing for air entrainment or high-range, water-reducing admixture, superplasticizers, at Site to maintain proper slump and air content if needed.
2. Admixture Manufacturer's Representative: Available for consultations as required to ensure proper installation and performance of specified products.
3. Bonding Agent Manufacturer's Representative: Available for consultations as required to ensure proper installation and performance of specified products.

3.06 PROTECTION OF INSTALLED WORK

A. After curing as specified in Section 03 39 00, Concrete Curing, and after applying final floor finish, cover slabs with plywood or particle board or plastic sheeting or other material to keep floor clean and protect it from material and damage as a result of other construction work.

B. Repair areas damaged by construction, using specified repair materials and approved repair methods.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 03 39 00
CONCRETE CURING

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Concrete Institute (ACI): 308.1, Specification for Curing Concrete.
2. ASTM International (ASTM):
   a. C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
   b. C1315, Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
3. NSF International: 61, Drinking Water System Components – Health Effects.

1.02 SUBMITTALS

A. Action Submittals:

1. Manufacturers' data indicating compliance with the requirements specified herein for the following products:
   a. Exposed aggregate finish retardant on formed surface.
   b. Evaporation retardant.
   c. Curing compound.
   d. Penetrating water repellent sealer.
   e. Clear liquid densifier.
2. Curing methods proposed for each type of element such as slab, walls, beams, and columns in each facility.

B. Informational Submittals:

1. Manufacturer's Certificate of Compliance, for the following:
   a. Curing compound showing moisture retention requirements.
   b. Retardants for exposed aggregate finish.

©COPYRIGHT 2022 JACOBS

PART 2 PRODUCTS

2.01 MATERIALS

A. Curing Compound:

1. Water-based, high-solids content, nonyellowing, curing compound meeting requirements of ASTM C1315**,** Class A.
2. Manufacturers and Products:
   a. Euclid Chemical Co., Cleveland, OH; Super Diamond Clear VOX.
   b. WR Meadows, Inc., Hampshire, IL; VOCOMP-30.
   c. Vexcon Chemical, Inc.; Philadelphia, PA; Starseal 1315.
   d. Dayton Superior; Safe Cure and Seal 1315 EF.
   e. BASF Construction Chemicals., Shakopee, MN; MasterKure CC 200WB.
   f. Euclid Chemical Co., Cleveland, OH; EucoCure VOX.
   g. Euclid Chemical Co., Cleveland, OH; Kurez VOX White Pigmented.

B. Evaporation Retardant:

1. Optional: Fluorescent fugitive dye color tint that disappears completely upon drying.
2. Manufacturers and Products:
   a. BASF Construction Chemicals, Shakopee, MN; MasterKure ER 50.
   b. Euclid Chemical Co., Cleveland, OH; Eucobar.

C. Penetrating Water Repellent Sealer: Water based, ready to use, single component, silane/siloxane, penetrating, clear water repellant sealer.

1. Viscosity: 50 cps.
2. Flash Point: 200 degrees F.
3. NCHRP No. 244 Reduction in Chloride Content:
   a. Average: 82 percent.
   b. Minimum Required: 75 percent.
4. NCHRP No. 244 Reduction in Weight Gain:
   a. 21 Days: 85 percent.
   b. VOCs: 50 g/l.
   c. Depth of Penetration: 1/4 inch.
5. Manufacturers and Products:
   a. BASF Construction Chemicals, Shakopee MN; MasterProtect H 400.
   b. Euclid Chemical Co.; Baracade WB 244.

©COPYRIGHT 2022 JACOBS

D. Clear Liquid Densifier:

1. Colorless, aqueous solution of magnesium fluorosilicate.
2. Each gallon of solution shall contain a minimum of 2 pounds of fluorosilicate compound.
3. Manufacturers and Products:
   a. BASF Construction Chemicals, Shakopee, MN; MasterKure HD 300WB.
   b. Euclid Chemical Co., Cleveland, OH; Surfhard.

E. Retardant for Exposed Aggregate Finish on Slabs:

1. Manufacturers and Products:
   a. Sika Chemical Corp., Lyndhurst, NJ; Rugasol.
   b. Conrad Sovig Co., San Francisco, CA; Conreveal Top Surface.
   c. Burke Co., San Mateo, CA; Burke True Etch Surface Retarder.
   d. Euclid Chemical Co., Cleveland, OH; Surface Retarder S.

F. Retardant for Exposed Aggregate Finish on Formed Surface:

1. Manufacturers and Products:
   a. L. M. Scofield Co., Los Angeles, CA; Lithotex Top Surface Retarder.
   b. Conrad Sovig Co., San Francisco, CA; Control Set.
   c. Burke Co., San Mateo, CA; Burke True Etch Surface Retarder.
   d. Euclid Chemical Co., Cleveland, OH; Surface Retarder F.

G. Water: Clean and potable, containing less than 500 ppm of chlorides.

PART 3 EXECUTION

3.01 CONCRETE CURING

A. General:

1. Cure all concrete in accordance with project specifications and ACI308.1.
2. Where surfaces are to receive coatings, painting, cementitious material, or other similar finishes, use only water curing procedures. Refer to Interior Finish Schedule for surfaces to receive coatings.
3. Use only water curing on potable water structures.
4. Where curing compound cannot be used, water curing as described below or special methods using moisture shall be agreed upon by Engineer prior to placing concrete.

©COPYRIGHT 2022 JACOBS

5. As required in Section 03 30 00, Cast-in-Place Concrete, if result of 7-day concrete strength test is less than 50 percent of specified 28-day strength, extend period of moist curing specified below, by 7 additional days.

B. Use one of the following methods as approved by Engineer:

1. Horizontal Surfaces:
   a. Method 1: Protect surface by water ponding for 7 days.
   b. Method 2: Cover with burlap or cotton mats and keep continuously wet for 7 days.
   c. Method 3: Cover with 1-inch layer of wet sand, earth, or sawdust, and keep continuously wet for 7 days.
   d. Method 4: Continuously sprinkle exposed surface for 7 days.
   e. Method 5: Apply curing compound, where allowed, immediately after final finishing when surface will no longer be damaged by traffic.

3.02 EVAPORATION RETARDANT APPLICATION

A. Use on flatwork when environmental conditions are anticipated to cause rapid drying of the concrete surface. Do not use evaporation retardant on potable water structures, unless product is NSF 61 approved.

B. Spray onto surface of fresh flatwork concrete immediately after screeding to react with surface moisture.

C. Reapply as needed to ensure a continuous moist surface until final finishing is completed.

3.03 PENETRATING WATER REPELLENT SEALER APPLICATION

A. Before application and with Work above completed, water cure concrete walls and floors for a minimum of 28 days to receive sealer, keep clean, unpainted, and free from membrane curing compounds.

B. Concrete to receive penetrating sealer shall be dry for a minimum 24 hours immediately prior to application.

C. Apply per manufacturer’s recommendations utilizing low pressure airless spray equipment.

1. Actual coverage and number of coats to be determined by field test sample application and water absorption testing. Final approval by Owner is required.

©COPYRIGHT 2022 JACOBS

D. Apply at a coverage rate of 125 square feet per gallon to 200 square feet per gallon. Cure penetrating sealer on slabs for the minimum time recommended by manufacturer prior to allowing foot or vehicular traffic.

3.04 CLEAR LIQUID DENSIFIER APPLICATION

A. Before application and with Work above completed, water cure concrete walls and floors for a minimum of 28 days to receive sealer, keep clean, unpainted, and free from membrane curing compounds.

B. Apply liquid densifier evenly, using three coats, allowing 24 hours between coats.

1. First coat 1/3 strength, second coat 1/2 strength, and third coat 2/3 strength, mix with water.
2. Apply each coat so as to remain wet on surface for 15 minutes.
3. Apply approved liquid densifier in accordance with manufacturer's instructions.
4. After final coat is completed and dry, remove surplus liquid densifier from surface by scrubbing and mopping with water.

3.05 RETARDANT FOR EXPOSED AGGREGATE SURFACES

A. Apply in accordance with manufacturer's product instructions.

3.06 MANUFACTURER'S SERVICES

A. Provide manufacturer's representative at Site for installation assistance, inspection, and certification of proper installation for products specified.

B. Provide penetrating water repellent sealer manufacturer's representative to demonstrate proper application of product.

C. Provide clear liquid densifier manufacturer's representative to demonstrate proper mixing and application of product.

D. Provide curing compound manufacturer's representative to demonstrate proper application of curing compound to show coverage in one coat.

E. Provide retardant for exposed aggregate surfaces manufacturer's representative to demonstrate proper application and surface mortar removal procedures.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 03 62 00
GROUTING

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. C230, Standard Specification for Flow Table for Use in Tests of Hydraulic Cement.
   b. C307, Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacings.
   c. C531, Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
   d. C579, Standard Test Methods for Compressive Grout Strength of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings, and Polymer Concretes.
   e. C882, Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear.
   f. C939, Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method).
   g. C940, Standard Test Method for Expansion and Bleeding of Freshly Mixed Grouts for Preplaced-Aggregate Concrete in the Laboratory.
   h. C1107/C1107M, Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).
   i. C1181, Standard Test Methods for Compressive Creep of Chemical-Resistant Polymer Machinery Grouts.
   j. D4263, Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.

1.02 SUBMITTALS

A. Action Submittals:

1. Product data of grouts.
2. Proposed method for keeping existing concrete surfaces wet prior to placing nonshrink grout.
3. Forming method for fluid grout placements.
4. Curing method for grout.

©COPYRIGHT 2022 JACOBS

B. Informational Submittals:

1. Manufacturer's Written Instructions:
   a. Adding fiber reinforcing to batching.
   b. Mixing of grout.
2. Manufacturer's proposed training schedule for grout work.
3. Manufacturer's Certificate of Compliance in accordance with Section 01 61 00, Common Product Requirements.
   a. Grout free from chlorides and other corrosion-causing chemicals.
   b. Nonshrink grout properties of Category II and Category III, verifying expansion at 3 days or 14 days will not exceed the 28-day expansion and nonshrink properties are not based on gas or gypsum expansion.
4. Manufacturer's Certificate of Proper Installation.
5. Statements of Qualification: Grout manufacturer's representative.
6. Test Reports:
   a. Test report for 24-hour evaluation of nonshrink grout.
   b. Test results and service report from demonstration and training session.
   c. Field test reports and laboratory test results for field-drawn Samples.
7. List of Contractor's equipment installation staff trained by grout manufacturer's representative in:
   a. Nonshrink grout installation and curing.
   b. Epoxy grout installation and curing.

1.03 QUALIFICATIONS

A. Grout Manufacturer's Representative: Authorized and trained representative of grout manufacturer. Minimum of 1-year experience that has resulted in successful installation of grouts similar to those for this Project.

B. For grout suppliers not listed herein, provide completed 24-hour Evaluation of Nonshrink Grout Test Form, attached at the end of this section. Provide independent testing laboratory test results for testing conducted within last 18 months.

PART 2 PRODUCTS

2.01 NONSHRINK GROUT AND EPOXY GROUT SCHEDULE

A. Furnish nonshrink grout (Category I, II, and III) and epoxy grout for applications as indicated in the following schedule:

©COPYRIGHT 2022 JACOBS

Application	Temperature Range	Max. Placing Time	
	40 deg F to 100 deg F	20 Min.	Greater Than 20 Min.
Blockouts for gate guides	I or II		II
Precast joints	I or II		II
Column baseplates single-story	I or II		II
Machine bases 25 hp or less	II	II	II
Bases for precast wall sections	II	II	II
Baseplates for columns over one story	II	II	II
Precast base joints higher than one story	II	II	II
Form Tie-Through bolt openings	II	II	II
Machine bases 26 hp and up	III or Epoxy Grout	III or Epoxy Grout	III or Epoxy Grout
Baseplates and/or soleplates with vibration, thermal movement, etc.	III or Epoxy Grout	III or Epoxy Grout	III or Epoxy Grout

2.02 NONSHRINK GROUT

A. Category I:

1. Nonmetallic and nongas-liberating.
2. Prepackaged natural aggregate grout requiring only the addition of water.
3. Test in accordance with ASTM C1107/C1107M:
   a. Grout shall have flowable consistency.
   b. Flowable for 15 minutes.
4. Grout shall not bleed at maximum allowed water.
5. Minimum strength of flowable grout, 3,000 psi at 3 days, 5,000 psi at 7 days, and 7,000 psi at 28 days.

©COPYRIGHT 2022 JACOBS

6. Manufacturers and Products:
   a. BASF Building System, Inc., Shakopee, MN; MasterFlow 100.
   b. Euclid Chemical Co., Cleveland, OH; NS Grout.
   c. Dayton Superior Corp., Miamisburg, OH; 1107 Advantage Grout.
   d. US MIX Co., Denver, CO; US SPEC GP Grout.
   e. Five Star Products Inc., Fairfield, CT; Five Star Grout.

B. Category II:

1. Nonmetallic, nongas-liberating.
2. Prepackaged natural aggregate grout requiring only the addition of water.
3. Aggregate shall show no segregation or settlement at fluid consistency at specified times or temperatures.
4. Test in accordance with ASTM C1107/C1107M:
   a. Fluid consistency 20 seconds to 30 seconds in accordance with ASTM C939.
   b. Temperatures of 40 degrees F, 80 degrees F, and 90 degrees F.
5. 1 hour after mixing, pass fluid grout through flow cone with continuous flow.
6. Minimum strength of fluid grout, 3,500 psi at 1 day, 4,500 psi at 3 days, and 7,500 psi at 28 days.
7. Maintain fluid consistency when mixed in 1-yard to 9-yard loads in ready-mix truck.
8. Manufacturers and Products:
   a. BASF Building Systems, Inc., Shakopee, MN; MasterFlow 928.
   b. Five Star Products Inc., Fairfield, CT; Five Star Fluid Grout 100.
   c. Euclid Chemical Co., Cleveland, OH; Hi Flow Grout.
   d. Dayton Superior Corp., Miamisburg, OH; Sure Grip High Performance Grout.
   e. US MIX Co., Denver, CO; US SPEC MP Grout.

C. Category III:

1. Metallic and nongas-liberating.
2. Prepackaged aggregate grout requiring only the addition of water.
3. Aggregate shall show no segregation or settlement at fluid consistency at specified times or temperatures.
4. Test in accordance with ASTM C1107/C1107M:
   a. Fluid consistency 20 seconds to 30 seconds in accordance with ASTM C939.
   b. Temperatures of 40 degrees F and 100 degrees F.
5. 1 hour after mixing, pass fluid grout through flow cone with continuous flow.

©COPYRIGHT 2022 JACOBS

6. Minimum strength of fluid grout, 4,000 psi at 1 day, 5,000 psi at 3 days, and 9,000 psi at 28 days.
7. Maintain fluid consistency when mixed in 1-yard to 9-yard loads in ready-mix truck.
8. Manufacturer and Product:
   a. BASF Building Systems, Inc., Shakopee, MN; MasterFlow 885.
   b. Euclid Chemical Co, Cleveland, OH; Hi-Flow Metallic Grout.

2.03 EPOXY GROUT

A. High-strength, nonshrink, high-temperature epoxy grouting material developed for the support of heavy equipment with vibratory loads.

B. Three-component mixture of a two-component epoxy resin system (100 percent solids) with a graded, precision aggregate blend.

C. Premeasured, prepackaged system.

D. Flowable.

E. Minimum compressive strength in accordance with ASTM C579 Method B, 9,500 psi at 75 degrees F at 7 days, 11,000 psi at post cure.

F. Maximum creep resistance in accordance with ASTM C1181 at 600 psi, 140 degrees F; 6.0 by 10^{-3} in/in.

G. Minimum bond strength in accordance with ASTM C882, 2,000 psi.

H. Minimum tensile strength in accordance with ASTM C307, 2,000 psi.

I. Maximum coefficient of thermal expansion in accordance with ASTM C531 at 73 degrees F to 210 degrees F, 23.0 by10^{-6} in/in/degrees F.

J. Working Time: Minimum 2 hours at 50 degrees F; 1.5 hours at 70 degrees F; 50 minutes at 90 degrees F.

K. Good chemical resistance.

L. Good effective bearing area.

M. Noncorrosive.

N. Moisture insensitive.

O. Modify resin and aggregate content where recommended by epoxy grout manufacturer to provide desired epoxy grout flow properties.

©COPYRIGHT 2022 JACOBS

P. Manufacturer and Product:

1. BASF Building System, Inc., Shakopee MN; MasterFlow 648.
2. Euclid Chemical Co., Cleveland, OH; E^3-G.
3. Dayton Superior Corp., Miamisburg, OH; Pro-Poxy 2000 Normal Set.
4. Five Star Products Inc., Fairfield, CT; DP Epoxy Grout.

PART 3 EXECUTION

3.01 GROUT

A. General: Mix, place, and cure grout in accordance with grout manufacturer's representative's training instructions.

B. Epoxy Grout: Concrete slab shall be fully cured for 28 days to ensure excess water has evaporated. Test concrete surface for moisture in accordance with ASTM D4263 before epoxy grout is placed.

C. Form Tie-Through Bolt Holes: Provide nonshrink grout, Category II, fill space with dry pack dense grout hammered in with steel tool and hammer. Through-bolt holes; coordinate dry pack dense grout application with vinyl plug and bonding agent in Section 03 30 00, Cast-in-Place Concrete.

D. Form Snap-Tie Hole: Fill tie hole in accordance with requirements of Section 03 30 00, Cast-in-Place Concrete.

3.02 FIELD QUALITY CONTROL

A. General:

1. Performed by Project representative's inspection staff.
2. Perform the following quality control inspections. The grout manufacturer's representative shall accompany the Project representative's inspection staff on the first installation of each size and type of equipment.

B. Evaluation and Acceptance of Nonshrink Grout:

1. Inspect the surface preparation of concrete substrates onto which nonshrink grout materials are to be applied, for conformance to the specified application criteria including, but not limited to, substrate profile, degree of cleanliness, and moisture.
2. Inspect preparation and application of nonshrink grout form work for conformance to the manufacturer's recommendations.

©COPYRIGHT 2022 JACOBS

3. Conduct a final review of completed nonshrink grout installation for conformance to these Specifications.
4. Provide a flow cone and cube molds with restraining plates onsite. Continue tests during Project as demonstrated by grout manufacturer's representative.
5. Perform flow cone and bleed tests, and make three 2-inch by 2-inch cubes for each 25 cubic feet of each type of nonshrink grout used. Use restraining caps for cube molds in accordance with ASTM C1107/ C1107M.
6. For large grout applications, make three additional cubes and one more flow cone test. Include bleed test for each additional 25 cubic feet of nonshrink grout placed.
7. Consistency: As specified in Article Nonshrink Grout. Flow cone test in accordance with ASTM C939. Grout with consistencies outside range requirements shall be rejected.
8. Segregation: As specified in Article Nonshrink Grout. Grout when aggregate separates shall be rejected.
9. Nonshrink grout cubes shall test equal to or greater than minimum strength specified.
10. Strength Test Failures: Nonshrink grout work failing strength tests shall be removed and replaced.
11. Perform bleeding test in accordance with ASTM C940 to demonstrate grout will not bleed.
12. Store cubes at 70 degrees F.
13. Independent testing laboratory shall prepare, store, cure, and test cubes in accordance with ASTM C1107/C1107M.
14. All grout, already placed, which fails to meet the requirements of these Specifications, is subject to removal and replacement at no additional cost to the Owner.

C. Evaluation and Acceptance of Epoxy Grout:

1. Inspect ambient conditions during various phases of epoxy grouting installation for conformance with the epoxy grout manufacturer's requirements.
2. Inspect the surface preparation of concrete substrates onto which epoxy grout materials are to be applied, for conformance to the specified application criteria including, but not limited to, substrate profile, degree of cleanliness, and moisture.
3. Inspect the surface preparation of the metallic substrates onto which the epoxy primer is to be applied.
4. Inspect the epoxy-primed metallic substrate for coverage and adhesion.
5. Inspect preparation and application of epoxy grout form work for conformance to the manufacturer's recommendation.

©COPYRIGHT 2022 JACOBS

6. Verify consistency obtained is sufficient for the proper field placement at the installed temperatures.
7. Inspect and record that the “pot life” of epoxy grout materials is not exceeded during the installation.
8. Inspect epoxy grout for cure.
9. Inspect and record that localized repairs made to grout voids are in conformance with the specification requirements.
10. Conduct a final review of completed epoxy grout installation for conformance to these Specifications.
11. Compression tests and fabrication of specimens for epoxy grout shall be made in accordance to ASTM C579, Method B, at intervals during construction as selected by the Project representative. A set of three specimens shall be made for testing at 7 days, and each earlier time period as appropriate.
12. Independent testing laboratory shall prepare, store, cure, and test cubes in accordance with ASTM C579.
13. All grout, already placed, which fails to meet the requirements of these Specifications, is subject to removal and replacement at no additional cost to the Owner.

3.03 MANUFACTURER’S SERVICES

A. General:

1. Coordinate demonstrations, training sessions, and applicable Site visits with grout manufacturer’s representative. Allow 2-week notice to grout manufacturer’s representative for scheduling purposes.
2. Provide and conduct onsite, demonstration and training sessions for bleed tests, mixing, flow cone measurement, cube testing, application, and curing for each category and type of grout.
3. Necessary equipment and materials shall be available for demonstration.
4. Conduct training prior to equipment mount installation work on equipment pads.
5. Training for each type of grout shall be not less than 4 hours’ duration.

3.04 SUPPLEMENTS

A. The supplements listed below, following “End of Section”, are part of this specification.

1. 24-Hour Evaluation of Nonshrink Grout Test Form and Grout Testing Procedures.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SUPPLEMENT 1

_____
(Test Lab Name)

_____
(Address)

_____
(Phone No.)

24-HOUR EVALUATION OF NONSHRINK GROUT TEST FORM

OBJECTIVE: Define standard set of test procedures for an independent testing laboratory to perform and complete within a 24-hour period.

SCOPE: Utilize test procedures providing 24-hour results to duplicate field grouting demands. Intent of evaluation is to establish grout manufacturer's qualifications.

PRIOR TO TEST: Obtain three bags of each type of grout.

1. From intended grout supplier for Project.
2. Three bags of grout shall be of same lot number.

ANSWER THE FOLLOWING QUESTIONS FOR GROUT BEING TESTED FROM LITERATURE, DATA, AND PRINTING ON BAG:

A.	Product data and warranty information contained in company literature and data?	Yes_____ No_____
B.	Literature and bag information meet specified requirements?	Yes_____ No_____
C.	Manufacturer guarantees grout as specified in Article Guarantee?	Yes_____ No_____
D.	Guarantee extends beyond grout replacement value and allows participation with Contractor in replacing and repairing defective areas?	Yes_____ No_____
E.	Water demands and limits printed on bag?	Yes_____ No_____
F.	Mixing information printed on the bag?	Yes_____ No_____
G.	Temperature restrictions printed on bag?	Yes_____ No_____

*Rejection of a grout will occur if one or more answers are noted NO.

©COPYRIGHT 2022 JACOBS

GROUT TESTING PROCEDURES

A. Bagged Material:

1. List lot numbers. _____
2. List expiration date. _____
3. Weigh bags and record weight. _____

Owner's Representative will disqualify grout if bag weights have misstated measure plus or minus 2 pounds by more than one out of three bags. (Accuracy of weights is required to regulate amount of water used in mixing since this will affect properties.)

B. Mixing and Consistency Determination:

1. Mix full bag of grout in 10-gallon pail.
2. Use electric drill with a paddle device to mix grout (jiffy or jiffler type paddle).
3. Use maximum water allowed per water requirements listed in bag instructions.
4. Mix grout to maximum time listed on bag instructions.
5. In accordance with ASTM C939 (flow cone) determine time of mixed grout through the flow cone. _____ seconds
6. Add water to attain 20- to 30-second flow in accordance with ASTM C939.
7. Record time of grout through cone at new water demand. _____ seconds
8. Record total water needed to attain 20- to 30-second flow. _____ pounds
9. Record percent of water. _____ percent

C. When fluid grout is specified and additional water is required beyond grout manufacturer's listed maximum water, ASTM C1107/C1107M will be run at new water per grout ratio to determine whether grout passes using actual water requirements to be fluid. Use new water per grout ratio on remaining tests.

D. Bleed Test:

1. Fill two gallon cans half full of freshly mixed grout at ambient temperatures for each category and at required consistency for each.
2. Place one can of grout in tub of ice water and leave one can at ambient temperature.
3. Cover top of both cans with glass or plastic plate preventing evaporation.
4. Maintain 38 degrees F to 42 degrees F temperature with grout placed in ice and maintain ambient temperature for second container for 1 hour.
5. Visually check for bleeding of water at 15-minute intervals for 2 hours.

©COPYRIGHT 2022 JACOBS

6. Perform final observation at 24 hours.

If grout bleeds a small amount at temperatures specified, grout will be rejected.

E. Extended Flow Time and Segregation Test (for Category II and Category III):

1. Divide the remaining grout into two 3-gallon cans. Place the cans into the 40-degree F and 90-degree F containers and leave for 20, 40, and 60 minutes. Every 20 minutes remove and check for segregation or settlement of aggregate. Use a gloved hand to reach to the bottom of the can, if more than 1/4 inch of aggregate has settled to the bottom or aggregate has segregated into clumps reject the grout.
2. Right after the settlement test mix the grout with the drill mixer for 10 seconds. Take a ASTM C939 flow cone test of grout and record flow time. Maintain this process for 1 hour at ambient temperatures of 40 degrees F and 90 degrees F.
   a. 20 min _____, sec. @ 40 degrees F.
   b. 40 min _____, sec. @ 40 degrees F.
   c. 60 min _____, sec. @ 40 degrees F.
   d. 20 min _____, sec. @ 90 degrees F.
   e. 40 min _____, sec. @ 90 degrees F.
   f. 60 min _____, sec. @ 90 degrees F.

All Category II and Category III grout that will not go through the flow cone with continuous flow after 60 minutes will be disqualified.

_____ _____

Qualified Disqualified

F. 24-hour Strength Test:

1. Using grout left in mixing cans in accordance with ASTM C1107/C1107M for mixing and consistency determination test and for extended time flow test, make minimum of nine cube samples.
2. Store cubes at 70 degrees F for 24 hours.
3. Record average compressive strength of nine cubes at 24 hours.

Grout will be disqualified if 24-hour compressive strengths are less than 2,500 psi for grouts claiming fluid placement capabilities.

Grouts that have not been disqualified after these tests are qualified for use on the Project for the application indicated in Nonshrink Grout Schedule.

_____ _____

Signature of Independent Testing Laboratory Date Test Conducted

©COPYRIGHT 2022 JACOBS

SECTION 31 10 00
SITE CLEARING

PART 1 GENERAL

1.01 DEFINITIONS

A. Interfering or Objectionable Material: Trash, rubbish, and junk; vegetation and other organic matter, whether alive, dead, or decaying; topsoil.

B. Clearing: Removal of interfering or objectionable material lying on or protruding above ground surface.

C. Grubbing: Removal of vegetation and other organic matter including stumps, buried logs, and roots greater than 2-inch caliper to a depth of 6 inches below subgrade.

D. Project Limits: Areas, as shown or specified, within which Work is to be performed.

1.02 SUBMITTALS

A. Action Submittals: Drawings clearly showing clearing, grubbing, and stripping limits.

1.03 QUALITY ASSURANCE

A. Obtain Engineer’s approval of staked clearing, grubbing, and stripping limits, prior to commencing clearing, grubbing, and stripping.

1.04 SCHEDULING AND SEQUENCING

A. Prepare Site only after adequate erosion and sediment controls are in place. Limit areas exposed uncontrolled to erosion during installation of temporary erosion and sediment controls to maximum of 1 acres.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Clear, grub, and strip areas actually needed for waste disposal, borrow, or Site improvements within limits shown or specified.

B. Do not injure or deface vegetation that is not designated for removal.

©COPYRIGHT 2022 JACOBS

3.02 LIMITS

A. As follows, but not to extend beyond Project limits.

1. Excavation 5 feet beyond top of cut slopes.
2. Fill:
   a. Clearing and Grubbing: 5 feet beyond toe of permanent fill.
   b. Stripping 2 feet beyond toe of permanent fill.
3. Waste Disposal:
   a. Clearing: 5 feet beyond perimeter.
   b. Scalping and Stripping: Not required.
   c. Grubbing: Around perimeter as necessary for neat finished appearance.
4. Structures: 15 feet outside of new structures.
5. Overhead Utilities:
   a. Clearing and Grubbing: Entire width of easements and rights-of-way.
   b. Scalping and Stripping: Wherever grading is required.

B. Remove rubbish, trash, and junk from entire area within Project limits.

3.03 TEMPORARY REMOVAL OF INTERFERING PLANTINGS

A. Remove and store plants, shrubs and trees that are not designated for removal but do interfere with construction or could be damaged by construction activities.

B. Photograph and document location, orientation, and condition of each plant prior to its removal. Record sufficient information to uniquely identify each plant removed and to assure accurate replacement.

3.04 CLEARING

A. Clear areas within limits shown or specified.

B. Fell trees so that they fall away from facilities and vegetation not designated for removal.

C. Cut stumps not designated for grubbing flush with ground surface.

D. Cut off shrubs, brush, weeds, and grasses to within 2 inches of ground surface.

3.05 GRUBBING

A. Grub areas within limits shown or specified.

©COPYRIGHT 2022 JACOBS

3.06 SCALPING

A. Do not remove sod until after clearing and grubbing is completed and resulting debris is removed.

B. Scalp areas within limits shown or specified.

3.07 STRIPPING

A. Do not remove topsoil until after scalping is completed.

B. Strip areas within limits to minimum depths shown or specified. Do not remove subsoil with topsoil.

C. Stockpile strippings, meeting requirements of Section 32 91 13, Soil Preparation, for topsoil, separately from other excavated material.

3.08 SALVAGE

A. Saleable log timber may be sold to Contractor's benefit. Promptly remove from Project Site.

B. Sod with commercial value may be sold to Contractor's benefit. Promptly remove from Project Site.

3.09 DISPOSAL

A. Clearing and Grubbing Debris:

1. Dispose of debris offsite.
2. Debris may be buried in designated onsite disposal areas to minimum depth of 3 feet below final grade. In lieu of onsite burial, dispose of debris offsite.
3. Burning of debris onsite will not be allowed.
4. When onsite burning is not prohibited by federal, state, or local authorities, debris may be burned onsite. Control burning to prevent fire from spreading.
5. During periods when burning is prohibited by federal, state, or local authorities, debris may be stockpiled until burning ban is rescinded, provided stockpiled material does not constitute a fire hazard or interfere with or delay Work. Stockpiled material shall not remain onsite in excess of 30 days.
6. Dispose of unburned and noncombustible debris offsite.

©COPYRIGHT 2022 JACOBS

7. Unburned and noncombustible debris may be buried in designated onsite disposal areas to a minimum depth of 3 feet below existing grade. In lieu of onsite burial, dispose of debris offsite.
8. Woody debris may be chipped. Chips may be sold to Contractor's benefit or used for landscaping onsite as mulch or uniformly mixed with topsoil, provided that resulting mix will be fertile and not support combustion. Dispose of chips that are unsaleable or unsuitable for landscaping or other uses with unchipped debris.
9. Limit offsite disposal of clearing and grubbing debris to locations that are approved by federal, state, and local authorities, and that will not be visible from Project.

B. Scalpings: As specified for clearing and grubbing debris.

C. Strippings:

1. Dispose of strippings that are unsuitable for topsoil or that exceed quantity required for topsoil offsite**.**
2. Stockpile topsoil in sufficient quantity to meet Project needs. Dispose of excess strippings as specified for clearing and grubbing.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 31 23 13
SUBGRADE PREPARATION

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).

1.02 DEFINITIONS

A. Optimum Moisture Content: As defined in Section 31 23 23, Fill and Backfill.

B. Prepared Ground Surface: Ground surface after completion of clearing and grubbing, scalping of sod, stripping of topsoil, excavation to grade, and scarification and compaction of subgrade.

C. Relative Compaction: As defined in Section 31 23 23, Fill and Backfill.

D. Relative Density: As defined in Section 31 23 23, Fill and Backfill.

E. Subgrade: Layer of existing soil after completion of clearing, grubbing, scalping of topsoil prior to placement of fill, roadway structure or base for floor slab.

F. Proof-Rolling: Testing of subgrade by compactive effort to identify areas that will not support the future loading without excessive settlement.

1.03 SEQUENCING AND SCHEDULING

A. Complete applicable Work specified in Section 02 41 00, Demolition; Section 31 10 00, Site Clearing; and Section 31 23 16, Excavation, prior to subgrade preparation.

1.04 QUALITY ASSURANCE

A. Notify Engineer when subgrade is ready for compaction or proof-rolling or whenever compaction or proof-rolling is resumed after a period of extended inactivity.

1.05 ENVIRONMENTAL REQUIREMENTS

A. Prepare subgrade when unfrozen and free of ice and snow.

©COPYRIGHT 2022 JACOBS

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Keep subgrade free of water, debris, and foreign matter during compaction or proof-rolling.

B. Bring subgrade to proper grade and cross-section and uniformly compact surface.

C. Do not use sections of prepared ground surface as haul roads. Protect prepared subgrade from traffic.

D. Maintain prepared ground surface in finished condition until next course is placed.

3.02 COMPACTION

A. Under Earthfill: Compact minimum of 90 percent relative compaction as determined in accordance with ASTM D1557. At the time of compaction, the soil shall be moisture condition to +/- 2% of the optimum moisture content as determined by ASTM D1557.

B. Under Pavement Structure: Compact to minimum of 95 percent relative compaction as determined in accordance with ASTM D1557. At the time of compaction, the soil shall be moisture condition to +/- 2% of the optimum moisture content as determined by ASTM D1557.

3.03 MOISTURE CONDITIONING

A. Dry Subgrade: Add water, then mix to make moisture content uniform throughout.

B. Wet Subgrade: Aerate material by blading, discing, harrowing, or other methods, to hasten drying process.

3.04 TESTING

A. Proof-roll subgrade with equipment specified in Article Compaction to detect soft or loose subgrade or unsuitable material, as determined by Engineer.

©COPYRIGHT 2022 JACOBS

3.05 CORRECTION

A. Soft or Loose Subgrade:

1. Adjust moisture content and recompact.
2. Over excavate as specified in Section 31 23 16, Excavation, and replace with suitable material from the excavation, as specified in Section 31 23 23.15, Trench Backfill.

B. Unsuitable Material: Over excavate as specified in Section 31 23 16, Excavation, and replace with suitable material from the excavation, as specified in Section 31 23 23.15, Trench Backfill.

END OF SECTION

PACKET

©COPYRIGHT 2022 JACOBS

SECTION 31 23 16
EXCAVATION

PART 1 GENERAL

1.01 DEFINITIONS

A. Common Excavation: Removal of material not classified as rock excavation.

B. Rock Excavation:

1. General: Removal of solid material which by actual demonstration cannot, in Engineer's opinion, be reasonably loosened or ripped by single-tooth, hydraulically operated ripper mounted on crawler tractor in good condition and rated at minimum 300 flywheel horsepower; and which must be systematically drilled and blasted or broken by power-operated hammer, hydraulic rock breaker, expansive compounds, or other similar means prior to removal.
2. Trench: Removal of solid material which by actual demonstration cannot, in Engineer's opinion, be reasonably excavated with minimum 135-horsepower backhoe in good condition and equipped with manufacturer's standard boom, two rippers, and rock points or similar approved equipment; and which must be systematically drilled and blasted or broken by power-operated hammer, hydraulic rock breaker, expansive compounds, or other similar means prior to removal.
3. Term "rock excavation" indicates removal of solid material, as specified above, and does not necessarily correspond to "rock" as implied by names of geologic formations.
4. Removal of boulders larger than 1/2 cubic yard will be classified as rock excavation, if drilling and blasting or breaking them apart with power-operated hammer, hydraulic rock breaker, expansive compounds, or other similar means is both necessary and actually used for their removal.

1.02 SUBMITTALS

A. Informational Submittals:

1. Excavation Plan, Detailing:
   a. Methods and sequencing of excavation.
   b. Proposed locations of stockpiled excavated material.
   c. Proposed onsite and offsite spoil disposal sites.

©COPYRIGHT 2022 JACOBS

1.03 QUALITY ASSURANCE

A. Provide adequate survey control to avoid unauthorized over excavation.

1.04 WEATHER LIMITATIONS

A. Material excavated when frozen or when air temperature is less than 32 degrees F shall not be used as fill or backfill until material completely thaws.

B. Material excavated during inclement weather shall not be used as fill or backfill until after material drains and dries sufficiently for proper compaction.

1.05 SEQUENCING AND SCHEDULING

A. Demolition: Complete applicable Work specified in Section 02 41 00, Demolition, prior to excavating.

B. Clearing, Grubbing, and Stripping: Complete applicable Work specified in Section 31 10 00, Site Clearing, prior to excavating.

C. Dewatering: Conform to applicable requirements of Section 31 23 19.01, Dewatering, prior to initiating excavation.

D. Excavation Support: Install and maintain shoring, as necessary to support sides of excavations and prevent detrimental settlement and lateral movement of existing facilities, adjacent property, and completed Work.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Excavate to lines, grades, and dimensions shown and as necessary to accomplish Work. Excavate to within tolerance of plus or minus 0.1 foot, except where dimensions or grades are shown or specified as maximum or minimum. Allow for forms, working space, granular base, topsoil, and similar items, wherever applicable. Trim to neat lines where concrete is to be deposited against earth.

B. Do not overexcavate without written authorization of Engineer.

C. Remove or protect obstructions as shown and as specified in Section 01 50 00, Temporary Facilities and Controls, Article Protection of Work and Property.

©COPYRIGHT 2022 JACOBS

3.02 UNCLASSIFIED EXCAVATION

A. Excavation is unclassified. Complete all excavation regardless of the type, nature, or condition of the materials encountered.

3.03 CLASSIFIED EXCAVATION

A. Excavation is classified; see Article Definitions for classifications. Notify Engineer whenever rock is encountered.

B. Before beginning rock excavation, comply with following requirements:

1. Remove overlying material as common excavation and expose rock surface for examination by Engineer.
2. Demonstrate that removal of remaining material classifies as rock excavation unless waived by Engineer.
3. Assist Engineer with measurement and documentation of rock excavation.

C. Predrilling and blasting may be allowed prior to removal of overburden if, in Engineer's opinion, top-of-rock line can be clearly defined after excavation. Acceptance of this method will be based on the following demonstration:

1. Predrill, blast, and excavate initial 100-foot long test section.
2. Excavate minimum of two 20-foot long trenches to apparent rock line immediately adjacent to predrilled section for comparison.

D. In event of disputed quantities, excavate additional correlation trenches to apparent rock as considered necessary by Engineer to resolve dispute. Engineer reserves right to stop predrilling and blasting if, in Engineer's opinion, experience indicates that accurate determination of rock quantities is not possible by this method.

3.04 TRENCH WIDTH

A. Minimum Width of Trenches:

1. Single Pipes, Conduits, Direct-Buried Cables, and Duct Banks:
   a. Less than 4-inch Outside Diameter or Width: 18 inches.
   b. Greater than 4-inch Outside Diameter or Width: 18 inches greater than outside diameter or width of pipe, conduit, direct-buried cable, or duct bank.
2. Increase trench widths by thicknesses of sheeting.

©COPYRIGHT 2022 JACOBS

B. Maximum Trench Width: Unlimited, unless otherwise shown or specified, or unless excess width will cause damage to existing facilities, adjacent property, or completed Work.

3.05 PIPE BEDDING GROOVES FOR NONPERFORATED DRAIN LINES

A. Semicircular, trapezoidal, or 90-degree-V.

B. Excavated or plowed into trench bottom. Forming groove by compaction will not be acceptable.

3.06 EMBANKMENT AND CUT SLOPES

A. Shape, trim, and finish cut slopes to conform with lines, grades, and cross-sections shown, with proper allowance for topsoil or slope protection, where shown.

B. Remove stones and rock that exceed 3-inch diameter and that are loose and may roll down slope. Remove exposed roots from cut slopes.

C. Round tops of cut slopes in soil to not less than a 6-foot radius, provided such rounding does not extend offsite or outside easements and rights-of-way, or adversely impacts existing facilities, adjacent property, or completed Work.

3.07 STOCKPILING EXCAVATED MATERIAL

A. Stockpile excavated material that is suitable for use as fill or backfill until material is needed.

B. Post signs indicating proposed use of material stockpiled. Post signs that are readable from all directions of approach to each stockpile. Signs should be clearly worded and readable by equipment operators from their normal seated position.

C. Confine stockpiles to within easements, rights-of-way, and approved work areas. Do not obstruct roads or streets.

D. Do not stockpile excavated material adjacent to trenches and other excavations, unless excavation side slopes and excavation support systems are designed, constructed, and maintained for stockpile loads.

E. Do not stockpile excavated materials near or over existing facilities, adjacent property, or completed Work, if weight of stockpiled material could induce excessive settlement.

©COPYRIGHT 2022 JACOBS

3.08 DISPOSAL OF SPOIL

A. Dispose of excavated materials, which are unsuitable or exceed quantity needed for fill or backfill, offsite.

B. Dispose of debris resulting from removal of underground facilities as specified in Section 02 41 00, Demolition, for demolition debris.

C. Dispose of debris resulting from removal of organic matter, trash, refuse, and junk as specified in Section 31 10 00, Site Clearing, for clearing and grubbing debris.

END OF SECTION

PACKET
©COPYRIGHT 2022 JACOBS

SECTION 31 23 19.01
DEWATERING

PART 1 GENERAL

1.01 SUBMITTALS

A. Informational Submittals: Discharge permits.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Remove and control water during periods when necessary to properly accomplish Work.

3.02 SURFACE WATER CONTROL

A. See Section 01 57 13, Temporary Erosion and Sediment Control.

B. Remove surface runoff controls when no longer needed.

3.03 DEWATERING SYSTEMS

A. Provide, operate, and maintain dewatering systems of sufficient size and capacity to permit excavation and subsequent construction in dry and to lower and maintain groundwater level a minimum of 3 feet below the lowest point of excavation. Continuously maintain excavations free of water, regardless of source, and until backfilled to final grade.

B. Dewatering systems shall include wells or well points, and other equipment and appurtenances installed outside limits of excavations and sufficiently below lowest point of excavation, or to maintain specified groundwater elevation.

C. Design and Operate Dewatering Systems:

1. To prevent loss of ground as water is removed.
2. To avoid inducing settlement or damage to existing facilities, completed Work, or adjacent property.
3. To relieve artesian pressures and resultant uplift of excavation bottom.

©COPYRIGHT 2022 JACOBS

D. Provide sufficient redundancy in each system to keep excavation free of water in event of component failure.

E. Provide 100 percent emergency power backup with automatic startup and switchover in event of electrical power failure.

F. Provide supplemental ditches and sumps only as necessary to collect water from local seeps. Do not use ditches and sumps as primary means of dewatering.

3.04 DISPOSAL OF WATER

A. Obtain discharge permit for water disposal from authorities having jurisdiction.

B. Treat water collected by dewatering operations, as required by regulatory agencies, prior to discharge.

C. Discharge water as required by discharge permit and in manner that will not cause erosion or flooding, or otherwise damage existing facilities, completed Work, or adjacent property.

D. Remove solids from treatment facilities and perform other maintenance of treatment facilities as necessary to maintain their efficiency.

3.05 PROTECTION OF PROPERTY

A. Make assessment of potential for dewatering induced settlement. Provide and operate devices or systems, including but not limited to reinjection wells, infiltration trenches and cutoff walls, necessary to prevent damage to existing facilities, completed Work, and adjacent property.

B. Securely support existing facilities, completed Work, and adjacent property vulnerable to settlement due to dewatering operations. Support shall include, but not be limited to, bracing, underpinning, or compaction grouting.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 31 23 23
FILL AND BACKFILL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. C117, Standard Test Method for Materials Finer Than 75-Micrometers (No. 200) Sieve in Mineral Aggregates by Washing.
   b. C136, Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
   c. D75, Standard Practice for Sampling Aggregates.
   d. D1556, Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
   e. D1557, Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).
   f. D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
   g. D4254, Standard Test Method for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
   h. D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.02 DEFINITIONS

A. Relative Compaction:

1. Ratio, in percent, of as-compacted field dry density to laboratory maximum dry density as determined in accordance with ASTM D1557.
2. Apply corrections for oversize material to either as-compacted field dry density or maximum dry density, as determined by Engineer.

B. Optimum Moisture Content:

1. Determined in accordance with ASTM Standard specified to determine maximum dry density for relative compaction.
2. Determine field moisture content on basis of fraction passing 3/4-inch sieve.

©COPYRIGHT 2022 JACOBS

C. Relative Density: Calculated in accordance with ASTM D4254 based on maximum index density determined in accordance with ASTM D4253 and minimum index density determined in accordance with ASTM D4254.

D. Prepared Ground Surface: Ground surface after completion of required demolition, clearing and grubbing, scalping of sod, stripping of topsoil, excavation to grade, and subgrade preparation.

E. Completed Course: A course or layer that is ready for next layer or next phase of Work.

F. Lift: Loose (uncompacted) layer of material.

G. Geosynthetics: Geotextiles, geogrids, or geomembranes.

H. Well-Graded:

1. A mixture of particle sizes with no specific concentration or lack thereof of one or more sizes.
2. Does not define numerical value that must be placed on coefficient of uniformity, coefficient of curvature, or other specific grain size distribution parameters.
3. Used to define material type that, when compacted, produces a strong and relatively incompressible soil mass free from detrimental voids.

I. Influence Area: Area within planes sloped downward and outward at 60-degree angle from horizontal measured from:

1. 1 foot outside outermost edge at base of foundations or slabs.
2. 1 foot outside outermost edge at surface of roadways or shoulder.
3. 0.5 foot outside exterior at spring line of pipes or culverts.

J. Borrow Material: Material from required excavations or from designated borrow areas on or near Site.

K. Selected Backfill Material: Materials available onsite that Engineer determines to be suitable for specific use.

L. Imported Material: Materials obtained from sources offsite, suitable for specified use.

M. Structural Fill: Fill materials as required under structures, pavements, and other facilities.

©COPYRIGHT 2022 JACOBS

N. Embankment Material: Fill materials required to raise existing grade in areas other than under structures.

O. Standard Specifications: When referenced in this section, shall mean City of Midland Standard Details and City of Midland Standard Specifications. Link to City of Midland Specifications: https://www.midlandtexas.gov/DocumentCenter/View/344/Standard-Specifications

1.03 SUBMITTALS

A. Action Submittals:

1. Shop Drawings: Tank manufacturer's recommendations for backfill around each buried tank.
2. Samples: Imported material taken at source.

B. Informational Submittals:

1. Manufacturer's data sheets for compaction equipment.
2. Certified test results from independent testing agency.

1.04 QUALITY ASSURANCE

A. Notify Engineer when:

1. Structure or tank is ready for backfilling, and whenever backfilling operations are resumed after a period of inactivity.
2. Soft or loose subgrade materials are encountered wherever embankment or site fill is to be placed.
3. Fill material appears to be deviating from Specifications.

1.05 SEQUENCING AND SCHEDULING

A. Complete applicable Work specified in Section 02 41 00, Demolition; Section 31 10 00, Site Clearing; Section 31 23 16, Excavation; and Section 31 23 13, Subgrade Preparation, prior to placing fill or backfill.

B. Backfill around water-holding structures only after completion of satisfactory leakage tests as specified in Section 03 30 00, Cast-in-Place Concrete.

C. Do not place granular base, subbase, or surfacing until after subgrade has been prepared as specified in Section 31 23 13, Subgrade Preparation.

©COPYRIGHT 2022 JACOBS

PART 2 PRODUCTS

2.01 SOURCE QUALITY CONTROL

A. Gradation Tests: As necessary to locate acceptable sources of imported material.

2.02 EARTHFILL

A. Excavated material from required excavations and designated borrow sites, free from rocks larger than 3 inches, from roots and other organic matter, ashes, cinders, trash, debris, and other deleterious materials.

2.03 GRANULAR FILL

A. 1-inch minus crushed gravel or crushed rock.

B. Free from dirt, clay balls, and organic material.

C. Well-graded from coarse to fine and containing sufficient fines to bind material when compacted, but with maximum 8 percent by weight passing No. 200 sieve.

2.04 SAND

A. Free from clay, organic matter, or other deleterious material.

B. Gradation as determined in accordance with ASTM C117 and ASTM C136:

Sieve Size	Percent Passing by Weight
1/4-inch	100
No. 4	95 - 100
No. 200	0 - 8

2.05 GRANULAR DRAIN MATERIAL

A. As specified in Section 31 23 23.15, Trench Backfill.

2.06 WATER FOR MOISTURE CONDITIONING

A. Free of hazardous or toxic contaminates, or contaminants deleterious to proper compaction.

©COPYRIGHT 2022 JACOBS

2.07 BASE COURSE ROCK

A. As specified in Section 32 11 23, Aggregate Base Courses.

2.08 FOUNDATION STABILIZATION ROCK

A. Crushed rock or pit run rock.

B. Uniformly graded from coarse to fine.

C. Free from excessive dirt and other organic material.

D. Maximum 2-1/2-inch particle size.

2.09 CRUSHED ROCK FOR SUBSTATIONS

A. Clean, hard, durable crushed rock, free from foreign materials and washed.

B. Gradation as determined in accordance with ASTM C117 and ASTM C136.

C. Base Course:

Sieve Size	Percent Passing by Weight
2 inches	100
1-1/2 inches	95 - 100
3/4 inch	55 - 75
1/4 inch	35 - 50
No. 10	4 - 60

D. Finish Grade Rock:

Sieve Size	Percent Passing by Weight
2 inches	-100
1-1/2 inches	90 - 100
1 inch	30 - 65
3/4 inch	0 - 15

E. Access Road Surfacing: Gradation same as for base course.

©COPYRIGHT 2022 JACOBS

PART 3 EXECUTION

3.01 GENERAL

A. Keep placement surfaces free of water, debris, and foreign material during placement and compaction of fill and backfill materials.

B. Place and spread fill and backfill materials in horizontal lifts of uniform thickness, in a manner that avoids segregation, and compact each lift to specified densities prior to placing succeeding lifts. Slope lifts only where necessary to conform to final grades or as necessary to keep placement surfaces drained of water.

C. During filling and backfilling, keep level of fill and backfill around each structure and buried tank even.

D. Do not place fill or backfill, if fill or backfill material is frozen, or if surface upon which fill or backfill is to be placed is frozen.

E. If pipe, conduit, duct bank, or cable is to be laid within fill or backfill:

1. Fill or backfill to an elevation 2 feet above top of item to be laid.
2. Excavate trench for installation of item.
3. Install bedding, if applicable, as specified in Section 31 23 23.15, Trench Backfill.
4. Install item.
5. Backfill envelope zone and remaining trench, as specified in Section 31 23 23.15, Trench Backfill, before resuming filling or backfilling specified in this section.

F. Tolerances:

1. Final Lines and Grades: Within a tolerance of 0.1 foot unless dimensions or grades are shown or specified otherwise.
2. Grade to establish and maintain slopes and drainage as shown. Reverse slopes are not permitted.

G. Settlement: Correct and repair any subsequent damage to structures, pavements, curbs, slabs, piping, and other facilities, caused by settlement of fill or backfill material.

©COPYRIGHT 2022 JACOBS

3.02 BACKFILL UNDER AND AROUND STRUCTURES

A. Under Facilities: Within influence area beneath structures, slabs, pavements, curbs, piping, conduits, duct banks, and other facilities, backfill with granular fill, unless otherwise shown. Place granular fill in lifts of 6-inch maximum thickness and compact each lift to minimum of 95 percent relative compaction as determined in accordance with ASTM D1557.

B. Subsurface Drainage: Backfill with granular drain material, where shown. Place granular drain material in lifts of 6-inch maximum thickness and compact each lift to minimum of 80 percent relative density based on ASTM D4253 and ASTM D4254.

C. Other Areas: Backfill with earthfill to lines and grades shown, with proper allowance for topsoil thickness where shown. Place in lifts of 6-inch maximum thickness and compact each lift to minimum 90 percent relative compaction as determined in accordance with ASTM D1557.

3.03 FILL

A. Outside Influence Areas beneath Structures, Tanks, Pavements, Curbs, Slabs, Piping, and Other Facilities: Unless otherwise shown, place earthfill as follows:

1. Allow for 6-inch thickness of topsoil where required.
2. Maximum 8-inch thick lifts.
3. Place and compact fill across full width of embankment.
4. Dress completed embankment with allowance for topsoil, crest surfacing, and slope protection, where applicable.

3.04 SITE TESTING

A. Gradation:

1. One sample from each 1,500 tons of finished product or more often as determined by Engineer, if variation in gradation is occurring, or if material appears to depart from Specifications.
2. If test results indicate material does not meet Specification requirements, terminate material placement until corrective measures are taken.
3. Remove material placed in Work that does not meet Specification requirements.

©COPYRIGHT 2022 JACOBS

3.05 GRANULAR BASE, SUBBASE, AND SURFACING

A. Place and Compact as specified in Section 32 11 23, Aggregate Base Courses and Standard Specifications.

3.06 REPLACING OVEREXCAVATED MATERIAL

A. Replace excavation carried below grade lines shown or established by Engineer as follows:

1. Beneath Fill or Backfill: Same material as specified for overlying fill or backfill.
2. Trenches:
   a. Unauthorized Overexcavation: Either trench stabilization material or granular pipe base material, as specified in Section 31 23 23.15, Trench Backfill.
   b. Authorized Overexcavation: Trench stabilization material, as specified in Section 31 23 23.15, Trench Backfill.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 31 23 23.15
TRENCH BACKFILL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Public Works Association (APWA): Uniform Color Code.
2. ASTM International (ASTM):
   a. C33/C33M, Standard Specification for Concrete Aggregates.
   b. C94/C94M, Standard Specification for Ready-Mixed Concrete.
   c. C117, Standard Test Method for Materials Finer than 75 Micrometer (No. 200) Sieve in Mineral Aggregates by Washing.
   d. C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
   e. C150/C150M, Standard Specification for Portland Cement.
   f. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
   g. C1012/C1012M, Standard Test Method for Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution.
   h. D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft^3 (600 kN-m/m^3)).
   i. D1140, Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75 micrometer) Sieve.
   j. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3)).
   k. D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
   l. D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
   m. D4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
   n. D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
   o. D4832, Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders.
3. National Electrical Manufacturers Association (NEMA): Z535.1, Safety Colors.

©COPYRIGHT 2022 JACOBS

1.02 DEFINITIONS

A. Base Rock: Granular material upon which manhole bases and other structures are placed.

B. Bedding Material: Granular material upon which pipes, conduits, cables, or duct banks are placed.

C. Imported Material: Material obtained by Contractor from source(s) offsite.

D. Lift: Loose (uncompacted) layer of material.

E. Pipe Zone: Backfill zone that includes full trench width and extends from prepared trench bottom to an upper limit above top outside surface of pipe, conduit, cable or duct bank.

F. Prepared Trench Bottom: Graded trench bottom after excavation and installation of stabilization material, if required, but before installation of bedding material.

G. Relative Compaction: The ratio, in percent, of the as-compacted field dry density to the laboratory maximum dry density as determined by ASTM D1557. Corrections for oversize material may be applied to either as-compacted field dry density or maximum dry density, as determined by Engineer.

H. Relative Density: As defined by ASTM D4253 and ASTM D4254.

I. Selected Backfill Material: Material available onsite that Engineer determines to be suitable for a specific use.

J. Well-Graded: A mixture of particle sizes that has no specific concentration or lack thereof of one or more sizes producing a material type that, when compacted, produces a strong and relatively incompressible soil mass free from detrimental voids. Satisfying both of the following requirements, as defined in ASTM D2487:

1. Coefficient of Curvature: Greater than or equal to 1 and less than or equal to 3.
2. Coefficient of Uniformity: Greater than or equal to 4 for materials classified as gravel, and greater than or equal to 6 for materials classified as sand.

©COPYRIGHT 2022 JACOBS

1.03 SUBMITTALS

A. Action Submittals:

1. Shop Drawings: Manufacturer's descriptive literature for marking tapes.
2. Samples:
   a. Trench stabilization material.
   b. Bedding and pipe zone material.
   c. Granular drain.
   d. Granular backfill.
   e. Earth backfill.
   f. Sand(s).

B. Informational Submittals:

1. Catalog and manufacturer's data sheets for compaction equipment.
2. Certified Gradation Analysis: Submit not less than 30 days prior to delivery for imported materials or anticipated use for excavated materials, except for trench stabilization material that will be submitted prior to material delivery to Site.
3. Controlled Low Strength Material: Certified mix design and test results. Include material types and weight per cubic yard for each component of mix.

PART 2 PRODUCTS

2.01 MARKING TAPE

A. Detectable:

1. Solid aluminum foil, visible on unprinted side, encased in protective high visibility, inert polyethylene plastic jacket.
2. Foil Thickness: Minimum 0.35 mils.
3. Laminate Thickness: Minimum 5 mils.
4. Width: 2 inches.
5. Identifying Lettering: Minimum 1-inch high, permanent black lettering imprinted continuously over entire length.
6. Joining Clips: Tin or nickel-coated furnished by tape manufacturer.
7. Manufacturers and Products:
   a. Reef Industries; Terra Tape, Sentry Line Detectable.
   b. Mutual Industries; Detectable Tape.
   c. Presco; Detectable Tape.

B. Color: In accordance with APWA Uniform Color Code.

©COPYRIGHT 2022 JACOBS

Color*	Facility
Red	Electric power lines, cables, conduit, and lightning cables
Orange	Communicating alarm or signal lines, cables, or conduit
Yellow	Gas, oil, steam, petroleum, or gaseous materials
Green	Sewers and drain lines
Blue	Potable water
Purple	Reclaimed water, irrigation, and slurry lines
*As specified in NEMA Z535.1, Safety Color Code.	

2.02 BEDDING MATERIAL AND PIPE ZONE MATERIAL

A. Unfrozen, friable, and no clay balls, roots, or other organic material.

B. Clean or gravelly sand with less than 5 percent passing No. 200 sieve, as determined in accordance with ASTM D1140, or gravel or crushed rock within maximum particle size and other requirements as follows unless otherwise specified.

1. Duct Banks: 3/4-inch maximum particle size.
2. PVC Irrigation System Piping and Ductile Iron Pipe with Polyethylene Wrap: 3/8-inch maximum particle size.
3. Pipe Under 18-Inch Diameter: 3/4-inch maximum particle size, except 1/4 inch for stainless steel pipe, copper pipe, tubing, and plastic pipe under 3-inch diameter.
4. Pipe 18-Inch Diameter and Greater: 1-1/2-inch maximum particle size for ductile iron pipe, concrete pipe, welded steel pipe, and pretensioned or prestressed concrete cylinder pipe.
5. Perforated Pipe: Granular drain material.
6. Conduit and Direct-Buried Cable:
   a. Sand, clean or clean to silty, less than 12 percent passing No. 200 sieve.
   b. Individual Particles: Free of sharp edges.
   c. Maximum Size Particle: Pass a No. 4 sieve.
   d. If more than 5 percent passes No. 200 sieve, the fraction that passes No. 40 sieve shall be nonplastic as determined in accordance with ASTM D4318.

2.03 EARTH BACKFILL

A. Soil, loam, or other excavated material suitable for use as backfill.

©COPYRIGHT 2022 JACOBS

B. Free from roots or organic matter, refuse, boulders and material larger than 1/2 cubic foot, or other deleterious materials.

2.04 CONTROLLED LOW STRENGTH MATERIAL (CLSM)

A. Select and proportion ingredients to obtain compressive strength between 50 psi and 150 psi at 28 days in accordance with ASTM D4832.

B. Materials:

1. Cement: ASTM C150/C150M, Type I or Type II.
2. Aggregate: ASTM C33/C33M, Size 7.
3. Fly Ash (Pozzolan): Class F fly ash in accordance with ASTM C618, except as modified herein:
   a. ASTM C618, Table 1, Loss on Ignition: Unless permitted otherwise, maximum 3 percent.
4. Water: Clean, potable, containing less than 500 ppm of chlorides.

2.05 CONCRETE BACKFILL

A. Mix: ASTM C94/C94M, Option A.

1. Cement: ASTM C150/C150M, Type I or Type II.
2. Coarse Aggregate Size: 3/4 inch.
3. Design for Minimum Compressive Strength at 28 Days: 3,000 psi.

2.06 GRAVEL SURFACING ROCK

A. As specified in Section 32 11 23, Aggregate Base Courses.

2.07 TOPSOIL

A. As specified in Section 32 91 13, Soil Preparation.

2.08 SOURCE QUALITY CONTROL

A. Perform gradation analysis in accordance with ASTM C136 for:

1. Earth backfill, including specified class.
2. Trench stabilization material.
3. Bedding and pipe zone material.

B. Certify Laboratory Performance of Mix Designs:

1. Controlled low strength material.
2. Concrete.

©COPYRIGHT 2022 JACOBS

PART 3 EXECUTION

3.01 GENERAL

A. Refer to City of Midland Standard Details as shown on Drawings.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 32 11 23
AGGREGATE BASE COURSES

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. C29, Standard Test Method for Bulk Density (Unit Weight) and Voids in Aggregate.
   b. C88, Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
   c. C117, Standard Method of Test for Materials Finer Than 75μm (No. 200) Sieve in Mineral Aggregates by Washing.
   d. C131, Standard Specification for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
   e. C183, Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates.
   f. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3 (2700 kN-m/m^3)).
   g. D1883, Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils.
   h. D2216, Standard Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.
   i. D2419, Test Method for Sand Equivalent Value of Soils and Fine Aggregate.
   j. D2844, Standard Specification for Resistance R-Value and Expansion Pressure of Compacted Soils.
   k. D4318, Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.
   l. D4791, Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
   m. D5195, Standard Test Methods for Density of Soil and Rock In-Place Below Surface by Nuclear Methods.
   n. D6938, Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

©COPYRIGHT 2022 JACOBS

1.02 DEFINITIONS

A. Completed Course: Compacted, unyielding, free from irregularities, with smooth, tight, even surface, true to grade, line, and cross-section.

B. Completed Lift: Compacted with uniform cross-section thickness.

C. Base Course: Crushed aggregate or similar as specified placed and compacted on prepared subgrade or subbase course.

D. Gravel Surfacing: Aggregate used for construction of low-volume access and staging area that can be easily graded and compacted.

E. Leveling Course: Crushed aggregate placed and compacted on base course to be used for finish grading.

F. Standard Specifications: When referenced in this section, shall mean the Texas Department of Transportation Standard Specifications for Road construction, latest edition.

G. Subbase Course: Sandy, gravelly material placed and compacted on prepared subgrade.

1.03 SUBMITTALS

A. Informational Submittals:

1. Certified Test Results on Source Materials: Submit copies from commercial testing laboratory 20 days prior to delivery of materials to Project showing materials meeting the physical qualities specified.

PART 2 PRODUCTS

2.01 BASE COURSE

A. As specified for Zone D, in the City of Midland Standard Details and Specifications.

B. Clean, hard durable, pit run gravel or crushed stone graded from coarse to fine containing enough fines to bind material when compacted.

C. Physical Qualities:

1. Abrasion, ASTM C131: 40 percent maximum wear.
2. Fractured Face: 75 percent minimum particles.
3. Liquid Limit, ASTM D4318: Maximum 30 percent.

©COPYRIGHT 2022 JACOBS

4. Plasticity Index, ASTM D4318: Maximum 6 percent.
5. Resistance (R) Value, ASTM D2844: 75, minimum.

D. Gradation, ASTM C183 and ASTM C117, Based on U.S. Standard Sieves:

Table 1
Gradation
Percent Passing by Weight

Sieve Designation (Square Opening)	Material Aggregate Base Course
1-3/4"	100%
7/8"	65-90%
3/8"	50-70%
No. 4	30-60%
No. 40	15-35%

2.02 SOURCE QUALITY CONTROL

A. Perform tests necessary to locate acceptable source of materials meeting specified requirements.

B. Final approval of aggregate material will be based on test results of installed materials.

C. Should separation of coarse from fine materials occur during processing or stockpiling, immediately change methods of handling materials to correct uniformity in grading.

PART 3 EXECUTION

3.01 EQUIPMENT

A. Compaction Equipment: Adequate in design and number to provide compaction and to obtain specified density for each layer.

3.02 HAULING AND SPREADING

A. Hauling Materials:

1. Do not haul over surfacing in process of construction.
2. Loads: Of uniform capacity.

©COPYRIGHT 2022 JACOBS

3. Maintain consistent gradation of material delivered; loads of widely varying gradations will be cause for rejection.

B. Spreading Materials:

1. Distribute material to provide required density, depth, grade, and dimensions with allowance for subsequent lifts.
2. Produce even distribution of material upon roadway or prepared surface without segregation.
3. Should segregation of coarse from fine materials occur during placing, immediately change methods of handling materials to correct uniformity in grading.

3.03 ROLLING AND COMPACTION

A. Commence rolling at outer edges and continue toward center; do not roll center of road first.

B. Apply water as needed to obtain specified densities.

C. Place and compact each lift to the required density before succeeding lift is placed.

D. Surface Defects: Remedy by loosening and rerolling. Reroll entire area, including surrounding surface, until thoroughly compacted.

E. Finished surface shall be true to grade and crown before proceeding with surfacing.

3.04 SURFACE TOLERANCES

A. Blade or otherwise work surfacing as necessary to maintain grade and cross-section at all times, and to keep surface smooth and thoroughly compacted.

B. Finished Surface of Untreated Aggregate Base Course: Within plus or minus 0.04 foot of grade shown at any individual point.

3.05 FIELD QUALITY CONTROL

A. In-Place Density Tests:

1. Provide Engineer at least 2 hours' advance notification prior to testing.
2. Show proof that areas meet specified requirements before identifying density test locations.

©COPYRIGHT 2022 JACOBS

3. Refer to Table 2 for minimum sampling and testing requirements for aggregate base course and surfacing.

Table 2
Minimum Sampling and Testing Requirements

Property	Test Method	Frequency	Sampling Point
Gradation	ASTM C117 and ASTM C183	One sample every 500 tons but at least every 4 hours of production	Roadbed after processing
Moisture Density (Maximum Density)	ASTM D1557, Method D	One test every 500 tons for every aggregate grading produced	Production output or stockpile
In-Place Density and Moisture Content	ASTM D5195, ASTM D6938, and ASTM D2216 for moisture content	One for each 500 ton but at least every 10,000 sq ft of area	In-place completed, compacted area

3.06 CLEANING

A. Remove excess material from the Work area. Clean stockpile and staging areas of all excess aggregate.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 32 12 16
ASPHALT PAVING

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO):
   a. M17, Standard Specification for Mineral Filler for Bituminous Paving Mixtures.
   b. M81, Standard Specification for Cut-Back Asphalt (Rapid Curing Type).
   c. M82, Standard Specification for Cut-Back Asphalt (Medium Curing Type).
   d. M140, Standard Specification for Emulsified Asphalt.
   e. M156, Standard Specification for Requirements for Mixing Plants for Hot-mixed, Hot-laid Bituminous Paving Mixes.
   f. M208, Standard Specification for Cationic Emulsified Asphalt.
   g. R35, Standard Practice for Superpave Volumetric Design for Hot Mix Asphalt.
   h. T166, Standard Method of Test for Bulk Specific Gravity (Gmb) of Compacted Hot Mix Asphalt (HMA) Mixtures Using Saturated Surface-Dry Specimens.
   i. T176 Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test.
   j. T209, Standard Method of Test for Theoretical Maximum Specific Gravity (Gmm) and Density of Hot Mix Asphalt (HMA).
   k. T245, Standard Method of Test for Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus.
   l. T246, Standard Method of Test for Resistance to Deformation and Cohesion of Hot Mix Asphalt (HMA) by Means of Hveem Apparatus.
   m. T247, Standard Method of Test for Preparation of Test Specimens of Hot Mix Asphalt (HMA) by Means of California Kneading Compactor.
   n. T283, Standard Method of Test for Resistance of Compacted Hot Mix Asphalt (HMA) to Moisture-Induced Damage.
   o. T304, Standard Method of Test for Uncompacted Void Content of Fine Aggregate.

©COPYRIGHT 2022 JACOBS

p. T312, Standard Method of Test for Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of a Superpave Gyratory Compactor.

2. Asphalt Institute (AI):
   a. Manual Series No. 2 (MS-2), Mix Design Methods for Asphalt Concrete.
   b. Superpave Series No. 2 (SP-2), Superpave Mix Design.
3. ASTM International (ASTM):
   a. D75, Standard Method of Test for Sampling of Aggregates.
   b. D140, Standard Method of Test for Sampling Bituminous Materials.
   c. D979, Standard Method of Test for Sampling Bituminous Paving Mixtures.
   d. D2041, Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.
   e. D2489, Standard Method of Test for Determining Degree of Particle Coating of Asphalt Mixtures.
   f. D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
   g. D4791, Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate.
   h. D5821, Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate.
   i. E329 REV A, Standard Specification for Agencies Engaged in Construction Inspection Testing, or Special Inspection.

1.02 DEFINITIONS

A. Combined Aggregate: All mineral constituents of asphalt concrete mix, including mineral filler and separately sized aggregates.

B. Reclaimed asphalt pavement (RAP): Removed and/or processed pavement materials containing binder and aggregate.

C. Standard Specifications: Texas State Department of Highways and Public Transportation Standard Specifications for Construction of Highways, Streets and Bridges, latest edition, City of Midland Standard Drawings and Standard Specifications.

1.03 SUBMITTALS

A. Action Submittals:

1. Samples:
   a. Sample per ASTM D140 and ASTM D195.

©COPYRIGHT 2022 JACOBS

b. Core Samples of Compacted Asphalt Concrete: 6 inches (100 millimeters).

B. Informational Submittals:

1. Asphalt Concrete Mix Formula:
   a. Submit minimum of 15 days prior to start of production.
   b. Submittal to include the following information:
      1) Gradation and portion for each aggregate constituent used in mixture to produce a single gradation of aggregate within specified limits.
      2) Bulk specific gravity for each aggregate constituent.
      3) Measured maximum specific gravity of mix at optimum asphalt content determined in accordance with ASTM D2041.
      4) Properties as stated in Section 2-F Hot mix Asphaltic Concrete of the Standard Specifications for at least four different asphalt contents other than optimum, two below optimum, and two above optimum.
      5) Percent of asphalt lost due to absorption by aggregate.
      6) Index of Retained Strength (TSR) at optimum asphalt content as determined by AASHTO T283.
      7) Percentage of asphalt cement, to nearest 0.1 percent, to be added to mixture.
      8) Optimum mixing temperature.
      9) Optimum compaction temperature.
      10) Temperature-viscosity curve of asphalt cement to be used.
      11) Brand name of any additive to be used and percentage added to mixture.
2. Test Report for Asphalt Cement:
   a. Submit minimum 10 days prior to start of production.
   b. Show appropriate test method(s) for each material and the test results.
3. Manufacturer's Certificate of Compliance, in accordance with Section 01 61 00, Common Product Requirements, for the following materials:
   a. Aggregate: Gradation, source test results as defined in the Standard Specifications.
   b. Asphalt for Binder: Type, grade, and viscosity-temperature curve.
   c. Prime Coat: Type and grade of asphalt.
   d. Tack Coat: Type and grade of asphalt.
   e. Additives.
   f. Mix: Conforms to job-mix formula.
4. Statement of qualification for independent testing laboratory.

©COPYRIGHT 2022 JACOBS

5. Test Results:
   a. Mix design.
   b. Asphalt concrete core.
   c. Gradation and asphalt content of uncompacted mix.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Independent Testing Laboratory: In accordance with ASTM E329 REV A.
2. Asphalt concrete mix formula shall be prepared by approved certified independent laboratory under the supervision of a certified asphalt technician.

1.05 ENVIRONMENTAL REQUIREMENTS

A. Temperature: Do not apply asphalt materials or place asphalt mixes when ground temperature is lower than 50 degrees F (10 degrees C) or air temperature is lower than 40 degrees F (4 degrees C). Measure ground and air temperature in shaded areas away from heat sources or wet surfaces.

B. Moisture: Do not apply asphalt materials or place asphalt mixes when application surface is wet.

PART 2 PRODUCTS

2.01 MATERIALS

A. Prime Coat: Cutback asphalt, Grade MC-30, Texas Highway Department Item 300.

B. Tack Coat: Emulsified Asphalt for Tack Coat or Seal Coat: Cut-back asphalt grade RC-250, Texas Highway Department Item 300.

2.02 ASPHALT CONCRETE MIX

A. General:

1. Mix formula shall not be modified except with written approval of Owner.
2. Source Changes:
   a. Should material source(s) change, establish new asphalt concrete mix formula before new material(s) is used.

©COPYRIGHT 2022 JACOBS

b. Perform check tests of properties of plant-mix bituminous materials on first day of production and as requested by Engineer to confirm that properties are in compliance with design criteria.
c. Make adjustments in gradation or asphalt content as necessary to meet design criteria.

B. Asphalt Concrete: AC - 5 or AC - 10 which shall comply with the requirements of Item 300, Texas State Department of Highways and Public Transportation 1982 Standard Specification for Construction of Highways, Streets and Bridges.

C. Composition: Hot-plant mix of aggregate, mineral filler if required, and paving grade asphalt cement. The several aggregate fractions shall be sized, uniformly graded, and combined in such proportions that resulting mixture meets grading requirements of mix formula.

D. Aggregate:

1. General: As specified in the Standard Specifications.
2. Coarse:
   a. Material retained on a No. 8 (2.36-millimeter) sieve.
   b. Minimum 75 percent by weight of individual pieces having two or more fractured faces, and 90 percent by weight having at least one fractured face.
3. Fine:
   a. Material passing a No. 8 (2.36-millimeter) sieve.
   b. Clean, sound, durable, angular shaped particles produced by crushing.
   c. Plasticity Index: Maximum 6.
   d. Liquid Limit: Maximum 25, when tested in accordance with ASTM D4318.
4. Natural Sand: May be used to a maximum of 15 percent by weight of total aggregate.

E. Mineral Filler: Mineral filler shall be non-air entrained Portland cement that is free of lumps or foreign matter.

PART 3 EXECUTION

3.01 GENERAL

A. Traffic Control:

1. In accordance with Section 01 50 00, Temporary Facilities and Controls.

©COPYRIGHT 2022 JACOBS

2. Minimize inconvenience to traffic, but keep vehicles off freshly treated or paved surfaces to avoid pickup and tracking of asphalt.

B. Driveways: Repave driveways from which pavement was removed. Leave driveways in as good or better condition than before start of construction.

3.02 LINE AND GRADE

A. Provide and maintain intermediate control of line and grade, independent of underlying base, to meet finish surface grades and minimum thickness.

B. Shoulders: Construct to line, grade, and cross-section shown.

3.03 PREPARATION

A. Prepare subgrade as specified in Section 31 23 13, Subgrade Preparation.

B. Existing Roadway:

1. Modify profile by grinding, milling, or overlay methods as approved, to provide meet lines and surfaces and to produce smooth riding connection to existing facility.
2. Remove existing material to a minimum depth of 1 inch (25 millimeters).
3. Paint edges of meet line with tack coat prior to placing new pavement.

C. Thoroughly coat edges of contact surfaces (curbs, manhole frames) with emulsified asphalt or asphalt cement prior to laying new pavement. Prevent staining of adjacent surfaces.

3.04 APPLICATION EQUIPMENT

A. In accordance with Section 2-F Hot Mix Asphaltic Concrete requirements of the City of Midland Standard Specifications.

3.05 PAVEMENT APPLICATION

A. General: Place asphalt concrete mixture on approved, prepared base in conformance with the Standard Specifications**.**

B. Prime Coat: Prepare and apply prime coat as specified in Bituminous Prime of City of Midland Standard Specifications.

C. Tack Coat: Where required, apply tack coat as specified in Bituminous Tack of City of Midland Standard Specifications.

©COPYRIGHT 2022 JACOBS

D. Compaction:

1. The asphaltic concrete surface shall be compacted so that the compacted mixture will contain not more than seven percent (7%) nor less than three percent (3%) air voids.
2. The surface of the pavement, after compaction, shall be smooth and true to the established line, grade, and cross section.
3. Roll until roller marks are eliminated. In general rolling shall conform to the requirements of item 340 of the Texas Department of Highways and Transportation 1982 Specifications for Construction of Highways, Streets and Bridges except as modified herein.

E. Tolerances:

1. General: Conduct measurements for conformity with crown and grade immediately after initial compression. Correct variations immediately by removal or addition of materials and by continuous rolling.
2. Completed Surface or Wearing Layer Smoothness:
   a. Uniform texture, smooth, and uniform to crown and grade.
   b. Maximum Deviation: 1/8-inch (3 millimeter) from lower edge of a 10-foot (3.6-meter) straightedge, measured continuously parallel and at right angle to centerline.
   c. If surface of completed pavement deviates by more than twice specified tolerances, remove and replace wearing surface.
3. Transverse Slope Maximum Deviation: (1/4-inch (6 millimeters) in 12 feet (3.6 meters) from rate of slope shown.
4. Finished Grade:
   a. Perform field differential level survey on maximum 50-foot grid and along grade breaks.
   b. Maximum Deviation: 0.02 foot (6 millimeters) from grade shown.

F. Seal Coat:

1. General: Apply seal coat of paving grade or emulsified asphalt to finished surface at longitudinal and transverse joints, joints at abutting pavements, areas where asphalt concrete was placed by hand, patched surfaces, and other areas as directed by Engineer.
2. Preparation:
   a. Surfaces that are to be sealed shall be maintained free of holes, dry, and clean of dust and loose material.
   b. Seal in dry weather and when temperature is above 35 degrees F (2 degrees C).

©COPYRIGHT 2022 JACOBS

3. Application:
   a. Fill cracks over 1/16-inch (1.5 millimeters) in width with asphalt-sand slurry or approved crack sealer prior to sealing.
   b. When sealing patched surfaces and joints with existing pavements, extend minimum 6 inches (150 millimeters) beyond edges of patches.

3.06 PAVEMENT OVERLAY

A. Preparation:

1. Remove fatty asphalt, grease drippings, dust, and other deleterious matter.
2. Surface Depressions: Fill with asphalt concrete mix, and thoroughly compact.
3. Damaged Areas: Remove broken or deteriorated asphalt concrete and patch as specified in Article Patching.
4. Portland Cement Concrete Joints: Remove joint filler to minimum 1/2-inch (12 millimeters) below surface.

B. Application:

1. Tack Coat: As specified in this section.
2. Place and compact asphalt concrete as specified in Article Pavement Application.
3. Place first layer to include widening of pavement and leveling of irregularities in surface of existing pavement.
4. When leveling irregular surfaces and raising low areas, the actual compacted thickness of any one lift shall not exceed 2 inches (50 millimeters).
5. Actual compacted thickness of intermittent areas of 120 square yards (100 square meters) or less may exceed 2 inches (50 millimeters), but not 4 inches (100 millimeters).
6. Final wearing layer shall be of uniform thickness, and meet grade and cross-section as shown.

C. Application:

1. Patch Thickness: 3 inches (75 millimeters) or thickness of adjacent asphalt concrete, whichever is greater.
2. Place asphalt concrete mix across full width of patch in layers of equal thickness.
3. Spread and grade asphalt concrete with hand tools or mechanical spreader, depending on size of area to be patched.

©COPYRIGHT 2022 JACOBS

D. Compaction:

1. Roll patches with power rollers capable of providing compression of 200 pounds per linear inch to 300 pounds per linear inch (350 Newtons per linear centimeter to 525 Newtons per linear centimeter). Use hand tampers where rolling is impractical.
2. Begin rolling top course at edges of patches, lapping adjacent asphalt surface at least one-half the roller width. Progress toward center of patch overlapping each preceding track by at least one-half width of roller.
3. Make sufficient passes over entire area to remove roller marks and to produce desired finished surface.

E. Tolerances:

1. Finished surface shall be flush with and match grade, slope, and crown of adjacent surface.
2. Tolerance: Surface smoothness shall not deviate more than plus 1/4 inch (6 millimeters) or minus 0 inch when straightedge is laid across patched area between edges of new pavement and surface of old surfacing.

3.07 FIELD QUALITY CONTROL

A. General: Provide services of approved certified independent testing laboratory to conduct tests.

B. Field Density Tests:

1. Perform tests from cores or sawed samples in accordance with AASHTO T166.
2. Measure with properly operating and calibrated nuclear density gauge in accordance with ASTM D2950.
3. Maximum Density: In accordance with ASTM D2041, using sample of mix taken prior to compaction from same location as density test sample.

C. Testing Frequency:

1. Quality Control Tests:
   a. Asphalt Content, Aggregate Gradation: Once per every 500 tons (400 mg) of mix or once every 4 hours, whichever is greater.
   b. Mix Design Properties, Measured Maximum (Rice's) Specific Gravity: Once every 1,000 tons (900 mg) or once every 8 hours, whichever is greater.
2. Density Tests: Once every 500 tons (450 mg) of mix or once every 4 hours, whichever is greater.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 32 13 13
CONCRETE PAVING

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO).
   a. M6, Standard Specification for Fine Aggregate for Portland Cement Concrete.
   b. M80, Standard Specification for Coarse Aggregate for Portland Cement Concrete.
   c. M153, Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
   d. M157, Standard Specification for Ready-Mixed Concrete.
   e. M213, Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
   f. M227/M227M, Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties.
2. American Concrete Institute (ACI):
   a. 305R, Hot Weather Concreting.
   b. 306R, Cold Weather Concreting.
   c. 308, Standard Practice for Curing Concrete.
   d. 318/318R, Building Code Requirements for Structural Concrete and Commentary.
   e. 325.9R, Guide for Construction of Concrete Pavements and Concrete Bases.
3. ASTM International (ASTM):
   a. A615/A615M, Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
   b. C31/C31M, Standard Practice for Making and Curing Concrete Test Specimens in the Field.
   c. C33, Specification for Concrete Aggregates.
   d. C39/C39M, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
   e. C42/C42M, Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

©COPYRIGHT 2022 JACOBS

f. C78, Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading).
g. C88, Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
h. C94/C94M, Standard Specification for Ready-Mixed Concrete.
i. C143/C143M, Standard Test Method for Slump of Hydraulic Cement Concrete.
j. C150, Specification for Portland Cement.
k. C172, Standard Practice for Sampling Freshly Mixed Concrete.
l. C231, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
m. C260, Standard Specification for Air-Entraining Admixtures for Concrete.
n. C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
o. C494/C494M, Standard Specification for Chemical Admixtures for Concrete.
p. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete.
q. C803/C803M, Test Method for Penetration Resistance of Hardened Concrete.
r. C1330, Specification for Cylindrical Seal Backing for Use With Cold Liquid Applied Sealants.
s. C805, Test Method for Rebound Number of Hardened Concrete.
t. D920, Standard Specification for Elastomeric Joint Seals.
u. D994, Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
v. D1751, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
w. D1752, Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
x. D2628, Specification for Preformed Polychloroprene Elastomeric Joint Seals for Concrete.
y. D2828, Specification for Non-Bituminous Inserts for Contraction Joints in Portland Cement Concrete Airfield Pavements, Sawable Type.
z. D3406, Specification for Joint Sealant, Hot-Applied, Elastomeric-Type, for Portland Cement Concrete Pavements.
aa. D3569, Specification for Joint Sealant, Hot-Applied, Elastomeric, Jet-Fuel-Resistant Type for Portland Cement Concrete Pavements.

©COPYRIGHT 2022 JACOBS

bb. D3581, Specification for Joint Sealant, Hot-Applied, Jet-Fuel-Resistant-Type, for Portland Cement and Tar-Concrete Pavements.
cc. D5249, Specification for Backer Material for Use With Cold- and Hot-Applied Joint Sealants in Portland Cement Concrete and Asphalt Joints.
dd. D5893, Specification for Cold-Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.
ee. E329, Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.

4. National Ready Mixed Concrete Association (NRMCA).

1.02 DEFINITIONS

A. Standard Specification: City of Midland Standard Specifications and Standard Details.

1.03 SUBMITTALS

A. Action Submittals:

1. Product Data: Admixtures.
2. Design Data:
   a. Concrete mix design signed by concrete mix designer.
   b. Minimum Information:
      1) Name of ready-mix plant.
      2) Project.
      3) Engineer.
      4) Contractor.
      5) Mix design number.
      6) Specified concrete strength.
      7) Water-cement-fly ash ratio.
      8) Maximum aggregate size.
      9) Cement content.
      10) Fly ash content.
      11) Water content.
      12) Type, name, and amount of admixtures.
      13) Unit weight.
      14) Slump.
      15) Ingredient proportions corrected for average moisture content for particular times of year.
3. Jointing Drawings: Identify location and spacing of each type of joint.

©COPYRIGHT 2022 JACOBS

4. Gradation for coarse and fine aggregates, and combined gradation. List percent passing each sieve size.
5. Detailed plan for cold weather placements, including curing and protection.
6. Detailed plans for hot weather placements, including curing and protection.

B. Informational Submittals:

1. Manufacturers' Certificate of Compliance:
   a. Portland cement.
   b. Admixtures.
   c. Fly ash.
   d. Aggregates.
2. Statements of Qualifications:
   a. Mix designer.
   b. Batch plant.
   c. Testing laboratory.
3. Test Reports:
   a. Admixtures: Chemical ingredients and percentage of chloride in each admixture and fly ash.
   b. Fly Ash: Source test analysis and amount used in accordance with ASTM C94/C94M, Section 16.
   c. Mix Design: For each trial, signed by qualified mix designer.
   d. Laboratory Mixes: Cylinder test results.
4. Concrete Delivery Tickets:
   a. For each batch of concrete before unloading at Site.
   b. Minimum Delivery Ticket Information:
      1) Name of ready-mix plant.
      2) Serial number of ticket.
      3) Date and truck number.
      4) Name of Contractor.
      5) Job name and location.
      6) Mix design number.
      7) Amount of concrete (cubic yards).
      8) Type and amount of admixtures.
      9) Amount of water added at batch plant.
      10) Time of loading, arriving at Site, and unloading.
      11) Volume of water added by receiver of concrete and their initials.
   c. Record of drum revolution counter, type, and brand.

©COPYRIGHT 2022 JACOBS

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Mix Designer: Licensed professional engineer registered in the state of Project or a certified concrete mix designer approved by local Department of Transportation.
2. Testing or Inspection Agency: In conformance with ASTM E329.
3. Batch Plant: Currently certified by the National Ready Mixed Concrete Association.

B. Hot Weather Concreting: Conform to ACI 305R.

C. Cold Weather Concreting: Conform to ACI 306R.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Transporting of ready-mix concrete shall be in accordance with ASTM C94/C94M.

PART 2 PRODUCTS

2.01 CONCRETE MATERIALS

A. Cement:

1. Furnish cement for Project from one source.
2. Portland cement shall be Type I.
3. In accordance with ASTM C150.
4. Pozzolan: ASTM C618, Class C flyash.

B. Aggregates:

1. General:
   a. Aggregate for portland cement concrete mixture shall be 2-inch maximum size stone meeting requirements of AASHTO M6 and AASHTO M80.
   b. Material: Natural aggregates, free from deleterious coatings.
   c. Aggregates shall not be potentially reactive as defined in ASTM C33.
   d. Aggregates not in compliance with soundness and durability requirements of ASTM C33 may be used with prior approval of Engineer; provided it can be shown by special testing or record of past performance that these aggregates produce concrete of adequate strength and durability. Aggregate soundness testing for fine and coarse aggregates shall be in accordance with ASTM C33 and ASTM C88.

©COPYRIGHT 2022 JACOBS

2. Fine Aggregates:
   a. Must be graded coarse to fine within the following limits.

General Requirements	
Sieve Size Passing	**Percentages by Weight**
3/8"	100
No. 4	90-100
No. 8	55-85
No. 16	45-75
No. 30	25-55
No. 50	5-30
No. 100	0-8

   b. Sand: Equivalent of not less than 68.
   c. Materials finer than 200 sieve shall not exceed 4 percent.
3. Coarse Aggregate:
   a. Materials finer than 200 sieve shall not exceed 0.5 percent.
   b. Size:1-1/2-inch to No. 4.

Grading Requirements		
Sieve Size Passing	**Separated Sizes 1-1/2 Inch to 3/4 Inch**	**Percentages (by Weight) 3/4 Inch to No. 4**
2"	100	
1-1/2"	90-100	
1"	30-65	100
3/4"	0-15	90-100
3/8"		20-50
No. 4		0-10

C. Physical Properties: Meet requirements of AASHTO M80 for Class B.

D. Water: ASTM C94/C94M.

E. Admixtures:

   1. Add admixtures to mix at batch plant.

©COPYRIGHT 2022 JACOBS

2. Air Entraining: ASTM C260.
3. Water Reducing:
   a. ASTM C494/C494M, Type A, normal, or Type D, retarding type, containing no chlorides and compatible with air-entraining admixtures.
   b. Do not use calcium chloride, salt, or antifreeze agents.

2.02 ANCILLARY MATERIALS

A. Tie Bars: Grade 40 deformed steel bars conforming to ASTM A615/A615M.

B. Dowels: Conform to requirements of AASHTO M227/M227M, Grade 70.

C. Joint Filler:

1. Preformed expansion joint filler conforming to AASHTO M153 or AASHTO M213.
2. Fillers furnished under AASHTO M213 shall be tested in accordance with ASTM D1751.

D. Joint Sealant:

1. Preformed elastomeric joint seal conforming to AASHTO M220.
2. Hot-poured elastomeric joint seal conforming to AASHTO M282.
3. Cold-applied single component joint sealant conforming to ASTM D5893.
4. Elastomeric joint sealant conforming to ASTM C920.

E. Backer Rod:

1. Backer material conforming to ASTM D5249.
2. Cylindrical sealant backing conforming to ASTM C1330.

F. Curing Compound: ASTM C309, Type 1, or Type 2, Class A, or Class B, suitable for spray application.

G. Curing Membranes:

1. White polyethylene sheeting.
2. Waterproof paper.
3. Cotton or jute mats.

H. Evaporation Retardant: Confilm as manufactured by Master Builders Company.

©COPYRIGHT 2022 JACOBS

2.03 EQUIPMENT

A. Ready-Mix Concrete Batch Plants: Certified by NRMCA.

B. Batch Plants:

1. Bins shall have adequate separate compartments for fine aggregate, each separate size of coarse aggregate and cement. Bins and compartments shall be tight and ample to prevent spilling from one bin to another. Separate compartments, including weighting hoppers, shall discharge freely and efficiently.
2. Scales for weighing aggregates and cement may be either beam type or springless dial type. They shall be accurate within 0.5 percent under operating conditions throughout the range of use and, tested and adjusted as often as Engineer may deem necessary to assure their continued accuracy.
3. Equipment for dispensing water and admixtures shall provide a separate feed, accurate quantity measurement, and shall inject water and admixture at a time in mixing process to ensure thorough and complete mixing throughout batch of portland cement concrete.
4. Automatically controlled batchers shall have automatically interlocked mechanisms providing the following:
    a. Positive weighing and discharge of cement and of each separate size of aggregate.
    b. Interlocking between weighing hoppers to prevent part of batch from being discharged until each separate hopper has been filled with correct proportion.
    c. Simultaneous discharge of hoppers.
    d. Lockable compartment containing time setting controls.
5. Equip mixers with a timing device that will not permit batch to be discharged until specified mixing time has elapsed. The means of storing, measuring and introducing water into mixer shall provide positive control and accurate measurement.

C. Ready-Mix Concrete Trucks:

1. Agitator mixer type.
2. Equipped with operable electrically actuated drum revolution counters.
3. Use of nonagitator equipment will not be permitted.
4. Each mixer shall carry a clearly visible manufacturer’s plate showing capacity of mixer and other pertinent operating rates and limits.
5. Provision shall be made at mixer for controlled addition of air-entraining admixtures or other special components of mix.

©COPYRIGHT 2022 JACOBS

6. Mixing Speed: 70 to 100 revolutions at a mixing speed recommended by truck mixer manufacturer.

D. Hauling Equipment:

1. Hauling equipment shall conform to AASHTO M157, Paragraph 11.6 and Paragraph 12.
2. Upon delivery of each batch of concrete to Site, a trip ticket shall be submitted to Engineer.

E. Paving Equipment:

1. Slipform Paver:
   a. Place portland cement concrete with two separate machines, one a spreader and one a slipform paver. Machines, when operating in tandem shall spread, consolidate, screed, and float finish freshly placed portland cement concrete in one pass with a minimum of hand finishing. Each machine shall be fully self-propelled and equipped with electronic controls to control line and grade from both sides.
   b. Spreader shall be able to deliver mix without segregation or displacing reinforcing steel.
   c. Able to vibrate portland cement concrete for full width and depth and be equipped with vibrating tubes or arms to work in portland cement concrete. Sliding forms shall be held together rigidly to prevent them from spreading. Form shall be long enough so slumping of portland cement concrete will not exceed 1/4 inch.
   d. Supports of paver and other equipment which ride on previously placed pavement shall be equipped to prevent marring, edge breaking, or chipping of previously placed pavement.
2. Bridge Deck Finisher/Paver: A bridge or similar finishing/paving machine utilizing previously constructed and cured curb and gutter as side forms and support for machine rails may be used with prior approval of Engineer.

F. Concrete Saws:

1. Provide power driven concrete saws for sawing joints or finishing concrete, adequate in number of units and power to complete sawing at required rate.
2. Saws and related equipment shall be of proven adequacy and design to perform efficiently and shall be subject to immediate replacement, if specified results are not obtained.
3. Standby saw shall be available at Site.

©COPYRIGHT 2022 JACOBS

G. Smoothness Testing Equipment: Supply two 12-foot straightedges for determining smoothness.

2.04 CONCRETE MIX DESIGN

A. Compressive strength of 4,000 psi minimum and flexural strength of 650 psi minimum, both at 28 days.

1. If the 650 psi flexural strength specification requires a compressive strength in excess of 4,000 psi, the higher compressive value shall be used as a standard minimum for compressive strength cylinder tests taken during construction.
2. The relationship between compressive strength f_c and modulus of rupture f_r shall be:

$f_r = k\sqrt{f_c}$ with k derived from the tests results.

B. Concrete target strengths shall be in accordance with ACI 318/318R.

C. Maximum water-cement ratio or water-cement plus pozzolan ratio, if applicable, shall not exceed 0.48.

D. Replacement of cement with pozzolan shall not exceed 20 percent.

E. Maximum Aggregate Size: 1-1/2 inch minus.

F. Allowable Slump: 3 inches, plus or minus 1 inch.

G. Allowable Air Entrainment: 5 percent, plus or minus 1 percent by volume.

H. Concrete shall contain water reducer. Amount of admixture added to concrete shall be in accordance with manufacturer’s written instructions.

I. Use of set-retarding admixtures shall be subject to prior approval by Engineer.

J. Do not use frozen materials or materials containing ice or snow.

K. Concrete temperature as delivered to site ready for placement shall be above 50 degrees F and below 90 degrees F.

PART 3 EXECUTION

3.01 WEATHER LIMITATIONS

A. Concrete shall not be placed:

1. Until the air temperature in the shade is 35 degrees F and rising and is forecast to remain above 35 degrees F.

©COPYRIGHT 2022 JACOBS

2. On frozen ground.
3. During periods of rain or snow.

B. Concrete placement shall not continue when air temperature drops below 40 degrees F.

C. Protect concrete pavement from inclement weather for 7 days after it has been placed, when rain is imminent, and when air temperature drops or is forecast to drop below 35 degrees F.

3.02 PREPARATION

A. Prepare base as specified in Section 32 11 23, Aggregate Base Courses.

B. Dampen base thoroughly prior to concrete placement; standing water will not be permitted.

C. Formwork shall be complete prior to placement of concrete. Area in which concrete is to be placed, shall be smooth and free of ruts, projections, debris, spilled concrete, mud, sloughed soil, standing water, organic and other objectionable materials.

D. Construction Joints: Inspect prior to placement of concrete.

E. Prior to placing paving equipment in position, full width and length of the area on which the tracks of the paving equipment is to operate shall be brought to density and surface tolerances required.

F. Protect existing exposed surfaces such as grates, catch basins, air valves, manholes, and cleanout lids from splattered and spilled concrete during concrete placement by use of durable waterproof paper.

G. Furnish operable backup vibrator on Site prior to concrete placement.

3.03 SLIP FORM PAVING

A. Deliver from hauling vehicles to paving machine hopper.

B. Contractor’s equipment hauling portland cement concrete or reinforcement will not be permitted on subgrade, but will be allowed on base, with turns or other maneuvering kept to a minimum. Damage to subgrade or base shall be corrected to satisfaction of Engineer.

©COPYRIGHT 2022 JACOBS

C. Place in final position uniformly in one layer, so a minimum of finishing will be necessary to provide a dense, homogenous pavement conforming to true grade and cross section.

1. Spreader shall receive portland cement concrete mixture in its hopper and uniformly spread and strike it off at proper thickness for full width of area being paved.
2. Paver shall vibrate, consolidate, and finish slab to proper grade and cross section.

D. Paver:

1. Operated with as continuous forward movement as possible.
2. Coordinate mixing, delivering, and spreading portland cement concrete to provide uniform progress.
3. Stopping and starting paver shall be held to a minimum. If, for any reason, it is necessary to stop forward motion of paver, vibratory and tamping elements shall also be stopped immediately.
4. No external force shall be applied to paver, except with approval of Engineer.

E. While placing portland cement concrete, provision shall be made for constructing joints, placing dowels, tie bars, and other devices as called for by Drawings and as provided in Article Joints.

F. Portland cement concrete shall be rejected if it:

1. Is not in place within 1 hour after being mixed.
2. Has begun to take an initial set prior to placement.
3. Has been retempered with water.

G. If necessary, supplemental hand spreading and distributing shall be with shovels. Rakes will not be permitted.

H. Portland cement concrete shall not be fouled with foreign matter.

I. Use vibrators to consolidate portland cement concrete pavement at least 6 feet each side of construction joints and expansion joints.

3.04 JOINTS

A. General:

1. Referred to as contraction or construction, either of which may be transverse or longitudinal, as called for by Drawings or as approved by Engineer.

©COPYRIGHT 2022 JACOBS

2. Joints, backer material, joint filler and joint sealants shall extend to pavement edges or to each other, as the case may be, and shall be constructed perpendicular to surface of pavement.
3. Joints shall not vary from specified or indicated line by more than 1/4 inch.
4. Contractor shall submit jointing plan and details to Engineer for approval. Take into consideration placement of joints in curb and gutter, at catch basins, and position of manholes and other large structures, as well as other limitations herein mentioned.
5. Place manhole or similar large structure in line of joint, or if impractical, isolate structure from pavement with premolded joint filler, 1/2-inch wide, conforming to AASHTO M213 and ASTM D1751.

B. Contraction Joints:

1. Sawed Type with Poured Filler:
   a. Sawing shall be to a depth as shown on Drawings with a maximum width of 1/4 inch and a minimum width of 1/8 inch, in straight lines as shown or as approved by Engineer.
   b. Perform saw cuts as soon as portland cement concrete has set enough to permit sawing without tearing or raveling, before uncontrolled cracking results, and within 24 hours of placing portland cement concrete.
   c. Saws may be single or tandem, as Contractor may elect, and shall be controlled by guides to true line.
   d. Clean joints thoroughly of foreign matter before pouring approved rubber asphalt filler.
   e. Tops of joint filler shall be true to pavement cross section within 1/8 inch and shall be protected from damage by portland cement concrete operations.
   f. Areas containing uncontrolled cracks shall be removed and replaced.
   g. Restore curing agents broken or damaged by sawing operations.
2. Space longitudinal joints as shown on Drawings at the interface between lanes, normally at intervals between 12 feet to 16 feet.
3. Transverse joints shall be as shown on Drawings or as approved by Engineer, with intervals of 12 feet to 16 feet.

C. Construction Joints:

1. Construct when there is an interruption of longer 45 minutes in portland cement concrete placing operations or where specified.
2. Place parallel with intended contraction joint.

©COPYRIGHT 2022 JACOBS

3. Tool both free edges of joints with 1/8 inch radius rounder to remove laitance and mortar resulting from finishing operations and to provide clean rounded edge. Tooling shall not form ridges on surface of concrete.
4. New portland cement concrete placed contiguous to joint shall conform to proportions and consistency of previously placed concrete.
5. Transverse Construction Joint:
    a. Doweled type using No. 8 by 36-inch long dowels at 12-inch centers coated with plastic, grease, heavy oil or other approved material that will neither bond with nor be harmful to operation at a depth of 1/2 the pavement thickness parallel to centerline.]
    b. If sufficient portland cement concrete has not been mixed at the time of interruption to place a construction joint at least 3 feet from a planned contraction joint, remove excess portland cement concrete back to a position to satisfactorily meet these criteria and to satisfaction of Engineer.
    c. Fill joint which has opened to a width of 1/8 inch or greater during construction or maintenance periods with poured filler.
    d. Do not construct within 3 feet of a transverse contraction joint.
6. Longitudinal Construction Joint:
    a. Tied type using No. 5 by 36-inch deformed tie bars at 12-inch centers.
    b. Tie Bars:
        1) Not required at construction joint between portland cement concrete pavement and gutter, except where shown on Drawings and mentioned above.
        2) Placement:
            a) Plastic Portland Cement Concrete: Insert before vibrating and finishing portland cement concrete; or
            b) Hardened Concrete:
                (1) Drill hole, insert, and grout tie bars into place.
                (2) Drill holes large and deep enough to allow tie bars to be inserted with grout.
                (3) Perform any time after portland cement concrete has attained enough strength to resist any damage caused by drilling.
                (4) Tie bars shall be grouted a maximum of 3 hours prior to placement of adjacent portland cement concrete.
        3) Replace loose tie bars by drilling and grouting as described.

©COPYRIGHT 2022 JACOBS

D. Scored Joints:

1. Configuration: 1/4-inch wide by 1/4-inch deep at locations indicated on Drawings formed by tooling of concrete while it is still fresh.
2. Do not fill or seal.
3. Layout of joints shall be straight and true and shall not vary from indicated line by more than 1/4 inch.

3.05 SURFACE FINISHING

A. Use temporary screeds. Wet screeding and jitterbugging shall not be permitted.

B. Pavement shall have surface tolerance of 1/4 inch in 10 feet in accordance with ACI 325.9R.

C. Salting, spreading of cement or cement and sand mixture to speed up hardening shall not be permitted.

D. Exposed pavement edges shall be edged to a 1/2-inch radius after finishing. Edging shall not form ridges on pavement surface.

E. Pavement shall be treated and protected by use of evaporation retardant applied in accordance with manufacturer's written instructions. Flat surfaces shall be treated immediately after screeding and floating or if time period greater than 15 minutes occurs between finishing operations.

F. Pavement shall be screeded, floated, and given heavy nylon bristle-broomed skid-resistant surface.

1. Broomed surface with hand broom or mechanical broom device to produce 1/16-inch to 1/8-inch deep striations oriented perpendicular to the direction of travel.

3.06 CURING OF PORTLAND CEMENT CONCRETE

A. Immediately after the final floating, surface finishing, and edging has been completed, and while portland cement concrete surface is still moist, cover and cure entire exposed surface for at least 72 hours in accordance with one of the following provisions:

1. Liquid Membrane-Forming Compounds: Apply compound uniformly to portland cement concrete by pressure spray methods at a rate which will form an impervious membrane, but at least at a rate of 1 gallon per 150 square feet.

©COPYRIGHT 2022 JACOBS

2. Other Membranes:
   a. Apply to damp portland cement concrete as soon as it can be placed without marring surface.
   b. Place in contact with surface, extend beyond sides or edges of slabs or forms, and fasten down to hold it in position as a waterproof and moisture-proof covering.
   c. Laps shall be sufficient to maintain tightness equivalent to sheeting.
   d. Transverse laps for waterproof paper shall be at least 18 inches, and longitudinal seams shall be cemented.
   e. Cotton or jute mats shall be saturated with water prior to placing and kept fully wetted during curing period.

B. Concrete shall be cured by use of curing compound, for minimum of 7 days after concrete placement, in accordance with ACI 308. Curing compounds shall be applied in accordance with manufacturer's written instructions.

C. Exposed surfaces shall be sprayed with curing compound immediately after free surface water has disappeared from finished surface.

D. Concrete temperature shall be maintained in accordance with ACI 306R.

E. Curing compounds shall not come in contact with hardened concrete that is to be concreted against.

3.07 FIELD QUALITY CONTROL

A. Retain independent testing or inspection agency to perform inspection, sampling, and testing.

B. Concrete Sampling: In accordance with ASTM C172. Take sample not less than every 5,000 square feet or fraction thereof of concrete placed each day.

C. Perform following tests on each sampling:

1. Slump: ASTM C143/C143M.
2. Air Content: ASTM C231.
3. Compressive Strength: ASTM C39/C39M.
4. Flexural Strength: ASTM C78.

D. Strength Tests:

1. Make and cure cylinders and beams in accordance with ASTM C31/C31M.

©COPYRIGHT 2022 JACOBS

2. Cylinders: Make four, standard 6-inch diameter by 12 inches high. Cure one in field and three in laboratory.
3. Beams: Make three, standard 6 inches by 6 inches by 21 inches. Cure in field.
4. Compressive: Test one field-cured cylinder at 7 days and two laboratory-cured cylinders at 28 days. Test last cylinder at 56 days if 28-day cylinder is below specified strength.
5. Flexural: Test one beam at 7 days and two beams at 28 days.

E. Acceptance of concrete shall be in accordance with ACI 318/318R.

F. Concrete with compressive strength less than specified, as evidenced by cylinder tested at 56 days, shall be additionally tested as follows:

1. Less Than 500 psi Low in Compression or Less Than 75 psi Low in Flexure:
   a. Penetration Resistance Test: ASTM C803.
   b. Rebound Hammer Test: ASTM C805.
   c. Perform tests within 24 hours of noncomplying strength tests.
2. More Than 500 psi Low in Compression or More Than 75 psi Low in Flexure:
   a. Concrete Coring: Take three standard cores from concrete representing original specimens.
   b. Take and prepare cores in accordance with ASTM C42/C42M.
   c. Test cores in accordance with ASTM C39/C39M.
   d. Take cores within 24 hours of noncomplying strength test.

G. Pay Factor:

1. Portland cement concrete shall be accepted according to average compressive strengths of four or more cylinders taken for 28-day tests for each 500 cubic yards placed and the following acceptance schedule.

Acceptance Schedule Compressive Strength	
Pay Factor	**Percent of Specified Strength**
1.00	95 percent or higher
0.90	90 to 95 percent
0.70	80 to 90 percent
Remove and replace	Less than 80

2. Whenever percentage of specified compressive strength falls below the level of 80 percent, Engineer may require the portland cement concrete be removed and replaced to meet required Specifications.

©COPYRIGHT 2022 JACOBS

3. If the compressive strength, f_c, to comply with the flexural strength requirement is greater than 4,000 psi, then the specified strength shall be multiplied by:

$$\frac{F_c}{4000}$$

3.08 CLEANING

A. Clean concrete splatter from exposed surfaces.

B. Thoroughly broom and wash concrete surfaces before opening to traffic.

3.09 PROTECTION OF CONCRETE

A. Do not operate construction equipment or allow traffic on newly placed portland cement concrete until the following requirements are met:

1. Joints have been filled as per Article Joints.
2. Concrete has attained a compressive strength of at least 4,000 pounds per square inch.

B. Protect new concrete from construction operations, mechanical disturbances, water flow, and soiling until open for traffic.

C. Erect and maintain suitable barriers to protect concrete from traffic or other detrimental trespass until pavement is opened to traffic.

D. Maintain watchmen after normal working hours for at least a 24-hour period to ensure barriers are not removed or destroyed, and that trespass and vandalism upon pavement does not occur.

E. Wherever it is necessary that traffic, including Contractor's vehicles and equipment, be carried from one side of pavement to the other, construct suitable bridges over pavement, and maintain them in good condition as long as they may be required. Leaving gaps in pavement to facilitate movement of traffic will not be allowed, unless prior written permission is obtained from Engineer.

F. Protect new concrete from dirt, asphalt, and other deleterious substances that may be tracked onto new pavement from construction activities.

G. Pavement damaged by traffic or damaged from any other cause, prior to its official acceptance, shall be repaired or replaced to the satisfaction of Engineer.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 32 16 00
CURBS AND GUTTERS

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO): T 99, Standard Specification for the Moisture-Density Relations of Soils Using a 2.5 kg (5.5 pound) Rammer and a 305 mm (12 in.) Drop.
2. American Concrete Institute (ACI): 304R, Guide for Measuring, Mixing, Transporting, and Placing Concrete.
3. ASTM International (ASTM):
   a. C94, Standard Specification for Ready-Mixed Concrete.
   b. C309, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
   c. D994, Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
4. Standard Specification: State of Texas Department of Transportation Standard Specifications.

1.02 SUBMITTALS

A. Action Submittals:

1. Form Material: Information on metal forms, if used, including type, condition, surface finish, and intended function.
2. Complete data on concrete mix, including aggregate gradations and admixtures in accordance with requirements of ASTM C94.

B. Informational Submittals:

1. Curing Compound: Manufacturer’s Certificate of Compliance, in accordance with Section 01 61 00, Common Product Requirements, and application instructions.
2. Ready-mix delivery ticket for each truck in accordance with ASTM C94.

©COPYRIGHT 2022 JACOBS

1.03 QUALITY ASSURANCE

A. Regulatory Requirements: Conform to the State of Texas Standard Specifications for Highway Construction.

PART 2 PRODUCTS

2.01 MATERIALS

A. Conform to the requirements of the referenced Standard Specification.

2.02 EXPANSION JOINT FILLER

A. Preformed asphalt-impregnated, expansion joint material meeting ASTM D994, 1/2-inch thick.

2.03 CONCRETE

A. Ready-mixed meeting ASTM C94, Option A, with compressive strength of 3,000 psi at 28 days.

B. Maximum Aggregate Size: 1-1/2 inch.

C. Slump: 2 inches to 4 inches.

2.04 CURING COMPOUND

A. Liquid membrane forming, clear or translucent, suitable for spray application and meeting ASTM C309, Type 1.

PART 3 EXECUTION

3.01 FORMWORK

A. Lumber Materials:

1. 2-inch dressed dimension lumber, or metal of equal strength, straight, free from defects that would impair appearance or structural quality of completed curb and sidewalk.
2. 1-inch dressed lumber or plywood may be used where short-radius forms are required.

B. Metals: Steel in new undamaged condition.

©COPYRIGHT 2022 JACOBS

C. Setting Forms:

1. Construct forms to shape, lines, grades, and dimensions.
2. Stake securely in place.

D. Bracing:

1. Brace forms to prevent change of shape or movement resulting from placement.
2. Construct short-radius curved forms to exact radius.

E. Tolerances:

1. Do not vary tops of forms from gradeline more than 1/8 inch when checked with 10-foot straightedge.
2. Do not vary alignment of straight sections more than 1/8 inch in 10 feet.

3.02 PLACING CONCRETE

A. Prior to placing concrete, remove water from excavation and debris and foreign material from forms.

B. Place concrete as soon as possible, and within 1-1/2 hours after adding cement to mix without segregation or loss of ingredients, and without splashing.

C. Place, process, finish, and cure concrete in accordance with applicable requirements of ACI 304, and this section. Wherever requirements differ, the more stringent shall govern.

D. To compact, vibrate until concrete becomes uniformly plastic.

3.03 CURB CONSTRUCTION

A. Construct ramps at pedestrian crossings.

B. Expansion Joints: Place at maximum 45-foot intervals and at the beginning and end of curved portions of curb, and at connections to existing curbs. Install expansion joint filler at each joint.

C. Curb Facing: Do not allow horizontal joints within 7 inches from top of curb.

D. Contraction Joints:

1. Maximum 15-foot intervals in curb.
2. Provide open joint type by inserting thin, oiled steel sheet vertically in fresh concrete to force coarse aggregate away from joint.

©COPYRIGHT 2022 JACOBS

3. Insert steel sheet to full depth of curb.
4. Remove steel sheet with sawing motion after initial set has occurred in concrete and prior to removing front curb form.
5. Finish top of curb with steel trowel and finish edges with steel edging tool.

E. Front Face:

1. Remove front form and finish exposed surfaces when concrete has set sufficiently to support its own weight.
2. Finish formed face by rubbing with burlap sack or similar device to produce uniformly textured surface, free of form marks, honeycomb, and other defects.
3. Remove and replace defective concrete.
4. Apply curing compound to exposed surfaces of curb upon completion of finishing.
5. Continue curing for minimum of 5 days.

F. Backfill curb with earth upon completion of curing period, but not before 7 days has elapsed since placing concrete.

1. Backfill shall be free from rocks 2 inches and larger and other foreign material.
2. Compact backfill firmly.

3.04 SIDEWALK CONSTRUCTION

A. Thickness:

1. 4 inches in walk areas.
2. 6 inches in driveway areas.

B. Connection to Existing Sidewalk:

1. Remove old concrete back to an existing contraction joint.
2. Clean the surface.
3. Apply a neat cement paste immediately prior to placing new sidewalk.

C. Expansion Joints: Place in adjacent curb, where sidewalk ends at curb, and around posts, poles, or other objects penetrating sidewalk. Install expansion joint filler at each joint.

D. Contraction Joints:

1. Provide transversely to walks at locations opposite contraction joints in curb.

©COPYRIGHT 2022 JACOBS

2. Dimensions: 3/16-inch by 1-inch weakened plane joints.
3. Construct straight and at right angles to surface of walk.

E. Finish:

1. Broom surface with fine-hair broom at right angles to length of walk and tool at edges, joints, and markings.
2. Mark walks transversely at 5-foot intervals with jointing tool; finish edges with rounded steel edging tool.
3. Apply curing compound to exposed surfaces upon completion of finishing.
4. Protect sidewalk from damage and allow to cure for at least 7 days.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 32 91 13
SOIL PREPARATION

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. ASTM International (ASTM):
   a. C33/C33M, Standard Specification for Concrete Aggregates.
   b. C602, Standard Specification for Agricultural Liming Materials.
   c. D2974, Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils.
   d. D5268, Standard Specification for Topsoil Used for Landscaping Purposes.

1.02 SUBMITTALS

A. Informational Submittals:

1. Certified Topsoil Analysis Reports:
   a. Indicate quantities of materials necessary to bring onsite topsoil into compliance with textural/gradation requirements.
   b. Indicate quantity of lime, quantity and analysis of fertilizer, and quantity and type of soil additive.

1.03 SEQUENCING AND SCHEDULING

A. Rough grade areas to be planted or seeded prior to performing Work specified under this section.

PART 2 PRODUCTS

2.01 TOPSOIL

A. General: Natural, friable, sandy loam, obtained from well-drained areas, free from objects larger than 1-1/2 inches maximum dimension, and free of subsoil, roots, grass, other foreign matter, hazardous or toxic substances, and deleterious material that may be harmful to plant growth or may hinder grading, planting, or maintenance.

B. Composition: In general accordance with ASTM D5268:

1. Gravel-Sized Fraction: Maximum 5 percent by weight retained on a No. 10 sieve.

©COPYRIGHT 2022 JACOBS

2. Sand-Sized Fraction: Minimum 20 to 60 percent passing No. 10 sieve.
3. Silt and Clay-Sized Fraction: Minimum 35 to 70 percent.

C. Organic Matter: Minimum 1.5 percent by dry weight as determined in accordance with ASTM D2974.

D. pH: Range 5.0 to 7.0.

E. Textural Amendments: Amend as necessary to conform to required composition by incorporating sand, peat, manure, or sawdust.

F. Source: Stockpile material onsite, in accordance with Section 31 10 00, Site Clearing. Import topsoil if onsite material is insufficient in quantity.

2.02 LIME

A. Composition: Ground limestone with not less than 85 percent total carbonates, ASTM C602.

B. Gradation:

1. Minimum 50 percent passing No. 100 sieve.
2. Minimum 90 percent passing No. 20 sieve.
3. Coarser material acceptable provided rates of application are increased proportionately on basis of quantities passing No. 100 sieve.

2.03 SOIL ADDITIVES

A. Sawdust or Ground Bark:

1. Nontoxic, of uniform texture, and subject to slow decomposition when mixed with soil.
2. Nitrogen-treated, or if untreated mix with minimum 0.15 pound of ammonium nitrate or 0.25 pound of ammonium sulfate per cubic foot of loose material.

B. Peat:

1. Composition: Natural residue formed by decomposition of reeds, sedges, or mosses in a freshwater environment, free from lumps, roots, and stones.
   a. Organic Matter: Not less than 90 percent on a dry weight basis as determined by ASTM D2974.
   b. Moisture Content: Maximum 65 percent by weight at time of delivery.

©COPYRIGHT 2022 JACOBS

C. Fertilizer:

1. Natural:
   a. Manure:
      1) Well-rotted, stable or cattle manure, free from weed seed and refuse.
      2) Maximum 50 percent sawdust or shavings by volume.
      3) Age: Minimum 4 months; maximum 2 years.
2. Commercial:
   a. Commercial, uniform in composition, free-flowing, suitable for application with equipment designed for that purpose.
   b. Contain the following minimum percentage of plant food by weight:
      1) Summer Mix:
         a) Nitrogen: 20 percent.
         b) Phosphoric Acid: 10 percent.
         c) Potash: 10 percent.
      2) Winter Mix:
         a) Nitrogen: 16 percent.
         b) Phosphoric Acid: 8 percent.
         c) Potash: 0 percent.

D. Sand: Fine Aggregate: Clean, coarse, well-graded, ASTM C33/C33M.

2.04 SOURCE QUALITY CONTROL

A. Topsoil Analysis/Testing: Performed by county or state soil testing service or approved certified independent testing laboratory.

PART 3 EXECUTION

3.01 SUBGRADE PREPARATION

A. Scarify subgrade to minimum depth of 6 inches where topsoil is to be placed.

B. Remove stones over 2-1/2 inches in any dimension, sticks, roots, rubbish, and other extraneous material.

C. Limit preparation to areas which will receive topsoil within 2 days after preparation.

3.02 TOPSOIL PLACEMENT

A. Do not place topsoil when subsoil or topsoil is frozen, excessively wet, or otherwise detrimental to the Work.

©COPYRIGHT 2022 JACOBS

B. Uniformly distribute to within 1/2 inch of final grades. Fine grade topsoil eliminating rough or low areas and maintaining levels, profiles, and contours of subgrade.

C. Remove stones exceeding 1-1/2-inch diameter, roots, sticks, debris, and foreign matter during and after topsoil placement.

D. Remove surplus subsoil and topsoil from Site. Grade stockpile area as necessary and place in condition acceptable for planting or seeding.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 33 01 30.51
GRAVITY SEWER PIPELINE CLEANING

PART 1 GENERAL

1.01 DEFINITIONS

A. Cleaning Contractor's Representative: Cleaning Contractor's representative who will be available whenever Work is underway. Authorized to act on behalf of Cleaning Contractor.

B. Crew Chief: Cleaning Contractor's field representative who will be onsite whenever Work is underway. Responsible for performance of Work in accordance with the Contract Documents.

C. Remediation Cleaning Subcontractor (Cleaning Contractor): Local firm specializing in cleaning and disinfecting residences and businesses.

1.02 SUBMITTALS

A. Action Submittals:

1. Cleaning Equipment: Catalog and manufacturer's data sheets.
2. Cleaning Methods: Narrative description.
3. Product Data: Root Herbicide.

B. Informational Submittals:

1. Flooding and Backup Spill Prevention, Emergency Response, and Remediation Plan:
   a. Identify measures that will be taken to prevent flooding as a result of high-pressure water use and backups.
   b. Identify equipment and materials available to respond to a backup spill, including quantities and storage location.
   c. Remediation cleaning service subcontractor qualifications and contact information:
      1) Name.
      2) Address.
      3) Phone.
      4) Emergency contact information.
2. Disposal Plan:
   a. Location of disposal site.
   b. Method of debris transport.
   c. Proposed documentation of disposal quantities.

©COPYRIGHT 2022 JACOBS

3. Root Herbicide: Material Safety Data Sheet and application method.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

A. Obtain information concerning depths of flow, manhole depths, air quality in the sewers, accessibility of manholes, traffic conditions, and other safety considerations during the time that cleaning will occur as required to complete the Work.

B. Clean gravity sewer pipe segments as indicated on Drawings.

C. Gravity sewer pipe cleaning includes preliminary tasks, cleaning, removal of debris, remediation, disposal, and documentation of activities as described herein.

3.02 NOTIFICATIONS

A. Notify Owner immediately if:

1. Flooding, sewage backup\spill, overflow, or damage to sewer pipe occurs.
2. Major hindrance is encountered that prevents cleaning of entire pipe line segment.
3. Successful cleaning cannot be performed without risk of damage to pipe.

3.03 CLEANING EQUIPMENT

A. General:

1. Capable of removing dirt, grease, rocks, sand, roots, and obstructions from sewer pipes and manholes.
2. Submit proposed equipment and cleaning method for approval prior to beginning the Work.

B. High-Velocity, Hydro Cleaning Equipment:

1. Equipped with its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.
2. Nozzles:
   a. Selection of two or more high velocity nozzles.

©COPYRIGHT 2022 JACOBS

b. Capable of producing a scouring action from 10 degrees to 45 degrees in line sizes designated to be cleaned.

3. High-velocity gun for washing and scouring manhole walls and floor; capable of producing flow from fine spray to solid stream.
4. Operating Pressure:
   a. Sewers 6-inch to 15-inch Diameter: 1,500 psi minimum.
   b. Sewers 18-inch Diameter and Greater: 2,300 psi minimum.
5. Equipped with debris catcher or other device to collect debris at extraction point and prevent debris from passing downstream.

C. Mechanically Powered Cleaning Equipment:

1. Use only when authorized by Engineer and only when other cleaning methods are shown to be ineffective.
2. Use belt-operated bucket machines in pairs with sufficient power to perform the Work within schedule constraints.
3. An overload device in lieu of belt operation may be acceptable, but direct-drive machine that could cause damage to pipe will not be allowed.
4. Power Rodding Machine:
   a. Either sectional or continuous rod type.
   b. Capable of holding 750 feet of rod minimum.
   c. Fully enclosed with automatic safety clutch or relief valve.
   d. Rod: Heat-treated steel.

3.04 PREPARATION

A. When hydraulically propelled cleaning tools that depend upon water pressure to provide cleaning force or tools that retard flow are used, take precautions to ensure water pressure created does not damage or cause flooding of public or private property.

3.05 PIPELINE CLEANING

A. Remove foreign materials from line and restore sewer to a minimum of 95 percent of original carrying capacity as determined by available cross-sectional area.

B. Clean using hydraulically propelled, high-velocity hydro, or mechanically powered equipment. Provide supplemental equipment as required for actual pipe condition to remove all dirt, sand, rocks, gravel, grease, sludge, roots, and other debris from the pipe.

©COPYRIGHT 2022 JACOBS

C. Begin cleaning at upstream end of system and proceed in downstream direction. Do not perform step cleaning without prior written authorization from Owner.

D. Do not clean a pipeline segment upstream of a section of pipe already cleaned without re-cleaning the downstream section.

E. If cleaning equipment is performing in accordance with submitted literature and an entire pipe section cannot be cleaned from upstream manhole, contact Owner for removal of obstruction. If further investigation reveals that the cleaning equipment had failed and no blockage exists, Owner's costs to respond, investigate, and attempt repair shall be reimbursed by Contractor.

F. Remove debris at downstream manhole of pipe segment being cleaned.

3.06 ROOT REMOVAL

A. Remove roots as part of sewer cleaning process.

B. Conduct cleaning operations to completely remove roots from joints.

C. Provide equipment required to completely remove roots from sewer lines, including, but not limited to, rodding machines, bucket machines and winches using root cutters and porcupines, and high-velocity jet cleaners or other mechanical or hydraulic equipment.

D. Engineer approval is required prior to chemical treatment for root control or removal. If allowed, provide treatment in accordance with the manufacturer's recommendations.

3.07 MANHOLE AND VAULT CLEANING

A. Clean walls using high-pressure water jet capable of pressures up to 1,500 psi.

B. Vacuum debris from manhole or vault and dispose material in the same manner as debris from cleaning adjacent sanitary sewer lines.

3.08 MATERIAL REMOVAL AND DISPOSAL

A. Remove sludge, dirt, sand, rocks, grease, and other solid or semisolid material resulting from cleaning operation from pipeline at adjoining downstream manhole. Do not pass material to downstream pipe.

B. Remove and transport debris resulting from cleaning operations to designated disposal site at end of each work day.

©COPYRIGHT 2022 JACOBS

C. Adhere to Federal, State, and local regulations and permit requirements regarding collection, handling, transport, storage, and disposal of debris.

3.09 VERIFICATION OF CLEANING

A. Submit log of cleaned pipe segments using sanitary sewer cleaning form attached as a supplement at the end of this section to Engineer on a weekly basis.

3.10 SUPPLEMENTS

A. The supplements listed below, following "End of Section," are a part of this specification.

1. Sanitary Sewer Cleaning Form.

END OF SECTION

©COPYRIGHT 2022 JACOBS

Sanitary Sewer Cleaning Form

ID _____ **Sec No.** _____ **Seg No.** _____ **map No.** _____ **Crew** _____

UPMH ID: _____ **DSMH ID:** _____ **Sub-basin:** _____

US Main/Lat: _____ **US Manhole:** _____

DS Main/Lat: _____ **DS Manhole:** _____

Address @ dsmh: _____

Pipe Usage: _____ 1 = Collector 2 = Interceptor/Trunk Sewer

Location: _____

1	= Street	7	= Front/Side Yard	1	= Access (explain)	6	= Locked Gate
2	= Intersection	8	= Backyard	2	= C.N.L.	7	= Unsafe
3	= Alley	9	= Ditch/Creek	3	= D.N.E.	8	= Sealed Lid
4	= Curb/Gutter	10	= Easement	4	= Buried	9	= Traffic
5	= Parking Lot	11	= Railroad Right of Way	5	= Haz/Atmos	10	= Dog
6	= Sidewalk	12	= Other				

Comment: _____

Could Not Clean Because: _____

Comment: _____

Type of Debris: _____

1	= Grease	4	= Broken Pipe
2	= Rock/Gravel	5	= Sand
3	= Roots		

Comment: _____

Manhole Depth (ft): _____ **Depth of Debris Before Cleaning (in):** _____

Building Back Up Information

Address: _____

Address: _____

Address: _____

Measured Length (manhole to manhole): _____ **Footage Cleaned:** _____ **Pipe Dia. (in):** _____

Blockage Encountered at _____ **(ft) from Downstream Manhole**

Cleaning Date: _____

Hydraulic Cleaning (slow passes) at _____ **psi**

Results of First Pass: _____

Results of Second Pass: _____

Results of Third Pass: _____

Mechanical Cleaning Date: _____

Number of Additional Slow Passes: _____ _____

☐ **Root Cut** **Method used:** _____ ☐ **Rod** ☐ **Bucket**

☐ **Degrease** **Method used:** _____ ☐ **Swab** ☐ **Scraper**

Volume of Debris Removed: _____ **Cu Yds**

Additional Comments: _____

©COPYRIGHT 2022 JACOBS

SECTION 33 05 01
CONVEYANCE PIPING—GENERAL

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Concrete Institute (ACI): 301, Specifications for Structural Concrete.
2. American Water Works Association (AWWA):
   a. C110/A21.10, Ductile-Iron and Gray-Iron Fittings.
   b. C115/A21.15, Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
   c. C207, Steel Pipe Flanges for Waterworks Service - Sizes 4 in. Through 144 in. (100 mm Through 3,600 mm).
   d. C210 Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines.
   e. C213, Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines.
   f. C217, Petrolatum and Petroleum Wax Tape Coatings for the Exterior of Connections and Fittings for Steel Water Pipelines.
   g. C219, Bolted, Sleeve-Type Couplings for Plain-End Pipe.
   h. C221, Fabricated Steel Mechanical Slip-Type Expansion Joints.
   i. C606, Grooved and Shouldered Joints.
3. ASTM International (ASTM):
   a. A497/A497M, Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete.
   b. A615/A615M, Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
   c. C94/C94M, Standard Specification for Ready-Mixed Concrete.
   d. C150/C150M, Standard Specification for Portland Cement.
   e. F593, Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
4. NSF International (NSF):
   a. NSF/ANSI 61, Drinking Water System Components - Health Effects.
   b. NSF/ANSI 372, Drinking Water System Components - Lead Content.

©COPYRIGHT 2022 JACOBS

1.02 SUBMITTALS

A. Action Submittals:

1. Detailed pipe fabrication drawings showing pipe details, special fittings and bends, dimensions, coatings, and other pertinent information.
2. Pipe pressure class.
3. Product Data: Manufacturer's data for couplings, saddles, gaskets, and other pipe accessories. Indicate maximum rated working pressure and test pressure for each item.

B. Informational Submittals: Manufacturer's Certificate of Compliance, in accordance with Section 01 61 00, Common Product Requirements.

1.03 DELIVERY, STORAGE, AND HANDLING

A. In accordance with manufacturer's recommendations and as specified in individual Specification(s) following this section.

B. Marking at Plant: Mark each pipe and fitting at plant. Include date of manufacture, manufacturer's identification, specification standard, diameter of pipe dimension ratio, pipe class, and other information required for type of pipe.

C. Pipe, specials, and fittings received at Project Site in damaged condition will not be accepted.

D. Gasket Storage: Store rubber gaskets in cool, well ventilated place, and do not expose to direct rays of sun. Do not allow contact with oils, fuels, petroleum, or solvents.

E. Store and support pipe securely to prevent accidental rolling and to avoid contact with mud, water, or other deleterious materials.

F. Handling:

1. Pipe shall be handled with proper equipment in a manner to prevent distortion or damage. Use of hooks, chains, wire ropes, or clamps that could damage pipe, damage coating or lining, or kink and bend pipe ends is not permitted.
2. Use heavy canvas, or nylon slings of suitable strength for lifting and supporting materials.
3. Lifting pipe during unloading or lifting into trench shall be done using two slings placed at quarter point of pipe section. Pipe may be lifted using one sling near center of pipe, provided pipe is guided to prevent uncontrolled swinging and no damage will result to pipe or harm to workers. Slings shall bear uniformly against pipe.

©COPYRIGHT 2022 JACOBS

4. Pipe and fittings shall not be stored on rocks or gravel, or other hard material that might damage pipe. This includes storage area and along pipe trench.

PART 2 PRODUCTS

2.01 GENERAL

A. Components and Materials in Contact with Water for Human Consumption: Comply with the requirements of the Safe Drinking Water Act and other applicable federal, state, and local requirements. Provide certification by manufacturer or an accredited certification organization recognized by the Authority Having Jurisdiction that components and materials comply with the maximum lead content standard in accordance with NSF/ANSI 61 and NSF/ANSI 372.

1. Use or reuse of components and materials without a traceable certification is prohibited.

2.02 PIPE

A. As specified in the individual specification(s) following this section.

2.03 JOINTS

A. As specified in the individual specification(s) following this section.

2.04 COUPLINGS

A. General:

1. Coupling linings for use in potable water systems shall be in conformance with NSF/ANSI 61.
2. Couplings shall be rated for appropriate operating pressure and hydrostatic test pressure.
3. Exposed, bolted, sleeve-type couplings shall be lined and coated with fusion bonded epoxy in accordance with AWWA C213.
4. Buried, bolted, sleeve-type couplings shall be lined and coated with fusion-bonded epoxy in accordance with AWWA C213 and wrapped with petroleum wax tape in accordance with AWWA C217.

B. For Pipe with Plain-Ends:

1. Bolted, sleeve-type coupling, in accordance with AWWA C219.
   a. Manufacturer of couplings shall observe same quality control requirements as specified in AWWA C221 for fabrication of pipe expansion joints.

©COPYRIGHT 2022 JACOBS

b. Unless thrust restraint is provided by other means, bolted, sleeve-type couplings shall be harnessed. Harness details shall be in accordance with requirements of appropriate reference standard or as shown on Drawings.
c. Pipe Ends Tolerance: Conform to Table 4 of AWWA C219.
d. Service Type: Sewer.
e. Submit Manufacturer's Certificate of Compliance, in accordance with Section 01 61 00, Common Product Requirements.

C. For Pipe with Flanged Ends:

1. Flanged coupling adapters, in accordance with AWWA C219.
   a. Pipe Ends Tolerance: Conform to Table 4 of AWWA C219.
   b. Service Type: Sewer.
   c. Manufacturer's Certificate of Compliance, in accordance with Section 01 61 00, Common Product Requirements.
2. Dismantling joints for connecting flanged pipe shall be AWWA C219 compliant. Provide studs and nuts to seal gasket separate and independent from tie-bar restraint system.

D. Bolting Materials for Couplings: As recommended by coupling manufacturer for specified conditions.

2.05 SLAB, FLOOR, WALL, AND ROOF PENETRATIONS

A. Modular Mechanical Seal:

1. Type: Interconnected synthetic rubber links shaped and sized to continuously fill annular space between pipe and wall sleeve opening.
2. Assemble interconnected rubber links with Type 316 stainless steel bolts, nuts, and pressure plates.
3. Size modular mechanical seals according to manufacturer's instructions for the size of pipes shown to provide a watertight seal between pipe and wall sleeve opening.
4. Manufacturers and Products:
   a. Thunderline/LinkSeal, Div. of PSI, Houston, TX; Link Seal.
   b. Calpico, Inc., South San Francisco, California; Sealing Linx.
   c. Advance Products and Systems, Lafayette, Louisiana; Innerlynx.

B. Wall Sleeves:

1. Diameter, ends, and length shall be as shown on Drawings.
2. Shall include integral seep ring to minimize seepage between metal sleeve and concrete.

©COPYRIGHT 2022 JACOBS

C. Wall Couplings:

1. Diameter, ends, and length shall be as shown on Drawings.
2. Wall couplings shall provide flexible mechanical joint.
3. Body and end rings shall be coated with fusion bonded epoxy.
4. Body shall include integral seep ring.
5. Shall comply with AWWA C219.

D. If core drilling is required for penetrations of existing concrete walls or slabs, locations of drilling shall be determined by radiograph to avoid damage to reinforcing steel and conduits.

2.06 FLANGES, FLANGE GASKETS, AND BOLTING MATERIALS

A. As specified in individual specifications following this section.

B. Flanges, bolting materials, and flange gaskets for steel flanges shall conform to AWWA C207.

C. Flanges, bolting materials, and flange gaskets for ductile iron flanges shall conform to AWWA C110 and AWWA C115.

D. If the flanges are coated, provide two washers for each bolt on each side of the flange to minimize damage to the coating as the nuts are tightened. Provide bolts of the proper length to accommodate the washers.

2.07 PIPE LOCATING TAPE

A. As specified in Section 31 23 23.15, Trench Backfill.

2.08 PIPE BEDDING AND PIPE ZONE MATERIAL

A. Granular material or Controlled low strength material as specified in Section 31 23 23.15, Trench Backfill.

2.09 TRENCH STABILIZATION MATERIAL

A. As specified in Section 31 23 23.15, Trench Backfill.

PART 3 EXECUTION

3.01 GENERAL

A. Notify Engineer at least 2 weeks prior to field fabrication of pipe or fittings.

©COPYRIGHT 2022 JACOBS

B. Furnish feeler gauges of proper size, type, and shape for use during installation for each type of pipe furnished.

C. Distributing Materials: Place materials along trench only as will be used each day, unless otherwise approved by Engineer. Placement of materials shall not be hazardous to traffic or to general public, obstruct access to adjacent property, or obstruct others working in area.

3.02 EXAMINATION

A. Verify size, material, joint types, elevation, and horizontal location of existing pipeline to be connected to new pipeline or new equipment.

B. Inspect size and location of structure penetrations to verify adequacy of wall pipes, sleeves, and other openings.

C. Damaged Coatings and Linings: Repair using coating and lining materials in accordance with manufacturer's instructions.

3.03 PREPARATION OF TRENCH

A. Prepare trench as specified in Section 31 23 16, Excavation.

B. Unless otherwise permitted by Engineer, maximum length of open trench shall not exceed XXX feet.

3.04 INSTALLATION

A. General:

1. Join pipe and fittings in accordance with manufacturer's instructions, unless otherwise shown or specified.
2. Install individual pipe lengths in accordance with approved lay diagram. Misplaced pipe shall be removed and replaced.
3. Inspect pipe and fittings before installation, clean ends thoroughly, remove foreign matter and dirt from inside.
4. Flanged Joints:
    a. Install perpendicular to pipe centerline.
    b. Bolt Holes: Straddle vertical centerline, aligned with connecting equipment flanges or as shown on Drawings.
    c. Use torque-limiting wrenches to provide uniform bearing and proper bolt tightness.
    d. Flange Type: Use flat-faced flange when joining with flat-faced ductile or cast iron flange.

©COPYRIGHT 2022 JACOBS

5. Couplings:
    a. Install in accordance with manufacturer's written instructions.
    b. Before coupling, clean pipe holdback area of oil, scale, rust, and dirt.
    c. Do not remove pipe coating. If damaged, repair before joint is made.
    d. Clean gaskets before installation.
    e. If necessary, lubricate with gasket lubricant for installation on pipe ends.
    f. Tighten coupling bolts progressively, drawing up bolts on opposite sides gradually until bolts have uniform tightness.

B. Buried Pressure Pipe:

1. Concrete Encased or Embedded Pipe: Do not encase joints in concrete, unless specifically shown on Drawings.
2. Placement:
    a. Keep trench dry until pipe laying and joining is completed.
    b. Exercise care when lowering pipe into trench to prevent twisting or damage to pipe.
    c. Measure for grade at pipe invert, not at top of pipe.
    d. Excavate trench bottom and sides of ample dimensions to permit proper joining, welding, visual inspection, and testing of entire joint.
    e. Prevent foreign material from entering pipe during placement.
    f. Close and block open end of last laid pipe section when placement operations are not in progress and at close of day's work.
    g. In general, lay pipe upgrade with bell ends pointing in direction of laying.
    h. Deflect pipe at joints for pipelines laid on a curve using unsymmetrical closure of spigot into bell. If joint deflection of standard pipe lengths will not accommodate horizontal or vertical curves in alignment, provide:
        1) Shorter pipe lengths.
        2) Special mitered joints.
        3) Standard or special fabricated bends.
    i. Check gasket position with feeler gauge to assure proper seating.
    j. After joint has been made, check pipe alignment and grade.
    k. Place sufficient pipe zone material to secure pipe from movement before next joint is installed.
    l. Prevent uplift and floating of pipe prior to backfilling.
3. Tolerances:
    a. Deflection From Horizontal Line: Maximum 2 inches.
    b. Deflection From Vertical Line: Maximum 1 inch.

©COPYRIGHT 2022 JACOBS

c. Joint Deflection: Maximum of 75 percent of manufacturer's recommendation.
d. Horizontal position of pipe centerline on alignment around curves maximum variation of 1 foot from position shown.

4. Cover Over Top of Pipe: Minimum 3 feet, unless otherwise shown.
5. Disposal of Excess Excavated Material: As specified in Section 31 23 16, Excavation.

3.05 THRUST RESTRAINT

A. Location: At pipeline tees, plugs, caps, bends, and locations where unbalanced forces exist.

B. Thrust Blocking:

1. Place only where shown on Drawings.
2. Quantity of Concrete: Sufficient to cover bearing area of pipe and provide required soil bearing area as shown on Drawings.
3. Place blocking so pipe and fitting joints are accessible for repairs.
4. Place concrete in accordance with ACI 301.

3.06 CORROSION PROTECTION

A. Buried Pipe: As specified in the individual specifications following this section.

B. Notify Engineer at least 3 days prior to start of surface preparation, coating application, and corrosion protection work.

3.07 PLACEMENT OF PIPE LOCATING TAPE

A. Place pipe locating tape in accordance with Section 31 23 23.15, Trench Backfill.

3.08 PIPE BEDDING AND ZONE MATERIAL

A. Place pipe bedding and pipe zone material in accordance with Section 31 23 23.15, Trench Backfill.

3.09 FIELD QUALITY CONTROL

A. Pressure Leakage Testing: As specified in the individual specification(s) following this section.

©COPYRIGHT 2022 JACOBS

3.10 CLEANING

A. Following assembly and testing, and prior to final acceptance, flush pipelines with water at 2.5 fps minimum flushing velocity until foreign matter is removed. Dispose of water and flushed foreign matter.

B. If impractical to flush large diameter pipe at 2.5 fps, clean pipe in-place from inside by brushing and sweeping, then flush or blow line at lower velocity or clean pipe by use of pipe pig as approved by Engineer. Multiple passes of pipe pig may be required to adequately clean line.

C. Remove accumulated debris through blowoffs 2 inches and larger or by removing spools and valves from piping.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 33 05 01.12.03 POLYVINYL CHLORIDE (PVC)—GRAVITY SANITARY SEWER	
Item	**Description**
Pipe: 15-inch Diameter and Under	ASTM D3034: SDR 35. Sewers that have less than 4 feet of cover shall be DR 26.
Joints	Integral bell and spigot, in accordance with ASTM D3212.
Gaskets	ASTM F477 factory fabricated rubber compression type with solid cross section. Lubricant shall be water soluble, non-toxic and have no deteriorating effects on gasket or pipe materials.
Tee and Wye Fittings	All fittings shall utilize rubber gasket joints of the same type design and specifications as pipe joints.
Plugs	Removable. Removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.
Source Quality Control Testing	In accordance with specified ASTM.

END OF SECTION

©COPYRIGHT 2022 JACOBS

SECTION 33 05 14
GLASS-FIBER REINFORCED POLYESTER (FRP) MANHOLES

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards that may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO):
   a. H-20, Axle Loading.
2. ASTM International (ASTM):
   a. A48, Standard Specification for Gray Iron Castings.
   b. A123, Standard Specification for Zinc (Hot-Dip Galvanized) coatings on Iron and Steel Products.
   c. C387, Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete.
   d. C443, Standard Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
   e. C581, Practice for Determining Chemical Resistance of Chemical Thermosetting Resins used in Glass-Fiber Reinforced Structures Intended for Liquid Service.
   f. C923, Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.
   g. D2412, Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel Plate Loading.
   h. D2583, Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.
   i. D2584, Test Method for Ignition Loss of Cured Reinforced Resins.
   j. D3753, Standard Specification for Glass-Fiber Reinforced Polyester Manholes.
   k. D695, Test Methods for Compressive Properties of Rigid Plastics.
   l. D790, Test Method for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
   m. F593, Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
   n. F594, Standard Specification for Stainless Steel Nuts.
   o. A536, Standard Specification for Ductile Iron Casting.

©COPYRIGHT 2022 JACOBS

1.02 SUBMITTALS

A. Action Submittals:

1. Shop Drawings:

a. FRP Manholes: Manufacturer's data and details of construction, reinforcing and joints, anchors, lifting, erection inserts, and other items cast into members.
b. Cast-in-place Concrete Base: Details of construction.
c. Ring and Covers, Watertight Inserts, Grade Rings, Gaskets and sealants, Stubouts and Connections: Manufacturer's data and details of construction.
d. Include detailed diagrams of manholes showing typical components and dimensions.
e. Connection detail to existing manholes: stubouts, manhole interior configuration showing fiberglass bench and flow channel, coring method, elevations of new pipe connection, pipe end treatment, and other pertinent information.
f. Itemize, on separate schedule, sectional breakdown of each manhole with all components and refer to drawing identification number or notation.
g. Indicate knockout elevations for all piping entering each manhole.

B. Informational Submittals:

1. Calculations prior to manhole fabrication:
   a. Show compliance with load cases defined in ASTM F1759.
   b. Buoyancy calculations.
   c. Lateral earth pressures.
   d. Wall thickness calculations considering depth, soil and groundwater conditions, and loading conditions.
   e. Calculations shall be signed and sealed by professional engineer.
2. Testing results showing conformance and manufacturer's written certification that FRP manholes meet ASTM D3753. Required tests include:
   a. Load Rated Test.
   b. Cylinder Stiffness.
   c. Soundness.
   d. Flexural strength.
   e. Flexural modulus.
   f. Compressive Strength.
   g. Barcol hardness.

©COPYRIGHT 2022 JACOBS

3. Acknowledgment that products submitted meet requirements of standards referenced.
4. Field quality control report.
5. Manufacturer's recommended installation instructions.
6. Manufacturer's Warranty: Warranty shall be for a period of 2 years.
7. Operation and maintenance data for all components.

1.03 PROJECT CONDITIONS

A. Refer to the Geotechnical Data Report and Boring Logs prepared for this Project.

PART 2 PRODUCTS

2.01 FRP MANHOLES

A. General Description:

1. General:
   a. All FRP manholes shall be watertight.
   b. FRP manholes shall be a one-piece monolithic designed unit constructed of glass-fiber reinforced, supplier certified, unsaturated polyester resin.
   c. FRP manholes shall be manufactured in strict accordance with ASTM D3753.
   d. All FRP manholes (from STA 5+89 to STA 66+42) shall have vents and check valves, but no odor control. The 4 foot diameter manhole at STA 5+94 is not vented.
2. Dimensions:
   a. The manhole shall be a circular cylinder, reduced at the top to a circular manway not smaller in diameter than the size shown in the Drawings.
   b. Manholes shall be produced in half-foot increments of lengths plus or minus 2 inches.
   c. Nominal inside diameter shall be as noted on the Drawings. Tolerance on the inside diameter shall be plus or minus 1 percent.
   d. The minimum wall thickness for all FRP manholes shall be 0.625 inches. Actual wall thickness shall be calculated by the manufacturer considering depth, soil and groundwater conditions, and loading conditions with a minimum safety factor of 2.0.
3. Riser Sections:
   a. Minimum diameter as noted on the Drawings.
   b. Fabricate in accordance with ASTM D3753.

©COPYRIGHT 2022 JACOBS

c. The minimum wall thickness shall be 0625 inches. Actual wall thickness shall be calculated by the manufacturer considering depth, soil and groundwater conditions, and loading conditions with a minimum safety factor of 2.0.
d. Top and bottom shall be parallel.
e. Manhole shall be watertight.
f. Bottom sections shall be furnished with a minimum integral 3-inch wide anchoring flange.

4. Cone Sections:
   a. Provide concentric cones.
   b. Same minimum wall thickness and reinforcement as riser sections, or greater if required by depth, soil and groundwater conditions, and loading conditions.
   c. Top and bottom shall be parallel.
   d. Manway reducer shall provide a bearing surface on which a standard ring and cover or watertight ring and cover may be supported and adjusted to grade.
   e. The reducer shall be joined to the riser section at the factory with resin and glass fiber reinforcement, to provide monolithic design to prevent infiltration and/or exfiltration through the manhole.
   f. Manway reducer cone shall be self-centering to permit vertical height adjustment (raising or lowering) of manhole by Contractor utilizing manufacturer provided materials and detailed written instructions.
   g. The maximum vertical height of the diameter adjustment section or cone shall be 36 inches.
5. Class: The manhole shall be manufactured in one class of load rating. The class shall be H-20 wheel load. Manhole shall be suitable for use within streets and highways. To properly transfer and distribute wheel load, a grade adjustment ring (as specified in Paragraph 2.05 A) shall be placed on the grade ring platform and the OD of the grade ring shall exceed the OD of the grade ring platform.
6. Manhole Bottom: Pour a concrete base or encasement and install the manhole riser/cone, etc. all per the Drawings.
7. Marking and Identification: All manholes shall be marked in letters no less than 1-inch in height with the following information:
   a. Manufacturer’s identification.
   b. Manufacturer’s serial number.
   c. Manhole length.
   d. Stationing for manhole location.
   e. ASTM designation.
   f. Installation assist marks (vertical lines 90 degrees apart at base of manhole).

PW\DEN003\WFXQ8300
JULY 5, 2022
©COPYRIGHT 2022 JACOBS

B. Materials:

1. Resin:
   a. The resins used shall be a commercial grade, supplier certified, unsaturated polyester resin.
   b. Mixing lots of resin from different manufacturers, or “odd-lotting” of resins shall not be permitted.
   c. Quality assurance records on the resin shall be maintained.
   d. Pigmented resin may be used to facilitate easy “from grade” interior inspection.
   e. For cone sections, UV inhibitors shall be added directly to resins to prevent photodegradation.
   f. Exterior gel-coating is permitted.
2. Reinforcing Materials: The reinforcing materials shall be commercial grade “E” type glass in the form of mat, continuous roving, chopped roving, roving fabric, or a combination of the above, having a coupling agent that will provide a suitable bond between the glass reinforcement and the resin.
3. Surfacing Materials: If reinforcing material is used on the surface exposed to the contained substance, it shall be a commercial grade chemical-resistant glass or organic surfacing mat having a coupling agent that will provide a suitable bond with the resin and leave a resin rich surface.
4. Fillers and Additives:
   a. Fillers, when used, shall be inert to the environment and manhole construction.
   b. Additives, such as thixotropic agents, catalysts, and promoters, may be added as required by the specific manufacturing process to be used to meet the requirements of this standard.
   c. Calcium carbonate mixed by the fabricator is permitted.
   d. The resulting reinforced plastic material must meet the requirement of this Specification.
5. Laminate: The laminate shall consist of multiple layers of glass matting and resin. The surface exposed to the sewer/chemical environment shall be resin rich and shall have no exposed fibers.

C. Manufacture:

1. Manhole cylinders, manway reducers, and connectors shall be produced from glass-fiber reinforced polyester resin.
2. Manway Reducer: Manway reducers shall be concentric with respect to the larger portion of the manhole diameters through 72 inches.
3. Cover Ring and Support: The manhole shall provide an area from which a ring and cover plate can be supported and support a traffic load without damage to the manhole.

©COPYRIGHT 2022 JACOBS

4. Assembly Joints: Product components, including cylinders, reducers, bottoms, and connectors, may be joined together to form a complete manhole.

D. Requirements:

1. Exterior Surface:
   a. The exterior surface shall be relatively smooth with no sharp projections.
   b. Hand-work finish is acceptable if enough resin is present to eliminate fiber show.
   c. The exterior surface shall be free of blisters larger than 0.50 inches in diameter, delamination, and fiber show.
   d. Gel-coat or paint or other coatings is allowed.
2. Interior Surface:
   a. The interior surface shall be resin rich with no exposed fibers.
   b. Interior surface shall be smooth for improved corrosion resistance and reduced sludge build-up.
   c. The surface shall be free of crazing, delamination, blisters larger than 0.50 inches in diameter, and wrinkles of 0.125 inches or greater in depth.
   d. Surface pits shall be permitted up to $6/ft^2$ if they are less than 0.75 inches in diameter and less than 0.0625 inches deep.
   e. Voids that cannot be broken with finger pressure and that are entirely below the resin surface shall be permitted up to $4/ft^2$ if they are less than 0.50 inches in diameter and less than 0.0625 inches thick.
   f. Gel-coat or paint or other coatings is allowed.
3. Repairs: Any manhole repair is required to meet all requirements of this Specification. Repairs to manholes shall be performed by the manufacturer. Owner's Representative in consultation with manufacturer will determine if extent of repairs warrants manhole replacement. Contractor shall bear cost of manhole replacement.
4. Defects Not Permitted:
   a. Exposed Fibers: Glass fibers not wet out with resin.
   b. Resin Runs: Runs of resin and sand on the surface.
   c. Dry Areas: Areas with glass not wet out with resin.
   d. Delamination: Separation in the laminate.
   e. Blisters: Light colored areas larger than 0.50 inches in diameter.
   f. Crazing: Cracks caused by sharp objects.
   g. Pits or Voids: Air pockets.
   h. Wrinkles: Smooth irregularities in the surface.
   i. Sharp Projection: Fiber or resin projections necessitating gloves for handling.

©COPYRIGHT 2022 JACOBS

5. Load Rating: The complete manhole shall have a minimum dynamic load rating of 16,000 pounds AASHTO H-20 when tested in accordance with ASTM D3753. To establish this rating, the complete manhole shall not leak, crack, or suffer other damage when load tested to 40,000 pounds and shall not deflect vertically downward more than 0.25 inches at the point of load application when loaded to 24,000 pounds.
6. Stiffness: The cylindrical portion of the manhole is to be tested in accordance with ASTM D2412. The manhole cylinder shall have the minimum pipe-stiffness values shown below, when tested in accordance with ASTM D3753:

Manhole Length (feet)	Minimum Stiffness (psi)
3 to 6.5	0.72
7 to 12.5	1.26
13 to 20.5	2.01
21 to 25.5	3.02
26 to 35	5.24

For manhole lengths greater than 35 feet, minimum stiffness shall be in accordance with manufacturer's recommendations.

7. Soundness:
   a. In accordance with ASTM D3753.
   b. In order to determine soundness, an air or water test is to be applied to the manhole test sample. While holding the pressure between 3 to 5 psi, the entire manhole shall be inspected for leaks. Any leakage through the laminate is cause for failure of the test.
8. Chemical Resistance:
   a. In accordance with ASTM C581 and ASTM D3753.
   b. Flexural strength, flexural modulus, and barcol hardness shall be plotted versus time on log-log coordinates. The line defined by these points is extrapolated to 100,000 hours. The minimum extrapolation retention allowed for any of these properties is 50 percent. Test samples used shall be actual pieces of manhole or samples manufactured in a manner consistent in every way with the manhole component construction.
   c. The fiberglass manhole and all related components shall be fabricated from corrosion proof material suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with wastewater collection systems.
9. Physical Properties: Physical properties shall be suitable to support all live and dead loads for the Manufacturer's proposed wall configuration. Flexural modulus, flexural strength and compressive strength shall be determined in accordance with Sections 6.7 and 8.8 of ASTM D3753.

©COPYRIGHT 2022 JACOBS

E. Test Methods: Tests shall be performed as specified in ASTM D3753.

F. Quality Assurance/Quality Control:

1. Examination: Each manhole component part shall be examined for dimensional requirements, hardness, and workmanship.
2. Composition Control: Controls on glass and resin content shall be maintained for all manufacturing processes and for each portion of manhole fabrication. Records shall be maintained for these control checks. Proper glass content may be shown by glass usage checks or glass and resin application rate checks, in accordance with the material composition test in ASTM D3753.
3. All required ASTM D3753 testing shall be kept and copies of all test results shall be presented to Owner's Representative.

G. Certification: A certification shall be provided by the manufacturer that the manholes have been sampled, tested, and inspected in accordance with the provisions of ASTM D3753 and this Specification, and meets all requirements. An authorized agent of the manufacturer shall sign each certificate so furnished.

H. Handling and Storage: Handling and storage shall be in strict accordance with the manufacturer's written instructions. FRP manholes shall be delivered to the site in one piece.

I. Inspection:

1. The quality of all materials, the process of manufacture, and the finished sections shall be subject to inspection and approval by the Owner's Representative, or other representative of the Owner. Such inspections shall be made at the place of manufacture, or at the site of delivery, and the sections shall be subject to rejection on account of failure to meet any of the Specification requirements. Sections rejected after delivery to the job site shall be marked for identification and shall be removed from the job site at once. All sections which have been damaged after delivery will be rejected, and if already installed shall be removed and replaced at the Contractor's expense.
2. At the time of inspection, the material will be examined for compliance with the requirements of this Specification and the accepted Shop Drawings.

©COPYRIGHT 2022 JACOBS

J. Acceptable Manufacturers:

1. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
   a. Containment Solutions, Inc.
   b. L.F. Manufacturing, Inc.
   c. Approved equal.
2. Submit requests for substitution in accordance with terms and conditions of Project Specifications and Contract Documents.

2.02 CAST-IN-PLACE CONCRETE BASE

A. Reinforcing Steel: Furnish as specified in manufacturer's recommendations taking in consideration loading, total depth, and soil and ground water conditions.

B. Concrete: Furnish as specified in manufacturer's recommendations taking in consideration loading, total depth, and soil and ground water conditions.

2.03 MORTAR

A. Standard premixed in accordance with ASTM C387, or proportion one part Portland cement to two parts clean, well-graded sand that will pass a 1/8-inch screen, and sufficient water to produce a workable mixture.

B. Admixtures: May be included but do not exceed the following percentages of weight of cement:

1. Hydrated Lime: 10 percent.
2. Diatomaceous Earth or Other Inert Material: 5 percent.

2.04 MANHOLE FRAMES AND COVERS

A. Manhole frames and covers shall be composite manhole ring and cover with gasket and 3 bolts, fiber reinforced polymer PU1 AASHTO M306, sound, smooth, clean, free from blisters, blowholes, shrinkage, cold shuts, and defects.

B. Manhole frames and covers shall be H-20 traffic rated when properly installed.

C. Furnish frames and covers of heavy-duty construction.

D. Plane or grind bearing surfaces to ensure flat, true surfaces.

©COPYRIGHT 2022 JACOBS

E. The finished frames and covers shall have the bearing surfaces machined ground and sets of rings and covers shall be marked in such a way that they can be matched for assembly in the field. Cover shall be true and seat within ring at all points. All covers shall be in accordance with Trinity River Authority (TRA) Standards as shown in the Drawings.

F. Frames shall be circular, incorporate a seating gasket and a fitted plug in each hinge housing. The frame depth shall not exceed 5 inches, and the flange shall incorporate bedding slots, bolt holes, and lifting eyes.

G. Manholes on this project are in floodplain. The lids of manholes shall be bolted, gasketed and watertight.

H. Frames and covers gasket system shall provide infiltration resistance without additional accessories.

I. Gaskets shall be made only of materials that have been proven to be resistant to the following exposures and conditions:

1. Sanitary sewage.
2. Corrosion or rotting under wet or dry conditions.
3. Gaseous environment in sanitary sewers and at road surfaces including common levels of ozone, carbon monoxide, and other trace gases at the sites of installation.
4. Biological environment in soils and sanitary sewers.
5. Chemical attack by road salts, road oil, and common street spillages or solvents used in street construction or maintenance.
6. Temperature ranges, variations, and gradients in the area of construction.
7. Variations in moisture conditions and humidity.
8. Fatigue failure caused by a minimum of 30 freeze-thaw cycles per year.
9. Vibrations due to traffic loading.
10. Fatigue failure due to repeated variations of tensile, compressive and shear stresses, and repeated elongation and compression.
11. Any combinations of the above.

J. Acceptable Manufacturers and Products: Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. Bass & Hayes.
2. Approved equal.

©COPYRIGHT 2022 JACOBS

2.05 GRADE RINGS

A. Adjustment grade rings shall be non-reinforced concrete rings. The internal diameter shall not be less than the size shown in the Drawings, and the width shall be a minimum of 5 inches. Poly grade rings may be used in lieu of concrete. A minimum of 2 grade rings shall be installed. No more than 4 grade rings may be used on any manhole.

PART 3 EXECUTION

3.01 GENERAL

A. Remove and keep all water clear from the excavation during construction and testing operations.

B. Place imported pipe base material on subbase; thoroughly compact with a mechanical vibrating or power tamper.

C. Build and install each manhole to dimensions shown on plans and at such elevations that manhole will be true extensions of lines of pipe.

3.02 EXCAVATION AND BACKFILL

A. Excavation: As specified in Section 31 23 16, Excavation.

B. Subgrade Preparation: As specified in Section 31 23 23, Fill and Backfill for Structure.

C. Backfill: As specified in Section 31 23 23.15, Trench Backfill for Pipes.

3.03 INSTALLATION OF FRP MANHOLES

A. Installation Methods (Sanitary Sewer Manholes):

1. Installation shall be in strict accordance with the manufacturer’s written instructions.
2. Before installing any manhole, excavation shall be shored properly.
3. Ensure the depth of manhole is sufficient to allow at least two concrete rings for adjustment of ring and cover at top of final grade.
4. The Contractor shall be responsible for handling groundwater to provide firm, dry subgrade for the structure, shall prevent water from rising on new poured in place concrete until concrete obtains sufficient strength, and shall guard against flotation or other damages resulting from groundwater or flooding.

©COPYRIGHT 2022 JACOBS

5. All cut-outs should be done by the manufacturer at the factory. Contractor should not make any cut-out in the field. If any cut-out or coring is required Contractor should immediately notify the Owner's Representative. Contractor should proceed with any cuts only upon getting written approval by the Owner's Representative.
6. Place manhole in position and level. Install concrete base as shown on Drawings on the thoroughly compacted sub base. Manhole is to be installed by inserting into wet concrete base. The depth of concrete above the anti-flotation flange shall be 4 inches minimum or as included on structural design by Contractor to prevent flotation of manhole, whichever is larger.
7. Allow base to set and backfill as shown on the Drawings. Backfill shall be placed in such a manner as to prevent any wedging action against the fiberglass manhole structure.
8. Bring manhole to grade using grade rings and install manhole ring and cover.
9. Construct non-reinforced concrete ring encasement.

B. Grade rings shall be mortared between all bearing surfaces sufficient to provide a minimum, in place mortar thickness of 0.25 inches. Lay grade rings in mortar with sides plumb and tops level. Seal exterior with mastic. For poly rings, use manufacturer's recommended joint sealing compound and seal exterior.

C. Set manhole frames in bed of mortar with mortar carried over flange.

D. Set tops of covers flush with surface of adjoining pavement or ground surface, unless otherwise shown in Details.

E. Manhole Ring Encasement: All manhole rings shall be encased with non-reinforced concrete as shown on the Details.

1. Manhole ring encasement shall have a minimum depth of 28 inches and a minimum width when measured at the manhole ring of 12 inches. The surface of the encasement shall be 3 inches below the top of the manhole ring.

3.04 FIELD QUALITY CONTROL

A. General:

1. Manhole testing shall be in accordance with 30 TAC§217.58.
2. All required testing equipment, labor, materials, and water shall be furnished by the Contractor.

©COPYRIGHT 2022 JACOBS

3. Manholes shall be tested for leakage separately and independently of the wastewater lines by hydrostatic exfiltration testing or vacuum testing.
4. Manholes will be accepted in accordance with the criteria for either test methods provided below. Repair any manhole which fails the initial test with suitable material for the FRP manhole. Retest the manhole as described below until a successful test is achieved. Remove all temporary plugs and reseal as necessary after a successful test.

B. Hydrostatic Testing:

1. Procedure: Plug inlets and outlets and fill manhole with water to the top of the manhole cone. Manhole shall be maintained full for 1-hour. A loss within a 1-hour period greater than the maximum leakage allowance shall be considered an unsuccessful test.
2. A manhole may be filled 24 hours prior to time of testing, if desired, to permit normal absorption and evaporation to take place.
3. Leakage in each manhole shall not exceed 0.025 gallons per foot diameter per foot of manhole depth per hour.
4. Repair manholes that do not meet the leakage test, or do not meet specified requirements from visual inspection.
5. If a manhole fails a leakage test, the manhole must be made watertight and retested until leakage is within allowances specified.

C. Vacuum Testing:

1. Temporarily plug lines entering the manhole with the plugs braced to prevent them from being drawn into the manhole.
2. Place the test head inside the frame at the top of the manhole and inflate in accordance with the manufacturer's recommendations.
3. Draw a vacuum of 10 inches of mercury, then turn off the vacuum pump. Read the level of vacuum after the required test time with the valve closed.
4. The manhole will pass the test if the drop in the level is or less than 1 inch of mercury (final vacuum greater than or equal 9 inches of mercury). The required test time is (2) two minutes in accordance with 30 TAC§217.58.
5. Repair manholes that do not meet the vacuum test, or do not meet specified requirements from visual inspection.
6. If a manhole fails a vacuum test, the manhole exterior must be grouted. The manhole must be repaired and retested until leakage is within allowances specified.

END OF SECTION

©COPYRIGHT 2022 JACOBS

D&S ENGINEERING LABS

June 3, 2021

Jeff Miner
Senior Water Engineer
Jacobs
1999 Bryan Street, Suite 1200
Dallas, Texas 75201

GEOTECHNICAL INVESTIGATION
D&S ENGINEERING #G20-2205-REVISED
MIDLAND SEWER LINE
MIDLAND, TEXAS

Mr. Miner,

As requested, D&S Engineering Labs, LLC has completed the geotechnical investigation for the above-referenced project. This exploration was conducted in accordance with Proposal No. GP20-2205, dated October 21, 2020. Notice to proceed was received on April 16, 2021.

We appreciate the opportunity to provide professional geotechnical engineering services for this project. At your request, we are available to discuss any questions which may arise regarding this report. Please do not hesitate to call if we can provide any additional services.

Sincerely,

D&S Engineering **Labs, LLC**

STATE OF TEXAS
IBRAHIM A. BAAYEH
132175
LICENSED
PROFESSIONAL ENGINEER
6-3-2021

JUNE 3, 2021

Douglas Greenwood, P.E.
Senior Geotechnical Engineer

Ibrahim A. Baayeh, P.E.
Geotechnical Engineering Manager

TABLE OF CONTENTS

1.0 PROJECT DESCRIPTION 1
2.0 PURPOSE AND SCOPE 2
3.0 FIELD AND LABORATORY INVESTIGATION 2
3.1 General 2
3.2 Laboratory Testing 3
4.0 SITE CONDITIONS 4
4.1 Stratigraphy 4
4.2 Groundwater 4
5.0 ENGINEERING ANALYSIS 4
5.1 Estimated Potential Vertical Movement (PVM) 4
6.0 CONSTRUCTION 5
6.1 Trench Geometry 5
6.2 Embedment 5
6.3 Backfill 6
6.4 Thrust Blocks 7
6.5 Excavations 7
6.6 Excavation and Directional Drilling Difficulties 8
6.7 Construction Dewatering 8
7.0 LIMITATIONS 9

APPENDIX A – BORING LOGS AND SUPPORTING DATA
APPENDIX B – GENERAL DESCRIPTION OF PROCEDURES

GEOTECHNICAL INVESTIGATION
MIDLAND SEWER LINE
MIDLAND, TEXAS

1.0 PROJECT DESCRIPTION

This report presents the results of the geotechnical investigation for the proposed Midland Sewer Line. The project consists of the removal of the existing lift station, followed by the installation of a sewer line along the City's right-of-way (ROW) to reroute the flow of the lift station about 800 feet east of the intersection between S Terrell St and I-20 west bound frontage road. The new sewer alignment starts just south of intersection of E Peck Ave and S Terrell St and runs about 500 feet south along the S Terrell St ROW. At this location, the sewer alignment turns east for about 800 feet and then turns south for about 600 feet within the ROW of I-20 west bound frontage road.

Based on available aerial photographs and the site visit, the site is currently covered with sparse small trees and grass. Site observations and a review of available topographic maps indicate that the site slopes down from the northwest to the southeast with an overall topographic relief of about 10 feet along the proposed utility line alignment. At the time of this report preparation, no grading plans were available. Photographs showing the recent condition of the site are provided below.





2.0 PURPOSE AND SCOPE

The purpose of this investigation was to:

- Identify the subsurface stratigraphy present at the site.
- Evaluate the physical and engineering properties of the subsurface soils for use in the geotechnical analyses.
- Provide geotechnical recommendations for placement of the sewer line.

The scope of this investigation consisted of:

- Drilling and sampling a total of two (2) borings (B1 and B2) to depths of about 15 feet below existing grades.
- Laboratory testing of selected soil samples obtained during the field investigation.
- Preparation of a Geotechnical Report that includes:
    - Evaluation of Potential Vertical Movement (PVM).
    - Recommendations for excavations.
    - Recommendations for earthwork.

3.0 FIELD AND LABORATORY INVESTIGATION

3.1 General

The borings were advanced utilizing truck-mounted drilling equipment outfitted with hollow stem augers. Soils were sampled in general accordance with the Standard Penetration Test (ASTM D1586). During this test, disturbed samples of subsurface material are recovered using a nominal 2-inch O.D. split-barrel sampler. The sampler is driven into the soil strata with an automatic drive hammer utilizing the energy of a 140-pound hammer falling freely from a height of 30 inches and striking an anvil located at the top of the drill string. The number of blows required to advance the sampler in three consecutive 6-inch increments is recorded, and the number of blows required for the final 12 inches is noted as the “N”-value. The test is terminated at the first occurrence of either of the following: 1) when the sampler has advanced a total of 18 inches; 2) When the sampler has advanced less than one complete 6-inch increment after 50 blows of the hammer; 3) when the total number of blows reaches 100; or 4) if there is no advancement of the sampler in any 10-blow interval.

Subsurface materials were periodically tested in situ using the Texas Cone Penetration tests to examine the resistance of the materials to penetration. For this test, a 3-inch diameter steel cone is driven utilizing the energy of a 170-pound hammer falling freely from a height of 24 inches and striking an anvil located at the

top of the drill string. Depending on the resistance of the materials, either the number of blows of the hammer required to provide 12 inches of penetration is recorded (in two increments of 6 inches each), or the inches of penetration of the cone resulting from 100 blows of the hammer are recorded (in two increments of 50 blows each).

All samples obtained were extruded in the field, initially described, placed in plastic bags to minimize changes in the natural moisture condition, labeled as to appropriate boring number and depth, then placed in protective cardboard boxes for transportation to the laboratory. The approximate locations of the borings performed at the site are shown on the boring location map that is included in Appendix A. The elevations noted on the boring logs were interpolated from the USGS topoview website, which provides elevations in 1-foot intervals. The specific depths, thicknesses and descriptions of the strata encountered are presented on the individual final Boring Log illustrations, which are also included in Appendix A. Strata boundaries shown on the boring logs are approximate.

3.2 Laboratory Testing

Laboratory tests were performed to identify the relevant engineering characteristics of the subsurface materials encountered and to provide data for developing engineering design parameters. The subsurface materials recovered during the field exploration were initially described in the field by the drilling crew, then logged in detail by a staff geotechnical engineer after the samples arrived in the laboratory. These descriptions were later refined by a Geotechnical Engineer based on results of the laboratory tests performed. All recovered soil samples were classified and described in part using the Unified Soil Classification System (USCS) and other accepted procedures.

In order to determine soil characteristics and to aid in classifying the materials, classification testing was performed on selected samples as requested by the Geotechnical Engineer. Classification testing was performed in general accordance with the following ASTM testing standards:

- Moisture Content ASTM D2216
- Atterberg Limits ASTM D4318
- Percentage of Particles Finer Than a No. 200 Sieve ASTM D1140
- Grain Size Distribution ASTM D6913

The results of index property tests are presented at the corresponding sample depths on the appropriate Boring Log illustrations. The index property and classification testing procedures are described in more detail in Appendix B.

4.0 SITE CONDITIONS

4.1 Stratigraphy

Based upon our observation of the boring samples and a review of the Geologic Atlas of Texas, Hobbs Sheet, this site is in an area characterized by soil and bedrock strata associated with windblown cover sand, typically consisting of fine sands, silts, clays, and materials locally referred to as caliche.

At the ground surface within the borings, sandy soils are present. The sandy soils present are generally medium dense to very dense in condition, various shades of brown in color and contain varying amounts of silt, clay and occasional amounts of calcareous seams locally referred to as caliche. The surficial sand soils extend to depths of about 5.5 to 14 feet.

Below the sand soils in Boring B1, lean clay soils are present at a depth of about 14 feet. The clay soils present are very stiff in consistency, various shades of brown and light brown in color, and contain varying amounts of sand and some amounts of calcareous seams locally referred to as caliche. The lean clay soils extend to the maximum depth explored of about 16 feet.

Beneath the surficial sand soils in Boring B2, materials locally referred to as caliche are present at a depth of about 5.5 feet. The caliche materials consist predominantly of sand soils. The caliche sand soils present are very dense in condition, are light brown and light gray in color and are calcareous in nature. The caliche sands extend to the maximum depth explored of about 15 feet.

4.2 Groundwater

Groundwater seepage was not observed during drilling or upon completion of drilling within the borings performed at the site. Although not encountered, groundwater levels may be anticipated to fluctuate with seasonal and annual variations in rainfall and may also change as a result of development and landscape irrigation.

5.0 ENGINEERING ANALYSIS

5.1 Estimated Potential Vertical Movement (PVM)

Potential Vertical Movement (PVM) was evaluated utilizing different methods for predicting movement, as described in Appendix B, and based on our experience and professional opinion.

At the time of our field investigation, the near-surface soils were generally found to be in an average to dry moisture condition. Based on the information provided, the soils across the site are estimated to possess a PVM of less than 1 inch at the soil moisture conditions existing at the time of the field investigation. Wet, average, dry are relative terms based on moisture content and plasticity.

The sandy soils present at the site are relatively non-expansive and are not subjected to appreciable vertical movements with changes in soil moisture content; however, they are subject to settlement with the application of load.

6.0 CONSTRUCTION

6.1 Trench Geometry

The minimum trench width should allow adequate access on each side of the pipe for compaction of embedment under the pipe haunches. It is anticipated that the minimum practical clearance between the pipe and the trench wall would be about 18 inches to allow for at least some mechanical compaction below the mid-height of the pipe.

6.2 Embedment

In general, the pipe should not bear directly on hard unyielding layers, if present. For conditions where bedrock or very dense calcareous sand (caliche) is exposed, we recommend a minimum of 12 inches of embedment below the bottom of the pipe. The embedment support should be uniform and free of large rocks and debris, which could damage the exterior pipe mortar coating. The embedment material must be placed without voids. The embedment material should not consist of a corrosive soil.

A granular embedment material is typically preferred to satisfy these requirements. A durable crushed stone with a maximum particle size of about 1 inch should be considered for this purpose. This type of embedment material would be suitable for pipe support and would generally be easy to compact in confined areas such as within the haunch zone. The embedment should extend above the bottom of the pipe, preferably to at least the mid-height of the pipe.

Above the mid-height of the pipe, a compacted select fill or granular material is recommended. A select fill would consist of a clayey sand or sandy clay, classified as SC or CL according to the Unified Soil Classification System, with 35 to 65 percent passing the No. 200 sieve and a plasticity index between 5 and 15. This material should extend to at least 12 inches above the top of the pipe. These embedment soils should be placed in compacted lifts with each lift compacted to a degree of compaction consistent with the pipe design. We anticipate that this degree of compaction would be on the order of 90 to 95 percent of the standard Proctor maximum dry density (ASTM D698) The compaction should occur at soil moisture contents near the optimum moisture content, as determined by the same test (optimum $\pm$ 3 percent). If smaller compaction equipment is used, the loose lift thickness should not exceed six inches.

6.3 Backfill

At a minimum, the backfill materials above the select or granular soils should be free of rock fragments and clods larger than 4 inches and deleterious materials.

Backfill for shallow (less than 10 feet) utility lines should consist of either on-site or imported material and should be placed in accordance with the following recommendations. The fill may be onsite or imported material having a Liquid Limit (LL) of 30 or less, a Plasticity Index (PI) of 15 or less, a minimum of 25% of the material passing a No. 200 mesh sieve and be essentially free of particles in excess of 2 inches in their longest direction. The on-site fill soil should be placed in maximum 6-inch compacted lifts, compacted to a minimum of 95 percent of the maximum dry density, as determined by ASTM D698 (standard Proctor), and placed at a moisture content that is at least the optimum moisture content, as determined by that same test. We also recommend that the utility trenches be visually inspected during the excavation process to ensure that undesirable fill that was not detected by the test borings does not exist at the site. This office should be notified immediately if any such fill is detected. Backfill for deeper (more than 10 feet) utility lines should be compacted to a minimum of 98 percent of the maximum dry density, as determined by ASTM D698 (standard Proctor), and placed at a moisture content that is at least the optimum moisture content, as determined by that same test. Utility excavations should be sloped so that water within excavations will flow to a low point away from the active construction where it can be removed before backfilling. Compaction of bedding material should not be water-jetted. Utility trenches extending under structures should include fat clay or concrete cut-off collars at the perimeter/edge to prevent the transmission of water along trench lines.

For situations where the new pipe will lie beneath a future street pavement, select fill having a Liquid Limit (LL) of 30 or less, a Plasticity Index (PI) of 15 or less, a minimum of 25% of the material passing a No. 200 mesh sieve and be essentially free of particles in excess of 2 inches in their longest direction should be used. Onsite materials that meet the select fill criteria can also be used as backfill. The potential for post-construction settlements of the backfill will require special consideration regarding selection of backfill types, degree of compaction, or a combination of these. In general, if on-site soils that meet select fill requirements are used for backfill and are compacted to 100 percent of the standard Proctor maximum dry density, total backfill settlements on the order of 1 percent of the backfill thickness should be expected. For a properly compacted backfill thickness of 10 feet, this would correspond to a total settlement of the backfill surface of about 1.5 inches. We estimate that one-third of this settlement would occur during the backfill construction and the remainder would occur over a period of several years. The potential for post-construction settlements could be reduced by increasing the degree of compaction or mixing cement with the backfill, or some combination of these or other means.

6.4 Thrust Blocks

We understand that the pipe will be installed up to 11 feet below ground surface. Thrust blocks should be designed to bear against firm, undisturbed natural soils.

At this depth, lateral bearing values of 2,500 pounds per square foot are anticipated for thrust blocks bearing on firm caliche or clayey sand materials.

6.5 Excavations

Excavations greater than 5 feet in height/depth should be in accordance with OSHA 29CFR 1926, Subpart P. Temporary construction slopes should incorporate excavation protection systems or should be sloped back. Where the excavation does not extend close to building lines, these areas may be laid back. Where space allows, temporary slopes should be sloped at 1.5 horizontal to 1 vertical (1.5H:1V) or flatter.

Where excavation slopes greater than five (5) feet in height cannot be laid back, these areas will require installation of a temporary retention system or shoring to protect the existing construction, restrain the subsurface soils and maintain the integrity of the excavation. The cuts may be supported by soldier beams and tie-backs, braced excavations or potentially other methods. The design of temporary shoring should comply with OSHA 29CFR 1926, Subpart P.

Soil friction angle and unit weight parameters are provided in Table 1 below, and recommendations for lateral earth pressures are presented in Table 2.

Table 1. Effective Friction Angle and Unit Weight

Backfill Type	Effective Friction Angle	Total Unit Weight (pcf)
On site Soils	30°	125

Table 2. Earth Pressure Recommendations

Earth Pressure Conditions	Coefficient for Backfill Type	Drained Equivalent Fluid Density (pcf)	Undrained Equivalent Fluid Density (pcf)
Active (K_a)	0.33	42	83
At-rest (K_o)	0.50	62	94
Passive (K_p)	3.00	375	250

The slopes and temporary retention system should be verified by and designed by the contractor's engineer and should not be surcharged by traffic, construction equipment, or permanent structures. The slopes and temporary retention system should be adequately maintained and periodically inspected to ensure the safety of the excavation and surrounding property. Stockpiled soils should be placed at least

10 feet away from the crest of any slope. Excavations deeper than 20 feet must be designed by a professional engineer licensed by the State of Texas.

6.6 Excavation and Directional Drilling Difficulties

Temporary construction slopes should incorporate excavation protection systems or should be sloped back. Excavations performed during site grading and utility construction operations including directional drilling in soil should not be difficult and should not require the use of special construction equipment. Overburden soils above the dense sands and caliche will need to be sloped about 1.5H:1V. A minimum 2-foot-wide bench should be required at the base of the overburden soils, at the top of the dense sands and caliche.

TCP test results in the caliche generally ranged from 0.75 to 4.0 inches per 100 blows and should be considered as very hard (sedimentary rock basis). These bedrock-like materials can typically be excavated with backhoes/track-hoes equipped with rock teeth, single tooth rippers and hydraulic impact hammers and large pier rigs. Where it is desired to maintain close excavation tolerances in the caliche, trenching machines or rock wheel excavators should also be considered. Over breaks in the rock should also be expected. Loose material should be removed from the exposed cuts. Surface water should be diverted away from excavations.

The caliche can very likely be cut in the range 1H:1V to 0.75H:1V. We recommend the excavation contractor be required to develop an excavation plan. As excavation proceeds through the caliche, the surface of the exposed material should be carefully examined by the competent person for weakening due to weather exposure, joints and fractures, seepage, or other planes of weakness and the slope should be flattened or shored as required. In the excavation plan, all excavation methods, retaining systems, slope protection and groundwater control should be described in detail.

Analyses of slope or trench wall stability in excavations are beyond the scope of this study and have not been performed. In all cases, the requirements of the Occupational Safety and Health Administration (OSHA) must be followed by the contractor. It is important for the contractor to monitor the slope and pit wall stability by observation and measurements, and to prevent excessive loads (especially heavy vibratory loads) from being applied to the slope. The contractor should be responsible for maintaining the slopes and pit walls in a safe condition during construction. A competent representative should be present to monitor all utility excavations and fill placement.

6.7 Construction Dewatering

Groundwater seepage was not observed within the borings. Based on this, we anticipate that dewatering may not be necessary. However, groundwater levels should be anticipated to fluctuate with seasonal and annual variations in rainfall, and

also may vary as a result of development and landscape irrigation. It is not possible to accurately predict the magnitude of subsurface water fluctuations for the utility excavation that might occur based upon short-term observations and based on widely spaced borings. The contractor should have in place a plan for dewatering should the need be required. It is not uncommon to detect groundwater seepage within the more permeable soils, within the soils above the bedrock, and through more permeable zones within the rock (fractures, joints, bedding planes, etc.).

7.0 LIMITATIONS

The professional geotechnical engineering services performed for this project, the findings obtained, and the recommendations prepared were accomplished in accordance with currently accepted geotechnical engineering principles and practices.

Variations in the subsurface conditions are noted at the specific boring locations for this study. As such, all users of this report should be aware that differences in depths and thicknesses of strata encountered can vary between the boring locations. Statements in the report as to subsurface conditions across the site are extrapolated from the data obtained at the specific boring locations. The number and spacing of the exploration borings were chosen to obtain geotechnical information for the design and construction of utility water lines. If there are any conditions differing significantly from those described herein, D&S should be notified to re-evaluate the recommendations contained in this report.

Recommendations contained herein are not considered applicable for an indefinite period of time. Our office must be contacted to re-evaluate the contents of this report if construction does not begin within a one-year period after completion of this report.

The scope of services provided herein does not include an environmental assessment of the site or investigation for the presence or absence of hazardous materials in the soil, surface water, or groundwater.

All contractors referring to this geotechnical report should draw their own conclusions regarding excavations, construction, etc. for bidding purposes. D&S is not responsible for conclusions, opinions or recommendations made by others based on these data. The report is intended to guide preparation of project specifications and should not be used as a substitute for the project specifications.

Recommendations provided in this report are based on our understanding of information provided by the Client to us regarding the scope of work for this project. If the Client notes any differences, our office should be contacted immediately since this may materially alter the recommendations.

APPENDIX A - BORING LOGS AND SUPPORTING DATA



BORING LOCATIONS ARE INTENDED FOR GRAPHICAL REFERENCE ONLY

D&S ENGINEERING LABS

N.T.S.

PLAN OF BORINGS

MIDLAND SEWER LINE

MIDLAND TEXAS

SHEET NO.

G1

DATE DRILLED

April 28, 2021



BORING LOCATIONS ARE INTENDED FOR GRAPHICAL REFERENCE ONLY

D&S ENGINEERING LABS

N.T.S.

PLAN OF BORINGS

MIDLAND SEWER LINE

SHEET NO.

G2

DATE DRILLED

April 28, 2021

MIDLAND TEXAS

BORING LOG

B1

PROJECT: Midland Sewer Line
CLIENT: Jacobs
PROJECT NUMBER: G20-2205
START DATE: 4/28/2021 FINISH DATE: 4/28/2021
LOGGED BY: Gaby Vasquez (D&S)

LOCATION: Midland, TX
GPS COORDINATES: N31.977652, W102.065113
GROUND ELEVATION: Approx. 2766 feet
DRILL METHOD: Hollow Stem Flight Auger
DRILLED BY: Daniel Earl (D&S)

Depth (ft)	Sample Type	Hand Pen. (tsf) or SPT or TCP	Graphic Log	Legend: ■ S-Shelby Tube ☒ N-Standard Penetration ▽ T-Texas Cone Penetration ◧ C-Core ◧ B-Bag Sample ▽ - Water Encountered	REC (%) RQD (%)	MC (%)	Atterberg Limits LL (%)	Atterberg Limits PL (%)	Atterberg Limits PI	Passing #200 Sieve (%)	Total Suction (pF)	Clay (%)	Swell (%)	DUW (pcf)	Unconf. Compr. Str (ksf)
0	N	7,10,10		**SILTY SAND (SM);** medium dense to very dense; light brown, brown; occasional calcareous (caliche) seams		4.9									
	N	39,50=5.0"				6.3									
5	B					9.9	NP	NP	NP	28					
	N	8,9,12		6.5 ft											
	N	13,10, 50=5.0"		**CLAYEY SAND (SC);** medium dense to very dense; light brown, brown; occasional calcareous (caliche) seams 2759.5 ft		13.7				50					
10				14.0 ft											
15	N	12,25,34		**SANDY LEAN CLAY (CL);** very stiff; brown, reddish brown, light brown, light gray; some calcareous (caliche) seams 2752.0 ft 15.5 ft 2750.5 ft		12.5	22	13	9	52					
				End of boring at 15.5'											
20				Notes: -dry during drilling -dry upon completion											
25															
30															
35															

BORING LOG

PROJECT: Midland Sewer Line
CLIENT: Jacobs
PROJECT NUMBER: G20-2205
START DATE: 4/28/2021 FINISH DATE: 4/28/2021
LOGGED BY: Gaby Vasquez (D&S)

LOCATION: Midland, TX
GPS COORDINATES: N31.976658, W102.062052
GROUND ELEVATION: Approx. 2760 feet
DRILL METHOD: Hollow Stem Flight Auger
DRILLED BY: Daniel Earl (D&S)

Legend:
- S-Shelby Tube
- N-Standard Penetration
- T-Texas Cone Penetration
- C-Core
- B-Bag Sample
- ▽ - Water Encountered

Depth (ft)	Sample Type	Hand Pen. (tsf) or SPT or TCP	Graphic Log	REC (%) RQD (%)	MC (%)	Atterberg Limits LL (%)	Atterberg Limits PL (%)	Atterberg Limits PI	Passing #200 Sieve (%)	Total Suction (pF)	Clay (%)	Swell (%)	DUW (pcf)	Unconf. Compr. Str (ksf)
0	N	5,11,8			8.7	29	20	9	38					
	B													
5	N	5,7,11			11.4									
	N	50=0.75"												
					3.6				35					
10	B													
	T	50=0.5", 50=0.25"												
15	B													
	T	50=3.0", 50=1.0"												
20														
25														
30														
35														

CLAYEY SAND (SC); medium dense; light brown; occasional calcareous (caliche) seams — 5.5 ft (2754.5 ft)

CLAYEY SAND (SC); very dense; light brown, light gray; calcareous; (locally known as caliche) — 15.3 ft (2744.7 ft)

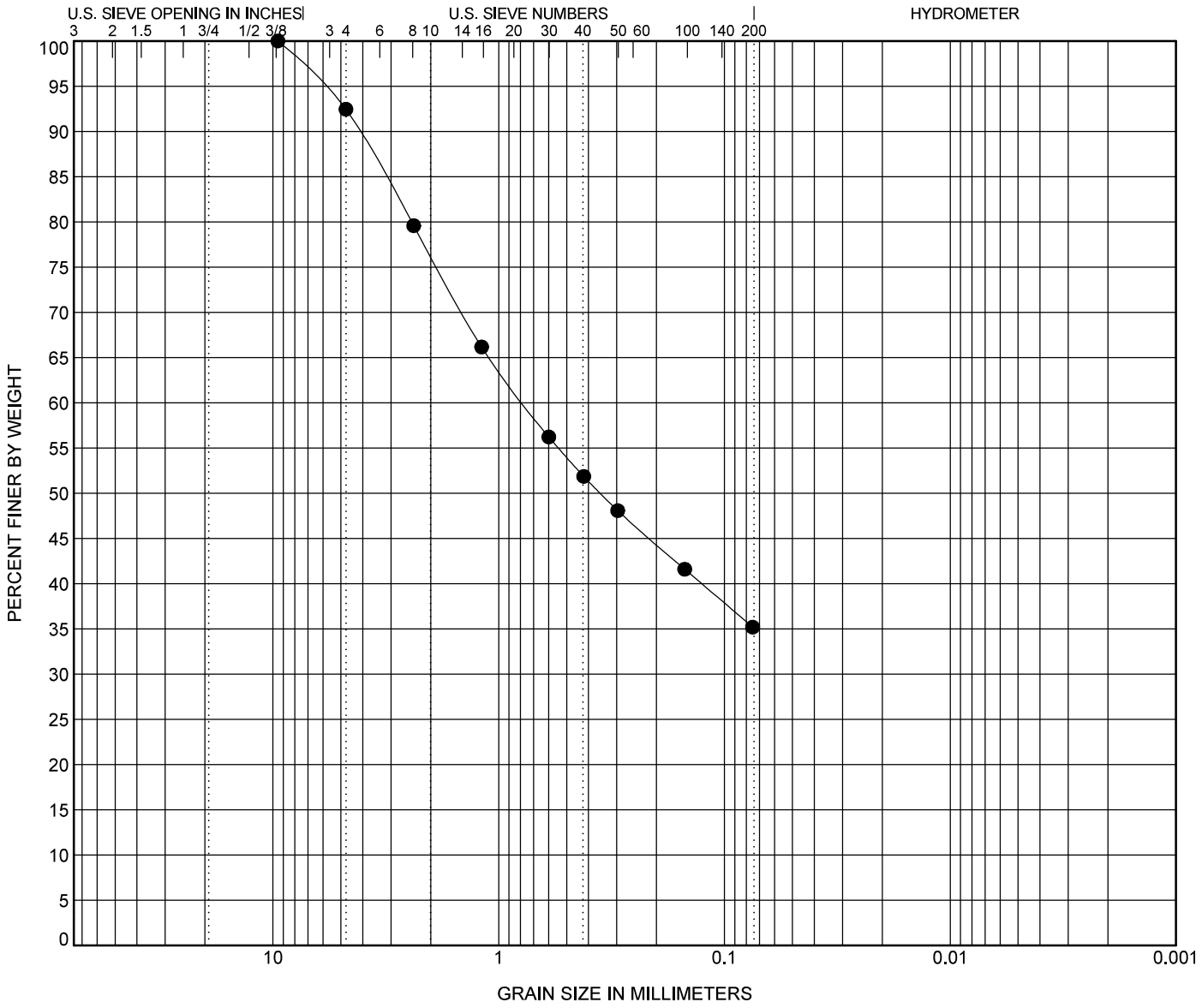
End of boring at 15.3'

Notes:
-dry during drilling
-dry upon completion

GRAIN SIZE DISTRIBUTION

ASTM D6913

PROJECT: Midland Sewer Line	LOCATION: Midland, TX
CLIENT: Jacobs	GPS COORDINATES: N31.976658, W102.062052
PROJECT NUMBER: G20-2205	GROUND ELEVATION: Approx. 2760 feet
START DATE: 4/28/2021 FINISH DATE: 4/28/2021	DRILL METHOD: Hollow Stem Flight Auger
LOGGED BY: Gaby Vasquez (D&S)	DRILLED BY: Daniel Earl (D&S)



GRAVEL		SAND			SILT OR CLAY
coarse	fine	coarse	medium	fine	

Description	LL	PL	PI	Cc	Cu
CLAYEY SAND (SC); very dense; light brown, light gray					

BOREHOLE	DEPTH	D100	D50	D30	D10	%Gravel	%Sand	%Silt	%Clay
B2	**8.0**	**9.51**	**0.354**			**7.6**	**57.3**		**35.2**

PACKET 6.417 November 15, 2022

APPENDIX B - GENERAL DESCRIPTION OF PROCEDURE

ANALYTICAL METHODS TO PREDICT MOVEMENT

CLASSIFICATION TESTS

Classification testing is perhaps the most basic, yet fundamental tool available for predicting potential movements of clay soils. Classification testing typically consists of moisture content, Atterberg Limits, and Grain-size distribution determinations. From these results a general assessment of a soil's propensity for volume change with changes in soil moisture content can be made.

Moisture Content

By studying the moisture content of the soils at varying depths and comparing them with the results of Atterberg Limits, one can estimate a rough order of magnitude of potential soil movement at various moisture contents, as well as movements with moisture changes. These tests are typically performed in accordance with ASTM D2216.

Atterberg Limits

Atterberg limits determine the liquid limit (LL), plastic limit (PL), and plasticity index (PI) of a soil. The liquid limit is the moisture content at which a soil begins to behave as a viscous fluid. The plastic limit is the moisture content at which a soil becomes workable like putty, and at which a clay soil begins to crumble when rolled into a thin thread (1/8" diameter). The PI is the numerical difference between the moisture constants at the liquid limit and the plastic limit. This test is typically performed in accordance with ASTM D4318.

Clay mineralogy and the particle size influence the Atterberg Limits values, with certain minerals (e.g., montmorillonite) and smaller particle sizes having higher PI values, and therefore higher movement potential.

A soil with a PI below about 15 to 18 is considered to be generally stable and should not experience significant movement with changes in moisture content. Soils with a PI above about 30 to 35 are considered to be highly active and may exhibit considerable movement with changes in moisture content.

Fat clays with very high liquid limits, weakly cemented sandy clays, or silty clays are examples of soils in which it can be difficult to predict movement from classification testing alone.

Grain-size Distribution

The simplest grain-size distribution test involves washing a soil specimen over the No. 200 mesh sieve with an opening size of 0.075 mm (ASTM D1140). This particle size has been defined by the engineering community as the demarcation between coarse-grained and fine-grained soils. Particles smaller than this size can be further distinguished between silt-size and clay-size particles by use of a Hydrometer test (ASTM D422). A more complete grain-size distribution test that uses sieves to relative amount of particles according is the Sieve Gradation Analysis of Soils

(ASTM D6913). Once the characteristics of the soil are determined through classification testing, a number of movement prediction techniques are available to predict the potential movement of the soils. Some of these are discussed in general below.

TEXAS DEPARTMENT OF TRANSPORTATION METHOD 124-E

The Texas Department of Transportation (TxDOT) has developed a generally simplistic method to predict movements for highways based on the plasticity index of the soil. The TxDOT method is empirical and is based on the Atterberg limits and moisture content of the subsurface soil. This method generally assumes three different initial moisture conditions: dry, “as-is”, and wet. Computation of each over an assumed depth of seasonal moisture variation (usually about 15 feet or less) provides an estimate of potential movement at each initial condition. This method requires a number of additional assumptions to develop a potential movement estimate. As such, the predicted movements generally possess large uncertainties when applied to the analysis of conditions under building slabs and foundations. In our opinion, estimates derived by this method should not be used alone in determination of potential movement.

POTENTIAL VERTICAL MOVEMENT

A general index for movement is known as the Potential Vertical Rise (PVR). The actual term PVR refers to the TxDOT Method 124-E mentioned above. For the purpose of this report the term Potential Vertical Movement (PVM) will be used since PVM estimates are derived using multiple analytical techniques, not just TxDOT methods.

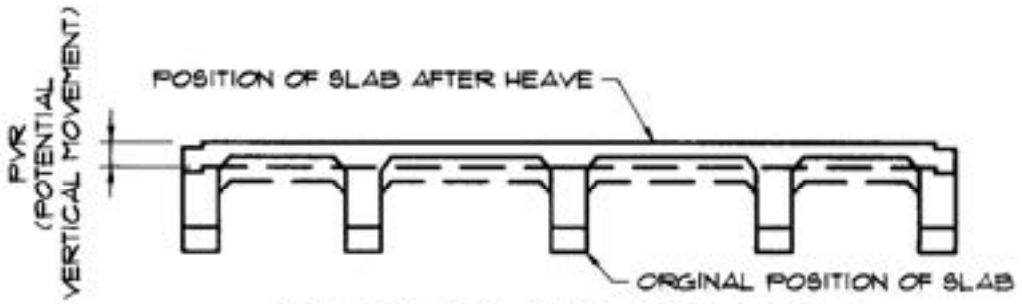
It should be noted that slabs and foundations constructed on clay or clayey soils may have at least some risk of potential vertical movement due to changes in soil moisture contents. To eliminate that risk, slabs and foundation elements may be designed as structural elements physically separated by some distance from the subgrade soils (usually 4 to 12 inches).

In some cases, a floor slab with movements as little as 1/4 of an inch may result in damage to interior walls, such as cracking in sheet rock or masonry walls, or separation of floor tiles. However, these cracks are often minor and most people consider them 'liveable'. In other cases, movement of one inch may cause significant damage, inconvenience, or even create a hazard (trip hazard or others).

Vertical movement of clay soils under slab on grade foundations due to soil moisture changes can result from a variety causes, including poor site grading and drainage, improperly prepared subgrade, trees and large shrubbery located too close to structures, utility leaks or breaks, poor subgrade maintenance such as inadequate or excessive irrigation, or other causes. The potential for post-construction vertical movement can be minimized through adequate design, proper construction, and adherence to the recommendations contained herein for post-construction maintenance.

POTENTIAL VERTICAL MOVEMENT (PVM)

PVM is generally considered to be a measurement of the change in height of a foundation from the elevation it was originally placed. Experience and generally accepted practice suggest that if the PVM of a site is less than one inch, the associated differential movement will be minor and acceptable to most people.



POTENTIAL VERTICAL RISE

SETTLEMENT

Settlement is a measure of a downward movement due to consolidation of soil. This can occur from improperly placed fill (uncompacted or under-compacted), loose native soil, or from large amounts of unconfined sandy material. Properly compacted fill may settle approximately 1 percent of its depth, particularly when fill depths exceed 10 feet.

SPECIAL COMMENTARY ON CONCRETE AND EARTHWORK

RESTRAINT TO SHRINKAGE CRACKS

One of the characteristics of concrete is that during the curing process shrinkage occurs and if there are any restraints to prevent the concrete from shrinking, cracks can form. In a typical slab on grade or structurally suspended foundation there will be cracks due to interior beams and piers that restrict shrinkage. This restriction is called Restraint to Shrinkage (RTS). In post tensioned slabs, the post tensioning strands are slack when installed and must be stressed at a later time. The best procedure is to stress the cables approximately 30 percent within one to two days of placing the concrete. Then the cables are stressed fully when the concrete reaches greater strength, usually in 7 days. During this time before the cables are stressed fully, the concrete may crack more than conventionally reinforced slabs. When the cables are stressed, some of the cracks will pull together. These RTS cracks do not normally adversely affect the overall performance of the foundation. It should be noted that for exposed floors, especially those that will be painted, stained, or stamped, these cracks may be aesthetically unacceptable. Any tile which is applied directly to concrete or over a mortar bed over concrete has a high probability of minor cracks occurring in the tile due to RTS. It is recommended if tile is used to install expansion joints in appropriate locations to minimize these cracks.

UTILITY TRENCH EXCAVATION

Trench excavation for utilities should be sloped or braced in the interest of safety. Attention is drawn to OSHA Safety and Health Standards (29 CFR 1926/1910), Subpart P, regarding trench excavations greater than 5 feet in depth.

FIELD SUPERVISION AND DENSITY TESTING

Construction observation and testing by a field technician under the direction of a licensed geotechnical engineer should be provided. Some adjustments in the test frequencies may be required based upon the general fill types and soil conditions at the time of fill placement.

We recommend that all site and subgrade preparation, proof rolling, and pavement construction be monitored by a qualified engineering firm. Density tests should be performed to verify proper compaction and moisture content of any earthwork. For utility trench backfill, we recommend field density and moisture content determinations be made on each lift of fill with a minimum one (1) test performed per lift per 100 linear feet of trench. D&S would be pleased to provide these services in support of this project. Inspection should be performed prior to and during concrete placement operations. D&S would be pleased to assist you on this project.

DRAWINGS
(BOUND SEPARATELY)

October 25, 2022

Attn: Honorable Mayor and City Council
City of Midland
300 North Lorraine
Midland, Texas 79701

Project name: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

Subject: Bid Award Recommendation
Peck/Terrell Lift Station Elimination and New Sewer Installation
Bid Opening: October 19, 2022

Gentlemen:

Jacobs has reviewed the bid documents received from City of Midland. The bid documents received included the Bid proposal, Bid bond, Liability Insurance Certificate, and active licenses equal to or a higher class than a Water Operator D licenses and either a Wastewater D license or a Class 1 Collections licenses from each bidder.

Three bids were received, and a tabulation of all bids is attached. The lowest bid is $ 925,277.00 submitted by TEC Excavation, and the highest bid was $ 1,252,636.49* submitted by Boler Equipment Service. The engineer's opinion of probable construction cost was $ 1,296,672.75. The lowest bid is approximately 28% less than the engineer's estimate.

The following observations were made based on our evaluation of the bid documents:

1. TEC Excavation is the lowest bidder. Their bid acknowledged addenda, included bid bonds, is free from mathematical errors, and free from numbers and words discrepancies.

Accordingly, we have determined that their total bid prices are considered fair and reasonable. We understand that TEC Excavation has completed work for City of Midland previously. We communicated with the City's project manager and received an overall favorable report.

We therefore, recommend awarding the contract to TEC Excavation in the amount of their bid, $ 925, 277.00. We also recommend that the City perform any legal review of TEC Excavation which it deems necessary.

Please let us know if you need additional information or have additional questions.

Sincerely,

Jeff Miner
Project Manager

720-256-1673

*A mathematical error was detected during the bid review. The actual amount should be $ 1,204, 858.24

Challenging today.
Reinventing tomorrow.

1999 Bryan Street
Suite 1200
Dallas, TX 75201
United States

T +1.214.638.0145
F +1.214.638.0447
www.jacobs.com

Attachments:

- Bid Tabulation
- Bid Proposal
- Addenda Acknowledge
- Signature Page
- Bid Bond
- Operator Licenses

Attachment A: BID TABULATION
Owner: City of Midland
Project No.: WFXQ8300
Bid No.: 23000011
Project Name: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
Bids Opened: October 19, 2022
Developed By: Purnima Praturi
Checked By: Jeff Miner, PE

Lowest Bidder

				Engineers Estimate		Edgardo Madrid & Associates, LLC 6216 Spahn St		TEC Excavation		Boler Equipment Service	
			Mob/Demob % of Bid (5% Max)	4.14%		0.75%		3.89%		3.97%	
Item No.	Description	Quantity	Unit	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total
1	Mobilization and Demobililzation	6	MO	$ 9,000	$ 54,000	$ 1,500	$ 9,000	$ 6,000.00	$ 36,000.00	$ 7,963.04	$ 47,778.24
2	Erosion/Sediment Control (SWPPP)	6	MO	$ 1,700	$ 10,200	$ 1,500	$ 9,000	$ 1,500.00	$ 9,000.00	$ 1,500.00	$ 9,000.00
3	Job Site Safety	6	MO	$ 10,000	$ 60,000	$ 3,000	$ 18,000	$ 1,000.00	$ 6,000.00	$ 2,500.00	$ 15,000.00
4	Material Mark-up	N/A	%	$ 0	$ -	20%	$ -	15%	$ -	18%	$ -
5	Labor Mark-up (Regular Work Hours)	N/A	%	$ 0	$ -	15%	$ -	15%	$ -	18%	$ -
6	Equipment Rental Mark-up (Non-Standard Equipment Only)	N/A	%	$ 0	$ -	20%	$ -	15%	$ -	18%	$ -
7	Seeding & Stabilization	1	AC	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 7,700.00	$ 7,700.00	$ 5,000.00	$ 5,000.00
	Miscellaneous Items SUBTOTAL				**$ 129,200**		**$ 41,000**		**$ 58,700.00**		**$ 76,778.24**
8	Clearing and Grubbing	1	LS	$ 10,000	$ 10,000	$ 16,000	$ 16,000	$ 22,000.00	$ 22,000.00	$ 5,000.00	$ 5,000.00
9	Removal & Disposal of Existing Lift Station	1	LS	$ 15,000	$ 15,000	$ 40,000	$ 40,000	$ 20,000.00	$ 20,000.00	$ 12,000.00	$ 12,000.00
10	Removal & Disposal of Existing Sewer Main	615	LF	$ 12	$ 7,380	$ 35.20	$ 21,648	$ 15.00	$ 9,225.00	$ 35.00	$ 21,525.00
11	Flowable Fill for Existing Pipes Abandoned In Place	3.5	CY	$ 150	$ 525	$ 200	$ 700	$ 320.00	$ 1,120.00	$ 240.00	$ 840.00
12	Removal & Disposal of Existing 48" Manhole (0'-5' Deep)	8	EA	$ 1,200	$ 9,600	$ 5,600	$ 44,800	$ 1,600.00	$ 12,800.00	$ 4,000.00	$ 32,000.00
13	Removal & Disposal of Existing 48" Manhole Additional Depth (> 5' Deep)	9	VF	$ 150	$ 1,350	$ 480	$ 4,320	$ 800.00	$ 7,200.00	$ 1,000.00	$ 9,000.00
14	Removal & Disposal of Existing Unclassified Pavement	2879	SY	$ 20	$ 57,580	$ 11	$ 32,244.80	$ 8.00	$ 23,032.00	$ 8.00	$ 23,032.00
15	Removal & Disposal of Existing Miscellaneous Concrete	605	SY	$ 25	$ 15,125	$ 24	$ 14,520	$ 15.00	$ 9,075.00	$ 10.00	$ 6,050.00
16	Removal & Disposal of Existing Concrete Curb & Gutter	20	LF	$ 20	$ 400	$ 11.20	$ 224	$ 35.00	$ 700.00	$ 30.00	$ 600.00
17	Removal & Disposal of Existing Concrete Sidewalk	4	SY	$ 39	$ 154	$ 24	$ 96	$ 80.00	$ 320.00	$ 50.00	$ 200.00
18	Removal & Disposal of Existing Concrete Rip Rap	66	SY	$ 20	$ 1,320	$ 24	$ 1,584	$ 50.00	$ 3,300.00	$ 30.00	$ 1,980.00
19	Removal & Disposal of Existing Concrete Ditch Bottom	32	SY	$ 39	$ 1,232	$ 24	$ 768	$ 50.00	$ 1,600.00	$ 30.00	$ 960.00
	Demolition Items SUBTOTAL				**$ 119,666**		**$ 176,905**		**$ 110,372.00**		**$ 113,187.00**
20	8" SDR 35 ASTM D3034, PS46, PVC, Sewer Main	2034	LF	$ 200	$ 406,800	$ 53.55	$ 108,920.70	$ 85.00	$ 172,890.00	$ 161.00	$ 327,474.00
21	6" SDR 35 ASTM D3034, PS46, PVC, Sewer Main	395	LF	$ 160	$ 63,200	$ 46.20	$ 18,249.00	$ 77.00	$ 30,415.00	$ 111.00	$ 43,845.00
22	Standard 4' Diamater Fiberglass Manhole & Cover (0-5' Deep)	9	EA	$ 15,000	$ 135,000	$ 10,896	$ 98,064	$ 5,500.00	$ 49,500.00	$ 7,782.00	$ 70,038.00
23	Standard 4' Diamater Fiberglass Manhole & Cover Addtl Bury Depth (> 5' Deep)	27	VF	$ 750	$ 20,250	$ 632	$ 17,064	$ 570.00	$ 15,390.00	$ 424.00	$ 11,448.00
24	Standard 4' Diamater Manhole Drop Structure (0-5' Deep, External)	1	EA	$ 17,000	$ 17,000	$ 15,100.80	$ 15,100.80	$ 6,400.00	$ 6,400.00	$ 8,650.00	$ 8,650.00
25	Standard 4' Diamater Manhole Drop Structure Additional Bury Depth (> 5' Deep, External)	8	VF	$ 750	$ 6,000	$ 632	$ 5,036	$ 600.00	$ 4,800.00	$ 524.00	$ 4,192.00
26	Open Trenching of Sewer Main (0-10' Deep)	2104	LF	$ 20	$ 42,080	$ 16	$ 33,664	$ 21.00	$ 44,184.00	$ 45.00	$ 94,680.00
27	Open Trenching of Sewer Main (10-13' Deep)	325	LF	$ 25	$ 8,125	$ 32	$ 10,400	$ 27.00	$ 8,775.00	$ 45.00	$ 14,625.00
28	Temporary Bypass Pumping	1	LS	$ 25,000	$ 25,000	$ 128,000	$ 128,000	$ 17,000.00	$ 17,000.00	$ 10,000.00	$ 10,000.00
29	Sewer Service Connection	13	EA	$ 1,500	$ 19,500	$ 1,280	$ 16,640	$ 1,300.00	$ 16,900.00	$ 1,928.00	$ 25,064.00
	Sewer Items SUBTOTAL				**$ 742,955**		**$ 451,139**		**$ 366,254.00**		**$ 610,016.00**
30	Replace Concrete Rip Rap	66	SY	$ 100	$ 6,600	$ 334.40	$ 22,070.40	$ 130.00	$ 8,580.00	$ 165.00	$ 10,890.00
31	Replace Concrete Ditch Bottom	32	SY	$ 150	$ 4,800	$ 334.40	$ 10,700.80	$ 170.00	$ 5,440.00	$ 165.00	$ 5,280.00
	Storm Drain Items SUBTOTAL				**$ 11,400**		**$ 32,771.20**		**$ 14,020.00**		**$ 16,170.00**
32	8" Concrete Pavement Repair	182	SY	$ 250	$ 45,500	$ 184	$ 33,488	$ 160.00	$ 29,120.00	$ 162.00	$ 29,484.00
33	Concrete Curb & Gutter Repair	20	LF	$ 55	$ 1,100	$ 34.40	$ 688	$ 60.00	$ 1,200.00	$ 80.00	$ 1,600.00
34	4" Concrete Sidewalk Repair	4	SY	$ 65	$ 260	$ 75.60	$ 302.40	$ 350.00	$ 1,400.00	$ 165.00	$ 660.00
35	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	2727	SY	$ 42	$ 114,534	$ 43.20	$ 117,806.40	$ 45.00	$ 122,715.00	$ 54.00	$ 147,258.00
36	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	546	GAL	$ 8	$ 4,368	$ 4	$ 2,184	$ 6.00	$ 3,276.00	$ 15.00	$ 8,190.00
37	Tack Coat (MC-30, 0.10 Gal / SY)	274	GAL	$ 4	$ 1,096	$ 4	$ 1,096	$ 5.00	$ 1,370.00	$ 15.00	$ 4,110.00
38	Flowable Fill / 2-Sack Backfill	1565	SY	$ 70	$ 109,550	$ 152	$ 237,880	$ 95.00	$ 148,675.00	$ 100.00	$ 156,500.00
39	10" Base Rock Pavement Repair (Flexible Base)	2727	SY	$ 6	$ 17,044	$ 40	$ 109,080	$ 25.00	$ 68,175.00	$ 15.00	$ 40,905.00
40	Sleeper Slab Transition	1	LS	$ 7,500	$ 7,500						
	Paving Items SUBTOTAL				**$ 300,951.75**		**$ 502,524.80**		**$ 375,931.00**		**$ 388,707.00**
			GRAND TOTAL BASE BID:	$ -	**$ 1,304,172.75**		**$ 1,204,339.30**		**$ 925,277.00**		**$ 1,204,858.24**
			Add/Deduct		$ (7,500)						
			Bid Total		**$ 1,296,672.75**		**$ 1,204,339.30**		**$ 925,277.00**		**$ 1,204,858.24**

Responsiveness	Addenda Acknowledged		yes	yes	yes
	Bid Bond Included		yes	yes	yes
	Math Errors (See Note 1)		yes	no	yes
	Numbers and Words Match		yes	yes	yes
	Mob Max <5%		yes	yes	yes
	Irregularities (incomplete, unsigned, stipulation added, discrepancies) (See Note 2)		yes	no	no
	Conflict of Interest Questionaire		yes	yes	yes
	Affidavit of Eligibility		yes	yes	yes
	Liability Insurance Certificate (See Note 3)		yes	no	yes
	Must provide active licences equal to Water Operator D and either a Wastewater D license or a Class 1 Collections license		yes	yes	yes
	Qualifications: 1. Experience with similar work 2. Financial ability to complete the work 3. Safety record 4. References		City is familiar with all of the above contractors and considers them to be qualified to perform the work.		

Note 1 - Edgardo Madrid & Associates, LLC, had a small math error within the bid total of $20 more than their listed total. Total in this bid tab is $1,204,339.30 instead of $1,204,359.30. Boler Equipment Service had a large math error within the bid total of $47,778.25 resulting in the total bid being $1,204,858.24 instead of $1,252,636.49

Note 2 - Edgardo Madrid & Associates, LLC did not provide a demolition total within their bid

Note 3 - Although Liability insurance was not provided by TEC Excavation, it appears that Liability Insurance is not required to be provided until Contract is awarded.

SECTION 00 41 13

BID PROPOSAL

Bid of TEC EXCAVATION, INC. Date 10/19/22
(Name of Firm)

TO: Honorable Mayor and City Council
City of Midland
300 North Lorraine
Midland, Texas 79701

FOR: PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

Gentlemen: The undersigned, as Bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that his proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the form of contract, Invitation for Bids, Instructions to Bidders, the General and Supplementary Conditions, Specifications, and the Drawings herein referred to, and has carefully examined the locations, conditions, and classes of materials of the proposed work; and agrees that he will provide all the necessary labor, machinery, tools, apparatus, and other items incidental to construction, and will do all the work and furnish all the materials as called for in the Contract Documents in the manner prescribed and according to the Plans and Specification requirements of the OWNER as herein set forth.

Accompanying this proposal is a (certified or cashier's check payable to the OWNER (Bid Bond) in the amount of 5% of the Total Bid.

The bid security accompanying this Proposal shall be returned to the Bidder, unless in case of the acceptance of the Proposal, the Bidder shall fail to execute a Contract and file Performance and Payment Bonds within ten (10) days after its acceptance, in which case the bid security shall become the property of the OWNER, and shall be considered as payment for damages due to delay and other inconveniences suffered by the OWNER on account of such failure of the Bidder. It is understood that the OWNER reserves the right to reject any and all bids received.

Prices shall be shown in words and figures. In the event of a discrepancy, the words shall govern.

Contractor shall refer to Section 01 29 00, Payment Procedures.

The Bid Proposal includes the demolition of an existing lift station and the construction of 8-inch sewer, 6-inch sewer, and associated manholes and pavement repair work. The undersigned hereby proposes and agrees to perform all work of whatever nature required, in strict accordance with the Plans and Specifications, for the following sum of prices, to wit (see following pages):

©COPYRIGHT 2022 JACOBS

PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION BID PROPOSAL

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
			Base Bid: Miscellaneous Items		
1	6	MOS	Mobilization and Demobilization, a maximum of 5% of the SUBTOTAL SHOWN BELOW (Items 1 - 36) for SIX THOUSAND Dollars and NO Cents per Month (pay note M1)	$ 6,000.00	$ 36,000.00
2	6	MOS	Design and implementation of a Storm Water Pollution Prevention Plan (designed by licensed Engineer in the State of Texas) and control in accordance with specifications, laws, rules and assumption of responsibility for plan and control, for FIFTEEN HUNDRED Dollars and NO Cents per Month (pay note M2)	$ 1,500.00	$ 9,000.00
3	6	MOS	Job Site Safety, furnished, installed, complete and in place, for ONE THOUSAND Dollars and NO Cents per Month (pay note M3)	$ 1,000.00	$ 6,000.00
4	N/A	N/A	Material Mark-up, complete and in place, for the sum of: FIFTEEN percent (pay note M4)	% 15	$ N/A
5	N/A	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: FIFTEEN percent (pay note M5)	% 15	$ N/A
6	N/A	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: FIFTEEN percent (pay note M6)	% 15	$ N/A
7	1	AC	Seeding and Stabilization in open areas (seed mixture to match native grasses), complete and in place, for SEVENTY SEVEN HUNDRED Dollars and NO Cents per Acre. (pay note M7)	$ 7,700.00	$ 7,700.00
			MISCELLANEOUS ITEMS SUBTOTAL	$ 58,700.00	

BID ITEMS					
Item No.	Approximate Quantity		Description of Item With Bid Price Written In Words	Unit Price	Amount Bid
Base Bid: Demolition Items					
8	1	LS	Clearing and Grubbing, including tree, debris, obstruction removal (any trees removed shall be approved by owner and recorded by size and type) and refilling of depressions, all work fully performed, for TWENTY TWO THOUSAND Dollars and NO Cents per Acre (pay note D1)	$ 22,000.00	$ 22,000.00
9	1	LS	Removal, Disposal and Salvage of existing lift Station, wet well, and associated electrical equipment, all work fully performed for TWENTY THOUSAND Dollars and NO Cents per Lump Sum (pay note D2)	$ 20,000.00	$ 20,000.00
10	615	LF	Removal and Disposal of Existing Sewer Main, complete and in place, for FIFTEEN Dollars and NO Cents per LF (pay note D3)	$ 15.00	$ 9,225.00
11	3.5	CY	Flowable Fill for Existing Pipes Abandoned in Place, furnished, installed, complete and in place for THREE HUNDRED TWENTY Dollars and NO Cents per LF (pay note D4)	$ 320.00	$ 1,120.00
12	8	EA	Removal and Disposal of Existing Manhole (0'-5' Deep), complete and in place for SIXTEEN HUNDRED Dollars and NO Cents per EA (pay note D5)	$ 1,600.00	$ 12,800.00
13	9	VF	Removal and Disposal of Existing Manhole Additional Depth (>5' Deep), complete and in place for EIGHT HUNDRED Dollars and NO Cents per EA (pay note D6)	$ 800.00	$ 7,200.00
14	2,879	SY	Removal and Disposal of Existing Unclassified Pavement, complete and in place for EIGHT Dollars and NO Cents per SY (pay note D7)	$ 8.00	$ 23,032.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
15	605	SY	Removal and Disposal of Existing Miscellaneous Concrete, complete and in place for FIFTEEN Dollars and NO Cents per SY (pay note D8)	$ 15.00	$ 9,075.00
16	20	LF	Removal and Disposal of Existing Concrete Curb and Gutter, complete and in place for THIRTY FIVE Dollars and NO Cents per LF (pay note D9)	$ 35.00	$ 700.00
17	4	SY	Removal and Disposal of Existing Concrete Sidewalk, complete and in place for EIGHTY Dollars and NO Cents per SY (pay note D10)	$ 80.00	$ 320.00
18	66	SY	Removal and Disposal of Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of FIFTY Dollars and NO Cents per Square Yard (pay note D11)	$ 50.00	$ 3,300.00
19	32	SY	Removal and Disposal of Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of FIFTY Dollars and NO Cents per Square Yard (pay note D12)	$ 50.00	$ 1,600.00
			DEMOLITION ITEMS SUBTOTAL	$ 110,372.00	
			Base Bid: Sewer Items		
20	2,034	LF	8-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for EIGHTY FIVE Dollars and NO Cents per Each (pay note S1)	$ 85.00	$ 172,890.00
21	395	LF	6-inch SDR 35, ASTM D3034, PS46, PVC Sewer Main, furnished, installed, complete and in place, for SEVENTY SEVEN Dollars and NO Cents per Each (pay note S2)	$ 77.00	$ 30,415.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
22	9	EA	Standard 4' Diameter Fiberglass Manhole and Cover, (0-5' Deep), furnished, installed, complete and in place, for the sum of FIFTY FIVE HUNDRED Dollars and NO Cents per Each (pay note S3)	$ 5,500.00	$ 49,500.00
23	27	VF	Standard 4' Diameter Manhole Additional Bury Depth, (>5' Deep), furnished, installed, complete and in place, for the sum of FIVE HUNDRED SEVENTY Dollars and NO Cents per Vertical Foot (pay note S4)	$ 570.00	$ 15,390.00
24	1	EA	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover, (0-5' Deep, External), furnished, installed, complete and in place, for the sum of SIXTY FOUR HUNDRED Dollars and NO Cents per Each (pay note S5)	$6,400.00	$6,400.00
25	8	VF	Standard 4' Diameter Fiberglass Manhole with Drop Structure and Cover Additional Bury Depth, (>5' Deep, External), furnished, installed, complete and in place, for the sum of SIX HUNDRED Dollars and NO Cents per Vertical Foot (pay note S6)	$600.00	$4,800.00
26	2104	LF	Open Trenching of Sewer Main, (0-10' Deep), furnished, installed, complete and in place, for the sum of TWENTY ONE Dollars and NO Cents per Linear Foot (pay note S7)	$ 21.00	$ 44,184.00
27	325	LF	Open Trenching of Sewer Main, (10-13' Deep), furnished, installed, complete and in place, for the sum of TWENTY SEVEN Dollars and NO Cents per Linear Foot (pay note S8)	$ 27.00	$ 8,775.00
28	13	EA	Sewer Service Connection, furnished, installed, complete and in place, for the sum of THIRTEEN HUNDRED Dollars and NO Cents per Linear Foot (pay note S9)	$ 1,300.00	$ 16,900.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
29	1	LS	Temporary bypass pumping, all work fully performed for SEVENTEEN THOUSAND Dollars and NO Cents per Lump Sum (pay note S10)	$ 17,000.00	$ 17,000.00
			SEWER ITEMS SUBTOTAL	$ 366,254.00	
			Base Bid: Storm Drain Items		
30	66	SY	Replace Concrete Rip Rap (as directed by Owner), all work fully performed for the sum of ONE HUNDRED THIRTY Dollars and NO Cents per Square Yard (pay note SD1)	$ 130.00	$ 8,580.00
31	32	SY	Replace Concrete Ditch Bottom (as directed by Owner), all work fully performed for the sum of ONE HUNDRED SEVENTY Dollars and NO Cents per Square Yard (pay note SD2)	$ 170.00	$ 5,440.00
			STORM DRAIN ITEMS SUBTOTAL	$ 14,020.00	
			Base Bid: Paving Items		
32	182	SY	8" Concrete Pavement Repair, furnished, installed, complete and in place for the sum of ONE HUNDRED SIXTY Dollars and NO Cents per Square Yard (pay note P1)	$ 160.00	$ 29,120.00
33	20	LF	Concrete Curb and Gutter Repair, furnished, installed, complete and in place, for the sum of SIXTY Dollars and NO Cents per Linear Foot (pay note P2)	$ 60.00	$ 1,200.00
34	4	SY	4" Concrete Sidewalk Repair, furnished, installed, complete and in place, for the sum of THREE HUNDRED FIFTY Dollars and NO Cents per Square Yard (pay note P3)	$ 350.00	$ 1,400.00
35	2727	SY	2" Type D HMAC Asphalt Pavement Repair (PG70-22), furnished, installed, complete and in place, for the sum of FORTY FIVE Dollars and NO Cents per Square Yard (pay note P4)	$ 45.00	$ 122,715.00

©COPYRIGHT 2022 JACOBS

BID ITEMS					
Item No.	**Approximate Quantity**		**Description of Item With Bid Price Written In Words**	**Unit Price**	**Amount Bid**
36	546	GAL	Bituminous Prime Coat (MC-30, 0.20 Gal/SY), furnished, installed, complete and in place, for the sum of SIX Dollars and NO Cents per Gallon (pay note P5)	$ 6.00	$ 3,276.00
37	274	GAL	Tack Coat (MC-30, 0.10 Gal/SY), furnished, installed, complete and in place, for the sum of FIVE Dollars and NO Cents per Gallon (pay note P6)	$ 5.00	$ 1,370.00
38	1565	SY	Flowable Fill / 2 Sack Backfill, furnished, installed, complete and in place, for the sum of NINETY FIVE Dollars and NO Cents per Square Yard (pay note P7)	$ 95.00	$ 148,675.00
39	2727	SY	10" Base Rock Pavement Repair (Flexible Base) furnished, installed, complete and in place, for the sum of TWENTY FIVE Dollars and NO Cents per Square Yard (pay note P8)	$ 25.00	$ 68,175.00
40	1	LS	Sleeper Slab Transition furnished, installed, complete and in place for the sum of DELETED PER ADDENDUM 2 Dollars and DELETED Cents (see pay note P9)	$ DELETED	$ DELETED
			PAVING ITEMS SUBTOTAL	$ 375,931.00	
			GRAND TOTAL	$ 925,277.00	
*BID AWARD WILL BE BASED ON THE LOWEST GRAND TOTAL					

- All Bid Items shall be in Accordance with Plans and Specifications.
- All Bid Items shall be complete in place, unless otherwise noted.
- All Bid Items shall be furnishing and installing, unless otherwise noted.
- All Bid Items shall be independent of depth, unless otherwise noted.
- All Bid Items shall include materials and labor, unless otherwise noted.

DURING BID VERIFICATION PROCESS, BONDS AND MOBILIZATION WILL BE ADJUSTED IF THE VALUES EXCEED ALLOWABLE PERCENTAGE.

©COPYRIGHT 2022 JACOBS

The undersigned agrees to substantially complete all work covered by these Contract Documents in accordance with limitations outlined in the SUPPLEMENTARY CONDITIONS. In the event that the project is not complete within the allotted time as specified herein, the OWNER will assess liquidated damages in accordance with the SUPPLEMENTARY CONDITIONS.

In the event of award of a Contract to the undersigned, the undersigned will furnish Performance and Payment Bonds for the full amount of the Contract to secure proper compliance with the terms and provisions of the Contract, to insure and guarantee the work until final completion and acceptance, and to guarantee payment of all lawful claims for labor performed and materials furnished in fulfillment of the Contract.

The work proposed to be done shall be accepted when fully complete and finished in accordance with the Plans and Specifications, to the satisfaction of the OWNER.

The undersigned certifies that the bid prices contained in this Proposal have been carefully checked and are submitted as correct and final.

Receipt is hereby acknowledged of the following addenda to the Contract Documents:

Addendum No. 1 dated 10/4/22 Received ERIC CLUTTER

Addendum No. 2 dated 10/14/22 Received ERIC CLUTTER

Addendum No. 3 dated _____ Received _____

Addendum No. 4 dated _____ Received _____

Addendum No. 5 dated _____ Received _____

Addendum No. 6 dated _____ Received _____

Respectfully submitted,

Signature

Twyla Clutter Pres.
Printed Name and Title

Attested by:

Signature

Lynette Gonzalez Secretary
Printed Name and Title

TEC EXCAVATION, INC.
Company Name

P.O. BOX 80455 MIDLAND, TX 79708
Mailing Address

1538 COTTON FLAT ROAD MIDLAND, TX 79706
Street Address

MIDLAND, TX 79706
City, State, Zip

432-682-2619 eclutter@tecexcavation.com
Telephone Number/Email Address

Seal and Authorization
(If Corporation)

Note: Bid forms may be detached from this bound document. Fill in with ink and submit complete with attached papers. Do not insert additional or conditional statements or deletions to this Proposal. Any additional or conditional statements or deletions shall be considered as a non-responsive bid and rejected accordingly.

©COPYRIGHT 2022 JACOBS



CITY OF MIDLAND

ADDENDUM

BID # 23000011

TO ALL BIDDERS ON THE SUBJECT BID:

ADDENDUM # 1

DATE: October 4, 2022

The following changes have been made to the specifications.

A non-mandatory pre-bid meeting will be held on Wednesday, October 12, 2022 at 10:00 a.m. in the 5th Floor Utilities Conference Room, City Hall 300 N. Loraine.

PLEASE RETURN THIS ADDENDUM WITH YOUR BID BY THE CLOSING DATE.

All other terms and conditions shall remain the same.

TEC EXCAVATION INC
Company Name

Twyla Clutter
Bidder Authorized Signature

10·19·22
Date

Twyla Clutter
Please Print Above Name

432·687·5346
Phone

ADDENDUM NO. 2 Date: Oct 14, 2022
TO THE CONTRACT DOCUMENTS Midland Bid No.: 23000011
for the
Peck/Terrell Lift Station Elimination and New Sewer Installation Project
City of Midland, Texas

To All Planholders of Record and/or Prospective Bidders:

Changes/additions in specifications are detailed below.

Changes to drawings are highlighted by clouding the change with triangle that notes the addenda number.

Below are list of specifications and drawings that have changes, additions, and /or deletions.

SPECIFICATIONS

1. DIVISION 0 - CONTRACTING AND PROCUREMENT REQUIREMENTS

- 00 41 13 Bid Proposal

  1) Page 00 41 13 - 7 , **REMOVE ITEM 40,** *"Sleeper Slab Transition furnished, installed, complete and in place for the sum of_____Dollars and_____Cents*

  2) Page 00 41 13 - 10 , **REMOVE ITEM 40,** *"Sleeper Slab Transition"*

  3) Page 00 41 13 - 15 , **REMOVE ITEM P9** *"Includes the necessary equipment, labor, materials, and incidentals for installation of a Sleeper Slab Transition between pavement and concrete per the construction drawings and City of Midland standards and specifications. Measurement and payment to be made per lump sum.,*

DRAWINGS

The following drawings have been revised and are included in this set

1. CIVIL SHEETS

- DWG C-203 Existing Condition - View 3
- DWG C-403 Demolition Plan - Enlarged View 3 of 6
- DWG C-404 Demolition Plan - Enlarged View 4 of 6
- DWG C-405 Demolition Plan - Enlarged View 5 of 6
- DWG C-406 Demolition Plan - Enlarged View 6 of 6
- DWG C-705 Detail 5

PRE BID MEETING MINUTES

The Pre bid Meeting Minutes are included within this package.

BID PERIOD QUESTIONS

The following questions were asked via email during the bid period. Answers are also included.

1. Questions

- Josh, do you know the diameter and the approximate depth of the existing wet well?
    1) The well depth and diameter have been added to the drawings.
- Is there a specific size of casing for the boring under the pipelines?
    1) No casing size is specified. It will need to be big enough for the pipe to fit in and will need to be coordinated with the utility owner.
- Are yall wanting 2-Sack on the entire ditch line (paved and non-paved areas)?
    1) 2-Sack is only required under paved areas.
- Can you clarify where the 10" base rock pavement repair is?
    1) The 10" base rock is required under the 2" Type D HMAC Asphalt Pavement Repair (PG70-22).

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 in the Proposal or by submitting the Addendum (excluding the Site Certificate) with the bid package. Bidders shall also acknowledge all addendum on the outside of their sealed bid envelope. Proposals submitted without acknowledgement or without this Addendum will be considered informal.

Jacobs Engineering Group, Inc.

Jeff Miner, P.E.
Project Manager

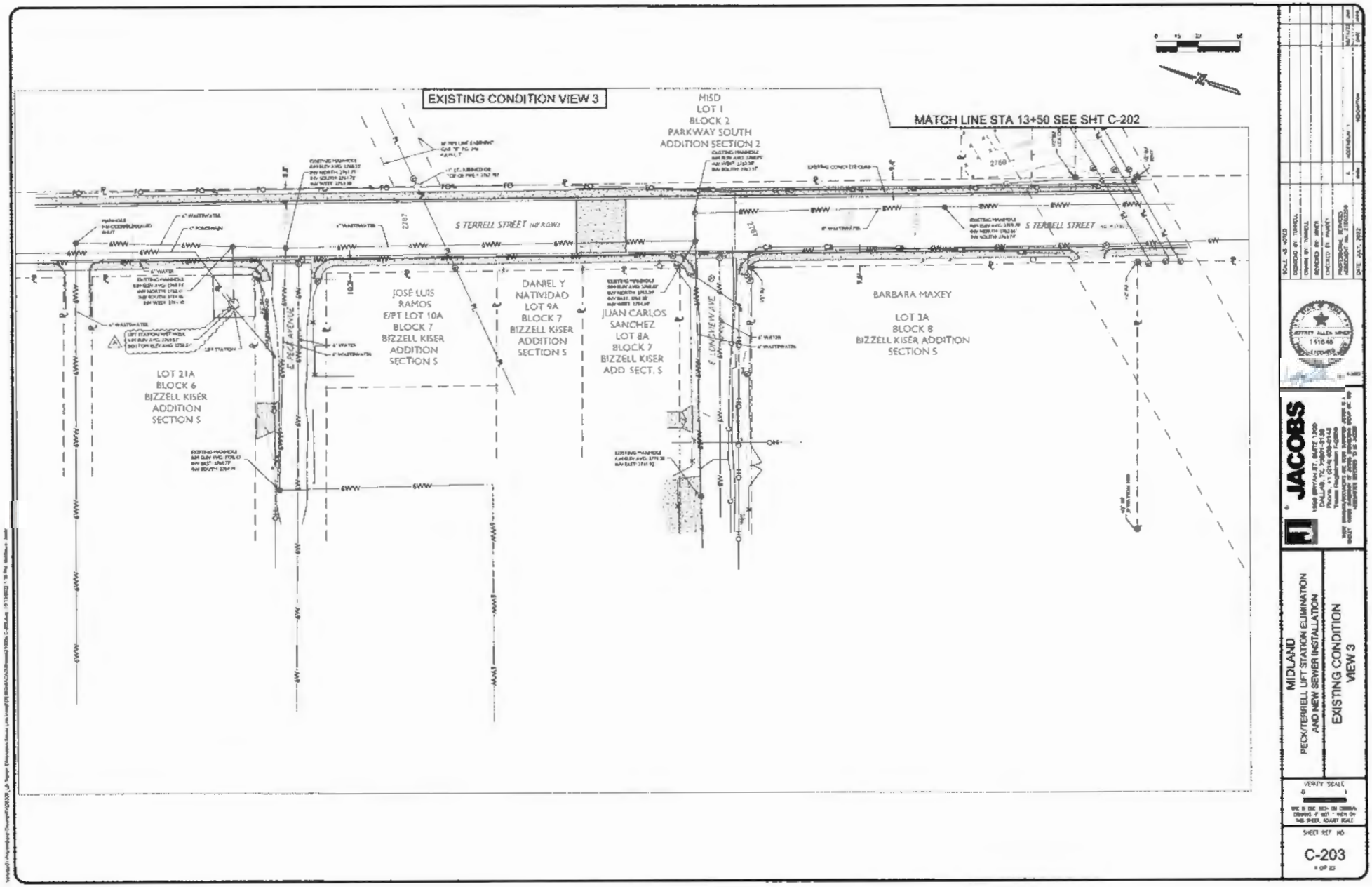


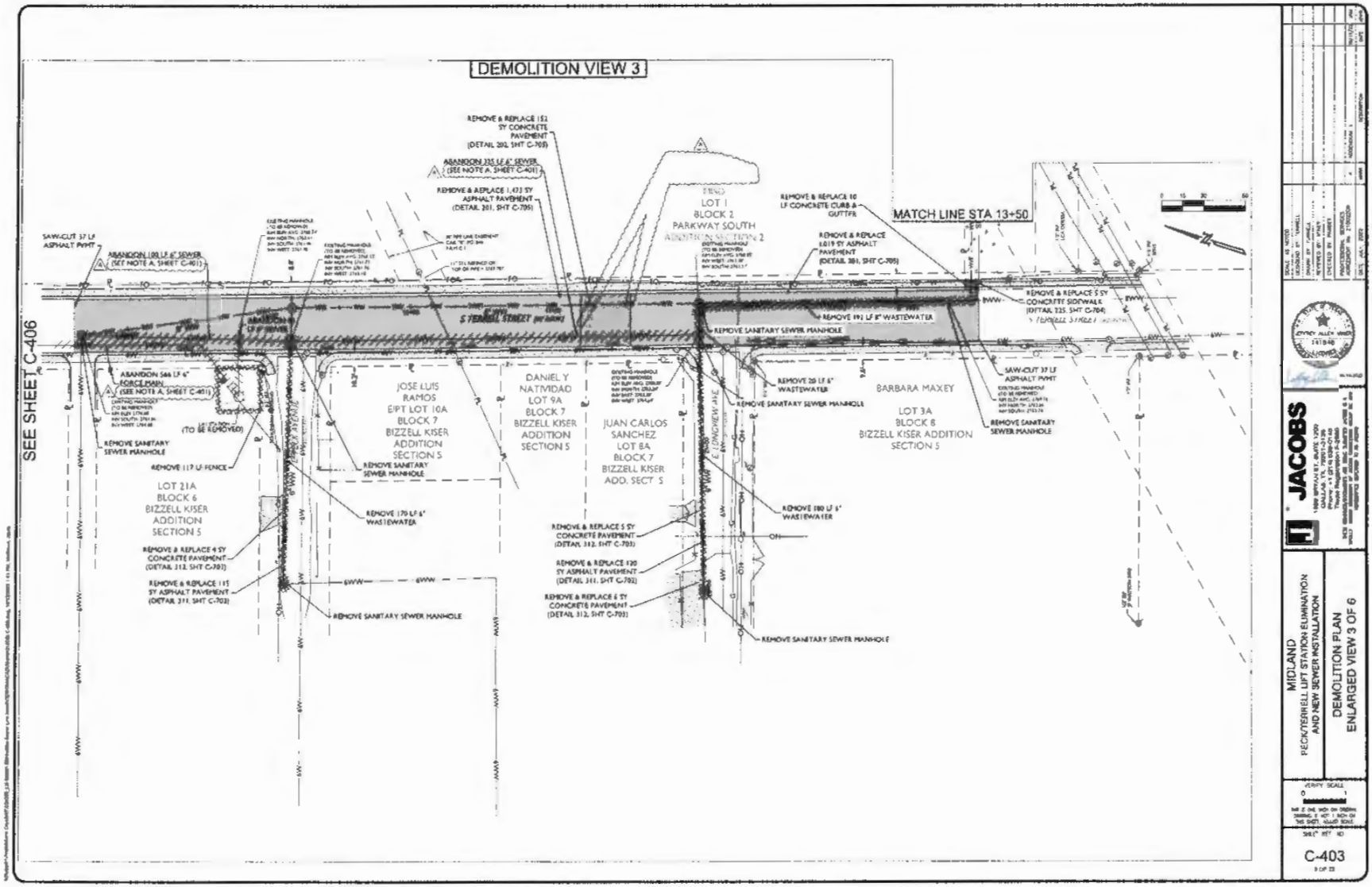
10/14/2022

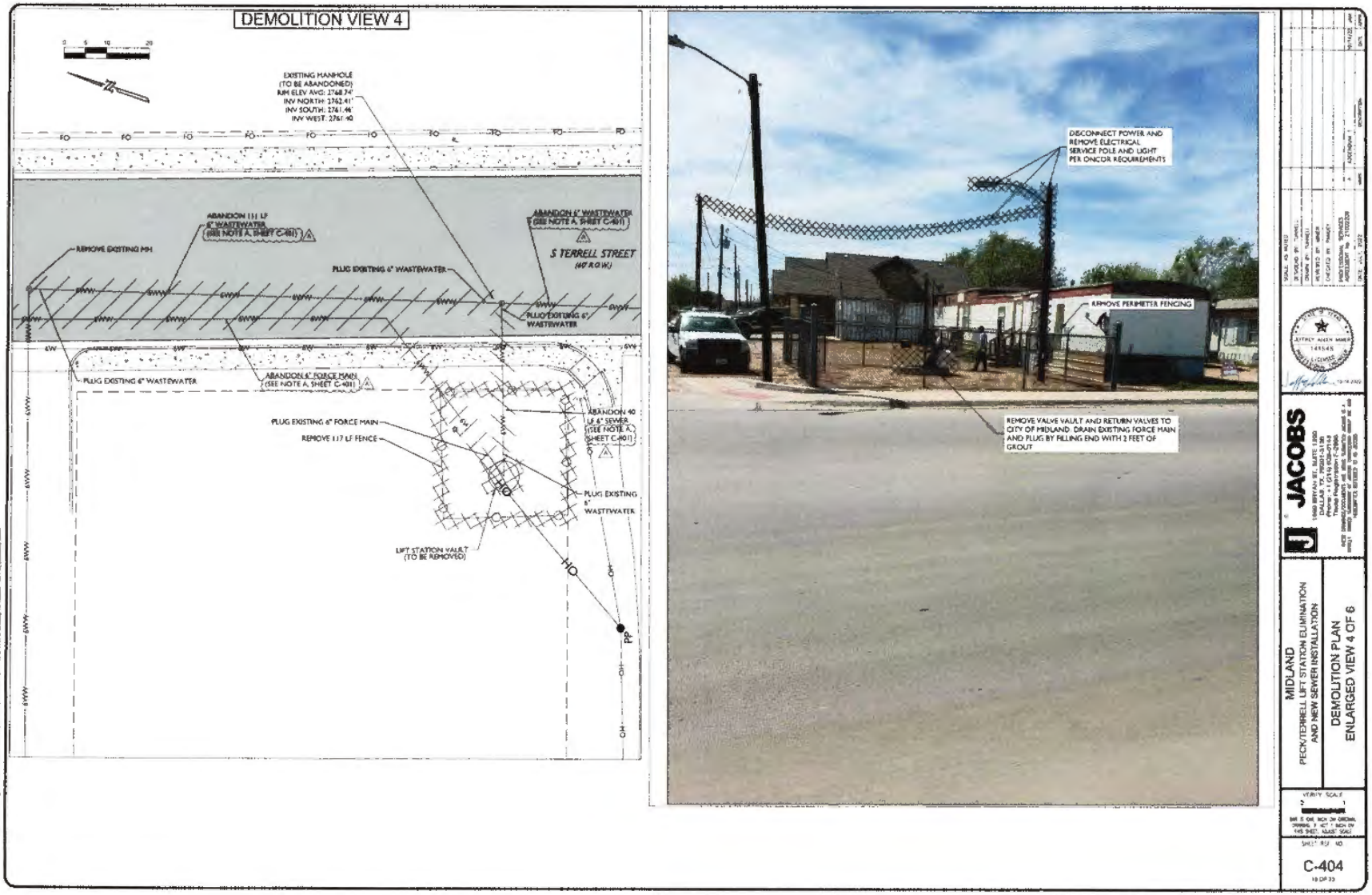
ATTACHMENTS:

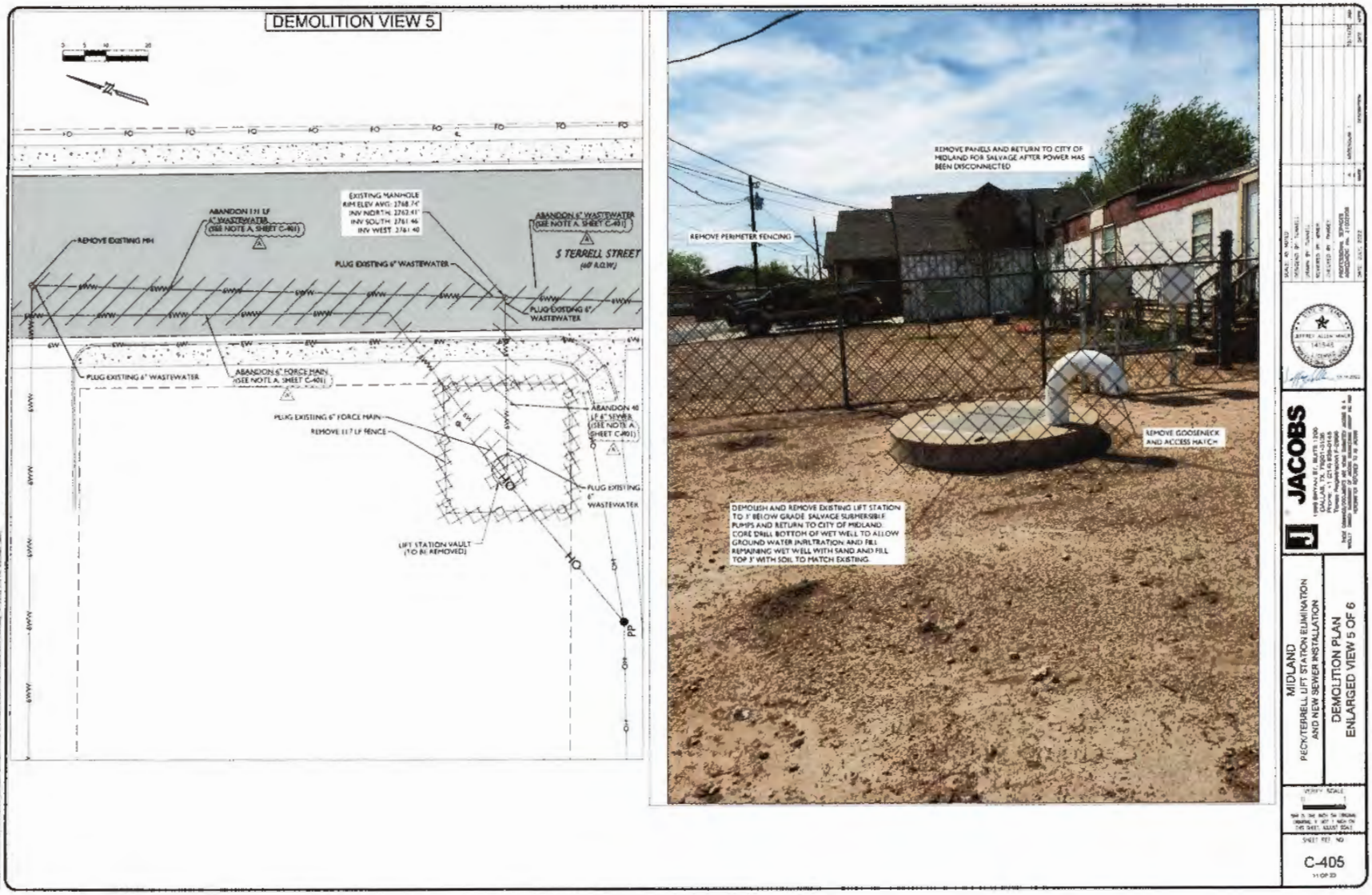
1) DRAWINGS (6 pages)
2) MINUTES (6 pages)

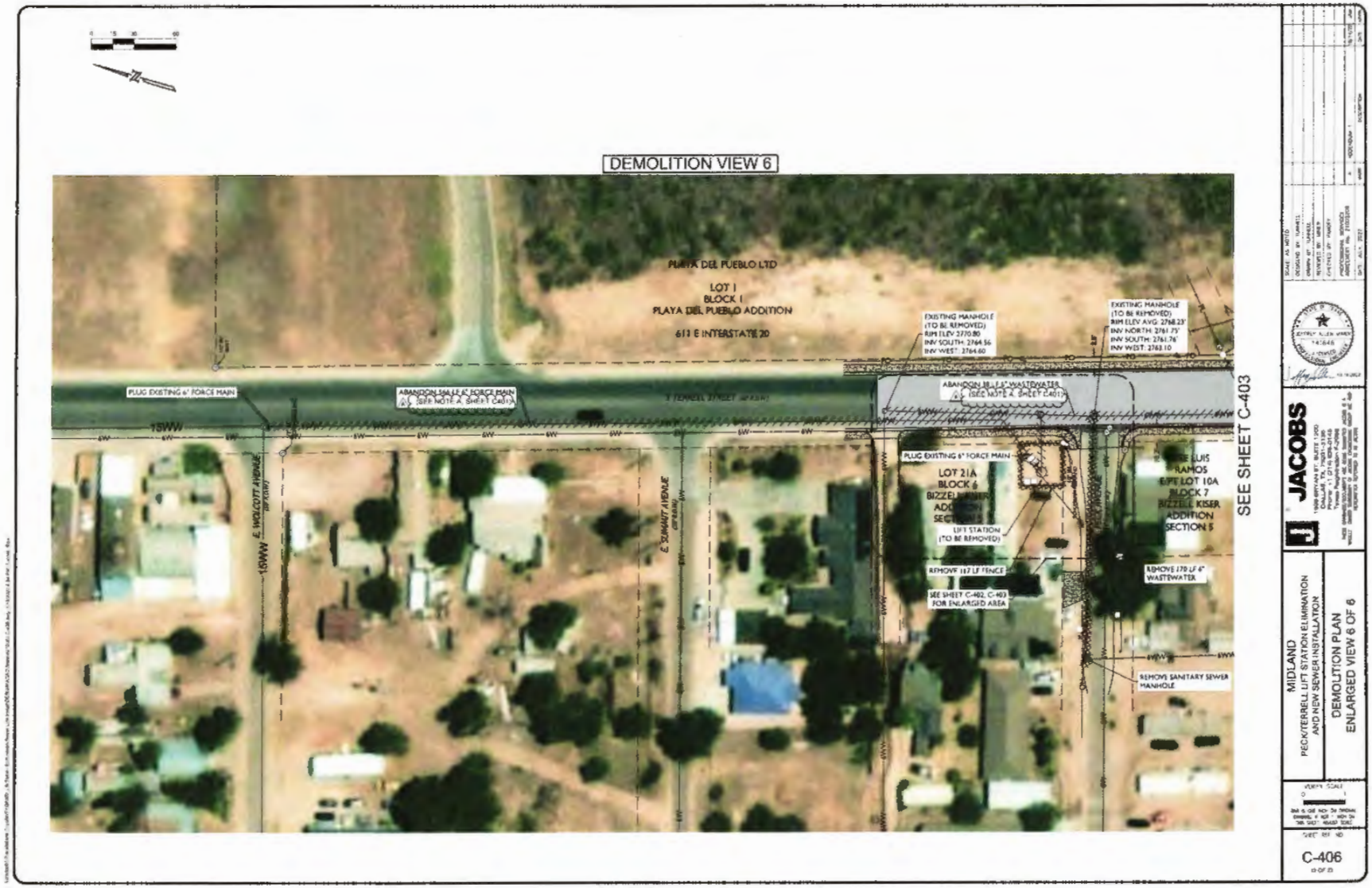
END OF ADDENDUM NO. 2

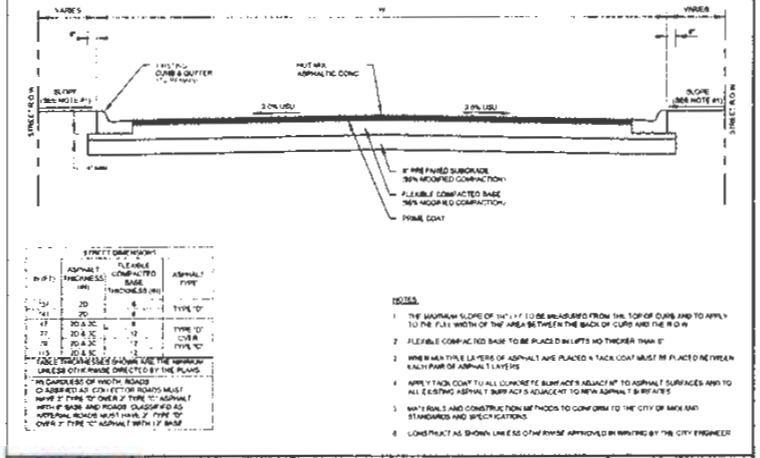

EXISTING CONDITION VIEW 3
MATCH LINE STA 13+50 SEE SHT C-202
MISD
LOT 1
BLOCK 2
PARKWAY SOUTH
ADDITION SECTION 2
S TERRELL STREET
JOSE LUIS
RAMOS
E/PT LOT 10A
BLOCK 7
BIZZELL KISER
ADDITION
SECTION 5
DANIEL Y
NATIVIDAD
LOT 9A
BLOCK 7
BIZZELL KISER
ADDITION
SECTION 5
JUAN CARLOS
SANCHEZ
LOT 8A
BLOCK 7
BIZZELL KISER
ADD SECT. 5
BARBARA MAXEY
LOT 3A
BLOCK 8
BIZZELL KISER ADDITION
SECTION 5
LOT 21A
BLOCK 6
BIZZELL KISER
ADDITION
SECTION 5
JACOBS
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION
EXISTING CONDITION
VIEW 3
SHEET REF NO
C-203


DEMOLITION VIEW 3
SEE SHEET C-406
MATCH LINE STA 13+50
REMOVE & REPLACE 152 SY CONCRETE PAVEMENT (DETAIL 202, SHT C-705)
ABANDON 335 LF 6" SEWER (SEE NOTE A, SHEET C-401)
REMOVE & REPLACE 1,473 SY ASPHALT PAVEMENT (DETAIL 201, SHT C-705)
SAW-CUT 37 LF ASPHALT PVMT
ABANDON 108 LF 6" SEWER (SEE NOTE A, SHEET C-401)
ABANDON 566 LF 6" FORCE MAIN (SEE NOTE A, SHEET C-401)
REMOVE SANITARY SEWER MANHOLE
REMOVE 117 LF FENCE
REMOVE & REPLACE 4 SY CONCRETE PAVEMENT (DETAIL 312, SHT C-703)
REMOVE & REPLACE 135 SY ASPHALT PAVEMENT (DETAIL 311, SHT C-703)
REMOVE 170 LF 6" WASTEWATER
REMOVE & REPLACE 5 SY CONCRETE PAVEMENT (DETAIL 312, SHT C-703)
REMOVE & REPLACE 120 SY ASPHALT PAVEMENT (DETAIL 311, SHT C-703)
REMOVE & REPLACE 6 SY CONCRETE PAVEMENT (DETAIL 312, SHT C-703)
REMOVE & REPLACE 10 LF CONCRETE CURB & GUTTER
REMOVE & REPLACE 1,019 SY ASPHALT PAVEMENT (DETAIL 201, SHT C-705)
REMOVE & REPLACE 5 SY CONCRETE SIDEWALK (DETAIL 225, SHT C-704)
REMOVE 891 LF 8" WASTEWATER
REMOVE SANITARY SEWER MANHOLE
REMOVE 20 LF 6" WASTEWATER
REMOVE 180 LF 6" WASTEWATER
SAW-CUT 37 LF ASPHALT PVMT
REMOVE SANITARY SEWER MANHOLE
S TERRELL STREET
E LONGVIEW AVE
LOT 1 BLOCK 2 PARKWAY SOUTH ADDITION SECTION 2
LOT 21A BLOCK 6 BIZZELL KISER ADDITION SECTION 5
JOSE LUIS RAMOS EIPT LOT 10A BLOCK 7 BIZZELL KISER ADDITION SECTION 5
DANIEL Y NATIVIDAD LOT 9A BLOCK 7 BIZZELL KISER ADDITION SECTION 5
JUAN CARLOS SANCHEZ LOT 8A BLOCK 7 BIZZELL KISER ADD. SECT 5
BARBARA MAXEY LOT 3A BLOCK 8 BIZZELL KISER ADDITION SECTION 5
JACOBS
MIDLAND
PECONTERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
DEMOLITION PLAN
ENLARGED VIEW 3 OF 6
C-403


DEMOLITION VIEW 4
EXISTING MANHOLE (TO BE ABANDONED) RIM ELEV. AVG: 2768.74' INV NORTH: 2762.41' INV SOUTH: 2761.46' INV WEST: 2761.40
ABANDON 111 LF 6" WASTEWATER (SEE NOTE A, SHEET C-401)
ABANDON 6" WASTEWATER (SEE NOTE A, SHEET C-401)
REMOVE EXISTING MH
S TERRELL STREET (60' R.O.W.)
PLUG EXISTING 6" WASTEWATER
PLUG EXISTING 6" WASTEWATER
ABANDON 6" FORCE MAIN (SEE NOTE A, SHEET C-401)
PLUG EXISTING 6" FORCE MAIN
REMOVE 117 LF FENCE
ABANDON 40 LF 6" SEWER (SEE NOTE A, SHEET C-401)
PLUG EXISTING 8" WASTEWATER
LIFT STATION VAULT (TO BE REMOVED)
DISCONNECT POWER AND REMOVE ELECTRICAL SERVICE POLE AND LIGHT PER ONCOR REQUIREMENTS
REMOVE PERIMETER FENCING
REMOVE VALVE VAULT AND RETURN VALVES TO CITY OF MIDLAND. DRAIN EXISTING FORCE MAIN AND PLUG BY FILLING END WITH 2 FEET OF GROUT
JACOBS
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
DEMOLITION PLAN ENLARGED VIEW 4 OF 6
C-404


DEMOLITION VIEW 5
REMOVE EXISTING MH
ABANDON 131 LF 6" WASTEWATER (SEE NOTE A, SHEET C-401)
EXISTING MANHOLE RIM ELEV AVG: 2768.74' INV NORTH: 2762.41' INV SOUTH: 2761.46 INV WEST: 2761.40
ABANDON 6" WASTEWATER (SEE NOTE A, SHEET C-401)
S TERRELL STREET (60' R.O.W.)
PLUG EXISTING 6" WASTEWATER
PLUG EXISTING 6" WASTEWATER
ABANDON 6" FORCE MAIN (SEE NOTE A, SHEET C-401)
PLUG EXISTING 6" FORCE MAIN
REMOVE 117 LF FENCE
ABANDON 40 LF 6" SEWER (SEE NOTE A, SHEET C-401)
PLUG EXISTING 6" WASTEWATER
LIFT STATION VAULT (TO BE REMOVED)
REMOVE PANELS AND RETURN TO CITY OF MIDLAND FOR SALVAGE AFTER POWER HAS BEEN DISCONNECTED
REMOVE PERIMETER FENCING
REMOVE GOOSENECK AND ACCESS HATCH
DEMOLISH AND REMOVE EXISTING LIFT STATION TO 3' BELOW GRADE. SALVAGE SUBMERSIBLE PUMPS AND RETURN TO CITY OF MIDLAND. CORE DRILL BOTTOM OF WET WELL TO ALLOW GROUND WATER INFILTRATION AND FILL REMAINING WET WELL WITH SAND AND FILL TOP 3' WITH SOIL TO MATCH EXISTING.
JACOBS
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
DEMOLITION PLAN
ENLARGED VIEW 5 OF 6
C-405
11 OF 20


DEMOLITION VIEW 6
PLAYA DEL PUEBLO LTD
LOT 1
BLOCK 1
PLAYA DEL PUEBLO ADDITION
613 E INTERSTATE 20
EXISTING MANHOLE (TO BE REMOVED) RIM ELEV: 2770.80 INV SOUTH: 2764.56 INV WEST: 2764.60
EXISTING MANHOLE (TO BE REMOVED) RIM ELEV AVG: 2768.23' INV NORTH: 2761.75' INV SOUTH: 2761.76' INV WEST: 2763.10
PLUG EXISTING 6" FORCE MAIN
ABANDON 368 LF 6" FORCE MAIN (SEE NOTE 4, SHEET C401)
ABANDON 38 LF 8" WASTEWATER (SEE NOTE 4, SHEET C401)
E TERRELL STREET (UPHILL)
15WW
E WOLCOTT AVENUE (UPHILL)
E SUMMIT AVENUE (UPHILL)
PLUG EXISTING 6" FORCE MAIN
LOT 21A
BLOCK 6
BIZZELL KISER ADDITION SECTION 5
LIFT STATION (TO BE REMOVED)
LUIS RAMOS E/PT LOT 10A BLOCK 7 BIZZELL KISER ADDITION SECTION 5
REMOVE 167 LF FENCE
SEE SHEET C-402, C-403 FOR ENLARGED AREA
REMOVE 170 LF 6" WASTEWATER
REMOVE SANITARY SEWER MANHOLE
SEE SHEET C-403
JACOBS
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION
DEMOLITION PLAN
ENLARGED VIEW 6 OF 6
C-406
6 OF 25



STREET DIMENSIONS			
W (FT)	ASPHALT THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	ASPHALT TYPE
32	20	6	TYPE "D"
41	20	6	
47	20 & 3C	6	TYPE "D" OVER TYPE "C"
77	20 & 3C	12	
79	20 & 3C	12	
113	20 & 3C	12	

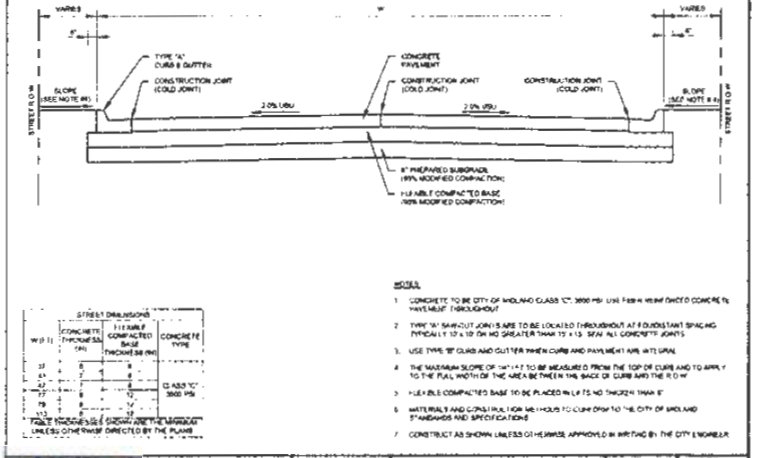
FACE THICKNESS AS SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS.

"IN CAPACITY OF WIDTH, ROADS CLASSIFIED AS COLLECTOR ROADS MUST HAVE 3" TYPE "D" OVER 3" TYPE "C" ASPHALT WITH 6" BASE AND ROADS CLASSIFIED AS ARTERIAL ROADS MUST HAVE 3" TYPE "D" OVER 3" TYPE "C" ASPHALT WITH 12" BASE

NOTES:

1. THE MAXIMUM SLOPE OF SHOULDER TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
2. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
3. WHEN MORE THAN TWO LAYERS OF ASPHALT ARE PLACED A TACK COAT MUST BE PLACED BETWEEN EACH PAIR OF ASPHALT LAYERS.
4. APPLY TACK COAT TO ALL CONCRETE SURFACES ADJACENT TO ASPHALT SURFACES AND TO ALL EXISTING ASPHALT SURFACES ADJACENT TO NEW ASPHALT SURFACES.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND	DRAWN: DRM	EFFECTIVE DATE: 12/31/2018	SCALE:	DETAIL:
	CHECKED: JCF	STANDARD STREET CROWN CROSS SECTION		201
	APPROVED: MCC			



STREET DIMENSIONS			
W (FT)	CONCRETE THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	CONCRETE TYPE
32	8	6	C-A3S "C" 3600 PSI
41	8	6	
47	8	6	
77	8	12	
79	8	12	
113	8	12	

TABLE THICKNESS AS SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS.

NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. TYPE "A" SAW-CUT JOINTS ARE TO BE LOCATED THROUGHOUT AT EQUIDISTANT SPACING TYPICALLY 10' x 10' OR NO GREATER THAN 15' x 15'. SAW ALL CONCRETE JOINTS.
3. USE TYPE "B" CURB AND GUTTER WHEN CURB AND PAVEMENT ARE WITH RAIL.
4. THE MAXIMUM SLOPE OF SHOULDER TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
5. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND	DRAWN: DRM	EFFECTIVE DATE: 12/31/2018	SCALE: NTS	DETAIL:
	CHECKED: JCF	CONCRETE PAVEMENT STREET CROWN CROSS SECTION		202
	APPROVED: MCC			

JACOBS

MIDLAND
PECK TERRIEL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

DETAIL - 5

C-705

Peck/Terrell Lift Station Elimination and New Sewer Installation
Non-Mandatory Pre-Bid Meeting Minutes
Bid No. 23000011
October 12, 2022
10:00 AM CDT

Discussion Items

1. Sign-in Sheet

2. Personnel Overview
    - Carl Craigo – Utilities Director
    - Rex Swearinger – Water and Wastewater Operations Superintendent, utility coordination
    - Jose Ortiz – Director Engineering Services
    - Gabe McClelland – Senior Engineering Manager
    - Josh Ferguson – Assistant City Engineer
    - Bobby Wojciechowski – Capital Improvement Project Manager
    - Taha Sakrani – Associate Traffic Engineer
    - Troy Clabaugh – Traffic Operations Superintendent
    - Jesse Trejo – Construction Manager, construction management & inspections
    - Madison Brasuell – Project Manager
    - Andy Navarro – Franchise Utility Coordinator
    - Michael Williams – Stormwater Manager
    - Natalie Burgard – Administrative Assistant, document processing & payments
    - Erika Martinez – Purchasing Manager, conduct bid process & bid opening
    - Jeff Miner – Design Engineer of Record (Jacobs Engineering)

3. Project Overview and Scope
    - This project will include the decommissioning and removal of an existing lift station and will include the installation of approximately 2,500 linear feet of new sewer pipe, with associated manholes, trenching, pavement and concrete repair as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Bid Packet, Construction Drawings, and Specifications, and to satisfactorily complete the work.

Peck/Terrell Lift Station Elimination and New Sewer Installation
Non-Mandatory Pre-Bid Meeting Minutes
Bid No. 23000011
October 12, 2022
10:00 AM CDT

Discussion Items

1. Sign-in Sheet

2. Personnel Overview
    - Carl Craigo – Utilities Director
    - Rex Swearinger – Water and Wastewater Operations Superintendent, utility coordination
    - Jose Ortiz – Director Engineering Services
    - Gabe McClelland – Senior Engineering Manager
    - Josh Ferguson – Assistant City Engineer
    - Bobby Wojciechowski – Capital Improvement Project Manager
    - Taha Sakrani – Associate Traffic Engineer
    - Troy Clabaugh – Traffic Operations Superintendent
    - Jesse Trejo – Construction Manager, construction management & inspections
    - Madison Brasuell – Project Manager
    - Andy Navarro – Franchise Utility Coordinator
    - Michael Williams – Stormwater Manager
    - Natalie Burgard – Administrative Assistant, document processing & payments
    - Erika Martinez – Purchasing Manager, conduct bid process & bid opening
    - Jeff Miner – Design Engineer of Record (Jacobs Engineering)

3. Project Overview and Scope
    - This project will include the decommissioning and removal of an existing lift station and will include the installation of approximately 2,500 linear feet of new sewer pipe, with associated manholes, trenching, pavement and concrete repair as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Bid Packet, Construction Drawings, and Specifications, and to satisfactorily complete the work.

4. Bid Process
    - Pre-Bid meeting attendance is non-mandatory to bid on this project.
    - ATTENTION: All questions submitted before or after the Non-Mandatory Pre-Bid Meeting must be submitted via email to the following email address:

      ccraigo@midlandtexas.gov

    - Purpose of this bid is to solicit bids to complete the work in accordance with the contract documents.
    - The amount to be awarded for the Peck/Terrell Lift Station Elimination and New Sewer Installation will be determined upon receipt of bids.
    - Quantities listed in the Proposal are not indicative of or guarantees of the actual project work quantities that may be assigned under this program.
    - Addendum distributed by email the Friday afternoon the week following the Pre-Bid Meeting (10/14/2022)
        - The deadline to ask or send questions for the addendum is Friday October 14, 2022, noon.
        - Questions asked after the noon deadline will be directed to the information already provided in the bid documents or included in the Addendum.
    - ATTENTION: Bidders are to submit bids either by mail or in person. If bidders choose to mail their bid packets in, then they are to mail the bid packet to one of the addresses listed below:

      USPS Mailing Address:
      City of Midland, Texas
      Attn: City Secretary's Office
      P.O. Box 1152
      Midland, TX 79702

      -OR-

      Physical Address for mail carriers other than USPS:
      City of Midland, Texas
      Attn: City Secretary's Office
      300 North Loraine St., Suite 330
      Midland, TX 79701

      If bid packets are delivered in person then bidders must drop the bid packets off at the first-floor front desk of City Hall before the bid opening deadline.

- **Bid Opening is Wednesday, October 19, 2022 at 2:00 PM** in the City Hall Council Chamber located on the 1st Floor of Midland's City Hall
    - The Bid Opening will be open to the public, and bidders are free to attend in person
    - No late bids will be accepted
    - Bidders must be willing to sign the contract as is.
    - Bidders must complete the conflict of interest forms, if applicable.
    - Bidders must fill out all bid items in the Proposal. If bid items are left blank then the bid will be considered non-responsive.
    - Bidders have sole responsibility for making sure they have and acknowledge all addenda provided. If all acknowledgement forms are not included with the bid packet submittal then the bid will be considered non-responsive.
    - Bidders must provide proof that they possess active licenses equal to or a higher class than a Water Operator D licenses and either a Wastewater D license or a Class 1 Collections license as outlined in the last paragraph of the Special Provisions section of the bid packet.

5. Notice to Proceed
    - Date of Notice to Proceed to be determined at the Pre-Construction Meeting
    - Pre-Construction Meeting date will be set after the bid is awarded.

6. Payment
    - Payment will be as described in the specifications section 01 29 00 Payment Procedures and as described in Section 00 41 13 Bid Proposal.
    - Payment to be made for material delivered only for bid items specifically indicated in Special Provisions, 4. Payment. All other payments to be made after 100% work completion, with no other material delivery payments, partial payments, or payments for mobilization.
    - Work is considered 100% complete when the project Work Order is completed and signed by both the City Inspector and the Contractor.
        - When a project has items paid upon material delivery, there are to be two Work Orders. The first Work Order will include all items to be paid upon material delivery, and the second will include all other items applicable to the project in question.
    - Work Orders and invoices are to be itemized and match the bid items listed in the bid packet Proposal.
    - Recommend that invoices state "Invoice Due Upon Receipt", or have a due date that is two (2) weeks after the date the invoice is submitted.

7. Project Schedule
    - City Inspector must be notified of all work occurring and be able to perform inspections on any construction or installation that occurs.
    - Typically work times are Monday – Friday from 8:00 AM – 5:00 PM. No work earlier than 7:00 AM or later than 8:00 PM without City permission unless for emergency conditions.
    - Work is not to occur on Sundays or legal holidays unless for emergency situations
    - Work is not to occur on Saturdays unless requested by Contractor in writing at least 48-hours in advance and approved by the Utilities Director.

8. Project Specifics
    - Project Overview
        - Demolition Items
            - Lift Station, electrical, sewer pipe and sewer manholes, abandonments of force main and sewer.
            - Comment regarding abandonment of sewer lines – sewer lines shall be filled with 2 sack wherever the pipe to be abandoned is under pavement.
        - Sewer Items
            - (New sewer pipe routing, Sewer manholes, utility crossings, deep sewer installation and deep manhole installation.
            - Question was asked where contact information for 3rd party utilities was – they are located on the bottom left corner of C-102 under "Third Party Utility Notes"
            - Comment was made regarding boring/trenchless and casings required under oil pipelines. Contractors are directed to bid on open trench with casing and that the city will set aside contingency if method other than open cut is required.
        - Storm Drain Items
            - Rip Rap Replacement, concrete channel bottom replacement
        - Pavement Items
            - Replacement of Pavement (concrete and asphalt), mill and inlay extents of construction on Terrell.
            - Comment in meeting that sleeper slab transition will not be required on this project. Will remove in addendum.
        - Comply with all OSHA and other applicable safety requirements and regulations at all times. They City reservices the right to require additional safety measures if it deems them necessary to ensure the safety of work crews and/or public.
    - Erosion Control – Will be emphasized. Contractor is responsible for all Erosion Control for this project.

- Contractor is required to place erosion control BMPs as needed and to regularly maintain any BMPs placed. Project site is to be kept reasonably clean, and any piles or spoils, backfill material, etc. are to include sand bag BMPs or similar temporary erosion protection emplacements at all times.

- Traffic Control – Traffic control for work performed in arterial streets under this program will be the Contractors responsibility. Contractor is responsible for all Traffic Control for this project. Contractor is to adhere to all requirements outlined in the Specifications Sections 00 41 13 Bid Proposal and 01 50 00 Temporary Facilities and Controls.
    - Contractor is responsible for coordinating with the City on all projects.
    - Contractor is responsible for coordinating with TxDOT if needed.
    - Contractor is responsible for maintaining access to all adjacent properties during this project.
        - Contractor is responsible for notifying affected property owners at least two (2) business days in advance of any planned access interruptions.
        - Contractor is directed to use steel plates or other means to enable access to adjacent properties when work is not actively occurring at an otherwise blocked point of access so long as this does not conflict with the approved traffic control plan.
- Contractor is responsible for maintaining service to adjacent lots during this program.
    - Contractor must notify affected properties at least two (2) business days prior to any planned service interruption.
- Material stored on the project site must be properly stored and protected from damage and weathering.
- Construction staking is solely the responsibility of the Contractor.
- Construction testing is solely the responsibility of the Contractor.
- Weekly or Bi-Weekly Progress Meetings – Mandatory attendance.
- Program Duration & Renewals
- There is a one (1) year calendar warranty period on this project for all work performed or materials installed upon acceptance of the project.
- Inspection prior to acceptance is required for this project. All underground installations must be inspected by the City Inspector before backfilling occurs.

9. Additional Information, Clarifications, and Corrections
    - Bidders must provide documentation as part of the bid packet submittal proving that they possess both an active license equal to or a higher class than a Water Operator D license and an active license equal to or a higher class than either a Wastewater D license or Class 1 Collections license, and the Contractor must maintain both of these active licenses for the entirety of the project. Bids without

this proof of active licensure will be deemed non-responsive and will not be accepted.

- Bidders are directed to bid the item quantities listed in the Bid Packet's Proposal.
- Contractor is reminded that this project is located in an urban environment. Structures, trees, and overhead lines are common, and contractor is to provide proper equipment to complete all work required for this project in an urban environment.

10. Questions?

Pre-Bid Meeting Attendance
RFB 23000011
Perk/Terrell Lift Station Elimination and New Sewer Installation
Date: October 12, 2022 at 300 N Loraine 5th Floor

Name *(please print)*	Company Name *(please print)*	Phone Number	Email
Tyler Clutter	TEC	432-967-0032	tylerclutter@tecexcavation.com
Trey Chandler	Rod Deer Construction	432-556-9768	trey@roddeerconstruction.com
Eric Clutter	TEC	940-521-6933	eclutter@TECexcavation.com
Carl Craigo	City of Midland		
Bobby Wojciechanski	City of Midland		
Liz Sanchez	City of Midland		
Jeff Mercer Miner	Jacobs		

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.**

TEC EXCAVATION INC

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.**

N/A

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 Tyrfa Clutter

Signature of vendor doing business with the governmental entity

10-19-22

Date

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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.

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 11/30/2015

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: TEC EXCAVATION, INC.

Local Address (must be within the City limits): 1538 COTTON FLAT ROAD MIDLAND, TX 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? 35
3. Year your business was established in the City of Midland: 2001
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: Tidyla Clutter Date: 10-19-22

Printed Name and Title: Tidyla Clutter Pres.

TEC EXCAVATION, INC.

P.O. Box 80455
MIDLAND, TX 79708

PH. 432-682-2619
FAX 432-684-1151

October 19, 2022

Joshua Ferguson
City of Midland
300 N. Loraine
Midland, TX 79701

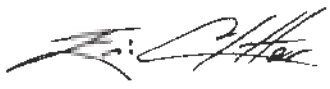
Project: Peck/Terrell Lift Station Elimination and New Sewer Installation Project

Josh,

As per conditions of the Contract, TEC Excavation, Inc. is currently contracted with Jessie Montez to meet TCEQ requirements on the above-mentioned project.

Jessie Montez
TCEQ Class A Water Operator Licensing Number: W00027888
TCEQ Class C Wastewater Operator Licensing Number: WW0025723

Eric Clutter, Vice-President
TEC Excavation, Inc.



Bid Bond

Surety Department

KNOW ALL MEN BY THESE PRESENTS,

That we, **TEC Excavation, Inc.**, as Principal, hereinafter called the Principal, and the **Merchants Bonding Company (Mutual)**, a Corporation created and existing under the laws of the State of **Iowa**, whose principal office is in Des Moines, Iowa, as Surety, hereinafter called the Surety, are held and firmly bound unto the **City of Midland, Texas**, as Obligee, hereinafter called the Obligee, in the sum of **Five Percent (5%) of the Greatest Amount Bid** Dollars ($ ------5%------), for the payment of which sum, well and truly to be made, the said Principal and the 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

Peck/Terrell Lift Station Elimination and New Sewer Installation

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 which 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 **19th** day of **October**, A.D. 20**22**.

Attest:

By: _____

TEC Excavation, Inc.
(Principal)

By _____ (SEAL)

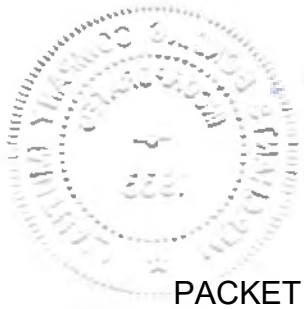
Witness: _____

Merchants Bonding Company (Mutual)

By _____
Kevin J. Dunn, Attorney-in-Fact (SEAL)

Form S-3266-4 Printed in U.S.A. 12-70





MERCHANTS
BONDING COMPANY

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,
Bennett Brown; Kevin J Dunn; Roberta Erb; Steven Tucker; Tracy Tucker; W Lawrence Brown

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 23rd day of February , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.
On this 23rd day of February 2022 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA

POLLY MASON
Commission Number 750576
My Commission Expires
January 07, 2023

Polly Mason
Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 19th day of October , 2022 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

William Warner Jr.
Secretary

PECK/TERRELL LIFT STATION
ELIMINATION AND NEW SEWER INSTALLATION
PROFESSIONAL SERVICES AGREEMENT No. 21002206
JULY, 2022

MAYOR
PATRICK PAYTON
COUNCIL MEMBERS

SCOTT DUFFORD	DISTRICT 1
JOHN NORMAN	DISTRICT 2
JACK LADD	DISTRICT 3
LORI BLONG	DISTRICT 4
DAN CORRALES	AT LARGE
ROBIN POOLE	AT LARGE

CITY MANAGER
ROBERT PATRICK
DIRECTOR OF UTILITIES
CARL CRAIGO, P.E.
ENGINEERING MANAGER - CIP
JOSH FERGUSON, P.E.

CITY OF MIDLAND, 300 N. LORAINE ST.
MIDLAND, TEXAS 79701

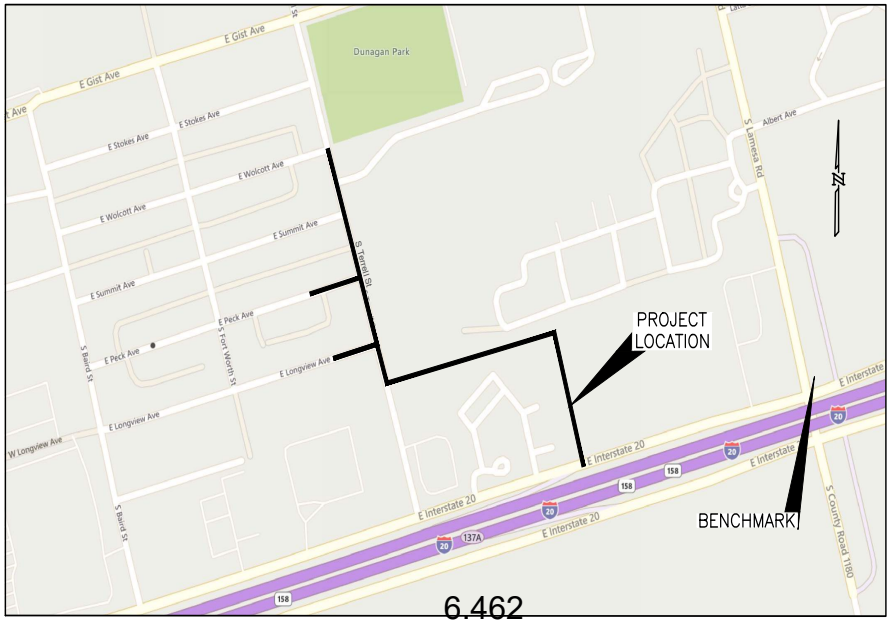
CONTRACTOR _____

DATE WORK BEGAN _____

DATE WORK COMPLETED _____

DATE WORK ACCEPTED _____

FINAL CONTRACT COST _____



VICINITY MAP
N.T.S.

SHEET INDEX

C-101	COVER
C-102	GENERAL NOTES
C-103	GENERAL NOTES, LEGEND AND ABBREVIATIONS
C-201	EXISTING CONDITIONS MASTER LAYOUT
C-202	EXISTING CONDITION VIEW 1-2
C-203	EXISTING CONDITION VIEW 3
C-401	DEMOLITION PLAN MASTER LAYOUT
C-402	DEMOLITION PLAN ENLARGED VIEW 1-2 OF 6
C-403	DEMOLITION PLAN ENLARGED VIEW 3 OF 6
C-404	DEMOLITION PLAN ENLARGED VIEW 4 OF 6
C-405	DEMOLITION PLAN ENLARGED VIEW 5 OF 6
C-406	DEMOLITION PLAN ENLARGED VIEW 6 OF 6
C-601	WASTEWATER PLAN MASTER LAYOUT
C-602	PLAN & PROFILE STA. 0+00 - 7+00
C-603	PLAN & PROFILE STA. 7+00 - 14+50
C-604	PLAN & PROFILE STA. 14+50 - END
C-605	PLAN & PROFILE E PECK & LONGVIEW EXTENSION
C-701	DETAIL - 1
C-702	DETAIL - 2
C-703	DETAIL - 3
C-704	DETAIL - 4
C-705	DETAIL - 5
C-706	DETAIL - 6

REV	DATE	REVISION

REVISIONS

JACOBS
1999 BRYAN ST. SUITE 1200
DALLAS, TX. 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED JACOBS IS A WHOLLY OWNED SUBSIDIARY OF JACOBS ENGINEERING GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
Feel the Energy!

COVER

CITY OF MIDLAND , TEXAS

DESIGNED: TUNNELL	SERVICES AGREE. 21002206
DRAWN: TUNNELL	
APPROVED: MINER	DATE: JULY 2022

SCALE
HORZ: N/A
VERT: N/A
REV DATE:

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

SHEET
C-101
1 OF 22 SHEETS

\\dfwfsp01\Proj\Midland,City of\WFXQ8300_Lift Station Elimination--Sewer Line Install\DESIGN\ACAD\Sheets\210065 C-101.dwg, 7/18/2022 4:46 PM, Tunnell, Rob

GENERAL NOTES:

i) THIS DESIGN IS FOR PUBLIC WASTEWATER IMPROVEMENTS ON TERRELL STREET AT INTERSTATE 20.

ii) ALL CONSTRUCTION IS TO COMPLY WITH CITY OF MIDLAND STANDARDS AND SPECIFICATIONS WHEREVER APPLICABLE. ALL OTHER STANDARDS AND REQUIREMENTS ARE TO COMPLY WITH ALL APPLICABLE FEDERAL AND STATE REGULATIONS, REQUIREMENTS, AND STANDARDS. WHEREVER CITY OF MIDLAND STANDARDS AND FEDERAL OR STATE REQUIREMENTS DIFFER THE MORE RESTRICTIVE STANDARD, REQUIREMENT, OR REGULATION WILL GOVERN.

iii) ALL BEARINGS, DIMENSIONS, AND COORDINATES SHOWN IN THIS CONSTRUCTION DRAWING SET ARE RELATED TO TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS CENTRAL ZONE, NORTH AMERICAN DATUM 1983. ALL ELEVATIONS ARE RELATED TO NORTH AMERICAN VERTICAL DATUM 1988.

iv) EXISTING ELEVATIONS AND TOPOGRAPHIC FEATURES SHOWN IN THIS CONSTRUCTION DRAWING SET HAVE BEEN LOCATED USING CITY OF MIDLAND RECORDS, SITE INSPECTIONS, AND SURVEYS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS INFORMATION PRIOR TO CONSTRUCTION AND NOTIFYING ENGINEER OF ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROJECT DESIGN.

v) EXISTING UTILITIES, INFRASTRUCTURE, AND OTHER OBJECTS INDICATED IN THIS CONSTRUCTION DRAWING SET HAVE BEEN LOCATED USING CITY OF MIDLAND RECORDS, POTHOLES, SITE INSPECTIONS, SURVEYS, AND PRIVATE INFRASTRUCTURE OWNER RECORDS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS INFORMATION PRIOR TO CONSTRUCTION AND NOTIFYING ENGINEER OF ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROJECT DESIGN.

vi) CONTRACTOR IS TO TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING FACILITIES THAT ARE ENCOUNTERED REGARDLESS OF WHETHER OR NOT THEY APPEAR IN THIS CONSTRUCTION DRAWING SET.

vii) ANY ISSUES, CONFLICTS, OR DISCREPANCIES ENCOUNTERED IN FIELD THAT CONFLICT WITH THIS CONSTRUCTION DRAWING SET ARE TO BE BROUGHT TO ATTENTION OF PROJECT ENGINEER PRIOR TO MAKING ANY DESIGN CHANGES IN FIELD.

viii) TRAFFIC CONTROL FOR THIS PROJECT WILL BE CONTRACTOR'S RESPONSIBILITY. CONTRACTOR MUST SUBMIT TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH TMUTCD, TO CITY OF MIDLAND FOR REVIEW AND APPROVAL NO LESS THAN TWO (2) BUSINESS DAYS BEFORE CONTRACTOR BEGINS ANY CONSTRUCTION ACTIVITY.

ix) CONTRACTOR IS TO NOTIFY ALL AFFECTED PROPERTIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY KNOWN OR PLANNED INTERRUPTION OF SERVICE OR ACCESS DUE TO ANY CONSTRUCTION ACTIVITY PERFORMED BY CONTRACTOR.

x) MATERIAL STORAGE IS TO BE PLACED AT WORK ZONE IDENTIFIED IN APPROVED TRAFFIC CONTROL PLAN.

xi) OSHA REQUIREMENTS AND ALL OTHER APPLICABLE FEDERAL, STATE, OR CITY OF MIDLAND SAFETY REQUIREMENTS ARE TO BE FOLLOWED AND COMPLIED WITH AT ALL TIMES.

xii) CONTRACTOR MUST COMPLY WITH ALL STAKING AND TESTING REQUIREMENTS AS DESCRIBED IN PROJECT BID PACKET.

xiii) CONTRACTOR IS REMINDED THAT THIS PROJECT IS LOCATED IN AN URBAN ENVIRONMENT. TREES AND OVERHEAD LINES ARE COMMON, AND CONTRACTOR IS TO PROVIDE PROPER EQUIPMENT TO COMPLETE ALL REQUIRED WORK FOR THIS PROJECT IN AN URBAN ENVIRONMENT.

THIRD PARTY UTILITY NOTES:

1. GRANDE COMMUNICATIONS – PRIOR TO CONSTRUCTION, CONTACT RUBEN GUERRA AT (432) 653-9369 TO COORDINATE CROSSING OF GRANDE COMMUNICATION'S FIBER OPTIC LINE, ADDITIONALLLY PRIOR TO CROSSING THE LINE, NOTIFY RUBEN GUERRA SO THAT A REPRESENTATIVE FROM GRANDE COMMUNICATIONS CAN BE PRESENT WHILE PERFORMING THE WORK.
2. HOLLY ENERGY PARTNERS – HOLLY ENERGY PARTNERS OIL PIPELINE IS CURRENTLY INACTIVE. HOWEVER, HOLLY ENERGY PARTNERS REQUIRES THAT THE CONTRACTOR CONTACT BO GARVIN AT (432) 254-3657 PRIOR TO CROSSING THE OIL PIPELINE SO THEY CAN BE PRESENT DURING THE PERFORMANCE OF THE WORK.
3. ATMOS ENERGY – PRIOR TO CONSTRUCTION, CONTACT MARK LIEB AT (432) 967-0370 TO DETERMINE MONITORING REQUIREMENTS DURING CONSTRUCTION.
4. CENTURION OIL PIPELINE – PRIOR TO CONSTRUCTION, CONTACT CHRIS CANTRELL AT (281) 409-6829 TO DETERMINE MONITORING REQUIREMENTS DURING CONSTRUCTION.
5. CONTRACTOR TO NOTIFY ONCOR POWER BEFORE DECOMMISSIONING OF LIFT STATION AND ASSOCIATED ELECTRICAL EQUIPMENT.

EROSION CONTROL NOTES:

A. INSTALL EROSION CONTROL MEASURES PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY ON PROJECT SITE.

B. CONTRACTOR IS TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES. REPAIRS TO EXISTING EROSION CONTROL MEASURES ARE TO BE MADE IMMEDIATELY UPON DISCOVERY THAT SUCH REPAIRS ARE NEEDED. ALL EROSION CONTROL MEASURES AT PROJECT SITE ARE TO BE INSPECTED IMMEDIATELY FOLLOWING ANY STORM EVENT.

C. CONTRACTOR IS TO MAINTAIN A REASONABLY CLEAN PROJECT SITE AT ALL TIMES. ANY SEDIMENT, DEBRIS, ETC. OUTSIDE PROJECT SITE ARE TO BE REMOVED PROMPTLY.

D. ANY ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE TO BE LOCATED WITHIN THE AREA DESIGNATED AS PART OF WORK ZONE AREA.

E. ALL STOCKPILES ARE TO BE SURROUNDED BY SILT FENCE OR EQUIVALENT MEASURES AS APPROVED BY ENGINEER TO PROPERLY CONTROL SEDIMENT RUNOFF.

F. CONCRETE TRUCKS CANNOT UNDER ANY CIRCUMSTANCE WASHOUT IN UTILITY TRENCH. CONTRACTOR IS TO PROVIDE A WASHOUT CONTAINER FOR CONCRETE TRUCKS AND MUST REMOVE ALL WASHOUT AND SPOILS FROM PROJECT SITE.

G. VEGETATION SEEDING AND WATERING:
   i. THIS REFERS TO ALL PORTIONS OF PROJECT AREA DISTURBED BY CONSTRUCTION ACTIVITY FOR THIS PROJECT.
   ii. REVEGETATE ALL AREAS AND SURFACES DISTURBED BY ANY CONSTRUCTION ACTIVITY THAT ARE SCHEDULED TO REMAIN NATURAL RAGARDLESS OF WHETHER OR NOT THEY ARE WITHIN APPROVED PROJECT SITE OR WORK ZONE. NATURAL SURFACES ARE THOSE THAT WILL NOT RECEIVE A LAYER OF PAVEMENT, FLATWORK, STRUCTURE, OR OTHER IMPERVIOUS MATERIAL.
   iii. REMOVE TOP SIX INCH (6") LAYER OF VEGETATION AND TOPSOIL EVENLY FOR ENTIRE DISTURBED AREA AND SET ASIDE DURING CONSTRUCTION.
   iv. AFTER CONSTRUCTION PLACE SAVED VEGETATION AND TOPSOIL EVENLY ACROSS ENTIRE DISTURBED AREA AND RAKE SMOOTH. ADD ADDITIONAL TOPSOIL MATERIAL OF EQUAL OR BETTER QUALITY THAN ORIGINAL MATERIAL IF NECESSARY TO ACHIEVE A MINIMUM SIX INCH (6.0") TOPSOIL THICKNESS THROUGHOUT.
   v. DISK AREAS TO BE SEEDED TO A DEPTH OF FOUR INCHES (4") TO ALLOW GOOD CONTACT BETWEEN SEEDS AND SOIL.
   vi. UNIFORMELY DISTRIBUTE SEEDS AS HEREIN SPECIFIED ON PLANS AND SPECIFICATIONS.
   vii. IN ALL AREAS TO BE DRILL SEEDED, USE A PASTURE OR RANGELAND TYPE DRILL SEED.
   viii. USE SEPARATE BOXES ON DRILL TO APPLY FERTILIZER TO SEED.
   ix. BEFORE PLANTING OPERATIONS BEGIN, FURNISH SEED TAGS FROM SEED SUPPLIER. SEED TAGS MUST SHOW PERCENT PURITY, PERCENT GERMINATION, AND DATE SEED WAS HARVESTED. SUBMIT SEED TAGS TO PROJECT ENGINEER FOR VERIFICATION OF APPROPRIATE POUNDS P.L.S./ACRE RATES.
   x. SPRAY EVENLY WITH WATER EQUIVALENT TO A MINIMUM UNIFORM WATER VOLUME DEPTH OF 0.2-INCHES (0.2") FOR ENTIRE DISTURBED AREA AT A RATE OF NO LESS THAN ONCE (1) A DATE FOR TEN (10) CONSECUTIVE DAYS AFTER PLACEMENT AND SEEDING.
   xi. PROVIDE SEED MIXTURES LISTED AT APPROPRIATE RATES DURING SPECIFIED SEASON:
      a) SEED MIX TOTALING 20 LBS P.L.S. / ACRE, WHEN SEEDING BETWEEN OCTOBER AND FEBRUARY:

VARIETY	LBS, P.L.S. / ACRE
RYGRASS (ANNUAL)	8.0
WESTERN WHEATGRASS	2.0
MILLET	2.0
SIDEOATS GRAMA	1.5
KLEINGRASS	1.5
BRISTLEGRASS	1.5
BLUE GRAMA	0.5
BUFFALOGRASS	2.0
GREEN SPRANGLETOP	1.0

      b) SEED MIX TOTALING 20 LBS P.L.S. / ACRE, WHEN SEEDING BETWEEN MARCH AND SEPTEMBER:

VARIETY	LBS, P.L.S. / ACRE
MILLET	4.0
SIDEOATS GRAMA	3.0
KLEINGRASS	3.0
BRISTLEGRASS	3.0
BLUE GRAMA	1.0
BUFFALOGRASS	4.0
GREEN SPRANGLETOP	2.0

      c) IF SPECIFIED GRASS VARIETY IS NOT AVAILABLE, SUBMIT AVAILABLE SUBSTITUTION TO PROJECT ENGINEER FOR APPROVAL. PERMISSION FOR SUBSTITUTION WILL ONLY BE GRANTED AFTER PROJECT ENGINEER IS SATISFIED THAT SPECIFIED GRASS VARIETIES ARE NOT AVAILABLE.
      d) DELIVER ALL FERTILIZER IN BAGS OR CONTAINERS CLEARLY LABELED SHOWING BAG ANALYSIS. PREFERRED ANALYSIS IS 18-3-4. APPLY FERTILIZER AT RATE THAT ACHIEVES NO LESS THAN 100 LBS N_2 / ACRE. APPLY FERTILIZER IN CONJUNCTION WITH SEEDING.

H. CONTRACTOR HAS SOLE RESPONSIBILITY FOR VEGETATING OR STABILIZING TO EXISTING OR BETTER CONDITION ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITY LOCATED OUTSIDE DESIGNATED PROJECT SITE OR APPROVED WORK ZONE AT CONTRACTOR'S SOLE EXPENSE.

I. IMPLEMENT SUPPLEMENTAL EROSION CONTROL MEASURES AS NEEDED DURING STORM EVENTS. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AT SOLE DISCRETION OF ENGINEER IF AT ANY TIME ENGINEER BELIEVES EXISTING EROSION CONTROL MEASURES ARE INSUFFICIENT FOR NEEDS OF PROJECT SITE.

J. CONTRACTOR IS REQUIRED AT A MINIMUM TO REMOVE AND DISPOSE OF ACCUMULATED SILT, SEDIMENT, OR OTHER DEBRIS FROM EROSION CONTROLS WHEN SILT, SEDIMENT, OR OTHER DEBRIS HAVE REACHED A HEIGHT EQUAL TO HALF THAT OF EROSION CONTROLS PLACED OR IMPEED THEIR EFFECTIVENESS.

K. CONTRACTOR IS TO REMOVE ALL TERMPORARY EROSION CONTROL MEASURES FROM PROJECT SITE UPON COMPLETION OF CONSTRUCTION ACTIVITY ONCE PROJECT SITE IS STABILIZED. THIS IS CONSIDERED SUBSIDIARY TO THIS PROJECT SCOPE.

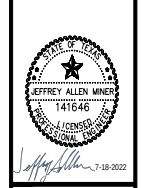
L. DAMAGES TO ADJACENT PROPERTY OR TO RECEIVING WATERS CAUSED BY IMPROPERLY INSTALLED OR POORLY MAINTAINED EROSION CONTROL MEASURES ARE SOLE RESPONSIBILITY OF CONTRACTOR.

CONSTRUCTION NOTES:

1. EXISTING BENCHMARK LOCATED AT APPROXIMATELY 10 FT. ON THE EAST SIDE OF S. LAMESA RD. AND APPROXIMATELY 50 FT. NORTH OF E. INTERSTATE 20 SERVICE ROAD ON CONCRETE RIP-RAP UNDER BRIDGE AT S. LAMESA RD. BENCHMARK IS (ALUMINUM CAP MIDLAND). BENCHMARK ELEVATION IS LAM20 ELEV: 2776.142 (LIST 2776.22') N: 10686841.22, E: 1761908.19.
2. ALL DIMENSIONS MEASURED TO CURB ARE MEASURED TO BACK-OF-CURB.
3. ALL DIMENSIONS BETWEEN UTILITIES ARE MEASURED TO UTILITY CENTERLINE.
4. ALL FITTINGS INSTALLED ARE TO BE WRAPPED.
5. ALL NEW OR EXISTING VALVE, MANHOLE, JUNCTION, INLET, AND METER COVERS MUST BE ADJUSTED TO FINISHED GRADE AND BE SET FLUSH WITH ADJACENT FINISHED SURFACE WHETHER FINISHED SURFACE IS PAVED OR UNPAVED.
6. CONCRETE COLLARS ARE TO BE PLACED AROUND ALL PUBLIC INFRASTRUCTURE UTILITY COVERS EXCEPT METER COVERS EVEN WHEN SUCH COVERS ARE LOCATED IN UNPAVED OR CONCRETE PAVED AREAS.
7. ALL CONCRETE FIBER REINFORCEMENT IS TO BE INSTALLED AT A RATE OF 3.0-POUNDS OF FIBER REINFORCEMENT PER EACH 1.0-CUBIC YARD OF CONCRETE PLACED (3.0-LBS / 1.0-CY) UNLESS OTHERWISE NOTED IN THIS CONSTRUCTION DRAWING SET.
8. ALL CONCRETE PAVEMENT, FILLET, VALLEY GUTTER, APPROACH, AND COLLAR JOINTS ARE TO BE SEALED PER CITY STANDARDS.
9. CONTRACTOR IS TO MATCH DESIGN GRADES AND ELEVATIONS SHOWN ON THIS CONSTRUCTION DRAWING SET.
10. CONTRACTOR IS TO MATCH EXISTING GRADES AT ALL LOCATIONS INDICATED, INCLUDING FOR ALL GRADE DAYLIGHTING.
11. COORDINATE ALL SIGNAL POLE, SIGNAL CONDUIT, STRIPING, TRAFFIC SIGN, OR OTHER TRAFFIC INFRASTRUCTURE ISSUES WITH CITY TRAFFIC ENGINEER AND NOTIFY CITY INSPECTOR.
12. NOTIFY CITY INSPECTOR OF ALL FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE ISSUES AND COORDINATE WITH BOTH CITY AND FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE OWNER.
13. PLACE ORANGE FENCING AROUND SIDEWALK, WHEELCHAIR RAMPS, AND OTHER PEDESTRIAN AREAS THAT POSE HAZARDS TO PEDESTRIAN TRAFFIC.

MARK	DESCRIPTION	DATE	APPD
	PROFESSIONAL SERVICES AGREEMENT No.: 210022206	DATE: JULY, 2022	
	DRAWN BY: TUNNELL		
	REVIEWED BY: MINER		
	CHECKED BY: PANDEY		

SCALE: AS NOTED
DESIGND BY: TUNNELL



JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HARD COPY AND/OR ELECTRONIC FORMAT. JACOBS IS WHOLLY OWNED BY JACOBS ENGINEERING GROUP INC. AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

GENERAL NOTES

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-102
2 OF 23

\\cfwfpp01\Proj\Midland\City of\WFX03300_Lift Station Elimination-Sewer Line Install\DESIGN\CAD\Sheets\210065 C-102.dwg, 7/19/2022 4:46 PM, Tunnell, Rob

PAVING NOTES:

A. ALL EXISTING BASE COURSE MATERIAL OR MATERIAL REMAINING AFTER EXCAVATION ARE TO BE PROOF ROLLED WITH MINIMUM TWENTY-FIVE (25) TON PNEUMATIC ROLLER PRIOR TO ANY PAVING ACTIVITY TAKING PLACE. EXCAVATE ANY SOFT MATERIAL AND SCARIFY EXCAVATED AREA PLUS SUFFICIENT DISTANCE BEYOND TO ENSURE PROPER MIXING AND BONDING.

B. ALL NEW PAVEMENT AND CONCRETE ARE TO BE PLACED CLEANLY AND FLUSH WITH ALL ADJACENT, EXISTING PAVEMENT OR CONCRETE INCLUDING CURBS.

C. PRIOR TO PAVING ACTIVITIES, APPLY PRIME COAT UNIFORMELY ON TOP OF ALL PREPARED FLEXIBLE BASE COURSE SURFACES. ADDITIONALLY, APPLY PRIME COAT TO ALL JOINTS, INCLUDING COLD JOINTS WITH MATS PREVIOUSLY LAID, AND JOINTS WITH CONCRETE WHERE ASPHALT PAVEMENT WILL ABUT CONCRETE PAVEMENT INCLUDING AT LIP OF CURB.

D. APPLY TACK COAT UNIFORMELY TO ALL INTERMEDIATE ASPHALT PAVEMENT COURSES WHOSE SURFACE IS SCHEDULED TO REVCIEVE AN OVERLAYING COURSE OF ASPHALT PAVEMENT. ADDITIONALLY, APPLY TACK COAT TO ALL JOINTS, INCLUDING COLD JOINTS WITH MATS PREVIOUSLY LAID, AND JOINTS WITH CONCRETE WHERE ASPHALT PAVEMENT WILL ABUT CONCRETE PAVEMENT INCLUDING AT LIP OF CURB.

E. BLOT AREAS SHOWNING AN EXCESS OF PRIME COAT OR TACK COAT WITH SAND OR OTHER SIMILAR MATERIAL AND REMOVE BLOTTING MATERIAL BEFORE PAVING.

F. ALL CONCRETE PAVEMENT JOINTS ARE TO BE SEALED IN COMPLIANCE WITH CITY OF MIDLAND STANDARDS. THIS REQUIREMENT DOES NOT APPLY TO PEDESTRIAN ACCESS RAMP, SIDEWALK, OR CURB JOINTS.

G. ONLY USE AND PLACE APPROVED EXPANSION JOINT MATERIAL AS INDICATED ON CONSTRUCTION DRAWINGS AND BETWEEN EXISTING CURB AND PROPOSED CURB.

H. ALL PEDESTRIAN ACCESS RAMPS AND SIDEWALKS ARE TO BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE ADA REQUIREMENTS. ALL SIDEWALK IS TO BE INSTALLED FLUSH WITH ADJACENT TOP-OF-CURB WHEN LOCATED NEXT TO CURB. SIDEWALK NOT LOCATED NEXT TO CURB IS TO BE PLACED FLUSH WITH EXISTING GROUND SURFACE. ENGINEER IS TO BE NOTIFIED PRIOR TO INSTALLATION IF ANY SIDEWALK SLOPE EXCEEDS 5.0% SLOPE WHEN FOLLOWING EXISTING GROUND SURFACE, AND NO SIDEWALK IS TO HAVE CROSS-SLOPE GREATER THAN 2.0%.

J. ALL ASPHALT TRENCH REPAIRS ARE TO COMPLY WITH CITY OF MIDLAND STANDARDS AND SPECIFICATIONS..

K. LAY-DOWN OPERATIONS:
   i. IN ADDITION TO OTHER REQUIREMENTS SPECIFIED IN CITY OF MIDLAND SPECIFICATIONS, PROVIDE ASPHALT PAVERS THAT DO NOT SUPPORT WEIGHT OF ANY PORTION OF HAULING EQUIPMENT OTHER THAN CONNECTION.
   ii. OFFSET JOINTS IN SURFACE COURSE FROM LANE LINES BY SIX INCHES (6"). WHEN CONSTRUCTING A JOINT BETWEEN LANES OF OPPOSING TRAFFIC, OFFSET JOINT BY SIX INCHES (6") INTO EITHER LANE.

L. MAINTAIN SUBGRADE OR BASE IN A SMOOTH, CLEAN, COMPACTED CONDITION AND KEEP DAMP WITH WATER UNTIL CONCRETE PAVEMENT IS PLACED.

M. PLACE CONCRETE PAVEMENT WITHIN 45 MINUTES OF BATCHING AND USE VIBRATORY EQUIPMENT TO CONSOLIDATE CONCRETE. DO NOT USE VIBRATORY EQUIPMENT TO DISTRIBUTE CONCRETE PAVEMENT. SEGREGATED CONCRETE IS SUBJECT TO REJECTION.

N. SAWCUT ALL CONTROL JOINTS. JOINT SPACING TO TYPICALLY BE MINIMUM 10' X 10' AND MAXIMUM 15' X 15'. PLAN JOINT LAYOUT AROUND CURB RETURNS AND OTHER IRREGULAR FEATURES SUCH THAT JOINTS ARE PERPENDICULAR TO CURBS OR CONCRETE EDGES.

O. WHEN PLACED ADJACENT TO CONCRETE PAVEMENT, CURB JOINT SPACING IS TO MATCH CONCRETE PAVEMENT SPACING. WHEN PLACED SEPARATELY FROM PAVEMENT, CURB JOINTS ARE TO BE SPACED NO CLOSER THAN 2.0' AND NO FURTHER THAN 10.0' APART.

P. CURB JOINTS ARE TO BE TOOL JOINTS EXCEPT FOR EVERY 6TH CONTROL JOINT, WHICH IS TO BE AN EXPANSION JOINT. UTILIZE EXPANSION JOINTS AT ALL JOINTS BETWEEN NEW AND EXISTING CURB-AND-GUTTER.

Q. CONCRETE FILLETS ARE TO BE PLACED INTEGRAL WITH ADJACENT CONCRETE CURB.

R. UTILIZE SAWCUT OR TOOL JOINTS IN SIDEWALK SPACED EVERY 5.0' WITH AN EXPANSION JOINT FOR EVERY 12TH JOINT OF SIDEWALK.

S. ALL CONCRETE PAVEMENT AND SIDEWALK SURFACES ARE TO BE BROOM FINISHED.

DRAINAGE NOTES:

A. CONTRACTOR IS TO ENSURE POSITIVE SURFACE DRAINAGE THROUGHOUT PROJECT SITE WITH SPECIAL ATTENTION GIVEN TO SURFACE DRAINAGE AT ALL INTERSECTIONS.

B. CONTRACTOR IS TO CORRECT ANY SURFACE GRADES INSTALLED THAT RESULT IN WATER PONDING OR COLLECTING IN ANY LOCATION NOT INTENDED FOR COLLECTION, I.E. ANYWHERE THAT IS NOT A BASIN, POND, INLET. ETC. CONTRACTOR IS TO NOTIFY PROJECT ENGINEER IF WATER PONDING OR COLLECTING IS BELIEVED TO BE CAUSED BY DESIGN ERROR AND WAIT FOR DIRECTION FROM PROJECT ENGINEER BEFORE PROCEEDING WITH ANY FIELD CHANGES.

ABBREVIATIONS

CB	CABLE
CL	CENTERLINE
FO	FIBER OPTIC
FL	FLOW LINE
G	GAS LINE
INV	INVERT
IRF	IRON ROD FOUND
OH	OVERHEAD POWER LINE
PE	POLYETHYLENE
PL	PETROLEUM PIPE LINE LINE
℄	PROPERTY LINE
STA	STATION
STL	STEEL
WW	WASTEWATER
W	WATER

LEGEND

- FOUND MONUMENT AS NOTED
- EXISTING ELECTRIC METER
- EXISTING FIRE HYDRANT
- EXISTING MANHOLE
- EXISTING PIPELINE MARKER
- EXISTING PIPELINE TEST STATION
- EXISTING POWER POLE
- EXISTING TELECOM BOX
- EXISTING TELEPHONE PEDESTAL
- EXISTING TRANSFORMER PAD
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING FLAG (PIN)
- EXISTING SIGN
- EXISTING POTHOLES

- PROPOSED WASTEWATER LINE
- PROPOSED REMOVE AND REPLACE
- PROPERTY LINE
- EASEMENT
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CHAIN LINK FENCE
- EXISTING FENCE
- EXISTING PETROLEUM LINE
- EXISTING FIBER OPTIC
- EXISTING 6" WATER LINE
- EXISTING 12" WATER LINE
- EXISTING 6" WASTEWATER
- EXISTING 8" WASTEWATER
- EXISTING 12" WASTEWATER
- EXISTING UNDERGROUND CABLE LINE
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING CONCRETE
- EXISTING THICK BRUSH AND TREES
- ABANDON EXISTING UTILITY LINE
- REMOVE EXISTING UTILITY LINE
- CURB GRAVEL OR SAND BAGS

- SILT FENCE
- ROCK FILTER DAM
- CURB INLET PROTECTION

PACKET 6.464 November 15, 2022

SCALE: AS NOTED
DESIGNED BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No.: 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APPD

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY JACOBS SOLUTIONS INC. AND AFTER THE SPIN-OFF OF CYIENT DLM GROUP INC AND HERDMATTER REFERRED TO AS JACOBS

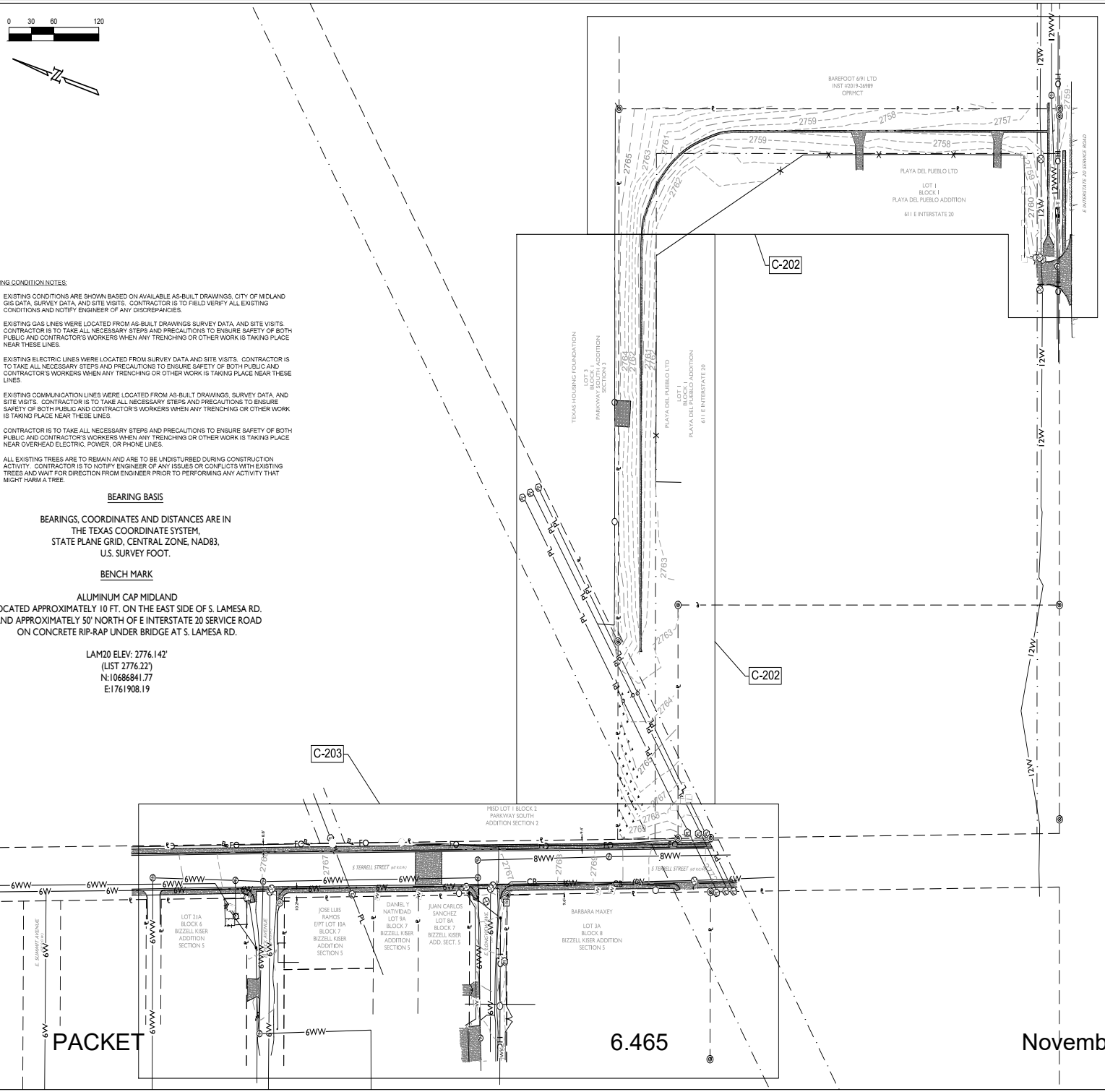
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

GENERAL NOTES, LEGEND AND ABBREVIATIONS

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-103
3 OF 23

\\dfwfpp01\Proj\Midland,City\of\WFX03\300_Lift Station Elimination-Sewer Line Install\DESIGN\CAD\Sheets\210065 C-103.dwg, 7/19/2022 4:47 PM, Tunnell, Rob



EXISTING CONDITION NOTES:

A. EXISTING CONDITIONS ARE SHOWN BASED ON AVAILABLE AS-BUILT DRAWINGS, CITY OF MIDLAND GIS DATA, SURVEY DATA, AND SITE VISITS. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

B. EXISTING GAS LINES WERE LOCATED FROM AS-BUILT DRAWINGS SURVEY DATA, AND SITE VISITS. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN ANY TRENCHING OR OTHER WORK IS TAKING PLACE NEAR THESE LINES.

C. EXISTING ELECTRIC LINES WERE LOCATED FROM SURVEY DATA AND SITE VISITS. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN ANY TRENCHING OR OTHER WORK IS TAKING PLACE NEAR THESE LINES.

D. EXISTING COMMUNICATION LINES WERE LOCATED FROM AS-BUILT DRAWINGS, SURVEY DATA, AND SITE VISITS. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN ANY TRENCHING OR OTHER WORK IS TAKING PLACE NEAR THESE LINES.

E. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN ANY TRENCHING OR OTHER WORK IS TAKING PLACE NEAR OVERHEAD ELECTRIC, POWER, OR PHONE LINES.

F. ALL EXISTING TREES ARE TO REMAIN AND ARE TO BE UNDISTURBED DURING CONSTRUCTION ACTIVITY. CONTRACTOR IS TO NOTIFY ENGINEER OF ANY ISSUES OR CONFLICTS WITH EXISTING TREES AND WAIT FOR DIRECTION FROM ENGINEER PRIOR TO PERFORMING ANY ACTIVITY THAT MIGHT HARM A TREE.

BEARING BASIS

BEARINGS, COORDINATES AND DISTANCES ARE IN
THE TEXAS COORDINATE SYSTEM,
STATE PLANE GRID, CENTRAL ZONE, NAD83,
U.S. SURVEY FOOT.

BENCH MARK

ALUMINUM CAP MIDLAND
LOCATED APPROXIMATELY 10 FT. ON THE EAST SIDE OF S. LAMESA RD.
AND APPROXIMATELY 50' NORTH OF E INTERSTATE 20 SERVICE ROAD
ON CONCRETE RIP-RAP UNDER BRIDGE AT S. LAMESA RD.

LAM20 ELEV: 2776.142'
(LIST 2776.22')
N:10686841.77
E:1761908.19

	MARK	DESCRIPTION	DATE	APP'D
PROFESSIONAL SERVICES AGREEMENT No. 21002206				
DATE: JULY, 2022				
SCALE: AS NOTED				
DESIGEND BY: TUNNELL				
DRAWN BY: TUNNELL				
REVIEWED BY: MINER				
CHECKED BY: PANDEY				

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HARD COPY FORMAT BY JACOBS IS ONLY A CONVENIENCE TO JACOBS'S CLIENT. JACOBS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, THAT THE DRAWINGS/DOCUMENTS PROVIDED IN HARD COPY FORMAT WILL BE THE SAME AS THE ELECTRONIC VERSIONS OF THE DRAWINGS/DOCUMENTS REFERRED TO AS 'JACOBS' HEREINAFTER

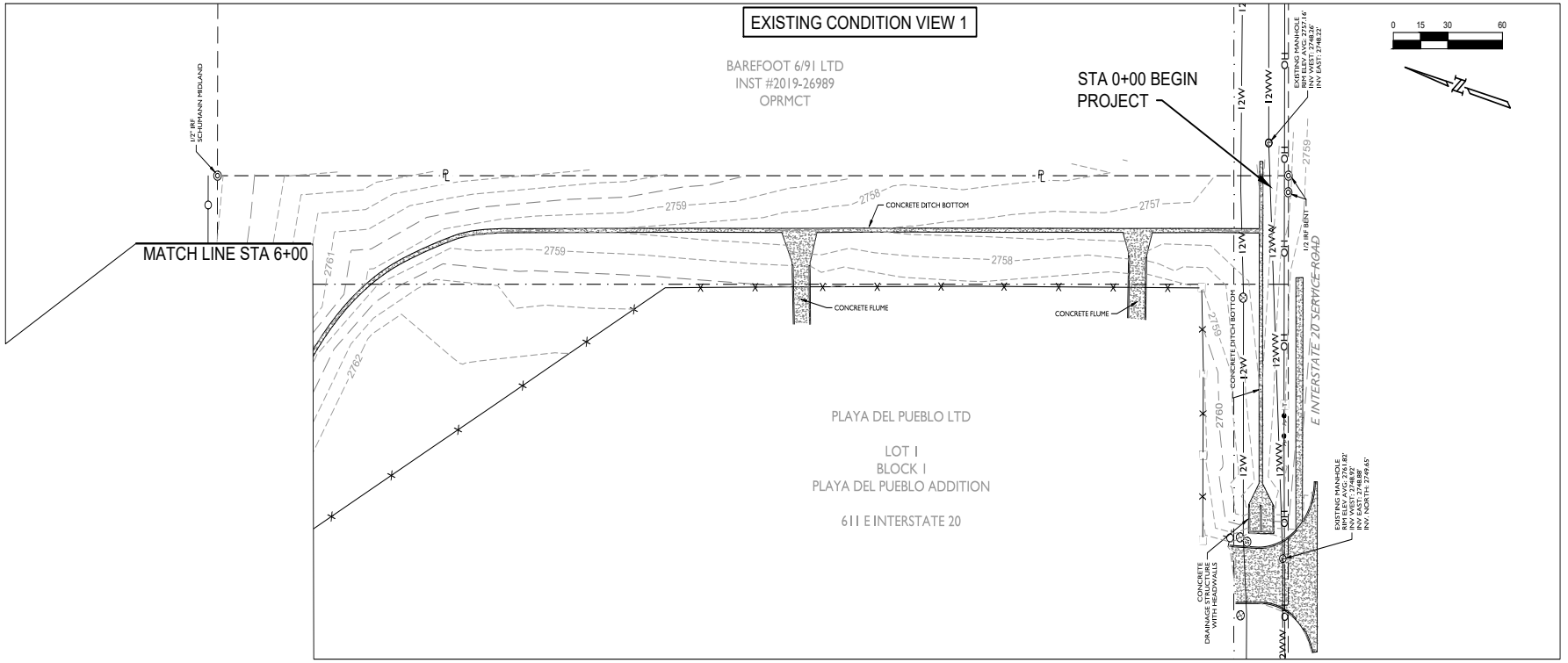
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

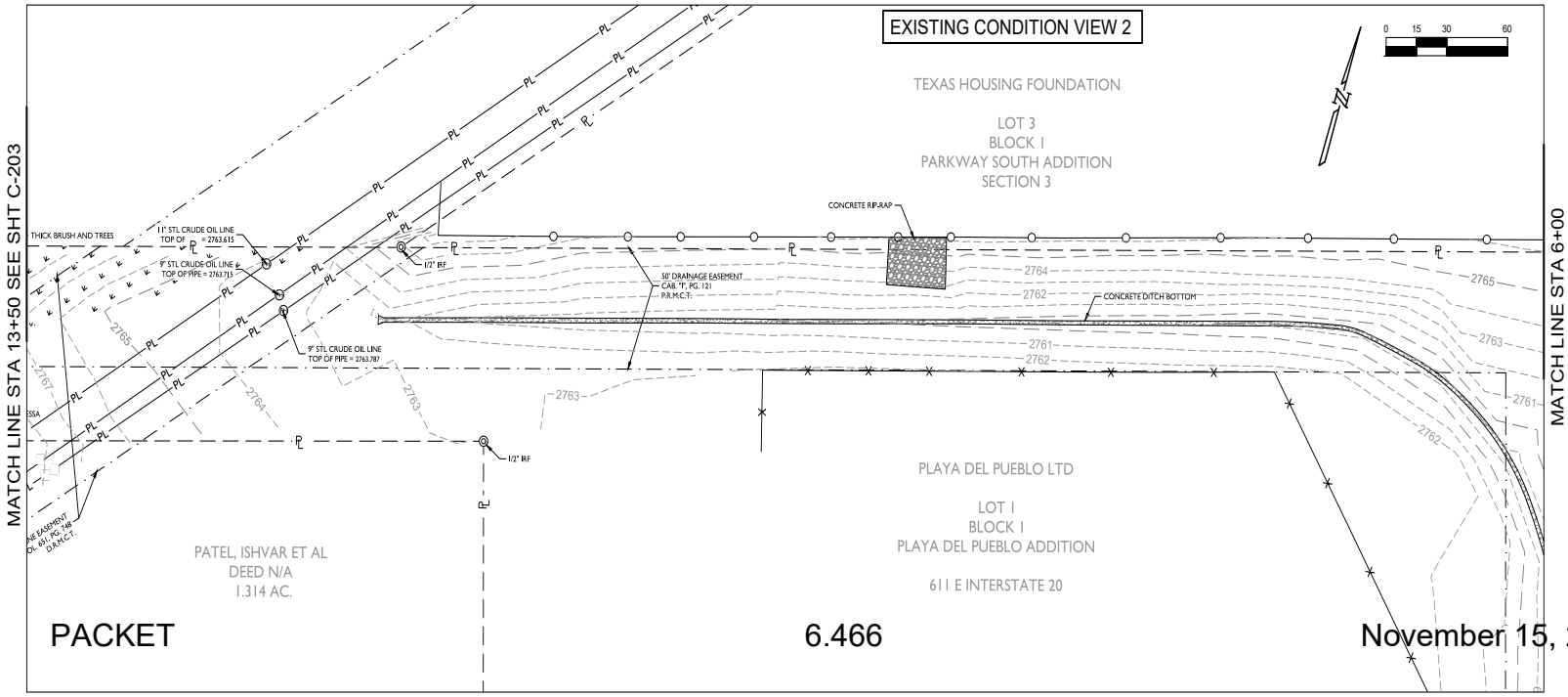
EXISTING CONDITION
MASTER LAYOUT

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-201
4 OF 23

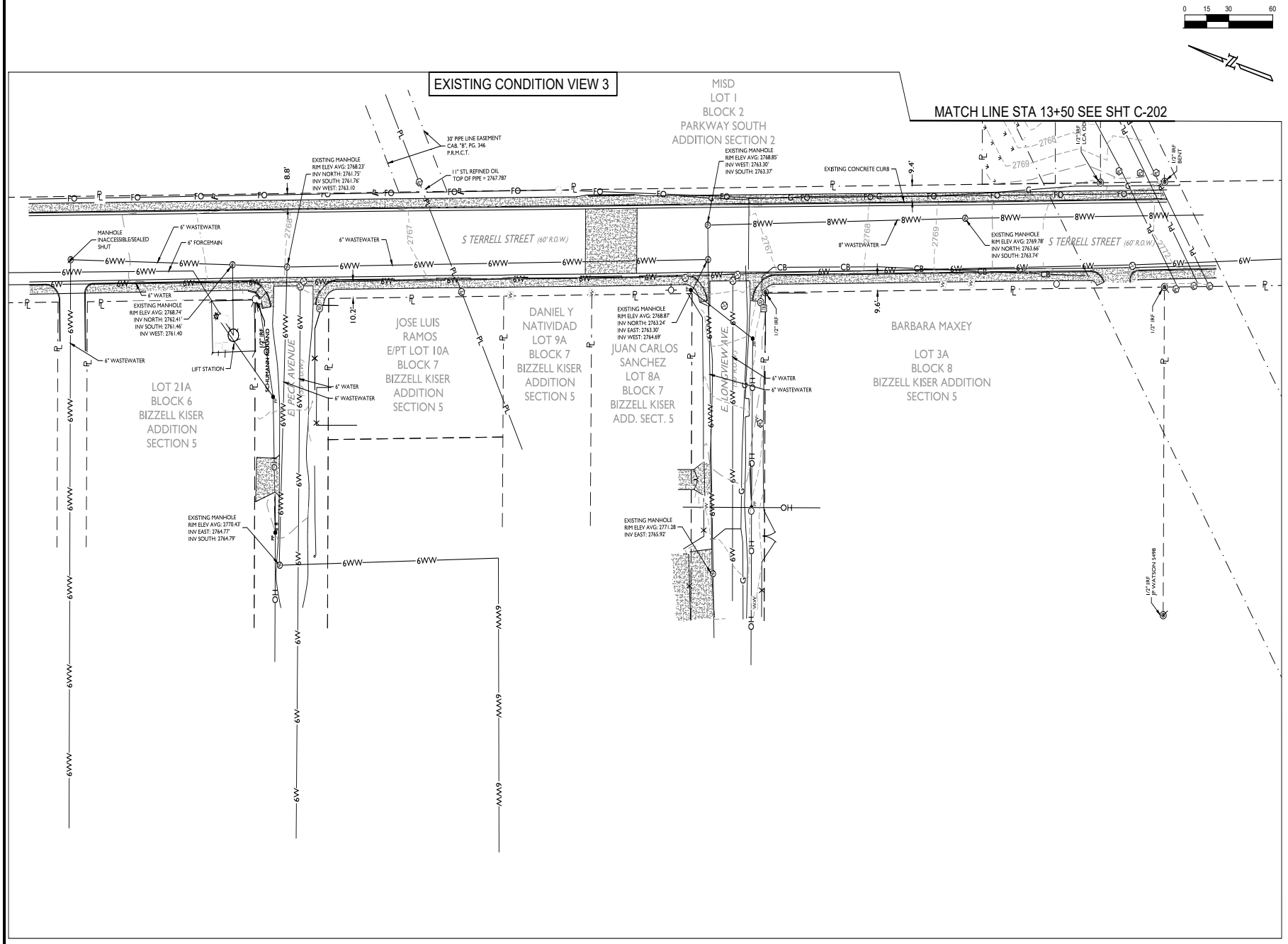
\\Jfwfsp01\Projects\Midland.City\of\WFX\D8300_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210065 C-201.dwg, 7/18/2022 4:47 PM, Tunnell, Rob





PACKET 6.466 November 15, 2022

| | | |



MARK	DESCRIPTION	DATE	APP'D
	PROFESSIONAL SERVICES AGREEMENT No. 210022206	DATE: JULY, 2022	
	CHECKED BY: PANDEY		
	REVIEWED BY: MINER		
	DRAWN BY: TUNNELL		
	DESIGNED BY: TUNNELL		
	SCALE: AS NOTED		

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HALF OWNED BY JACOBS ENGINEERING GROUP INC AND IS A HEREINAFTER REFERRED TO AS JACOBS

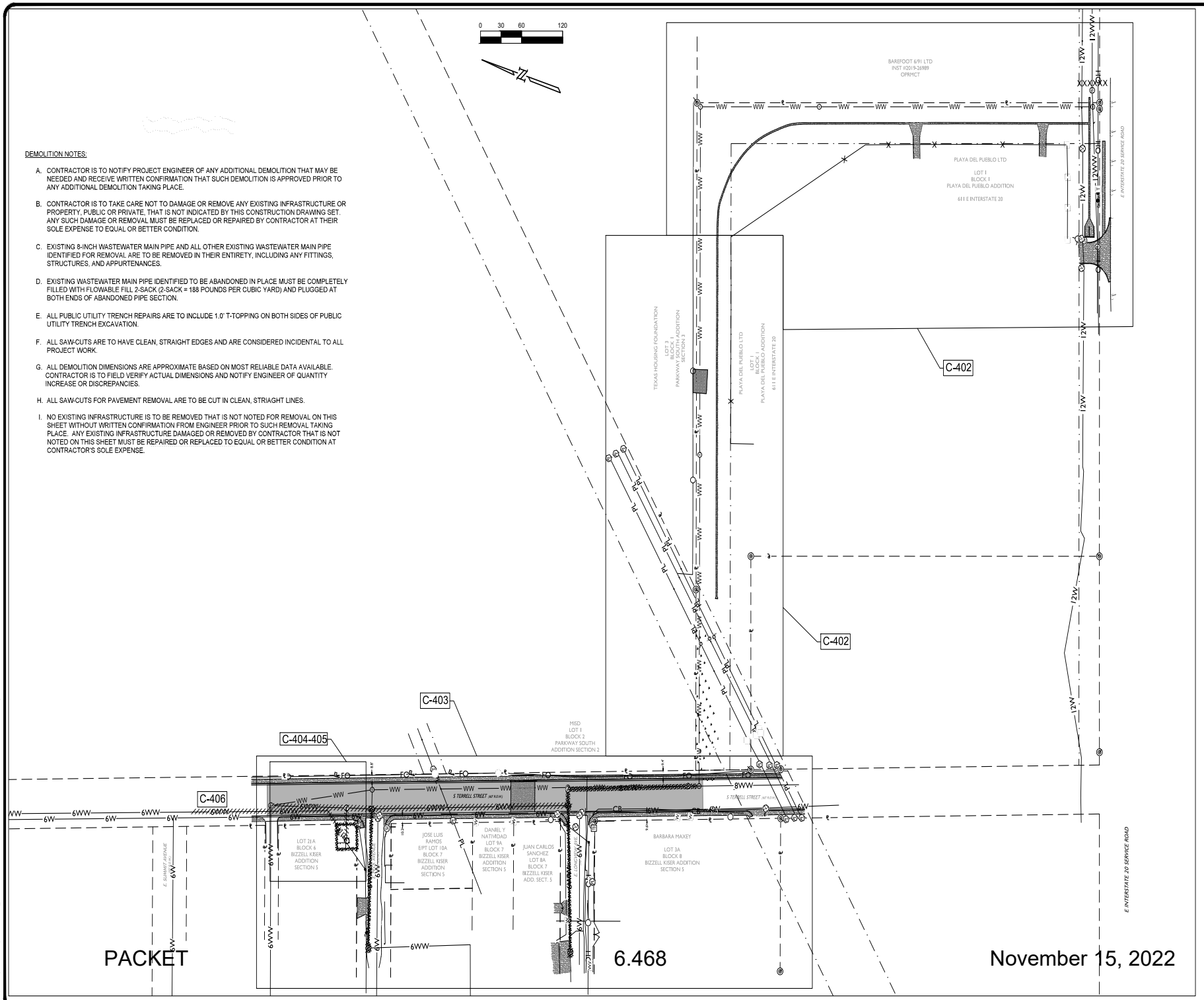
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

EXISTING CONDITION
VIEW 3

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-203
6 OF 23

\\cfwfsp01\Proj\Midland,City\of\WFX\D8300_Lift Station Elimination - Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-203.dwg, 7/18/2022 4:48 PM, Tunnell, Rob



DEMOLITION NOTES:

A. CONTRACTOR IS TO NOTIFY PROJECT ENGINEER OF ANY ADDITIONAL DEMOLITION THAT MAY BE NEEDED AND RECEIVE WRITTEN CONFIRMATION THAT SUCH DEMOLITION IS APPROVED PRIOR TO ANY ADDITIONAL DEMOLITION TAKING PLACE.

B. CONTRACTOR IS TO TAKE CARE NOT TO DAMAGE OR REMOVE ANY EXISTING INFRASTRUCTURE OR PROPERTY, PUBLIC OR PRIVATE, THAT IS NOT INDICATED BY THIS CONSTRUCTION DRAWING SET. ANY SUCH DAMAGE OR REMOVAL MUST BE REPLACED OR REPAIRED BY CONTRACTOR AT THEIR SOLE EXPENSE TO EQUAL OR BETTER CONDITION.

C. EXISTING 8-INCH WASTEWATER MAIN PIPE AND ALL OTHER EXISTING WASTEWATER MAIN PIPE IDENTIFIED FOR REMOVAL ARE TO BE REMOVED IN THEIR ENTIRETY, INCLUDING ANY FITTINGS, STRUCTURES, AND APPURTENANCES.

D. EXISTING WASTEWATER MAIN PIPE IDENTIFIED TO BE ABANDONED IN PLACE MUST BE COMPLETELY FILLED WITH FLOWABLE FILL 2-SACK (2-SACK = 188 POUNDS PER CUBIC YARD) AND PLUGGED AT BOTH ENDS OF ABANDONED PIPE SECTION.

E. ALL PUBLIC UTILITY TRENCH REPAIRS ARE TO INCLUDE 1.0' T-TOPPING ON BOTH SIDES OF PUBLIC UTILITY TRENCH EXCAVATION.

F. ALL SAW-CUTS ARE TO HAVE CLEAN, STRAIGHT EDGES AND ARE CONSIDERED INCIDENTAL TO ALL PROJECT WORK.

G. ALL DEMOLITION DIMENSIONS ARE APPROXIMATE BASED ON MOST RELIABLE DATA AVAILABLE. CONTRACTOR IS TO FIELD VERIFY ACTUAL DIMENSIONS AND NOTIFY ENGINEER OF QUANTITY INCREASE OR DISCREPANCIES.

H. ALL SAW-CUTS FOR PAVEMENT REMOVAL ARE TO BE CUT IN CLEAN, STRIAGHT LINES.

I. NO EXISTING INFRASTRUCTURE IS TO BE REMOVED THAT IS NOT NOTED FOR REMOVAL ON THIS SHEET WITHOUT WRITTEN CONFIRMATION FROM ENGINEER PRIOR TO SUCH REMOVAL TAKING PLACE. ANY EXISTING INFRASTRUCTURE DAMAGED OR REMOVED BY CONTRACTOR THAT IS NOT NOTED ON THIS SHEET MUST BE REPAIRED OR REPLACED TO EQUAL OR BETTER CONDITION AT CONTRACTOR'S SOLE EXPENSE.

PACKET 6.468 November 15, 2022

MARK	DESCRIPTION	DATE	APPD
	PROFESSIONAL SERVICES AGREEMENT No. 21002206	DATE: JULY, 2022	
		CHECKED BY: PANDEY	
		REVIEWED BY: MINER	
		DRAWN BY: TUNNELL	
		DESIGND BY: TUNNELL	
		SCALE: AS NOTED	

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966
THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HALF OWNED BY JACOBS. ANY USE OF JACOBS IS PROHIBITED WITHOUT JACOBS' WRITTEN CONSENT. JACOBS GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

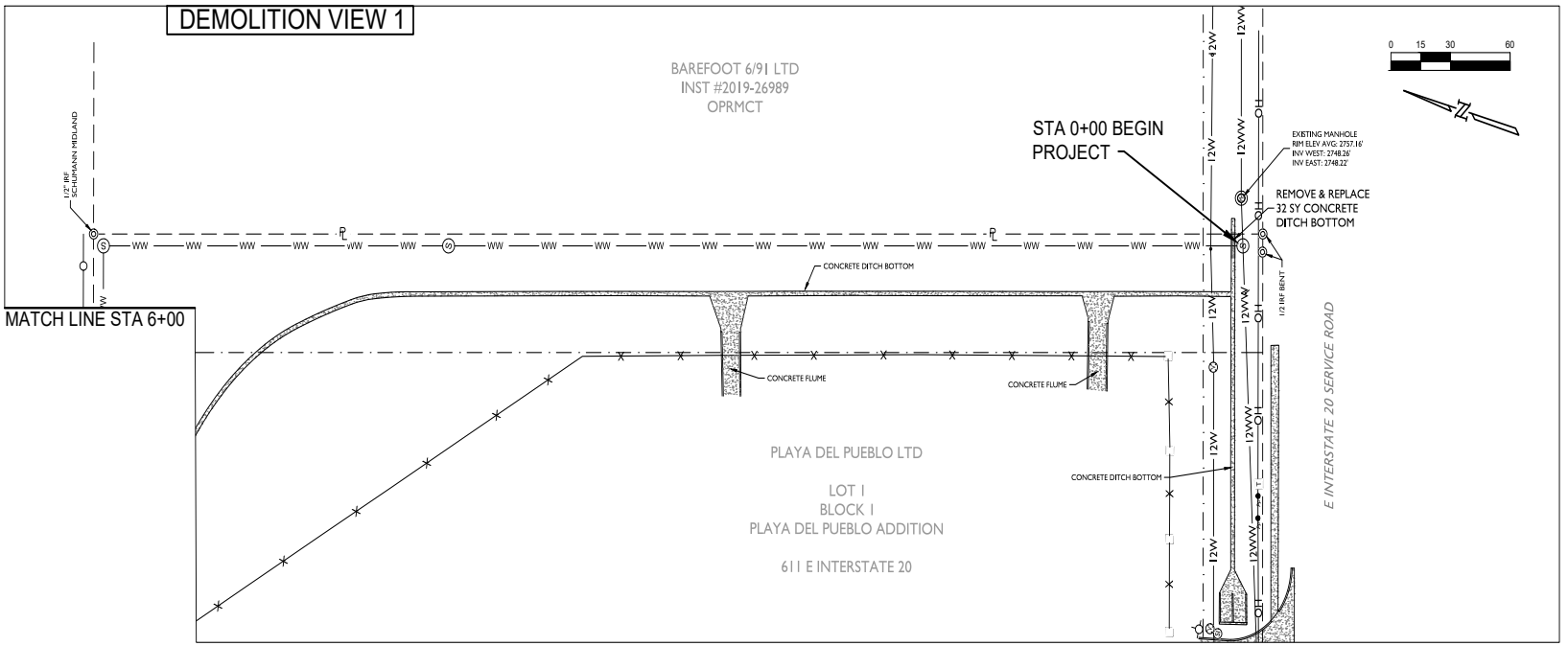
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

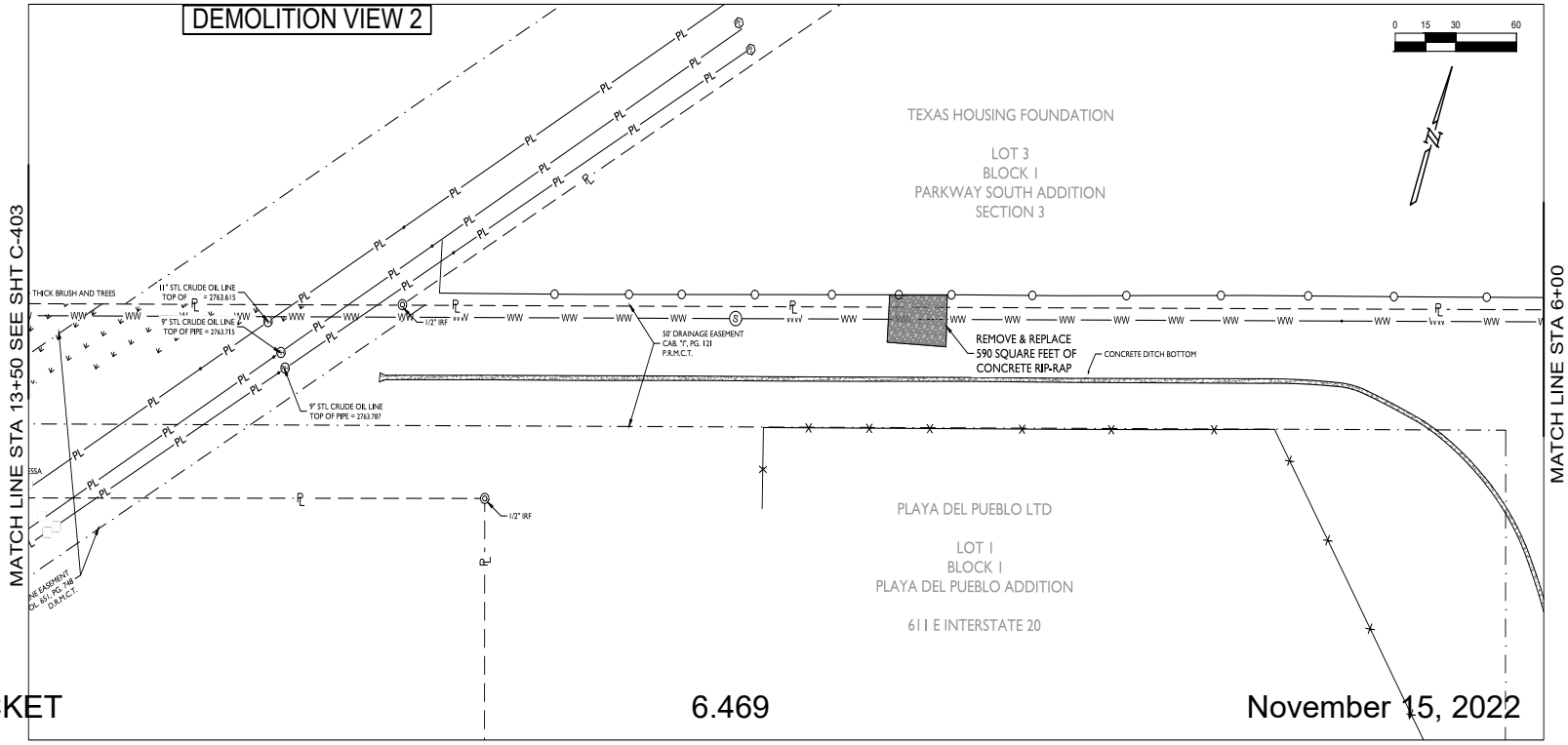
DEMOLITION AND PAVING PLAN
MASTER LAYOUT

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-401
7 OF 23

\\Jfwfsp01\Proj\Midland,City of\WFX\D3500_Lift Station Elimination -Sewer Line Inst\#DESIGN\ACAD\Sheets\210065 C-401.dwg, 7/18/2022 4:48 PM, Tunnell, Rob





SCALE: AS NOTED
DESIGND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No. 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APP'D

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE OWNED BY JACOBS IS AGREED TO BY ANY PARTY OTHER THAN JACOBS OR ITS AFFILIATES AND SUBSIDIARIES. JACOBS IS A GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

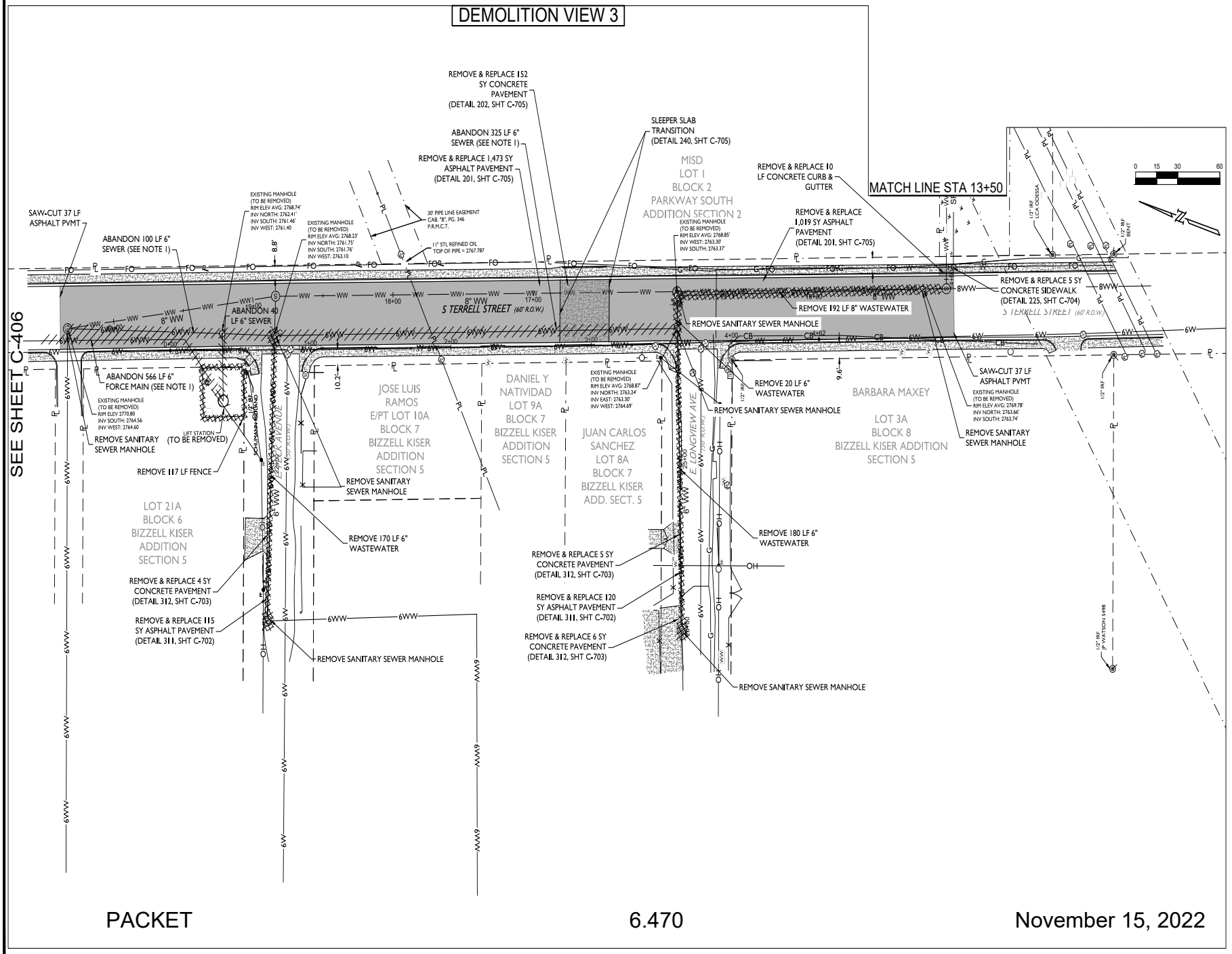
DEMOLITION PLAN
ENLARGED VIEW 1 - 2 OF 6

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-402
8 OF 23

X:\Jeffrey01\Proj\Midland\City\of\WF\XO\8300_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-402.dwg, 7/18/2022 4:50 PM, Tunnell, Rob

DEMOLITION VIEW 3



PACKET 6.470 November 15, 2022

SCALE: AS NOTED
DESIGND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No.: 210022206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APP'D

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966
THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED ON THE CONDITION THAT JACOBS IS NOT BEING RELEASED FROM OWNER'S CONTRACTUAL OBLIGATIONS. JACOBS GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

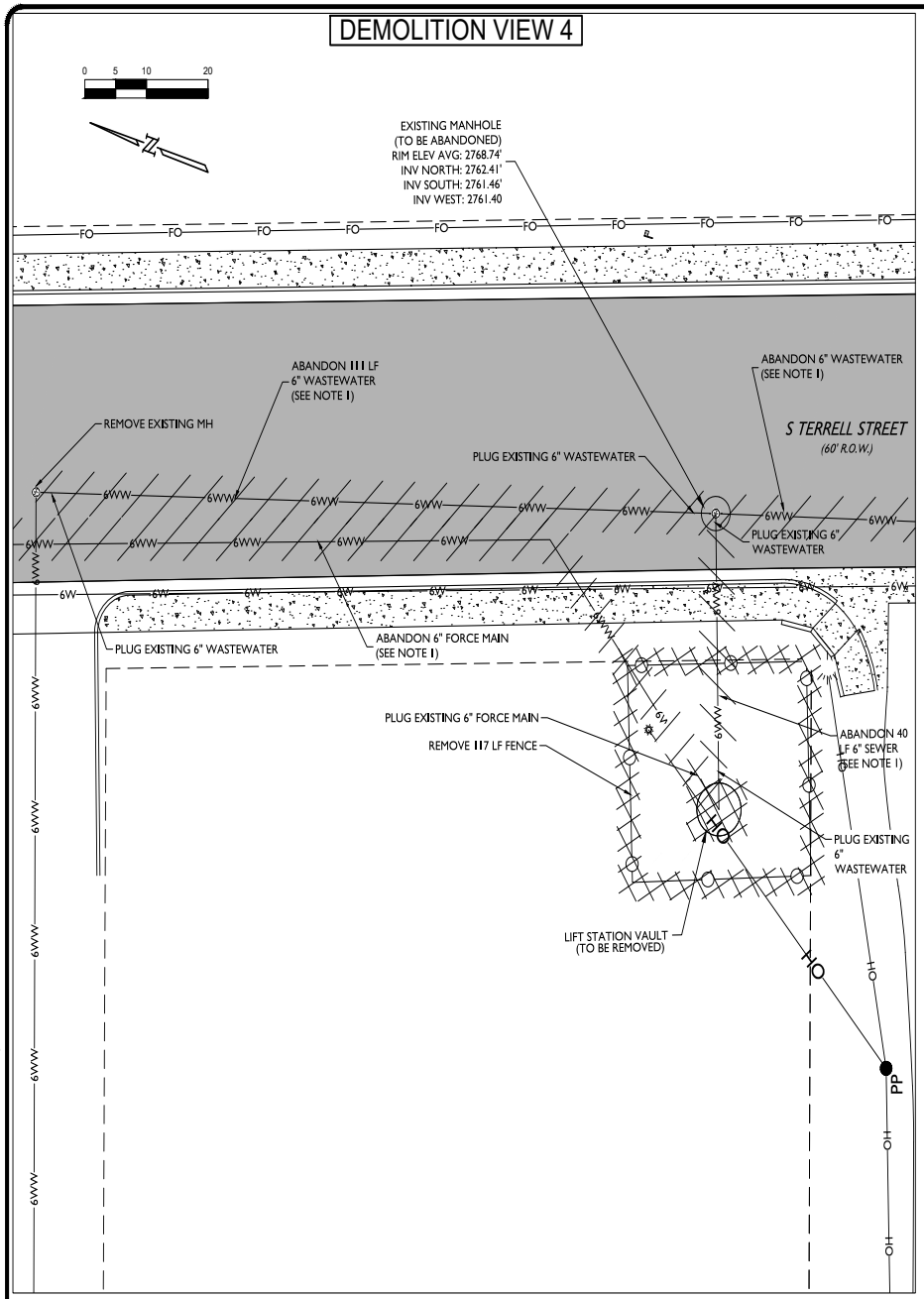
DEMOLITION PLAN
ENLARGED VIEW 3 OF 6

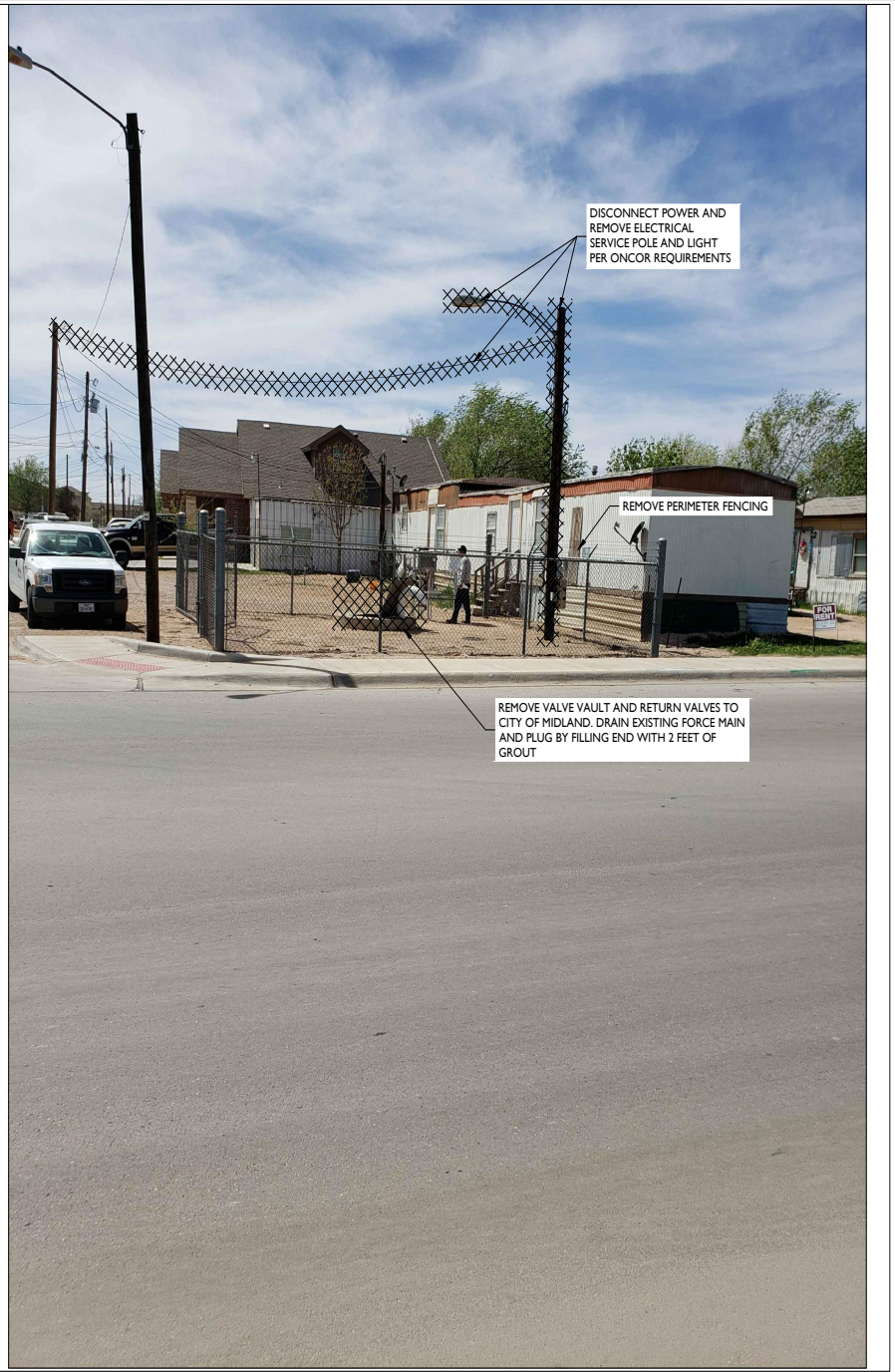
VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-403
9 OF 23

\\Jfwfsp01\Proj\Midland,City\of\WFXO\B300_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-403.dwg, 7/18/2022 4:50 PM, Tunnell, Rob

DEMOLITION VIEW 4





SCALE: AS NOTED
DESIGND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No.: 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APPR

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY A PRIVATE EQUITY GROUP. JACOBS AND HERDRIMTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

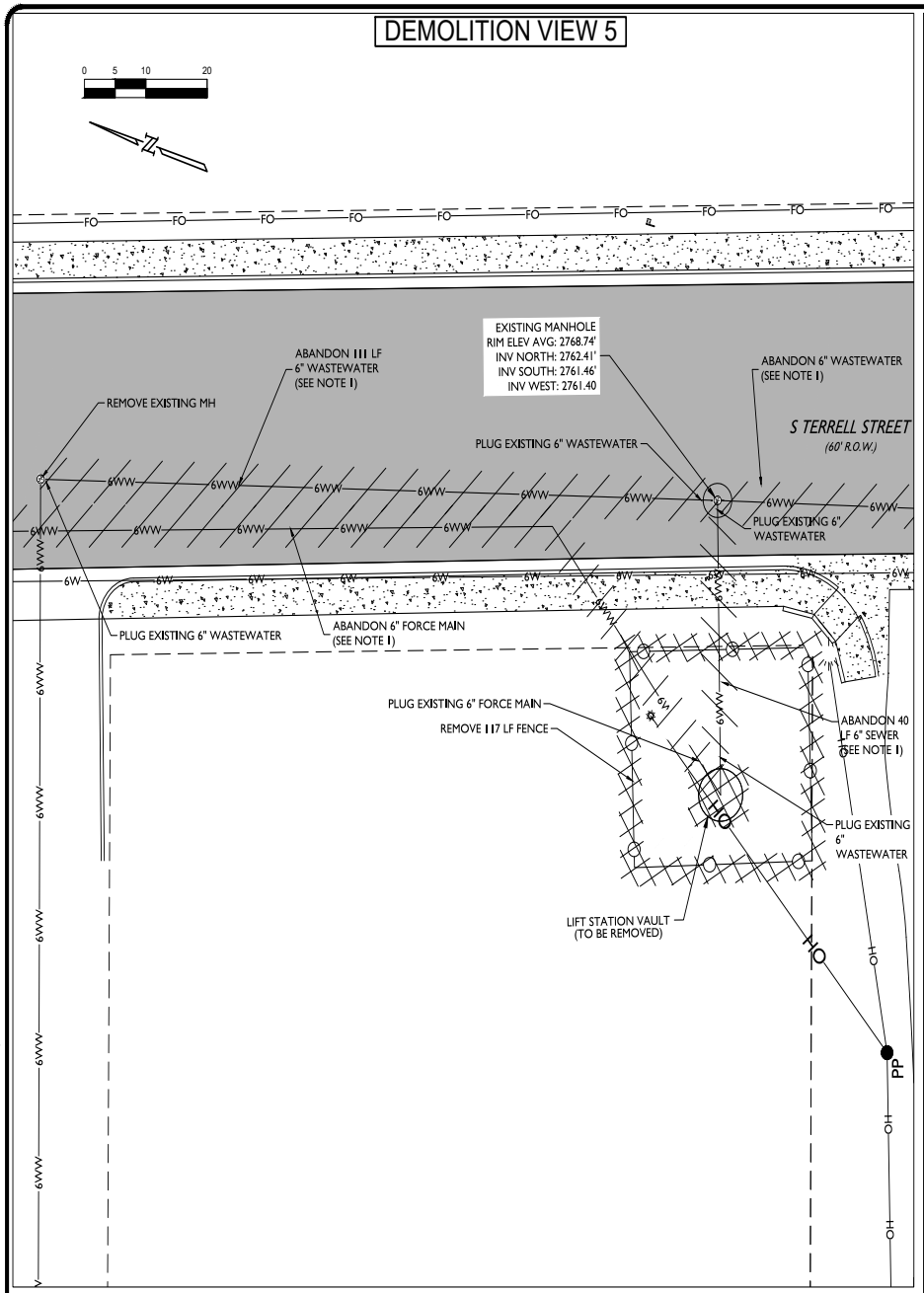
DEMOLITION PLAN
ENLARGED VIEW 4 OF 6

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-404
10 OF 23

\\cfwfsp01\Proj\Midland\City\of\WFX\D3500_Lift Station Elimination-Sewer Line Inst\#DESIGN\CAD\Sheets\210085 C-404.dwg, 7/18/2022 4:50 PM, Tunnell, Rob

DEMOLITION VIEW 5





SCALE: AS NOTED
DESIGNED BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No. 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APPR.

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY A PRIVATE EQUITY GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

DEMOLITION PLAN
ENLARGED VIEW 5 OF 6

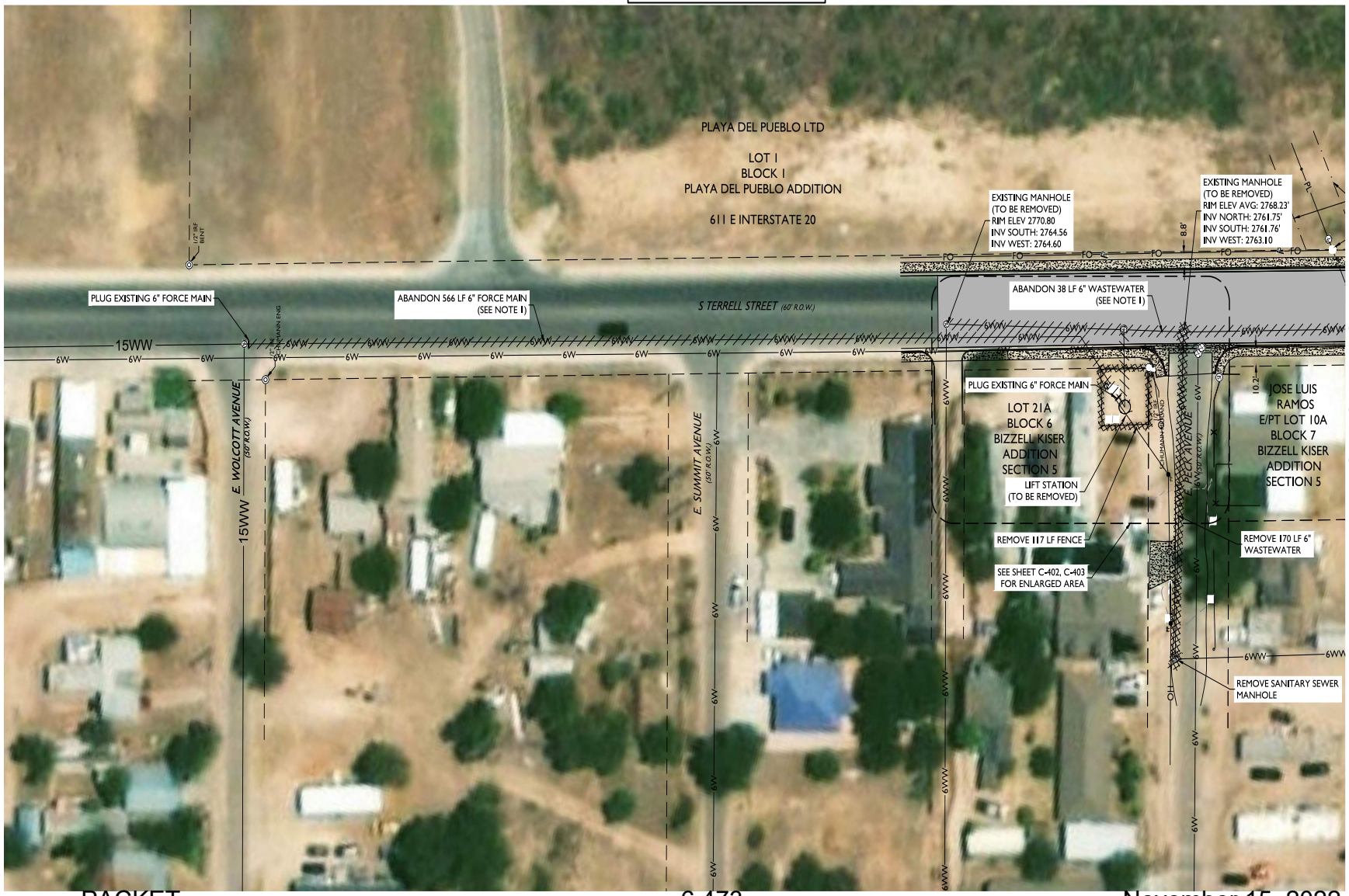
VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-405
11 OF 23

\\cfwfsp01\Proj\Midland.City\MWFX\D35100_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-405.dwg, 7/18/2022 4:50 PM, Tunnell, Rob

0 15 30 60

DEMOLITION VIEW 6



SCALE: AS NOTED				
DESIGND BY: TUNNELL				
DRAWN BY: TUNNELL				
REVIEWED BY: MINER				
CHECKED BY: PANDEY				
PROFESSIONAL SERVICES AGREEMENT No. 21002206				
DATE: JULY, 2022	MARK	DESCRIPTION	DATE	APPD

STATE OF TEXAS — JEFFREY ALLEN MINER — 141646 — LICENSED PROFESSIONAL ENGINEER — 7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS UNDER CONTRACT WITH THE CITY OF MIDLAND. JACOBS IS NOT RESPONSIBLE FOR ANY CHANGES MADE TO THESE DRAWINGS/DOCUMENTS BY OTHERS AND HEREINAFTER REFERRED TO AS JACOBS

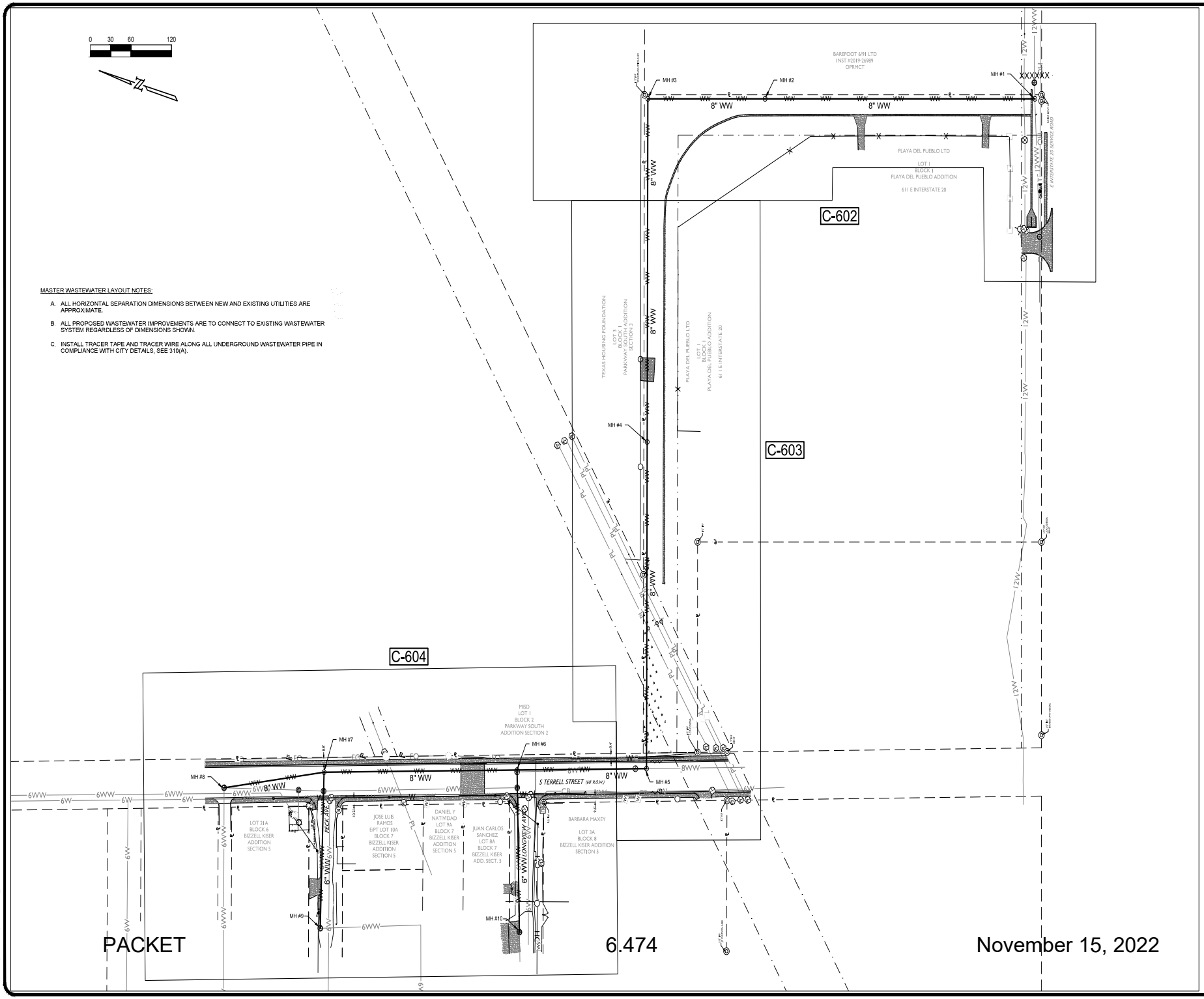
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

DEMOLITION PLAN
ENLARGED VIEW 6 OF 6

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-406
12 OF 23

\\cfwfs01\Proj\Midland,City of\WFXO\83100_Lift Station Elimination-Sewer Line Inst\#DESIGN\CAD\Sheets\210083_C-406.dwg, 7/18/2022 4:56 PM, Tunnell, Rob



SCALE: AS NOTED
DESIGND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No. 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APPD

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN WHOLE OR IN PART IN ELECTRONIC FORMAT. JACOBS IS OWNING OWNER'S DESIGNATED AGENT. JACOBS AND ITS GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

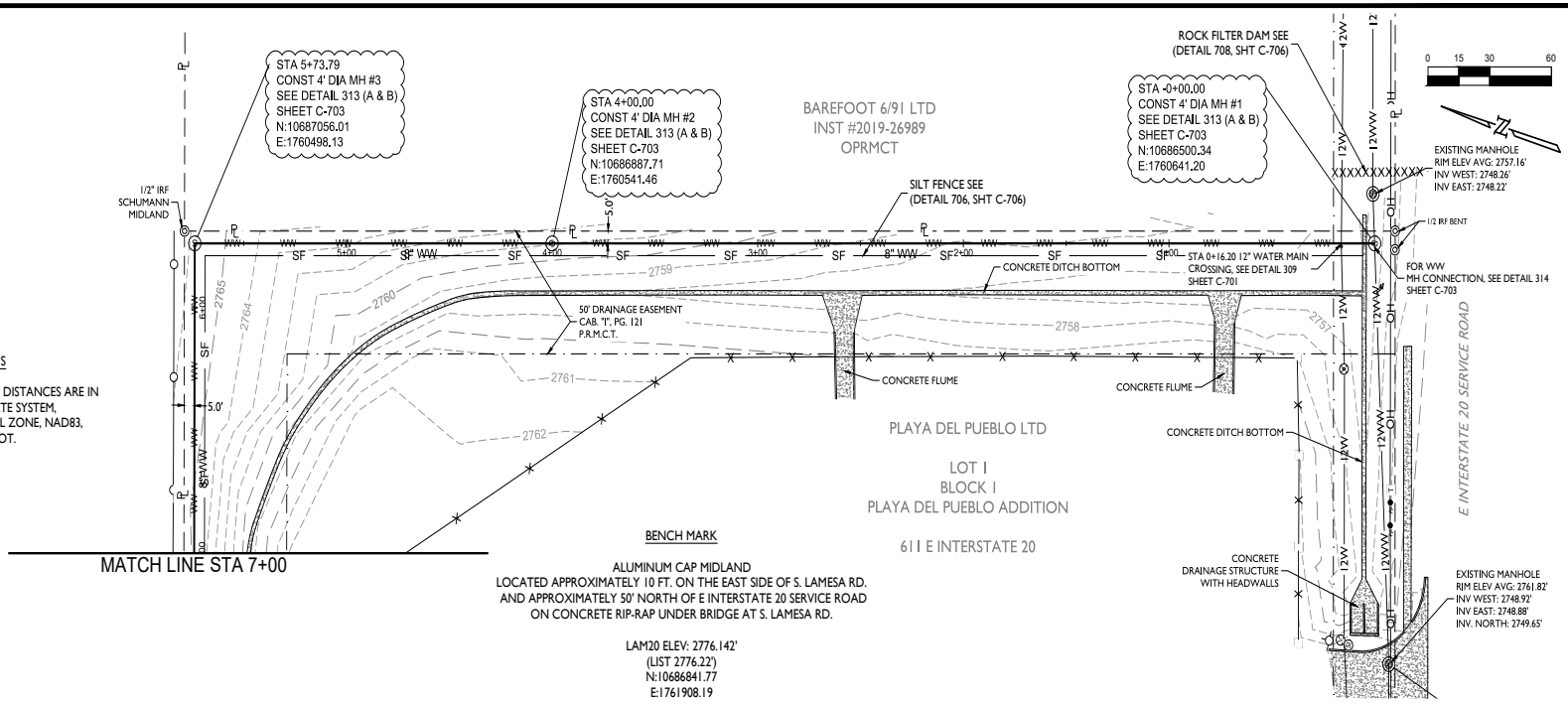
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

WASTEWATER PLAN
MASTER LAYOUT

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-601
13 OF 23

\\cfwfsp01\Proj\Midland,City\of\WFXO\B300_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-601.dwg, 7/18/2022 4:55 PM, Tunnell, Rob



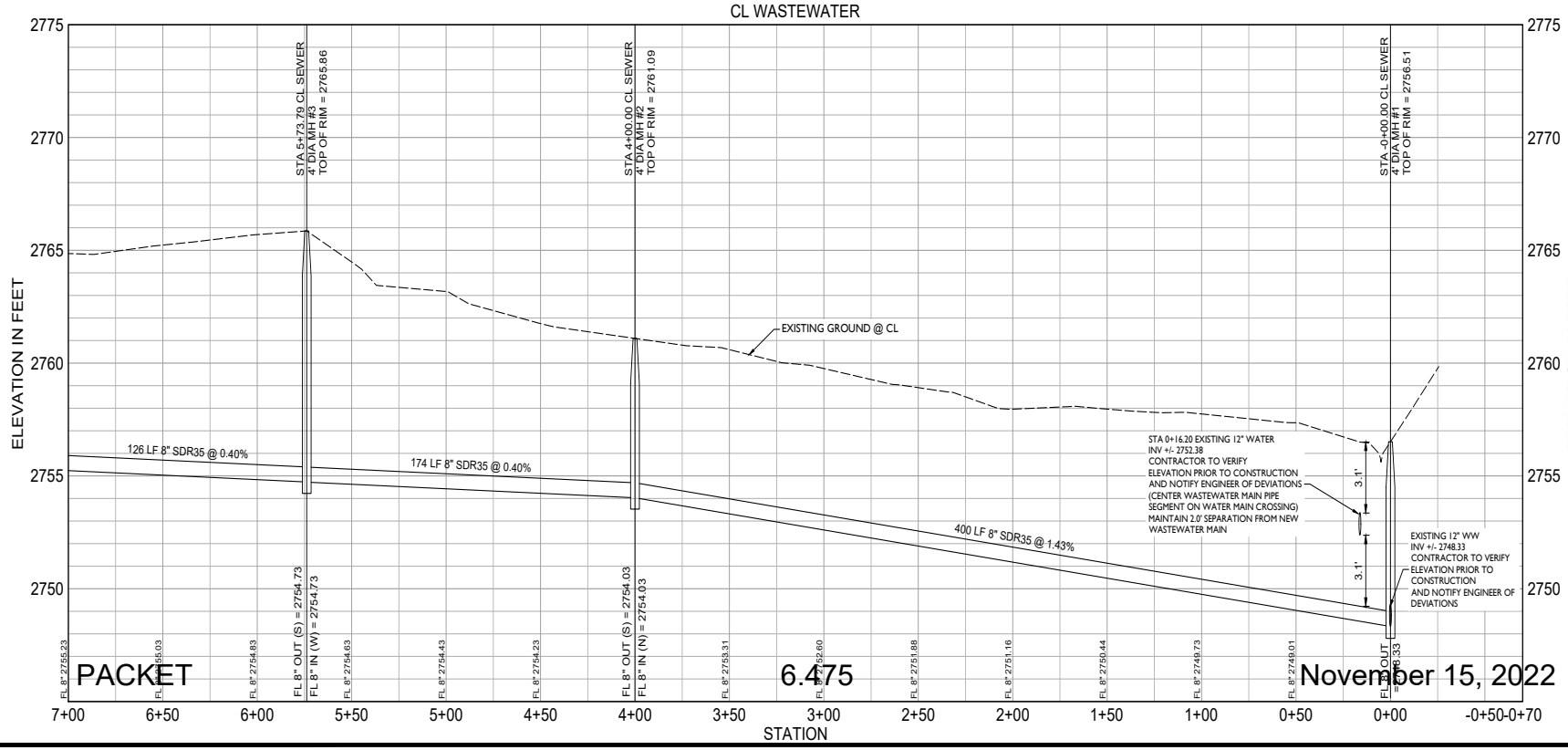
BEARING BASIS

BEARINGS, COORDINATES AND DISTANCES ARE IN THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, CENTRAL ZONE, NAD83, U.S. SURVEY FOOT.

BENCH MARK

ALUMINUM CAP MIDLAND
LOCATED APPROXIMATELY 10 FT. ON THE EAST SIDE OF S. LAMESA RD. AND APPROXIMATELY 50' NORTH OF E INTERSTATE 20 SERVICE ROAD ON CONCRETE RIP-RAP UNDER BRIDGE AT S. LAMESA RD.

LAM20 ELEV: 2776.142'
(LIST 2776.22')
N:10686841.77
E:1761908.19



PACKET 6.475 November 15, 2022

SCALE: AS NOTED
DESIGND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No.: 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APP'D

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY JACOBS SOLUTIONS INC. AND/OR ITS AFFILIATES. JACOBS IS A DIVISION OF JACOBS ENGINEERING GROUP INC. AND HEREINAFTER REFERRED TO AS JACOBS

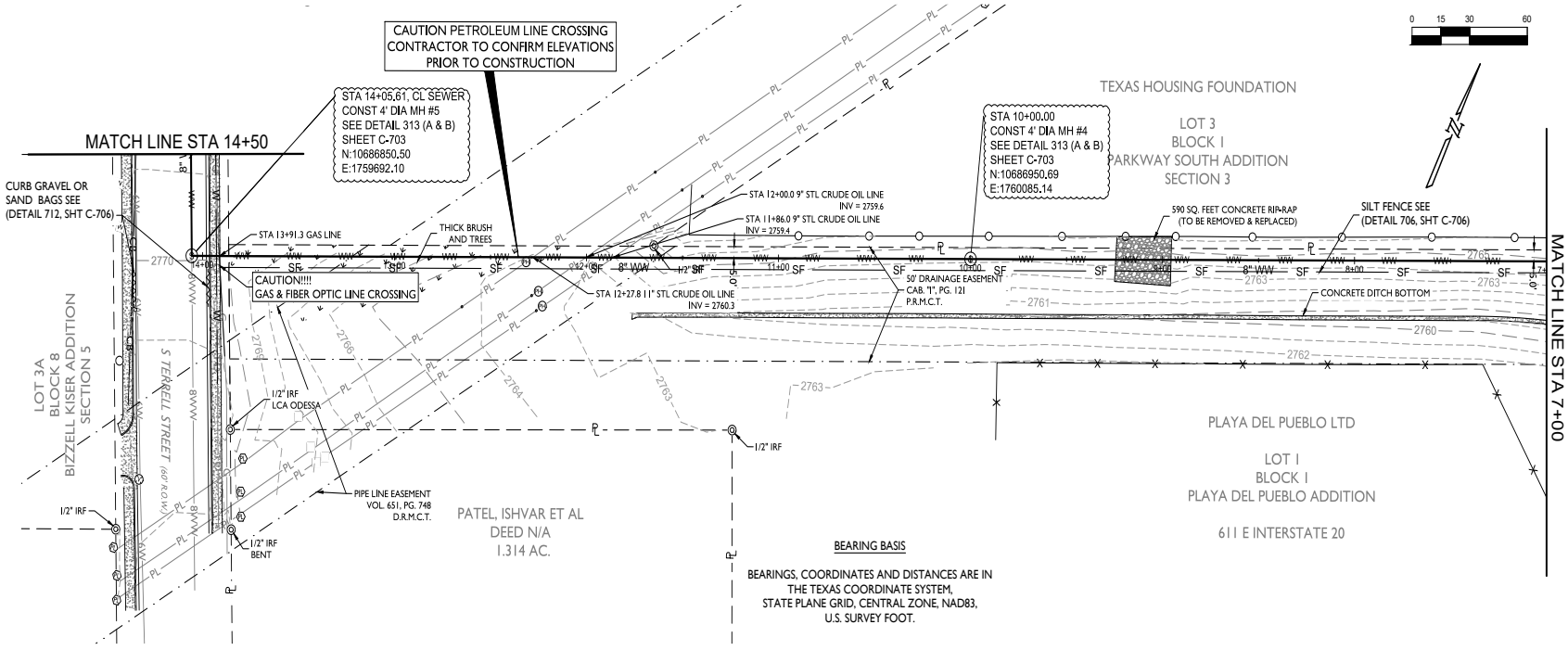
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

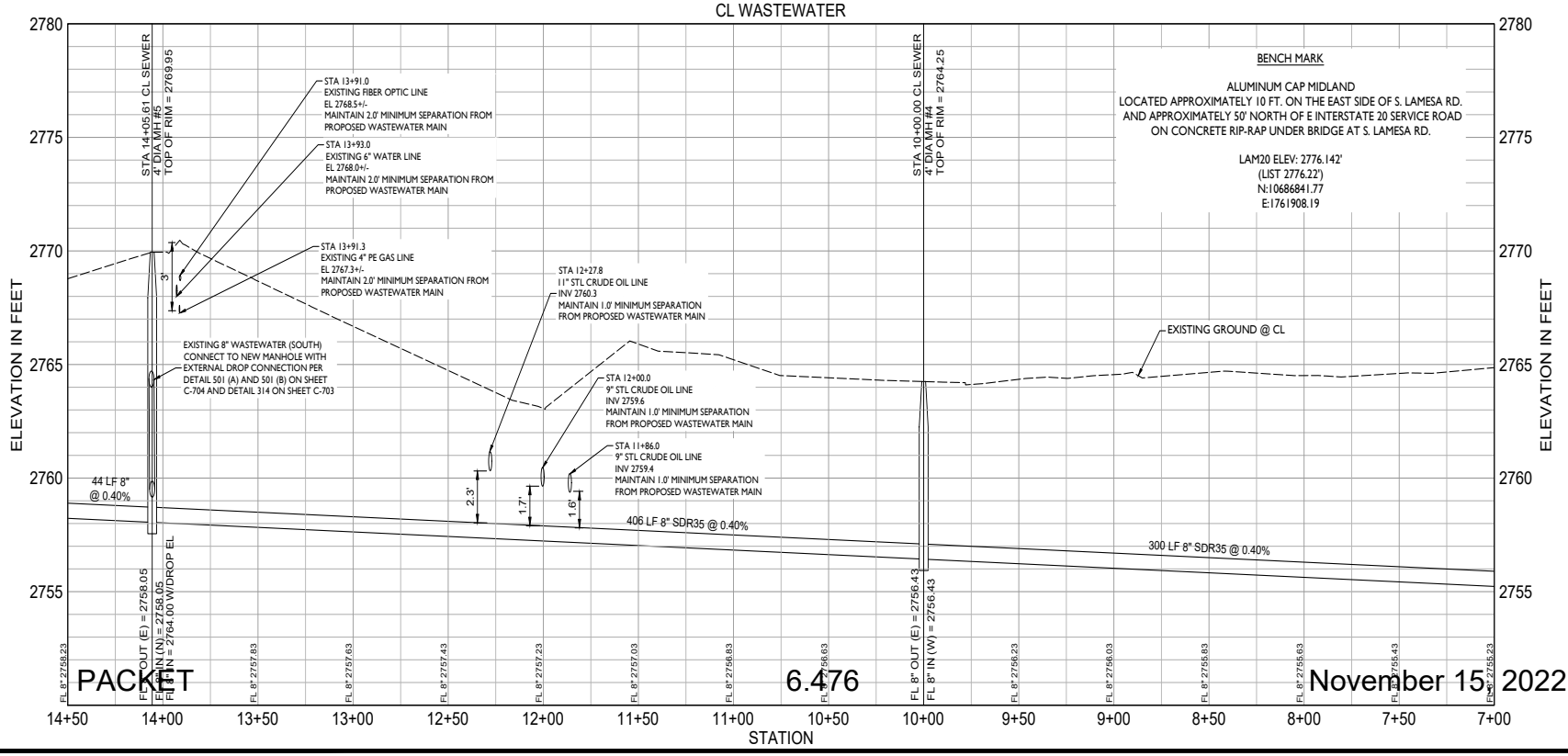
PLAN & PROFILE STA. 0+00 - 7+00

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-602
14 OF 23

\\Jfwfscp01\Projects\Midland\City of Midland\WIP\CIP\D8300_Lift Station Elimination - Sewer Line Install\ENGINEERING\CAD\Sheets\210085 C-602.dwg, 7/18/2022 4:55 PM, Tunnell, Rob





PACKET 6.476 November 15, 2022

SCALE: AS NOTED	
DESIGND BY: TUNNELL	
DRAWN BY: TUNNELL	
REVIEWED BY: MINER	
CHECKED BY: PANDEY	
PROFESSIONAL SERVICES AGREEMENT No.: 210022206	
DATE: JULY, 2022	

MARK	DESCRIPTION	DATE	APPD

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNER'S REPRESENTATIVE AND ENGINEER OF RECORD AND HEREINAFTER REFERRED TO AS JACOBS

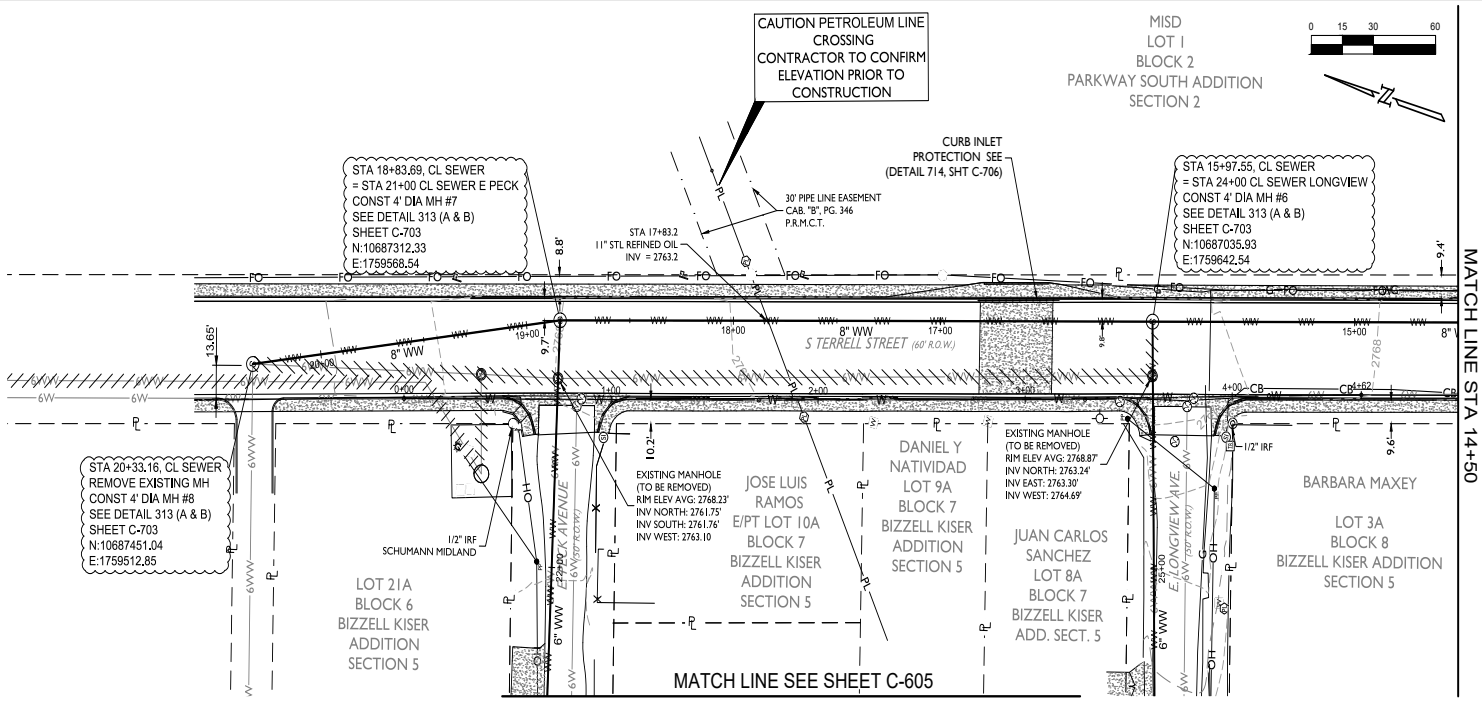
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

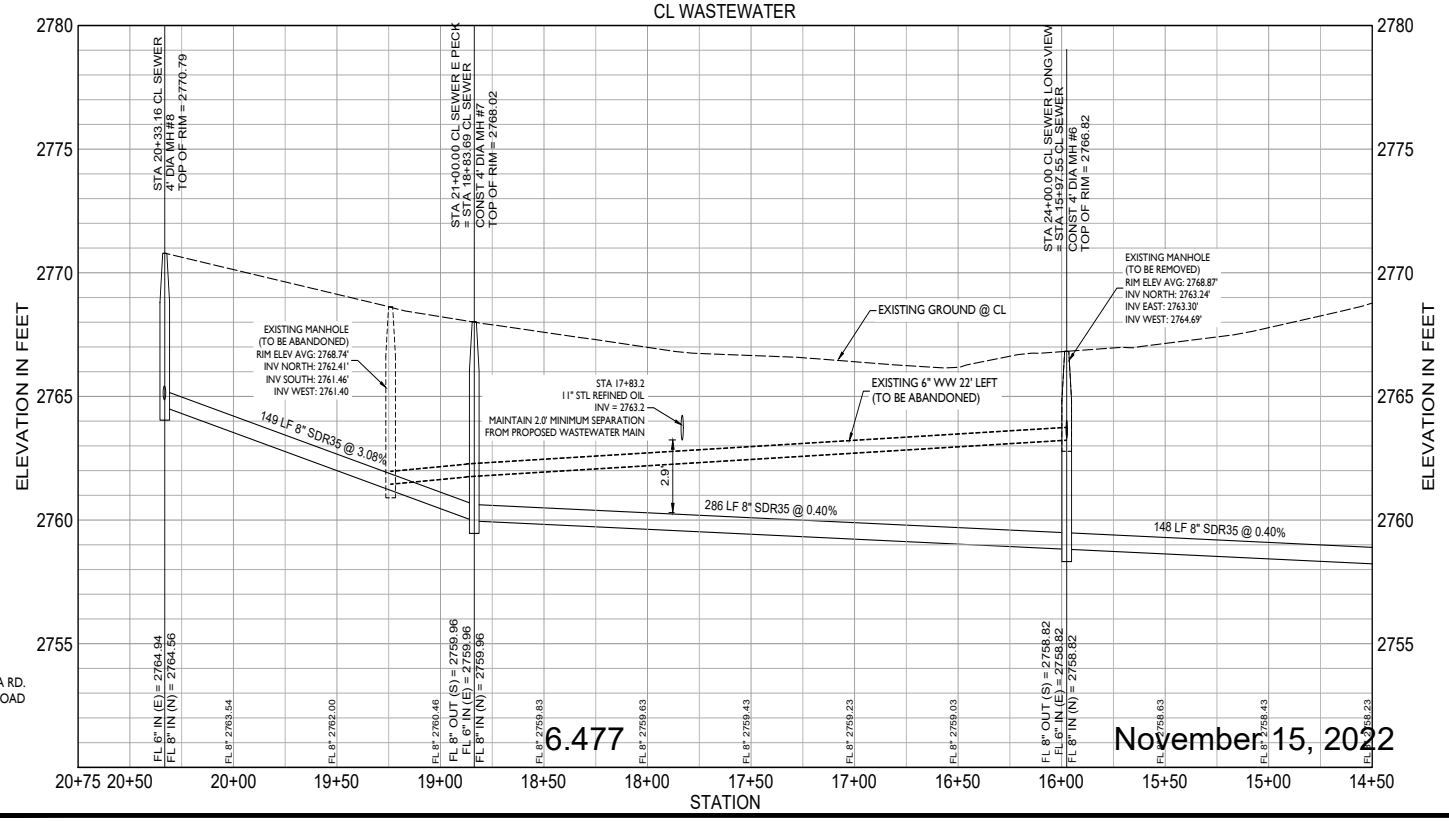
PLAN & PROFILE STA. 7+00 - 14+50

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-603
15 OF 23

\\dfwfpp01\Proj\Midland.City\WFX\03\00_Lift Station Elimination-Sewer Line Install\02E.SIGNA\CAD\Sheets\210065 C-603.dwg, 7/18/2022 4:56 PM, Tunnell, Rob





BENCH MARK

ALUMINUM CAP MIDLAND
LOCATED APPROXIMATELY 10 FT. ON THE EAST SIDE OF S. LAMESA RD. AND APPROXIMATELY 50' NORTH OF E INTERSTATE 20 SERVICE ROAD ON CONCRETE RIP-RAP UNDER BRIDGE AT S. LAMESA RD.

LAMESA VERT. DATUM
(LIST 2776.22')
N:10686841.77
E:1761908.19

PACKET 6.477 November 15, 2022

MARK	DESCRIPTION	DATE	APP'D
	PROFESSIONAL SERVICES AGREEMENT No. 21002206	DATE: JULY, 2022	
	CHECKED BY: PANDEY		
	REVIEWED BY: MINER		
	DRAWN BY: TUNNELL		
	DESIGNED BY: TUNNELL		
	SCALE: AS NOTED		

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HARD COPY AND/OR ELECTRONIC FORMAT. JACOBS IS WILLING TO PROVIDE ELECTRONIC FILES TO OWNER OR OWNER'S DESIGNEE IF AGREED TO BY JACOBS IN A HEREINAFTER REFERRED TO AS JACOBS

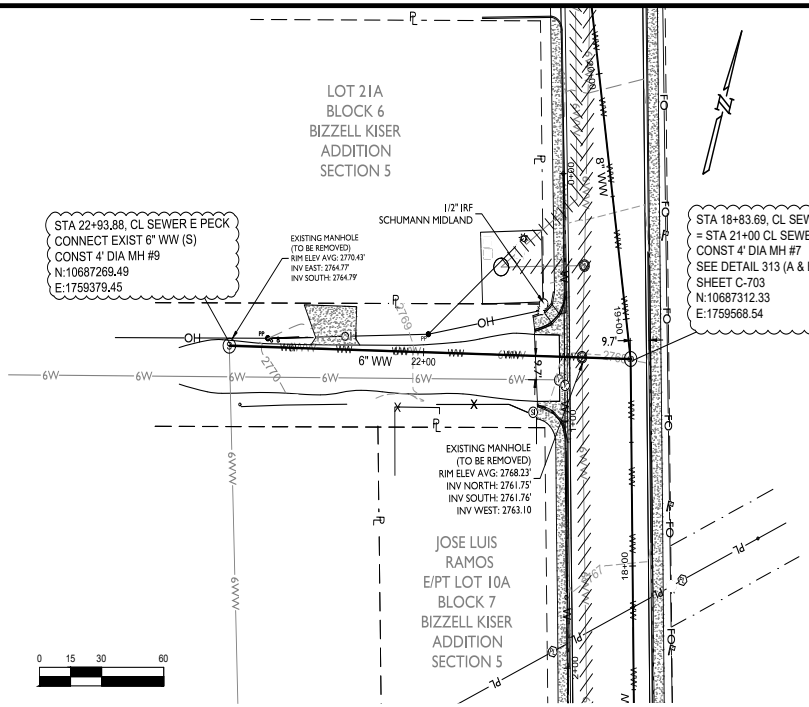
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

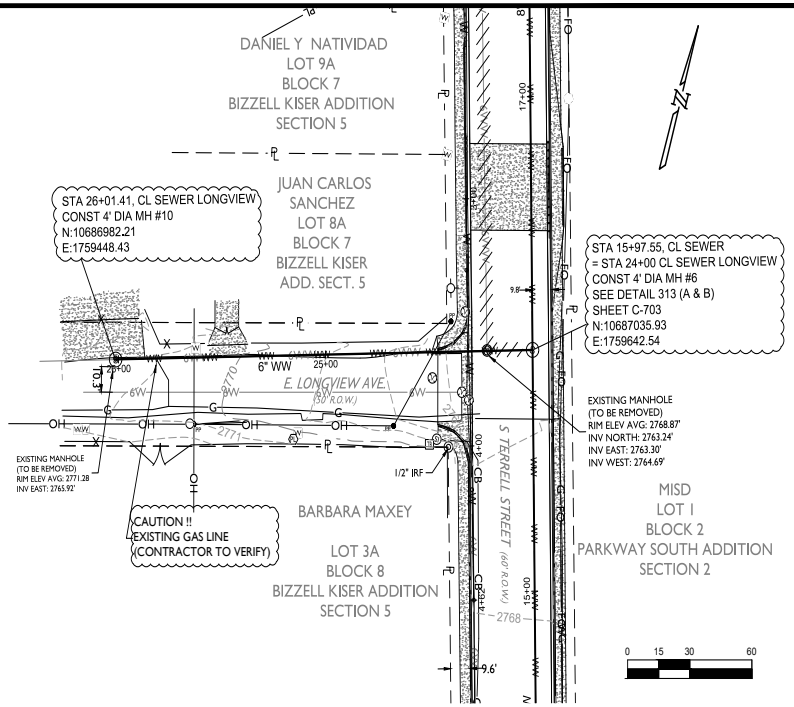
PLAN & PROFILE STA. 14+50 - END

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-604
16 OF 23

\\Jfwfsp01\Projects\Midland\Civil\MWFXD\8300_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-604.dwg, 7/18/2022 4:56 PM, Tunnell, Rob





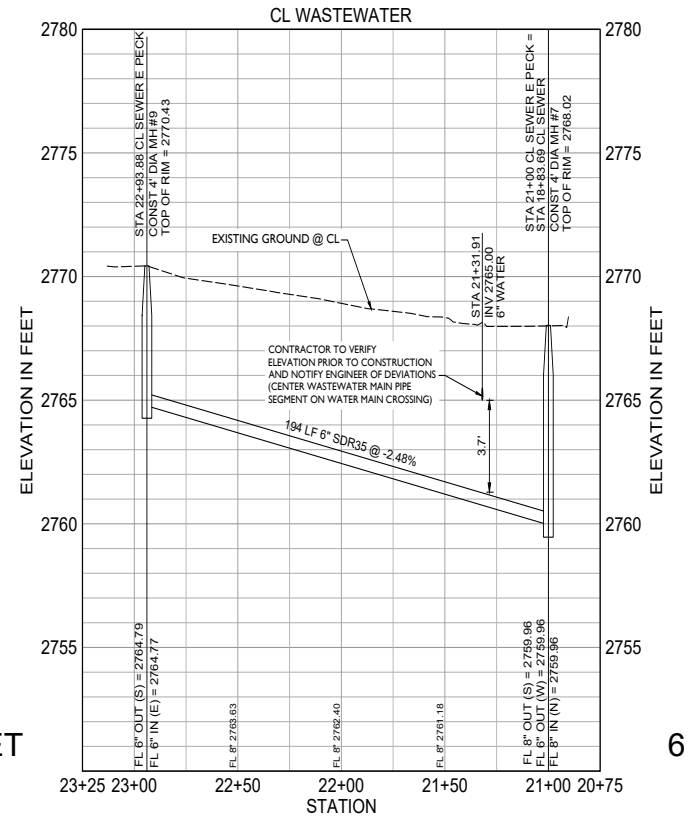
BENCH MARK

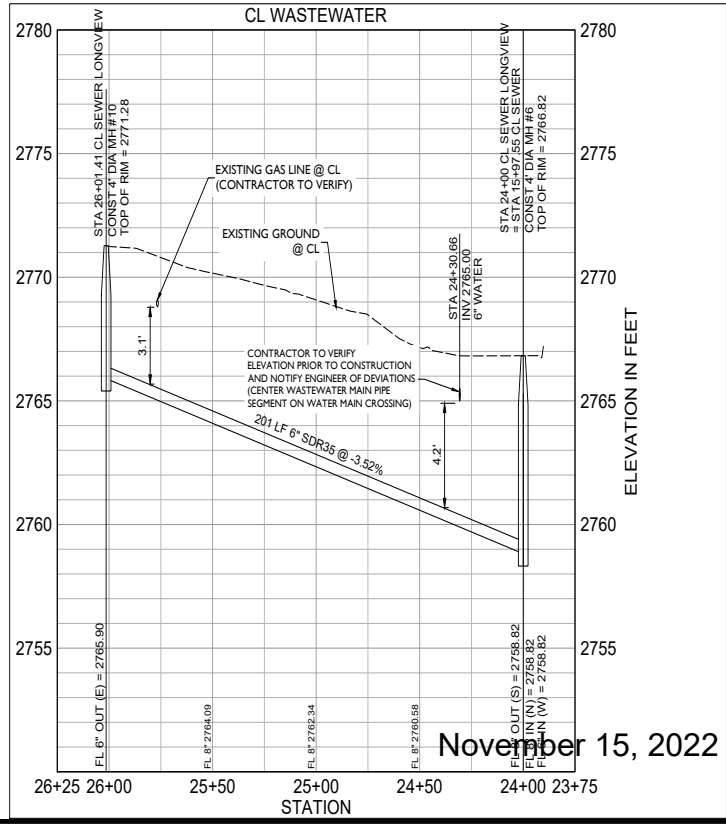
ALUMINUM CAP MIDLAND
LOCATED APPROXIMATELY 10 FT. ON
THE EAST SIDE OF S. LAMESA RD.
AND APPROXIMATELY 50' NORTH OF
E INTERSTATE 20 SERVICE ROAD
ON CONCRETE RIP-RAP UNDER
BRIDGE AT S. LAMESA RD.

LAM20 ELEV: 2776.142'
(LIST 2776.22')
N:10686841.77
E:1761908.19

BEARING BASIS

BEARINGS, COORDINATES AND DISTANCES
ARE IN THE TEXAS COORDINATE SYSTEM,
STATE PLANE GRID, CENTRAL ZONE, NAD83,
U.S. SURVEY FOOT.





SCALE: AS NOTED
DESIGEND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No. 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APPR

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966
THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED ON THE UNDERSTANDING THAT JACOBS IS WHOLLY OWNED BY JACOBS ENGINEERING GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

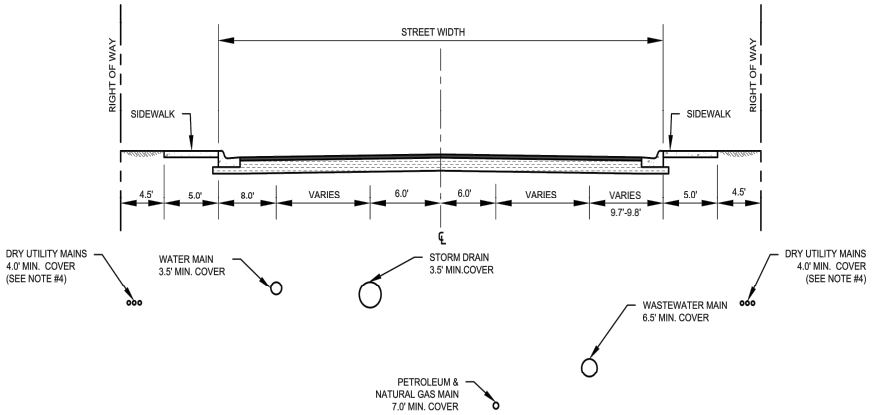
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

PLAN & PROFILE E PECK &
LONGVIEW EXTENSION

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-605
17 OF 23

\\Jfwfsp01\Projects\Midland,City of\WFX\D8300_Lift Station Elimination -Sewer Line Inst\#DESIGN\ACAD\Sheets\210085 C-605.dwg, 7/18/2022 4:57 PM, Tunnell, Rob



NOTES:

1. IF A SITE INCLUDES ALLEYS, OR IS ADJACENT TO EXISTING ALLEYS, THEN THE WASTEWATER MAIN IS TO BE LOCATED IN THE ALLEY AND NOT THE STREET RIGHT OF WAY.
2. ALL COVERS ARE FROM THE GUTTER FLOWLINE TO THE TOP OF PIPE.
3. ADDITIONAL UTILITY DEPTH MAY BE REQUIRED TO ACCOMMODATE LATERALS.
4. DRY UTILITY MAINS MUST MAINTAIN 7.0' MINIMUM COVER WHEN CROSSING RIGHT OF WAY. DRY UTILITY SERVICE LATERALS MUST MAINTAIN 2.0' MINIMUM COVER IN THE RIGHT OF WAY.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

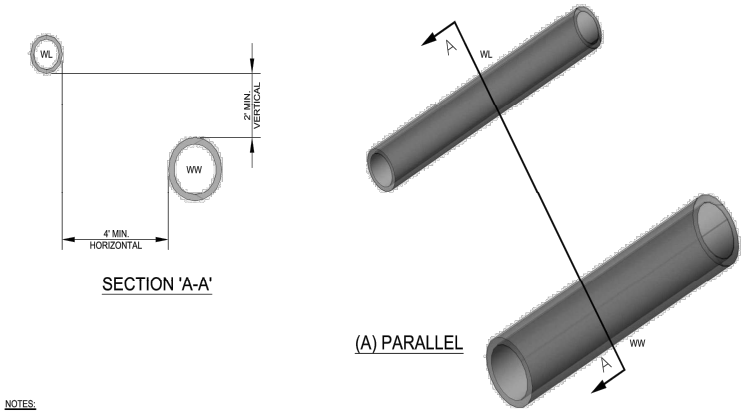
MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:

LOCAL STREET UTILITY MAIN SPACING

304



NOTES:

1. SEE CITY DETAIL 807 FOR NEW PETROLEUM OR NATURAL GAS LINE REQUIREMENTS WHEN IN PARALLEL WITH A WATER MAIN. REQUIREMENTS FOR WATER MAINS IN PARALLEL WITH PETROLEUM OR NATURAL GAS LINES ARE THE SAME AS WHEN THEY ARE PARALLEL WITH WASTEWATER MAINS UNLESS STATED OTHERWISE IN CITY DETAIL 807.
2. IF AN EXISTING PETROLEUM OR NATURAL GAS LINE PREDATES A PUBLIC ROW OR EASEMENT THAT THE WATER MAIN IS LOCATED IN THEN THE WATER MAIN DESIGN AND CONSTRUCTION MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS AS PER THE PETROLEUM OR NATURAL GAS LINE OWNER'S STANDARDS.
3. WASTEWATER MAINS AND MANHOLES MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
4. WHERE WATER MAINS ARE LOCATED IN PARALLEL WITH NEW WASTEWATER MAINS, WASTEWATER MAINS MUST BE CONSTRUCTED AT LEAST 150 PSI PRESSURE CLASS, CORROSION RESISTANT, NON-BRITTLE PIPE SUCH AS CIP, DIP, OR PVC PIPE THAT IS DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE. EXISTING WASTEWATER MAINS IN PARALLEL THAT ARE LEAKING OR ARE DISTURBED AND THEN BEGIN TO LEAK MUST BE REPLACED WITH 150 PSI PRESSURE-RATED PIPE.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

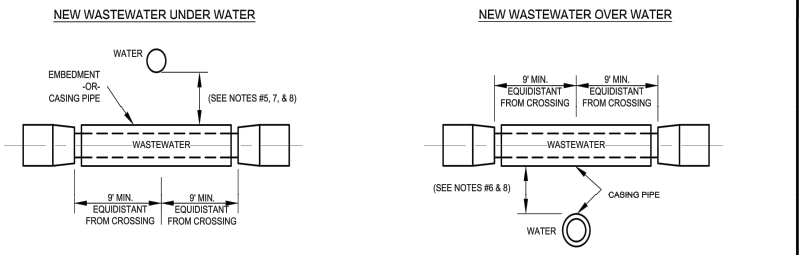
MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:

PARALLEL WATER & WASTEWATER SPACING

306



NOTES:

1. SEE CITY DETAIL 307 FOR NEW WATER MAIN REQUIREMENTS AT WASTEWATER MAIN CROSSINGS.
2. WASTEWATER MAINS AND MANHOLES MUST BE LOCATED AT LEAST 9.0' FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER TAC TO JUSTIFY WHY, AND THE REQUIREMENTS OF THIS DETAIL WILL APPLY.
3. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.53(d) AND TAC 290.44(e). IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
4. CENTER NEW WASTEWATER MAIN PIPE SEGMENT ON CROSSING SO THAT ALL PIPE SEGMENT JOINTS ARE EQUIDISTANT AND AT LEAST 9.0' HORIZONTALLY FROM THE CENTERLINE OF THE CROSSING. WASTEWATER MAIN IS TO CROSS WATER MAIN AT 90° ANGLE.
5. NEW WASTEWATER MAIN CROSSING BENEATH NEW OR EXISTING WATER MUST COMPLY WITH ONE OF THE FOLLOWING:
   A. WASTEWATER MAIN PIPE TO BE PRESSURE RATED SDR-26 D2241 PIPE OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG CEMENT STABILIZED SAND ENCASEMENT (2.5 SACKS/CUBIC YARD) CENTERED ON THE CROSSING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 2.0'.
   B. WASTEWATER MAIN PIPE TO BE HEAVY-WALL GRAVITY PIPE SDR-26 D3034 OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 0.5'.
6. NEW WASTEWATER MAIN CROSSING OVER NEW OR EXISTING WATER MAIN TO BE PRESSURE RATED SDR-26 D2241 PIPE OR APPROVED EQUAL FROM MANHOLE TO MANHOLE WITH MINIMUM 18.0' LONG PIPE ENCASEMENT CENTERED ON THE CROSSING. SEE CITY DETAIL 805 FOR PIPE CASING. VERTICAL SEPARATION FROM OUTER EDGE OF WATER MAIN TO BE NO LESS THAN 2.0'.
7. NEW WATER MAINS CROSSING OVER EXISTING WASTEWATER MAINS ARE COVERED IN CITY DETAIL 307.
8. VERTICAL SEPARATION DIMENSIONS TO BE MEASURED FROM OUTER EDGE OF ALL PIPE ENCASEMENTS.
9. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

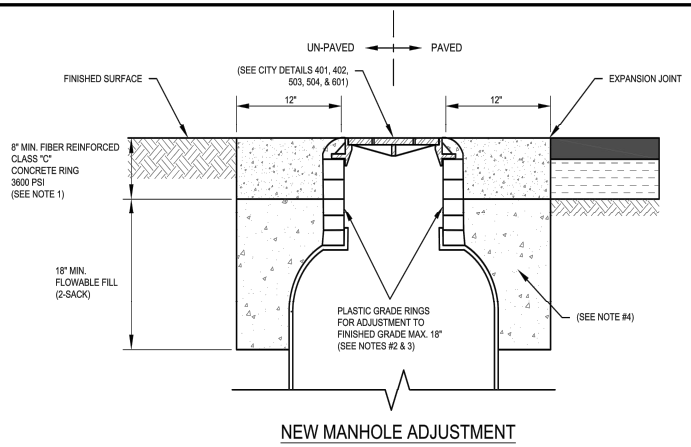
MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:

NEW WASTEWATER MAIN CROSSING WATER MAIN

309



NEW MANHOLE ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING,3600 PSI, WHEN MANHOLE IS LOCATED IN AN ARTERIAL R.O.W.
2. GRADE RINGS TO MEET ASTM STANDARD A48 AND TO BE 2", 4", OR 6" THICKNESS AS REQUIRED. INSTALL ASPHALT TAR IN THICK, UNIFORM COATING OVER ALL OUTER ADJUSTMENT RING SURFACES AND JOINTS.
3. ENGINEERING SERVICES REPRESENTATIVE AND UTILITY SERVICES REPRESENTATIVE MAY ALLOW GREATER ADJUSTMENT RING DEPTH TO ACCOMMODATE PAVING STRUCTURES.
4. REMOVE ALL MATERIAL EXCAVATED FROM SITE AND EXCAVATION, AND FILL TO FINISHED BASE ELEVATION WITH FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT).
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL:

NEW MANHOLE ADJUSTMENT

316

SCALE: AS NOTED
DESIGNED BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No.: 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APP'D

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TX 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED ON THE UNDERSTANDING THAT JACOBS IS WHOLLY OWNED BY JACOBS SOLUTIONS INC. AND NOT A MEMBER OF THE JACOBS GROUP. INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

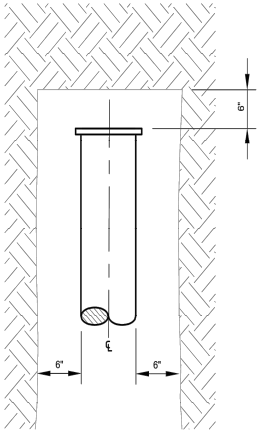
DETAIL - 1

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-701
18 OF 23

PACKET 6.479 November 15, 2022

\\Jfwfsp01\Projects\Midland,City of\WFXC\B3100_Lift Station Elimination - Sewer Line Inst\#DESIGN\ACAD\Sheets\210065 C-ST701.dwg, 7/19/2022 4:58 PM, Tunnell, Rob



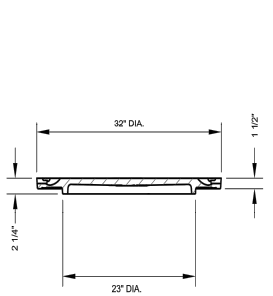
PLUG BLOCKING

NOTES:

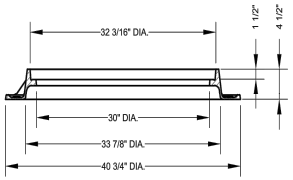
1. PLUG ALL WASTEWATER MAIN AND STORM DRAIN STUB OUTS. SECURE PLASTIC PLUG TO END OF STORM DRAIN.
2. FITTINGS TO BE POLY WRAPPED BEFORE BACKFILLING.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 315

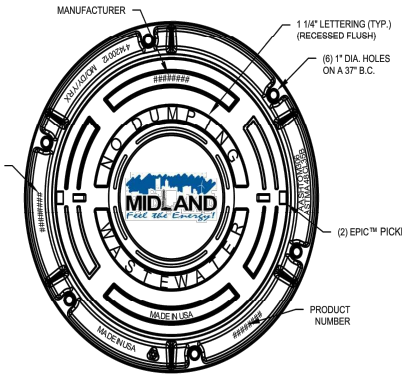
GRAVITY MAIN PLUG

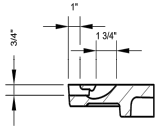


COVER SECTION



FRAME SECTION





PICKHOLE DETAIL

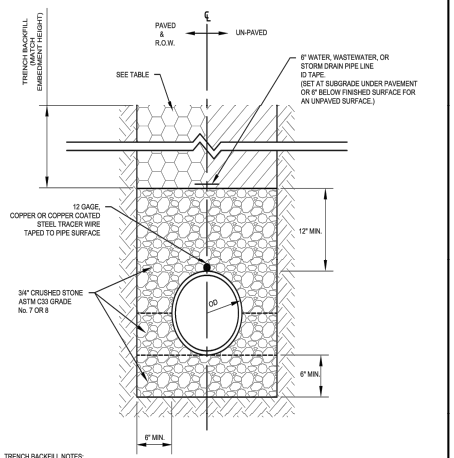
NOTES:

1. MANHOLE COVERS TO BE CAST WITH THE FOLLOWING:
   "NO DUMPING"
   CITY OF MIDLAND LOGO
   "WASTEWATER"

   EAST JORDAN V1420Z1/V1430A ASSEMBLY OR APPROVED EQUAL
2. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 503

TYPICAL WASTEWATER MANHOLE COVER

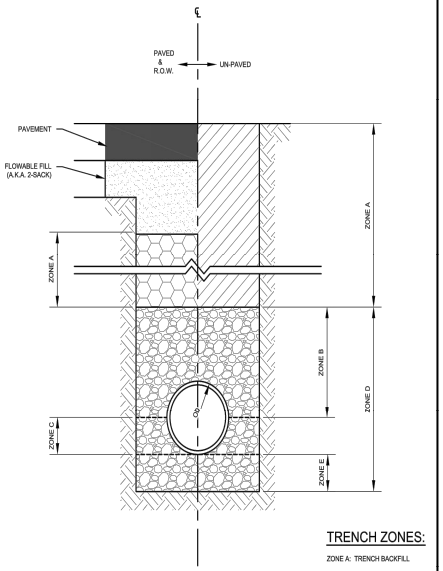


TRENCH BACKFILL NOTES:

1. APPLIES TO ALL PIPE TYPES. (DUCTILE IRON, PVC, ETC.)
2. UTILIZE SELECT FILL BACKFILL BENEATH ALL PAVED SURFACES. NATIVE MATERIAL BACKFILL CAN ONLY BE USER FOR UNPAVED TRENCH CONDITIONS IF BACKFILL MATERIAL IS ≤ 30LL AND ≤ 15 PI.
3. NATIVE MATERIAL TO BE EXISTING EXCAVATED SOIL FROM TRENCH WITH ALL MATERIAL BROKEN DOWN ≤ 2".
4. MOISTURE CONDITION ALL BACKFILL MATERIAL PRIOR TO PLACING IN TRENCH.
5. PLACE TRENCH BACKFILL MATERIAL IN MAXIMUM 12" LOOSE LIFTS AND COMPACT TO MAXIMUM 8" COMPACTED LIFTS.
6. REFER TO CITY DETAILS 311 AND 312 FOR TRENCH PAVEMENT REPLACEMENT REQUIREMENTS.
7. PLACE LAYERS B, C, AND E FOUND ON CITY DETAIL 310(B) AS SEPARATE LAYERS.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 310(A)

TRENCHING AND BEDDING

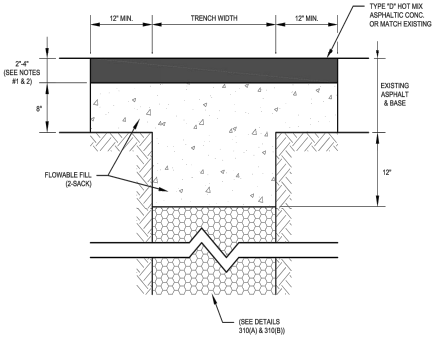


TRENCH ZONES:

ZONE A: TRENCH BACKFILL
ZONE B: PIPE BACKFILL
ZONE C: HAUNCHING
ZONE D: PIPE EMBEDMENT
ZONE E: BEDDING

DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 310(B)

TRENCHING AND BEDDING



NOTES:

1. ASPHALT PAVEMENT THICKNESS TO BE A MINIMUM OF 2" OR MATCH THE EXISTING ASPHALT THICKNESS IF IT IS GREATER THAN 2" THICK.
2. PLACE ASPHALT PAVEMENT IN MAXIMUM 2" LIFTS, 95% MODIFIED COMPACTION.
3. PLACE ALL FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) AS A SINGLE CONTINUOUS POUR.
4. EXTEND BOTH ASPHALT AND FLOWABLE FILL 12" BEYOND THE EDGE OF THE TRENCH ON BOTH SIDES.
5. SEE DETAILS 310(A) AND 310(B) REGARDING TRENCH BACKFILL REQUIREMENTS BENEATH THE FLOWABLE FILL.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM CHECKED: JCF APPROVED: MCC	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 311

ASPHALT TRENCH PAVEMENT REPLACEMENT

SCALE: AS NOTED
DESIGEND BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY
PROFESSIONAL SERVICES AGREEMENT No. 21002206
DATE: JULY, 2022

MARK	DESCRIPTION	DATE	APP'D

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED ON THE UNDERSTANDING THAT JACOBS IS WHOLLY OWNED BY JACOBS SOLUTIONS GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

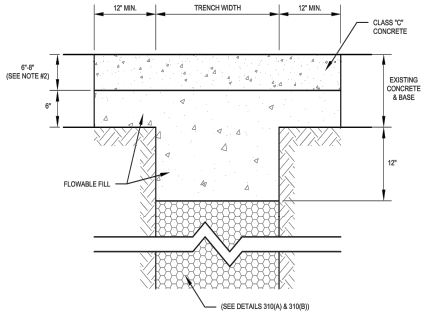
DETAIL - 2

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-702
19 OF 23

PACKET 6.480 November 15, 2022

\\cfiles01\Projects\Midland,City\of\WFX\D3\100_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210905 C-DT02.dwg, 7/18/2022 4:58 PM, Tunnell, Rob



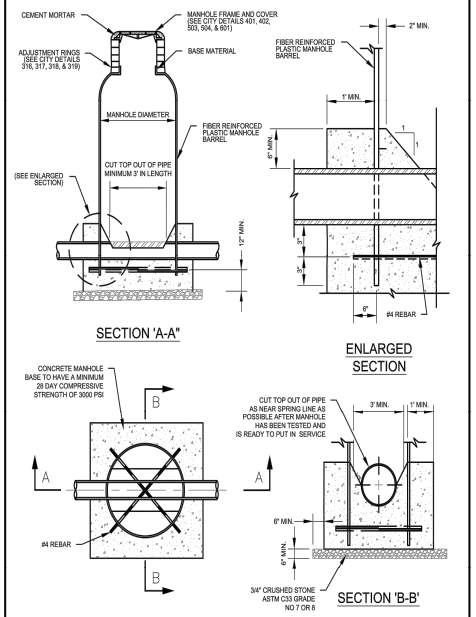
NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C" CONCRETE, 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. CONCRETE PAVEMENT THICKNESS TO BE A MINIMUM OF 9" OR MATCH THE EXISTING CONCRETE THICKNESS IF IT IS GREATER THAN 6" THICK. CONCRETE PAVEMENT THICKNESS TO BE MINIMUM 8" FOR ARTERIAL PAVEMENT.
3. PLACE ALL FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) AS A SINGLE CONTINUOUS POUR.
4. EXTEND BOTH CONCRETE AND FLOWABLE FILL 12" BEYOND THE EDGE OF THE TRENCH ON BOTH SIDES.
5. SEE DETAILS 310(A) AND 310(B) REGARDING TRENCH BACKFILL REQUIREMENTS BENEATH THE FLOWABLE FILL.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:	

MIDLAND Engineering Services

CONCRETE TRENCH PAVEMENT REPLACEMENT — 312



DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:	

MIDLAND Engineering Services

TYPICAL FIBERGLASS MANHOLE — 313(A)

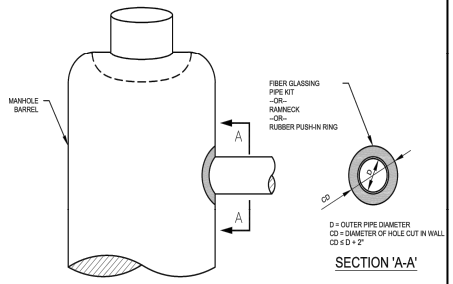
NOTES:

1. 48" DIAMETER MANHOLES TO BE USED FOR PIPE DIAMETERS OF 24" OR SMALLER ONLY.
2. INSTALL DROPS AND INTERSECTING PIPES ONLY WHEN CALLED FOR IN CONSTRUCTION DRAWINGS.
3. SET MANHOLE FRAME IN SEALANT PER CITY OF MIDLAND STANDARD SPECIFICATIONS.
4. NEW MANHOLE TO HAVE SEAMLESS AND CONTINUOUS NECK, SHOULDER, AND BARREL.
5. ALL CONCRETE TO BE CLASS "A" CONCRETE.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:	

MIDLAND Engineering Services

TYPICAL FIBERGLASS MANHOLE — 313(B)



SECTION 'A-A'

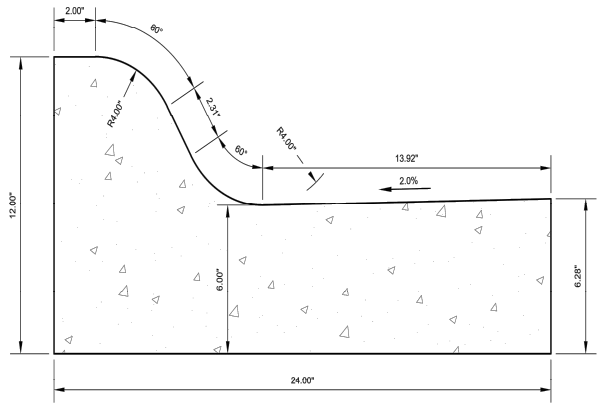
NOTES:

1. THE DIAMETER OF THE CUTOUT IN THE MANHOLE BARREL IS TO BE NO MORE THAN 2.0" WIDER THAN THE OUTER WALL DIAMETER OF THE PENETRATING PIPE.
2. THE PENETRATING PIPE IS TO BE CENTERED IN THE MANHOLE BARREL CUTOUT.
3. PIPES PENETRATING MANHOLE MUST BE MINIMUM 6" DIAMETER, AND SERVICE LINES MUST BE CONSTRUCTED TO CITY WASTEWATER MAIN OR STORM DRAIN STANDARDS WITHIN PUBLIC RIGHT OF WAY OR EASEMENT.
4. FORM FLOW SURFACE AND MOUND CONCRETE AROUND PIPE PENETRATIONS, TO FORM A SEAL, IN ONE CONTINUOUS PLACEMENT OPERATION.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL:	

MIDLAND Engineering Services

TYPICAL FIBERGLASS MANHOLE PIPE PENETRATION — 314



NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SEAL CONCRETE JOINT AT FACE OF CURB WHEN ADJACENT TO CONCRETE PAVEMENT AND NOT INTEGRAL WITH THAT PAVEMENT.
3. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
4. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF			
APPROVED: MCC			

MIDLAND Engineering Services

TYPE A STANDARD CURB AND GUTTER — 205

PACKET 6.481 November 15, 2022

MARK	DESCRIPTION	DATE	APP'D
	PROFESSIONAL SERVICES AGREEMENT No. 21002206	DATE: JULY, 2022	

SCALE: AS NOTED
DESIGNED BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201-3136
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY A PRIVATE EQUITY CONSORTIUM. JACOBS IS A SEPARATE LEGAL ENTITY AND HEREINAFTER REFERRED TO AS JACOBS

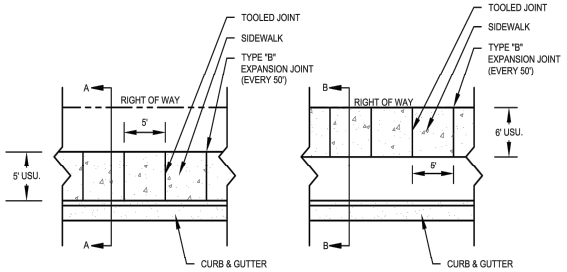
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

DETAIL - 3

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

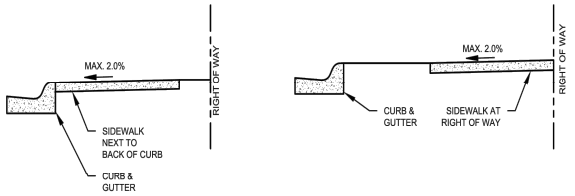
SHEET REF. NO.
C-703
20 OF 23

\\cfwfpo01\Projects\Midland\City of MF\CIP\2020\100_Lift Station Elimination - Sewer Line Inst\#DESIGN\CAD\Sheets\210905 C-[DT03.dwg, 7/19/2022 4:58 PM, Tunnell, Rob



ATTACHED SIDEWALK PLACEMENT

DETACHED SIDEWALK PLACEMENT



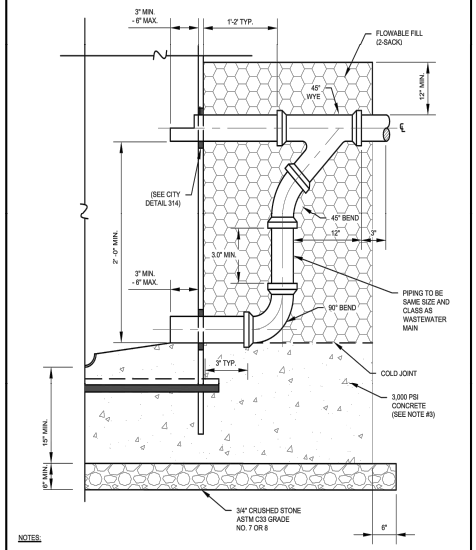
SECTION A - A

SECTION B - B

NOTES:

1. CONCRETE TO BE CITY OF MIDLAND CLASS "A" AND HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. SIDEWALK TO BE A MINIMUM OF 5' WIDE AND 4" THICK.
3. SIDEWALKS TO HAVE TYPE A SAWCUT JOINTS OR TOOLED JOINTS EVERY 5'.
4. TYPE "B" EXPANSION JOINTS TO BE LOCATED AT ALL PEDESTRIAN ACCESS RAMPS AND WHEREVER NEW SIDEWALK IS PLACED ADJACENT TO EXISTING CONCRETE.
5. ATTACHED SIDEWALK WILL BE LOCATED ADJACENT TO THE BACK OF CURB.
6. DETACHED SIDEWALK WILL BE LOCATED ADJACENT TO THE RIGHT-OF-WAY.
7. SIDEWALK CROSS-SLOPE MAY NOT EXCEED 2.0%.
8. ALL EXPOSED SIDEWALK EDGES TO HAVE A 1/2" RADIUS.
9. WHERE OBSTRUCTION IN SIDEWALK EXIST, THERE SHALL BE A 3' MINIMUM CLEARANCE. SIDEWALK LOCATION MAY BE SHIFTED WITH THE APPROVAL OF THE CITY ENGINEER.
10. ALL SIDEWALKS WITH A CONCRETE SURFACE SHALL HAVE A COURSE BROOM FINISH OR OTHER ROUGH NON-SKID TYPE FINISH AS APPROVED BY THE CITY ENGINEER.
11. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
12. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.
13. SIDEWALKS IN DOWNTOWN PER CENTRAL BUSINESS DISTRICT POLICY.

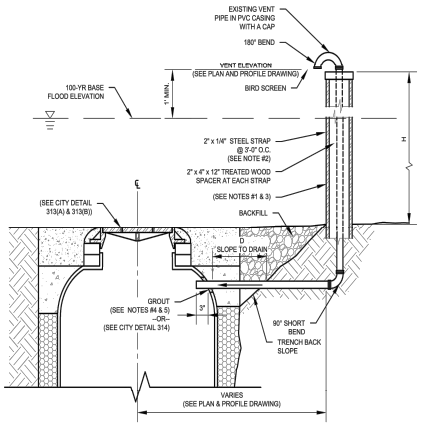
DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	STANDARD SIDEWALK		225
APPROVED: MCC			



NOTES:

1. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
2. INSTALL BEND AND WYE AS NEAR TO MANHOLE WALL AS PRACTICAL, USUALLY 3'-4" FROM THE BEND AT THE BOTTOM.
3. ALL CONCRETE TO BE CLASS "A" CONCRETE.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
EXTERNAL DROP STRUCTURE		501

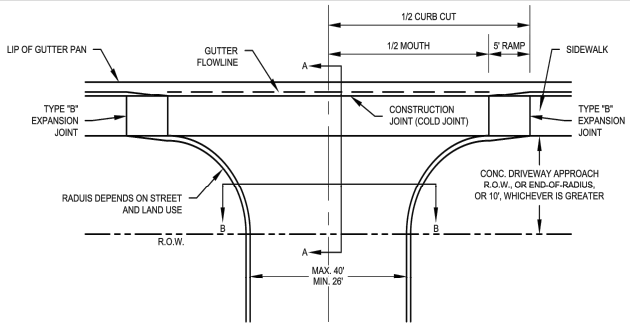


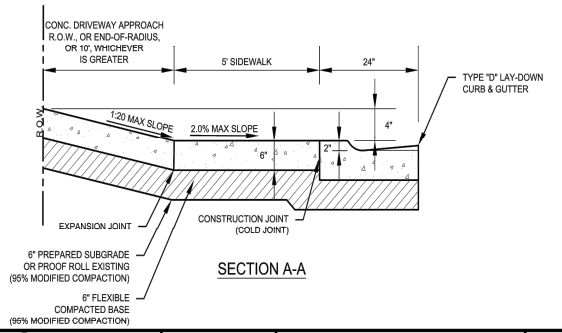
REMOTE VENT PIPE

NOTES:

1. ALL PIPING TO BE 3" DIA. DUCTILE IRON WITH FLANGED JOINTS COATED INSIDE AND OUTSIDE.
2. PAINT ALL STRAPPING WITH 2 COATS OF ALL WEATHER EPOXY.
3. PAINT ALL EXPOSED PIPING WITH 2 COATS OF ALL WEATHER EPOXY.
4. APPROVED WATER TIGHT MANHOLE CONNECTOR INSTALLED PER SPECIFICATION AND/OR MANUFACTURER'S INSTRUCTIONS.
5. GROUT TO BE APPROVED NON-SHRINK TYPE.
6. MANHOLE VENT TO BE USED IN CONJUNCTION WITH WATER TIGHT MANHOLE RINGS AND COVERS SPACED EVERY THIRD MANHOLE OR AS SHOWN ON THE PLANS.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

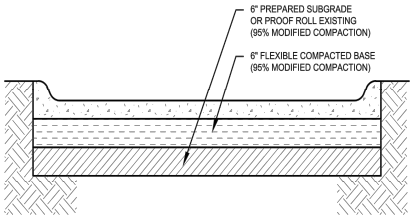
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
REMOTE VENT PIPE		505





SECTION A-A

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	MULTI-FAMILY & COMMERCIAL DRIVEWAY		221(A)
APPROVED: MCC			



SECTION B-B

NOTES:

1. REMOVE AND REPLACE EXISTING CURB AND GUTTER TO NEAREST JOINT IF LESS THAN 4' SECTION OF EXISTING CURB AND GUTTER REMAINS AFTER DRIVEWAY APPROACH PLACED.
2. LANDING MAY BE CLOSER THAN 5' FROM PROPERTY LINE WITH ADJOINING PROPERTY OWNER'S CONSENT. CONSENT FORMS ARE AVAILABLE IN ENGINEERING SERVICES. APPROVAL FROM ADJOINING PROPERTY OWNER DOES NOT GUARANTEE ENGINEERING SERVICES APPROVAL.
3. THIS DETAIL ONLY APPLIES WHEN ADJACENT PROPERTY IS NOT AN ALLEY. A MINIMUM 10' IS REQUIRED BETWEEN DRIVEWAY CURB OPENING AND ALLEY PAVING.
4. MATCH GUTTER/ FLOWLINE ELEVATION ON EACH END OF DRIVEWAY APPROACH. WATER MUST FLOW IN GUTTER ACROSS THE DRIVEWAY APPROACH.
5. THE CITY ENGINEER OR TRAFFIC ENGINEER MAY APPROVE WIDER OPENINGS FOR COMMERCIAL DRIVES TO ACCOMMODATE DIVIDED ENTRY/EXIT AND ANGLED DRIVES OR HIGH VOLUME, HIGH SPEED STREETS.
6. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
7. CONTRACTOR, AT THEIR OPTION, MAY ELECT TO PLACE 8" CONCRETE PAVEMENT WITHOUT FLEXIBLE COMPACTED BASE RATHER THAN 6" CONCRETE PAVEMENT WITH COMPACTED FLEXIBLE BASE.
8. OVER-EXCAVATION BELOW THE GRADE REQUIRED TO BE CORRECTED BY PLACING EXTRA CONCRETE AT THE TIME THE DRIVEWAY IS PLACED OR BY PLACING ADDITIONAL CITY STANDARD FLEXIBLE COMPACTED BASE.
9. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
10. SIDEWALKS AND RAMPS TO HAVE COURSE BROOM FINISH.
11. SEAL ALL CONCRETE JOINTS.
12. MATERIAL AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
13. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	MULTI-FAMILY & COMMERCIAL DRIVEWAY		221(B)
APPROVED: MCC			

SCALE: AS NOTED						
DESIGNED BY: TUNNELL						
DRAWN BY: TUNNELL						
REVIEWED BY: MINER						
CHECKED BY: PANDEY						
PROFESSIONAL SERVICES AGREEMENT No.: 21002206						
DATE: JULY, 2022	MARK	DESCRIPTION	DATE	APP'D		

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST., SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED ON THE UNDERSTANDING THAT JACOBS IS WHOLLY OWNED BY JACOBS ENGINEERING GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

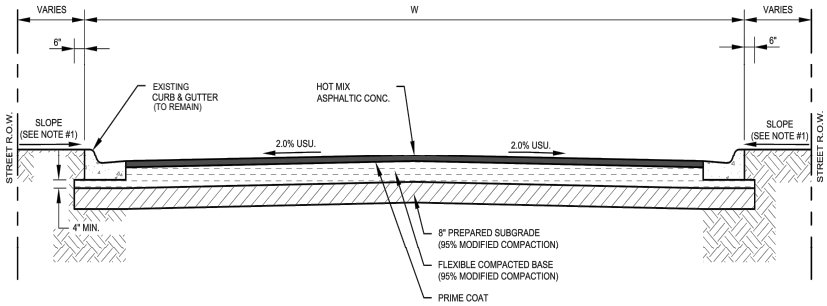
DETAIL - 4

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-704
21 OF 23

PACKET 6.482 November 15, 2022

X:\Active\01\Proj\Midland,City\of\WFX\DB\00_Lift Station Elimination-Sewer Line Inst\#DESIGN\ACAD\Sheets\210905 C-D704.dwg 7/18/2022 4:58 PM, Tunnell, Rob



STREET DIMENSIONS			
W (FT)	ASPHALT THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	ASPHALT TYPE
*37	2D	8	TYPE "D"
*41	2D	8	
47	2D & 2C	8	TYPE "D" OVER TYPE "C"
77	2D & 3C	12	
79	2D & 3C	12	
113	2D & 3C	12	
TABLE THICKNESSES SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS.			
* REGARDLESS OF WIDTH, ROADS CLASSIFIED AS COLLECTOR ROADS MUST HAVE 2" TYPE "D" OVER 2" TYPE "C" ASPHALT WITH 8" BASE AND ROADS CLASSIFIED AS ARTERIAL ROADS MUST HAVE 2" TYPE "D" OVER 3" TYPE "C" ASPHALT WITH 12" BASE.			

NOTES:

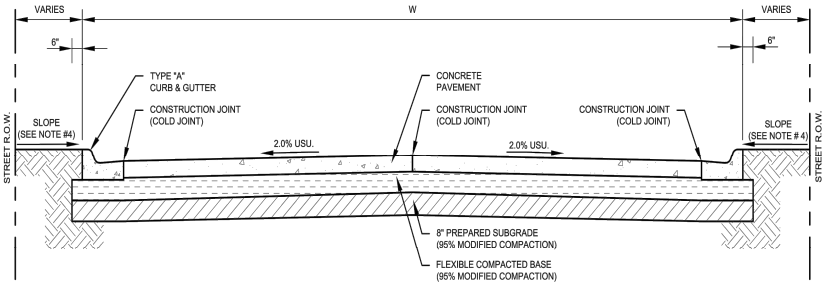
1. THE MAXIMUM SLOPE OF 1/4" / FT TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
2. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
3. WHEN MULTIPLE LAYERS OF ASPHALT ARE PLACED A TACK COAT MUST BE PLACED BETWEEN EACH PAIR OF ASPHALT LAYERS.
4. APPLY TACK COAT TO ALL CONCRETE SURFACES ADJACENT TO ASPHALT SURFACES AND TO ALL EXISTING ASPHALT SURFACES ADJACENT TO NEW ASPHALT SURFACES.
5. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
6. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: | DETAIL: 201

STANDARD STREET CROWN CROSS SECTION



STREET DIMENSIONS			
W (FT)	CONCRETE THICKNESS (IN)	FLEXIBLE COMPACTED BASE THICKNESS (IN)	CONCRETE TYPE
37	6	6	CLASS "C" 3600 PSI
41	7	6	
47	7	8	
77	8	12	
79	8	12	
113	8	12	
TABLE THICKNESSES SHOWN ARE THE MINIMUM UNLESS OTHERWISE DIRECTED BY THE PLANS.			

NOTES:

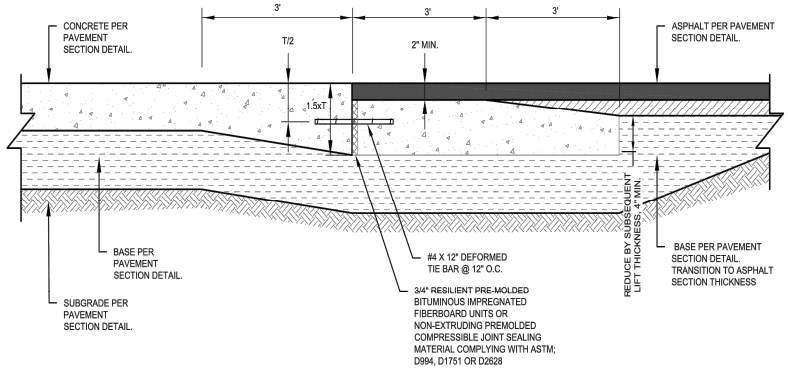
1. CONCRETE TO BE CITY OF MIDLAND CLASS "C", 3600 PSI. USE FIBER REINFORCED CONCRETE PAVEMENT THROUGHOUT.
2. TYPE "A" SAW-CUT JOINTS ARE TO BE LOCATED THROUGHOUT AT EQUIDISTANT SPACING TYPICALLY 10' x 10' OR NO GREATER THAN 15' x 15'. SEAL ALL CONCRETE JOINTS.
3. USE TYPE "B" CURB AND GUTTER WHEN CURB AND PAVEMENT ARE INTEGRAL.
4. THE MAXIMUM SLOPE OF 1/4" / FT TO BE MEASURED FROM THE TOP OF CURB AND TO APPLY TO THE FULL WIDTH OF THE AREA BETWEEN THE BACK OF CURB AND THE R.O.W.
5. FLEXIBLE COMPACTED BASE TO BE PLACED IN LIFTS NO THICKER THAN 6".
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO THE CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: MCC

EFFECTIVE DATE: 10/01/2018 | SCALE: NTS | DETAIL: 202

CONCRETE PAVEMENT STREET CROWN CROSS SECTION



NOTES:

1. CONCRETE MATERIALS AND REINFORCEMENT PER THE PAVEMENT SECTION DETAIL.
2. THE MAXIMUM CONTROL JOINT SPACING SHOULD BE HELD AT A RANGE FROM 24 TO 36 TIMES THE SLAB THICKNESS, WITH A MAXIMUM LENGTH TO WIDTH RATIO OF 1.5.
3. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

MIDLAND Engineering Services

DRAWN: DPM
CHECKED: JCF
APPROVED: JEO

EFFECTIVE DATE: PRELIMINARY | SCALE: NTS | DETAIL: 240

TYPICAL PAVEMENT SLEEPER SLAB TRANSITION

PACKET

6.483

November 15, 2022

	MARK	DESCRIPTION	DATE	APPR
SCALE: AS NOTED				
DESIGNED BY: TUNNELL				
DRAWN BY: TUNNELL				
REVIEWED BY: MINER				
CHECKED BY: PANDEY				
PROFESSIONAL SERVICES AGREEMENT No. 21002206				
DATE: JULY, 2022				

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED WHILE JACOBS IS OWNED BY DOUGHTY HANSON & CO. MANAGERS LLP AND ITS GROUP INC AND HEREINAFTER REFERRED TO AS JACOBS

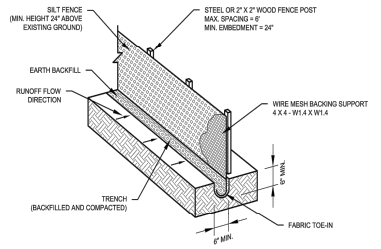
MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION AND NEW SEWER INSTALLATION

DETAIL - 5

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-705
22 OF 23

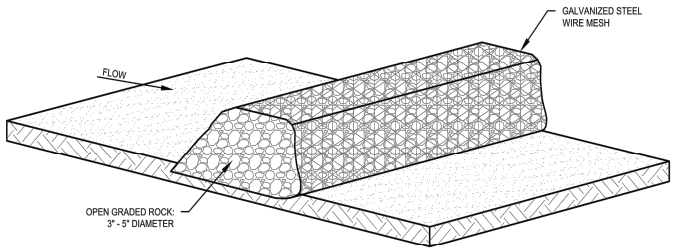
\\cfwfsp01\Proj\Midland\City\of\WFX\DB100_Lift Station Elimination-Sewer Line Inst\#DESIGN\CAD\Sheets\210065 C-DT05.dwg, 7/19/2022 4:58 PM, Tunnell, Rob



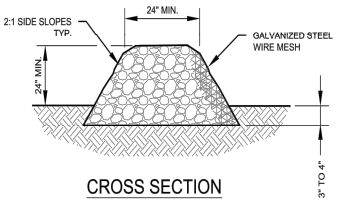
NOTES:

1. THIS DETAIL IS TO BE USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE SILT FENCE FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
2. INSTALL STEEL OR WOOD POSTS, WHICH SUPPORT THE SILT FENCE, WITH A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE (1) FOOT.
3. TRENCH THE TOE OF THE SILT FENCE IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE THE FENCE CANNOT BE TRENCHED IN (E.G.PAVEMENT), WEIGHT DOWN FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
4. THE TRENCH MUST BE A MINIMUM OF SIX (6) INCHES DEEP AND SIX (6) INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
5. SECURELY FASTEN SILT FENCE TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS TO BE ATTACHED TO THE STEEL OR WOOD FENCE POST. INCLUDE A SIX (6) INCH DOUBLE OVERLAP, SECURELY FASTENED, WHERE ENDS OF FABRIC MEET.
6. REMOVE SILT FENCE WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. REMOVE ACCUMULATED SILT WHEN IT REACHES A DEPTH OF SIX (6) INCHES. DISPOSE OF THE SILT ONSITE IN AN APPROVED LOCATION AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 706
	SILT FENCE		



ISOMETRIC VIEW

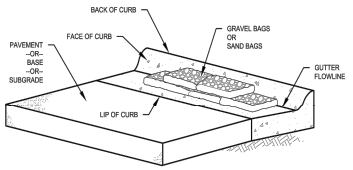


CROSS SECTION

NOTES:

1. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
2. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

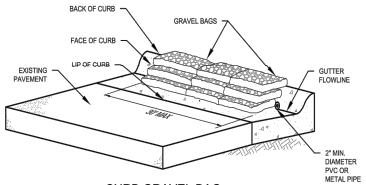
DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 708
	ROCK FILTER DAM		



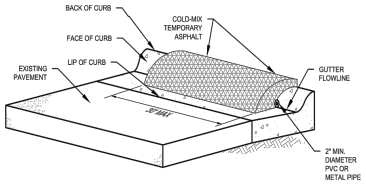
NOTES:

1. FILL BAGS TO 60% CAPACITY WITH EITHER CLEAN GRAVEL OR CLEAN SAND.
2. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
3. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE CURB.
4. PLACE BAGS AGAINST THE FACE-OF-CURB AND DO NOT PLACE BAGS BEYOND THE LIP-OF-CURB.
5. DO NOT BLOCK ADA RAMPS OR WALKWAYS WITH BAGS.
6. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
7. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 712
	CURB GRAVEL OR SAND BAGS		



CURB GRAVEL BAG

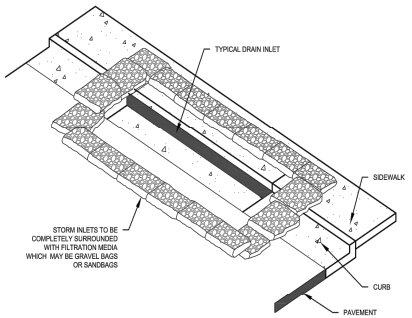


CURB COLD-MIX
TEMPORARY ASPHALT

NOTES:

1. UTILIZE THIS DETAIL WHEN ACCESSING PROJECT SITE OVER EXISTING CURB ONLY IF NO USABLE CURB OPENING EXISTS.
2. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL NO LESS THAN 1" DIAMETER AND NO GREATER THAN 2" DIAMETER.
3. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE CURB.
4. PLACE BAGS AGAINST THE PIPE AND FACE-OF-CURB , DO NOT PLACE BAGS BEYOND THE LIP-OF-CURB.
5. DO NOT BLOCK ADA RAMPS OR WALKWAYS WITH BAGS.
6. DO NOT PLACE TEMPORARY ASPHALT BEYOND LIP-OF-CURB.
7. PIPE MUST EXTEND ACROSS FULL LENGTH OF TEMPORARY CURB PROTECTION AND BE COMPLETELY EXPOSED AT BOTH ENDS.
8. MINIMUM 4" THICK LAYER OF GRAVEL OR ASPHALT REQUIRED OVER ALL PARTS OF AFFECTED CURB.
9. MAXIMUM WIDTH OF CURB PROTECTION IS 30'.
10. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
11. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 713
	TEMPORARY CURB PROTECTION		



GRAVEL BAGS OR SANDBAGS

NOTES:

1. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL OR CLEAN SAND.
2. PLACE BAGS WITH BAG OPENINGS SECURED AND FACE UP, AND SO THAT EACH BAG IS FLAT AND HAS THE GREATEST POSSIBLE SURFACE AREA CONTACT WITH THE SURFACE.
3. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS
5. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

DRAWN: DPM	CHECKED: JCF	APPROVED: MCC	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 714
	CURB INLET PROTECTION		

MARK	DESCRIPTION	DATE	APP'D
	PROFESSIONAL SERVICES AGREEMENT No. 21002206	DATE: JULY, 2022	

SCALE: AS NOTED
DESIGNED BY: TUNNELL
DRAWN BY: TUNNELL
REVIEWED BY: MINER
CHECKED BY: PANDEY

STATE OF TEXAS
JEFFREY ALLEN MINER
141646
LICENSED
PROFESSIONAL ENGINEER
7-18-2022

JACOBS
1999 BRYAN ST, SUITE 1200
DALLAS, TEXAS 75201
Phone: +1 (214) 638-0145
Texas Registration F-2966

THESE DRAWINGS/DOCUMENTS ARE BEING SUBMITTED IN HARD COPY OR ELECTRONIC FORMAT. JACOBS IS WILLING TO COOPERATE WITH OWNER AND OWNER'S CONSULTANTS AND CONTRACTORS BY PROVIDING THE DRAWINGS/DOCUMENTS IN ELECTRONIC FORMAT. HOWEVER, JACOBS MAKES NO REPRESENTATIONS AS TO THE LONG TERM COMPATIBILITY, CONDITION OR READABILITY OF THE ELECTRONIC FORMAT DRAWINGS/DOCUMENTS AFTER THEY LEAVE THE CONTROL OF JACOBS. IN ADDITION, ANY CHANGES MADE TO THE DRAWINGS/DOCUMENTS AFTER THEY LEAVE THE CONTROL OF JACOBS ARE MADE AT THE RECIPIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JACOBS. THE RECIPIENT SHALL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS JACOBS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM THE CHANGES MADE TO THE DRAWINGS/DOCUMENTS AFTER THEY LEAVE THE CONTROL OF JACOBS. THE DRAWINGS/DOCUMENTS ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE BY OWNER OR OTHERS WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JACOBS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNER'S OR OTHER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JACOBS. OWNER SHALL INDEMNIFY AND HOLD HARMLESS JACOBS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM SUCH REUSE OF THE DRAWINGS/DOCUMENTS OR ANY ADAPTATION. THE DRAWINGS/DOCUMENTS ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE BY OWNER OR OTHERS WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY JACOBS FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNER'S OR OTHER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JACOBS. OWNER SHALL INDEMNIFY AND HOLD HARMLESS JACOBS FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING FROM SUCH REUSE OF THE DRAWINGS/DOCUMENTS OR ANY ADAPTATION.

MIDLAND
PECK/TERRELL LIFT STATION ELIMINATION
AND NEW SEWER INSTALLATION

DETAIL - 6

VERIFY SCALE
0 1
BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT 1 INCH ON THIS SHEET, ADJUST SCALE

SHEET REF. NO.
C-706
23 OF 23

\\cfwfsp01\Projects\Midland,City\of\WFX\D3500_Lift Station Elimination - Sewer Line Inst\#DESIGN\ACAD\Sheets\210905 C-DT706.dwg, 7/18/2022 4:59 PM, Tunnell, Rob

City Council Meeting

Item Number: 7

Meeting Date: November 15, 2022

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, AND PRO CHEM SALES OF LUBBOCK, TEXAS, AT A TOTAL COST OF $156,086.95 (DISTRICT: NONE) (GENERAL SERVICES)

Purpose:

Resolution authorizing the purchase of Herbicide for the Plant Farm.

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 nineteen (19) vendors. We received two (2) bids. Please see the attached memo from Bennie Jordan, Water Pollution Control Plant 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 & 3	Helena Agri Enterprises LLC of Stanton, Texas	$138,000.00
2 & 4	Pro Chem Sales of Lubbock, Texas	$18,086.95

Total estimated cost for Fiscal Year 2023	**$156,086.95**

Tina Jaug

City Manager's Office

MIDLAND
Water Pollution Control Plant

INTEROFFICE MEMORANDUM

TO: **Regina Stephenson, General Services Director, Erika Munoz, Purchasing Manager**

FROM: **Bennie Jordan, Superintendent**

SUBJECT: **Recommend Award for purchase of Herbicides for Plant Farm**

DATE: **October 31, 2022**

Consider a resolution approving the award of purchases in the amount of $ 138,000.00 to the bidder Helena Agri-Enterprises LLC for the purchase of 1,000 gallons of Xtendimax for $68,000.00 and 1,750 gallons of Powermax Roundup for $70,000.00.

Consider a resolution approving the award of purchases in the amount of $18,086.95 to the bidder Pro Chem Sales for the purchase of 275 gallons of Smoke for $12,529.00 and 135 gallons of Outlook for $5,557.95.

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 operating budget. Staff recommendation is to award the contract in the amount of $ 156,086.95 for FY 2023.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE PURCHASE OF HERBICIDE FOR THE PLANT FARM FROM HELENA AGRI-ENTERPRISES, LLC OF STANTON, TEXAS, AND PRO CHEM SALES OF LUBBOCK, TEXAS, AT A TOTAL COST OF $156,086.95

WHEREAS, the City of Midland issued a request for competitive bids for the purchase of herbicide for the Plant Farm; and

WHEREAS, Bid No. 23000007R was opened on October 19, 2022, with the lowest bids being submitted by Helena Agri-Enterprises, LLC, of Stanton, Texas, and Pro Chem Sales of Lubbock, Texas, at a total cost of $156,086.95, as shown on the bid detail sheet attached hereto as Exhibit "A" and incorporated herein for all purposes:

Items	Bidders	Cost
1 and 3	Helena Agri-Enterprises, LLC, of Stanton, Texas	$138,000.00
2 and 4	Pro Chem Sales of Lubbock, Texas	$18,086.95
	Total estimated cost for Fiscal Year 2023	**$156,086.95**

WHEREAS, the City Council finds the fees proposed by Helena Agri-Enterprises, LLC, and by Pro Chem Sales 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, and Pro Chem Sales;

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, and Pro Chem Sales at a total cost of $156,086.95.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Helena Agri-Enterprises, LLC and Pro Chem Sales 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, 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 # 23000007R **FY2023 Herbicide for Plant Farm** **OPENED** October 19, 2022			HELENA AGRI ENTERPRISES LLC 100 SOUTH SAINT PETER STANTON, TX 79782 432-756-2888 WAGNERW@HELENAAGRI.COM		PRO CHEM SALES 5524 132ND ST LUBBOCK, TX 79424 806-748-9000 MICHAEL@PROCHEMSALES.COM	
ITEM	QTY	DESCRIPTION	COST EACH	TOTAL	COST EACH	TOTAL
1	1000	Xtendimax	$68.00	$68,000.00	$74.98	$74,980.00
	Gal	Brand Name:	XTENDIMAX		BAYER	
		Package Qty:	3-265 GAL TOTES		2.5 GALLONS	
			205 GALS (2X2.5)			
2	275	Smoke	$50.36	$13,849.00	$45.56	$12,529.00
	Gal	Brand Name:	SMOKE (HELENA)		HELENA	
		Package Qty:	2X2.5		2.5 GALLONS	
3	1750	Roundup Powermax (bulk)	$40.00	$70,000.00	$61.39	$107,432.50
	Gal	Brand Name:	POWERMAX 3		BAYER (ROUNDUP POWER MAX 3)	
		Package Qty:	250 GAL TOTES		250 GALLON TOTE	
4	135	Outlook	$44.00	$5,940.00	$41.17	$5,557.95
	Gal	Brand Name:	WARRANT		BAYER	
		Package Qty:	2X2.5		135 GALLON TOTE	
5	1	Freight				$0.00
		TOTAL PROPOSAL		**$157,789.00**		**$200,499.45**

Bidding Summary:

19 **Bid requests were issued.**

2 **Bids listed above**

2 **NO BIDS were received.**

14 **Bidders did not respond.**

City Council Meeting

Item Number: 8

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **RESOLUTION ACCEPTING THE PROPOSAL SUBMITTED BY QBE INSURANCE GROUP THROUGH STEALTH PARTNER GROUP OF DALLAS, TEXAS, FOR STOP LOSS INSURANCE; AUTHORIZING THE NEGOTIATION AND EXECUTION OF ALL CONTRACTS AND DOCUMENTS NECESSARY TO EFFECT THE CITY'S ACCEPTANCE OF SAID PROPOSAL; AND AUTHORIZING PAYMENT (DISTRICT: NONE) (GENERAL SERVICES)**

Purpose:

Resolution accepting the proposal from QBE Insurance Group through Stealth Partner Group for Stop Loss Insurance; authorizing the negotiation and execution of all contracts and documents necessary to effect the City's acceptance of said proposal; and authorizing payment.

Recommended City Council Action:

Approve

Fiscal Impact:

Funds are available in the Employee Benefits Fund (701) FY23 Operating Budget.

Discussion:

The City Manager approved the issuance of the request for proposals and authorized advertisement for Stop Loss Insurance. Ten (10) requests for proposals were issued. We received two (2) proposals. Please see the attached memo from Mark Widmann, Administrative Services Director, and the recommendation letter from McGriff Insurance Services, Inc. for further discussion.

Therefore, please consider a resolution accepting the proposal submitted by QBE Insurance

Group through Stealth Partner Group of Dallas, Texas for Stop Loss Insurance, authorizing the negotiation and execution of all contracts and documents necessary to effect the City's acceptance of said proposal; and authorizing payment. The fiscal impact for the coverage is $1,259,017.20.

Tina Young

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Munoz Martinez
Purchasing Manager

FROM: Mark Widmann, Director of Administrative Services

SUBJECT: Stop Loss Coverage

DATE: November 3, 2022

Purpose:

To accept the proposal by QBE Insurance Group through Stealth Partner Group to Stop Loss Coverage / Employee Benefits Administration for an effective date of January 1, 2023.

Fiscal Impact:

The fiscal impact for the Stop Loss Coverage is $1,259,017.20, a 12.18% reduction of the current cost with an approximately $174,580.55 annual premium savings from current rates. Payment of premiums from the Employee Benefits Fund.

Discussion:

On September 13, 2022, the City released an RFP for the coverages listed above, and the RFPs were open on October 4, 2022. The City received eight (8) proposals from insurance carriers, and four (4) carriers declined to respond to the RFP.

After receiving the proposals and evaluating them based on the cost of services, plan design flexibility, rate guarantees, and the scope of services, the recommendation is to accept the proposal by QBE Insurance Group through Stealth Partner Group for a $175,000 Specific Stop Loss with Aggregate coverage. QBE Insurance Group currently provides coverage to the following Texas cities: City of Alexandria, City of Amarillo, City of Farmers Branch, City of Longview, and the Town of Prosper.

RESOLUTION NO. _____

RESOLUTION ACCEPTING THE PROPOSAL SUBMITTED BY QBE INSURANCE GROUP THROUGH STEALTH PARTNER GROUP OF DALLAS, TEXAS, FOR STOP LOSS INSURANCE; AUTHORIZING THE NEGOTIATION AND EXECUTION OF ALL CONTRACTS AND DOCUMENTS NECESSARY TO EFFECT THE CITY'S ACCEPTANCE OF SAID PROPOSAL; AND AUTHORIZING PAYMENT

WHEREAS, the City of Midland previously requested the submission of proposals for stop loss insurance (the "Insurance"); and

WHEREAS, the City Council finds that the proposal for the Insurance that is most advantageous to the City was submitted by QBE Insurance Group ("Company) through Stealth Partner Group of Dallas, Texas; and

WHEREAS, the City Council finds it to be in the public interest to accept the proposal submitted by Company and to authorize the City Manager or the City Manager's designee to negotiate and execute all contracts and documents necessary to effect the City's acceptance of said proposal;

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

SECTION ONE. That the proposal submitted by Company for the Insurance is hereby accepted.

SECTION TWO. That the City Manager or the City Manager's designee is hereby authorized and directed to negotiate and execute all contracts and documents necessary to effect the City's acceptance of said proposal, said contracts and documents to be placed on file in the office of the City Secretary and referenced by the date and number of this resolution.

SECTION THREE. That the City Comptroller is hereby authorized and directed to pay for the Insurance pursuant to the terms of said contract(s) from funds available in the Employee Benefits Fund (701) FY23 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Mark Widmann, Administrative Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

Wednesday, November 2, 2022

Mr. Mark Widmann
Director of Administrative Services
300 N. Lorraine
Midland, Texas 79701

Re: Recommendation for RFP #23000009 Stop Loss Coverage

Dear Mr. Widmann:

On behalf of the City of Midland, McGriff released RFP# 23000009 for Stop Loss Coverage / Employee Benefit Administration for an effective date of January 1, 2023.

A total of 12 carriers provided responses to the RFP including the incumbent carrier, Fidelity Security. The City received eight (8) qualified proposals and four (4) declinations. The responsive carriers were provided with the latest claim information and proceeded into a best and final process.

Based on the final evaluation, McGriff recommends the City accept the proposal from QBE Insurance Group. QBE proposed the same specific individual deductible amount of $175,000, matching the current contract terms and offers no new lasers at renewal with a maximum rate cap of 50%. We also recommend purchasing aggregate stop-loss coverage from QBE at the same attachment level as current (125%) for a small premium slightly below the renewal. The savings proposed over current is -12.18% or approximately $ 174,580.56 based on 987 eligible covered employees' lives.

QBE also provided higher specific individual deductible amounts of $200,000 and $250,000. McGriff recommends the City consider a $200,000 level based on total number of covered members and total paid claims. Moving to a higher deductible will provide additional premium savings over current levels of approximately $326,420 over the $175,000 level.

If you have any questions, please let us know. Thank you for allowing McGriff to serve the City of Midland.

Sincerely,

McGriff Insurance Services, Inc.

5080 Spectrum Drive, Suite 900 E | Addison, TX 75001
Phone (469) 232-2100
McGriff Insurance Services, Inc. McGriff, Seibels & Williams, Inc.

City of Midland
Bid List
Effective Date: 1/1/2023

Carrier	Rating	Marketed	Quoted	Declined	Comments
American Fidelity	A+	x	x		
Berkley	A+	x		x	Uncompetitive Rates
Berkshire Hathaway	A++	x	x		
Fidelity Security Life (Arbor Benefits Group)	A	x	x		
HCC	A++	x	Pending		
ISU	A+	x	x		
Optum	A	x	Pending		
QBE	A	x	x		
Sun Life	A+	x		x	Uncompetitive Rates
Swiss Re	A+	x		x	Uncompetitive Rates
Symetra	A	x	x		
Unum	A	x	x		
Voya	A	x	x		
Wellpoint	A+	x		x	Uncompetitive Rates

City of Midland
Stop Loss Analysis - $175K
Effective Date: 1/1/2023

SPECIFIC STOP LOSS		Current	Renewal	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
CARRIER:		Arbor Benefits Group /Fidelity Security Life	Arbor Benefits Group /Fidelity Security Life	Symetra	QBE	Voya	American Fidelity	Berkshire Hathaway	Unum	ISU
TPA:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PPO Network:		Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna
UR Vendor:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PBM:		Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus
Specific Benefits Included:		Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Plan Lifetime Maximum:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Specific Lifetime Maximum Reimbursement:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Individual Specific Deductible:		$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000	$ 175,000
Specific Contract:		PAID	PAID	24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregating Specific:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
987	EE Only	$ 119.11	$ 114.01	$ 112.65	$ 105.03	$ 132.04	$ 161.78	$ 114.09	$ 103.04	$ 125.76
987	Composite	$ 119.11	$ 114.01	$ 112.65	$ 105.03	$ 132.04	$ 161.78	$ 114.09	$ 103.04	$ 125.76
Monthly Specific Premium		$ 117,561.57	$ 112,527.87	$ 111,185.55	$ 103,664.61	$ 130,323.48	$ 159,676.86	$ 112,606.83	$ 101,700.48	$ 124,125.12
Annual Specific Premium		$ 1,410,738.84	$ 1,350,334.44	$ 1,334,226.60	$ 1,243,975.32	$ 1,563,881.76	$ 1,916,122.32	$ 1,351,281.96	$ 1,220,405.76	$ 1,489,501.44
% Difference			-4.28%	-5.42%	-11.82%	10.86%	35.82%	-4.21%	-13.49%	5.58%
Specific Run-In Limit:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Disclosure Status			*Firm through 11/30*	*Firm through 11/4*	*Firm through 11/30*	*Pending Large Claim Review*	*Pending Large Claim Review*	*Firm through 11/1*	*Firm through 11/2*	*Firm through 11/4*
Lasers								Laser 1 - [redacted] 15/12 Contract	Laser 1 - [redacted] @ $350K	Laser 1 - [redacted] @ $350K if dialysis or kidney transplant Laser 2 - [redacted] @ $200K Laser 3 - [redacted] @600K if liver transplant Laser 4 - [redacted] Excluded
No New Lasers at Renewal		Included w/ 50% Rate Cap	Included w/ 45% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 49% Rate Cap	Included w/ 50% Rate Cap

Protected Health Information Redacted

AGGREGATE STOP LOSS										
Aggregate Contract:		PAID	PAID	24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregate Benefits Included:		Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Aggregate Corridor:		125%	125%	125%	125%	125%	125%	125%	125%	125%
Annual Max Reimbursement:		$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
987	Composite	$ 1.93	$ 2.00	$ 2.47	$ 1.27	$ 2.64	$ 1.93	$ 1.39	$ 2.35	$ 1.79
Monthly Aggregate Premium		$ 1,904.91	$ 1,974.00	$ 2,437.89	$ 1,253.49	$ 2,605.68	$ 1,904.91	$ 1,371.93	$ 2,319.45	$ 1,766.73
Annual Aggregate Premium		$ 22,858.92	$ 23,688.00	$ 29,254.68	$ 15,041.88	$ 31,268.16	$ 22,858.92	$ 16,463.16	$ 27,833.40	$ 21,200.76
Aggregate Attachment										
987	EE Only	$ 1,032.69	$ 992.74	$ 1,027.35	$ 1,030.45	$ 1,097.91	$ 1,116.63	$ 1,013.66	$ 936.27	$ 1,080.54
987	Composite	$ 1,032.69	$ 992.74	$ 1,027.35	$ 1,030.45	$ 1,097.91	$ 1,116.63	$ 1,013.66	$ 936.27	$ 1,080.54
Monthly Claims Liability		$ 1,019,265.03	$ 979,834.38	$ 1,013,994.45	$ 1,017,054.15	$ 1,083,637.17	$ 1,102,113.81	$ 1,000,482.42	$ 924,098.49	$ 1,066,492.98
Annual Claims Liability		$ 12,231,180.36	$ 11,758,012.56	$ 12,167,933.40	$ 12,204,649.80	$ 13,003,646.04	$ 13,225,365.72	$ 12,005,789.04	$ 11,089,181.88	$ 12,797,915.76
Aggregate Run-In Limit							$ 2,380,565.83		$ 2,106,944.56	

TOTAL REINSURANCE EXPENSE										
Annual Fixed Premium		$ 1,433,597.76	$ 1,374,022.44	$ 1,363,481.28	$ 1,259,017.20	$ 1,595,149.92	$ 1,938,981.24	$ 1,367,745.12	$ 1,248,239.16	$ 1,510,702.20
$ Difference			($59,575.32)	($70,116.48)	($174,580.56)	$161,552.16	$505,383.48	($65,852.64)	($185,358.60)	$77,104.44
% Difference			-4.16%	-4.89%	-12.18%	11.27%	35.25%	-4.59%	-12.93%	5.38%
Maximum Cost Liability		$ 13,664,778.12	$ 13,132,035.00	$ 13,531,414.68	$ 13,463,667.00	$ 14,598,795.96	$ 15,164,346.96	$ 13,373,534.16	$ 12,337,421.04	$ 14,308,617.96
$ Difference			($532,743.12)	($133,363.44)	($201,111.12)	$934,017.84	$1,499,568.84	($291,243.96)	($1,327,357.08)	$643,839.84
% Difference			-3.90%	-0.98%	-1.47%	6.84%	10.97%	-2.13%	-9.71%	4.71%

Note:
$1PEPM has been added to the specific rates for options 1 through 7. Amwins offers a Gene Therapy Solution rider (drugs covered Zolgensma, Spinraza, Luxturna)
ISU - R Schlemeyer will not be eligible for no new laser

City of Midland
Stop Loss Marketing Analysis - $200K Spec
Effective Date: 1/1/2023

SPECIFIC STOP LOSS		Current	Renewal	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
CARRIER:		Arbor Benefits Group /Fidelity Security Life	Arbor Benefits Group /Fidelity Security Life	Symetra	QBE	Voya	American Fidelity	Berkshire Hathaway	Unum	ISU
TPA:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PPO Network:		Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna
UR Vendor:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PBM:		Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus
Specific Benefits Included:		Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Plan Lifetime Maximum:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Specific Lifetime Maximum Reimbursement:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Individual Specific Deductible:		$ 175,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000
Specific Contract:		PAID	PAID	24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregating Specific:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
987	EE Only	$ 119.11	$ 101.11	$ 102.32	$ 92.06	$ 113.37	$ 141.95	$ 103.13	$ 90.41	$ 110.91
987	Composite	$ 119.11	$ 101.11	$ 102.32	$ 92.06	$ 113.37	$ 141.95	$ 103.13	$ 90.41	$ 110.91
Monthly Specific Premium		$ 117,561.57	$ 99,795.57	$ 100,989.84	$ 90,863.22	$ 111,896.19	$ 140,104.65	$ 101,789.31	$ 89,234.67	$ 109,468.17
Annual Specific Premium		$ 1,410,738.84	$ 1,197,546.84	$ 1,211,878.08	$ 1,090,358.64	$ 1,342,754.28	$ 1,681,255.80	$ 1,221,471.72	$ 1,070,816.04	$ 1,313,618.04
% Difference			-15.11%	-14.10%	-22.71%	-4.82%	19.18%	-13.42%	-24.10%	-6.88%
Specific Run-In Limit:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Disclosure Status			*Firm through 11/30*	*Firm through 11/4*	*Firm through 11/30*	*Pending Large Claim Review*	*Pending Large Claim Review*	*Firm through 11/1*	*Firm through 11/2*	*Firm through 11/4*
Lasers								Laser 1 - [redacted] 15/12 Contract	Laser 1 - [redacted] @ $350K	Laser 1 - [redacted] @ $350K if dialysis or kidney transplant Laser 2 - [redacted] @ $200K Laser 3 - [redacted] @600K if liver transplant Laser 4 - [redacted] Excluded
No New Lasers at Renewal		Included w/ 50% Rate Cap	Included w/ 45% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 49% Rate Cap	Included w/ 49% Rate Cap

Protected Health Information Redacted

AGGREGATE STOP LOSS										
Aggregate Contract:		PAID		24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregate Benefits Included:		Med + Rx	PAID	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Aggregate Corridor:		125%	125%	125%	125%	125%	125%	125%	125%	125%
Annual Max Reimbursement:		$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
987	Composite	$ 1.93	$ 2.22	$ 2.49	$ 1.42	$ 2.90	$ 2.12	$ 1.52	$ 2.39	$ 1.97
Monthly Aggregate Premium		$ 1,904.91	$ 2,191.14	$ 2,457.63	$ 1,401.54	$ 2,862.30	$ 2,092.44	$ 1,500.24	$ 2,358.93	$ 1,944.39
Annual Aggregate Premium		$ 22,858.92	$ 26,293.68	$ 29,491.56	$ 16,818.48	$ 34,347.60	$ 25,109.28	$ 18,002.88	$ 28,307.16	$ 23,332.68
Aggregate Attachment										
987	EE Only	$ 1,032.69	$ 1,013.25	$ 1,037.68	$ 1,058.06	$ 1,105.30	$ 1,127.23	$ 1,022.26	$ 956.86	$ 1,090.98
987	Composite	$ 1,032.69	$ 1,013.25	$ 1,037.68	$ 1,058.06	$ 1,105.30	$ 1,127.23	$ 1,022.26	$ 956.86	$ 1,090.98
Monthly Claims Liability		$ 1,019,265.03	$ 1,000,077.75	$ 1,024,190.16	$ 1,044,305.22	$ 1,090,931.10	$ 1,112,576.01	$ 1,008,970.62	$ 944,420.82	$ 1,076,797.26
Annual Claims Liability		$ 12,231,180.36	$ 12,000,933.00	$ 12,290,281.92	$ 12,531,662.64	$ 13,091,173.20	$ 13,350,912.12	$ 12,107,647.44	$ 11,333,049.84	$ 12,921,567.12
Aggregate Run-In Limit							$ 2,403,164.18		$ 2,153,279.47	

TOTAL REINSURANCE EXPENSE										
Annual Fixed Premium		$ 1,433,597.76	$ 1,223,840.52	$ 1,241,369.64	$ 1,107,177.12	$ 1,377,101.88	$ 1,706,365.08	$ 1,239,474.60	$ 1,099,123.20	$ 1,336,950.72
$ Difference			($209,757.24)	($192,228.12)	($326,420.64)	($56,495.88)	$272,767.32	($194,123.16)	($334,474.56)	($96,647.04)
% Difference			-14.63%	-13.41%	-22.77%	-3.94%	19.03%	-13.54%	-23.33%	-6.74%
Maximum Cost Liability		$ 13,664,778.12	$ 13,224,773.52	$ 13,531,651.56	$ 13,638,839.76	$ 14,468,275.08	$ 15,057,277.20	$ 13,347,122.04	$ 12,432,173.04	$ 14,258,517.84
			($440,004.60)	($133,126.56)	($25,938.36)	$803,496.96	$1,392,499.08	($317,656.08)	($1,232,605.08)	$593,739.72
% Difference			-3.22%	-0.97%	-0.19%	5.88%	10.19%	-2.32%	-9.02%	4.35%

Note:
$1PEPM has been added to the specific rates for options 1 through 7. Amwins offers a Gene Therapy Solution rider (drugs covered Zolgensma, Spinraza, Luxturna)
ISU - R Schlemeyer will not be eligible for no new laser

City of Midland
Stop Loss Marketing Analysis - $250K
Effective Date: 1/1/2023

SPECIFIC STOP LOSS		Current	Renewal	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
CARRIER:		Arbor Benefits Group /Fidelity Security Life	Arbor Benefits Group /Fidelity Security Life	Symetra	QBE	Voya	American Fidelity	Berkshire Hathaway	Unum	ISU
TPA:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PPO Network:		Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna	Cigna
UR Vendor:		Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance	Allegiance
PBM:		Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus	Navitus
Specific Benefits Included:		Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Plan Lifetime Maximum:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Specific Lifetime Maximum Reimbursement:		Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Individual Specific Deductible:		$ 175,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 250,000
Specific Contract:		PAID	PAID	24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregating Specific:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
987	EE Only	$ 119.11	$ 84.59	$ 85.88	$ 78.21	$ 97.10	$ 116.27	$ 85.52	$ 74.74	$ 92.37
987	Composite	$ 119.11	$ 84.59	$ 85.88	$ 78.21	$ 97.10	$ 116.27	$ 85.52	$ 74.74	$ 92.37
Monthly Specific Premium		$ 117,561.57	$ 83,490.33	$ 84,763.56	$ 77,193.27	$ 95,837.70	$ 114,758.49	$ 84,408.24	$ 73,768.38	$ 91,169.19
Annual Specific Premium		$ 1,410,738.84	$ 1,001,883.96	$ 1,017,162.72	$ 926,319.24	$ 1,150,052.40	$ 1,377,101.88	$ 1,012,898.88	$ 885,220.56	$ 1,094,030.28
% Difference			-28.98%	-27.90%	-34.34%	-18.48%	-2.38%	-28.20%	-37.25%	-22.45%
Specific Run-In Limit:		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Disclosure Status			*Firm through 11/30*	*Firm through 11/4*	*Firm through 11/30*	*Pending Large Claim Review*	*Pending Large Claim Review*	*Firm through 11/1*	*Firm through 11/2*	*Firm through 11/2*
Lasers								Laser 1 - [redacted] 15/12 Contract	Laser 1 - [redacted] @ $350K	Laser 1 - [redacted] @ $350K if dialysis or kidney transplant Laser 2 - [redacted] @ $200K Laser 3 - [redacted] @600K if liver transplant Laser 4 - [redacted] Excluded
No New Lasers at Renewal		Included w/ 50% Rate Cap	Included w/ 45% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 50% Rate Cap	Included w/ 49% Rate Cap	Included w/ 49% Rate Cap

Protected Health Information Redacted

AGGREGATE STOP LOSS										
Aggregate Contract:		PAID	PAID	24/12	24/12	24/12	24/12	24/12	24/12	24/12
Aggregate Benefits Included:		Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx	Med + Rx
Aggregate Corridor:		125%	125%	125%	125%	125%	125%	125%	125%	125%
Annual Max Reimbursement:		$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000
987	Composite	$ 1.93	$ 2.61	$ 2.54	$ 1.66	$ 3.33	$ 2.44	$ 1.76	$ 2.45	$ 2.26
Monthly Aggregate Premium		$ 1,904.91	$ 2,576.07	$ 2,506.98	$ 1,638.42	$ 3,286.71	$ 2,408.28	$ 1,737.12	$ 2,418.15	$ 2,230.62
Annual Aggregate Premium		$ 22,858.92	$ 30,912.84	$ 30,083.76	$ 19,661.04	$ 39,440.52	$ 28,899.36	$ 20,845.44	$ 29,017.80	$ 26,767.44
Aggregate Attachment										
987	EE Only	$ 1,032.69	$ 1,043.30	$ 1,054.12	$ 1,087.06	$ 1,112.92	$ 1,141.66	$ 1,034.23	$ 988.70	$ 1,103.05
987	Composite	$ 1,032.69	$ 1,043.30	$ 1,054.12	$ 1,087.06	$ 1,112.92	$ 1,141.66	$ 1,034.23	$ 988.70	$ 1,103.05
Monthly Claims Liability		$ 1,019,265.03	$ 1,029,737.10	$ 1,040,416.44	$ 1,072,928.22	$ 1,098,452.04	$ 1,126,818.42	$ 1,020,785.01	$ 975,846.90	$ 1,088,710.35
Annual Claims Liability		$ 12,231,180.36	$ 12,356,845.20	$ 12,484,997.28	$ 12,875,138.64	$ 13,181,424.48	$ 13,521,821.04	$ 12,249,420.12	$ 11,710,162.80	$ 13,064,524.20
Aggregate Run-In Limit							$ 2,433,927.79		$ 2,224,930.93	

TOTAL REINSURANCE EXPENSE										
Annual Fixed Premium		$ 1,433,597.76	$ 1,032,796.80	$ 1,047,246.48	$ 945,980.28	$ 1,189,492.92	$ 1,406,001.24	$ 1,033,744.32	$ 914,238.36	$ 1,120,797.72
$ Difference			($400,800.96)	($386,351.28)	($487,617.48)	($244,104.84)	($27,596.52)	($399,853.44)	($519,359.40)	($312,800.04)
% Difference			-27.96%	-26.95%	-34.01%	-17.03%	-1.92%	-27.89%	-36.23%	-21.82%
Maximum Cost Liability		$ 13,664,778.12	$ 13,389,642.00	$ 13,532,243.76	$ 13,821,118.92	$ 14,370,917.40	$ 14,927,822.28	$ 13,283,164.44	$ 12,624,401.16	$ 14,185,321.92
$ Difference			($275,136.12)	($132,534.36)	$156,340.80	$706,139.28	$1,263,044.16	($381,613.68)	($1,040,376.96)	$520,543.80
% Difference			-2.01%	-0.97%	1.14%	5.17%	9.24%	-2.79%	-7.61%	3.81%

Note:
$1PEPM has been added to the specific rates for options 1 through 7. Amwins offers a Gene Therapy Solution rider (drugs covered Zolgensma, Spinraza, Luxturna)
ISU - R Schlemeyer will not be eligible for no new laser

DISCLAIMER

The rates and benefits shown in this proposal are for an illustrative comparison only. Please refer to the carrier's certificate of coverage or policy for a complete description of benefits, exclusions, and limitations. In the event of a discrepancy, the carrier's contract will always govern. Rates shown are not final until final underwriting is approved by the carrier.

PAYMENT TERMS

When policies are billed directly by a carrier, clients may contact us for assistance, however, McGriff is not permitted to notify clients of late payments or pending cancellation. Premium paid to carriers must be received by the carrier on or before the due date. When policies are directly billed by McGriff:

• Invoices are due on the effective date or transaction date, whichever is later
• Payments should be made from invoice as no statement will be issued.
• Payments must be received no later than the 28th day after the due date to avoid cancellation.

CONFIDENTIALITY STATEMENT

Confidentiality of Client Information is critically important to McGriff. All client information provided to McGriff will be shared only to the extent needed within our firm and with the appropriate insurance carriers, wholesale brokers and intermediaries. No information will be divulged to any other source without our clients prior written consent, except as required by law.
Furthermore, all information provided by McGriff is considered proprietary information and should not be shared with anyone without our prior written consent.

CLIENT REFERENCES

As another way to further protect the confidentiality of our clients' information, references will be provided to you on request.

MCGRIFF COMPENSATION STATEMENT

Our principal remuneration for the placement and service of your insurance policy(ies) will be by commission (a proportion of the premium paid that is allowed to us by the insurance company(ies)) and/or a mutually agreed fee.
You should be aware that we may receive additional income from the following sources:

• Interest or Investment Income earned on insurance premiums.
• Expense Allowances or Reimbursements from insurance companies and other vendors for (a) educational and professional development programs; (b) managing and administering certain binding authorities and other similar facilities, including claims which may arise; and (c) attendance at insurance company meetings and events; all of which we believe enable us to provide more efficient service and competitive terms to those clients for whom we consider the use of such facilities appropriate.
• Tier II Commission is exclusive to the placement of employee benefits insurance and is based on premium volume of new business and/or premium retention.
• Contingent Commission may be based on profitability, premium volume, premium retention, and/or growth. If any part of your account is on a fee basis, we will not accept contingent commissions related to your account.
• Administrative and Services Fees may be paid for limited services we provide to the insurance company as part of the placement process for insurance policies placed with a particular company, including but not limited to premium billing, collection, remittance and credit control, policy document compilation, and record retention or for consulting and data analytic services.

If you have questions or desire additional information about remuneration and other income, please contact your Agent who will put you in touch with our Chief Risk Manager for assistance. If any part of your insurance program is placed through any Truist-owned companies (including retail insurance brokers McGriff Insurance Services, Inc. and McGriff, Seibels & Williams, Inc.; wholesale insurance brokers CRC Insurance Services, Inc. and Crump Life Insurance Services, Inc.; managing general underwriter AmRisc, LLC; insurance premium finance companies Prime Rate Premium Finance Corporation, Inc., AFCO Credit Corporation, AFCO Acceptance Corporation, CAFO Holdings Company, and CAFO Inc.; or affiliates; or MBT, Ltd.) disclosure of that income will also be included.

The following constitutes McGriff's disclosure of direct and indirect compensation the Company will receive or reasonably expects to receive for the period of **January 1, 2023 through December 31, 2023** in connection with the below referenced services it provides to **City of Midland** (the "Client" or "you"), and as outlined in your Fee Agreement, Employee Benefits Broker Service Agreement or other arrangement/contract for services with McGriff:

• Services as outlined in your Fee Agreement or employee Benefits Broker Service Agreement, including but not limited to the following: Providing placement and service of your Employee Benefit Programs.

The Fee Agreement and Employee Benefits Broker Service Agreement between the Company and the Client are hereby incorporated by reference.The Company does not provide the above-referenced services to the Client in the capacity as a plan fiduciary under ERISA.

TERMINATION COMPENSATION

The Company will not receive any special compensation in connection with the termination of the services described in this disclosure.

THIRD PARTY REFERRAL DISCLAIMER

From time to time, McGriff may share opinions or content regarding third parties, or make referrals to third party products and services ("Third Party Services"). Any Third Party Services, or links to third party sites shared or posted on McGriff website or social media sites do not constitute an endorsement of any individual, organization, service, or product by McGriff, nor does such activity indicate an affiliation with or sponsorship of the third party by McGriff. Any third party claims regarding their products or services contained in their written materials or on the third party websites are those of the respective authors and do not reflect the affirmation, concurrence or agreement, of McGriff, its employees, directors, officers, parents, or affiliates that those claims are accurate. MCGRIFF IS NOT LIABLE FOR ANY THIRD PARTY SERVICES OR THE STORAGE OR BREACH OF YOUR CONFIDENTIAL INFORMATION RELATED TO SUCH THIRD PARTY SERVICES. WE ARE NOT RESPONSIBLE FOR AND DO NOT OFFER ANY WARRANTY REGARDING THE QUALITY, ACCURACY, TIMELINESS, RELIABILITY OR ANY OTHER ASPECTS OF PRODUCTS OR SERVICES FROM THIRD PARTIES. YOU RELEASE US FROM ANY DAMAGES THAT YOU INCUR, AND AGREE NOT TO ASSERT ANY CLAIMS AGAINST US ARISING FROM YOUR USE OF PRODUCTS OR SERVICES FROM THIRD PARTIES.

PROVIDER SECURITY STANDARDS

McGriff The following is a brief summary of the measures that we have taken as your agent/broker to review and objectively report to you the financial security of your insuring companies. Information is included from A.M. Best Company, our primary security rating source, and the internal policies and standards, which we have established to address this important issue for our clients.

Market Security Review McGriff has established and continues to maintain an internal "Market Security Review Group" composed of senior management representatives from the Finance, Marketing, Wholesale, and Administrative Divisions of the company. This Group's purpose is to develop and implement a policy, procedure, and standard for the review of financial security of all insurers, intermediaries, and associations used by McGriff. This Group meets periodically to review the current listing of all companies, intermediaries, and associations that are actively used by McGriff. It will also act on any pending requests received from an agency to have new providers activated, and to inactivate any providers that do not meet current McGriff standards.

Provider Classifications

Approved Provider A.M. Best Secured Rating with a minimum rating of A-, Demotech Financial Stability Rating of A, Exceptional or ALIRT score of 35 with five (5) or fewer flags. For foreign insurers whose rating is not tracked by A.M. Best, other internationally recognized rating organizations will be used.

Exception Provider Any provider whose Best's rating is below A-. The A.M. Best's rating of an exception provider will be included on all McGriff proposals delivered to clients or prospects. In addition, these providers which have been reviewed by the Market Security Review Group and the client may be considered an exception security based on other factors. The client may be required to sign a form of disclaimer or acknowledgement of receipt of this information.

Prohibited Provider All other providers not mentioned in one of the paragraphs above. These providers will not be set up for active use in the McGriff agency management system(s) at any time, for any reason.

History A.M. Best Company was incorporated in 1899 as the first rating agency in the world to offer reliable information on the financial condition of U.S. insurance companies. The Best's Rating Guide was first published in 1900, and has since become a cornerstone of the security review process by continuously evaluating the financial integrity of over 4,100 insurance companies. In 1984, the first edition of the Best's International Rating Guide was published, reporting on the claims-paying ability of over 950 international insurers. The information used by Best's to rate insurance carriers is provided by the companies themselves as a part of their normal filings with the National Association of Insurance Commissioners, those states in which the company is licensed, the SEC and/or with its shareholders. Rating reviews are performed annually on each insurance company and on an interim basis as conditions dictate.

Best's Rating System The Best's rating system is designed to evaluate a wide range of objective and subjective factors that affect the overall performance of an insurance company (not applicable to associations or intermediaries). These factors deal with the company's financial strength, its operational performance, and its ability to meet its financial obligations to policyholders, as follows: • Profitability • Spread of Risk • Quality of Reinsurance Program • Leverage/Capitalization • Quality and Diversification of Assets • Liquidity • Adequacy of Policy Loss Reserves • Adequacy of Policyholder's Surplus • Capital Structure • Management Experience and Objectives

A.M. Best's Ratings Assigned to insurers which meet Best's standards for the quantitative and qualitative analysis of the company's financial condition and operating performance. For further information, see the Best's Guide to Ratings – www.ambest.com

Non-Admitted Carriers An insurance company not licensed to do business in a given state. These insurers are not subject to the financial solvency and enforcement regulations that are required for admitted carriers. These insurers do not participate in any of the insurance guarantee funds. Therefore, these funds will not pay your claims or protect your assets if the insurer becomes insolvent and is unable to make payments as promised.

Financial Size Categories I

I	Under $1,000,000	VIII	100,000,000 – 250,000,000
II	1,000,000 - 2,000,000	IX	250,000,000 – 500,000,000
III	2,000,000 – 5,000,000	X	500,000,000 – 750,000,000
IV	5,000,000 – 10,000,000	XI	750,000,000 – 1,000,000,000
V	10,000,000 – 25,000,000	XII	1,000,000,000 – 1,250,000,000
VI	25,000,000 - 50,000,000	XIII	1,250,000,000 – 1,500,000,000
VII	50,000,000 – 100,000,000	XIV	1,500,000,000 – 2,000,000,000
		XV	Over 2,000,000,000

Source: *Best's Key Rating Guide – 2016 Edition*

City Council Meeting

Item Number: 9

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION AUTHORIZING PURCHASE OF A VERSALIFT AERIAL BUCKET LIFT TRUCK FROM SOUTHWEST INTERNATIONAL TRUCKS INC. THROUGH BUYBOARD FOR A TOTAL COST OF $253,888.78 (DISTRICT: NONE) (GENERAL SERVICES)

Purpose:

Resolution approving the purchase of one (1) Versalift Aerial Bucket Lift Truck from Southwest International Trucks Inc. through Buyboard contract 601-19 for a cost of $253,888.78.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the Garage Operating Fund budget.

Discussion:

The Garage Division is requesting the purchase of one (1) Versalift Aerial Bucket Lift Truck for the Traffic Operations Division. Staff recommends approving the purchase to Southwest International Trucks Inc. 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. The budget for this equipment for fiscal year 2023 is $220,000.00. Please see attached memos from Manuel Salinas, Garage Superintendent, and Troy Clabaugh, Traffic Operations Superintendent, for additional information.

Therefore, please consider approval of a resolution authorizing the purchase of one (1) Versalift

Aerial Bucket Lift Truck from from Southwest International Trucks Inc. of Arlington, Texas through Buyboard contract 601-19 for a cost of $253,888.78.

Tina Dawg

City Manager's Office

Fleet Services Division

INTEROFFICE MEMORANDUM

TO: Regina Stephenson

FROM: Manuel Eloy Salinas

SUBJECT: Buy Board contract #601-19 for a Versalift Aerial Bucket lift

DATE: 11/01/2022

Fleet services is requesting for the purchase of (1) one Versalift Aerial Bucket lift Truck. This new unit will be a replacement for a unit that has gone beyond its useful service life. Budgeted amount for FY 2023 for the purchase of (1) one Versalift Aerial Bucket lift Truck is $220,000. The purchasing amount being offered through Buy Board contract #601-19 by Versalift Southwest International in the amount of $253,888.78 for (1) one Versalift Aerial Bucket lift Truck.

Sincerely,

Manuel Eloy Salinas

City of Midland Garage Superintendent

Traffic Operations ▪ Engineering Services

INTEROFFICE MEMORANDUM

TO: Erika Martinez

FROM: Troy Clabaugh, Traffic Operations Superintendent

SUBJECT: Purchase Recommendation – Aerial Bucket Truck

DATE: 11/02/2022

In the FY2023 budget process, Traffic Operations requested replacement of one of our existing four aerial trucks. Based on the information available at the time the quotes were obtained for the budget request, we requested $253,888.78 per truck.

Sincerely,

Troy Clabaugh

Traffic Operations Superintendent

RESOLUTION NO. _____

RESOLUTION AUTHORIZING PURCHASE OF A VERSALIFT AERIAL BUCKET LIFT TRUCK FROM SOUTHWEST INTERNATIONAL TRUCKS INC. THROUGH BUYBOARD FOR A TOTAL COST OF $253,888.78

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, Southwest International Trucks Inc. submitted a total cost to the City of $253,888.78 for the purchase of a Versalift aerial bucket lift truck 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 Versalift aerial bucket lift truck to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to authorize the purchase of a Versalift aerial bucket lift truck from Southwest International Trucks 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 Versalift aerial bucket lift truck from Southwest International Trucks Inc. through Buyboard for a total cost of $253,888.78.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Southwest International Trucks Inc. $253,888.78 for said Versalift aerial bucket lift truck from funds available in the Garage Operating Fund 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

Texas Local Government Purchasing Cooperative

The Buy Board

PRICING WORKSHEET			*Proposal # 8114-01*	
Buying Agency: City of Midland			**Date Prepared**	**10/24/2022**
Southwest International Trucks			**Contract 601-19**	
Product Description: 2024 International HV607				
31,000 GVWR Aerial lift			**HV607 4x2 is base chassis**	
Contact Person: Scott Pyle			**Item: Base Chassis Bid**	**$ 60,047.78**
B: Options	**Option cost is 80% of MSRP**			
120,000 PSI frame rails with rear crossmember	**719.20**		**21,000 Lb. rear axle**	**624.80**
Steel front bumper/ Frame dimple for centerline	**78.40**		**23,500 Lb. rear suspension**	**69.60**
12,000 lb. front axle and suspension	**272.00**		**50 gallon aluminum fuel tank**	**273.60**
Trailer connections with tractor protection valve	**433.60**		**5 gallon DEF tank**	**142.40**
Bendix air dryer with mounting	**460.80**		**Air cleaner restriction gauge**	**24.00**
Front and rear dust shields for brakes	**84.00**		**Two man passenger's seat**	**460.80**
Two air tanks mounted under rear suspension	**230.40**		**C-loop heated mirrors**	**100.80**
Tilting steering column	**100.00**		**Fresh air filter**	**60.80**
Dana Spicer driveline system	**76.80**		**Steel front and rear wheels**	**168.80**
Exhaust system with vertical exhaust	**1,753.60**		**Body Remote power module with 6 switches**	**632.00**
Cigar lighter with power source	**14.40**		**Body INT remote Start/Stop**	**450.40**
Leece Neville 190 am alternator	**294.40**		**Body INT remote throttle control**	**71.20**
Body builder wiring	**167.20**		**CARB companion plan**	**400.00**
Electric trailer brake accommodation package	**388.80**		**Factory surcharge**	**2,000.00**
2 batteries 1900 CCA with steel battery box	**420.80**		**Freight increase**	**500.00**
AM/FM radio with Bluetooth and speakers	**386.40**			
Back up alarm/ Toggle switch for work light	**143.20**			
Delco Remy starting motor/ Air horn	**229.60**			
Engine block heater	**78.40**			
Cummins L9 engine 325 HP/750 torque	**4,519.20**			
CARB Compliance sticker and warranty	**$1,121.00**			
Engine control remote mounted	**$48.00**			
Allison 3500 RDS transmission 6 speed	**$8,915.20**			
Transmission stalk shifter/Synthetic oil	**$202.40**			
Subtotal Column 1:	**$ 21,137.80**		**Subtotal Column 2:**	**$5,979.20**
Total Options				**$ 27,117.00**
CHASSIS WITH FACTORY OPTIONS				**$ 87,164.78**
TOTAL BODY PRICE	**See attached body spec sheet**			**165,924.00**

Versalift Southwest Quote # 23466

Additional Options:			
Buy Board Fee			**400.00**
Transportation	Body price includes delivery		**0.00**
DOT Inspection with Fire Extinguisher and Road Flare Kit			**400.00**
		TOTAL BUY BOARD PRICE	**$253,888.78**

Tanner Bragg

Southwest International Trucks-Arlington.

Arlington, Texas 76010

Fax# 817-861-7084

Office# 817-664-2906

E-mail Address: tanner.bragg@swit-tx.com

PRICE IS SUBJECT TO FURTHER FACTORY INCREASES

PRICE IS SUBJECT TO FURTHER LIFT INCREASES

PRICE IS SUBJECT TO FURTHER BODY INCREASES

To purchase this unit, please issue a purchase order to Southwest International Trucks, Inc. and send it to the Buy Board.

We will order your truck when we receive notification from the Buy Board of your purchase order.

Thank you,

Tanner Bragg

Versalift Southwest L.L.C.
1200 Texas Central Pkwy
Waco, Texas 76712-1415
254.420.5330

QUOTATION

VSW-23466

Customer:	**Southwest International**	**Date:**	**October 20, 2022**
Attn:	**Tanner Bragg**	**Model:**	**VST-6000-MHI**
Email:	**Tanner.Bragg@swit-tx.com**		
Ref:	**City of Midland Buyboard**		
Attn:	**Scott Pyle**		
Email:	**spyle@midlandtexas.gov**		

We are pleased to quote the VERSALIFT VST-6000-MHI, insulated 60 ft. 1 in. (18.3 m) telescopic aerial platform lift, 65 ft. 1 in. (19.8 m) working height, 38 ft. 9 in. (11.8 m) horizontal reach including the following items *(based on a 40" frame height)*:

AERIAL LIFT SPECIFICATIONS

PLATFORM - The fiberglass platform is 24 in. x 48 in. x 42 in. (0.61 m x 1.22 m x 1.07 m) deep with an inside and outside step for easy access. The platform capacity is 450 lbs. (204 kg) with the jib and winch installed and 600 lbs. (272 kg) with the jib and winch removed. A cushioned platform support is provided.

PERSONNEL RESTRAINT SYSTEM – An arc flash rated safety harness and lanyard are supplied. The anchor for the lanyard is attached to the platform support.

PLATFORM LINER AND VINYL COVER - A 50 kV rated liner and soft vinyl cover are supplied for the platform.

INDIVIDUAL LOWER CONTROLS – Individual full-pressure controls at the turret actuate all boom functions. The lower control station is equipped with a selector valve to override the upper controls and serve as the emergency stop from lower controls.

SINGLE STICK 3-AXIS UPPER CONTROL - The full pressure single stick 3-axis upper control includes a safety trigger to prevent inadvertent operation. The lift movements correspond with control handle movements. An emergency stop and a tool selector control are located at the upper controls.

TRUGUARD™ 2.0 - This advance upper controls isolation system provides 4" of electrical isolation from the entire upper controls, including the control dash panel. This system also includes a protective shield which helps prevent environmental and work related contaminants from making direct contact with the isolating surfaces.

HYDRAULIC PLATFORM ROTATOR - A hydraulic platform rotator, operated by a control lever, rotates the platform 180° from one side of the outer/inner boom assembly, across the end-hung position, to the other side of the outer/inner boom assembly.

HYDRAULIC PLATFORM LEVELING - A master and slave cylinder arrangement automatically levels the platform in all boom positions. This system also provides hydraulic platform tilt to adjust platform level, tilt the platform for clean out, or to ease the removal of an injured operator. The platform tilt can be activated from the upper and lower controls.

LINE-LIFTING SOCKET - Built as part of the platform support structure, is a vertical line-lifting socket for 3 in. (76 mm) diameter line-lifting attachments. The socket is automatically leveled with the platform.

HYDRAULIC TOOL CIRCUIT AT THE PLATFORM - This system is designed for open center hydraulic tools. The tool circuit provides 7.5 gpm (28 lpm) at 2000 psi (138 bars). One set of hydraulic ports (one pressure port and one return port) is standard at the platform to operate one tool. Includes quick disconnect fittings.

LOWER BOOM WITH CHASSIS INSULATING SYSTEM - Each end of a high strength fiberglass insert (chassis insulating system) is installed in a rectangular 10 in. x 12-in. (254mm x 305 mm) high strength steel section. The steel and fiberglass sections are bonded with pressure injected adhesive to fill any voids. A compensation link with a fiberglass section maintains the 24-in. (0.61 m) insulation gap in all the boom positions. The double acting cylinder, with an integral holding valve, allows the lower boom to articulate from horizontal to 86° above horizontal.

OUTER/INNER BOOM ASSEMBLY- The outer/inner boom assembly includes an outer boom, telescopic inner boom, extension system, and hose assemblies. The outer boom consists of a 10 in. x 12 in. (254 mm x 305 mm) steel section. The 8-5/8 in. x 10-5/8 in. (219 mm x 270 mm) rectangular fiberglass inner boom is housed within the outer boom. The inner boom can be easily removed and disassembled for service and inspection. The extension system consists of a hydraulic cylinder, two integral holding valves, and dual #60 roller chains housed entirely within the boom assembly. The hoses routed through the outer/inner boom assembly are non-conductive and fully contained within the boom assembly. The outer/inner boom assembly articulates from 23° below horizontal to 85° above horizontal. Actuated by a double acting cylinder, equipped with two integral holding valves; the outer/inner boom assembly is off set to one side to provide easy access to the platform. A boom support cradle and a boom tie down strap are included.

CYLINDERS - Both the upper and lower cylinders are a threaded head-cap design. Both cylinders are equipped with two integral holding valves to prevent creep down and to lock the booms in position in case of hose failure.

TURRET - The 5/8 in. (16 mm) thick turret wings are designed for strength and rigidity. The bearing cover is continuously welded to seal out moisture and prevent foreign materials from obstructing the turret rotation. The 1-1/4 in. (32 mm) thick turret plate is machined to provide a flat surface to support the rotation bearing.

HYDRAULIC JIB AND WINCH - The material handling jib and winch consists of a platform shaft mounted jib-pole and winch. Up to 1,000 lbs. (454 kg) material-handling capacity can be provided at elevated boom angles. Consult factory for details on specific options. The winch is hydraulically powered through a self-locking worm gear drive, so a load-holding brake is not required. The winch provides line speeds of 15 to 30 ft. per minute (5 to 9 m per min.). 70 ft. (21 m) of 7/16 in. (13 mm) diameter polyester rope with a clevis hook is provided. The angle of the jib-pole is hydraulic adjusted through the 100° arc. An 18” stroke cylinder hydraulic extends the jib-pole. Three pin locations allow jib-pole extensions from 20” to 61”, measured from the platform pivot to the center of the load line.

CONTINUOUS ROTATION - Unrestricted rotation is accomplished by a hydraulically driven worm and spur gear with a shear-ball rotation bearing. The critical bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal are grade 8 hex head cap screws. These critical bolts are torque seal marked to provide a quick means of detecting any turning of the bolt upon inspection. An eccentric ring is provided to adjust the gearbox pinion backlash.

LUBRICATION - Non-lube bearings are used at all pivot points. Only the rotation bearing and rotation bearing gear teeth require periodic lubrication.

PEDESTAL - The pedestal is tubular with a reinforced mounting plate. The top plate of the pedestal is 1-1/4 in. (32 mm) thick and machined flat to support the rotation bearing.

HYDRAULIC OIL RESERVOIR – A 25 gallon (95 l) hydraulic oil reservoir is built integral to the pedestal. The reservoir includes an anti-splash baffle and sight gauge for quick hydraulic fluid level checks, and a return filter pressure gauge.

SUBFRAME –The full length subframe is constructed of 6 x 4 tube and ¼ in. plate and is suitable for most installations up to 108” C.A. Shear plates and tie-bolts are provided to attach to the chassis frame.

HYDRAULIC SYSTEM - The open-center hydraulic system operates at 3000 psi (207 bars) at 7.5 gpm (28 lpm). A 10 micron pressure line filter installed after the pump and a 10-micron return-line filter, mounted above the hydraulic oil level and inside the pedestal, can be easily changed without draining the reservoir. A filter gauge with a color-coded range is used to monitor the condition of the return line filter for replacement. The 100 mesh (149 micron) suction strainer in the reservoir can be removed for cleaning. A gate valve, located below the reservoir, prevents oil loss when the pump is serviced. A magnetic drain plug attracts metal particles from the oil.

HOSES AND FITTINGS - The hoses routed through the booms are high pressure and non-conductive with swaged hose end fittings. Retainers separate the hoses inside the booms to prevent chafing and nylon sleeves are installed over hoses at points of movement. Reusable fittings can be installed if a hose is damaged.

MASTER CONTROL - The master control energizes the upper and lower control circuits, including engine start/stop and optional two-speed throttle control.

AUTOMATIC THROTTLE - Automatically advances the engine idle speed when the PTO is engaged.

PAINT - The complete unit is primed and painted before assembly. The standard color is white urethane.

BACKUP PUMP - An auxiliary hydraulic pump designed to bring the booms down in case the main hydraulic source fails. The emergency hydraulic pump is driven by a DC motor, which is powered by the truck-engine battery. The system is connected in parallel with the main pump and is designed for non-continuous operation. An air cylinder at the upper controls and a toggle switch at the turret are used to energize the system.

ENGINE START/STOP - The start/stop circuit has been designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. This feature makes it difficult for unauthorized individuals to operate the lift when the truck is locked. An air cylinder at the upper controls and a toggle switch at the pedestal energize this system.

ELECTRICAL INSULATION SPECIFICATIONS - The outer/inner boom assembly is tested and certified for electrical work at 46 kV and below in accordance with ANSI A92.2 requirements. Aerial devices may be designed and configured for gloving work and tool methods at 46 kV and below. The outer/inner boom assembly is fully insulated even in a retracted position. The chassis insulating system (lower boom insert) is also tested according to ANSI A92.2.

OUTRIGGERS – The main A-frame outriggers are equipped with pivot feet, pilot-operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers furnish 148 in. (3.8 m) of spread and 7.25 in. (185 mm) of penetration with 21 in. (530 mm) of ground clearance based on 39 in. (0.99 m) frame height.

AUXILIARY OUTRIGGERS - A-frame outriggers are shear plate mounted to the frame. Outriggers are equipped with pilot operated check valves, internal thermal relief valves. Each outrigger is operated by a separate control. At maximum extension, the outriggers provide 122 in. (3.1 m) of spread and a maximum of 7 in. (178 mm) of penetration based on a 36 In. (0.91 m) frame height.

OUTRIGGER/BOOM INTERLOCK SYSTEM – The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored.

SLOPE INDICATORS – Slope indicators are required on Versalift units and supplied by Time Manufacturing Co. Slope indicators shall be installed to indicate the level of rotation bearing relative to the ground.

MANUALS - Two (2) Operator's Manuals and two (2) Service Manuals, one (1) Manual of Responsibilities, and one (1) EMI Safety Manual are included.

CHASSIS SPECIFICATIONS

Minimum Chassis Requirements:

- Clean cab to axle dimension (tops, sides, & bottoms) ..... 102 in. (2.6 m)
- Frame section modulus ..... 18 in.^{3} (295 cm^3)
- Frame resisting bending moment ..... 900,000 in-lbs. (101700 N-m)
- GVWR ..... 31,000 lbs. (14060 kg)
- Front GAWR ..... 12,000 lbs. (5445 kg)
- Rear GAWR ..... 19,000 lbs. (8620 kg)
- Approx. curb weight for stability ..... 24,000 lbs. (10886 kg)
- PTO Provision
- International Regular Cab
- Dash Mounted PTO and Upfitter Switches

BODY SPECIFICATIONS

- Brand FX 150" long x 48" high x 94" wide fiberglass line body
- Steel understructure
- 1/8" steel treadplate floor
- Non-skid floor and compartment tops
- Aluminum bulkhead
- Stainless steel rotary latches, hardware, and door hinges
- Vinyl covered stainless steel cable door stops
- Clear vinyl rock guards
- Full length aluminum drip rail
- Automotive grade bubble gasket
- One piece molded doors with automotive finish

- Recessed door jambs
- Flow through ventilation system
- 24” steel tailshelf with LED light kit
- Flexglo compartment lighting
- Rear access rubber strapped step and grab handle
- Wheel chock holders built into the fenders - one (1) per side
- **Streetside Compartmentation**
- 1st Vertical -Two (2) adjustable shelves with adjustable dividers
- 2nd Vertical - Two (2) adjustable shelves with adjustable dividers
- 3rd Vertical - Five (5) locking swivel hooks 1-3-1
- Horizontal - One (1) fixed shelf with dividers and divider tray at compartment bottom
- Rear Vertical - Two (2) adjustable shelves with adjustable dividers
- Streetside full length hotstick shelf with rear dropdown door
- **Curbside Compartmentation**
- 1st Vertical - Five (5) locking swivel hooks 1-3-1
- 2nd Vertical – Aluminum side access steps with rubber strapped step and stainless steel grab handle
- 3rd Vertical -Three (3) adjustable shelves with adjustable dividers
- Horizontal - One (1) adjustable shelf with adjustable dividers
- Rear Vertical - Five (5) locking swivel hooks 1-3-1

INSTALLATION DETAILS

- Furnish and install mounting hardware, PTO, and pump.
- Install VERSALIFT VST-6000-MHI
- Furnish and install hydraulic diagnostic test port
- Furnish and install body and accessories
- Furnish and install park brake interlock
- Furnish and install slope indicators
- Furnish and install backup alarm
- Furnish and install gladhands at the rear of the truck
- Furnish and install two (2) pedestal mounted amber strobe lights, one (1) on each side behind the cab
- Furnish and install two (2) dual outrigger control boxes
- Furnish and install a Buyers product PH15 15 ton pintle hitch with two (2) safety “D” rings
- Furnish and install a 7-prong trailer receptacle
- Furnish and install mudflaps
- Furnish and install travel height decal in the cab
- Furnish chassis programming
- Furnish two (2) rubber wheel chocks
- Furnish four (4) DICA 18” X 18” X 1” composite outrigger pads
- Furnish a 5 lb. fire extinguisher and 3-piece triangle reflector kit
- Test ride completed unit for 1 hour
- Test and Certify per ANSI A92.2-2001

PRICE SUMMARY

Aerial, Body, Accessories and Installation:	**$164,776.00**
Chassis (2023 International):	**$To Be Supplied**
SUBTOTAL:	**$164,776.00**
NET PRICE FOB WACO, TEXAS:	**$164,776.00**

OPTIONS

Option 1: Delivery to Midland, TX: **ADD TO NET PRICE:** **$ 1,148.00**
(Freight cost is an estimate only. Actual freight cost will be determined when unit is built.)

NOTES

1. Your Terms This Order: Net 30 Days pending credit approval.
2. Days to Delivery: Approximately 540-630 Days after receipt of order or 60 days after receipt of chassis, whichever is later. Delivery times are subject to change without prior notice.
3. This Quotation Valid For: 30 Days
4. This quotation does not include any applicable sales tax, title, license or state inspection.
5. If Versalift Southwest is not supplying the chassis; it is the customer's responsibility to deliver the chassis to our facility in Waco, Texas.
6. Chassis specification must accompany purchase order. If the chassis specification does not meet minimum requirements for the application additional charges may be incurred to meet those requirements. This is necessary to order the correct mounting hardware to accommodate the particular chassis to be used.
7. Steel surcharges and/or additional fees may be incurred at any time due to market volatility. Customer will be notified when cost changes occur, and actual pricing will be noted in detail on final invoice.

Thank you for considering ***Versalift Southwest*** to meet your utility equipment needs. We look forward to earning your business.

Sincerely,

Michael J. Jacko
Regional Sales Manager
Phone: (254) 227-1755
MikeJacko@Versalift.com

Signature: _____ Date: _____

P.O. #: _____ Quantity: _____ Options: _____

Please sign and date this quote if you would like to purchase this unit as stated in the quotation listed above. Indicate any options that you wish to include on your unit by the option number in the space provided above. Please fax this with your PO to (254) 776-8025 or email to staceymetayer@versalift.com.

HV607 SBA

Sales Proposal For:

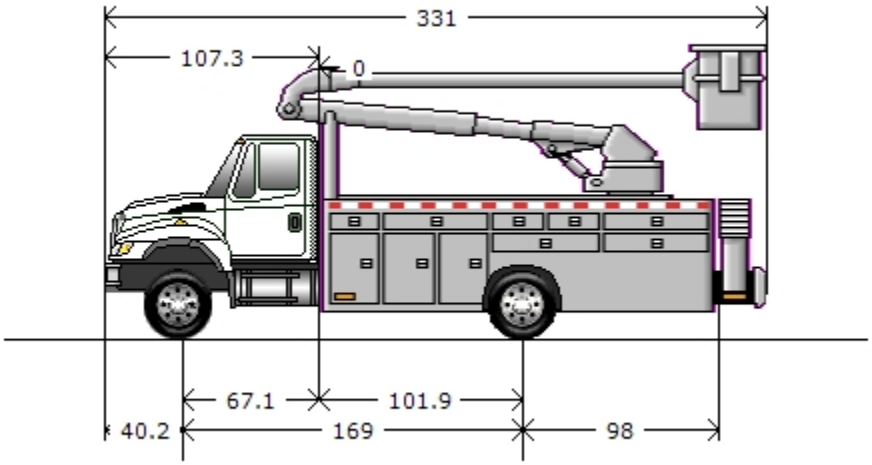
City of Midland

Presented By:

SOUTHWEST INTL TRKS INC

Prepared For:
City of Midland
Scott Pyle
300 North Loraine
Midland, TX 79702-
(432)685 - 7233
Reference ID: N/A

Presented By:
SOUTHWEST INTL TRKS INC
Tanner K Bragg
2401 E PIONEER PKWY
ARLINGTON TX 76010 -
(817)461-2931



Model Profile
2021 HV607 SBA (HV607)

AXLE CONFIG:	4X2
APPLICATION:	Bucket Lift
MISSION:	Requested GVWR: 33000. Calc. GVWR: 33000. Calc. GCWR: 50000 Calc. Start / Grade Ability: 44.55% / 2.25% @ 55 MPH Calc. Geared Speed: 91.1 MPH
DIMENSION:	Wheelbase: 169.00, CA: 101.90, Axle to Frame: 98.00
ENGINE, DIESEL:	{Cummins B6.7 325} EPA 2021, 325HP @ 2400 RPM, 750 lb-ft Torque @ 1800 RPM, 2600 RPM Governed Speed, 325 Peak HP (Max)
TRANSMISSION, AUTOMATIC:	{Allison 3500 RDS} 6th Generation Controls, Wide Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer 21060D} Single Reduction, 21,000-lb Capacity, Driver Control Locking Differential, 200 Wheel Ends Gear Ratio: 5.29
CAB:	Conventional, Day Cab
TIRE, FRONT:	(2) 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position
TIRE, REAR:	(4) 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position
SUSPENSION, REAR, SINGLE:	23,500-lb Capacity, Vari-Rate Springs
PAINT:	Cab schematic 100WL Location 1: 9219, Winter White (Std) Chassis schematic N/A

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
HV60700	Base Chassis, Model HV607 SBA with 169.00 Wheelbase, 101.90 CA, and 98.00 Axle to Frame.	6136/3644	9780
AXLE CONFIGURATION			
1ANA	AXLE CONFIGURATION {Navistar} 4x2	-160/-153	-313
	Notes : Pricing may change if axle configuration is changed.		
ENGINE			
12ERM	ENGINE, DIESEL {Cummins B6.7 325} EPA 2021, 325HP @ 2400 RPM, 750 lb-ft Torque @ 1800 RPM, 2600 RPM Governed Speed, 325 Peak HP (Max)	0/0	0
12WZX	CARB EMISSION WARR COMPLIANCE for Cummins B6.7 Engines	0/0	0
12WZJ	CARB IDLE COMPLIANCE Low NOx Idle Engine, Complies with California Clean Air Regulations; Includes "Certified Clean Idle" Decal located on Driver Door	0/0	0
12VJG	EMISSION, CALENDAR YEAR {Cummins B6.7} EPA, OBD and GHG Certified for Calendar Year 2023	0/0	0
12UYE	RADIATOR Aluminum, 2-Row, Cross Flow, Over Under System, 717 SqIn Louvered, with 313 SqIn Charge Air Cooler, Includes In-Tank Oil Cooler	-80/-1	-81
	Includes : DEAERATION SYSTEM with Surge Tank : HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps : RADIATOR HOSES Premium, Rubber		
12THT	FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed	0/0	0
	Includes : FAN Nylon		
12VBR	AIR CLEANER with Service Protection Element	10/0	10
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection	0/0	0
12849	BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines	3/0	3
	Includes : BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door		
12XBM	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout, with Ignition Switch Control, for Cummins B6.7 and L9 Engines	0/0	0
12VXU	THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel	0/0	0
TRANSMISSION			
13BDR	TRANSMISSION, AUTOMATIC {Allison 3500 RDS} 6th Generation Controls, Wide Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway	216/67	283

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
13WUC	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS) and Regional Haul Series (RHS), General Purpose Trucks, Construction, Package Number 223	0/0	0
13WVV	NEUTRAL AT STOP Allison Transmission Shifts to Neutral When Service Brake is Depressed and Vehicle is at Stop; Remains in Neutral Until Service Brake is Released	0/0	0
13XAL	PTO LOCATION Customer Intends to Install PTO at Left Side of Transmission	0/0	0
13WYU	SHIFT CONTROL PARAMETERS {Allison} 3000 or 4000 Series Transmissions, Performance Programming	0/0	0
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints	0/0	0
13WET	TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 & 2000 Series Transmission	1/0	1
CLUTCH			
11001	CLUTCH Omit Item (Clutch & Control)	0/0	0
REAR AXLES, SUSPENSIONS			
14AGR	AXLE, REAR, SINGLE {Dana Spicer 21060D} Single Reduction, 21,000-lb Capacity, Driver Control Locking Differential, 200 Wheel Ends . Gear Ratio: 5.29	0/51	51
14SAN	SUSPENSION, REAR, SINGLE 23,500-lb Capacity, Vari-Rate Springs	0/35	35
FRONT AXLES			
2ARW	AXLE, FRONT NON-DRIVING {Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity	0/0	0
FRONT SUSPENSIONS			
3ADC	SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 12,000-lb Capacity, with Shock Absorbers	0/0	0
CABS, COWLS, BODIES			
16030	CAB Conventional, Day Cab	0/0	0
16ZBT	ACCESS, CAB Steel, Driver & Passenger Sides, Two Steps per Door, for use with Day Cab and Extended Cab	0/0	0
16BAM	AIR CONDITIONER with Integral Heater and Defroster	0/0	0
16VKB	CAB INTERIOR TRIM Classic, for Day Cab Includes : CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets, Retainer Nets and CB Radio Pocket; Located Above Driver and Passenger : DOME LIGHT, CAB Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Overhead Console, Center Mounted : SUN VISOR (2) Padded Vinyl; 2 Moveable (Front-to-Side) Primary Visors, Driver Side with Toll Ticket Strap	0/0	0
16WSK	CAB REAR SUSPENSION Air Bag Type	0/0	0
16WLS	FRESH AIR FILTER Attached to Air Intake Cover on Cowl Tray in Front of Windshield Under Hood	0/0	0

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
16GED	GAUGE CLUSTER Base Level; English with English Electronic Speedometer	0/0	0
	Includes : GAUGE CLUSTER DISPLAY: Base Level (3" Monochromatic Display), Premium Level (5" LCD Color Display); Odometer, Voltmeter, Diagnostic Messages, Gear Indicator, Trip Odometer, Total Engine Hours, Trip Hours, MPG, Distance to Empty/ Refill for : GAUGE CLUSTER Speedometer, Tachometer, Engine Coolant Temp, Fuel Gauge, DEF Gauge, Oil Pressure Gauge, Primary and Secondary Air Pressure : WARNING SYSTEM Low Fuel, Low DEF, Low Oil Pressure, High Engine Coolant Temp, Low Battery Voltage (Visual and Audible), Low Air Pressure (Primary and Secondary)		
16HHE	GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} with Black Bezel, Mounted in Instrument Panel	2/0	2
16XJN	INSTRUMENT PANEL Flat Panel	0/0	0
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster	0/0	0
16SNM	MIRRORS (2) C-Loop, Heated, Black Heads and Arms, 7.5" x 14" Flat Glass, Includes 7.5" x 7" Convex Mirrors, for 102" Load Width	0/0	0
	Notes : Mirror Dimensions are Rounded to the Nearest 0.5"		
16VLV	MONITOR, TIRE PRESSURE Omit	-10/-1	-11
16JNT	SEAT, DRIVER {National 2000} Air Suspension, High Back with Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, with 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust	0/0	0
16SMH	SEAT, TWO-MAN PASSENGER {National} Fixed Back, Integrated Headrest in Both Occupant Positions, Vinyl, with Under Seat Storage Compartment	38/33	71
16WJU	WINDOW, POWER (2) and Power Door Locks, Left and Right Doors, Includes Express Down Feature	0/0	0
FRAMES			
1CAJ	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.866" x 3.622" x 0.437" (276.0mm x 92.0mm x 11.1mm); 456.0" (11582mm) Maximum OAL	43/568	611
1LNG	BUMPER, FRONT Contoured, Steel, Painted Gloss Black	-17/3	-14
1SAL	CROSSMEMBER, REAR, AF (1)	-6/26	20
1MEJ	FRAME, SPECIAL EFFECTS Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline	0/0	0
1WGR	WHEELBASE RANGE 138" (350cm) Through and Including 187" (475cm)	74/-74	0
BRAKES			
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications	0/0	0
	Includes : BRAKE LINES Color and Size Coded Nylon : DRAIN VALVE Twist-Type : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster		

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
	: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel : PARKING BRAKE VALVE For Truck : QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6		
4GBM	BRAKE, PARKING Manual Push-Pull Pneumatic Parking Brake	0/0	0
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator) Full Vehicle Wheel Control System	0/0	0
4XDC	BRAKES, FRONT {Meritor 15X4 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 15" X 4", 13,200-lb Capacity	-70/0	-70
4EXP	BRAKE CHAMBERS, FRONT AXLE {Bendix} 20 SqIn	2/0	2
4LAG	SLACK ADJUSTERS, FRONT {Gunite} Automatic	14/0	14
4WBX	DUST SHIELDS, FRONT BRAKE for Air Cam Brakes	10/0	10
4XDR	BRAKES, REAR {Meritor 16.5X7 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 7", 23,000-lb Capacity per Axle	0/52	52
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 SqIn Spring Brake	0/7	7
4LGG	SLACK ADJUSTERS, REAR {Gunite} Automatic	0/14	14
4WDM	DUST SHIELDS, REAR BRAKE for Air Cam Brakes	0/10	10
4SPA	AIR COMPRESSOR {Cummins} 18.7 CFM	0/0	0
4EBT	AIR DRYER {Bendix AD-IP} with Heater	11/16	27
4VKC	AIR DRYER LOCATION Mounted Inside Left Rail, Back of Cab	13/8	21
4WZJ	AIR TANK LOCATION (2) : One Mounted Under Each Rail, Front of Rear Suspension, Parallel to Rail	-38/57	19
4732	DRAIN VALVE {Berg} with Pull Chain, for Air Tank	0/0	0
4619	TRAILER CONNECTIONS Four-Wheel, with Hand Control Valve and Tractor Protection Valve, for Straight Truck	2/0	2
	Notes : When electronic stability control is ordered with trailer connections on a 4x2 truck, please check the operator manual for trailer weight restrictions.		
STEERING			
5PSA	STEERING GEAR {Sheppard M100} Power	0/0	0
5708	STEERING COLUMN Tilting	14/1	15
5CAW	STEERING WHEEL 4-Spoke; 18" Dia., Black	0/0	0
DRIVELINES			
6DGG	DRIVELINE SYSTEM {Dana Spicer} 1710, for 4x2/6x2	6/22	28
EXHAUST SYSTEMS			
7BLW	EXHAUST SYSTEM Horizontal Aftertreatment System, Frame Mounted Right Side Under Cab, for Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab	133/44	177

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
7BEV	AFTERTREATMENT COVER Steel, Black	10/3	13
7WDM	EXHAUST HEIGHT 10'	16/12	28
7WDN	MUFFLER/TAIL PIPE GUARD (1) Aluminum	9/7	16
7WAZ	TAIL PIPE (1) Turnback Type	6/4	10
ELECTRICAL SYSTEMS			
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment Includes : DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab : HAZARD SWITCH Push On/Push Off, Located on Instrument Panel to Right of Steering Wheel : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever : PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light : STARTER SWITCH Electric, Key Operated : STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector : TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever : WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted : WIRING, CHASSIS Color Coded and Continuously Numbered	0/0	0
8GXE	ALTERNATOR {Leece-Neville AVI160P2012} Brush Type, 12 Volt, 190 Amp Capacity, Pad Mount, with Remote Sense	0/0	0
8RPR	ANTENNA for Increased Roof Clearance Applications	1/0	1
8THB	BACK-UP ALARM Electric, 102 dBA	0/3	3
8XDU	BATTERY BOX Steel, with Aluminum Cover, 14" Wide, 2-3 Battery Capacity, Mounted Left Side Under Cab	-13/7	-6
8MJT	BATTERY SYSTEM {Fleetrite} Maintenance-Free, (2) 12-Volt 1900CCA Total, Top Threaded Stud	7/7	14
8HAE	BODY BUILDER WIRING Rear of Frame; Includes Sealed Connectors for Tail/ Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn	0/3	3
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses	0/0	0
8518	CIGAR LIGHTER Includes Ash Cup	1/0	1
8WPH	CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade	0/0	0
8HAG	ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame; for Separate Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake accommodation package with Cab Connections for Mounting Customer Installed Electric Brake Unit, Less Trailer Socket	0/2	2
8XNY	HEADLIGHTS Halogen	0/0	0
8XHN	HORN, AIR Single Trumpet, Black, with Lanyard Pull Cord	3/0	3
8VAY	HORN, ELECTRIC Disc Style	0/0	0

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
8WWJ	INDICATOR, LOW COOLANT LEVEL with Audible Alarm	0/0	0
8RPS	RADIO AM/FM/WB/Clock/Bluetooth/USB Input/Auxiliary Input	3/0	3
8RMV	SPEAKERS (2) 6.5" Dual Cone Mounted in Doors	5/0	5
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt, Less Thermal Over-Crank Protection	8/0	8
8WMA	SWITCH, TOGGLE, FOR WORK LIGHT Lighted; on Instrument Panel and Wiring Effects for Customer Furnished Back of Cab Light	2/1	3
8TKK	TRAILER AUXILIARY FEED CIRCUIT for Electric Trailer Brake Accommodation/ Air Trailer ABS; with 30 Amp Fuse and Relay, Controlled by Ignition Switch	1/0	1
8XGT	TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender	0/0	0
FRONT END			
9WBM	FRONT END Tilting, Fiberglass, with Three Piece Construction, Sloped Front	-64/-6	-70
9HAD	GRILLE Chrome	0/0	0
9AAB	LOGOS EXTERIOR Model Badges	0/0	0
9AAE	LOGOS EXTERIOR, ENGINE Badges	0/0	0
SPEEDOMETER, TOOLS, MISC			
10AGB	COMMUNICATIONS MODULE Telematics Device with Over the Air Programming; Includes Five Year Data Plan and International 360	1/0	1
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100	0/0	0
	Includes : PAINT SCHEMATIC ID LETTERS "WL"		
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone	0/0	0
FUEL TANKS			
15SXJ	FUEL TANK Top Draw, Non-Polished Aluminum, 24" Dia, 50 US Gal (189L), Mounted Left Side, Under Cab	30/4	34
15WCN	DEF TANK 5 US Gal (19L) Capacity, Frame Mounted Outside Left Rail, Under Cab	-2/19	17
15LMS	FUEL/WATER SEPARATOR 12 VDC Electric Heater, Includes Pre-Heater, Includes Water-in-Fuel Sensor, Cummins Supplied on Engine	1/-1	0
WHEELS, TIRES - FRONT			
27DTT	WHEELS, FRONT {Accuride 28828} DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and with Steel Hubs	14/0	14
7372135415	(2) TIRE, FRONT 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position	-20/0	-20
WHEELS, TIRES - REAR			

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
28DTT	WHEELS, REAR {Accuride 28828} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and with Steel Hubs	0/28	28
7372135415	(4) TIRE, REAR 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position	0/-40	-40
BODY INTEGRATION			
60AAG	BDY INTG, REMOTE POWER MODULE Mounted Inside Cab Behind Driver Seat, Up to 6 Outputs & 6 Inputs, Max 20 amp per Channel, Max 80 amp Total; Includes 1 Switch Pack with Latched Switches	0/0	0
60ABC	BDY INTG, REMOTE START/STOP To Start and Stop Vehicle Engine	0/0	0
60AJG	BDY INTG, THROTTLE CONTROL Accommodation for Single Customer Mounted External Engine Speed Control Switch, for Utility Applications, Programmable Mode for Various Switch Actions and Engine Speed Control Option, Only with Vehicle Stopped and Park Brake is Applied (requires 1 Remote Power Module input)	0/0	0
	Services Section:		
WARRANTY			
40128	WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A	0/0	0
40NSG	CARB COMPANION PLAN {Navistar} for CARB B6.7 and L9 Engines	0/0	0
	Total Component Weight:	**6366/4482**	**10848**

Body/Allied Equipment

Code	Description	F/R Wt	Tot Wt

Goods Purchased

Code	Description	F/R Wt	Tot Wt
	Surcharge	0/0	0
	Total Goods Purchased:	**0/0**	**0**

The weight calculations included in this proposal are an estimate of future vehicle weight. The actual weight as manufactured may be different from the estimated weight. Navistar, Inc. shall not be liable for any consequences resulting from any differences between the estimated weight of a vehicle and the actual weight.

PRICING WORKSHEET			*Proposal # 8114-01*	
Buying Agency: City of Midland			**Date Prepared**	**10/24/2022**
Southwest International Trucks			**Contract 601-19**	
Product Description: 2024 International HV607				
31,000 GVWR Aerial lift			**HV607 4x2 is base chassis**	
Contact Person: Scott Pyle			**Item: Base Chassis Bid**	**$ 60,047.78**
B: Options	**Option cost is 80% of MSRP**			
120,000 PSI frame rails with rear crossmember	**719.20**		**21,000 Lb. rear axle**	**624.80**
Steel front bumper/ Frame dimple for centerline	**78.40**		**23,500 Lb. rear suspension**	**69.60**
12,000 lb. front axle and suspension	**272.00**		**50 gallon aluminum fuel tank**	**273.60**
Trailer connections with tractor protection valve	**433.60**		**5 gallon DEF tank**	**142.40**
Bendix air dryer with mounting	**460.80**		**Air cleaner restriction gauge**	**24.00**
Front and rear dust shields for brakes	**84.00**		**Two man passenger's seat**	**460.80**
Two air tanks mounted under rear suspension	**230.40**		**C-loop heated mirrors**	**100.80**
Tilting steering column	**100.00**		**Fresh air filter**	**60.80**
Dana Spicer driveline system	**76.80**		**Steel front and rear wheels**	**168.80**
Exhaust system with vertical exhaust	**1,753.60**		**Body Remote power module with 6 switches**	**632.00**
Cigar lighter with power source	**14.40**		**Body INT remote Start/Stop**	**450.40**
Leece Neville 190 am alternator	**294.40**		**Body INT remote throttle control**	**71.20**
Body builder wiring	**167.20**		**CARB companion plan**	**400.00**
Electric trailer brake accommodation package	**388.80**		**Factory surcharge**	**2,000.00**
2 batteries 1900 CCA with steel battery box	**420.80**		**Freight increase**	**500.00**
AM/FM radio with Bluetooth and speakers	**386.40**			
Back up alarm/ Toggle switch for work light	**143.20**			
Delco Remy starting motor/ Air horn	**229.60**			
Engine block heater	**78.40**			
Cummins L9 engine 325 HP/750 torque	**4,519.20**			
CARB Compliance sticker and warranty	**$1,121.00**			
Engine control remote mounted	**$48.00**			
Allison 3500 RDS transmission 6 speed	**$8,915.20**			
Transmission stalk shifter/Synthetic oil	**$202.40**			
Subtotal Column 1:	**$ 21,137.80**		**Subtotal Column 2:**	**$5,979.20**
Total Options				**$ 27,117.00**
CHASSIS WITH FACTORY OPTIONS				**$ 87,164.78**
TOTAL BODY PRICE	**See attached body spec sheet**			**165,924.00**

Versalift Southwest Quote # 23466

Additional Options:			
Buy Board Fee			**400.00**
Transportation	Body price includes delivery		**0.00**
DOT Inspection with Fire Extinguisher and Road Flare Kit			**400.00**
		TOTAL BUY BOARD PRICE	**$253,888.78**

Tanner Bragg
Southwest International Trucks-Arlington.
Arlington, Texas 76010
Fax# 817-861-7084
Office# 817-664-2906
E-mail Address: tanner.bragg@swit-tx.com

PRICE IS SUBJECT TO FURTHER FACTORY INCREASES
PRICE IS SUBJECT TO FURTHER LIFT INCREASES
PRICE IS SUBJECT TO FURTHER BODY INCREASES

To purchase this unit, please issue a purchase order to Southwest International Trucks, Inc. and send it to the Buy Board.
We will order your truck when we receive notification from the Buy Board of your purchase order.

Thank you,
Tanner Bragg

Versalift Southwest L.L.C.
1200 Texas Central Pkwy
Waco, Texas 76712-1415
254.420.5330

QUOTATION

VSW-23466

Customer:	**Southwest International**	**Date:**	**October 20, 2022**
Attn:	**Tanner Bragg**	**Model:**	**VST-6000-MHI**
Email:	**Tanner.Bragg@swit-tx.com**		
Ref:	**City of Midland Buyboard**		
Attn:	**Scott Pyle**		
Email:	**spyle@midlandtexas.gov**		

We are pleased to quote the VERSALIFT VST-6000-MHI, insulated 60 ft. 1 in. (18.3 m) telescopic aerial platform lift, 65 ft. 1 in. (19.8 m) working height, 38 ft. 9 in. (11.8 m) horizontal reach including the following items *(based on a 40" frame height)*:

AERIAL LIFT SPECIFICATIONS

PLATFORM - The fiberglass platform is 24 in. x 48 in. x 42 in. (0.61 m x 1.22 m x 1.07 m) deep with an inside and outside step for easy access. The platform capacity is 450 lbs. (204 kg) with the jib and winch installed and 600 lbs. (272 kg) with the jib and winch removed. A cushioned platform support is provided.

PERSONNEL RESTRAINT SYSTEM – An arc flash rated safety harness and lanyard are supplied. The anchor for the lanyard is attached to the platform support.

PLATFORM LINER AND VINYL COVER - A 50 kV rated liner and soft vinyl cover are supplied for the platform.

INDIVIDUAL LOWER CONTROLS – Individual full-pressure controls at the turret actuate all boom functions. The lower control station is equipped with a selector valve to override the upper controls and serve as the emergency stop from lower controls.

SINGLE STICK 3-AXIS UPPER CONTROL - The full pressure single stick 3-axis upper control includes a safety trigger to prevent inadvertent operation. The lift movements correspond with control handle movements. An emergency stop and a tool selector control are located at the upper controls.

TRUGUARD™ 2.0 - This advance upper controls isolation system provides 4" of electrical isolation from the entire upper controls, including the control dash panel. This system also includes a protective shield which helps prevent environmental and work related contaminants from making direct contact with the isolating surfaces.

HYDRAULIC PLATFORM ROTATOR - A hydraulic platform rotator, operated by a control lever, rotates the platform 180° from one side of the outer/inner boom assembly, across the end-hung position, to the other side of the outer/inner boom assembly.

HYDRAULIC PLATFORM LEVELING - A master and slave cylinder arrangement automatically levels the platform in all boom positions. This system also provides hydraulic platform tilt to adjust platform level, tilt the platform for clean out, or to ease the removal of an injured operator. The platform tilt can be activated from the upper and lower controls.

LINE-LIFTING SOCKET - Built as part of the platform support structure, is a vertical line-lifting socket for 3 in. (76 mm) diameter line-lifting attachments. The socket is automatically leveled with the platform.

HYDRAULIC TOOL CIRCUIT AT THE PLATFORM - This system is designed for open center hydraulic tools. The tool circuit provides 7.5 gpm (28 lpm) at 2000 psi (138 bars). One set of hydraulic ports (one pressure port and one return port) is standard at the platform to operate one tool. Includes quick disconnect fittings.

LOWER BOOM WITH CHASSIS INSULATING SYSTEM - Each end of a high strength fiberglass insert (chassis insulating system) is installed in a rectangular 10 in. x 12-in. (254mm x 305 mm) high strength steel section. The steel and fiberglass sections are bonded with pressure injected adhesive to fill any voids. A compensation link with a fiberglass section maintains the 24-in. (0.61 m) insulation gap in all the boom positions. The double acting cylinder, with an integral holding valve, allows the lower boom to articulate from horizontal to 86° above horizontal.

OUTER/INNER BOOM ASSEMBLY- The outer/inner boom assembly includes an outer boom, telescopic inner boom, extension system, and hose assemblies. The outer boom consists of a 10 in. x 12 in. (254 mm x 305 mm) steel section. The 8-5/8 in. x 10-5/8 in. (219 mm x 270 mm) rectangular fiberglass inner boom is housed within the outer boom. The inner boom can be easily removed and disassembled for service and inspection. The extension system consists of a hydraulic cylinder, two integral holding valves, and dual #60 roller chains housed entirely within the boom assembly. The hoses routed through the outer/inner boom assembly are non-conductive and fully contained within the boom assembly. The outer/inner boom assembly articulates from 23° below horizontal to 85° above horizontal. Actuated by a double acting cylinder, equipped with two integral holding valves; the outer/inner boom assembly is off set to one side to provide easy access to the platform. A boom support cradle and a boom tie down strap are included.

CYLINDERS - Both the upper and lower cylinders are a threaded head-cap design. Both cylinders are equipped with two integral holding valves to prevent creep down and to lock the booms in position in case of hose failure.

TURRET - The 5/8 in. (16 mm) thick turret wings are designed for strength and rigidity. The bearing cover is continuously welded to seal out moisture and prevent foreign materials from obstructing the turret rotation. The 1-1/4 in. (32 mm) thick turret plate is machined to provide a flat surface to support the rotation bearing.

HYDRAULIC JIB AND WINCH - The material handling jib and winch consists of a platform shaft mounted jib-pole and winch. Up to 1,000 lbs. (454 kg) material-handling capacity can be provided at elevated boom angles. Consult factory for details on specific options. The winch is hydraulically powered through a self-locking worm gear drive, so a load-holding brake is not required. The winch provides line speeds of 15 to 30 ft. per minute (5 to 9 m per min.). 70 ft. (21 m) of 7/16 in. (13 mm) diameter polyester rope with a clevis hook is provided. The angle of the jib-pole is hydraulic adjusted through the 100° arc. An 18” stroke cylinder hydraulic extends the jib-pole. Three pin locations allow jib-pole extensions from 20” to 61”, measured from the platform pivot to the center of the load line.

CONTINUOUS ROTATION - Unrestricted rotation is accomplished by a hydraulically driven worm and spur gear with a shear-ball rotation bearing. The critical bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal are grade 8 hex head cap screws. These critical bolts are torque seal marked to provide a quick means of detecting any turning of the bolt upon inspection. An eccentric ring is provided to adjust the gearbox pinion backlash.

LUBRICATION - Non-lube bearings are used at all pivot points. Only the rotation bearing and rotation bearing gear teeth require periodic lubrication.

PEDESTAL - The pedestal is tubular with a reinforced mounting plate. The top plate of the pedestal is 1-1/4 in. (32 mm) thick and machined flat to support the rotation bearing.

HYDRAULIC OIL RESERVOIR – A 25 gallon (95 l) hydraulic oil reservoir is built integral to the pedestal. The reservoir includes an anti-splash baffle and sight gauge for quick hydraulic fluid level checks, and a return filter pressure gauge.

SUBFRAME –The full length subframe is constructed of 6 x 4 tube and ¼ in. plate and is suitable for most installations up to 108” C.A. Shear plates and tie-bolts are provided to attach to the chassis frame.

HYDRAULIC SYSTEM - The open-center hydraulic system operates at 3000 psi (207 bars) at 7.5 gpm (28 lpm). A 10 micron pressure line filter installed after the pump and a 10-micron return-line filter, mounted above the hydraulic oil level and inside the pedestal, can be easily changed without draining the reservoir. A filter gauge with a color-coded range is used to monitor the condition of the return line filter for replacement. The 100 mesh (149 micron) suction strainer in the reservoir can be removed for cleaning. A gate valve, located below the reservoir, prevents oil loss when the pump is serviced. A magnetic drain plug attracts metal particles from the oil.

HOSES AND FITTINGS - The hoses routed through the booms are high pressure and non-conductive with swaged hose end fittings. Retainers separate the hoses inside the booms to prevent chafing and nylon sleeves are installed over hoses at points of movement. Reusable fittings can be installed if a hose is damaged.

MASTER CONTROL - The master control energizes the upper and lower control circuits, including engine start/stop and optional two-speed throttle control.

AUTOMATIC THROTTLE - Automatically advances the engine idle speed when the PTO is engaged.

PAINT - The complete unit is primed and painted before assembly. The standard color is white urethane.

BACKUP PUMP - An auxiliary hydraulic pump designed to bring the booms down in case the main hydraulic source fails. The emergency hydraulic pump is driven by a DC motor, which is powered by the truck-engine battery. The system is connected in parallel with the main pump and is designed for non-continuous operation. An air cylinder at the upper controls and a toggle switch at the turret are used to energize the system.

ENGINE START/STOP - The start/stop circuit has been designed so the lift cannot be operated unless the truck ignition switch is in the "RUN" position and the master control is activated. This feature makes it difficult for unauthorized individuals to operate the lift when the truck is locked. An air cylinder at the upper controls and a toggle switch at the pedestal energize this system.

ELECTRICAL INSULATION SPECIFICATIONS - The outer/inner boom assembly is tested and certified for electrical work at 46 kV and below in accordance with ANSI A92.2 requirements. Aerial devices may be designed and configured for gloving work and tool methods at 46 kV and below. The outer/inner boom assembly is fully insulated even in a retracted position. The chassis insulating system (lower boom insert) is also tested according to ANSI A92.2.

OUTRIGGERS – The main A-frame outriggers are equipped with pivot feet, pilot-operated check valves, internal thermal relief valves, and separate controls. At maximum extension, the outriggers furnish 148 in. (3.8 m) of spread and 7.25 in. (185 mm) of penetration with 21 in. (530 mm) of ground clearance based on 39 in. (0.99 m) frame height.

AUXILIARY OUTRIGGERS - A-frame outriggers are shear plate mounted to the frame. Outriggers are equipped with pilot operated check valves, internal thermal relief valves. Each outrigger is operated by a separate control. At maximum extension, the outriggers provide 122 in. (3.1 m) of spread and a maximum of 7 in. (178 mm) of penetration based on a 36 In. (0.91 m) frame height.

OUTRIGGER/BOOM INTERLOCK SYSTEM – The outrigger/boom interlock option is a feature designed to prevent the lift from being operated until the outriggers contact the ground. The interlock also prevents the outriggers from being retracted before the aerial lift is properly stored.

SLOPE INDICATORS – Slope indicators are required on Versalift units and supplied by Time Manufacturing Co. Slope indicators shall be installed to indicate the level of rotation bearing relative to the ground.

MANUALS - Two (2) Operator's Manuals and two (2) Service Manuals, one (1) Manual of Responsibilities, and one (1) EMI Safety Manual are included.

CHASSIS SPECIFICATIONS

Minimum Chassis Requirements:

- Clean cab to axle dimension (tops, sides, & bottoms) ..... 102 in. (2.6 m)
- Frame section modulus ..... 18 in.^{3} (295 cm^3)
- Frame resisting bending moment ..... 900,000 in-lbs. (101700 N-m)
- GVWR ..... 31,000 lbs. (14060 kg)
- Front GAWR ..... 12,000 lbs. (5445 kg)
- Rear GAWR ..... 19,000 lbs. (8620 kg)
- Approx. curb weight for stability ..... 24,000 lbs. (10886 kg)
- PTO Provision
- International Regular Cab
- Dash Mounted PTO and Upfitter Switches

BODY SPECIFICATIONS

- Brand FX 150" long x 48" high x 94" wide fiberglass line body
- Steel understructure
- 1/8" steel treadplate floor
- Non-skid floor and compartment tops
- Aluminum bulkhead
- Stainless steel rotary latches, hardware, and door hinges
- Vinyl covered stainless steel cable door stops
- Clear vinyl rock guards
- Full length aluminum drip rail
- Automotive grade bubble gasket
- One piece molded doors with automotive finish

- Recessed door jambs
- Flow through ventilation system
- 24” steel tailshelf with LED light kit
- Flexglo compartment lighting
- Rear access rubber strapped step and grab handle
- Wheel chock holders built into the fenders - one (1) per side
- **Streetside Compartmentation**
- 1st Vertical -Two (2) adjustable shelves with adjustable dividers
- 2nd Vertical - Two (2) adjustable shelves with adjustable dividers
- 3rd Vertical - Five (5) locking swivel hooks 1-3-1
- Horizontal - One (1) fixed shelf with dividers and divider tray at compartment bottom
- Rear Vertical - Two (2) adjustable shelves with adjustable dividers
- Streetside full length hotstick shelf with rear dropdown door
- **Curbside Compartmentation**
- 1st Vertical - Five (5) locking swivel hooks 1-3-1
- 2nd Vertical – Aluminum side access steps with rubber strapped step and stainless steel grab handle
- 3rd Vertical -Three (3) adjustable shelves with adjustable dividers
- Horizontal - One (1) adjustable shelf with adjustable dividers
- Rear Vertical - Five (5) locking swivel hooks 1-3-1

INSTALLATION DETAILS

- Furnish and install mounting hardware, PTO, and pump.
- Install VERSALIFT VST-6000-MHI
- Furnish and install hydraulic diagnostic test port
- Furnish and install body and accessories
- Furnish and install park brake interlock
- Furnish and install slope indicators
- Furnish and install backup alarm
- Furnish and install gladhands at the rear of the truck
- Furnish and install two (2) pedestal mounted amber strobe lights, one (1) on each side behind the cab
- Furnish and install two (2) dual outrigger control boxes
- Furnish and install a Buyers product PH15 15 ton pintle hitch with two (2) safety “D” rings
- Furnish and install a 7-prong trailer receptacle
- Furnish and install mudflaps
- Furnish and install travel height decal in the cab
- Furnish chassis programming
- Furnish two (2) rubber wheel chocks
- Furnish four (4) DICA 18” X 18” X 1” composite outrigger pads
- Furnish a 5 lb. fire extinguisher and 3-piece triangle reflector kit
- Test ride completed unit for 1 hour
- Test and Certify per ANSI A92.2-2001

PRICE SUMMARY

Aerial, Body, Accessories and Installation:	**$164,776.00**
Chassis (2023 International):	**$To Be Supplied**
SUBTOTAL:	**$164,776.00**
NET PRICE FOB WACO, TEXAS:	**$164,776.00**

OPTIONS

Option 1: Delivery to Midland, TX: **ADD TO NET PRICE:** **$ 1,148.00**
(Freight cost is an estimate only. Actual freight cost will be determined when unit is built.)

NOTES

1. Your Terms This Order: Net 30 Days pending credit approval.
2. Days to Delivery: Approximately 540-630 Days after receipt of order or 60 days after receipt of chassis, whichever is later. Delivery times are subject to change without prior notice.
3. This Quotation Valid For: 30 Days
4. This quotation does not include any applicable sales tax, title, license or state inspection.
5. If Versalift Southwest is not supplying the chassis; it is the customer's responsibility to deliver the chassis to our facility in Waco, Texas.
6. Chassis specification must accompany purchase order. If the chassis specification does not meet minimum requirements for the application additional charges may be incurred to meet those requirements. This is necessary to order the correct mounting hardware to accommodate the particular chassis to be used.
7. Steel surcharges and/or additional fees may be incurred at any time due to market volatility. Customer will be notified when cost changes occur, and actual pricing will be noted in detail on final invoice.

Thank you for considering ***Versalift Southwest*** to meet your utility equipment needs. We look forward to earning your business.

Sincerely,

Michael J. Jacko
Regional Sales Manager
Phone: (254) 227-1755
MikeJacko@Versalift.com

Signature: _____ Date: _____

P.O. #: _____ Quantity: _____ Options: _____

Please sign and date this quote if you would like to purchase this unit as stated in the quotation listed above. Indicate any options that you wish to include on your unit by the option number in the space provided above. Please fax this with your PO to (254) 776-8025 or email to staceymetayer@versalift.com.

~~PACKET 9.27 November 15, 2022~~

HV607 SBA

Sales Proposal For:

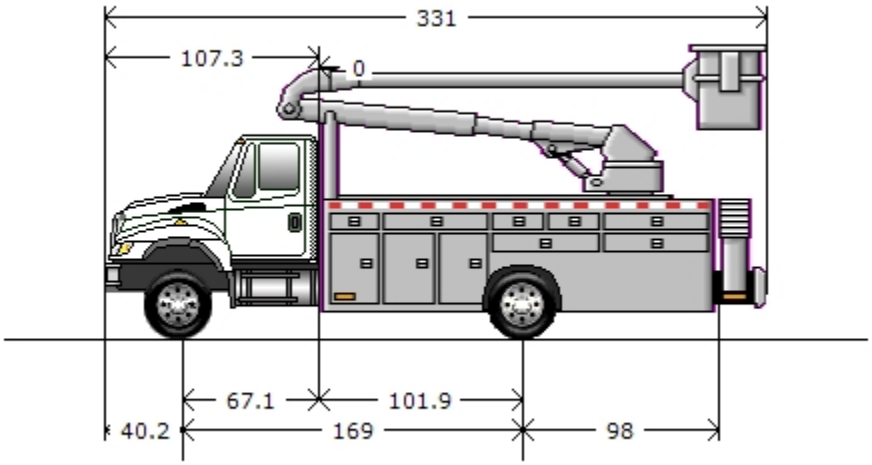
City of Midland

Presented By:

SOUTHWEST INTL TRKS INC

Prepared For:
City of Midland
Scott Pyle
300 North Loraine
Midland, TX 79702-
(432)685 - 7233
Reference ID: N/A

Presented By:
SOUTHWEST INTL TRKS INC
Tanner K Bragg
2401 E PIONEER PKWY
ARLINGTON TX 76010 -
(817)461-2931



Model Profile
2021 HV607 SBA (HV607)

AXLE CONFIG:	4X2
APPLICATION:	Bucket Lift
MISSION:	Requested GVWR: 33000. Calc. GVWR: 33000. Calc. GCWR: 50000 Calc. Start / Grade Ability: 44.55% / 2.25% @ 55 MPH Calc. Geared Speed: 91.1 MPH
DIMENSION:	Wheelbase: 169.00, CA: 101.90, Axle to Frame: 98.00
ENGINE, DIESEL:	{Cummins B6.7 325} EPA 2021, 325HP @ 2400 RPM, 750 lb-ft Torque @ 1800 RPM, 2600 RPM Governed Speed, 325 Peak HP (Max)
TRANSMISSION, AUTOMATIC:	{Allison 3500 RDS} 6th Generation Controls, Wide Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer 21060D} Single Reduction, 21,000-lb Capacity, Driver Control Locking Differential, 200 Wheel Ends Gear Ratio: 5.29
CAB:	Conventional, Day Cab
TIRE, FRONT:	(2) 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position
TIRE, REAR:	(4) 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position
SUSPENSION, REAR, SINGLE:	23,500-lb Capacity, Vari-Rate Springs
PAINT:	Cab schematic 100WL Location 1: 9219, Winter White (Std) Chassis schematic N/A

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
HV60700	Base Chassis, Model HV607 SBA with 169.00 Wheelbase, 101.90 CA, and 98.00 Axle to Frame.	6136/3644	9780
AXLE CONFIGURATION			
1ANA	AXLE CONFIGURATION {Navistar} 4x2	-160/-153	-313
	Notes : Pricing may change if axle configuration is changed.		
ENGINE			
12ERM	ENGINE, DIESEL {Cummins B6.7 325} EPA 2021, 325HP @ 2400 RPM, 750 lb-ft Torque @ 1800 RPM, 2600 RPM Governed Speed, 325 Peak HP (Max)	0/0	0
12WZX	CARB EMISSION WARR COMPLIANCE for Cummins B6.7 Engines	0/0	0
12WZJ	CARB IDLE COMPLIANCE Low NOx Idle Engine, Complies with California Clean Air Regulations; Includes "Certified Clean Idle" Decal located on Driver Door	0/0	0
12VJG	EMISSION, CALENDAR YEAR {Cummins B6.7} EPA, OBD and GHG Certified for Calendar Year 2023	0/0	0
12UYE	RADIATOR Aluminum, 2-Row, Cross Flow, Over Under System, 717 SqIn Louvered, with 313 SqIn Charge Air Cooler, Includes In-Tank Oil Cooler	-80/-1	-81
	Includes : DEAERATION SYSTEM with Surge Tank : HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps : RADIATOR HOSES Premium, Rubber		
12THT	FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed	0/0	0
	Includes : FAN Nylon		
12VBR	AIR CLEANER with Service Protection Element	10/0	10
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection	0/0	0
12849	BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines	3/0	3
	Includes : BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door		
12XBM	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout, with Ignition Switch Control, for Cummins B6.7 and L9 Engines	0/0	0
12VXU	THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel	0/0	0
TRANSMISSION			
13BDR	TRANSMISSION, AUTOMATIC {Allison 3500 RDS} 6th Generation Controls, Wide Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway	216/67	283

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
13WUC	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS) and Regional Haul Series (RHS), General Purpose Trucks, Construction, Package Number 223	0/0	0
13WVV	NEUTRAL AT STOP Allison Transmission Shifts to Neutral When Service Brake is Depressed and Vehicle is at Stop; Remains in Neutral Until Service Brake is Released	0/0	0
13XAL	PTO LOCATION Customer Intends to Install PTO at Left Side of Transmission	0/0	0
13WYU	SHIFT CONTROL PARAMETERS {Allison} 3000 or 4000 Series Transmissions, Performance Programming	0/0	0
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints	0/0	0
13WET	TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 & 2000 Series Transmission	1/0	1
CLUTCH			
11001	CLUTCH Omit Item (Clutch & Control)	0/0	0
REAR AXLES, SUSPENSIONS			
14AGR	AXLE, REAR, SINGLE {Dana Spicer 21060D} Single Reduction, 21,000-lb Capacity, Driver Control Locking Differential, 200 Wheel Ends . Gear Ratio: 5.29	0/51	51
14SAN	SUSPENSION, REAR, SINGLE 23,500-lb Capacity, Vari-Rate Springs	0/35	35
FRONT AXLES			
2ARW	AXLE, FRONT NON-DRIVING {Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity	0/0	0
FRONT SUSPENSIONS			
3ADC	SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 12,000-lb Capacity, with Shock Absorbers	0/0	0
CABS, COWLS, BODIES			
16030	CAB Conventional, Day Cab	0/0	0
16ZBT	ACCESS, CAB Steel, Driver & Passenger Sides, Two Steps per Door, for use with Day Cab and Extended Cab	0/0	0
16BAM	AIR CONDITIONER with Integral Heater and Defroster	0/0	0
16VKB	CAB INTERIOR TRIM Classic, for Day Cab Includes : CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets, Retainer Nets and CB Radio Pocket; Located Above Driver and Passenger : DOME LIGHT, CAB Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Overhead Console, Center Mounted : SUN VISOR (2) Padded Vinyl; 2 Moveable (Front-to-Side) Primary Visors, Driver Side with Toll Ticket Strap	0/0	0
16WSK	CAB REAR SUSPENSION Air Bag Type	0/0	0
16WLS	FRESH AIR FILTER Attached to Air Intake Cover on Cowl Tray in Front of Windshield Under Hood	0/0	0

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
16GED	GAUGE CLUSTER Base Level; English with English Electronic Speedometer	0/0	0
	Includes : GAUGE CLUSTER DISPLAY: Base Level (3" Monochromatic Display), Premium Level (5" LCD Color Display); Odometer, Voltmeter, Diagnostic Messages, Gear Indicator, Trip Odometer, Total Engine Hours, Trip Hours, MPG, Distance to Empty/ Refill for : GAUGE CLUSTER Speedometer, Tachometer, Engine Coolant Temp, Fuel Gauge, DEF Gauge, Oil Pressure Gauge, Primary and Secondary Air Pressure : WARNING SYSTEM Low Fuel, Low DEF, Low Oil Pressure, High Engine Coolant Temp, Low Battery Voltage (Visual and Audible), Low Air Pressure (Primary and Secondary)		
16HHE	GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} with Black Bezel, Mounted in Instrument Panel	2/0	2
16XJN	INSTRUMENT PANEL Flat Panel	0/0	0
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster	0/0	0
16SNM	MIRRORS (2) C-Loop, Heated, Black Heads and Arms, 7.5" x 14" Flat Glass, Includes 7.5" x 7" Convex Mirrors, for 102" Load Width	0/0	0
	Notes : Mirror Dimensions are Rounded to the Nearest 0.5"		
16VLV	MONITOR, TIRE PRESSURE Omit	-10/-1	-11
16JNT	SEAT, DRIVER {National 2000} Air Suspension, High Back with Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, with 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust	0/0	0
16SMH	SEAT, TWO-MAN PASSENGER {National} Fixed Back, Integrated Headrest in Both Occupant Positions, Vinyl, with Under Seat Storage Compartment	38/33	71
16WJU	WINDOW, POWER (2) and Power Door Locks, Left and Right Doors, Includes Express Down Feature	0/0	0
FRAMES			
1CAJ	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.866" x 3.622" x 0.437" (276.0mm x 92.0mm x 11.1mm); 456.0" (11582mm) Maximum OAL	43/568	611
1LNG	BUMPER, FRONT Contoured, Steel, Painted Gloss Black	-17/3	-14
1SAL	CROSSMEMBER, REAR, AF (1)	-6/26	20
1MEJ	FRAME, SPECIAL EFFECTS Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline	0/0	0
1WGR	WHEELBASE RANGE 138" (350cm) Through and Including 187" (475cm)	74/-74	0
BRAKES			
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications	0/0	0
	Includes : BRAKE LINES Color and Size Coded Nylon : DRAIN VALVE Twist-Type : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster		

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
	: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel : PARKING BRAKE VALVE For Truck : QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6		
4GBM	BRAKE, PARKING Manual Push-Pull Pneumatic Parking Brake	0/0	0
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator) Full Vehicle Wheel Control System	0/0	0
4XDC	BRAKES, FRONT {Meritor 15X4 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 15" X 4", 13,200-lb Capacity	-70/0	-70
4EXP	BRAKE CHAMBERS, FRONT AXLE {Bendix} 20 SqIn	2/0	2
4LAG	SLACK ADJUSTERS, FRONT {Gunite} Automatic	14/0	14
4WBX	DUST SHIELDS, FRONT BRAKE for Air Cam Brakes	10/0	10
4XDR	BRAKES, REAR {Meritor 16.5X7 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 7", 23,000-lb Capacity per Axle	0/52	52
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 SqIn Spring Brake	0/7	7
4LGG	SLACK ADJUSTERS, REAR {Gunite} Automatic	0/14	14
4WDM	DUST SHIELDS, REAR BRAKE for Air Cam Brakes	0/10	10
4SPA	AIR COMPRESSOR {Cummins} 18.7 CFM	0/0	0
4EBT	AIR DRYER {Bendix AD-IP} with Heater	11/16	27
4VKC	AIR DRYER LOCATION Mounted Inside Left Rail, Back of Cab	13/8	21
4WZJ	AIR TANK LOCATION (2) : One Mounted Under Each Rail, Front of Rear Suspension, Parallel to Rail	-38/57	19
4732	DRAIN VALVE {Berg} with Pull Chain, for Air Tank	0/0	0
4619	TRAILER CONNECTIONS Four-Wheel, with Hand Control Valve and Tractor Protection Valve, for Straight Truck	2/0	2
	Notes : When electronic stability control is ordered with trailer connections on a 4x2 truck, please check the operator manual for trailer weight restrictions.		
STEERING			
5PSA	STEERING GEAR {Sheppard M100} Power	0/0	0
5708	STEERING COLUMN Tilting	14/1	15
5CAW	STEERING WHEEL 4-Spoke; 18" Dia., Black	0/0	0
DRIVELINES			
6DGG	DRIVELINE SYSTEM {Dana Spicer} 1710, for 4x2/6x2	6/22	28
EXHAUST SYSTEMS			
7BLW	EXHAUST SYSTEM Horizontal Aftertreatment System, Frame Mounted Right Side Under Cab, for Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab	133/44	177

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
7BEV	AFTERTREATMENT COVER Steel, Black	10/3	13
7WDM	EXHAUST HEIGHT 10'	16/12	28
7WDN	MUFFLER/TAIL PIPE GUARD (1) Aluminum	9/7	16
7WAZ	TAIL PIPE (1) Turnback Type	6/4	10
ELECTRICAL SYSTEMS			
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment Includes : DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab : HAZARD SWITCH Push On/Push Off, Located on Instrument Panel to Right of Steering Wheel : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever : PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light : STARTER SWITCH Electric, Key Operated : STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector : TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever : WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted : WIRING, CHASSIS Color Coded and Continuously Numbered	0/0	0
8GXE	ALTERNATOR {Leece-Neville AVI160P2012} Brush Type, 12 Volt, 190 Amp Capacity, Pad Mount, with Remote Sense	0/0	0
8RPR	ANTENNA for Increased Roof Clearance Applications	1/0	1
8THB	BACK-UP ALARM Electric, 102 dBA	0/3	3
8XDU	BATTERY BOX Steel, with Aluminum Cover, 14" Wide, 2-3 Battery Capacity, Mounted Left Side Under Cab	-13/7	-6
8MJT	BATTERY SYSTEM {Fleetrite} Maintenance-Free, (2) 12-Volt 1900CCA Total, Top Threaded Stud	7/7	14
8HAE	BODY BUILDER WIRING Rear of Frame; Includes Sealed Connectors for Tail/ Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn	0/3	3
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses	0/0	0
8518	CIGAR LIGHTER Includes Ash Cup	1/0	1
8WPH	CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade	0/0	0
8HAG	ELECTRIC TRAILER BRAKE/LIGHTS Accommodation Package to Rear of Frame; for Separate Trailer Stop, Tail, Turn, Marker Light Circuits; Includes Electric Trailer Brake accommodation package with Cab Connections for Mounting Customer Installed Electric Brake Unit, Less Trailer Socket	0/2	2
8XNY	HEADLIGHTS Halogen	0/0	0
8XHN	HORN, AIR Single Trumpet, Black, with Lanyard Pull Cord	3/0	3
8VAY	HORN, ELECTRIC Disc Style	0/0	0

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
8WWJ	INDICATOR, LOW COOLANT LEVEL with Audible Alarm	0/0	0
8RPS	RADIO AM/FM/WB/Clock/Bluetooth/USB Input/Auxiliary Input	3/0	3
8RMV	SPEAKERS (2) 6.5" Dual Cone Mounted in Doors	5/0	5
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt, Less Thermal Over-Crank Protection	8/0	8
8WMA	SWITCH, TOGGLE, FOR WORK LIGHT Lighted; on Instrument Panel and Wiring Effects for Customer Furnished Back of Cab Light	2/1	3
8TKK	TRAILER AUXILIARY FEED CIRCUIT for Electric Trailer Brake Accommodation/ Air Trailer ABS; with 30 Amp Fuse and Relay, Controlled by Ignition Switch	1/0	1
8XGT	TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender	0/0	0
FRONT END			
9WBM	FRONT END Tilting, Fiberglass, with Three Piece Construction, Sloped Front	-64/-6	-70
9HAD	GRILLE Chrome	0/0	0
9AAB	LOGOS EXTERIOR Model Badges	0/0	0
9AAE	LOGOS EXTERIOR, ENGINE Badges	0/0	0
SPEEDOMETER, TOOLS, MISC			
10AGB	COMMUNICATIONS MODULE Telematics Device with Over the Air Programming; Includes Five Year Data Plan and International 360	1/0	1
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100	0/0	0
	Includes : PAINT SCHEMATIC ID LETTERS "WL"		
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone	0/0	0
FUEL TANKS			
15SXJ	FUEL TANK Top Draw, Non-Polished Aluminum, 24" Dia, 50 US Gal (189L), Mounted Left Side, Under Cab	30/4	34
15WCN	DEF TANK 5 US Gal (19L) Capacity, Frame Mounted Outside Left Rail, Under Cab	-2/19	17
15LMS	FUEL/WATER SEPARATOR 12 VDC Electric Heater, Includes Pre-Heater, Includes Water-in-Fuel Sensor, Cummins Supplied on Engine	1/-1	0
WHEELS, TIRES - FRONT			
27DTT	WHEELS, FRONT {Accuride 28828} DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and with Steel Hubs	14/0	14
7372135415	(2) TIRE, FRONT 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position	-20/0	-20
WHEELS, TIRES - REAR			

Code	Description	F/R Wt (lbs)	Tot Wt (lbs)
28DTT	WHEELS, REAR {Accuride 28828} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and with Steel Hubs	0/28	28
7372135415	(4) TIRE, REAR 11R22.5 Load Range G HSR2 (CONTINENTAL), 498 rev/mile, 75 MPH, All-Position	0/-40	-40
BODY INTEGRATION			
60AAG	BDY INTG, REMOTE POWER MODULE Mounted Inside Cab Behind Driver Seat, Up to 6 Outputs & 6 Inputs, Max 20 amp per Channel, Max 80 amp Total; Includes 1 Switch Pack with Latched Switches	0/0	0
60ABC	BDY INTG, REMOTE START/STOP To Start and Stop Vehicle Engine	0/0	0
60AJG	BDY INTG, THROTTLE CONTROL Accommodation for Single Customer Mounted External Engine Speed Control Switch, for Utility Applications, Programmable Mode for Various Switch Actions and Engine Speed Control Option, Only with Vehicle Stopped and Park Brake is Applied (requires 1 Remote Power Module input)	0/0	0
	Services Section:		
WARRANTY			
40128	WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A	0/0	0
40NSG	CARB COMPANION PLAN {Navistar} for CARB B6.7 and L9 Engines	0/0	0
	Total Component Weight:	**6366/4482**	**10848**

Body/Allied Equipment

Code	Description	F/R Wt	Tot Wt

Goods Purchased

Code	Description	F/R Wt	Tot Wt
	Surcharge	0/0	0
	Total Goods Purchased:	**0/0**	**0**

The weight calculations included in this proposal are an estimate of future vehicle weight. The actual weight as manufactured may be different from the estimated weight. Navistar, Inc. shall not be liable for any consequences resulting from any differences between the estimated weight of a vehicle and the actual weight.

City Council Meeting

Item Number: 10

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION APPROVING THE PURCHASE OF THREE (3) AUTOMATED REFUSE TRUCKS FROM CHASTANG ENTERPRISES, INC., THROUGH BUYBOARD AT A TOTAL COST OF $1,159,210.00 (DISTRICT: NONE) (GENERAL SERVICES)

Purpose:

Resolution approving the purchase of three (3) Automated Refuse Trucks from Chastang Enterprises, Inc. through Buyboard contract 601-19 for a cost of $1,159,210.00.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the Garage Fund Operating budget and Sanitation Fund Operating budget.

Discussion:

The Garage Division is requesting the purchase of three (3) Automated Refuse Trucks for the Solid Waste Department. Staff recommends approving the purchase to Chastang Enterprises, Inc. 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. The budget for this equipment for fiscal year 2023 is $1,264,500.00. Please see attached memos from Manuel Salinas, Garage Superintendent, and Jeffery Ahrlett, Director of Solid Waste, for additional information.

Therefore, please consider approval of a resolution authorizing the purchase of three (3) Automated Refuse Trucks from Chastang Enterprises, Inc. through Buyboard contract 601-19 for a cost of $1,159,210.00.

Tina Jaug

City Manager's Office

Fleet Services Division

INTEROFFICE MEMORANDUM

TO: Regina Stephenson

FROM: Manuel Eloy Salinas

SUBJECT: Buy Board contract #601-19 for 3 Automated Refuse Trucks

DATE: 11/01/2022

Fleet services is requesting to purchase (3) three Automated Refuse Trucks for the Solid Waste Department. Two (2) of the Automated Refuse Trucks will serve as replacements for units that have gone beyond their serviceable life and one (1) Automated Refuse Truck will be new to the fleet. The budgeted amount for (3) three Automated Refuse Trucks for FY 2023 is $1,264,500. The purchasing amount for (3) three Automated Refuse Trucks that are being offered through Buy Board contract #601-19 by Chastang Autocar is $1,159,210.

Sincerely,

Manuel Eloy Salinas

City of Midland Garage Superintendent

INTEROFFICE MEMORANDUM

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

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

SUBJECT: **Automated Refuse Trucks Purchase**

DATE: **November 3, 2022**

Staff is seeking city council approval for the purchase of three (3) automated refuse trucks (Cart Trucks) from Chastang Enterprises Inc. in the amount of $1,159,210.00.

Automated cart trucks are a vital piece of equipment for the Solid Waste Department. These trucks service the quickly growing residential curbside collection areas. Two (2) trucks will replace other vehicles that are now beyond their serviceable life and one (1) truck will be new to the fleet.

Solid Waste is requesting the purchase of three automated cart trucks from Buyboard contract 601-19 in the amount of $1,159,210.00 from Chastang Enterprises, Inc.

Funds for the purchase are included in the FY2023 budget.

RESOLUTION NO. _____

RESOLUTION APPROVING THE PURCHASE OF THREE (3) AUTOMATED REFUSE TRUCKS FROM CHASTANG ENTERPRISES, INC., THROUGH BUYBOARD AT A TOTAL COST OF $1,159,210.00

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, Chastang Enterprises, Inc., has submitted a total proposed cost to the City of $1,159,210.00 for the purchase of three (3) automated refuse trucks through Buyboard, as shown on the quote attached hereto as Exhibit A and incorporated herein for all purposes; and

WHEREAS, the Council finds the price proposed by Chastang Enterprises, Inc., for the purchase of three (3) automated refuse trucks to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to purchase three (3) automated refuse trucks from Chastang Enterprises, 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 three (3) automated refuse trucks from Chastang Enterprises, Inc., through Buyboard at a total cost of $1,159,210.00.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Chastang Enterprises, Inc., for three (3) automated refuse trucks from funds available in the Garage Operating Fund budget and the Sanitation Fund 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., 2022, by

the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED AS TO FORM ONLY:

_____
John Ohnemiller, City Attorney

Chastang

AUTOCAR

Chastang Enterprises, Inc.
6200 N. Loop East
Houston, TX 77026
713.678.5000

TEXAS LOCAL GOVERNMENT PUCHASING COOPERATIVE

CUSTOMER:	City of Midland	QUOTE DATE:	10/11/2022
CONTACT	Manuel Eloy Salinas	QUOTED BY:	Carl Norberg
PHONE:	432-685-7451	PHONE:	713-678-5060 512-557-7453
EMAIL:	msalinas@midlandtexas.gov	EMAIL:	cnorberg@chastangford.com

ITEM DESCRIPTION:	2024 Autocar ACX64 with Heil 28yd DuraPack Python Automated Side Load Refuse Body

CONTRACT:	BuyBoard	PROPOSAL NO.	601-19	ITEM NO.	3	ITEM PRICE:	51782

CHASSIS EQUIPMENT

STANDARD EQUIPMENT
Single LH Drive Cab
Tilt/Telescope Steering Column
Cummins L9 350HP

STANDARD EQUIPMENT
Air Conditioning
Technical Training Manuals
Autocar 24/7 Tech Support

OPTIONAL EQUIPMENT
Right Hand Drive Cab
Autocar Diagnostic Display
46,000 Rear Axle
46,000 Rear Suspension
Cummins 500K Comm System
Trans PTO Prep
Allison Transmission Retarder
16" Two Stage Air Cleaner
Pneumatic Cab Lift Assist
Sears Air Ride Driver's Seat
LH Vertical Exhaust
Dual Evaporator A/C with Roof-Mounted Condensor
RP170 Refuse Connectors
Rear Shock Absorbers
Landfill-use Suspension
Dual Evaporator A/C

OPTIONAL EQUIPMENT
Auto Neutral Trans and programming
Autocar Diagnostic Display
Heil Wrench Spec Chassis
Double Frame
Air Ride Driver's Seat
Heated, Moto Mirrors
16.5x7 Front Brakes
16.5x8.62 Rear Brakes
Engine Oil Pan Guard
Dual Fire Extinguishers
5 Year/150k Mile Cummins ISL Warranty
5 Year Transmission Warranty

CHASSIS OPTIONS	136365
OPTION DISCOUNT (-3.2%)	-4364
CHASSIS TOTAL	183783

BODY EQUIPMENT

BODY VENDOR:	Heil of TX	PROPOSAL NO.		ITEM NO.		ITEM PRICE:	202487
BODY MFG:	Heil	MODEL:	DuraPack Python	TYPE:	ASL	CAPACITY:	28 Yard

OPTIONAL EQUIPMENT	COST

OPTIONAL EQUIPMENT	COST
BODY OPTIONS	0
BODY TOTAL	202487

Submit Approved Quote to BuyBoard:
Fax: 800-211-5454 Email: info@buyboard.com

ESTIMATED DELIVERY	Chassis build Q1-2024; Complete unit Q3 2024

UNIT PRICE	386270
QUANTITY	3
CONTRACT FEE (per PO)	400
TOTAL PURCHASE	1159210

Exhibit A

10/03/2022

Chassis Specification

			Description	Front Weight	Rear Weight
	AUTOCAR TRUCKS				
O	ENG0001	**ENGINEERING GROUP IDENTIFIER**	AUTOCAR ENGINEERING		
S	0040002	**MODELS**	ACX64		
O	5000002	**CAB SHELL**	SINGLE RIGHT HAND DRIVE CAB		
O	100U001	**CUSTOMER TYPE**	MUNICIPAL		
	VEHICLE ADAPTATION				
S	114010	**COUNTRY OF USE**	UNITED STATES STD MARKET ADAPTATION		
	SOLUTION				
O	C04001	**BODY COMPANY**	HEIL		
O	C02004	**BODY TYPE**	AUTOMATED SIDE LOADER		
S	C070001	**FUEL SYSTEM TYPE**	DIESEL		
O	C001058	**TRUCK TYPE (WRENCH CODE)**	ASL, HEIL, WB 216, NO AUX AXLE, DIESEL, WITH SERVICE LIFT		
O	C06107	**BODY STYLE**	HEIL DURA PACK PYTHON		
O	C05033	**TOTAL BODY CAPACITY - BODY/HOPPER**	33 YARD		
S	C090003	**AXLE QUANTITY**	3 AXLE		
S	C080001	**REAR SUSPENSION TYPE**	STD/BEAM TYPE REAR SUSPENSION		
O	C01003	**APPLICATION**	REFUSE - LANDFILL		
O	C11002	**BODY COMPANY SERVICE OPTION**	SERVICE LIFT		
O	C03003	**TERRITORY**	CENTRAL		
O	D010200	**FRONT GAWR**	20000 LBS		
O	D020460	**REAR GAWR**	46000 LBS		
O	D100620	**GVWR**	62000 LBS (TRANSMISSION LIMITED)		
	ENGINE				
S	1012102	**ENGINE ASSY**	L9, 360HP / 2200RPM / 1150 LB-FT, CUMMINS		
O	972A002	**SPECIAL EMISSION CERTIFICATION LABELS**	EPA CERTIFIED - NO LABEL REQUIRED (DIESEL)		
S	9722022	**CERTIFICATION-EMISSIONS**	COMPLIES WITH 2022 U.S. EMISSIONS		

S	4460001	**FUEL TYPE**	ULTRA-LOW SULPHUR DIESEL FUEL REQUIRED

ENGINE EQUIP

O	1222000	**PTO-ENGINE FRONT**	FEPTO ADAPTER (3.75" BCD with 2.75" MALE PILOTED FLANGE YOKE - 7/16-20 BOLTS)
S	128071	**ENGINE CONTROL SPECIFICATIONS**	DEFAULT SPECS
S	1290004	**ENGINE ELECTRONICS**	CUMMINS 500K COMMUNICATION
O	4382003	**FILTER-FUEL, CHASSIS MOUNTED**	DAVCO 245 W/ H20 PROBE & 12V HEAT
S	1700001	**FILTER-FUEL, ENGINE MOUNTED**	SECONDARY SPIN-ON FILTER, REMOTE MTD.
O	180024	**ENGINE BLOCK HEATER**	PHILLIPS 120V 1000 WATT
O	1810003	**HEATER RECEPTICAL LOCATION-ENGINE**	RECEPTACLE LOCATED AT CAB STEPS, RH SIDE
S	2080001	**FAN & DRIVE-ENGINE**	2-SPEED FAN
S	2120003	**RADIATOR SURGE TANK**	STANDARD SURGE TANK W/ SIGHT GLASS
O	220052	**AIR CLEANER**	16" TWO STAGE
S	226001	**AIR INTAKE RAIN CAP**	BLACK, HOOD TYPE
O	227001	**AIR INTAKE PRECLEANER**	DONALDSON
O	2302001	**MUFFLER SYSTEM**	LH VERT HORIZ DPF/SCR
S	2310003	**EXHAUST SHIELDS**	DPF & SCR SHIELDS
O	2320011	**EXHAUST STACKS**	STAINLESS STEEL STACK W/TURN OUT
O	234001	**EXHAUST RAIN CAP**	SINGLE
S	115A200	**TURBO HEAT SHIELD**	TURBO HEAT SHIELD
S	2390002	**UREA DELIVERY SYSTEM**	OVER-FENDER MTD., LH SIDE, 10 GAL. CAPACITY
S	5300001	**ENGINE/EXHAUST COVER**	ALUM TURBO/EXHAUST PIPE DEBRIS SHIELD
S	700026	**AIR COMPRESSOR**	CUMMINS WABCO 18.7 CFM COMPRESSOR
S	8200003	**STARTING MOTOR**	DELCO REMY 12V 39 MT W/OCP
O	8020005	**ALTERNATOR**	DELCO REMY 180 AMP, 28SI PAD MTD.
S	P020001	**ENGINE IDLE SHUT DOWN**	ENGINE IDLE SHUT DOWN ENABLED (5 MINUTES)
S	P030001	**CRUISE CONTROL PARAMETER**	CRUISE CONTROL ENABLED
S	P630006	**MAX VEHICLE SPEED - PTO MODE**	MAX VEHICLE SPEED IN PTO MODE = 6 MPH
S	P641200	**RPM PTO MODE**	1200 RPM MAX IN PTO

S	P701200	**PTO SET SWITCH**	PTO SET SWITCH = 1200 RPM
S	P711000	**PTO RESUME SWITCH**	PTO RESUME SWITCH = 1000 RPM
S	204B001	**COOLANT HOSE HEAT SLEEVE**	STANDARD HEAT SLEEVE
O	P010058	**VEHICLE GOVERNED SPEED LIMIT**	SPEED LIMIT 58 MPH (LIMITED BY PROP SHAFT CALCS)

TRANSMISSION

S	2580003	**VOCATION**	RDS REFUSE - VOC 400-XXX
O	2690019	**CONTROL MODULE (ELECT)**	REFUSE W/ AUTO-NEUTRAL & SERVICE BRAKE, VP170
S	26A0001	**TRANSMISSION SHIFT SCHEDULE / FUEL SENSE**	PRIMARY PERFORMANCE / SECONDARY ECONOMY
S	PT10001	**TRANS DIRECTION CHANGE SHIFT INHIBIT**	SHIFT INHIBIT ENABLED
S	27P0000	**TRANSMISSION RETARDER AUDIBLE ALARM**	NO TRANSMISSION RETARDER AUDIBLE ALARM
O	2700022	**TRANSMISSION**	ALLISON 3000 SERIES,6-SPEED
S	287A200	**TRANSMISSION BREATHER**	TRANSMISSION REMOTE BREATHER
S	284016	**TRANSMISSION CONTROLS**	ALLISON PUSHBUTTON CONTROLS
S	286005	**COOLER-TRANSMISSION OIL**	OIL TO WATER TYPE
S	290003	**TRANSMISSION OIL FILL/CHECK**	OIL FILL TUBE / DIPSTICK W/ LEVEL SENSOR
O	300015	**DRIVESHAFT-MAIN**	SPICER 1710HD HALF ROUND

FRONT AXLE

S	3700002	**FRONT AXLE**	MERITOR MFS-20 STEER AXLE, 20000# CAPACITY
S	3690005	**FRONT AXLE POSITION**	52.5 INCHES
S	371135	**FRONT SUSPENSION**	9500 LOW CAMBER FLATLEAF 20,800 GROUND CAPACITY
S	371T98	**SUSPENSION, FRONT AUX**	NO AUX LOAD CUSHION PROVIDED
S	373002	**SHOCK ABSORBERS-FRONT**	DOUBLE ACTING SINGLE - HEAVY DUTY
S	904011	**HUBS-FRONT**	STEEL HUB PILOTED,285MM BOLT CIRCLE
S	9400001	**WHEEL OIL SEALS-FRONT**	SCOTSEAL PLUS XL
S	9210001	**HUB CAPS - FRONT AXLE**	CR ZYTEL HUBCAP
S	374002	**FRONT AXLE LUBRICANT**	SYNTHETIC,DANA SPICER EP75W90 OR EQUIV

O	7510001	**BRAKES-FOUNDATION, FRONT AXLE**	MERITOR 16.5X7" QP REFUSE BRAKE
S	754009	**BRAKE SLACK ADJUSTERS -FRONT AXLE**	MERITOR AUTOMATIC
S	755001	**DUST SHIELDS - FRT BRAKES**	DUST SHIELDS - FRONT BRAKES
S	901001	**BRAKE DRUM-FRONT**	CAST IRON
O	383107	**STEERING GEAR**	INTEGRAL POWER STEERING W/LEFT HAND RAM
S	387003	**POWER STEERING RESERVOIR**	FOUR QUART REMOTE MOUNTED

REAR AXLE

O	330444	**REAR DRIVE AXLE-SINGLE & TANDEM**	MERITOR RT46-160 46,000 LB
S	330U98	**REAR AXLE LUBE PUMP**	NO LUBRICATION PUMP
O	331614	**REAR DRIVE AXLE RATIO**	6.14
O	333014	**REAR DRIVE AXLE ANTI-SPIN DEVICES**	FOUR WHEEL LOCK
O	3502011	**REAR SUSPENSION**	HENDRICKSON HMX-EX-460 SUSPENSION @ 54" AS
S	351013	**REAR SUSPENSION BEAMS**	54 INCH STEEL RUBBER BUSHED
S	358005	**TORQUE RODS**	LONGITUDINAL & TRANSVERSE - RUBBER BUSHED
O	359001	**SHOCK ABSORBERS-REAR**	4 SHOCK ABSORBERS HENDRICKSON SUSPENSION
S	9130001	**HUBS-REAR**	IRON HUB, HP 10 STUD
S	3400001	**REAR AXLE BREATHER**	STANDARD AXLE BREATHER
S	9410001	**WHEEL OIL SEALS-REAR**	SCOTSEAL PLUS XL
O	7610001	**BRAKES-FOUNDATION, REAR AXLE**	MERITOR 16.5X8.62" QP REFUSE BRAKE
S	764013	**BRAKE SLACK ADJUSTERS -REAR AXLE**	MERITOR AUTOMATIC,TANDEM AXLE
S	765001	**DUST SHIELDS - REAR BRAKES**	DUST SHIELDS - REAR BRAKES
S	781012	**BRAKE CHAMBERS-PARKING, TYPE/VENDOR**	CAM TYPE MGM STOPGARD (4)
S	910001	**BRAKE DRUM-REAR**	CAST IRON

BRAKES

S	729002	**AIR LINES-PARKING BRAKE, CHASSIS**	AIR LINES CHASSIS PARK BRAKE
S	7410004	**BRAKE CONTROL SYSTEM**	MERITOR WABCO ABS 4S/4M W/PLC

CHASSIS

O	400216	**WHEELBASE**	216 INCHES

O	402068	**FRAME-REAR OVERHANG**	68"
S	403012	**FRAME RAILS**	3/8" VARIABLE DROP STEEL, EXT B
O	404002	**FRAME REINFORCEMENT INNER**	.25" LINER, STANDARD LENGTH
S	409002	**FRAME CROSSMEMBER-CENTER**	ALUMINUM ORIENTATION B
S	4110002	**FRAME CROSSMEMBER-END CLOSING**	ALUMINUM MEMBER-IF REQUIRED
S	460001	**BUMPER-FRONT**	STEEL PAINTED
O	4682000	**GUARD-OIL PAN**	ENGINE OIL PAN GUARD - STEEL
S	480002	**TOWING DEVICE-FRONT**	TWO REMOVABLE TOW PINS
S	8742000	**WIRING, BODY INTERFACE**	RP 170 COMPLIANT
S	430020	**FUEL TANK-LEFT**	75 GAL 26" DIA UNPAINTED ALUMINUM
O	430R001	**FUEL TANK FILL LHS**	REAR FILL FUEL TANK, LHS
O	4470003	**LH FUEL TANK SPACERS**	LH FUEL TANK SPACED 2", DROPPED 2"
S	432002	**FUEL TANK STRAP/ SUPPORT LEFT**	PAINTED STEEL, LH
O	4280003	**DRILLING FUEL TK SUPT-LEFT**	FUEL TANK LHS LOCATION - SPEC DRIVEN
S	436015	**FUEL LINES**	SAE J1402A1 WIRE BRAIDED
O	8120007	**BATTERY BOX**	STEEL BOX W/ ALUM LID, 3 BATTERY, LHS
O	8160011	**BATTERY BOX SPACERS**	BATTERY BOX SPACED 2", DROPPED 2" ON SPACERS WITH SPACERS DROPPED ADDITIONAL 2"
O	8090003	**BATTERY BOX DRILLING**	BATTERY BOX LOCATION - SPEC DRIVEN
S	810089	**BATTERY**	3 JOHNSON CONTROL 31ECL 12V 2250CCA
S	8140002	**BATTERY SHUT-OFF SWITCH**	SHUTOFF W/ LOCKOUT, NO EMERGENCY JUMPER STUDS
S	7110001	**AIR TANK-BRAKE**	STEEL AIR TANKS
O	7090003	**AIR TANK DRILLING**	AIR TANKS LOCATION SPEC DRIVEN
O	7380001	**EMERGENCY AIR SYSTEM CHARGING**	SCHRADER VALVE, WET TANK MTD
O	7152001	**WET TANK DRAIN**	WABCO DV-2 AUTOMATIC W/ HEATER
O	715T003	**AIR RESERVOIR DRAIN SYSTEM**	CENTRAL MANIFOLD W/ PETCOCKS
O	713023	**AIR DRYER**	BENDIX ADIP W/HEAT

O	7100008	**AIR DRYER DRILLING**	AIR DRYER MTD OUTSIDE RAIL, RHS, SPEC DRIVEN
S	724001	**AIR LINES-CAB**	SAE J844 NYLON TUBING

CAB EXTERIOR

S	4510001	**STEP-CAB ACCESS, CAB MOUNTED**	DUAL SELF CLEANING CAB ENTRANCE STEPS
S	502001	**CAB DOORS**	STEEL
O	620001	**SUN VISOR-EXTERIOR**	FIBERGLASS, MOUNTED OVER WINDSHIELD
O	6220017	**MIRRORS-DUAL WEST COAST**	MIRROR, BLACK, HTD, REMOTE W / LWR HTD CONVEX
O	6230006	**MIRRORS-AUXILIARY HIGH MOUNT**	HIGH MOUNT 8" CONVEX, BLACK
S	630026	**HORN-AIR**	TWIN MOUNTED UNDER CAB
S	631001	**HORN-ELECTRIC**	SINGLE
O	661002	**CAB TILT MECHANISM-C.O.E.**	HYDRAULIC TILT WITH AIR ASSIST
S	6720001	**GRILLE**	AUTOCAR GRILLE
S	675001	**BUG SCREENS**	BUG SCREEN MOUNTED BEHIND GRILLE

CAB INTERIOR

S	3800001	**STEERING WHEEL**	16" DIA. WHEEL, 2 SPOKE
S	3810002	**STEERING COLUMN**	TILT AND TELESCOPIC STEERING COLUMN
O	5202002	**SEAT-DRIVER**	SEARS C2+ SEAT, AIR RIDE, AIR LUMBAR
O	5212001	**SEAT-PASSENGER**	SEARS C2+ SEAT, FIXED
S	5222000	**SEAT BELTS-DRIVER**	THREE POINT RETRACTABLE, W/O COMFORT LATCH
S	5232000	**SEAT BELTS-PASSENGER**	THREE POINT RETRACTABLE, W/O COMFORT LATCH
O	5260002	**SEAT INSERT**	MODURA, ASPHALT COLOR
S	538001	**CARPET & MAT**	MAT WITH FOAM BACK
S	5500001	**CENTER CONSOLE**	CENTER CONSOLE
S	5510001	**REAR CONSOLE**	REAR CONSOLE
O	5942001	**CIGAR LIGHTER**	ONE (1) POWER PORT AND ONE (1) USB POWER PORT
O	8750001	**ADDITIONAL ELEC. SWITCHES**	2 DASH SWITCHES, WIRED TO POWER

CAB CLIMATE CONTROL

O	0602004	**CAB TEMPERATURE SYSTEM**	DUAL EVAPORATOR A/C WITH HEATER / DEFROSTER (ROOF MOUNT CONDENSER) (GHG)
O	612002	**AIR CONDITIONER CONDENSER**	ROOF MTD. (DISTRIBUTOR RESPONSIBILITY TO ENSURE CLEARANCE WITH FEL CANOPY)

GAUGES & INSTRUMENTATION

S	0572001	**INSTRUMENTS SALES PKG**	ADVANCED DIAGNOSTIC DISPLAY - V1
S	1430001	**TRUCK ELECTRICAL CONTROL MODULE**	VEHICLE CONTROL UNIT
S	1362000	**TACHOMETER/RPM TACHOGRAPH**	ELECTRONIC TACHOMETER
S	1372000	**GAUGE-HOURMETER**	HOURMETER INCLUDED IN ON BOARD DISPLAY
O	2250001	**AIR INTAKE RESTRICTION INDICATOR**	AIR INTAKE RESTRICTION GAUGE IN CAB
S	4390001	**GAUGE-FUEL LEVEL**	ELECTRONIC FUEL LEVEL
S	5712003	**GAUGE PANELS**	ALL GAUGES IMPERIAL
S	1472001	**VEHICLE MONITORING SYSTEM**	AUTOCAR ADVANCED TELEMATICS - FULL INSTALLATION

LIGHTING

S	8360003	**LAMPS-HEAD**	LED HEADLAMPS
S	8410002	**LAMPS-TURN SIGNAL - FRONT**	LED FRONT TURN SIGNALS
S	8510002	**LAMPS-MARKER**	AMBER LED ROOF MARKERS
O	8520001	**LAMPS-PARKING**	CORNER MARKER LAMP WIRED TO BATTERY SHUT OFF
S	859001	**LAMPS-RUNNING**	DAYTIME
S	8700001	**CIRCUIT PROTECTION DEVICE**	AUTO CIRCUIT BREAKERS

RADIO/MISC

S	509001	**KEY & LOCK SETS-IGN/DOORS**	DOOR & IGNITION SAME - UNIQUE PER TRUCK
S	509Q2000	**KEY QTY.**	0 ADDITIONAL KEYS PER TRUCK (2 TOTAL)
O	5902002	**RADIO**	AM/FM/USB/MP3/WB/BT
O	59A0002	**RADIO MOUNTING LOCATION**	RADIO MOUNTED IN RHS HEADLINER
O	5910002	**ANTENNA/POWER SUPPLY**	ANTENNA - ROOF MOUNTED
O	596005	**RADIO SPEAKERS**	2 DUAL CONE SPEAKERS

O	9620001	**FIRE EXTINGUISHER**	DUAL 5LB ABC EXTINGUISHERS, ONE UNDER EACH SEAT

FRONT TIRES / WHEELENDS

S	9312009	**TIRE MANUFACTURER & TREAD - FRONT**	BRIDGESTONE M870
S	930469	**TIRE SIZE & LOAD RANGE - FRONT**	315/80R22.5L
S	9050015	**WHEELS-DISC FRONT**	22.5X9.0" STEEL, 5.25" INSET, HAYES

REAR TIRES / WHEELENDS

S	9342002	**TIRE MANUFACTURER & TREAD - REAR**	BRIDGESTONE M853
S	933062	**TIRE SIZE & LOAD RANGE - REAR**	11R22.5H
S	9140014	**WHEELS-DISC REAR**	22.5X8.25" STEEL, 6.2" INSET, HAYES

PAINT

S	950001	**CAB PAINT SCHEME**	SINGLE COLOR PAINT
S	9550001	**CAB PAINT TYPE**	STANDARD WHITE
S	9801002	**CAB COLOR-FIRST**	APPROVED -=- DPSS-N0007EX -=- STANDARD WHITE N0007
S	9861U1	**CHASSIS COLOR**	BLACK P3036
S	987949	**BUMPER COLOR**	SAME AS CHASSIS,UNPAINTED ALUM OR CHROME
S	988401	**DISC WHEEL OR RIM COLOR**	STEEL, E-COAT WHITE / ALUM-UNPAINTED

ADDITIONAL OPTIONS

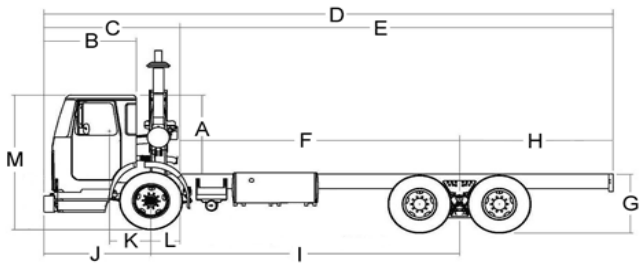
S	899002	**CHASSIS WARRANTY**	STANDARD WARRANTY
O	899A203	**TRANSMISSION WARRANTY**	ALLISON 5YR. EXT WARRANTY
O	899B319	**ENGINE WARRANTY**	L9_EPA_PD1_5 Years / 150,000 Miles_PP1_Matrix: 231160
X	899K230	**EXHAUST AFTERTREATMENT EXTENDED WARRANTIES**	L9_EPA_AT3_5 Years / 150,000 Miles_Matrix: 233546
S	978015	**FLOOR PLAN**	15 DAYS FLOORING

OTHERS

S	9722022	**CERTIFICATION-EMISSIONS**	COMPLIES WITH 2022 U.S. EMISSIONS

10/03/2022

Dimensions



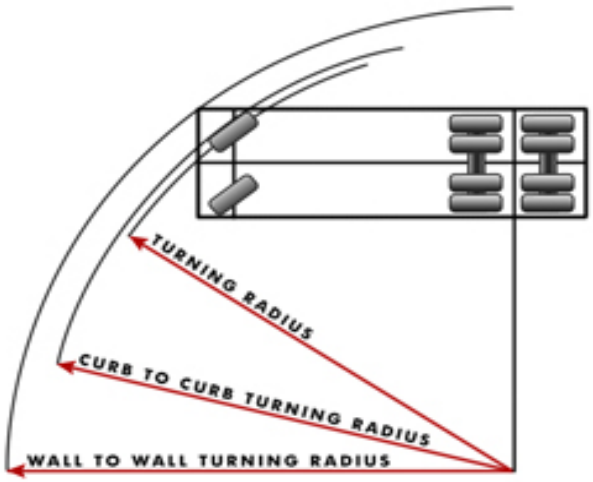
	Dimension(ft)	Description
A	59.00	CAB HEIGHT
B	62.00	BUMPER TO BACK OF CAB
C	95.00	EFFECTIVE BUMPER TO BACK OF CAB
D	355.00	OVERALL LENGTH
E	260.00	EFFECTIVE CAB TO END OF FRAME
F	192.00	EFFECTIVE CAB TO REAR AXLE
G	0.00	UNLADEN FRAME HEIGHT
H	68.00	OVERHANG
I	216.00	WHEELBASE
J	71.00	BUMPER TO FRONT AXLE
K	-24.00	DRIVER CENTER OF GRAVITY
L	24.00	EFFECTIVE FRONT AXLE TO BACK
M	0.00	OVERALL HEIGHT
N	0.00	FRONT FRAME EXTENSION

SPECIFICATION SUMMARY

Model	ACX64 Class 8
Engine	L9, 360HP / 2200RPM / 1150 LB-FT, CUMMINS
Transmission	ALLISON 3000 SERIES,6-SPEED
Rear Axle	MERITOR RT46-160 46,000 LB
Rear Axle Ratio	6.14
Rear Tire	11R22.5H

10/03/2022

Turning Radius



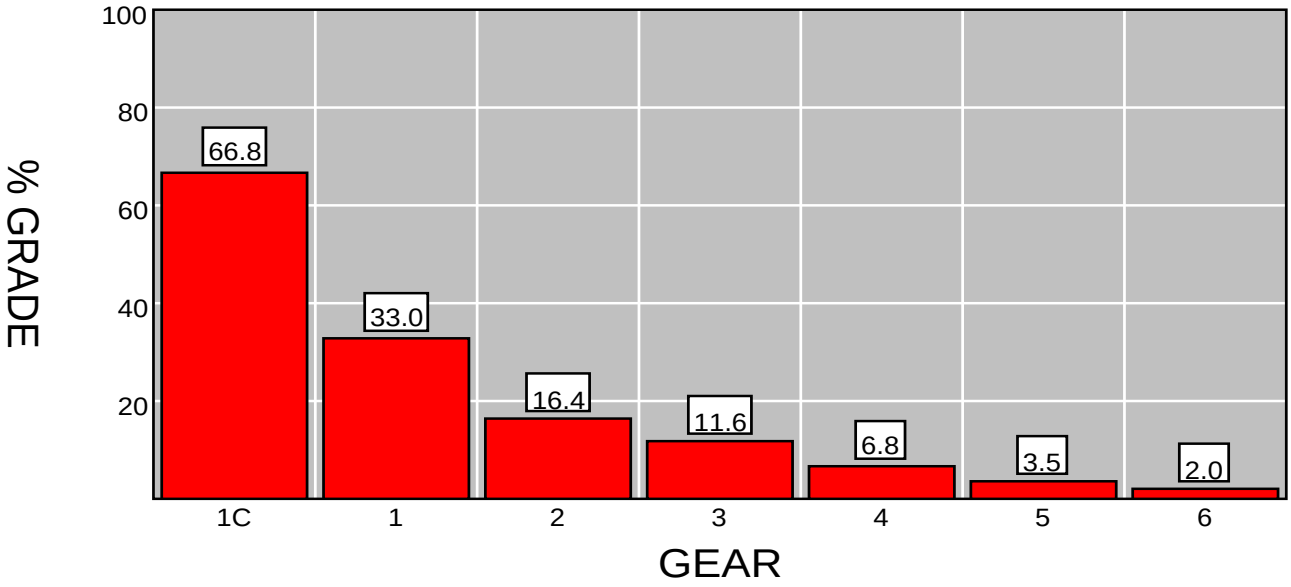
	Dimension(ft)	Description
A	36.38	TURNING RADIUS
B	74.89	CURB TO CURB TURNING DIAMETER
C	81.02	WALL TO WALL TURNING DIAMETER

SPECIFICATION SUMMARY

Model	
Engine	L9, 360HP / 2200RPM / 1150 LB-FT, CUMMINS
Transmission	ALLISON 3000 SERIES,6-SPEED
Rear Axle	MERITOR RT46-160 46,000 LB
Rear Axle Ratio	6.14
Rear Tire	11R22.5H

10/03/2022

Gradeability



Gear	Trans. Ratio	Rear Axle Ratio	Overall Reduction	Peak Torque	Wheel HP	MPH	Maximum Grade%
1C	6.91	6.14	42.4	1,150.0	286.8	3.7	66.8
1	3.49	6.14	21.4	1,150.0	286.8	7.3	33.0
2	1.86	6.14	11.4	1,150.0	286.8	13.7	16.4
3	1.41	6.14	8.7	1,150.0	286.8	18.1	11.6
4	1.00	6.14	6.1	1,150.0	286.8	25.6	6.8
5	0.75	6.14	4.6	1,150.0	286.8	34.1	3.5
6	0.65	6.14	4.0	1,150.0	286.8	39.3	2.0

SPECIFICATION SUMMARY

Model	ACX64 Class 8
Engine	L9, 360HP / 2200RPM / 1150 LB-FT, CUMMINS
Peak Torque	1150 LB-FT @ 1300
Transmission	ALLISON 3000 SERIES,6-SPEED
Rear Axle	MERITOR RT46-160 46,000 LB
Rear Axle Ratio	6.14
Rear Tire	11R22.5H
Tire Revolution	497
GVW/GCV	0
Surface	Concrete

10/03/2022

GAWR, GVWR & Tire Pressure

GVW Rating – 62,000#			
Front GAWR	**20,000#**	**Rear GAWR**	**46,000#**
Front Suspension	20,800#	Rear Suspension	46,000#
Front Wheels	20,000#	Rear Wheels	59,100#
Front Tire Size And Tread	20,000#	Rear Tire Size And Tread	48,000#
Front Brakes	20,000#	Rear Brakes	48,000#
Front Axle	20,000#	Rear Axle	46,000#
PSI			
Front PSI	130.0	Rear PSI	120.0

City Council Meeting

Item Number: 11

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH GEOGRAPHIC INFORMATION SERVICES, INC., D/B/A AXIM GEOSPATIAL, LLC, FOR AERIAL LIDAR COLLECTION MAPPING SERVICES THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $178,200.00 FOR THE COMMUNICATION AND INFORMATION SYSTEMS DEPARTMENT (DISTRICT: ALL) (GENERAL SERVICES)**

Purpose:

Resolution authorizing an agreement for Aerial Lidar Collection Mapping Services from Geographic Information Services, Inc. dba Axim Geospatial, LLC. through the Texas Department of Information Resources (DIR) contract DIR-CPO-4503.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the General Fund Operating Budget operating budget.

Discussion:

Staff recommends authorizing an agreement for Aerial Lidar Collection Mapping Services from Geographic Information Services, Inc. dba Axim Geospatial, LLC. through the Texas Department of Information Resources (DIR) contract DIR-CPO-4503. 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 further information.

Therefore, please consider a resolution authorizing an agreement with Geographic Information Services, Inc. dba Axim Geospatial, LLC. of Sun Prairie, Wisconsin through the Texas Department of Information Resources (DIR) contract DIR-TSO-4503 for a cost of $178,200.00

Tina Garza

City Manager's Office

City Council Agenda Item

DATE: **August 11, 2022**

TO: Erika Martinez, Purchasing Manager

FROM: Jennifer Frescaz, Chief Information Officer

SUBJECT: Consider a resolution authorizing an agreement of services for Aerial Lidar Collection Mapping for $178,200 via DIR-CPO-4503 from Axim Geospatial.

Purpose:
Consider a resolution authorizing an agreement of services for Aerial Lidar collection mapping for $178,200 from Axim Geospatial via DIR-CPO-4503.

Discussion:
This collection mapping project will capture light detection and ranging (Lidar) for the City of Midland. This aerial lidar will capture topographic contours for 76 square miles. The project will also provide updated impervious surface and building outlines within the city limits. Lidar was last captured for the City of Midland in 2017, and this project will capture the changes within the city since that time.

This data is used by various City departments. Engineering can benefit from this for road design, water drainage studies, and FEMA updates. Utilities uses it for laying of sewer and water pipes to insure proper flow. The airport uses this data to allow planes to land safely.

The total cost of the project is $178,200 and will come from General Fund.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH GEOGRAPHIC INFORMATION SERVICES, INC., D/B/A AXIM GEOSPATIAL, LLC, FOR AERIAL LIDAR COLLECTION MAPPING SERVICES THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $178,200.00 FOR THE COMMUNICATION AND INFORMATION SYSTEMS DEPARTMENT

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

WHEREAS, Geographic Information Services, Inc., d/b/a Axim Geospatial, LLC, ("Axim") has agreed to provide aerial LiDAR collection mapping services at a cost of $178,200.00; and

WHEREAS, the City Council finds the price proposed for the aerial LiDAR collection mapping services through the DIR to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to execute a professional services agreement with Axim for the aerial LiDAR collection mapping services through the DIR;

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 professional services agreement with Axim. Said agreement to be kept on file in the office of the City Secretary, referenced by the date and number of this Resolution.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Axim from funds available in the General Fund Operating Budget upon proper receipt of 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Regina Stephenson, General Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT is made and effective the 16th day of November 2022, by and between the CITY OF MIDLAND, TEXAS ("*CITY*"), a home-rule municipal corporation, and Geographic Information Services, Inc. dba Axim Geospatial, 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 Aerial Lidar Collection Mapping 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 $178,200.00 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 November 16, 2022 until November 16, 2023, unless the Services are completed sooner or the Agreement is terminated as provided below.

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: Geographic Information Services, Inc. dba Axim Geospatial, LLC
2100 Riverchase Center, Suite 105
Birmingham, AL 35244

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

_____
Robert Patrick, City Manager

ATTEST:

_____
Amy M. Turner, 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 Geographic Information Services, Inc. dba Axim Geospatial, 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 Texas

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

TX DIR Contract#: DIR-CPO-4503
Vendor ID: 32050696890

October 27, 2022
Daniel Armentrout
Division Manager | GIS Division

Re: LiDAR Collection, Buildings, and Impervious Surface Proposal

Dear Daniel:

Axim Geospatial, LLC ("Axim") is pleased to provide the City of Midland ("Client") with this proposal for LiDAR collection ("Project"). Axim looks forward to working with the Client to complete this Project.

Company Profile

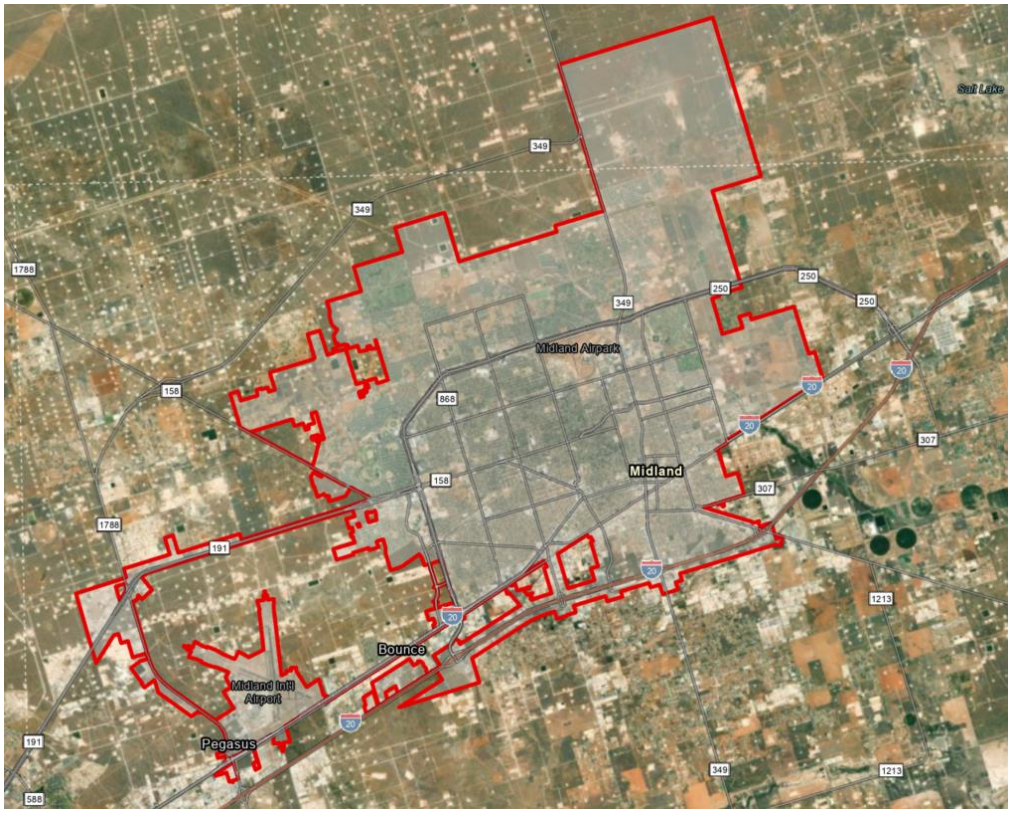
Business Name:	Axim Geospatial, LLC
Address:	100 QBE Way, Suite 1225, Sun Prairie, WI 53590
Website:	www.aximgeo.com
Point of Contact:	
Point of Contact Email:	
Point of Contact Phone:	

Project Understanding & Introduction

The City of Midland Government needs updated aerial lidar to derive topographic contours and other products to support various internal City departmental needs, as well as external stakeholders. To accomplish this Axim will acquire new aerial lidar data over the entire 76 +/- square mile City of Midland area (see area of interest outlined in red below) and perform the required processing to that lidar data to produce updated topographic contours and related derivative products detailed in the following sections.

The City of Midland, Texas, is also seeking updated impervious surface and building outline geospatial datasets within the entire city limits. These geospatial datasets are needed to support important city initiatives such as stormwater runoff calculations, property assessments, and much more. We at Axim Geospatial appreciate the opportunity to provide a proposal to support this project.

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com



Project Approach

The aerial lidar project will be supervised by a Texas licensed Registered Professional Land Surveyor (RPLS) and ASPRS Certified Photogrammetrist (CP)

Services:

- Axim will host a project kickoff meeting with project stakeholders to present and review:
  - LiDAR acquisition flight plan
  - Ground control plan
  - Current ground conditions and expected acquisition schedule
  - Lidar and derived data production plan

- Collect required ground survey control for USGS QL1 Lidar
  - 8 control points
  - 25 check points

- Manned Aerial Lidar Collection
  - Aerial lidar collection using a Teledyne Optech Galaxy T2000 sensor system that meets or exceeds USGS QL1 standards

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

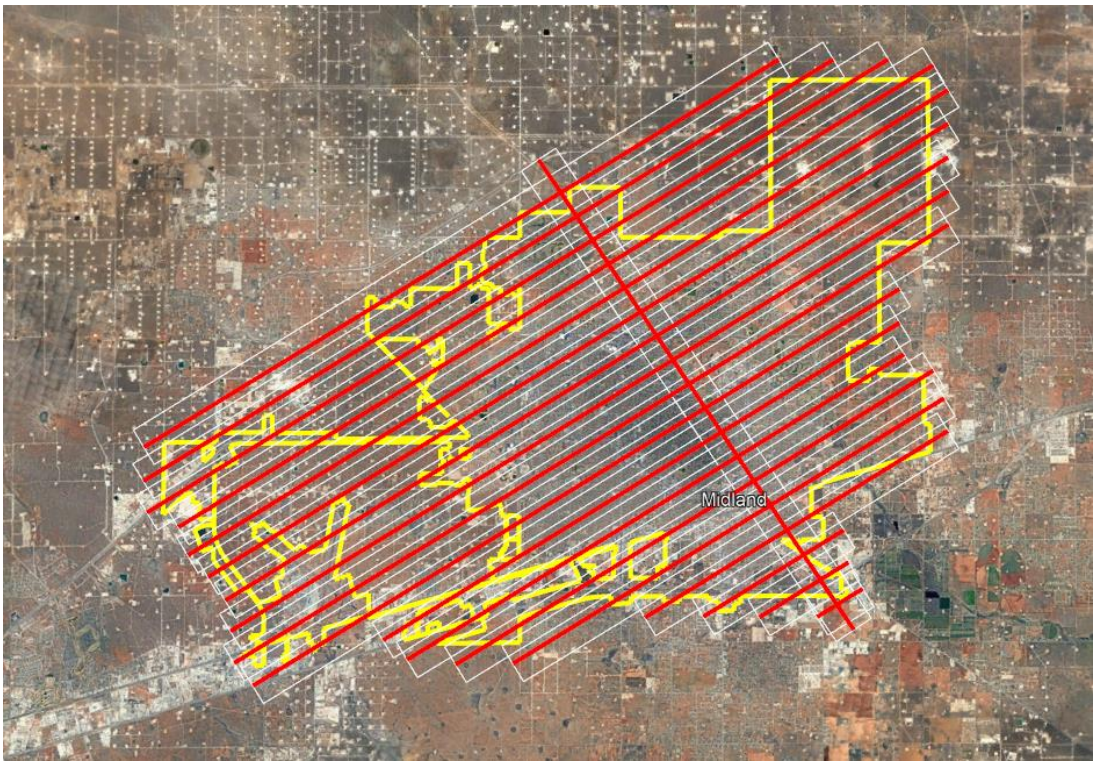


Teledyne Optech Galaxy T2000 Aerial Sensor

QUALITY LEVEL	DATA SOURCE	VERTICAL ACCURACY RMSEz (cm)	NOMINAL PULSE SPACING (NPS) meters	NOMINAL PULSE SPACING (NPD) points per square meter	DIGITAL ELEVATION MODEL (DEM) cell size (meters)
QL0	**Lidar**	**5 cm**	**<= 0.35 m**	**>= 8 pts/square meter**	**0.5 m**
QL1	**Lidar**	**10 cm**	**<= 0.35 m**	**>= 8 pts/square meter**	**0.5 m**
QL2	**Lidar**	**10 cm**	**<= 0.71 m**	**>= 2 pts/square meter**	**1 m**
QL3	Lidar	20 cm	<= 0.35 m	>= 0.5 pts/square meter	2m
QL4	Imagery	139 cm	N/A	N/A	5 m
QL5	IfSAR	185 cm	N/A	N/A	5 m

USGS QL1 lidar specification (outlined in green)

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com



Lidar Acquisition Flight Plan (flight lines in red)

- Lidar classification, Axim proposes to use the following USGS classification schema below for the lidar collection:
  Class 1 – Unclassified
  Class 2 – Bare Earth Ground
  Class 7 – Low Noise
  Class 8 – Model Key Point
  Class 9 – Water
  Class 18 – High Noise

- Topographic and hydrographic breaklines collected following USGS Lidar base specification standards

- Output and QA/QC of derivative products, metadata creation

Primary Deliverables:

- 2-foot topographic contours provided in an Esri file geodatabase
- Digital Elevation Model (DEM)
- Classified lidar point cloud provided in LAS v1.2 format
- Breaklines provided in an Esri file geodatabase
- Data tile index
- Ground Survey Control and Report
- QA/QC Assessment Project Report

Axim GEOSPATIAL

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

The project approach for the building and impervious surface extraction is as follows:

The first stage is building extraction. Not only are these important to the city, but also needed as input for the impervious surface. We propose to use the new aerial lidar for building extraction.

Once the buildings are extracted, the next phase is to extract the remaining impervious surfaces which generally include pavement (roads, parking lots, sidewalks, driveways). We propose to use EagleView imagery as the primary imagery source for the impervious surface extraction that will be ingested into our machine learning image classification data pipeline that will be tailored for best results within the City of Midland land cover characteristics. If needed or desired, a supplemental publicly available option for the source imagery is 2020 USDA NAIP imagery. After the image classification stage is complete, an analyst will review the results and make manual edits as needed. During this phase commercial parking lots will be identified and attributed separately from the other impervious surface areas as we understand their significance to the City. This semi-automated approach produces accurate results (goal of 85% accuracy or better) and is much more cost-effective than a completely manual feature collection effort.

Once the data extraction is complete, an accuracy assessment will be performed. The proposed accuracy assessment approach is to perform a stratified random sample using a total of 200 sample points. The points will be distributed based on the percentage of impervious surface vs pervious surface within the area of interest. We will compute a confusion matrix providing User Accuracy, Producer Accuracy, and the Kappa statistic that provides an overall assessment of the accuracy of the extraction.

Services:

- **Building Extraction**
- **Impervious Surface Extraction**
- **Accuracy Assessment**

Deliverables:

- 2D building polygons delivered in an Esri file geodatabase
- 2D impervious surface polygons delivered in an Esri File geodatabase
- Impervious surface Esri compatible raster format
- Accuracy assessment report in PDF format

Client Responsibilities

Provide Notice To Proceed
Review/Approval of Lidar Classification schema
Review/Approval of Flight Plan/Control Plan
Review/Approval of Lidar Final Delivery
Provide EagleView imagery
Provide commercial parcel boundaries to aid in parking lot extraction

Pricing

The price to provide the above services will be **$178,200.** This price includes mobilization, data acquisition, processing, and final delivery. This fee will remain firm for a period of 90 days from the date of this letter or upon mutually agreed changes in the scope of services to be performed.

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

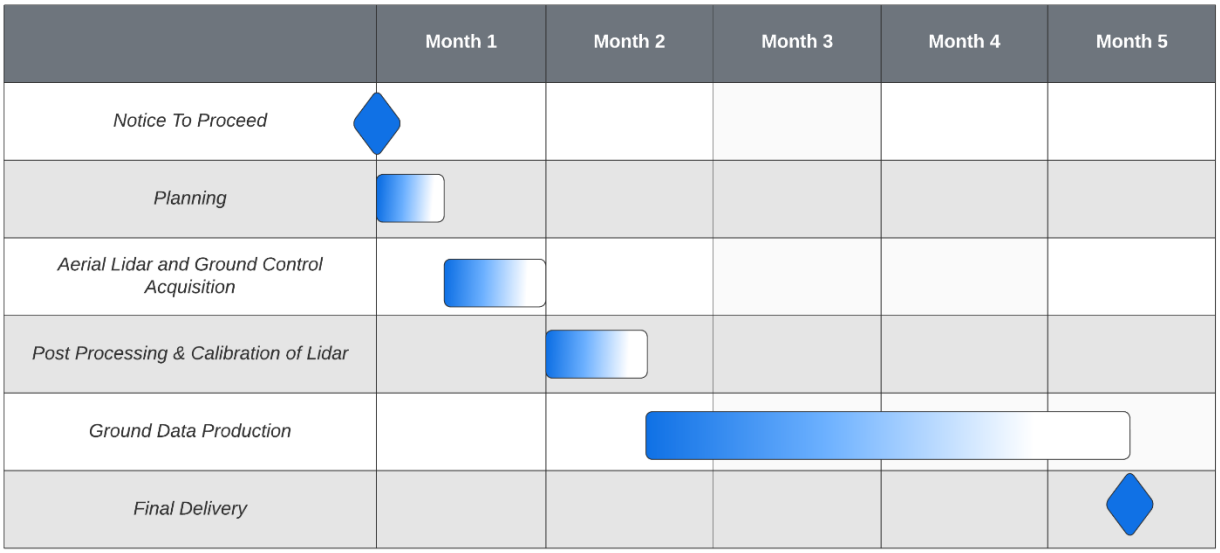
Assumptions

The above services and price are based on the following assumptions:

1. The schedule starts after notice to proceed and execution of contract
2. Aerial lidar will only be acquired during dry conditions to maximize lidar reflectivity
3. Some lidar data void areas are expected in dense/high-vegetated and inundated areas. Axim is not required to fill void areas.
4. Vertical accuracy RMSEz on hard surfaces will meet or exceed 10 cm
5. Vertical accuracy RMSEz on soft surfaces will meet or exceed 30 cm
6. No specific building attribution is required
7. No specific impervious surface attribution is required other than parking lot identification
8. EagleView imagery will be provided in a common uncompressed raster format such as GeoTIFF
9. EagleView imagery may be downsampled to support image classification; the impervious surface product resolution will be 1-foot or lower depending on source image characteristics

Schedule

Aerial Lidar Schedule



Building and Impervious Surface Schedule

Building and Impervious Surface Deliverables will be provided approximately 90-120 days after Notice to Proceed, contract is signed, EagleView source imagery is provided, and new aerial lidar data final deliverables are accepted by the client.

Signature

Signature below indicates approval of the above project approach, price, and project assumptions. Axim looks forward to assisting in the completion of this project.

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

Axim Geospatial, LLC

_____

Kent Blanchard, Contracts Administrator

City of Midland, Texas

_____

Axim GEOSPATIAL

1.888.815.3327
100 QBE Way, Suite 1225
Sun Prairie, WI 53590
aximgeo.com

City Council Meeting

Item Number: **12**

Meeting Date: **November 15, 2022**

To: **City Council / City Manager**

From: **Mark Widmann, Director**

Subject: Motion appointing Marcia Bentley-German as the City Governance Officer/City Secretary of the City of Midland effective March 1, 2023; and authorizing the Mayor to execute an Employment Agreement with Marcia Bentley-German (DISTRICT: ALL) (ADMINISTRATIVE SERVICES)

Purpose:

Motion appointing Marcia Bentley-German as the City Governance Officer/City Secretary of the City of Midland effective March 1, 2023; and authorizing the Mayor to execute an Employment Agreement with Marcia Bentley-German.

Recommended City Council Action:

Approve

Fiscal Impact:

The position is approved in the 2022-23 FY Budget.

Tina Gaug

City Manager's Office

CITY OF MIDLAND, TEXAS
CITY GOVERNANCE OFFICER / CITY SECRETARY EMPLOYMENT AGREEMENT

THIS AGREEMENT for employment as the City Governance Officer / City Secretary of the City of Midland (the "*Agreement*") is made and effective the **16th day of November, 2022,** by and between the **CITY OF MIDLAND, TEXAS,** a home-rule municipality (the "*City*"), and **MARCIA BENTLEY-GERMAN** ("*Employee*"), to establish and set forth the terms and conditions of the employment of Employee as the City Governance Officer / City Secretary.

WITNESSETH:

WHEREAS, the City, acting by and through the City Council (the "*Council*"), desires to employ the services of Employee as the City Governance Officer / City Secretary pursuant to the terms, conditions, and provisions of this Agreement; and

WHEREAS, it is the desire of the Council to provide compensation and benefits, to establish conditions of employment for, and to set the working conditions of Employee as provided in this Agreement; and

WHEREAS, except as otherwise specifically provided herein, Employee shall have and be eligible for the same benefits as are provided to all employees of the City subject to the terms, conditions and eligibility requirements of such benefits; and

WHEREAS, Employee has agreed to accept employment as the City Governance Officer / City Secretary of the City of Midland, subject to the terms, conditions, and provisions agreed to and set forth in this Agreement;

NOW, THEREFORE, in consideration of Employee accepting an agreement with the City, and other good and valuable consideration, including the mutual covenants herein contained, the City and Employee hereby contract, covenant, and agree as follows:

1. Duties. The City hereby employs Employee as the City Governance Officer / City Secretary of the City of Midland to perform the duties and functions specified in the Midland City Code, as may be amended from time to time, and other specific duties as assigned by the Council or as contained in this Agreement. The employment of Employee shall commence on March 1, 2023. Employee's employment with the City shall be on an "at-will" basis, which means that Employee's employment is terminable by either the City or Employee for any reason or no reason, with or without cause. Employee's job description is attached hereto, marked as **Exhibit A**, and incorporated herein for all purposes.

2. Salary. The City agrees to pay Employee a base salary, which shall initially be the annualized amount of $130,500.00 (the "*Base Salary*"). The Base Salary shall be payable in installments at the same time as other employees of the City are paid. In addition, the City agrees to increase the Base Salary and/or benefits of Employee in such amounts and to such extent as the Council may determine in its sole discretion. At no time, however, shall the Base Salary be adjusted by the Council to an annualized amount below $130,500.00. Employee shall be entitled to the same longevity pay as are all other employees in accordance with the City's personnel policies.

3. Disability and Retirement Benefits. Employee shall be covered and governed by the same retirement system as are all other employees. Retirement contributions shall be paid as required by the City's retirement system plan documents and subject to the terms and conditions of such plan and plan documents. Nothing in this Agreement shall preclude the City or any administrator of such plan from terminating or amending any such plan or program so as to eliminate, reduce, or otherwise change any benefit thereunder, subject to the terms of such plan or program and applicable law.

4. Insurance. The City agrees to provide hospitalization, comprehensive medical and life insurance for Employee and Employee's dependents equal to that provided to all employees of the City, and to pay the premiums thereon on the same basis as for other employees of the City. The coverage shall continue in full force and effect and shall be a continuation of existing coverage. The City further agrees to coordinate its insurance plan with Employee's current insurance plan and coverage, with the intent, and to guarantee, that no exclusion or break in coverage in health, disability or life insurance coverage occurs for Employee or Employee's dependents, if applicable. If needed, the City will reimburse Employee for two (2) months of payments under the Consolidated Omnibus Budget Reconciliation Act (COBRA) for health insurance. Nothing in this Agreement shall preclude the City or any administrator of such insurance plans from terminating or amending any such plan or program so as to eliminate, reduce, or otherwise change any benefit thereunder, subject to the terms of such plan or program and applicable law.

5. Leave Benefits. All provisions of the rules and regulations of the City applicable to sick leave and vacation leave, as they now exist or hereafter may be amended, shall apply to Employee as such apply to all other employees of the City. All sick leave and vacation leave accumulated by Employee prior to March 1, 2023, shall carry over and be credited to Employee. It is the intent of this Agreement that Employee shall not lose any sick leave or vacation leave earned prior to the execution of this Agreement. In addition, Employee shall also be entitled to five (5) personal days with pay during each calendar year. Any unused personal days shall not carry over to the following calendar year and shall not to be eligible for use under the City's vacation buyback program. Upon separation or termination, any accrued and unused sick leave and vacation leave shall be paid to Employee in accordance with this Agreement.

6. Professional and Civic Development. The City agrees to budget and pay for the civic and professional membership dues and subscriptions of Employee as necessary for Employee's continuation and participation in local, regional, and state associations which are necessary and desirable for Employee's continued professional growth and advancement, and for the good of the City as the Council shall deem appropriate. Developing and maintaining professional association contacts and standing provide the City access to valuable resources, and the reasonable participation and related travel by Employee as provided for in the annual budget will be a part of Employee's duties.

7. Business Expenses. Certain expenses of a non-personal and job-related nature will necessarily be incurred by Employee in the performance of Employee's duties. The City will pay or reimburse such reasonable business expenses in accordance with applicable City policies then in effect, and the City is authorized to disburse such monies upon receipt of duly executed expense or petty cash vouchers, receipts, statements, or personal affidavits. The City will also pay the full cost of any bond, if any is required by the City in connection with the employment of Employee.

8. Hours of Work. It is recognized that Employee is expected to engage in the hours of work that are necessary to fulfill the obligations of the position, must be available at all times, and must devote a great deal of time outside of normal business hours to the business of the City. Employee acknowledges that the proper performance of the duties of Employee will require Employee to generally observe normal business hours and will also often require the performance of necessary services outside of normal business hours. Employee agrees to devote such additional time as is necessary for the full and proper performance of Employee's duties and that the compensation herein provided includes compensation for the performance of all such services. Provided, however, the City intends that reasonable time off be permitted Employee, such as is customary for exempt employees so long as the time off does not interfere with the normal conduct of the City of Midland. Employee shall devote full time and effort to the performance of the duties of Employee, and shall remain in the exclusive employ of the City while this Agreement is in effect.

9. Evaluation Process. The Council may review Employee's job performance at least once annually with the first review being in 2023, and with subsequent annual reviews to occur as determined by the Council in its sole discretion.

10. Termination and Termination Events. This Agreement shall terminate only upon any of the following:

a. Mutual agreement of the Council and Employee in writing and executed by Employee and the duly authorized representative of the Council;

b. Retirement, resignation, or death of Employee;

c. Termination of Employee's employment for Good Cause, as defined below; or

d. A Unilateral Severance, as defined below.

10.1 Good Cause. Upon the vote of not less than four (4) Council members at a duly called Council meeting, the Council may dismiss Employee for Good Cause. "*Good Cause*" shall mean only as follows:

a. Any act or omission of willful, knowing, grossly negligent, or negligent conduct in violation of any significant provision of this Agreement; any act or omission of willful, knowing, grossly negligent, or negligent conduct in violation of any significant duty or significant obligation required to be performed by Employee under this Agreement; or any act or omission of willful, knowing, grossly negligent, or negligent conduct in violation of any rule, regulation, policy or ordinance of the City, or a law of the United States or the State of Texas;

b. Final conviction of a felony;

c. Final conviction of a misdemeanor involving moral turpitude. For purposes of this Agreement "*moral turpitude*" shall mean only misdemeanors involving dishonesty, fraud, or deceit; or

d. Misconduct or violation of a City policy, rule, or regulation that by its nature has an adverse effect on the City, the confidence of the public in the integrity of the City, or the relationship of Employee and other employees (a "*Policy Violation*"). The determination of whether conduct constitutes a Policy Violation shall be in the sole discretion of the City Council.

10.2 Unilateral Severance. "*Unilateral Severance*" shall mean a vote of not less than four (4) Council members at a duly called Council meeting to end the employment relationship and terminate this Agreement, whether with or without Good Cause, and upon written notice to Employee (as specified below) and payment to Employee of the Severance Amount, as defined below. If the Council determines that it desires a Unilateral Severance, it shall provide written notice to Employee at least ten (10) days in advance of the effective date of such termination and shall specify the following in said written notice:

a. That the Council has voted to pursue a Unilateral Severance pursuant to the terms of this Agreement;

b. The effective date of the Unilateral Severance; and

c. A line item breakdown of the Severance Amount. The Severance Amount shall be paid in one lump sum, and Employee acknowledges and agrees that the City shall make all applicable deductions and withholdings required by law.

10.3 Severance Amount. The "*Severance Amount*" means the total amount of:

a. an amount equal to six (6) months of Employee's then current Base Salary; and

b. The value of any accrued but unused vacation and sick leave, computed on an hourly basis.

10.4 Criminal Conviction or Policy Violation. Notwithstanding any provision in this Agreement to the contrary, if Employee is finally convicted of a crime as described in Section 10.1.b or c above or if Employee engages in a Policy Violation as described in Section 10.1.d above, Employee shall not receive the Severance Amount or Separation Amount. In the event that this Agreement is terminated following Employee's final conviction of a crime as described in Section 10.1.b or c above or the occurrence of conduct or an event that constitutes a Policy Violation as described in Section 10.1.d above, Employee shall receive only a final paycheck and payment for accrued but unused vacation and sick leave in accordance with the City's personnel policies, and the City shall have no obligation to pay the Severance Amount or Separation Amount.

10.5 City Policies. In the event that this Agreement is terminated other than by a Unilateral Severance, Employee shall receive a final paycheck and payment for accrued but unused vacation and sick leave in accordance with the City's personnel policies.

10.6 RELEASE. CONDITIONED UPON THE CITY FULFILLING ITS OBLIGATION TO PAY THE SEVERANCE AMOUNT, UPON A UNILATERAL SEVERANCE, EMPLOYEE WAIVES AND RELEASES EMPLOYEE'S RIGHT TO CONTINUED EMPLOYMENT WITH THE CITY AND HEREBY WAIVES, RELEASES AND AGREES TO HOLD THE CITY OF MIDLAND, ITS ELECTED OFFICIALS,

OFFICERS, EMPLOYEES, INSURERS AND AGENTS HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS EMPLOYEE MAY HAVE NOW OR ACQUIRE IN THE FUTURE RELATED TO THE UNILATERAL SEVERANCE, TERMINATION OF EMPLOYMENT WITH THE CITY, THE SEVERANCE AMOUNT, OR ANY OTHER MATTER ARISING FROM OR RELATED TO THIS EMPLOYMENT AGREEMENT. EMPLOYEE FURTHER AGREES TO EXECUTE AN AGREEMENT WITH THE CITY WHICH REFLECTS THE WAIVER AND RELEASE STATED ABOVE. THE PROVISIONS OF THIS SECTION OF THE AGREEMENT SHALL SURVIVE THE TERMINATION, EXPIRATION OR OTHER END OF THIS AGREEMENT AND/OR EMPLOYEE'S EMPLOYMENT WITH THE CITY. IF EMPLOYEE DOES NOT EXECUTE A TOTAL AND COMPLETE RELEASE, THE CITY HAS NO OBLIGATION TO PAY EMPLOYEE THE SEVERANCE AMOUNT, AND EMPLOYEE WAIVES THE RIGHT TO COLLECT THE SAME. THE TOTAL AND COMPLETE RELEASE SHALL RELEASE THE CITY AND THE CITY'S ELECTED OFFICIALS, OFFICERS AND EMPLOYEES IN THEIR INDIVIDUAL AND OFFICIAL CAPACITIES.

11. Notices. All notices, demands, and other writings may be delivered by either party hereto to the other by United States Mail, by a reliable commercial courier, or in person at the following address:

City: Mayor, City of Midland, 300 N. Loraine, Midland, Texas 79701.

Employee: Employee's address on file in the City's Administrative Services Department.

12. General Provisions.

a. Governing Law. This Agreement shall be construed in accordance with, and governed by, the laws of the State of Texas. Venue shall lie exclusively 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.

b. Severability. In the event any one or more of the sections, provisions or clauses contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement, but this Agreement shall be construed as if such invalid, illegal or unenforceable provision had not been contained herein.

c. Entire Agreement. This Agreement incorporates all the agreements, covenants and understandings between the City and Employee concerning the subject matter hereof, and all such covenants, agreements and understandings have been merged into this written Agreement. No other prior agreements or understandings, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this Agreement.

d. Amendment. This Agreement shall not be modified or amended except by a written instrument executed by Employee and the duly authorized representative of the Council. The duly authorized representative of the Council is the Mayor.

e. Effective Date. This Agreement shall be and become in full force and effect as of the date first written above upon the execution hereof by the Mayor of the City and Employee.

f. Counterparts. This Agreement may be executed in duplicate original counterparts, each of which when so executed shall be deemed to be an original, and such counterparts shall together constitute but one in the same instrument.

g. Construction of Agreement. Whenever possible the words and phrases used in this agreement shall be given their plain and ordinary meaning.

h. Reassignment. Employee cannot be reassigned from the position of City Governance Officer / City Secretary to another position without Employee's express written consent.

13. Conflict with Policies. In the event that any conflict shall exist between this Agreement and the rules, regulations, policies, resolutions, or ordinances of the City (including, but not limited to, the City's personnel policies, as amended), the provisions of this Agreement shall take precedence, and control and govern any such conflict.

IN WITNESS WHEREOF, the City and Employee have executed this Agreement effective as of the date first written above.

CITY OF MIDLAND, TEXAS

By:_____
Patrick N. Payton, Mayor

ATTEST

_____
Amy M. Turner, City Secretary

EMPLOYEE

_____
Marcia Bentley-German

THE STATE OF TEXAS §
§
COUNTY OF MIDLAND §

SUBSCRIBED AND SWORN TO before me by Marcia Bentley-German, on this ____ day of _____, 2022.

_____
Notary Public in and for the State of Texas

City Governance Officer / City Secretary

CITY OF MIDLAND
Established Date: Jul 27, 2021
Revision Date Nov 1, 2022

SCOPE OF WORK:

Prepares and maintains accurate records of City Council meetings and meetings of boards of certain city-authorized taxing entities (4A/4B corporations). Provides maintenance and custodianship of City Council minutes and all City legal documents, records and files of the City Council. Keeps records of all commissions and licenses issued and countersigns same. Serves as City's Election Officer and Records Management Officer

Budgetary Responsibilities:

Prepares and administers the annual budget. Monitors expenditures during the year and
makes recommendations for budget modifications or additional funds.

ESSENTIAL JOB DUTIES:

- Schedules, monitors and evaluates the work of all staff in the City Secretary's office;
- Manages the oversight of the City Council agenda process including the preparation and posting of agendas and meeting notices; ensures all ordinances, resolutions, and contracts are executed, recorded, scanned and filed as necessary;
- Attends all City Council meetings, work sessions, staff retreats and budget sessions. Prepares minutes of meetings;
- Prepares and presents staff reports and other necessary correspondence; assists and communicates with staff and professional business associates; assists the public and employees; responds to and resolves difficult and sensitive citizen inquires and complaints;
- Certifies and executes official City documents; maintains custody of the City Seal; administers and files oaths of office;
- Serves as Municipal Election Administrator, coordinates municipal elections through the County; prepares all election information for council candidates, election orders, resolutions, notices, and other pertinent documents; coordinates with the City Legal department to ensure conformance with Texas Election Code and Texas Government Code; receives and files all campaign financial reports; arranges the swearing-in of newly elected council members and board members;
- Serves as Records Management Officer for the City; maintains custody of official records and archives of the City, including ordinances, resolutions, contracts, agreements, deeds and minutes; certifies copies as required; manages and updates records retention policies as needed; provides training classes on the proper destruction of records for all employees;
- Serves as staff liaison for the Citizens Development & Hotel/Motel Tax Advisory Board; responsible for creating agendas for and conducting meetings of the board;

- Serves as Assistant Secretary to the Midland Development Corporation; posts agenda notices, prepares minutes, and maintains all MDC records and contracts;
- Supervises tracking and monitoring of all City boards and commissions. Notifies City Council of term expirations and vacancies. Forwards applications to Council as opening occurs. Sends press releases for board openings, ensures board/commission information is updated on the website, oversees the generation of notification letters to new appointees and retiring board/commission members;
- Prepares and files annexation records with the Secretary of State and State Comptroller's Office;
- Manages the maintenance of the City Code of Ordinances;
- Oversees the issuance of permits and licenses for alcohol, taxicab, limo and junk/secondhand goods; signs permits and licenses;
- Performs other duties as assigned.

PHYSICAL AND ENVIRONMENTAL CONDITIONS:

Ability to transport self from building to building and to attend various functions and meeting at other sites either within or outside of the city. Employee occasionally lifts boxes containing records or climbs in order to reach cabinets.

REQUIRED QUALIFICATIONS:

Serves as information source for the Mayor and City Council. Interacts with other departments and outside agencies when coordinating work projects or activities. Provides citizens with information or City documents.

Knowledge, Skills & Abilities

Ability to read and understand legal materials, reports (including state statutes and contracts), and journals. Excellent verbal and written communication skills; proficient in use of grammar and punctuation. Ability to develop and present mathematical budget information. Skill in the operation and maintenance of a number of office machines and equipment such as computers. Knowledge of departmental activities and functions.

Minimum Education, Experience & Certification

High school diploma plus some college; Bachelor's degree preferred. Minimum five years local government experience in a professional role; or equivalent. Must be a qualified voter and must have resided in the City of Midland at least one-year preceding appointment. Valid Texas driver's license required.

City Council Meeting

Item Number: 13

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Cristina Odenborg Burns, Director

Subject: MOTION AUTHORIZING THE ACCEPTANCE OF A FUTURE DONATION OF A CEDRIC BENSON STATUE TO BE PLACED INSIDE ASTOUND BROADBAND STADIUM AT THE SCHARBAUER SPORTS COMPLEX; AND AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE ALL NECESSARY DOCUMENTS AND INSTRUMENTS FOR THE ACCEPTANCE OF SAID FUTURE DONATION (DISTRICT 4) (COMMUNITY SERVICES)

Purpose:

Consider a motion authorizing the acceptance of a future donation of a Cedric Benson statue to be placed inside Astound Broadband Stadium at the Scharbauer Sports Complex; and authorizing the City Manager to negotiate and execute all necessary documents and instruments for the acceptance of said future donation.

Recommended City Council Action:

Directional / Informational

Fiscal Impact:

Future maintenance of the statue.

Discussion:

John White, a former Midland resident, is requesting to dedicate a life size bronze statue of Cedric Benson behind Gate 2 of Astound Broadband Stadium. The cost of the creation, the transportation, and the installation of the statue will be covered by the donors. Once installed, the statue will be donated to the City of Midland. However, before the statue is commissioned, Mr. White would like City Council's approval. The City will also be able to review a sketch of the sculpture before the artist gets started on it. Attached is a letter with additional information.

Attachments:

Cedric Benson's Statue Recommendation (Letter from John White)

Morris Williams Jr.

City Manager's Office

John A. White III
2431 Carole St.
Nacogdoches, Texas 75965-224431
john6597@msn.com
(936) 569-2365

Honorable Parks and Recreation Committee Members &
City of Midland Councilmen and Councilwomen
Midland, Texas

First, I want to thank you all for allowing me the opportunity to present a worthy project in my estimation as well to many football fans of Midland Lee and Midland Legacy before you today.

A few months back I came across a thought of a way to inspire young athletes in Midland to discover their personal 'greatness'. Being an extremely grateful recipient of the blessings I received as a player on Rebel Teams 11 & 12, I desired to contribute albeit in a small way to future athletes that are enrolled with M.I.S.D.

What I came up with was to have a life size bronze statue created to memorialize the most prominent football athlete at least in Rebel History, but in Midland, Texas in general. That person is the late Cedric M. Benson who played for the Midland Lee Rebel Football Varsity (1998-2000). I propose that a statue be situated inside the northwest/ home side gate (Gate 2) at Astound Stadium where adults and children can easily view and reflect.

I first sent out emails to several prominent individuals that have connections to the Rebel Program at one time or another, those being former Rebel and Texas Tech star football player Councilman John Norman, Former Lee Mentor and THSCA Football Hall of Fame Coach John Parchman, former Rebel football player and M.I.S.D. philanthropic athletic contributor Mr. Doss Rogers and current A.D. of LHS and Rebel Football Head Coach, Clint Hartman. Once I had received popular support from these gentlemen, I approached Mrs. Jackqueline Benson. She was ecstatic that her son would be recognized for his contribution to the Rebel Program. Ms. Benson gave me her approval to go ahead with the project.

As a refresher here are a few of Cedric accomplishments:

- **8418 Yards Rushing on 974 Carriers**
- **127 Total Touchdowns**
- **39 - 100+ yard games**
- **6 - 300-yard games**
- **770 Points Scored**
- **Named Class 5-A Offensive Player of the Year 3x & Parade All American in 2000 his senior year.**
- **Rebels were 43-3 during his 3 years in which Lee was State Champions in 1998, 1999, and 2000.**

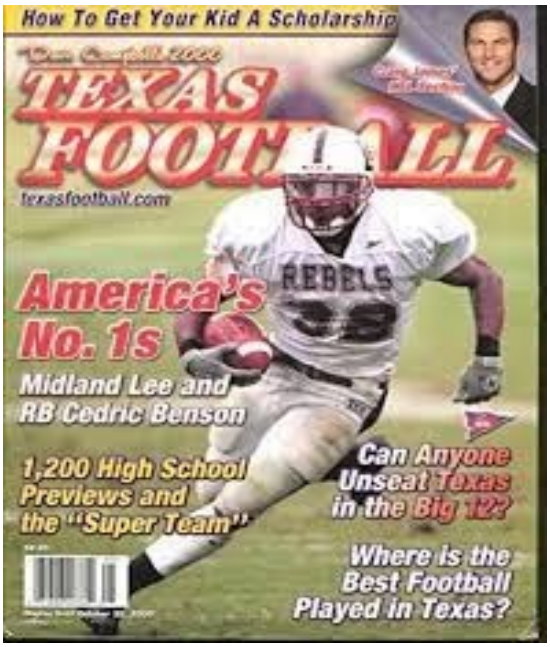
During his time at Lee, Cedric was known to be a hard and diligent worker during practices which was magnified on the field of play. Jon Rogers and Eric Winston, who were his teammates, will testify to his intensity during practice as well on gameday. When Coach Parchman needed Cedric to carry the load, Cedric stepped up to the challenge and was always at his very best.

Presently, I have a sculptor based out of Navasota, Texas who will create the statue and the financials for the work to be created is secured.

Many of us privately mused when the bond issue was passed for the creation of the new football venue at that time (which was named after the first corporate sponsor Grande Communications and has recently been renamed Astound Stadium) situated outside W. Loop 250….. that is the stadium that Cedric built. Of course, as we all know, bond issues are more complicated than that. However, the success of the Rebels three 5-A State Championships where Cedric Benson took Texas High School Football by storm might have had some influence in finally replacing old Memorial Stadium for a new spacious venue for M.I.S.D. athletics.

Again, thank you for your time. I pray that you will approve of this project which will encourage future Midland athletes to aspire to become the best athlete possible. If there are any questions you might have for me, please feel free to contact me.

Best Regards,
John A. White III


How To Get Your Kid A Scholarship
TEXAS FOOTBALL
texasfootball.com
REBELS
America's No. 1s
Midland Lee and RB Cedric Benson
1,200 High School Previews and the "Super Team"
Can Anyone Unseat Texas in the Big 12?
Where is the Best Football Played in Texas?


REBELS


REBELS

City Council Meeting

Item Number: 14

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: **RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PIONEER NATURAL RESOURCES USA, INC. ("OPERATOR") TO DRILL 10 OIL AND GAS WELLS LOCATED IN SECTION 17, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 435 FEET AND 436 FEET SOUTH OF ARAPAHOE ROAD AND BETWEEN 1,182 FEET AND 1,362 FEET WEST OF ELKINS ROAD); AND PROVIDING THAT SAID PERMITS DO NOT REQUIRE A NEW ROAD REPAIR AGREEMENT BUT SHALL BE CONSOLIDATED UNDER AN EXISTING ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)**

Purpose:

Resolution approving the issuance of permits to Pioneer Natural Resources, USA, Inc. ("Operator") for the drilling of the following oil and gas wells: Stimson-Nail E17K 111H; Stimson-Nail E17L 112H; Stimson-Nail E17M 113H; Stimson-Nail E17N 114H; Stimson-Nail E17O 115H; Stimson-Nail E17P 116H; Stimson-Nail E17Q 117H; Stimson-Nail E17R 118H; Stimson-Nail E17S 119H; and Stimson-Nail E17T 120H; said wells being generally located between 435 feet and 436 feet south of Arapahoe Road and between 1,182 feet and 1,362 feet west of Elkins Road. 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 with updated exhibits. A 24 ft. sound wall will be used during drilling and fracturing operations being located on the north, west and south side of location. Closest homes approximately 880 feet to the north east of the drill pad site. Pad site is planned to be a 20 well pad site. No quiet frac system being used. Tank Battery will be in the County to the east of Elkins Road. The operator has a surface agreement. Receiving support of the Oil & Gas Advisory Committee, Pioneer Natural Resources is requesting the following variances:

(1) Pioneer Natural Resources requests to allow for twenty-four-hour fracing operations.
(2) Pioneer Natural Resources requests variance to close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
(3) Pioneer Natural Resources requests a variance to remove drill cuttings from surface location to be taken off site.
(4) Pioneer Natural Resources requests variance for irrigation and landscaping of the pad. Proposed fencing provides adequate screening around the pad.

Attachments: Applications; Location maps; Exhibit - Drill site maps, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PIONEER NATURAL RESOURCES USA, INC. ("OPERATOR") TO DRILL 10 OIL AND GAS WELLS LOCATED IN SECTION 17, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED BETWEEN 435 FEET AND 436 FEET SOUTH OF ARAPAHOE ROAD AND BETWEEN 1,182 FEET AND 1,362 FEET WEST OF ELKINS ROAD); 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, 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 11, 2022; 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 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.

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:

> Stimson-Nail E17K 111H; Stimson-Nail E17L 112H; Stimson-Nail E17M 113H; Stimson-Nail E17N 114H; Stimson-Nail E17O 115H; Stimson-Nail E17P 116H; Stimson-Nail E17Q 117H; Stimson-Nail E17R 118H; Stimson-Nail E17S 119H; and Stimson-Nail E17T 120H;

located in Section 17, Block 38, 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 "J" 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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17K 111H oil and gas well shall be 435 feet from the north line and 1,362 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "B"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17L 112H oil and gas well shall be 435 feet from the north line and 1,342 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "C"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17M 113H oil and gas well shall be 436 feet from the north line and 1,322 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "D"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17N 114H oil and gas well shall be 436 feet from the north line and 1,302 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "E"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17O 115H oil and gas well shall be 436 feet from the north line and 1,282 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "F"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17P 116H oil and gas well shall be 436 feet from the north line and 1,262 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "G"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17Q 117H oil and gas well shall be 436 feet from the north line and 1,242 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "H"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17R 118H oil and gas well shall be 436 feet from the north line and 1,222 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "I"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17S 119H oil and gas well shall be 436 feet from the north line and 1,202 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

EXHIBIT "J"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17T 120H oil and gas well shall be 436 feet from the north line and 1,182 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17K 111H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

435' FNL, 1362' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

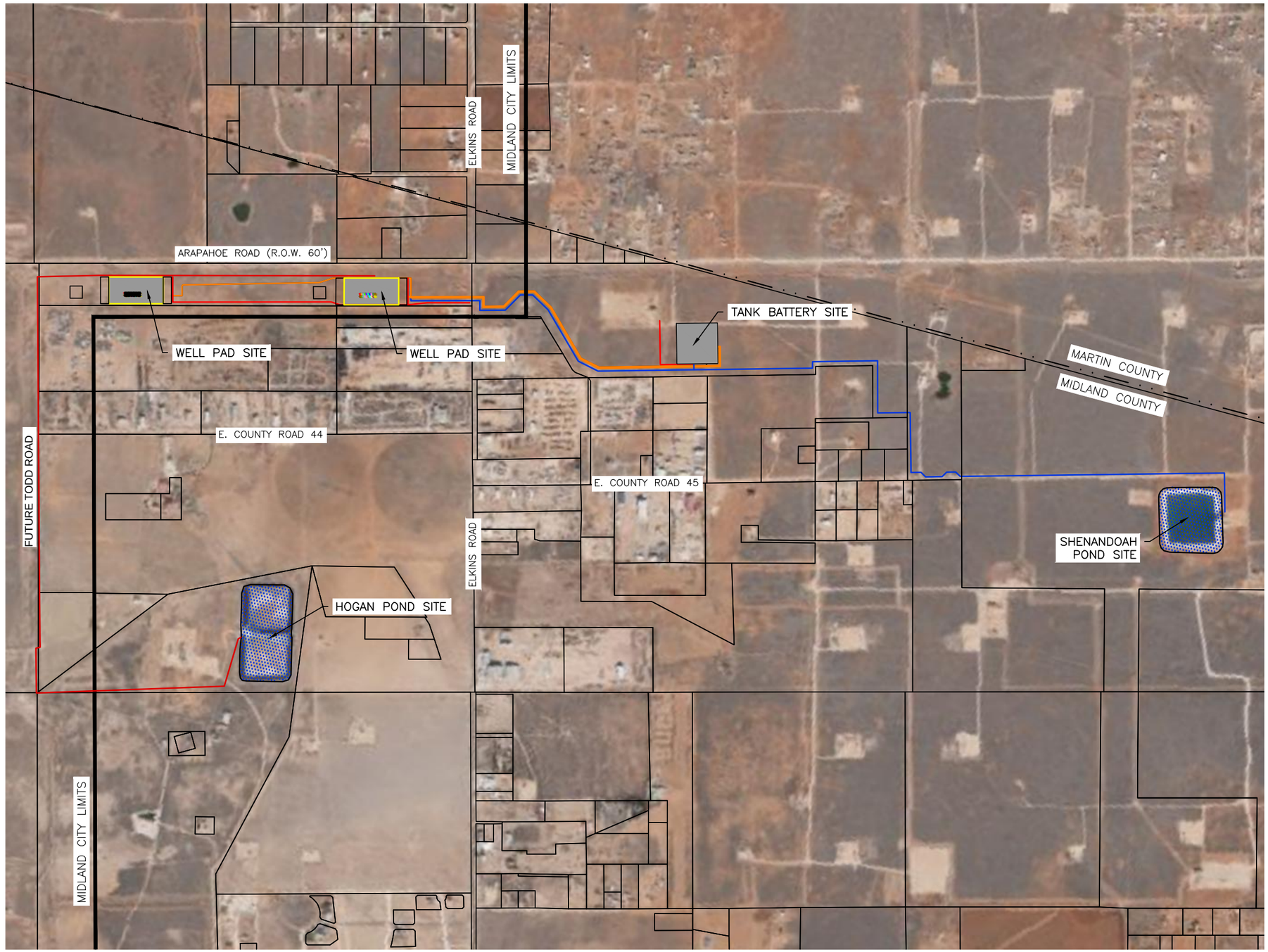
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



N

0' 1200' 2400'

SCALE: 1" = 1200'

NOTES:

1. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.
2. ANY ADJACENT WELLS ARE BASED SOLELY OFF RAILROAD COMMISSION (RRC) RECORDS AND ACCURACY CANNOT BE GUARANTEED.
3. ANY LEASE INFORMATION DEPICTED IS PROVIDED BY THE CLIENT.
4. WELL LOCATION IS APPROXIMATELY 2.0 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- PROPOSED WELL PAD SITE
- TANK BATTERY SITE
- POND SITE
- PROPOSED FLOWLINE
- PROPOSED PRODUCED WATERLINE
- PROPOSED TEMPORARY WATERLINE
- PROPOSED ELECTRICAL
- E — E — EXISTING OVERHEAD ELECTRICAL
- UG — UG — EXISTING BURIED PIPELINE

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 4/27/2022
REV.: 05/16/2022 J. ALVAREZ
BY: J. GONZALEZ
AVO: 39678.698

PIONEER NATURAL RESOURCES USA, INC.

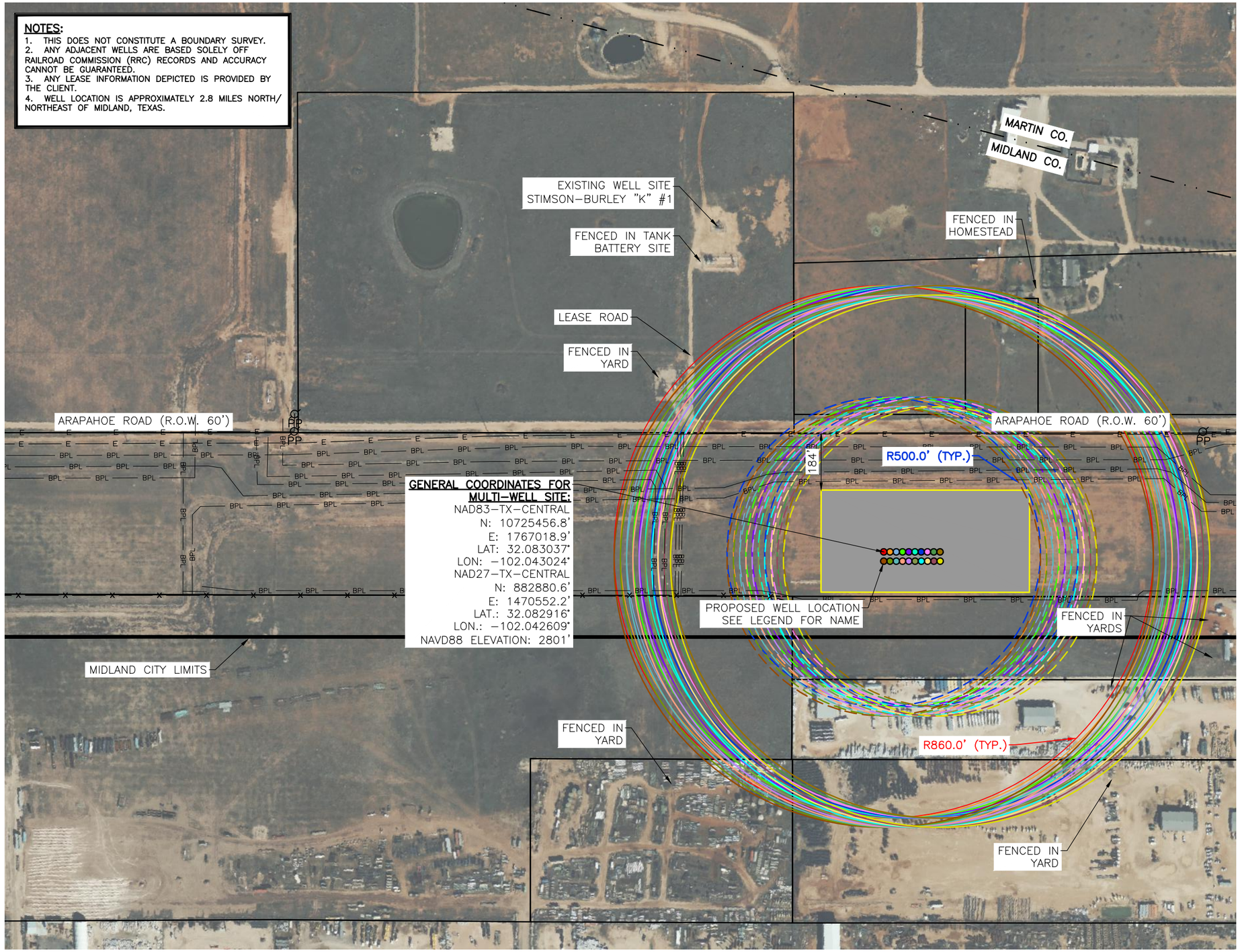
EXHIBIT "N"
DRILL SITE, GATHERING LINES, ELECTRICAL

STIMSON 17 PADS

LOCATED IN
SECTION 17, BLOCK 38,
TOWNSHIP-1-SOUTH,
T. & P. R.R. CO. SURVEY,
ABSTRACT NO. 152,
MIDLAND COUNTY, TEXAS

I:\39000s\39678\698\CADD\SheetsMLD\EXHIBIT_PLATS\039678.698_EXHIBIT_N_DRILL_SITE.dwg

NOTES:
1. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.
2. ANY ADJACENT WELLS ARE BASED SOLELY OFF RAILROAD COMMISSION (RRC) RECORDS AND ACCURACY CANNOT BE GUARANTEED.
3. ANY LEASE INFORMATION DEPICTED IS PROVIDED BY THE CLIENT.
4. WELL LOCATION IS APPROXIMATELY 2.8 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.



LEGEND

- STIMSON E17A #101H
- STIMSON E17B #102H
- STIMSON E17C #103H
- STIMSON E17D #104H
- STIMSON E17E #105H
- STIMSON E17F #106H
- STIMSON E17G #107H
- STIMSON E17H #108H
- STIMSON E17I #109H
- STIMSON E17J #110H
- STIMSON E17K #111H
- STIMSON E17L #112H
- STIMSON E17M #113H
- STIMSON E17N #114H
- STIMSON E17O #115H
- STIMSON E17P #116H
- STIMSON E17Q #117H
- STIMSON E17R #118H
- STIMSON E17S #119H
- STIMSON E17T #120H

MULTI–COLOR — 860–FOOT BUFFER/HALO
MULTI–COLOR — 500–FOOT BUFFER/HALO
PROPOSED WELL PAD SITE
PROPERTY OWNERSHIP BOUNDARY
COUNTY LINE
CITY LIMITS
BPL — BURIED PIPELINE
E — OVERHEAD ELCTRIC
X — FENCE

N

0' 300' 600'

SCALE: 1" = 300'

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 10/20/2021
REV.: 05/16/2022
BY: J. ALVAREZ
AVO: 39678.704

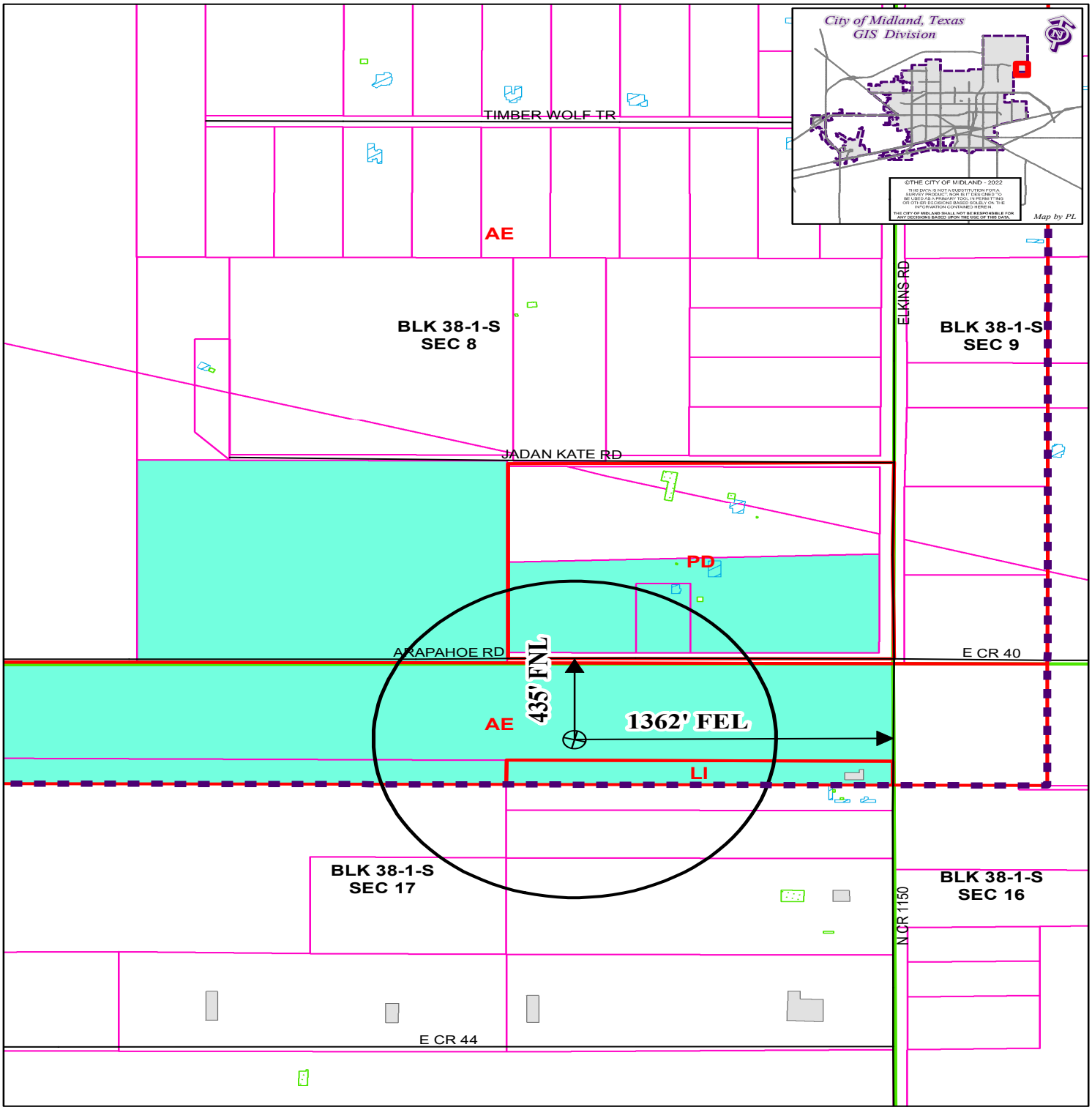
PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "E"
AERIAL SITE PLAN

#101H–#120H

LOCATED IN
SECTION 17, BLOCK 38,
TOWNSHIP–1–SOUTH,
T. & P. R.R. CO. SURVEY,
ABSTRACT NO. 152,
MIDLAND COUNTY, TEXAS

I:\39000s\39678\704\CADD\SheetsMLD\EXHIBIT_PLATS\039678.704_EXHIBIT_E_AERIAL_SITE_PLAN.dwg



LOCATION AND ZONING MAP

Oil-044042-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 435' FNL and 1362' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 435 feet south of Arapahoe Road and 1,362 feet west of Elkins Road.

Stimson-Nail E17K 111H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17L 112H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

435' FNL, 1342' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

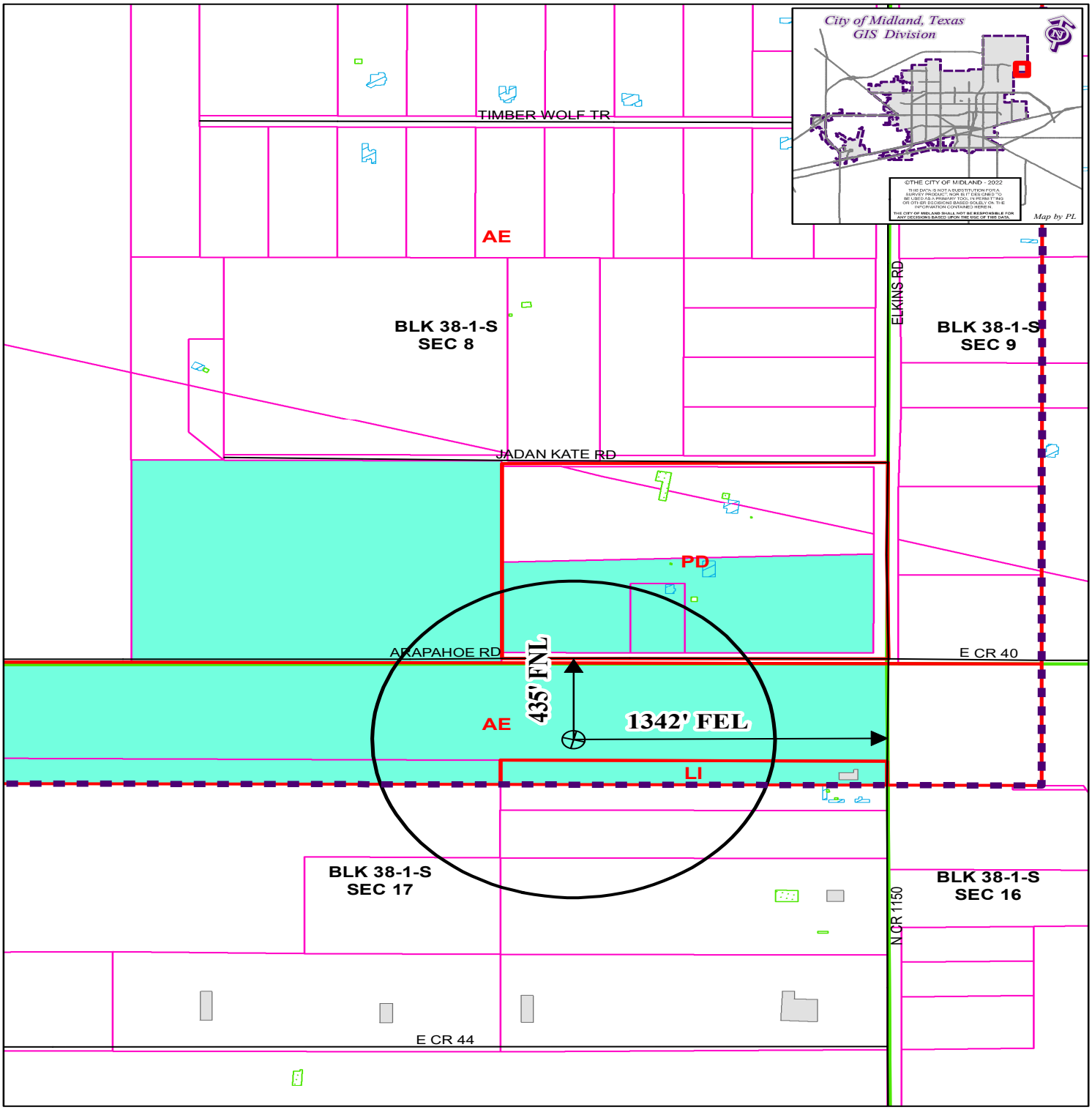
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044043-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 435' FNL and 1342' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 435 feet south of Arapahoe Road and 1,342 feet west of Elkins Road.

Stimson-Nail E17L 112H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17M 113H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1322' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

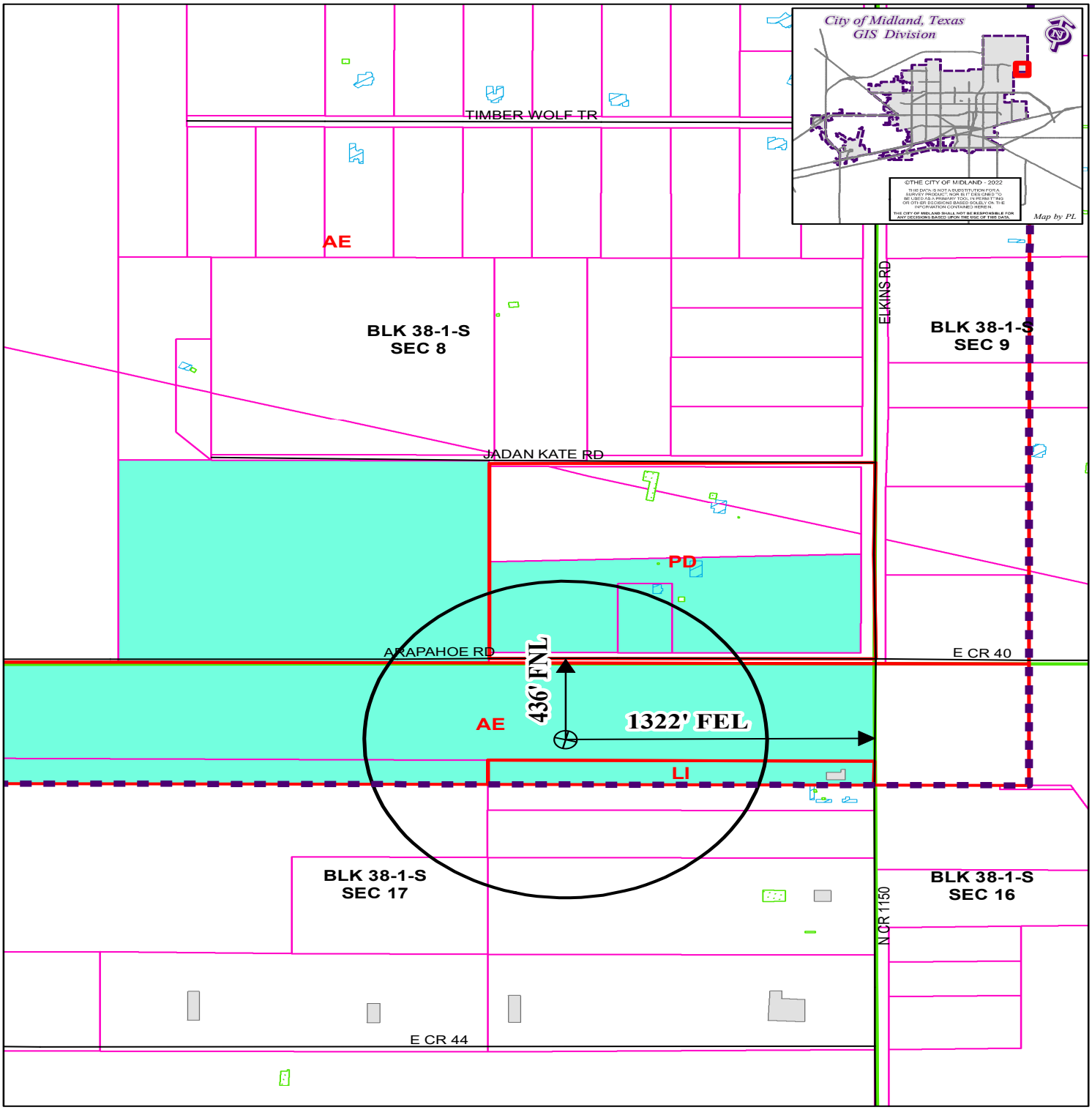
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044044-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1322' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,322 feet west of Elkins Road.

Stimson-Nail E17M 113H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17N 114H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1302' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

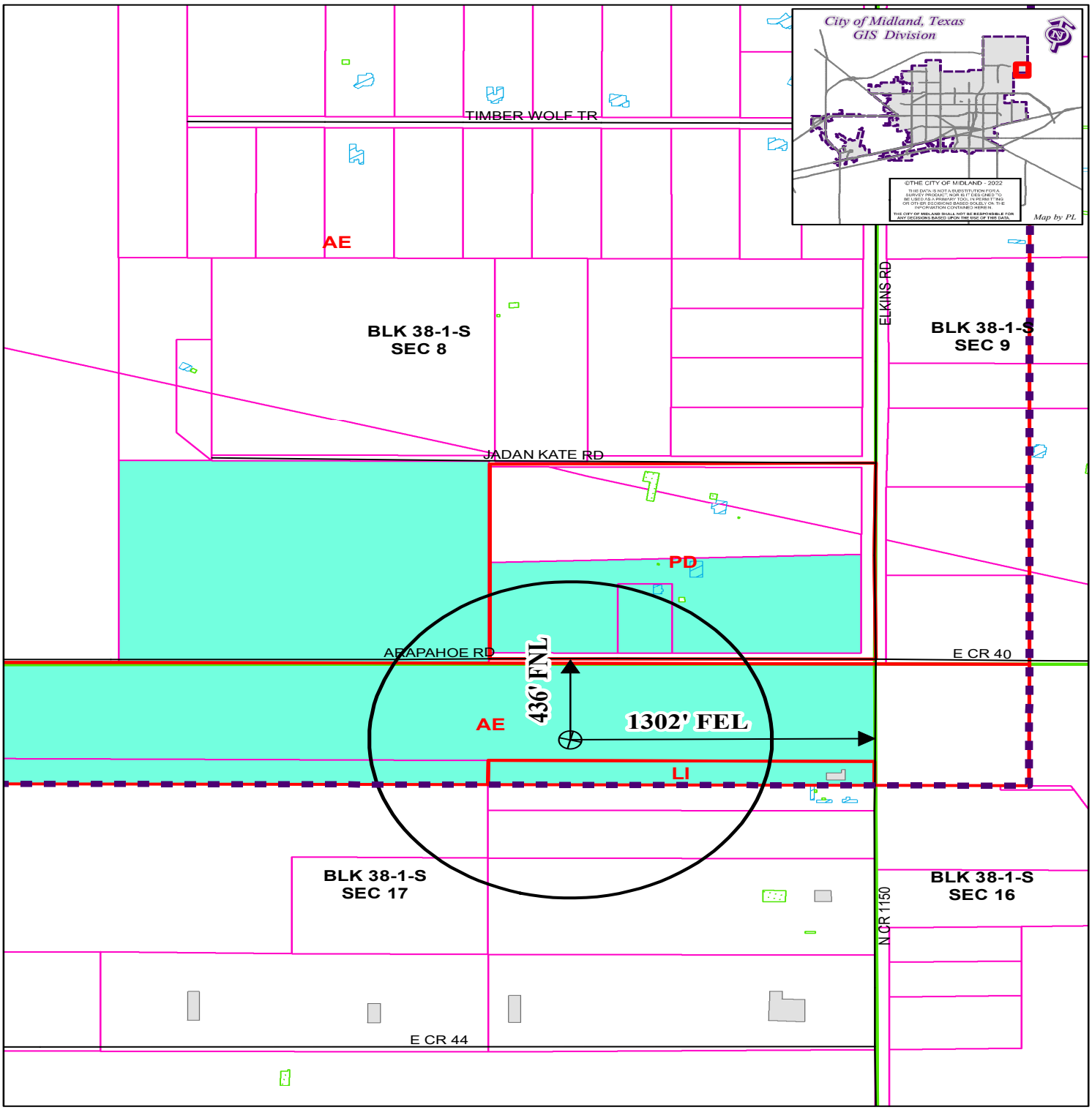
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044046-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1302' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,302 feet west of Elkins Road.

Stimson-Nail E17N 114H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17O 115H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1282' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

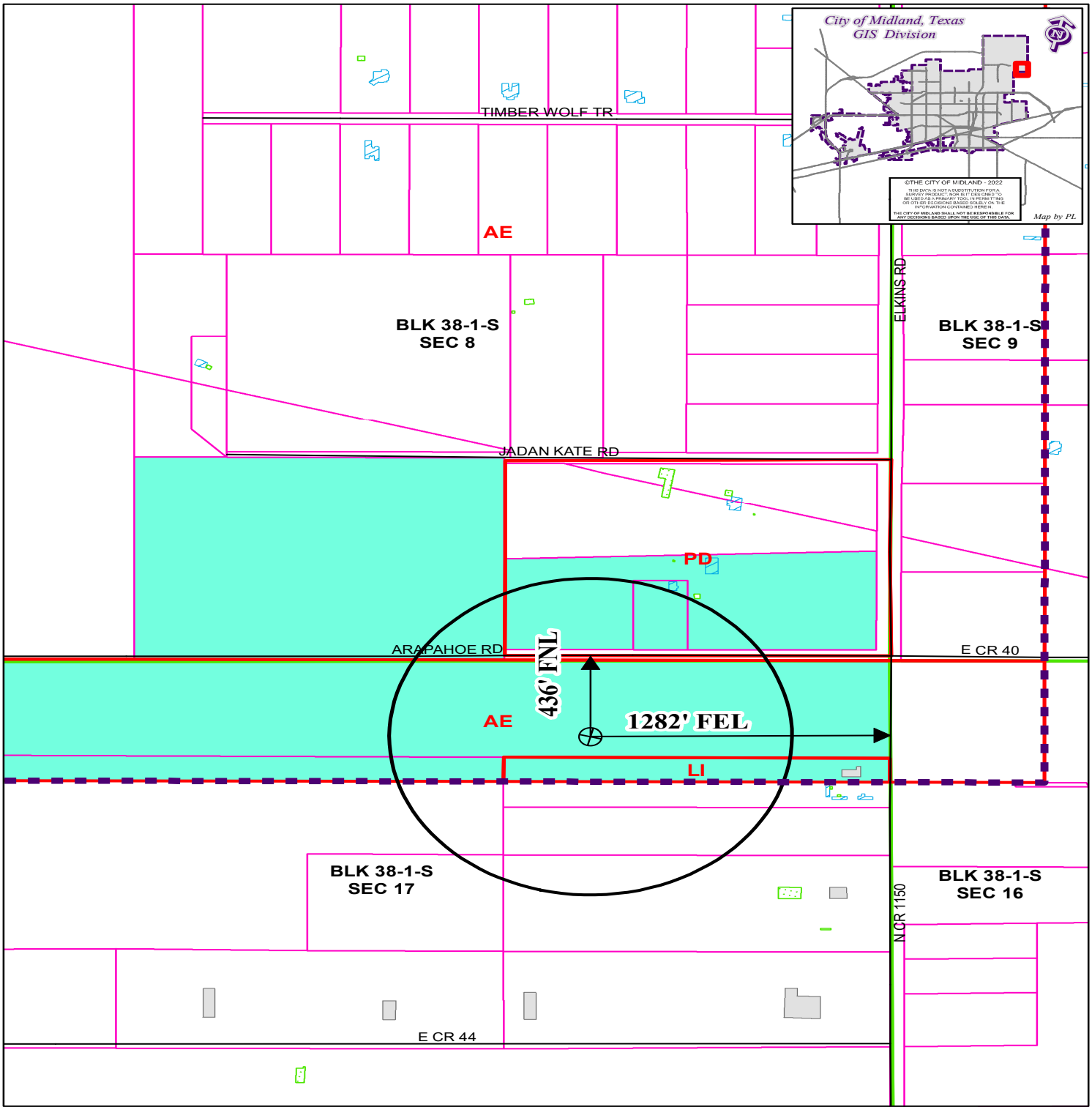
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044047-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1282' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,282 feet west of Elkins Road.

Stimson-Nail E17O 115H

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
1F1, 1F2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, CR3	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17P 116H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1262' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

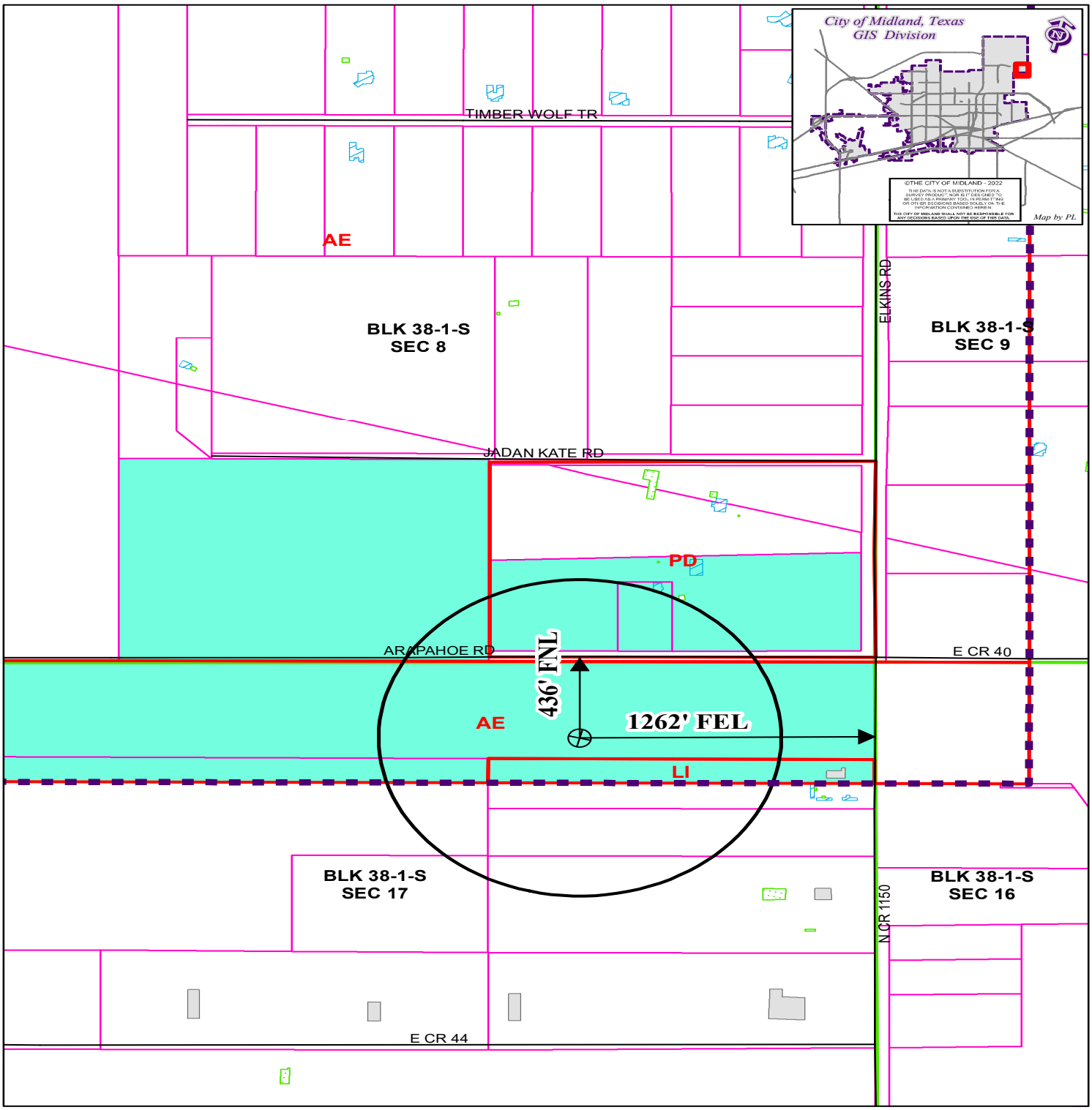
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044048-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1262' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,262 feet west of Elkins Road.

Stimson-Nail E17P 116H

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
1F1, 1F2, 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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17Q 117H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1242' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

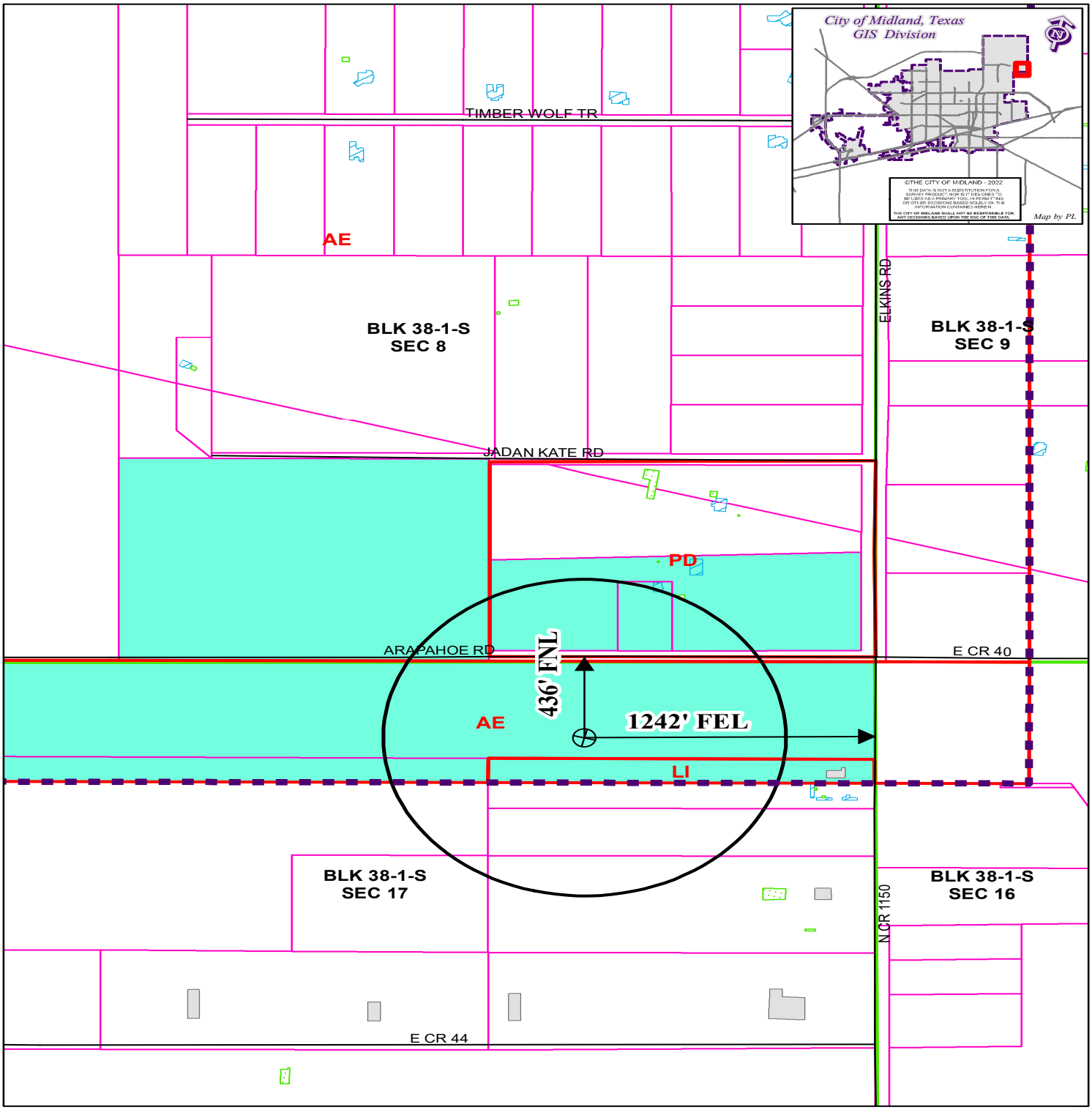
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044049-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1242' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,242 feet west of Elkins Road.

Stimson-Nail E17Q 117H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17R 118H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1222' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

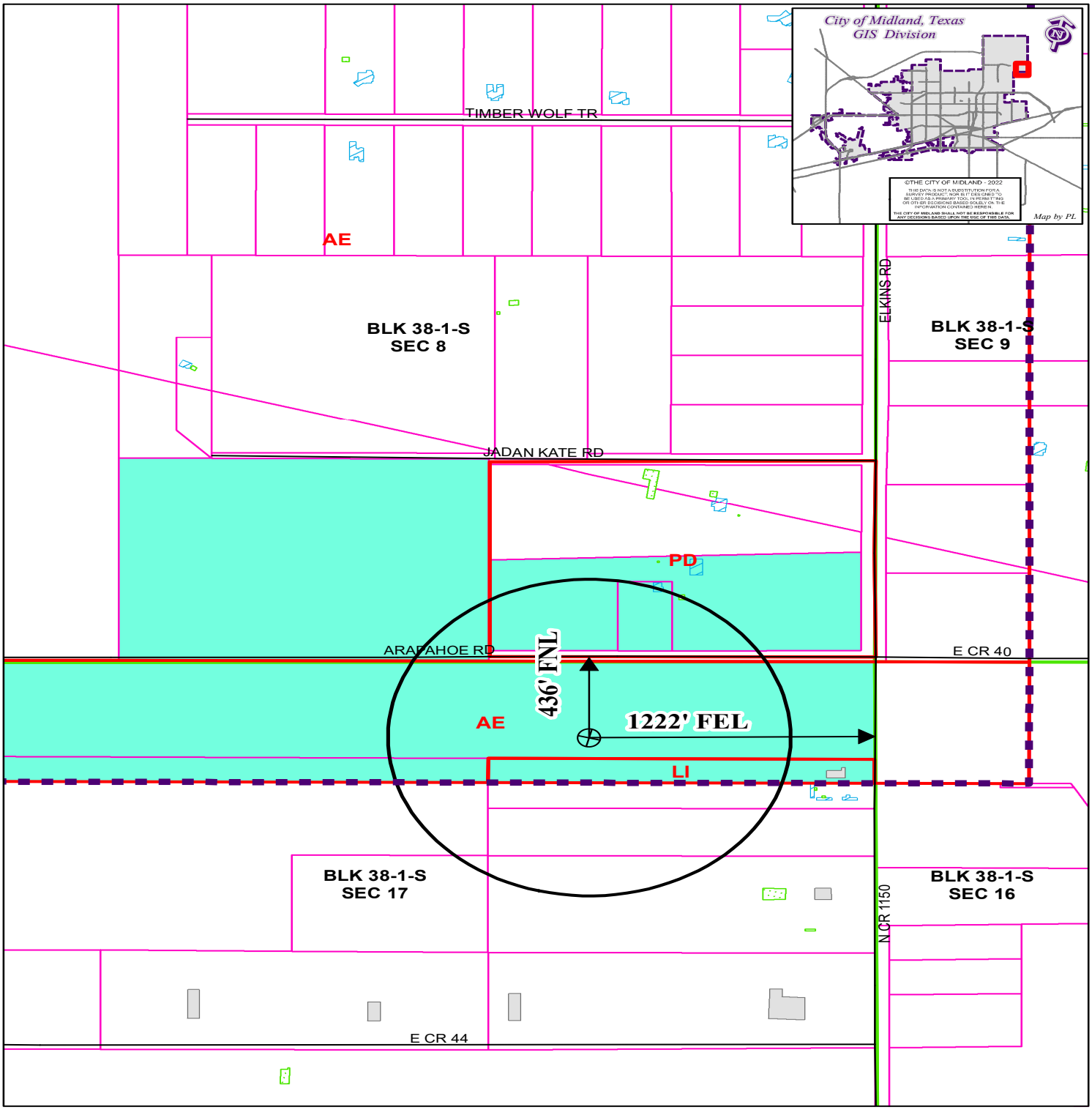
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044050-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1222' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,222 feet west of Elkins Road.

Stimson-Nail E17R 118H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
RE, 1F2, 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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17S 119H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1202' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

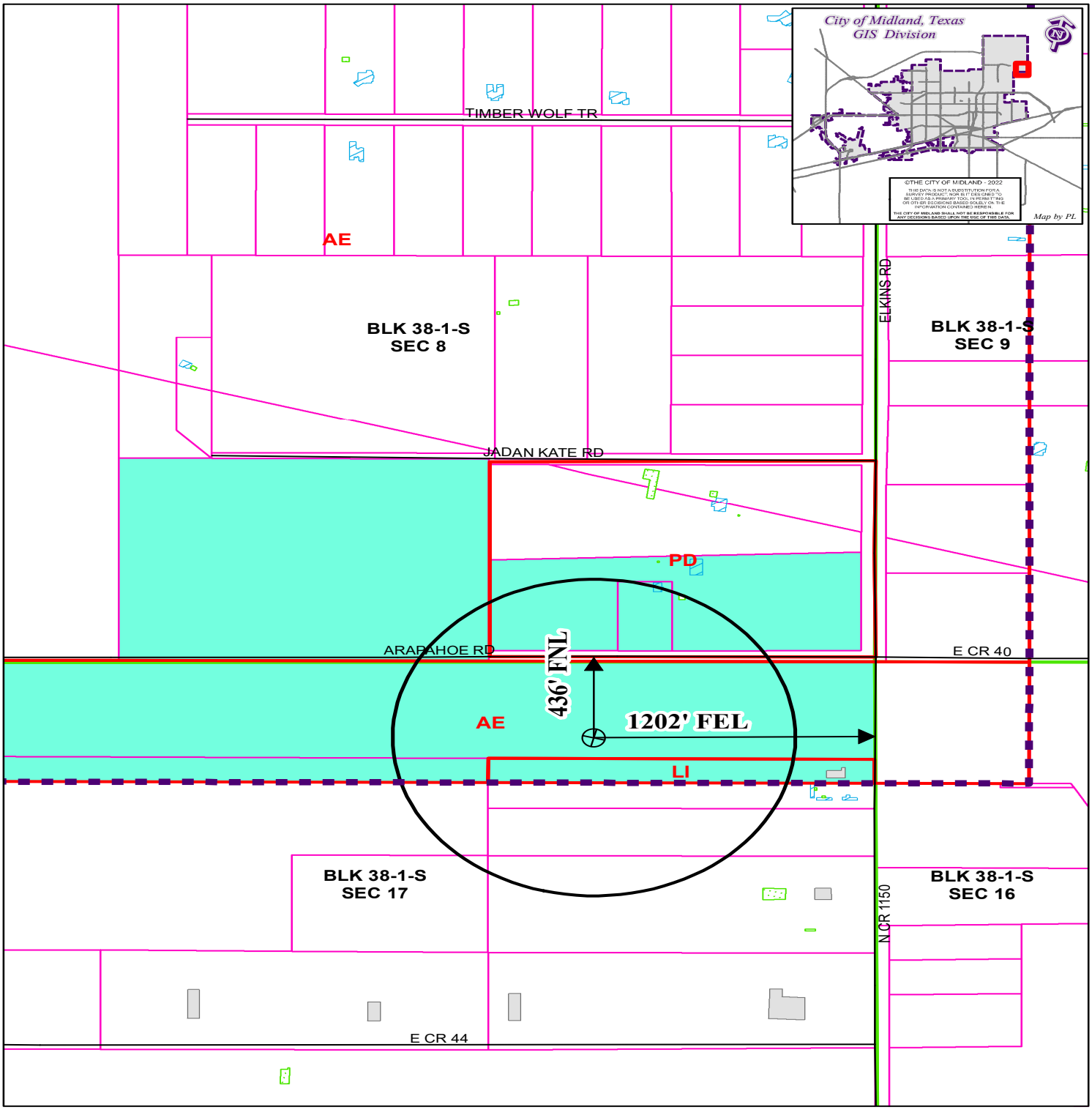
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044051-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1202' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,202 feet west of Elkins Road.

Stimson-Nail E17S 119H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson-Nail E17T 120H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

436' FNL, 1182' FEL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

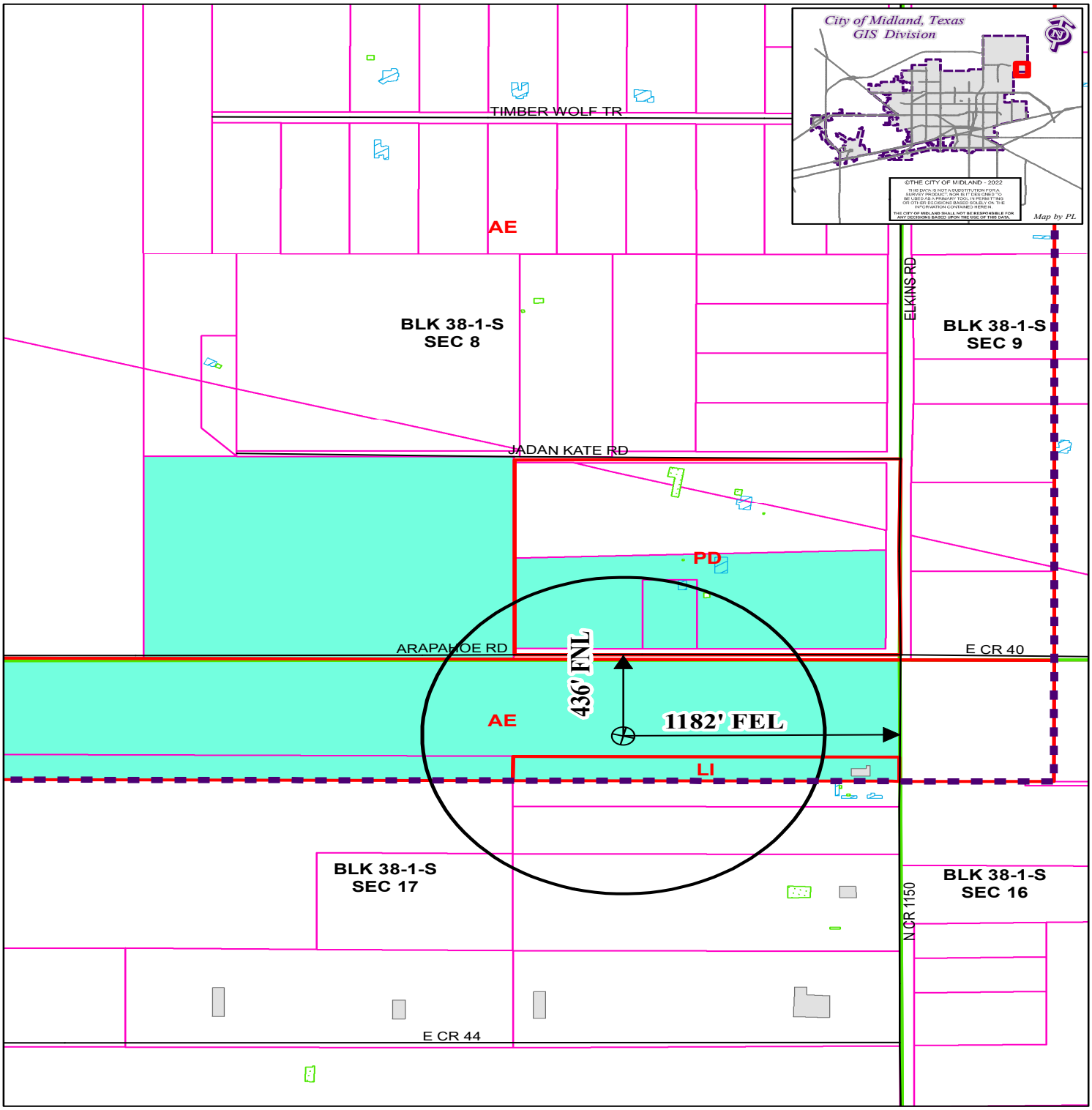
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044052-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 436' FNL and 1182' FEL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 436 feet south of Arapahoe Road and 1,182 feet west of Elkins Road.

Stimson-Nail E17T 120H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 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

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17K 111H oil and gas well shall be 435 feet from the north line and 1,362 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17L 112H oil and gas well shall be 435 feet from the north line and 1,342 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17M 113H oil and gas well shall be 436 feet from the north line and 1,322 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17N 114H oil and gas well shall be 436 feet from the north line and 1,302 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17O 115H oil and gas well shall be 436 feet from the north line and 1,282 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17P 116H oil and gas well shall be 436 feet from the north line and 1,262 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17Q 117H oil and gas well shall be 436 feet from the north line and 1,242 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17R 118H oil and gas well shall be 436 feet from the north line and 1,222 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17S 119H oil and gas well shall be 436 feet from the north line and 1,202 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated April 27, 2022, 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 Stimson-Nail E17T 120H oil and gas well shall be 436 feet from the north line and 1,182 feet from the east line, Section 17, Block 38, 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. Close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
3. Drill cuttings shall be removed from the surface location.
4. No landscaping or irrigation are required.

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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

City Council Meeting

Item Number: 15

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: **RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL 12 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 1,638 FEET AND 1,998 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,832 FEET AND 2,020 FEET SOUTH OF WEST LOOP 250 NORTH); GRANTING VARIANCES FOR SEVEN OF SAID OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; 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: Knight 110 MIPA Unit H110SS; Knight 110 MIPA Unit H110UH; Knight 110 MIPA Unit H110WB; Knight 115 MIPA Unit H115LS; Knight 115 MIPA Unit H115WA; Knight 120 MIPA Unit H120MS; Knight 120 MIPA Unit H120WB; Knight 125 MIPA Unit H125WA; Knight 130 MIPA Unit H130LS; Knight 130 MIPA Unit H130SS; Knight 130 MIPA Unit H130WB; and Knight 135 MIPA Unit H135WA; said wells being generally located between 1,638 feet and 1,998 feet east of North A Street extension and between 1,832 feet and 2,020 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:

(1) The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval. 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 frac system will be used for all wells and truck traffic will enter from turn out lane off of Big Spring 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 production tank battery will be located outside the city limits and transfer facility will be located on the North West corner of the actual well pad location. Permian Deep Rock has a surface agreement and lease agreement with the City of Midland.
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.
Knight 110 MIPA Unit H110SS - Variance of 341 feet.
Knight 120 MIPA Unit H120MS - Variance 338 feet.
Knight 125 MIPA Unit H125WA – Variance 489 feet.
Knight 130 MIPA Unit H130LS – Variance 465 feet
Knight 130 MIPA Unit H130SS – Variance 338 feet
Knight 130 MIPA Unit H130WB – Variance 476 feet
Knight 135 MIPA Unit H135WA – Variance 455 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 – Flow Line Location.

Morris Williams Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION APPROVING THE ISSUANCE OF PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC ("OPERATOR") TO DRILL 12 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 1,638 FEET AND 1,998 FEET EAST OF NORTH A STREET EXTENSION AND BETWEEN 1,832 FEET AND 2,020 FEET SOUTH OF WEST LOOP 250 NORTH); GRANTING VARIANCES FOR SEVEN OF SAID OIL AND GAS WELLS TO BE LOCATED CLOSER THAN 500 FEET OF AN OCCUPIED RESIDENCE OR COMMERCIAL STRUCTURE; 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 seven of 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 11, 2022; 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 seven 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:

> Knight 110 MIPA Unit H110SS; Knight 110 MIPA Unit H110UH; Knight 110 MIPA Unit H110WB; Knight 115 MIPA Unit H115LS; Knight 115 MIPA Unit H115WA; Knight 120 MIPA Unit H120MS; Knight 120 MIPA Unit H120WB; Knight 125 MIPA Unit H125WA; Knight 130 MIPA Unit H130LS; Knight 130 MIPA Unit H130SS; Knight 130 MIPA Unit H130WB; and Knight 135 MIPA Unit H135WA;

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., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 110 MIPA Unit H110SS oil and gas well shall be 2,020 feet from the north line and 1,808 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 15, 2022 through November 15, 2023, 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 341 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "B"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 110 MIPA Unit H110UH oil and gas well shall be 1,832 feet from the north line and 1,998 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. 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.
3. Landscaping and irrigation shall conform to the surface use agreement.
4. 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "C"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 110 MIPA Unit H110WB oil and gas well shall be 1,832 feet from the north line and 1,968 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. 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.
3. Landscaping and irrigation shall conform to the surface use agreement.
4. 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "D"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 115 MIPA Unit H115LS oil and gas well shall be 1,833 feet from the north line and 1,908 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. 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.
3. Landscaping and irrigation shall conform to the surface use agreement.
4. 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "E"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 115 MIPA Unit H115WA oil and gas well shall be 1,833 feet from the north line and 1,938 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. 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.
3. Landscaping and irrigation shall conform to the surface use agreement.
4. 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "F"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 120 MIPA Unit H120MS oil and gas well shall be 2,020 feet from the north line and 1,778 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 15, 2022 through November 15, 2023, 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 338 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "G"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 120 MIPA Unit H120WB oil and gas well shall be 1,834 feet from the north line and 1,758 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 15, 2022 through November 15, 2023, 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. Twenty-four hour hydraulic fracturing operations are permitted.
2. 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.
3. Landscaping and irrigation shall conform to the surface use agreement.
4. 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "H"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 125 MIPA Unit H125WA oil and gas well shall be 1,834 feet from the north line and 1,728 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 15, 2022 through November 15, 2023, 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 489 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "I"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 130 MIPA Unit H130LS oil and gas well shall be 1,835 feet from the north line and 1,668 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 15, 2022 through November 15, 2023, 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 465 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "J"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 130 MIPA Unit H130SS oil and gas well shall be 2,020 feet from the north line and 1,748 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 15, 2022 through November 15, 2023, 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 338 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "K"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 130 MIPA Unit H130WB oil and gas well shall be 1,834 feet from the north line and 1,698 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 15, 2022 through November 15, 2023, 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 476 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

EXHIBIT "L"

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on November 15, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated August 1, 2022, 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 135 MIPA Unit H135WA oil and gas well shall be 1,835 feet from the north line and 1,638 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 15, 2022 through November 15, 2023, 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 455 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 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of November 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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 110 MIPA Unit H110SS

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: 2020' FNL & 1808' 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 Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

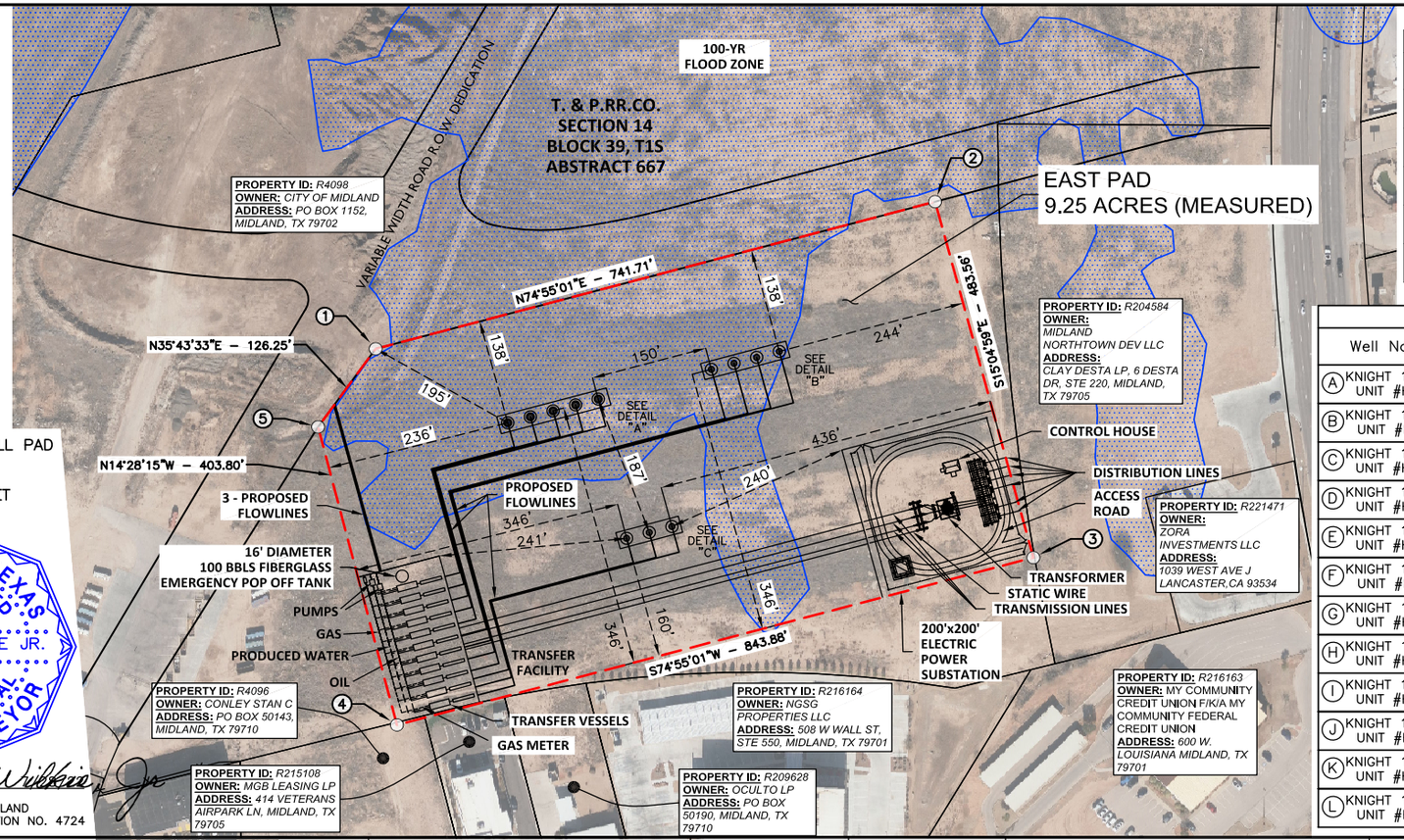
Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their 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

MIDLAND COUNTY, TEXAS



Coordinates			
Corner No.	State Plane TX–C NAD27	Geographic NAD27	Elev:
①	N: 866745.51 E: 1455693.62	Lat: 32°02'16.57" Long: –102°05'23.09"	2,783.4'
②	N: 866938.51 E: 1456409.77	Lat: 32°02'18.59" Long: –102°05'14.81"	2,787.3'
③	N: 866471.61 E: 1456535.60	Lat: 32°02'13.99" Long: –102°05'13.26"	2,784.0'
④	N: 866252.03 E: 1455720.80	Lat: 32°02'11.69" Long: –102°05'22.69"	2,785.3'
⑤	N: 866643.02 E: 1455619.90	Lat: 32°02'15.54" Long: –102°05'23.93"	2,784.2'

Well Information			
Well No.	State Plane TX–C NAD27	Geographic NAD27	Elev:
Ⓐ KNIGHT 135 MIPA UNIT #H135WA	N: 866648.48 E: 1455862.69	Lat: 32°02'15.63" Long: 102°05'21.11"	2,781.6'
Ⓑ KNIGHT 130 MIPA UNIT #H130LS	N: 866656.28 E: 1455891.65	Lat: 32°02'15.71" Long: 102°05'20.78"	2,782.2'
Ⓒ KNIGHT 130 MIPA UNIT #H130WB	N: 866664.08 E: 1455920.62	Lat: 32°02'15.80" Long: 102°05'20.44"	2,782.0'
Ⓓ KNIGHT 125 MIPA UNIT #H125WA	N: 866671.88 E: 1455949.59	Lat: 32°02'15.88" Long: 102°05'20.11"	2,782.7'
Ⓔ KNIGHT 120 MIPA UNIT #H120WB	N: 866679.67 E: 1455978.56	Lat: 32°02'15.96" Long: 102°05'19.77"	2,783.3'
Ⓕ KNIGHT 115 MIPA UNIT #H115LS	N: 866718.67 E: 1456123.40	Lat: 32°02'16.37" Long: 102°05'18.10"	2,783.7'
Ⓖ KNIGHT 115 MIPA UNIT #H115WA	N: 866726.47 E: 1456152.37	Lat: 32°02'16.45" Long: 102°05'17.76"	2,783.9'
Ⓗ KNIGHT 110 MIPA UNIT #H110WB	N: 866734.27 E: 1456181.34	Lat: 32°02'16.53" Long: 102°05'17.43"	2,784.6'
Ⓘ KNIGHT 110 MIPA UNIT #H110UH	N: 866742.06 E: 1456210.31	Lat: 32°02'16.61" Long: 102°05'17.09"	2,786.0'
Ⓙ KNIGHT 130 MIPA UNIT #H130SS	N: 866496.84 E: 1456014.91	Lat: 32°02'14.16" Long: 102°05'19.32"	2,783.0'
Ⓚ KNIGHT 120 MIPA UNIT #H120MS	N: 866504.64 E: 1456043.88	Lat: 32°02'14.24" Long: 102°05'18.98"	2,782.6'
Ⓛ KNIGHT 110 MIPA UNIT #H110SS	N: 866512.44 E: 1456072.85	Lat: 32°02'14.32" Long: 102°05'18.65"	2,782.6'

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
30' 30' 30' 30'
DETAIL "A"
NOT TO SCALE

Ⓕ Ⓖ Ⓗ Ⓘ
30' 30' 30'
DETAIL "B"
NOT TO SCALE

Ⓙ Ⓚ Ⓛ
30' 30'
DETAIL "C"
NOT TO SCALE

TOTAL AREA OF WELL PAD

= 9.25 ACRES
= 402,945 SQ. FEET

STATE OF TEXAS REGISTERED JERRY D. WILKIE JR. 4724 PROFESSIONAL LAND SURVEYOR

JERRY D. WILKIE, JR.
REGISTERED PROFESSIONAL LAND SURVEYOR TEXAS REGISTRATION NO. 4724

EXHIBIT "G"

KNIGHT 135 MIPA UNIT #H135WA, KNIGHT 130 MIPA UNIT #H130LS, KNIGHT 130 MIPA UNIT #H130WB, KNIGHT 125 MIPA UNIT #H125WA, KNIGHT 120 MIPA UNIT #H120WB, KNIGHT 115 MIPA UNIT #H115LS, KNIGHT 115 MIPA UNIT #H115WA, KNIGHT 110 MIPA UNIT #H110WB, KNIGHT 110 MIPA UNIT #H110UH, KNIGHT 130 MIPA UNIT #H130SS, KNIGHT 120 MIPA UNIT #H120MS, & KNIGHT 110 MIPA UNIT #H110SS
SITUATED IN
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S, ABSTRACT 667 OF THE CITY MIDLAND, MIDLAND COUNTY, TEXAS.

REV. 3

DRAWING NAME: EXHIBIT "G" - KNIGHT MIPA EAST PAD

PERMIAN DEEP ROCK OIL COMPANY

ATWELL

DRAWN	MA	DATE	01/03/22
CHECKED	LF	DATE	01/03/22
APP'D		DATE	
SCALE	1"=200'	PAGE	1 OF 2

REV#	DATE	DESC.
1 - MA	01/20/22	PAD REVISION
2 - MA	02/22/22	PAD REVISION
3 - MA	07/20/22	PAD REVISION
JOB NO.	21003805	

N W E S
0' 100' 200'

LEGEND

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 JUNE 16, 2022.

Date: Jul 28, 2022, 11:49am User ID: malfaro
File: K:\21003805 – Arrington – MIPA Wells East Pad\11 MAPPING\00 PLAN SETS\00 PLAT – TENTATIVE PRELIM\01 REV 0\Exhibit G\Rev3\21003805 – Arrington – MIPA Wells East Pad – Exhibit G – Rev3.dwg

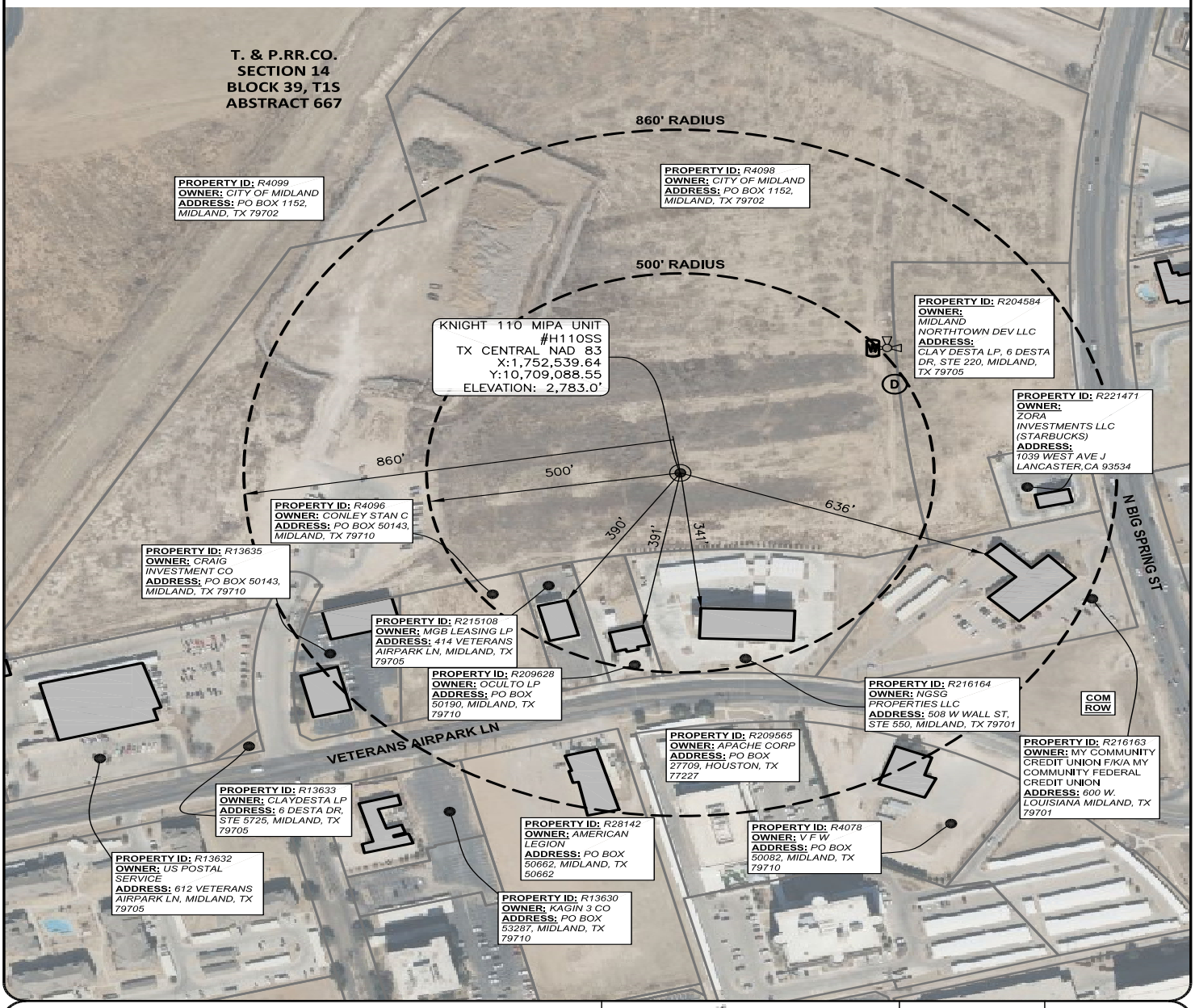
NOTES:

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 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 110 MIPA UNIT #H110SS
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,808' FSWL & 2,020' 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

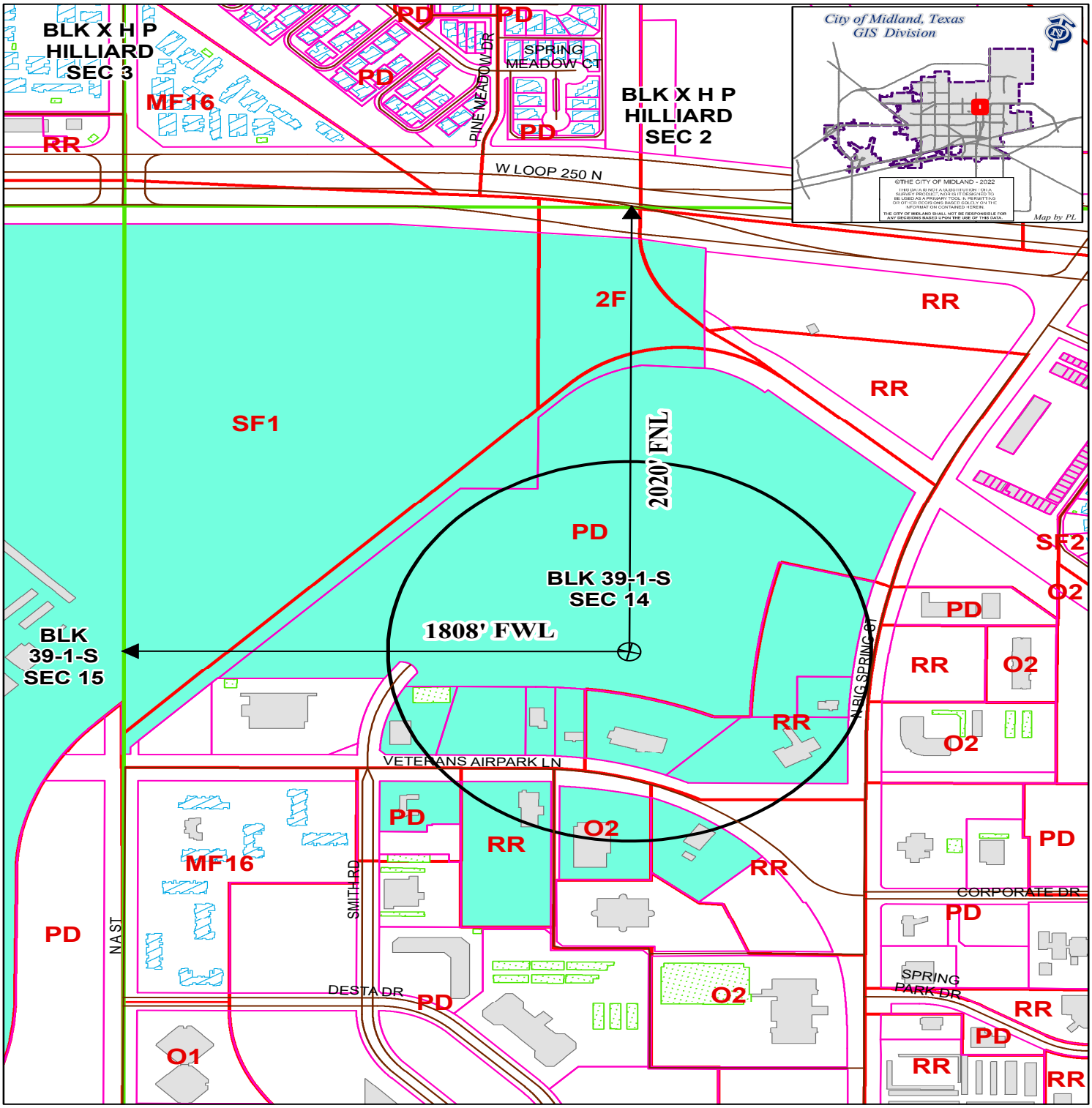
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 7:03pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 110SS – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045578 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,020' FNL and 1,808' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,808 feet east of North A Street extension and 2,020 feet south of W Loop 250 N.

Knight 110 MIPA Unit H110SS

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, 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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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 110 MIPA Unit H110UH

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 & 1998' 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 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

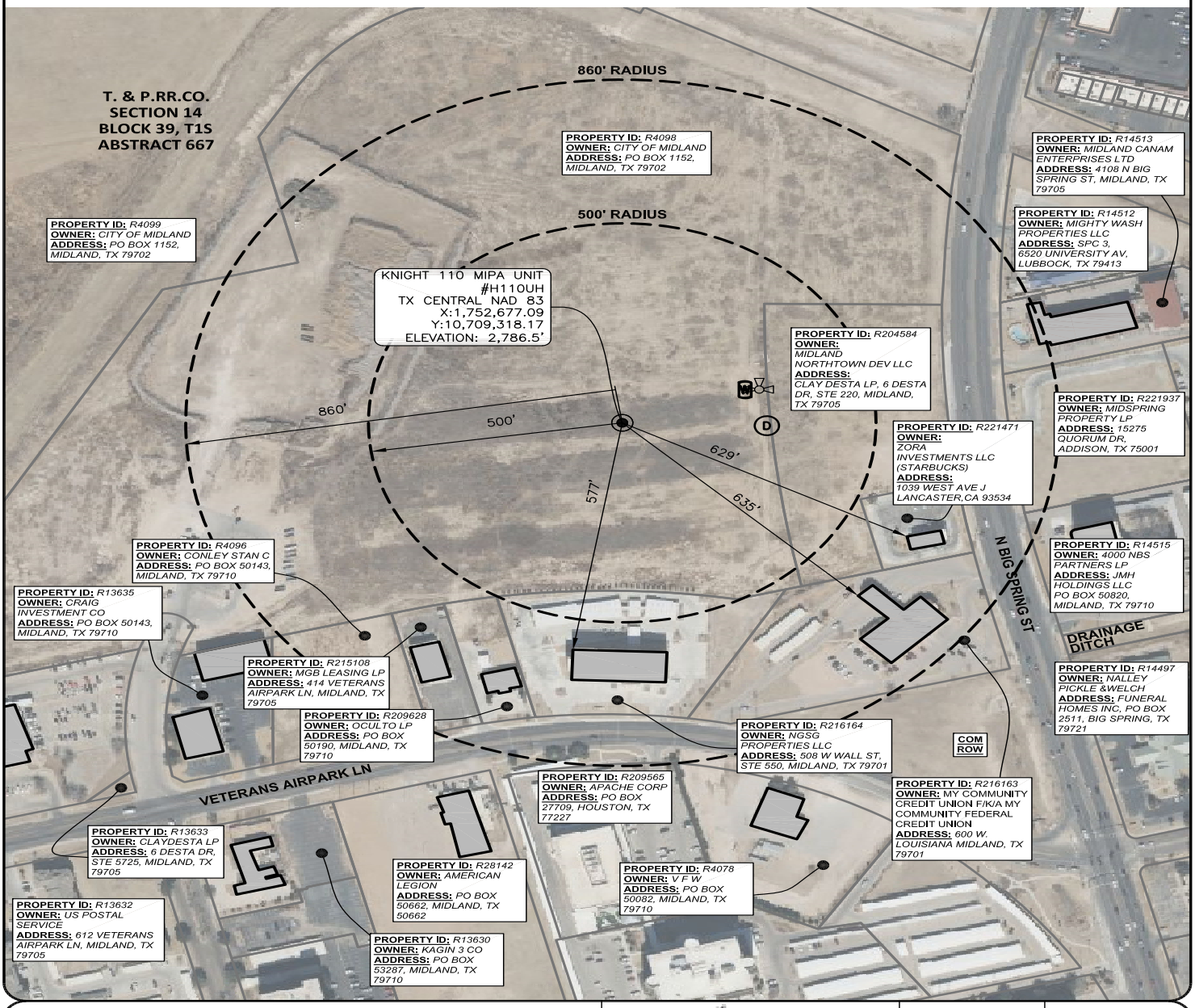
NOTES:

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 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 110 MIPA UNIT #H110UH
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,998' 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

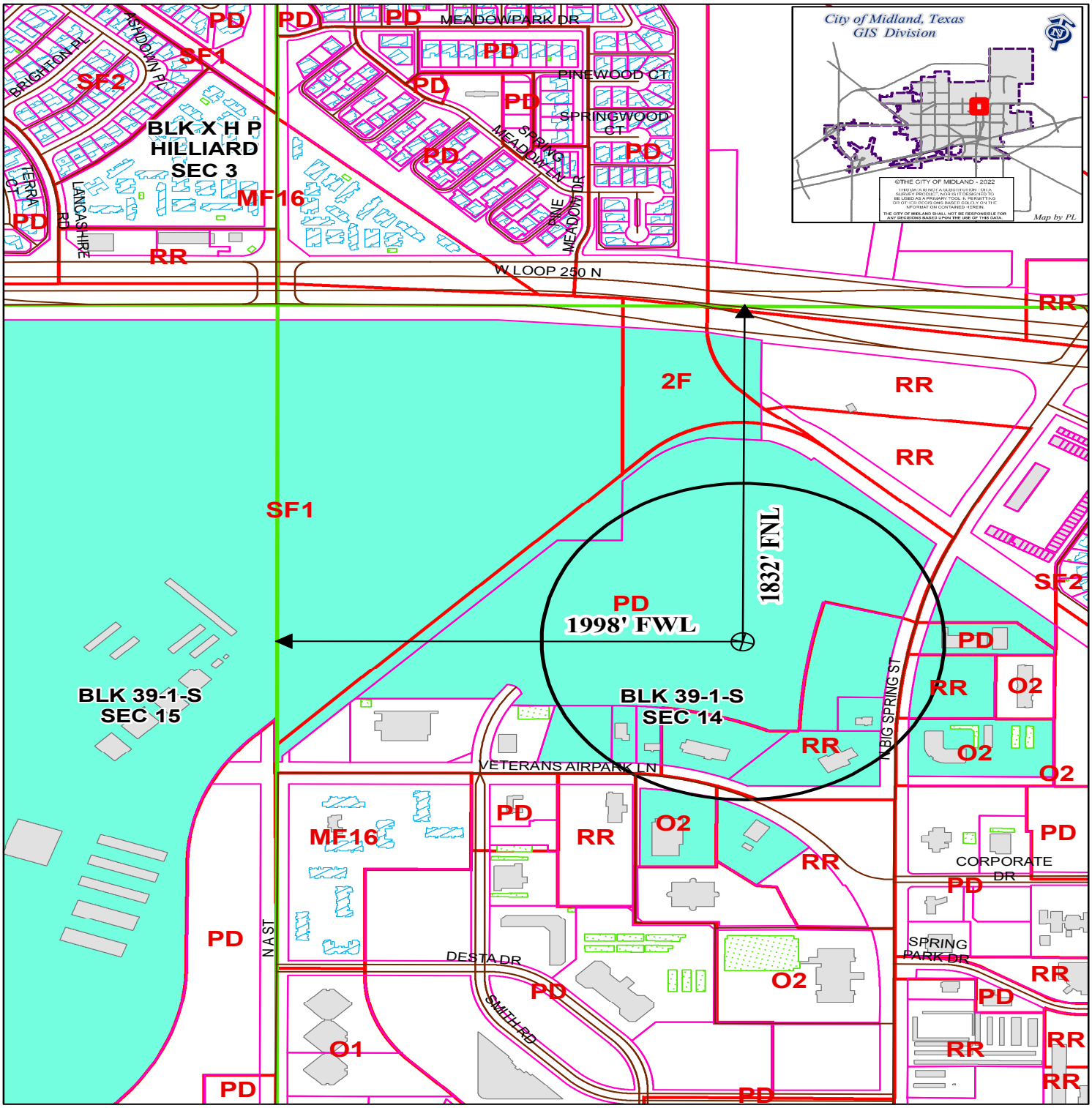
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 7:09pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 110UH – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045583 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,832' FNL and 1,998' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,998 feet east of North A Street extension and 1,832 feet south of W Loop 250 N.

Knight 110 MIPA Unit H110UH

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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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 110 MIPA Unit H110WB

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 & 1968' 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 Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

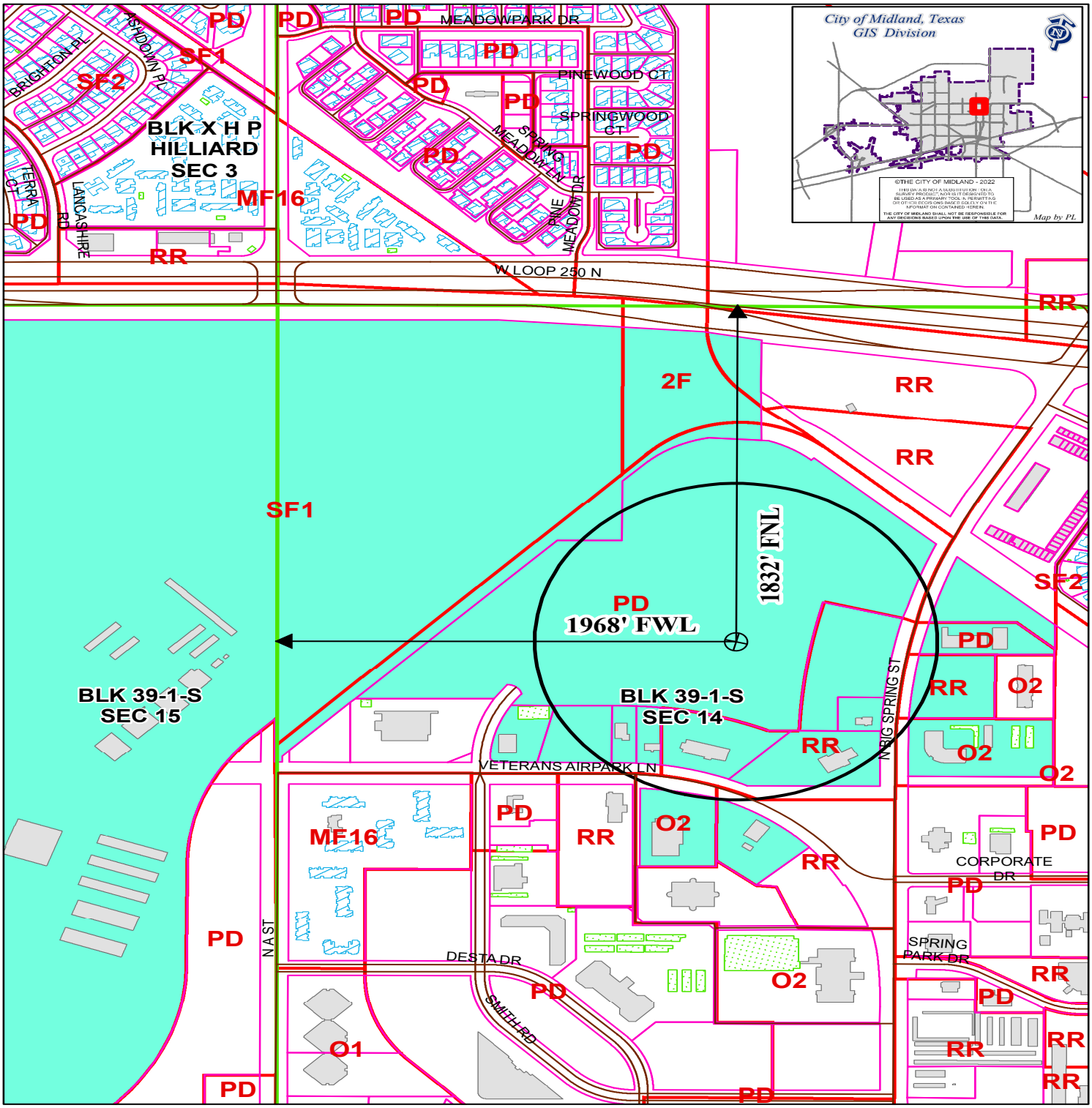
County of Midland)

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



LOCATION AND ZONING MAP

Oil - 045584 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,832' FNL and 1,968' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,968 feet east of North A Street extension and 1,832 feet south of W Loop 250 N.

Knight 110 MIPA Unit H110WB

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, 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

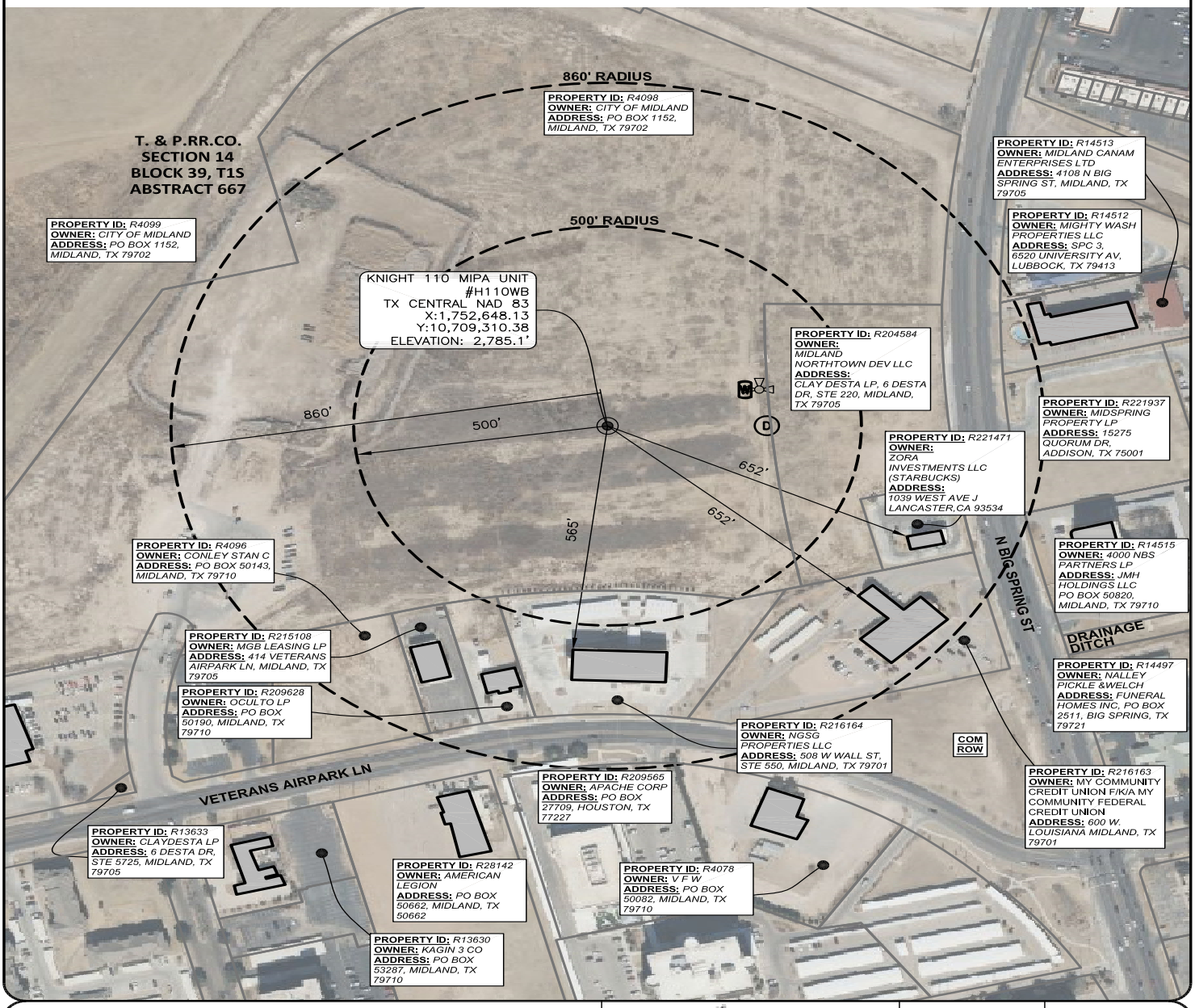
NOTES:

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 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 110 MIPA UNIT #H110WB
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,968' 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

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 3:54pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 110WB – NAD 83.dwg

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(6).

***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 115 MIPA Unit H115LS

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: 1833' FNL & 1908' 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 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

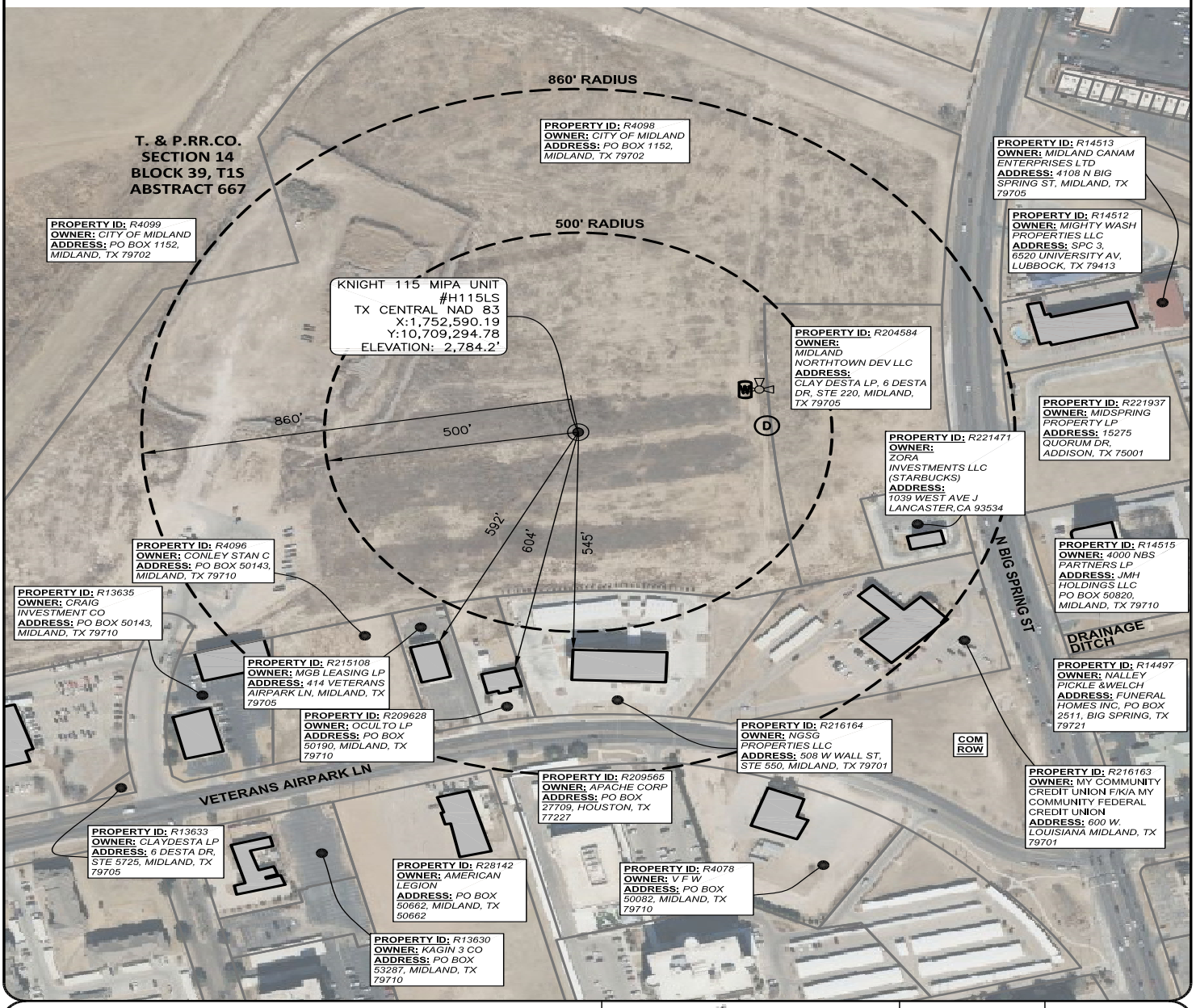
NOTES:

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 06-16-2022

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 115 MIPA UNIT #H115LS
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,908' FSWL & 1,833' 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

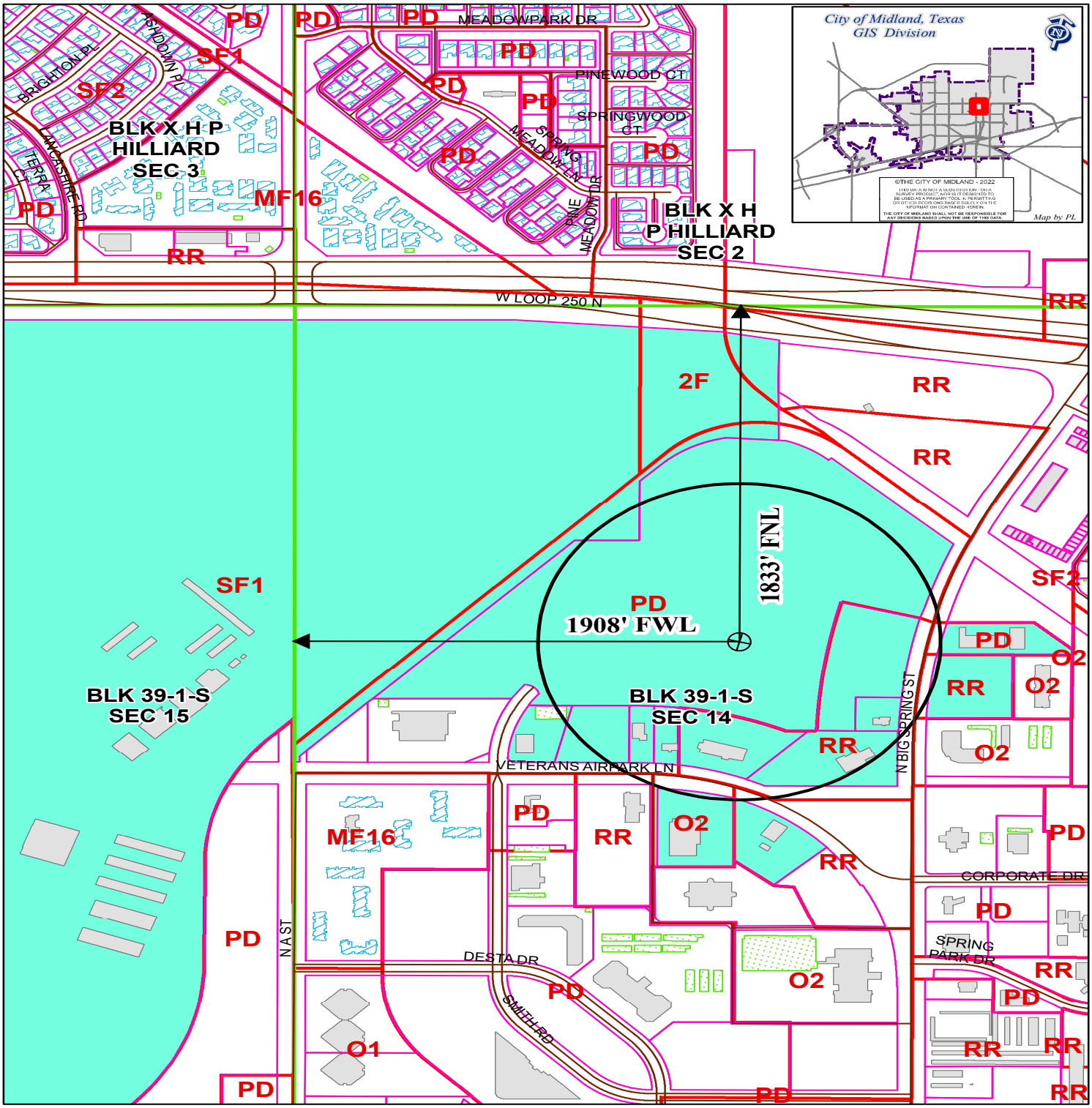
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 4:25pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 115LS – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045585 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,833' FNL and 1,908' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,908 feet east of North A Street extension and 1,833 feet south of W Loop 250 N.

Knight 115 MIPA Unit H115LS

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, CR3	ZONAL 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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(6).

***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 115 MIPA Unit H115WA

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: 1833' FNL & 1938' 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 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

NOTES:

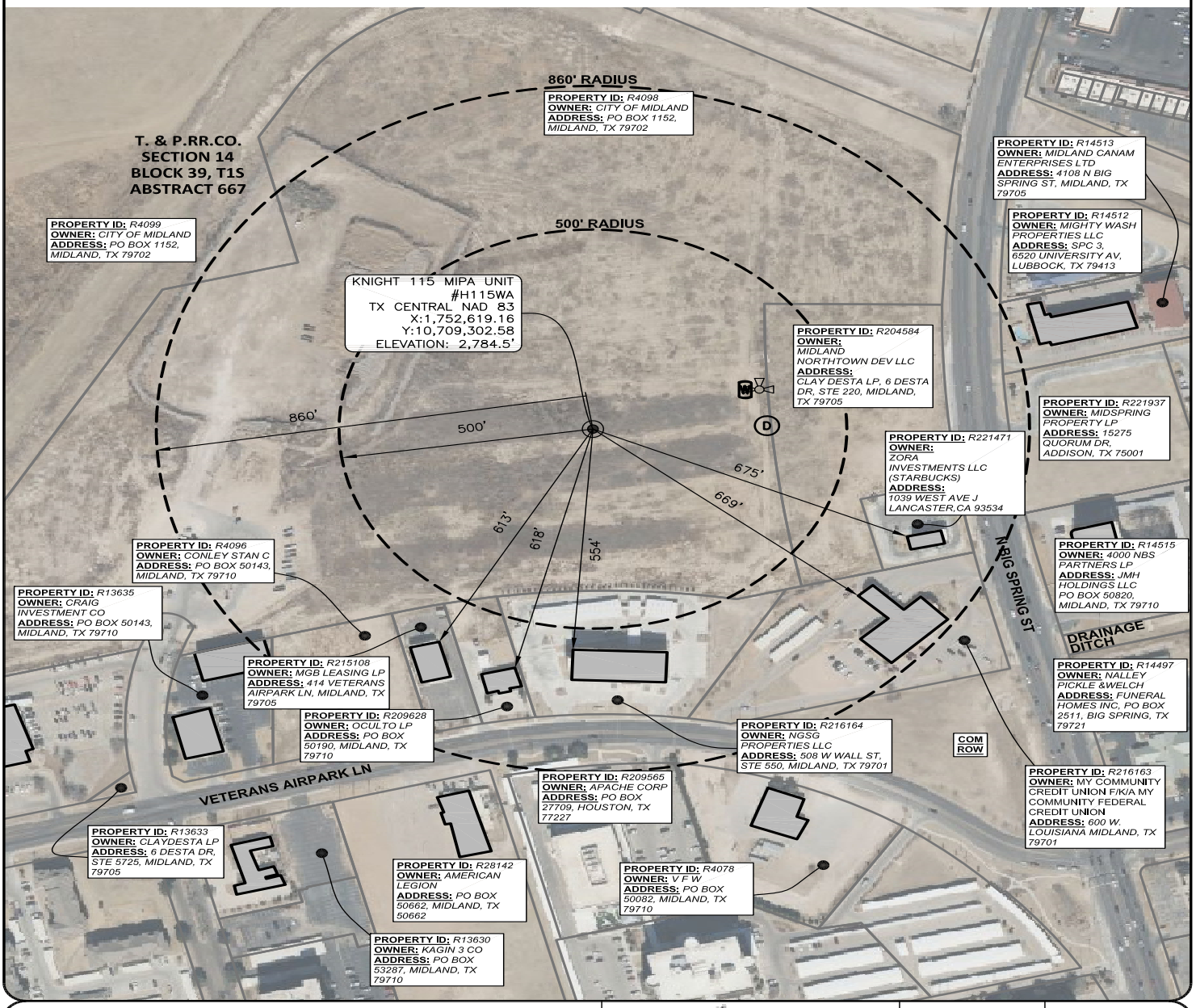
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 115 MIPA UNIT #H115WA
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,938' FSWL & 1,833' 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

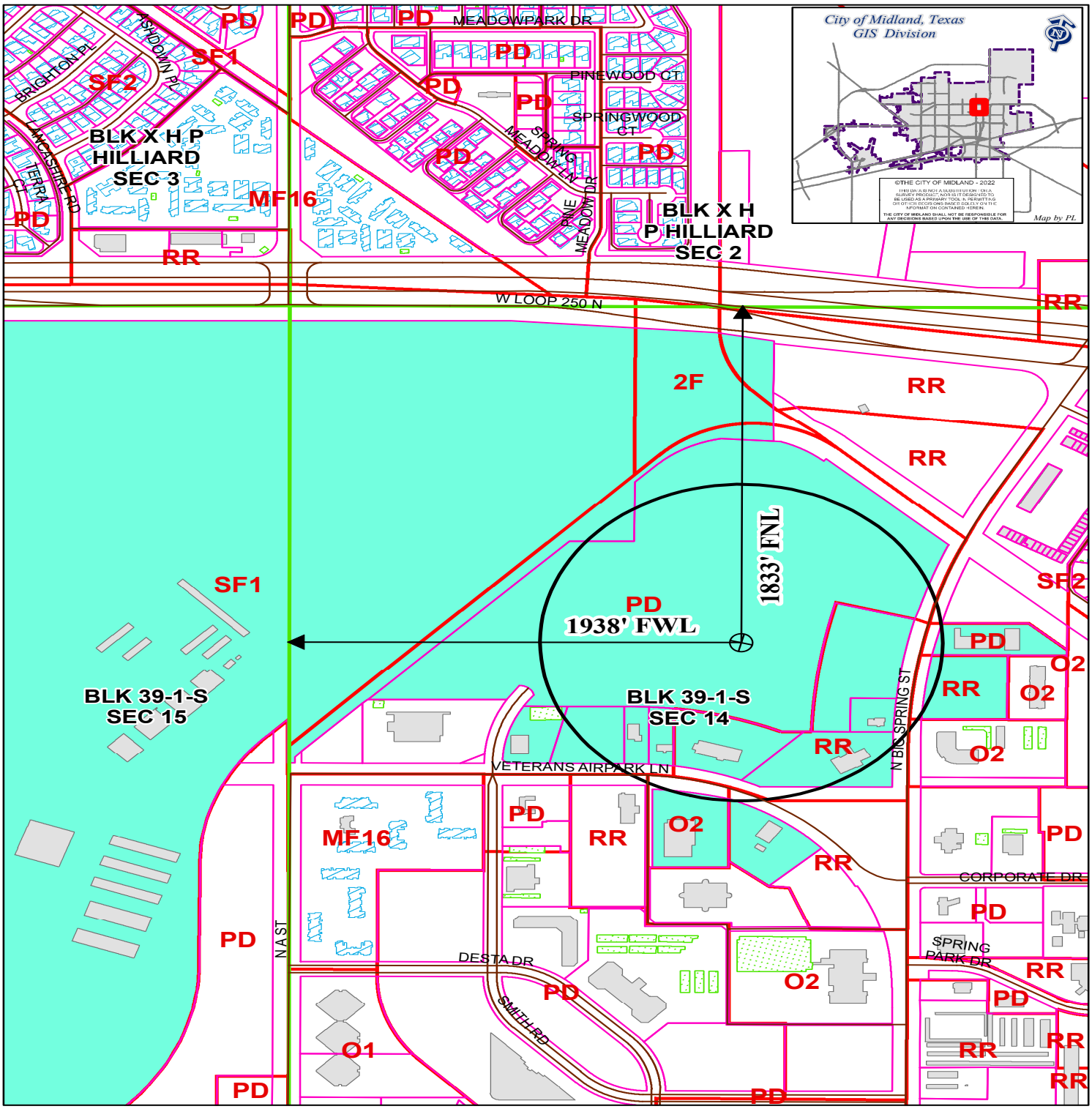
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 4:03pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 115WA – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045586 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,833' FNL and 1,938' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,938 feet east of North A Street extension and 1,833 feet south of W Loop 250 N.

Knight 115 MIPA Unit H115WA

LEGEND

CITY PARCELS
COUNTY PARCELS
ZONING
PUBLIC BLDGS
PRIVATE BLDGS
ACCESSORY BLDGS
CITY LIMITS
860 FT. BUFFER
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
RR, 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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 120 MIPA Unit H120MS

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: 2020' FNL & 1778' 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 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

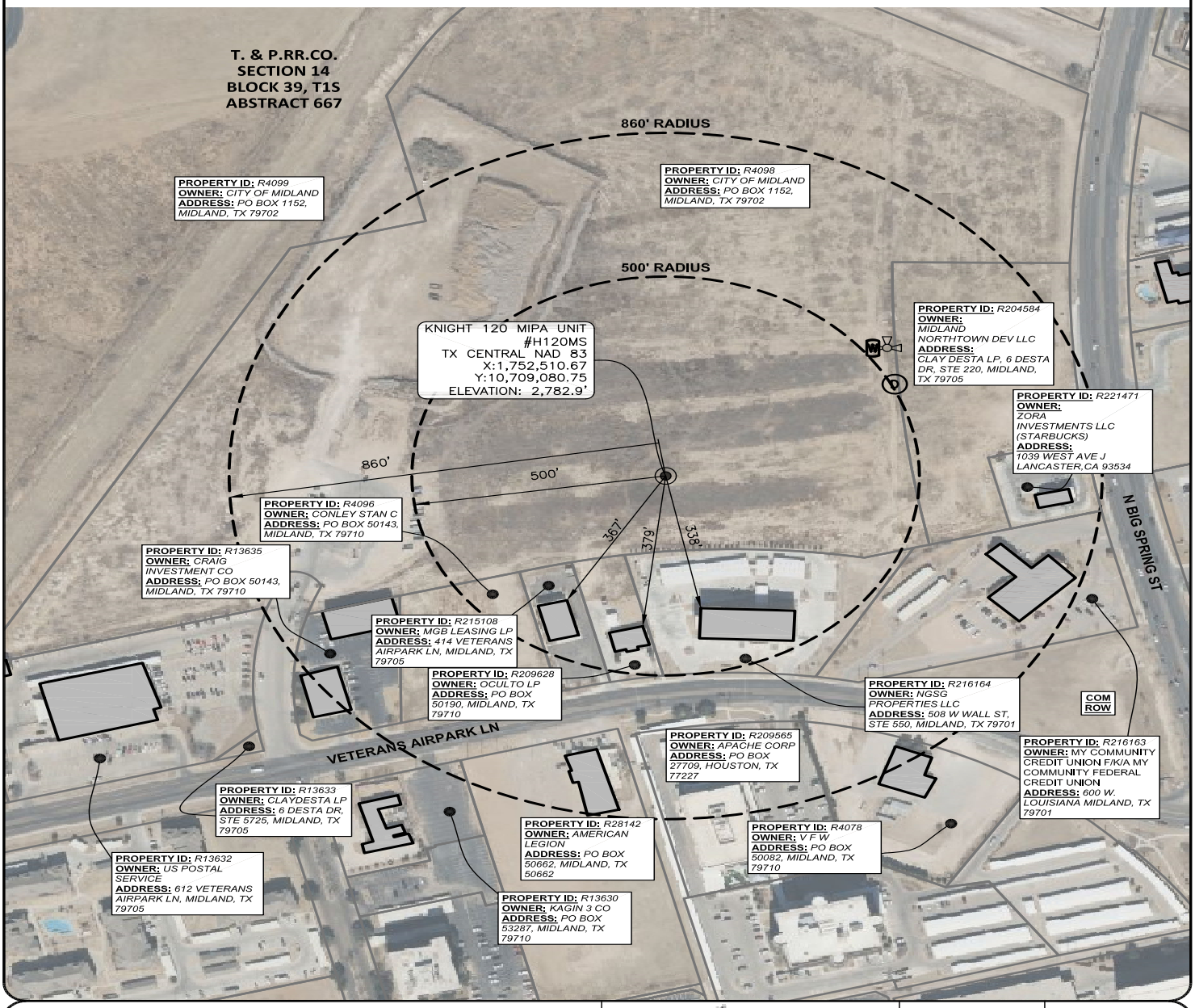
NOTES:

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 06-16-2022

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 120 MIPA UNIT #H120MS
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,778' FSWL & 2,020' 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

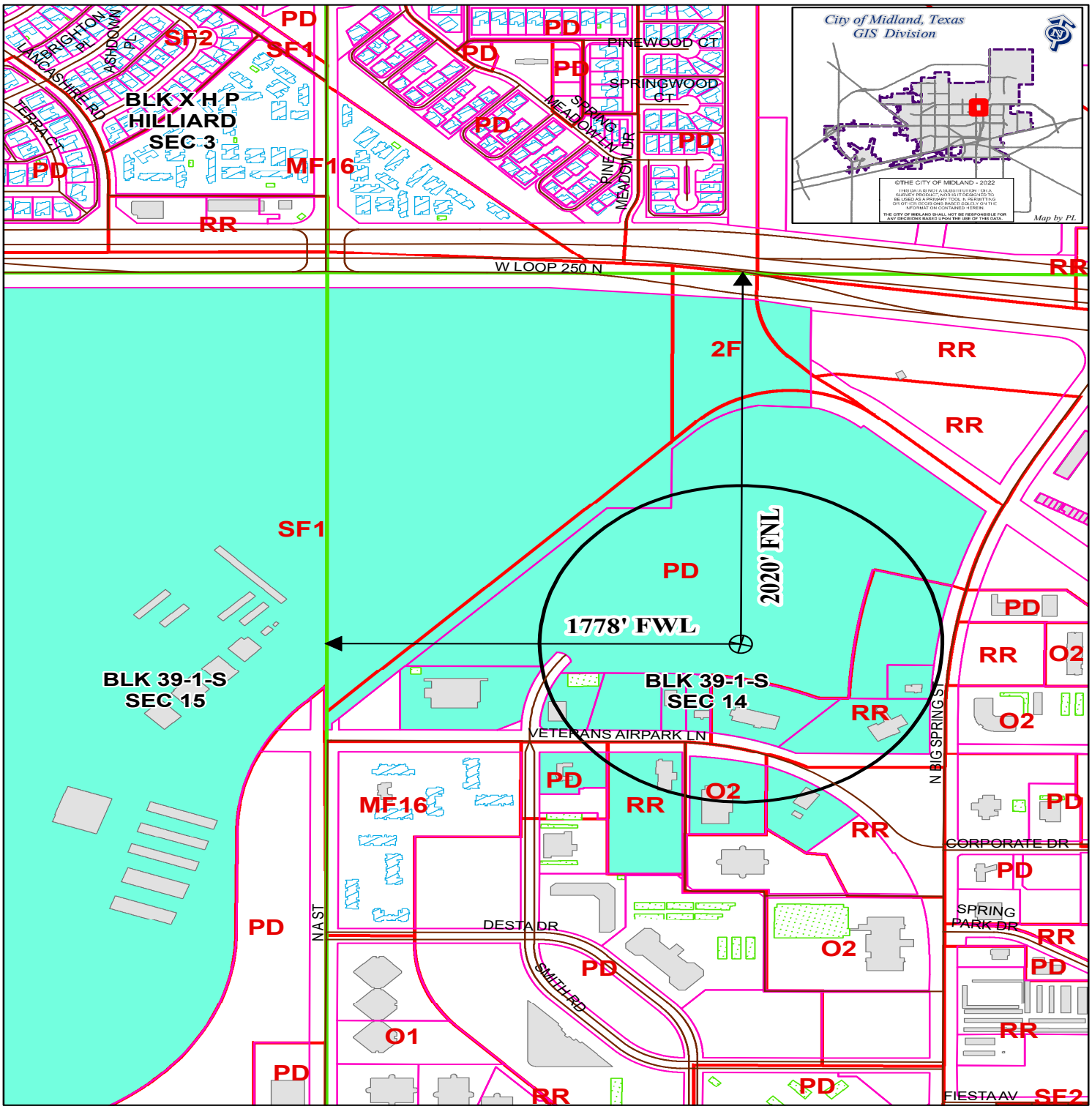
DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

PACKET 15.91 November 15, 2022

Date: Jun 30, 2022, 7:18pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23944\21003805 – WELL RADIUS – KNIGHT H 120MS – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045587 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,020' FNL and 1,778' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,778 feet east of North A Street extension and 2,020 feet south of W Loop 250 N.

Knight 120 MIPA Unit H120MS

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, CR3	ZONE-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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 120 MIPA Unit H120WB

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: 1834' FNL & 1758' 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 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

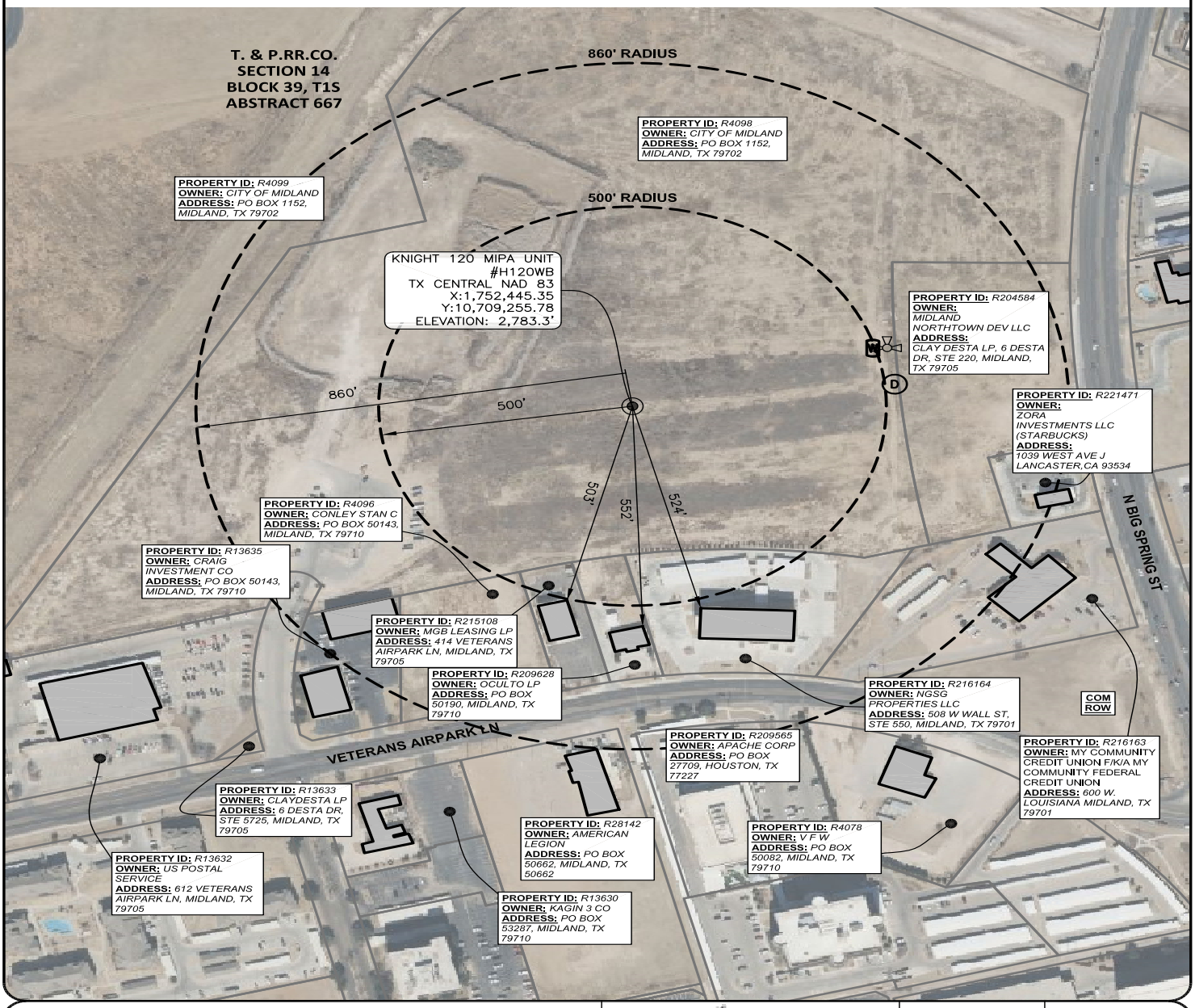
NOTES:

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 06-16-2022

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 120 MIPA UNIT #H120WB
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,758' FSWL & 1,834' 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

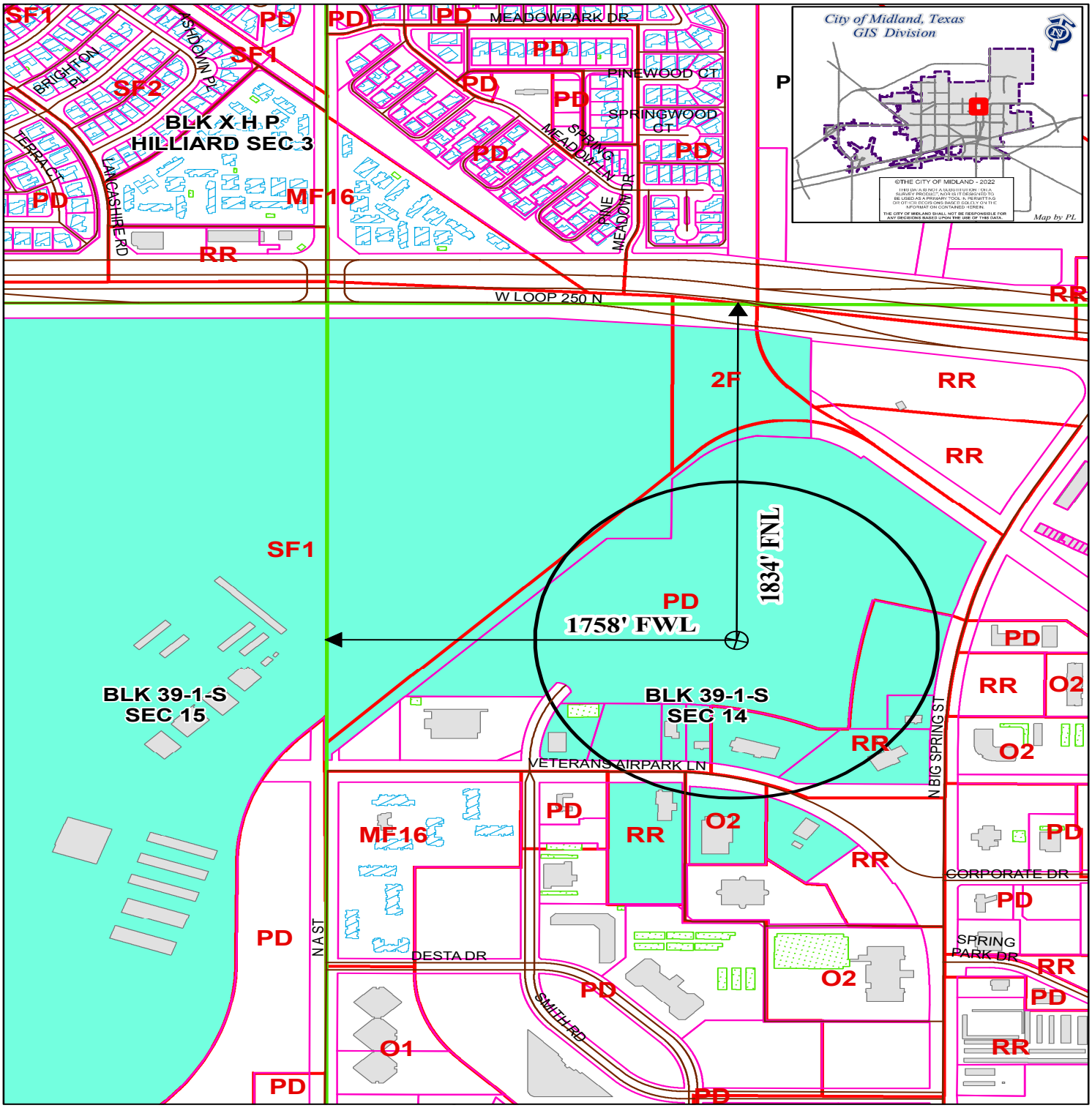
DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME WELL RADIUS
JOB NO. 21003805

PACKET 15.97 November 15, 2022

Date: Jun 30, 2022, 4:38pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 120WB – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045588 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,834' FNL and 1,758' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,758 feet east of North A Street extension and 1,834 feet south of W Loop 250 N.

Knight 120 MIPA Unit H120WB

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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 125 MIPA Unit H125WA

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: 1834' FNL & 1728' 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 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

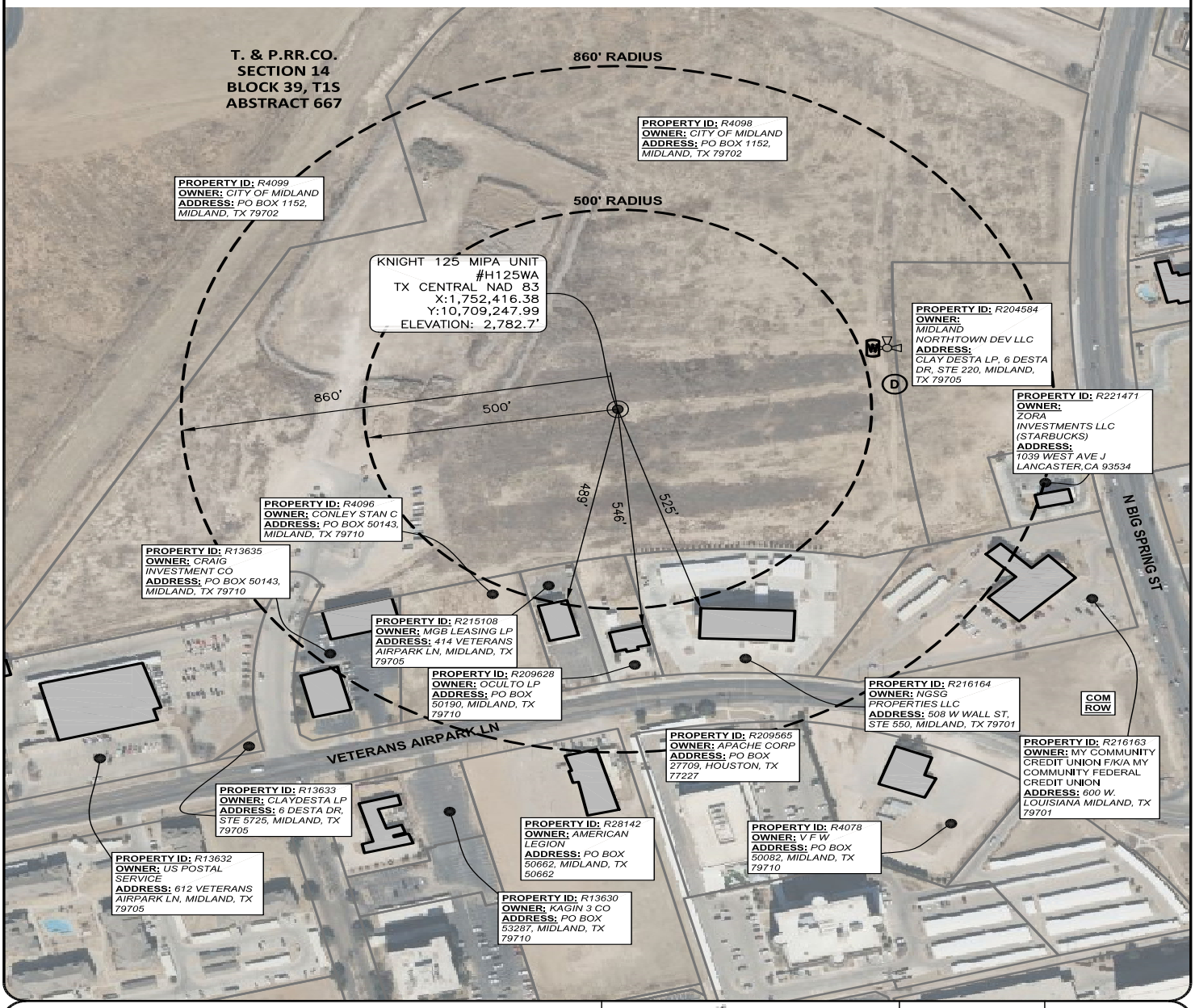
NOTES:

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 06-16-2022

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 125 MIPA UNIT #H125WA
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,728' FSWL & 1,834' 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

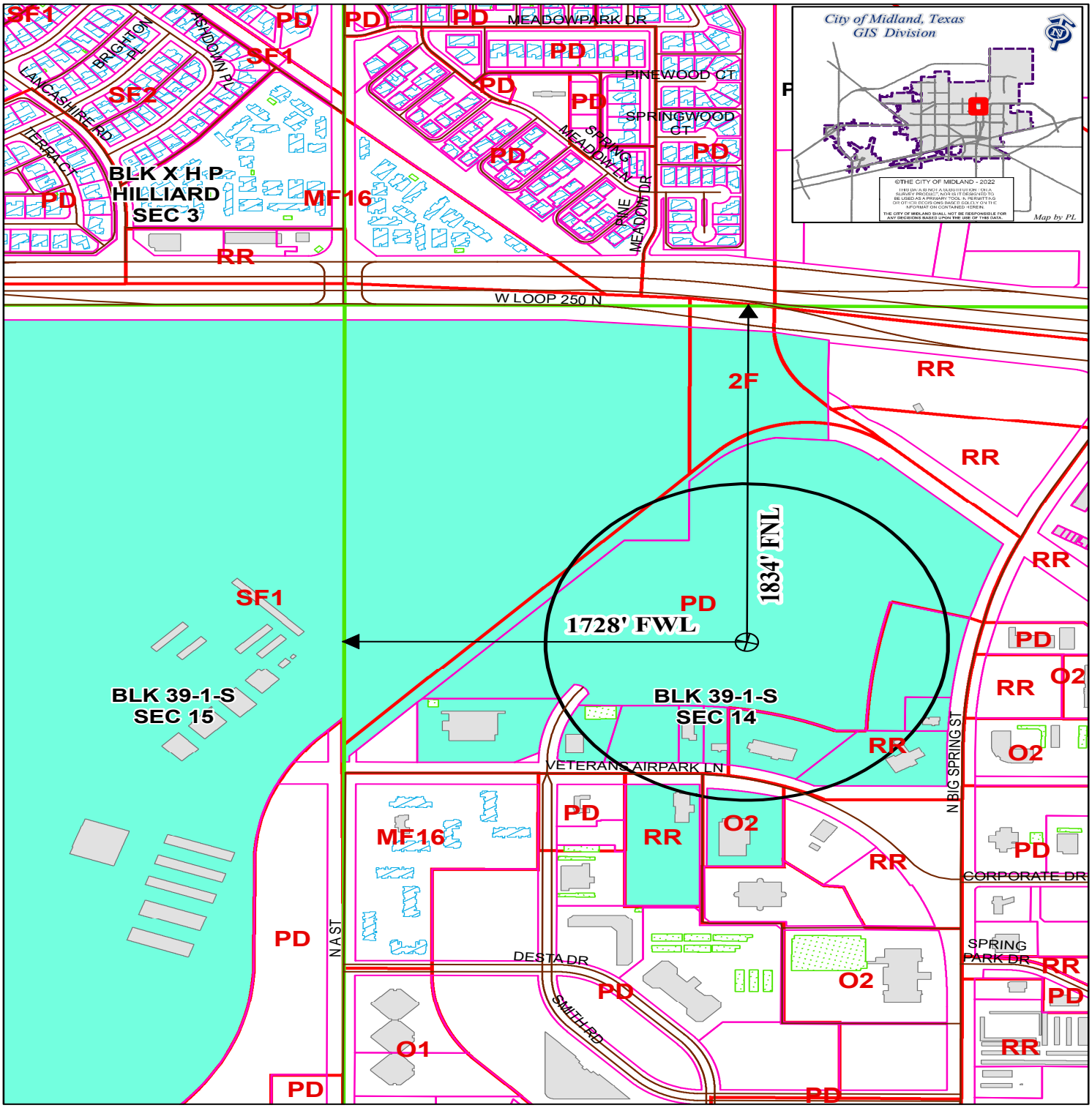
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 5:22pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 125WA – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045589 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,834' FNL and 1,728' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,728 feet east of North A Street extension and 1,834 feet south of W Loop 250 N.

Knight 125 MIPA Unit H125WA

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
CE	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
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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 130 MIPA Unit H130LS

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: 1835' FNL & 1668' 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 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

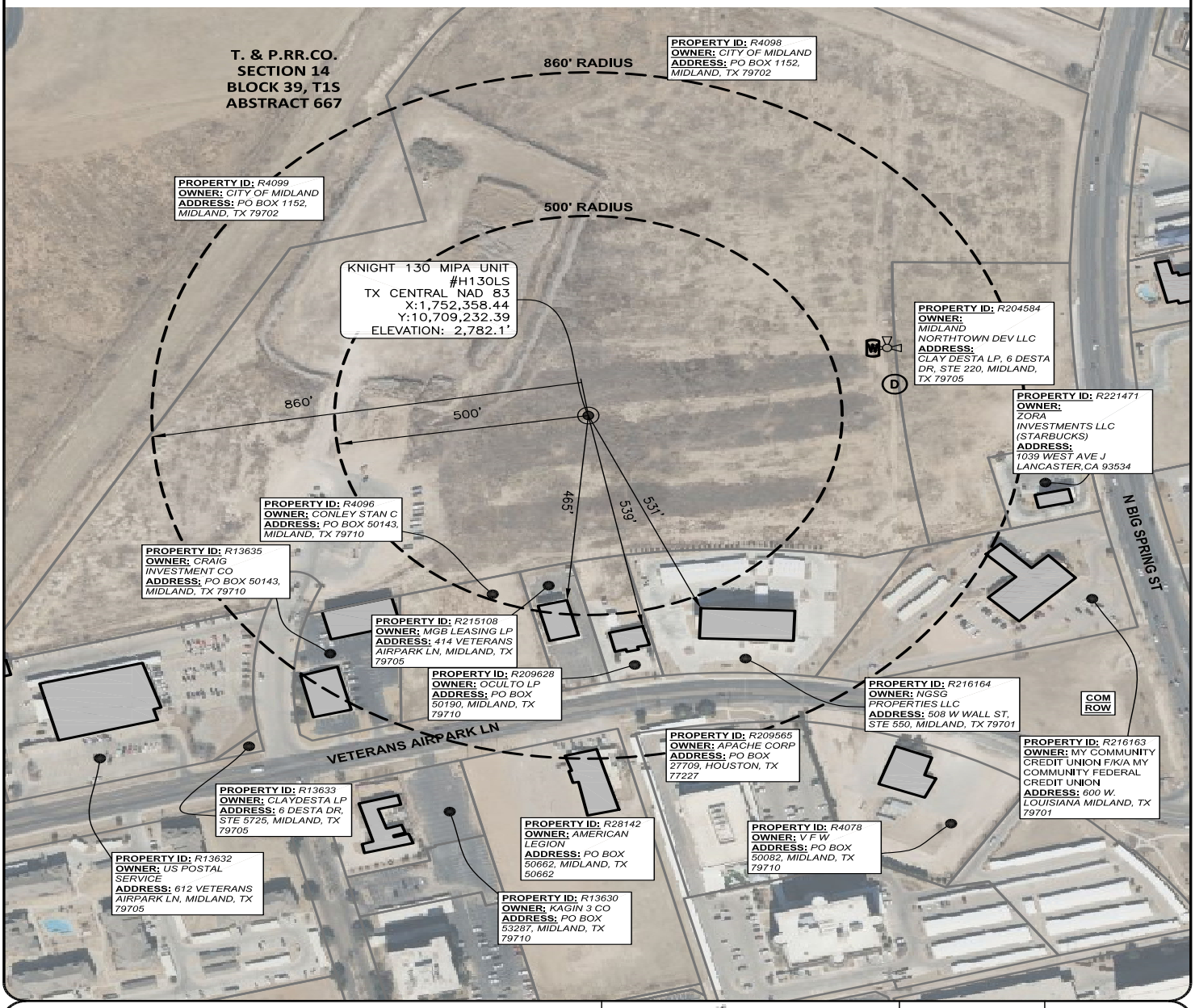
NOTES:

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 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 130 MIPA UNIT #H130LS
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,668' FSWL & 1,835' 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

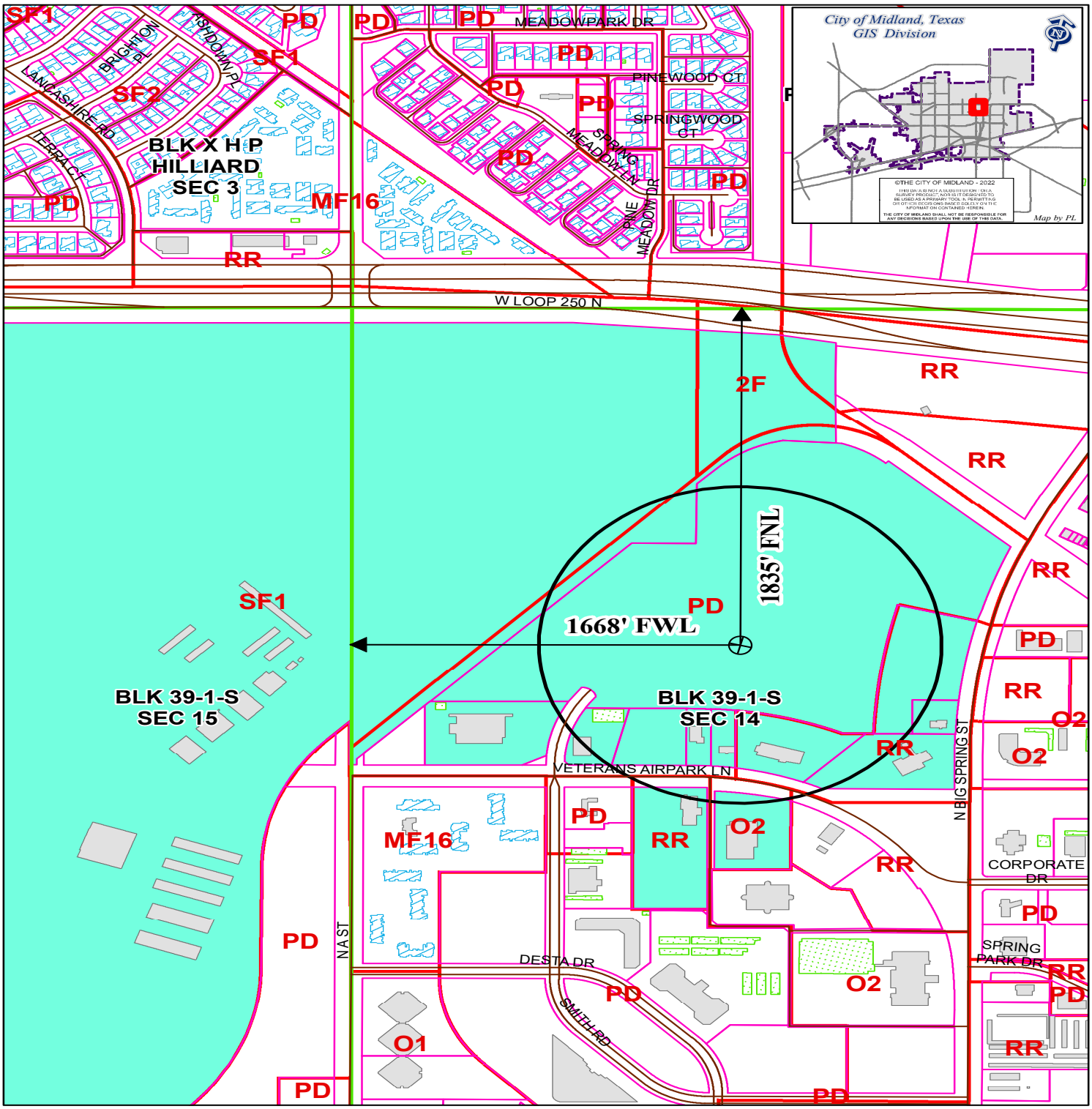
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 5:58pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 130LS – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045590 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,835' FNL and 1,668' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,668 feet east of North A Street extension and 1,835 feet south of W Loop 250 N.

Knight 130 MIPA Unit H130LS

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	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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(6).

***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 130 MIPA Unit H130SS

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: 2020' FNL & 1748' 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 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

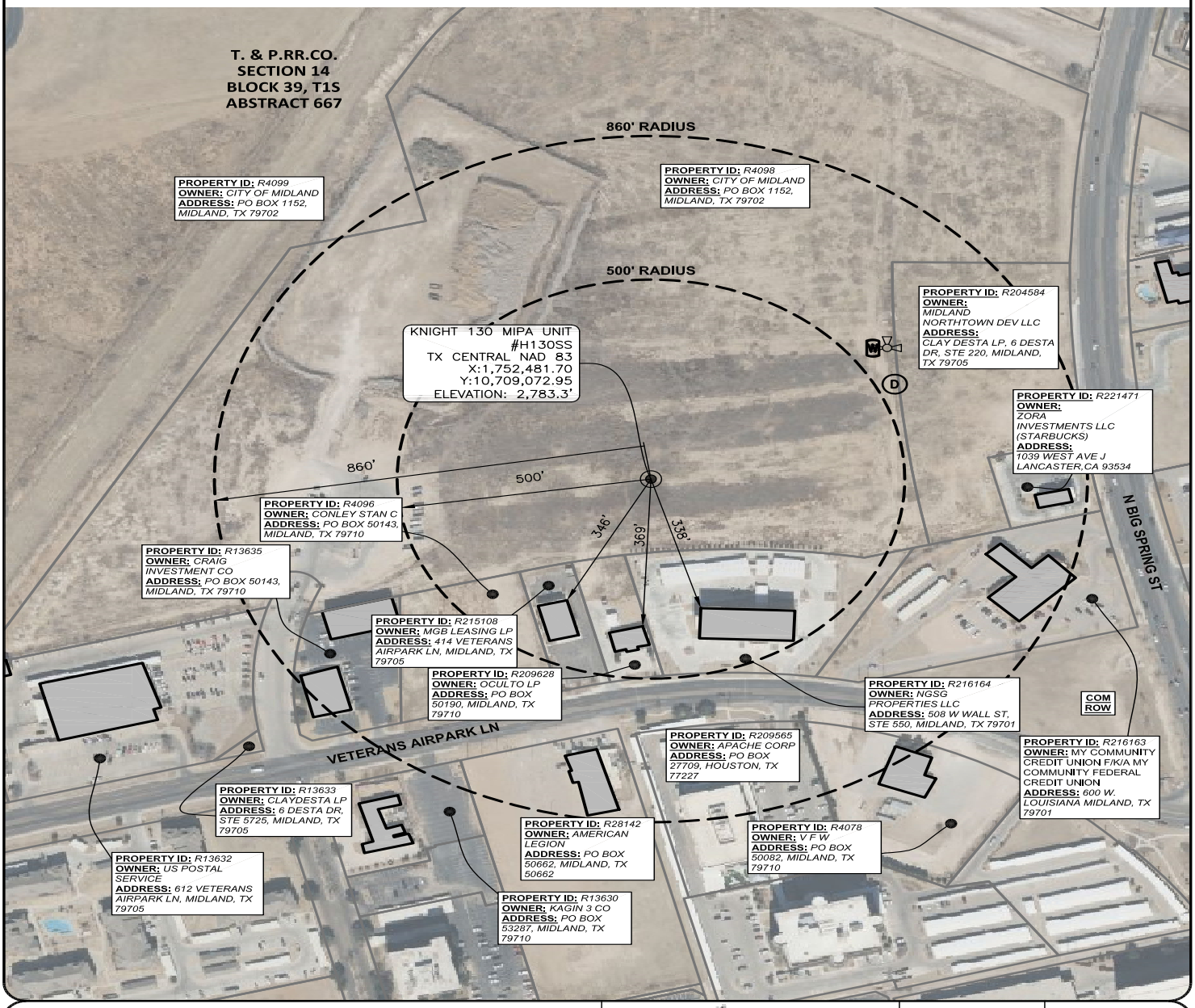
NOTES:

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 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 130 MIPA UNIT #H130SS
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,748' FSWL & 2,020' 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

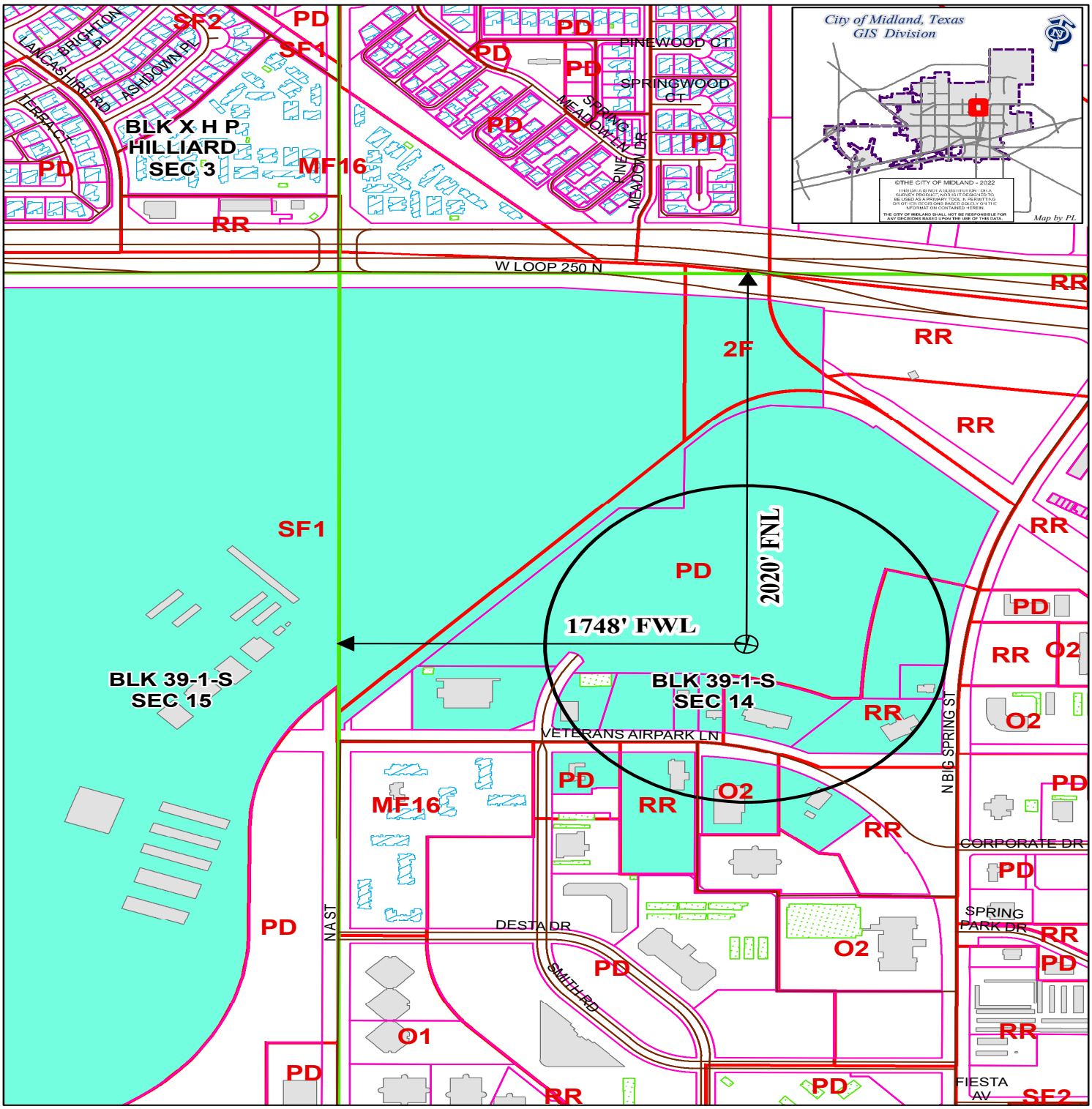
ATWELL
866.850.4200 www.atwell-group.com
10100 Reunion Place, Suite 700
San Antonio, Texas 78216
TBPLS FIRM # 10194153

DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

Date: Jun 30, 2022, 7:24pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23944\21003805 – WELL RADIUS – KNIGHT H 130SS – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045591 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 2,020' FNL and 1,748' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,748 feet east of North A Street extension and 2,020 feet south of W Loop 250 N.

Knight 130 MIPA Unit H130SS

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, 1F2, 1F3	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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 130 MIPA Unit H130WB

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: 1834' FNL & 1698' 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 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

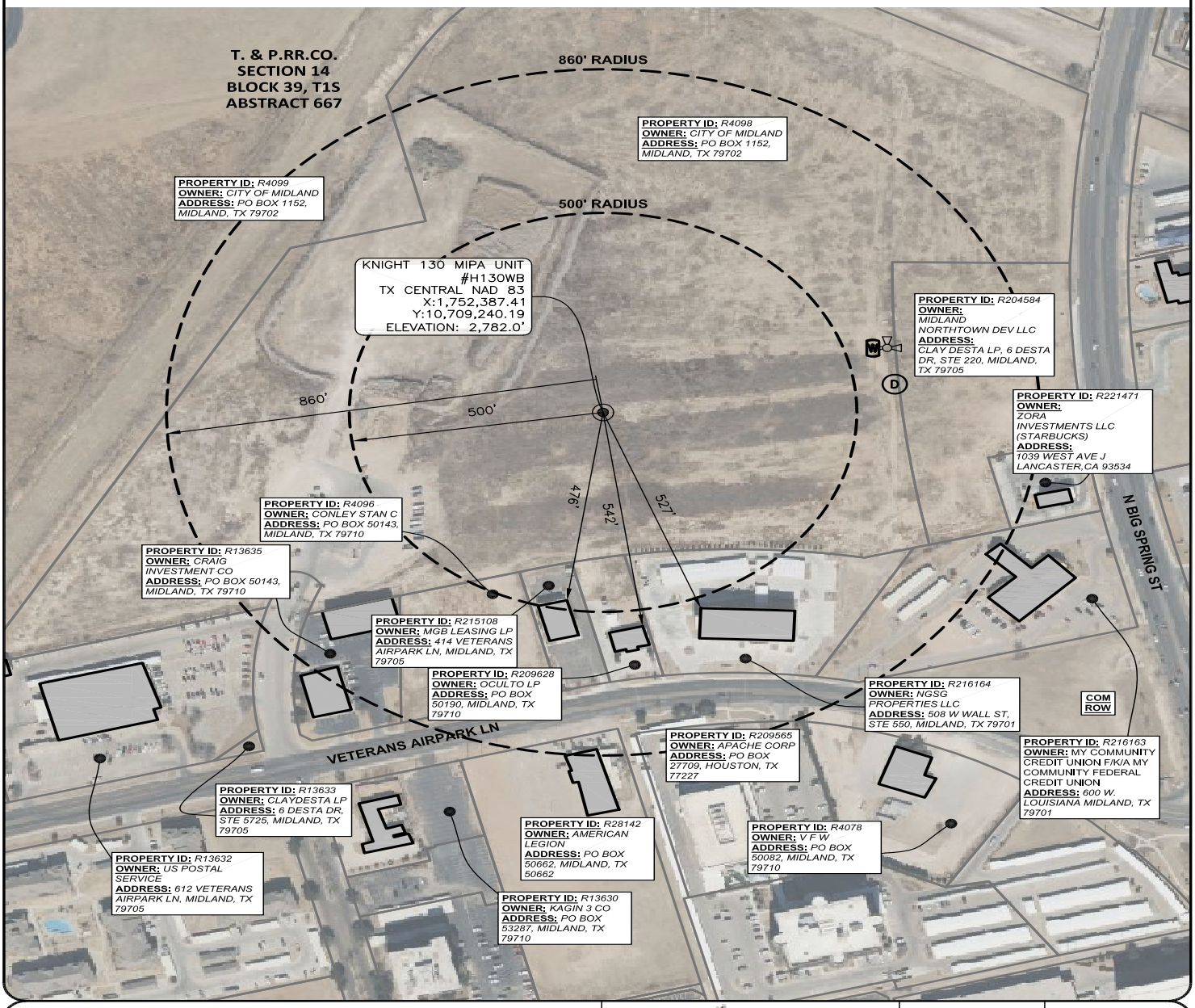
NOTES:

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 06-16-2022

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 130 MIPA UNIT #H130WB
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,698' FSWL & 1,834' 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	MA	DATE	7/13/22
CHECKED	DC	DATE	7/13/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

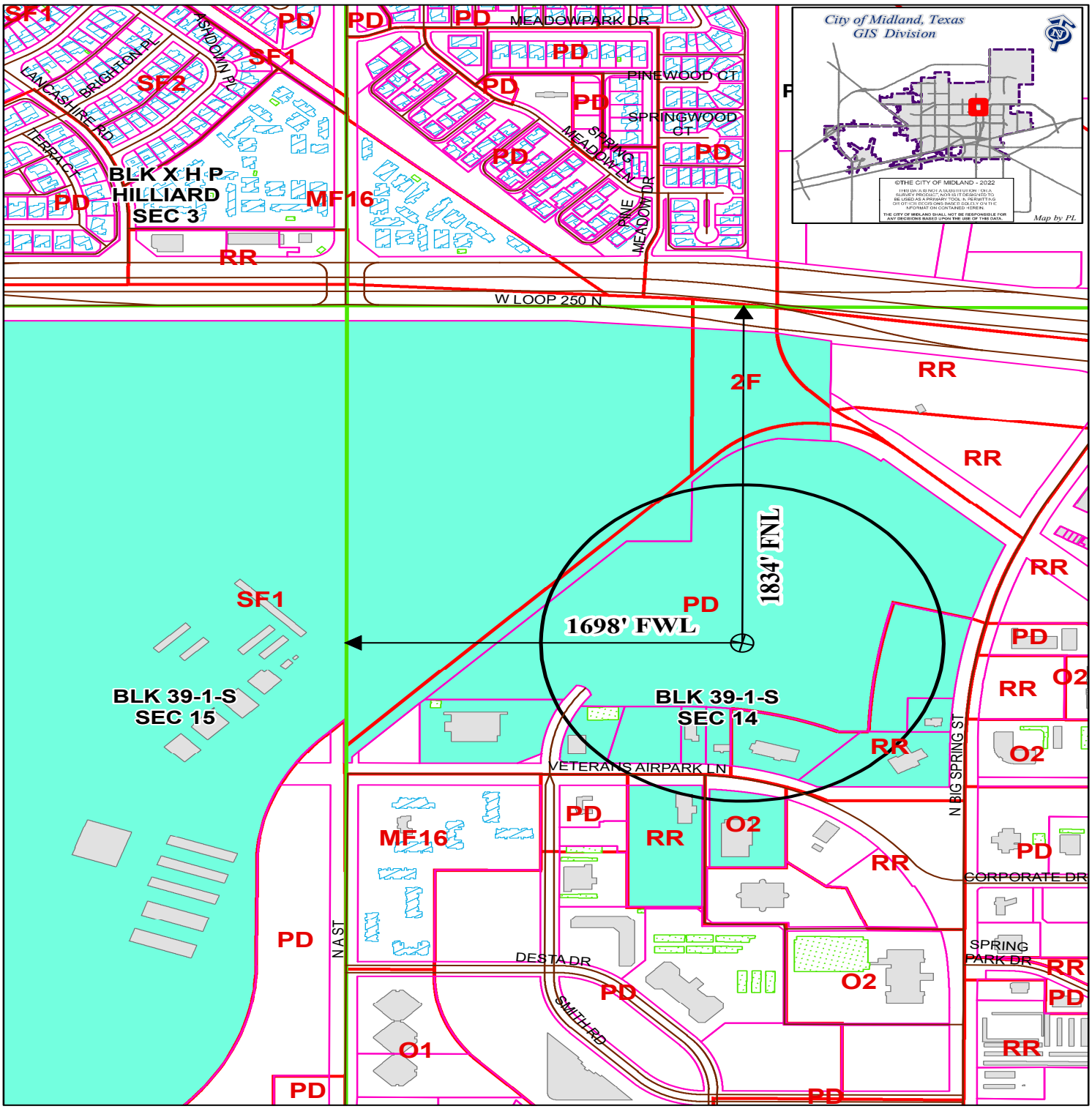
REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

PACKET

November 15, 2022

Date: Jul 13, 2022, 2:04pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_3612\21003805 – WELL RADIUS – KNIGHT H 130WB – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045592 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,834' FNL and 1,698' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,698 feet east of North A Street extension and 1,834 feet south of W Loop 250 N.

Knight 130 MIPA Unit H130WB

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
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

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
08/01/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	432-682-6685 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(3).

***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 135 MIPA Unit H135WA

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: 1835' FNL & 1638' 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 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

NOTES:

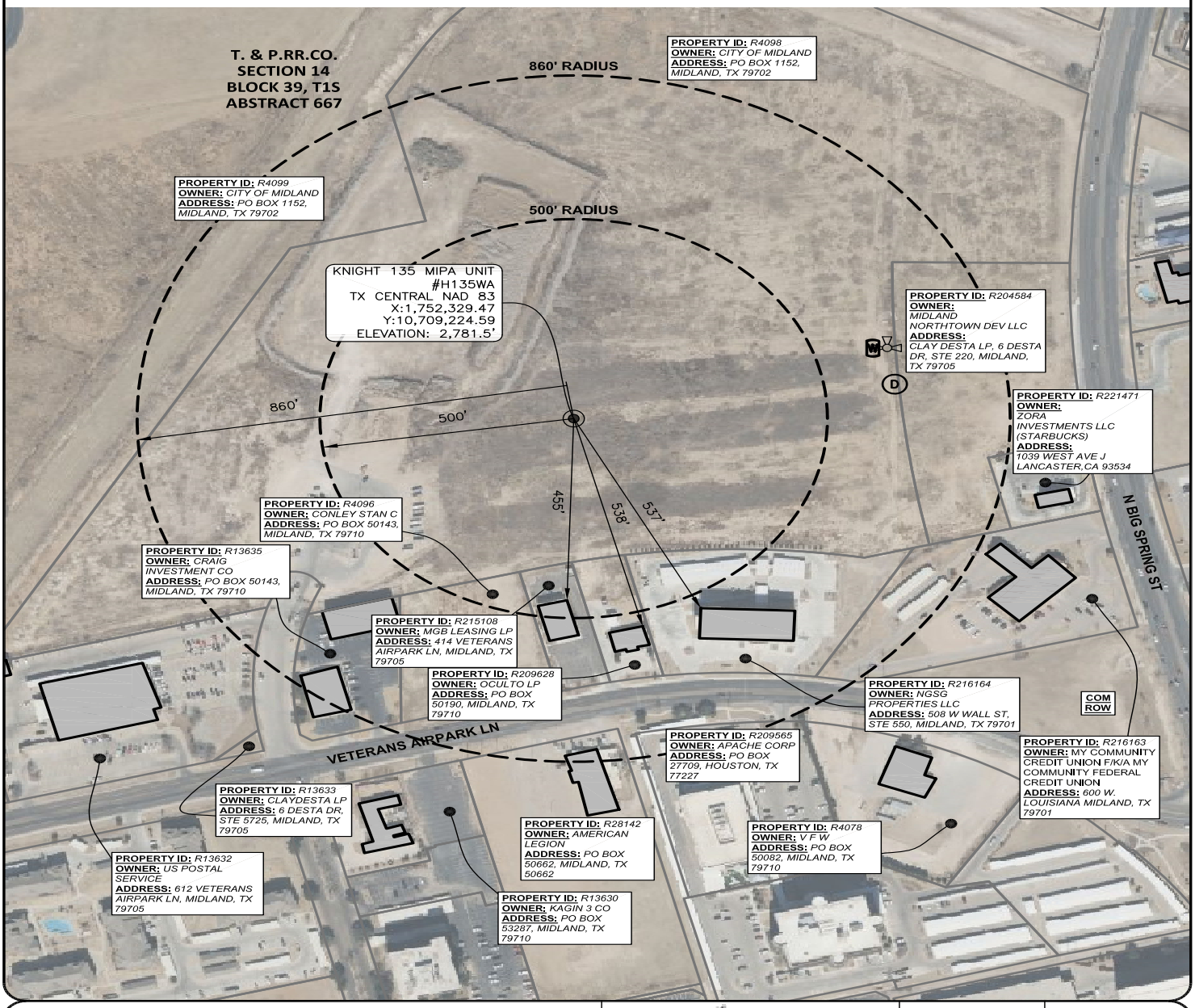
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
2. THIS EXHIBIT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS. THIS IS NOT A "BOUNDARY SURVEY".
3. THE PROPOSED WELL LOCATION WAS SURVEYED ON 06-16-2022

SYMBOL LEGEND:

- FIRE HYDRANT
- (D) STORM DRAIN MANHOLE
- (W) 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 135 MIPA UNIT #H135WA
T. & P. RR. CO. SURVEY, SECTION 14, BLOCK 39, T1S,
ABSTRACT 667, CITY OF MIDLAND,
MIDLAND COUNTY, TEXAS
WELL SECTION LINE TIES: 1,638' FSWL & 1,835' 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

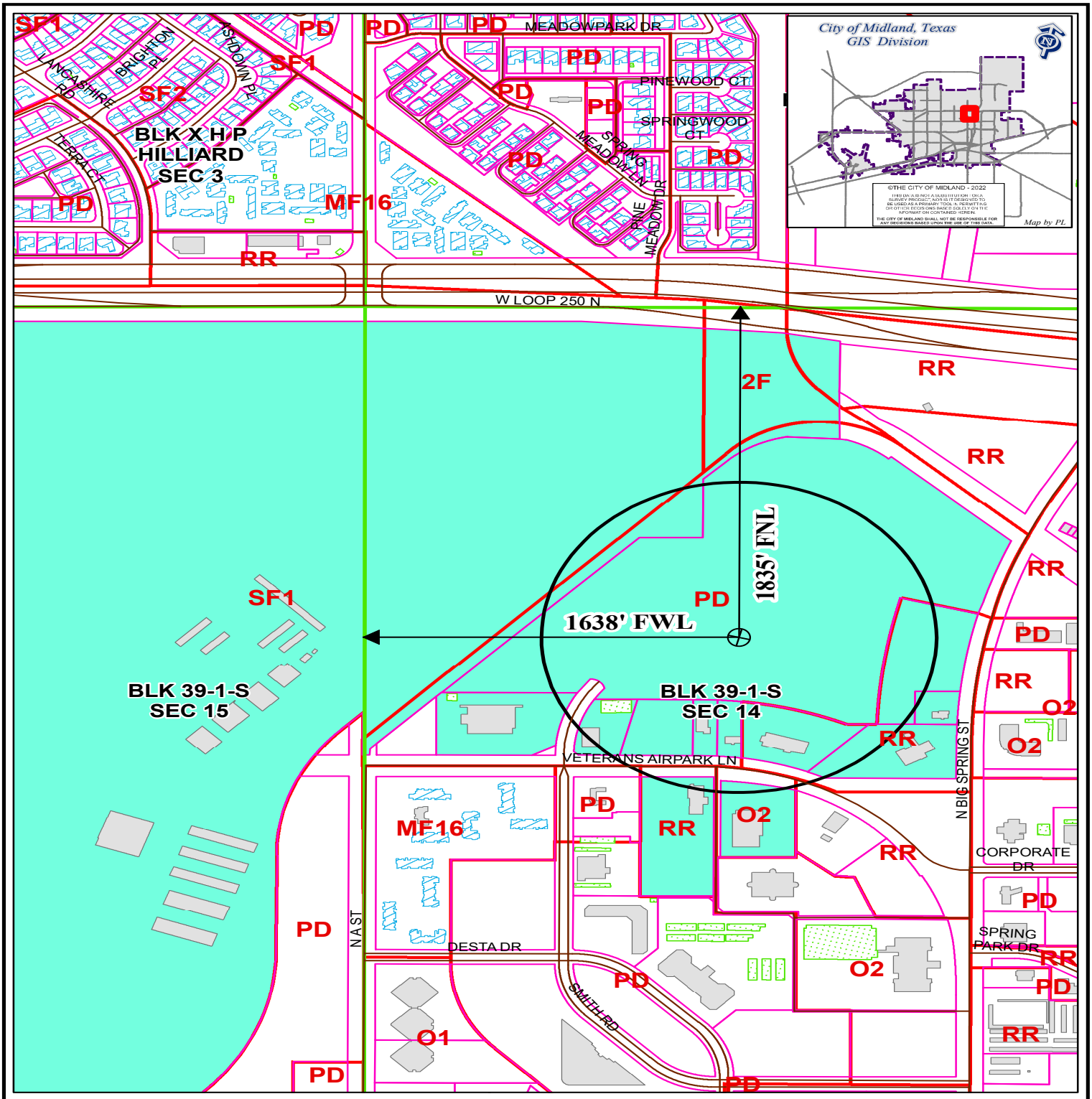
DRAWN	MA	DATE	6/30/22
CHECKED	DC	DATE	6/30/22
APP'D		DATE	
SCALE	1"=300'	PAGE	2 OF 4

REV#	DATE	DESC.

JOB NAME	WELL RADIUS
JOB NO.	21003805

PACKET 15.127 November 15, 2022

Date: Jun 30, 2022, 6:05pm User ID: malfaro
File: C:\Users\malfaro\appdata\local\temp\AcPublish_23028\21003805 – WELL RADIUS – KNIGHT H 135WA – NAD 83.dwg



LOCATION AND ZONING MAP

Oil - 045593 - 2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,835' FNL and 1,638' FWL, Section 14, Block 39, T-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,638 feet east of North A Street extension and 1,835 feet south of W Loop 250 N.

Knight 135 MIPA Unit H135WA

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, CR3	LOW-RISE 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

City of Midland
Office Memorandum

DATE: November 2, 2022

TO: The Honorable Mayor and Members of the City Council

FROM: John Ohnemiller, City Attorney

SUBJECT: Motion authorizing the execution of an employment agreement with the City Manager

---

The proposed motion authorizes the execution of a new employment agreement with City Manager Robert Patrick. The term of the proposed agreement commences on November 16, 2022, and terminates on April 28, 2023, at which time Mr. Patrick plans to retire from service for the City of Midland.

City Council Meeting

Item Number: 17

Meeting Date: November 15, 2022 (October 25, 2022)

To: City Council / City Manager

From: Landon Ochoa, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR LOT 3G, BLOCK 6, SCOTSDALE ADDITION, SECTION 19, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 535 FEET WEST OF NORTH MIDLAND DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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 4) (DEVELOPMENT SERVICES)

Purpose:

The applicant, Zhanwei Deng, is requesting a Specific Use Designation with term for the sale of alcoholic beverages for on-premises consumption in a restaurant at 4501 West Wadley Avenue, Midland, Texas 79707.

Recommended City Council Action:

Approve

Fiscal Impact:

This proposal does not have a significant financial impact to the City.

Discussion:

The properties to the north, south, east, and west are zoned RR, Regional Retail District and the location of businesses such restaurants, an auto part store, and a grocery store.

Analysis:

The applicant, Zhanwei Deng, is requesting a Specific Use Designation (SUD) for the sale of all alcoholic beverages, for on-premises consumption, in a restaurant conducting business as S'zechuan House, located at 4501 W. Wadley Avenue.

The restaurant is currently in operation, conducting business as Tokyo Express. Past businesses did have an approved SUD permit in this location; however, those permits have expired. The property is zoned RR, Regional Retail District, which permits the sale of alcoholic beverages with the approval of a Specific Use Permit.

The floor plan attached hereto as "Exhibit A" illustrates that the establishment has a total square footage of 2,986 square feet, with an alcohol serviceable area of 1,483 square feet.

The restaurant has a total of seating capacity of 92 people. A total of 60 parking spaces are provided, of which 2 will be handicap spaces. Based on the seating occupancy and kitchen floor area, a total of 25 parking spaces are required, therefore existing parking will be sufficient.

The proposed days and hours of operation are:

Monday through Thursday from 11:00 a.m. to 9:30 p.m.
Friday through Saturday from 11:00 a.m. to 10:30 p.m.
Sunday 11:00 a.m. to 9:30 p.m.

The applicant is requesting the same days and hours for alcohol service.

Per Midland City Code, Section 5-4-4, Prohibited Places 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.

No church or school is located within 300 feet of the proposed property.

This request has been circulated to and reviewed by respective City departments for internal review and their comments, conditions, and requirements are as follows:

Engineering: (Approved)

No objections. [For Applicant's Information Only.]

Fire: (Approved)

No objections

Transportation: (Approved)

No objections. [For the Applicant's information only.]

Code Administration: (Approved)

The SUD is acceptable. The property must adhere to the maximum occupant load of 80 for the alcohol serviceable area. Occupancy loads must be posted in accordance with section 1004.3 of the 2015 International Fire Code.

Planning:

The request follows the *Tall City Tomorrow Comprehensive Plan, Chapter 6-Character Plan Goal 4, which is to* "Encourage the development of places where Midland residents can gather and socialize to build connections." (Tall City Tomorrow page 137). S'Zechuan House will be a friendly neighborhood café that the community can enjoy.

This request meets all requirements; therefore, staff recommends approval of the Specific Use Designation with Term for the sale of all alcoholic beverages, for on-premises consumption, in a restaurant subject to conditions A thought G.

Conditions:

A. **That the alcoholic serviceable area of the restaurant shall be limited to approximately 1,483 square feet as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes.**

B. **That the days and hours of alcoholic beverages sales and consumption shall be limited to:**

    Monday through Thursday from 11:00 a.m. to 9:30 p.m.
    Friday through Saturday from 11:00 a.m. to 10:30 p.m.
    Sunday 11:00 a.m. to 9:30 p.m.

C. **The occupancy of the establishment shall not exceed the maximum occupancy determined by the Building Code and Fire Code.**

D. **That the establishment shall meet all requirements of the Fire Department and Code Administration.**

E. **That the sale and on-premises consumption of alcoholic beverages shall conform to applicable state and local laws.**

F. **That the applicant shall obtain a Certificate of Occupancy prior to the commencement of the sale of alcoholic beverages for on premises consumption to ensure that the conditions of this permit are satisfied.**

G. **That in accordance with Section 9.07.E.3 of the Zoning Ordinance, the establishment shall be in operation within 120 days from the final adoption date of this ordinance.**

Letters of Objection:

As of October 7, 2022, staff has received one letter of objection.

Attachments:

Floor Plan (Exhibit A)
Site plan (Exhibit B)
Application
Maps

Morris Williams Jr.

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 LOT 3G, BLOCK 6, SCOTSDALE ADDITION, SECTION 19, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST WADLEY AVENUE, APPROXIMATELY 535 FEET WEST OF NORTH MIDLAND DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT 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 3G, Block 6, Scotsdale Addition, Section 19, 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 restaurant (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 1,483 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 the following:

Monday through Thursday from 11:00 a.m. to 9:30 p.m.;
Friday and Saturday from 11:00 a.m. to 10:30 p.m.; and
Sunday from 11:00 a.m. to 9:30 p.m.

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 obtain a Certificate of Occupancy prior to the commencement of the sale of alcoholic beverages for on-premises consumption to ensure that the conditions of this Specific Use Designation With Term are satisfied.

G. That in accordance with Section 11-1-9.07.E.3 of the City Code, the Establishment shall be in operation within 120 days from the final adoption date of this ordinance.

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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

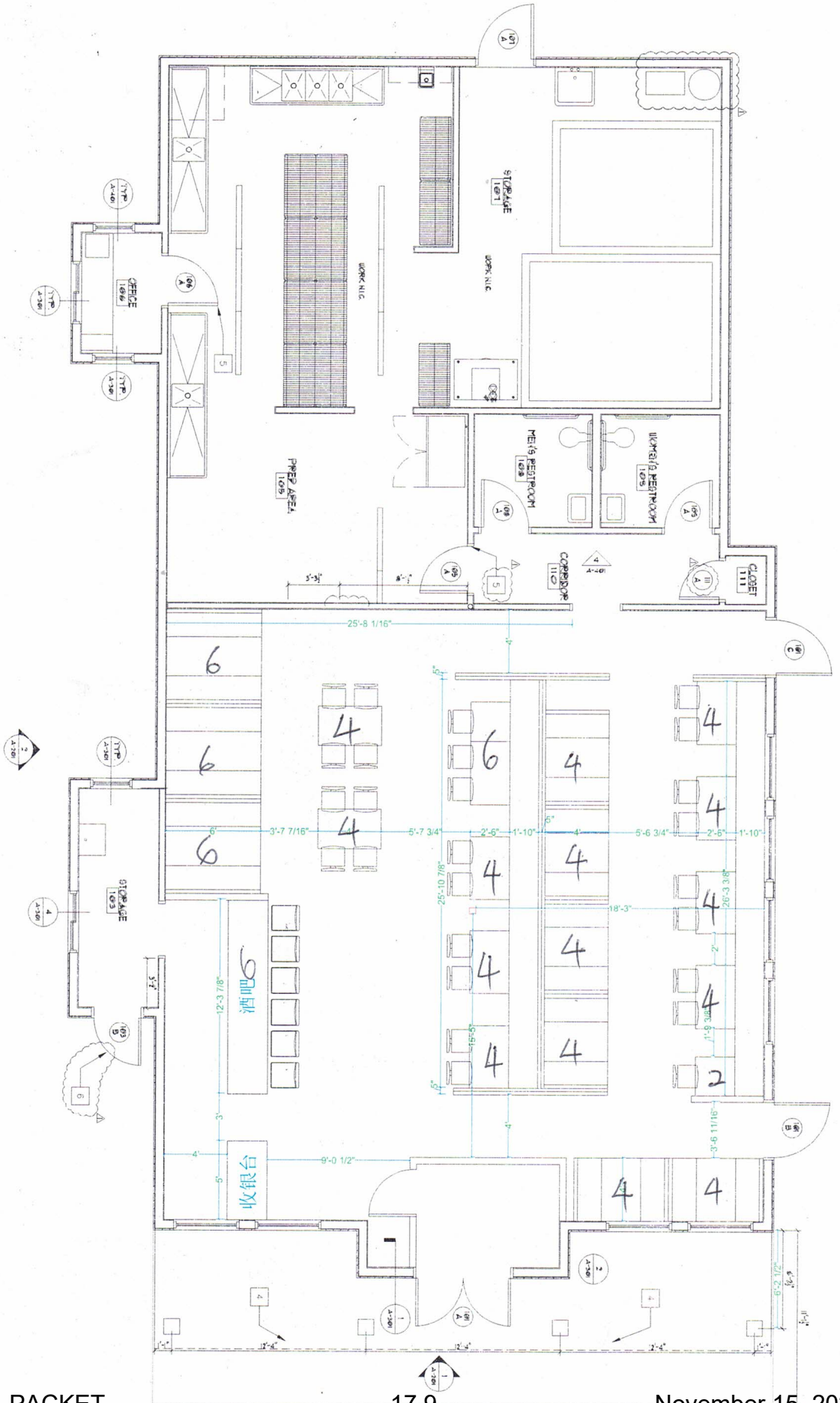
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

Floor Plan (Exhibit A)



total seating is 92

MIDLAND Planning Division

Specific Use Designation with Term for the Sale of Alcoholic Beverages for On-Premises Consumption

Project Number: SUP-22-0141

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Zhanwei Deng		Phone (432)-312-7240 Email lsing71@aol.com	
Address: 2405 W. Cuthbert Ave.	City: Midland	State: TX	Zip: 79701
Property Owner Printed Name: Leeco Energy & Investments, Inc		Phone (432) 550 0073 Email cricket@leecoproperties.com	
Address: 3501 Billy Hext Rd.	City: Odessa	State: TX	Zip: 79765
Representative *(if different from Applicant or Property Owner)* Firm: _____ Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 4501 W. Wadley Ave. Midland TX 79707

Business Name: Szechuan House

Legal Description Lot: 3-6 Block: 6 Subdivision: Scotsdale Addition

Current Zoning: RR

Reason for Request: the sale of Alcoholic Beverages for on-Premises Consumption

Type of Business *(restaurant, bar, lounge, nightclub, etc.)*: Restaurant

Proposed/Current Days and Hours of Operation: Mon-Thur: 11:00AM-9:30pm Fri-Sat: 11:00AM-10:30pm Sun: 11:00AM-9:30pm

Proposed Days and Hours of Alcohol Service: Mon-Thur: 11:00AM-9:30pm Fri-Sat. 11:00AM-10:30pm Sun: 11:00AM-9:30pm

Total Square Footage of Business: 2486 square feet

Square Footage of Alcohol Serviceable Area: ~~1483~~ square feet

Restroom Fixtures:	*Men*	**Toilets/Urinals:**	1 / 0	**Bathroom Sinks:**	1
	Women	**Toilets:**	1	**Bathroom Sinks:**	1

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Dimensioned Floor Plan showing:
  - Seating
  - Exits
  - Restrooms
  - Kitchen (if applicable)
  - Total Square Footage
  - Serviceable Square Footage
- Dimensioned Site Plan showing: *Parking *Business Footprint
- Digital Copies of Floor Plan & Site Plan (PDF/JPEG)

Signatures

Applicant (signature): Zhanwei Deng	Date: 8/23/2022
Applicant (printed): ZHANWEI DENG	
Property Owner (signature): Cricket Allen (Lecco Energy & Investments)	Date: 8/24/22
Property Owner (printed): Cricket Allen	

The Specific Use Designation with Term for the sale of all alcoholic beverages 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 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 application on behalf of property owner, agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared Xing Lin who, being by me duly sworn, upon oath says: That (s)he is authorized by Cricket Allen, 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. Xing Li

Subscribed and sworn to before me, this 26th day of Aug 2022, to certify which witness my hand and seal of office.

DALIA SALINAS
My Notary ID # 128541568
Expires March 9, 2023

Dalia Salinas
Notary Public

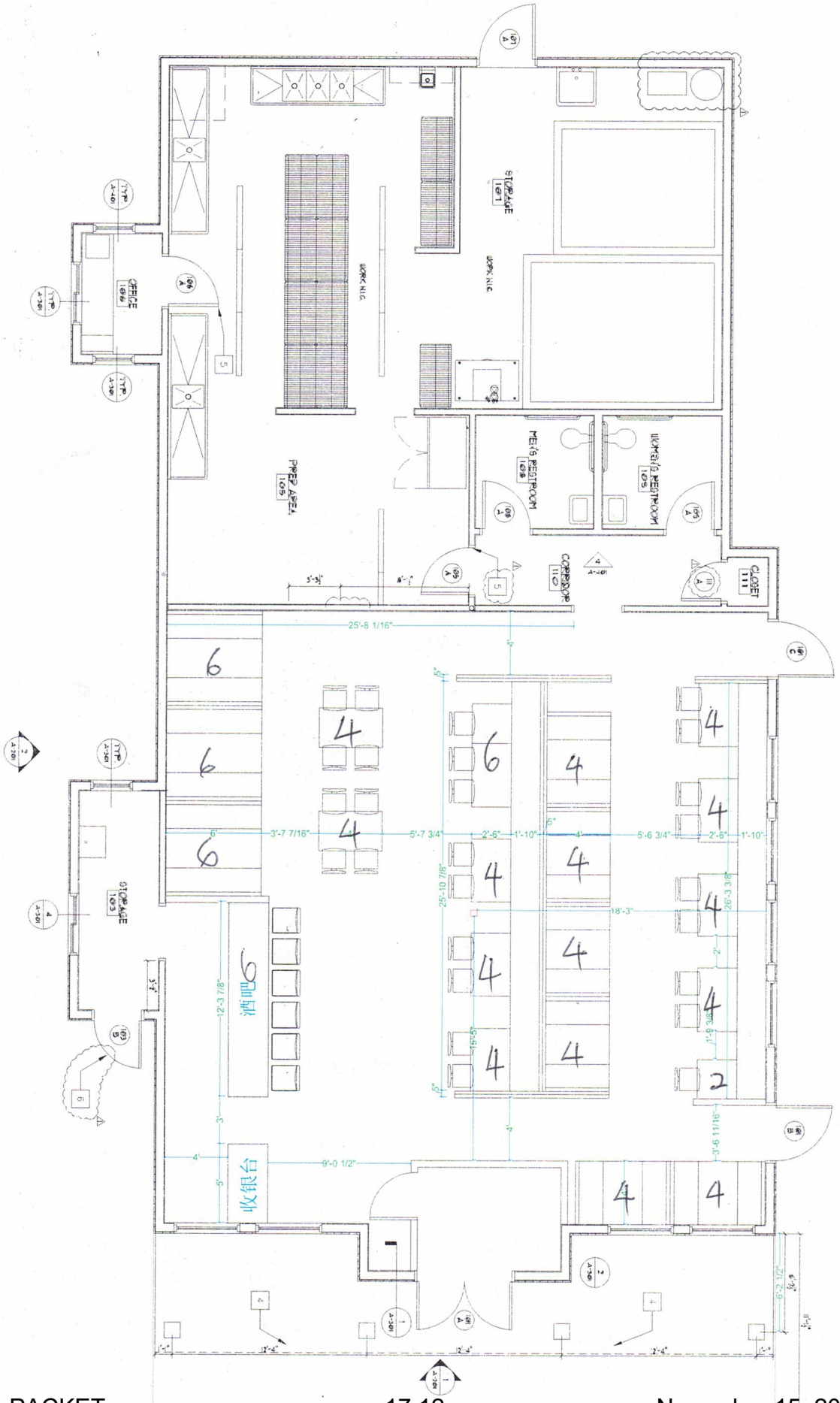
FOR OFFICE USE ONLY

☒ Property Owner Authorization	☒ Dimensioned Floor Plan
☒ Application Fee	☒ Site Plan
Check # Cash	☒ Plans in Digital Format (PDF/JPEG)
Received By: KM	Date: 8/26/22

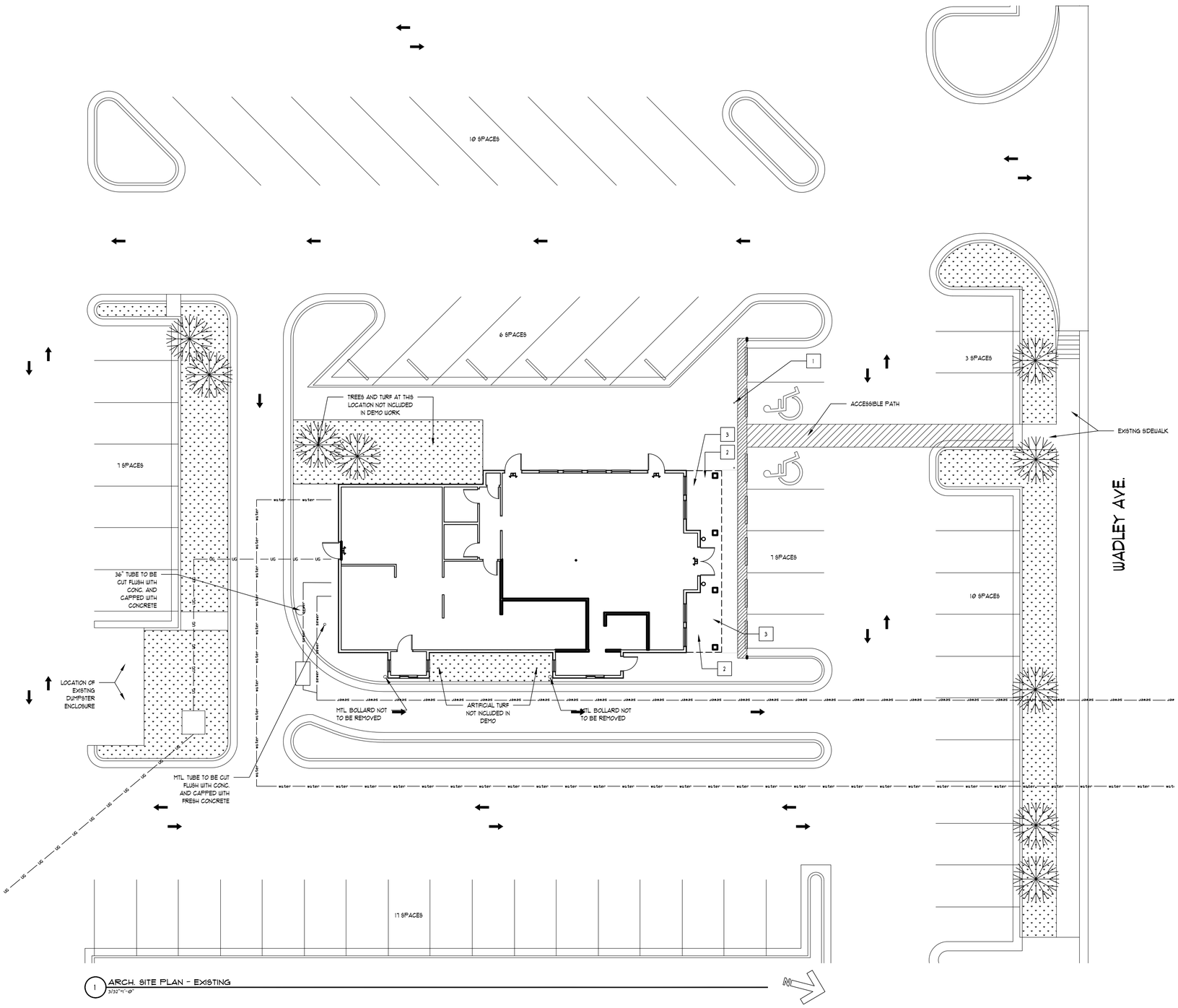
AUG 26 2022

****Application will not be considered for scheduling until reviewed by a planner.****

Floor Plan (Exhibit A)



total seating is 92



1 ARCH. SITE PLAN - EXISTING
3/32"=1'-0"

LEGEND

EXISTING FOLIAGE

EXISTING LANDSCAPING

GENERAL NOTES

- ALL MEP UTILITIES SHALL BE LOCATED BY CIVIL SHEETS, ARCHITECTURAL SITE PLAN IS FOR REFERENCE ONLY.

KEYNOTE LEGNED

1. EXISTING HANDICAP PARKING AND SIGNAGE TO REMAIN
2. ARTIFICIAL TURF TO BE REMOVED
3. CONCRETE FLAT WORK SHALL MEET EXISTING ELEVATIONS AT PARKING ASPHALT AND SLOPE NO MORE THAN 5% IN ANY DIRECTION. SLOPE IF ANY SHALL BE 5% MAX IN TRAVEL AND 2% MAX CROSS SLOPE

RRC DESIGN GROUP
10617 W. CR 72
MIDLAND, TX 79707
O: (432) 618-9939 F:(432)618-0205

LEECO PROPERTIES

The Lost Cajun Restaurant Beignets & Gumbo

LOST CAJUN
4501 W WADLEY AVE
MIDLAND, TX 79701

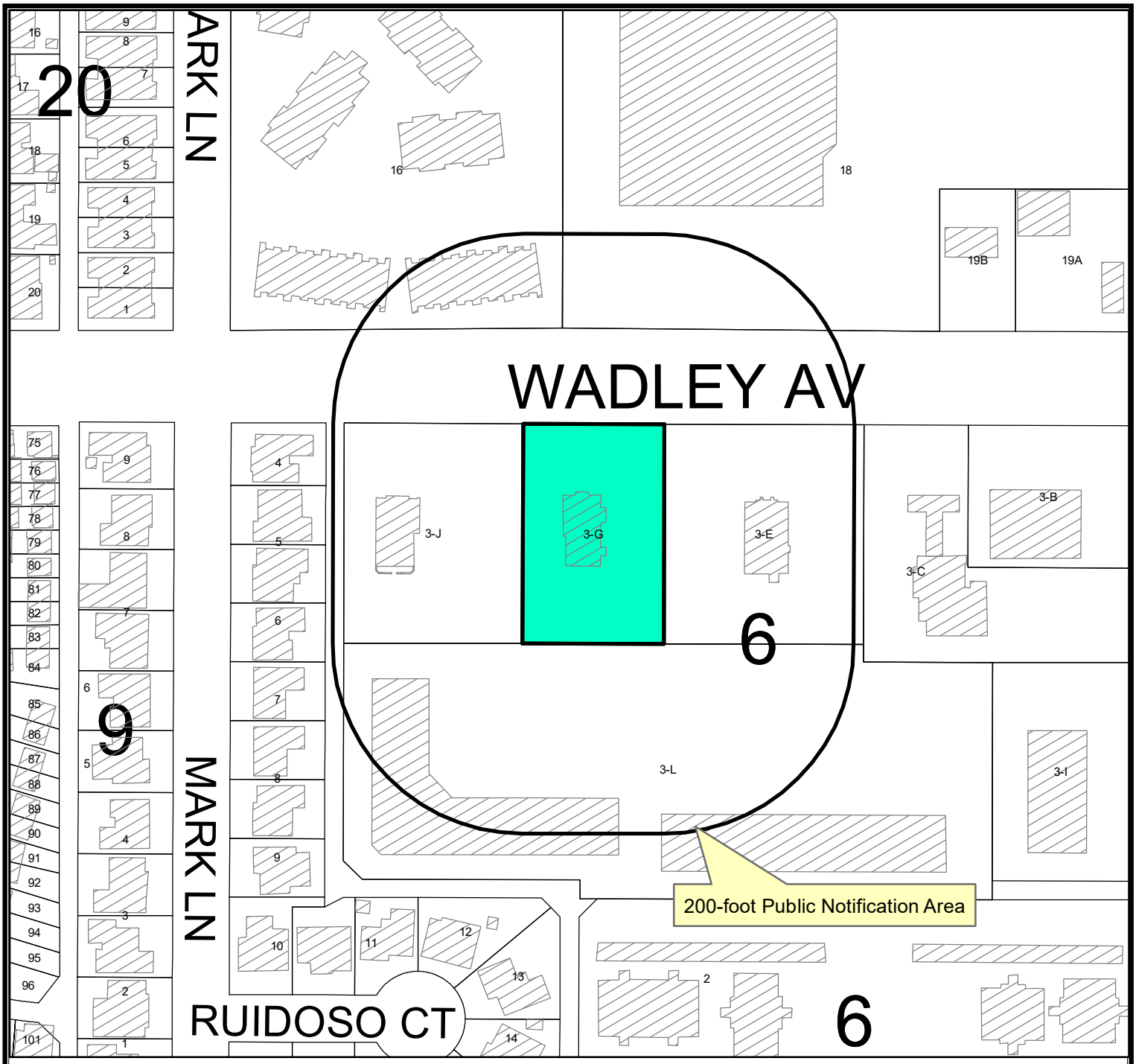
NO.	REVISION/ISSUE	DATE
2	REVISION SET 1	7-5-16
1	95% REVIEW	6-15-16

PROJECT # 03031@001

DATE 7/8/2016

SHEET TITLE ARCHITECTURAL SITE PLAN

SHEET AS-101



LOCATION MAP

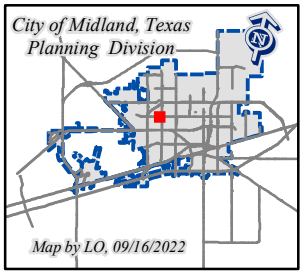
SUD-22-0141 **Scale: 1" = 1,810'**

Consider a request by Zhanwei Deng, for a Specific Use Designation with Term for the Sale of all Alcoholic Beverages, for on premises consumption in a Restaurant on Lot 3-G, Block 6, Scotsdale Addition, Section 19, City and County of Midland, Texas.

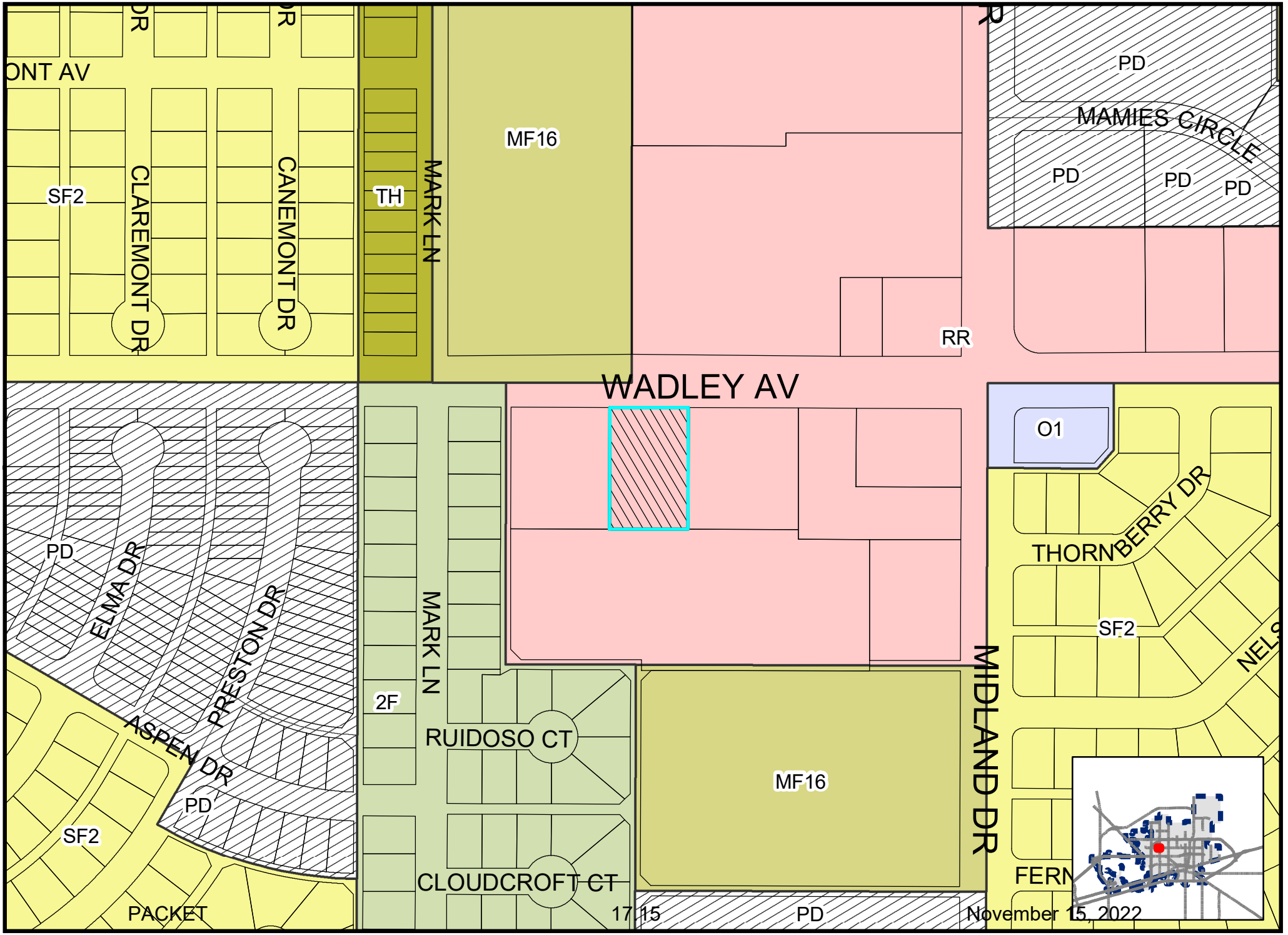
Generally located on the south side of W. Wadley Avenue, approximately 535-feet west N. Midland Drive. (Council District 4)

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 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, 09/16/2022

SUD-22-0141

Scale: 1" = 2,744'

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.




MCALISTER'S


4501
TOKYO
EXPRESS


BUSH'S CHICKEN!
DRIVE THRU
TRY OUR
NEW
HOT WINGS

9/26/2022

City of Midland
Planning & Zoning Commission

RE: Lot 3-G, Block 6, Scottsdale Addition, Section 19

Please accept this letter as by objection to the specific use request of Zhanwei Deng to allow alcoholic beverage sales on the above referenced property.

My property, along with the Bush's Chicken and McAllister's Deli as well the shopping center located to our east share cross access agreements with each other and with Lot 3-G. As such, the allowed consumption of alcoholic beverages by this adjoining property with which we have a cross access agreement could increase our liability exposure and therefore we would oppose the issuance of this specific use permit.

Please do not hesitate to contact me should you have any questions or need additional information.

Thank you,

Jeff Russell
For CHC Family Properties, Inc.
jrussell@wjrussell.com
432-352-8993

RECEIVED
SEP 30 2022
BY: .....

City Council Meeting

Item Number: 18

Meeting Date: November 15, 2022 (October 25, 2022)

To: City Council / City Manager

From: James Reber

Subject: **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND TYLER STREET), BY PERMITTING A REDUCED MINIMUM LOT WIDTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT; 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 (COUNCIL DISTRICT 2) (DEVELOPMENT SERVICES)**

Purpose:

The applicant, Erica Hernandez, is requesting a Special Exception from the City of Midland Zoning Ordinance, *Section 5.04 – Residential Zoning District Dimensional Regulations Chart*, concerning the minimum lot dimension to be able to rezone the property into SF-3, Single-Family Dwelling District.

Recommended City Council Action:

Approve

Fiscal Impact:

No City funds are required to process this request.

Discussion:

The property is located at 1301 South Street and is the location of vacant land. The applicant is requesting a special exception to the minimum width for a corner lot to be able to build a single-family home. The proposed single-family home does not fit on the lot as it is currently only fifty feet in width.

The property is currently zoned HI, Heavy Industrial District and does not meet the minimum lot dimensions for either its current district, or the proposed district.

Per our City of Midland Zoning Ordinance, *Section 5.04 – Residential Zoning District Dimensional Regulations Chart:*

SF-3, Single Family Dwelling District
Lot dimensions
Minimum Lot Width:
Corner Lot: 55 Feet

As shown on East Midland Addition plat, this property is currently 50 feet wide and 140 feet deep.

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, 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 Applicant's Information Only.]

Code: (Approved)

No Oil and Gas Issues.

Transportation: (Approved)

No objections. [For the Applicant's information only.]

Planning (Approved):

Planning Analysis:

While this request represents a deviation from the existing Zoning Ordinance, due to the unique circumstances surrounding the lot in question, staff is recommending approval of this application for a Special Exception to the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart. This lot has been platted and zoned in a way that prohibits development, therefore, the City has inadvertently forced this property and others around it to remain vacant under the current zoning ordinance. During the initial adoption period of the new zoning ordinance, there were several lots in this area that were re-zoned to SF-3, single family dwelling district that fell into this same issue. Additionally, the area has dispersed single family housing that was developed before the new zoning ordinance took effect, therefore, developing this property as a single-family home would fit with the character of the neighborhood. This special exception is required in order to change the zoning to SF-3 to better conform to develop a single-family residence. This request is in compliance with the Tall City Tomorrow Comprehensive Plan, Chapter 3 An Integrated Land Use Vision, “Future Land Use Map” as it designates this area for Urban Residential-Medium, a classification which calls for “a mix of housing styles including single-family detached, single-family attached, and townhouses.” This special exception would allow for the development of a single-family residence on this lot that would otherwise remain vacant.

Due to these factors, staff is recommending approval of this special exception subject to conditions A and B.

Conditions:

A. **That the minimum lot width shall be 50 feet.**

B. **That approval of a zone change to SF-3, Single Family Dwelling District shall be required prior to any development on the property.**

Letters of Objection:

Staff has not received any letters of objection as of October 7, 2022.

Attachments:

Application
Maps
Survey (Exhibit A)

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND TYLER STREET), BY PERMITTING A REDUCED MINIMUM LOT WIDTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT; 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 7, Block 50, East Midland Addition, City and County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum lot width in the event that the Zoning District Map of the City of Midland, Texas, is amended to rezone the Property from HI, Heavy Industrial District to SF-3, Single-Family Dwelling District.

SECTION TWO. That said special exception is subject to the following special conditions:

A. That the minimum lot width shall be 50 feet.

B. That said special exception shall be of no force or effect unless and until the Property is rezoned as described in Section One of this ordinance.

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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

MIDLAND
Planning Division

Special Exception Application

Project Number: E-22-0087

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Erica Hernandez		Phone (432) 215-5108 Email edelaro1@yahoo.com	
Address 102 Cedar Ave	City Midland	State TX	Zip 79705

Property Owner Printed Name: Erica Hernandez		Phone (432) 215-5108 Email edelaro1@yahoo.com	
Address 102 Cedar Ave	City Midland	State TX	Zip 79705

Representative *(if different from Applicant or Property Owner)* Firm: _____ Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 1301 South St Midland Tx 79701

Legal Description
Lot: 7 Block: 50 Subdivision: East Midland Addition

Current Zoning: Heavy Industrial

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: Lot is smaller than required minimum dimensions

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: 10-5-22
Applicant (printed): Erica Hernandez	
Property Owner (signature):	Date: 10-5-22
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*)

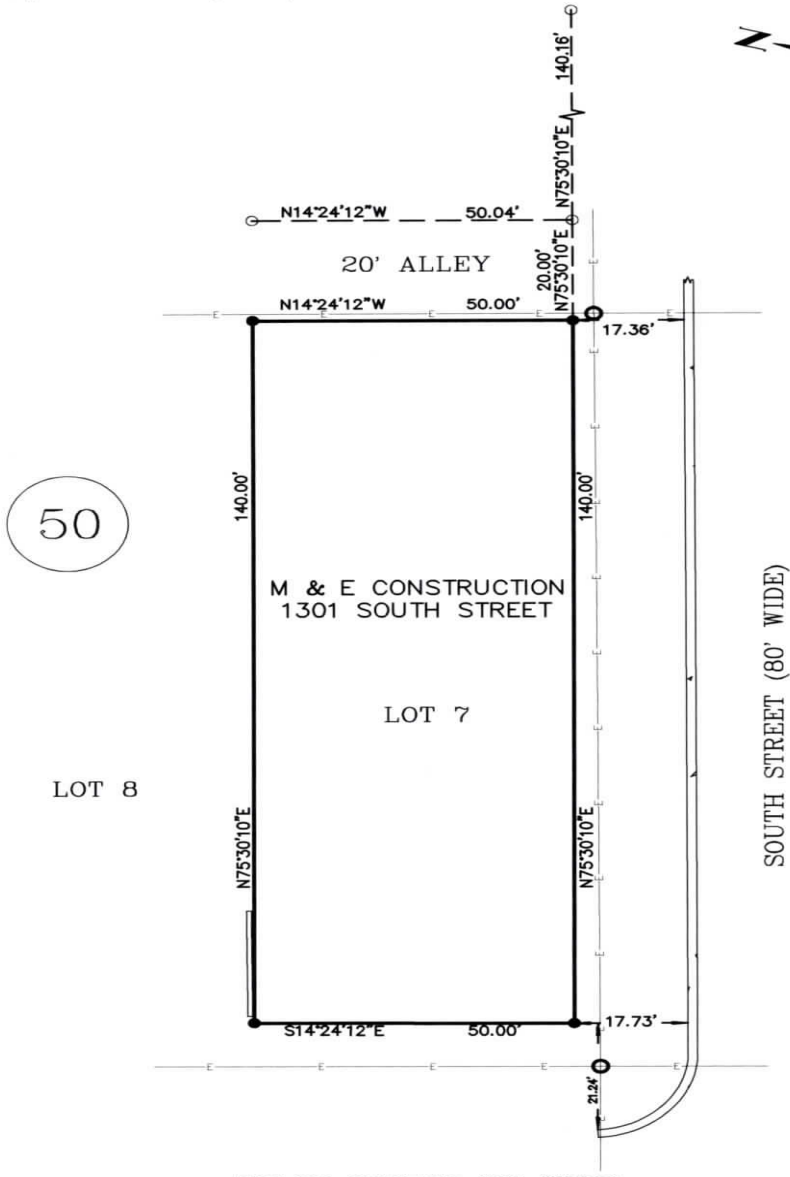
Subscribed and sworn to before me, this _____ day of _____, 20 ___, to certify which witness my hand and seal of office.

_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY	
☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****

COPYRIGHT 2021
This survey plat is being provided solely for the use of: M & E Construction and that no license has been created, express or implied, to copy the survey plat except as is necessary in conjunction with the original transaction dated October 26, 2021, which shall take place within 90 days after the survey was provided.



LEGEND
- ● Set 1/2" I.R. W/Cap "RPLS 4170"
- ○ Fnd. 1/2" I.R.
- O Power Pole
- —E—E— Overhead Electric Line

SURVEY OF
LOT SEVEN (7), BLOCK FIFTY (50), EAST MIDLAND ADDITION, AN ADDITION TO THE CITY OF MIDLAND MIDLAND COUNTY, TEXAS

ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN VOLUME 180, PAGE 80, DEED RECORDS, MIDLAND COUNTY, TEXAS

Census Tract: 17

This tract is in Flood Zone "X" as shown on the Flood Insurance Rate Map, Dated September 16, 2005 provided by the Federal Emergency Management Agency Flood Map Number: 48329C0093 F

The undersigned does hereby certify that this survey was this day 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, easements or rights-of-way, except as shown hereon, and that said property has access to and from a dedicated roadway.

Dated this the 26th day of October 2021.

Bruce R. Pennell
Registered Professional Land Surveyor No. 4170
Date: 10/26/2021

(IF SURVEYORS SIGNATURE IS NOT SIGNED IN RED INK, THIS IS NOT AN ORIGINAL DOCUMENT)

Basis of Bearings:
NAD 83 Lambert Grid

Bearings and Distances Shown
Inside ( ) Indicate Record Information

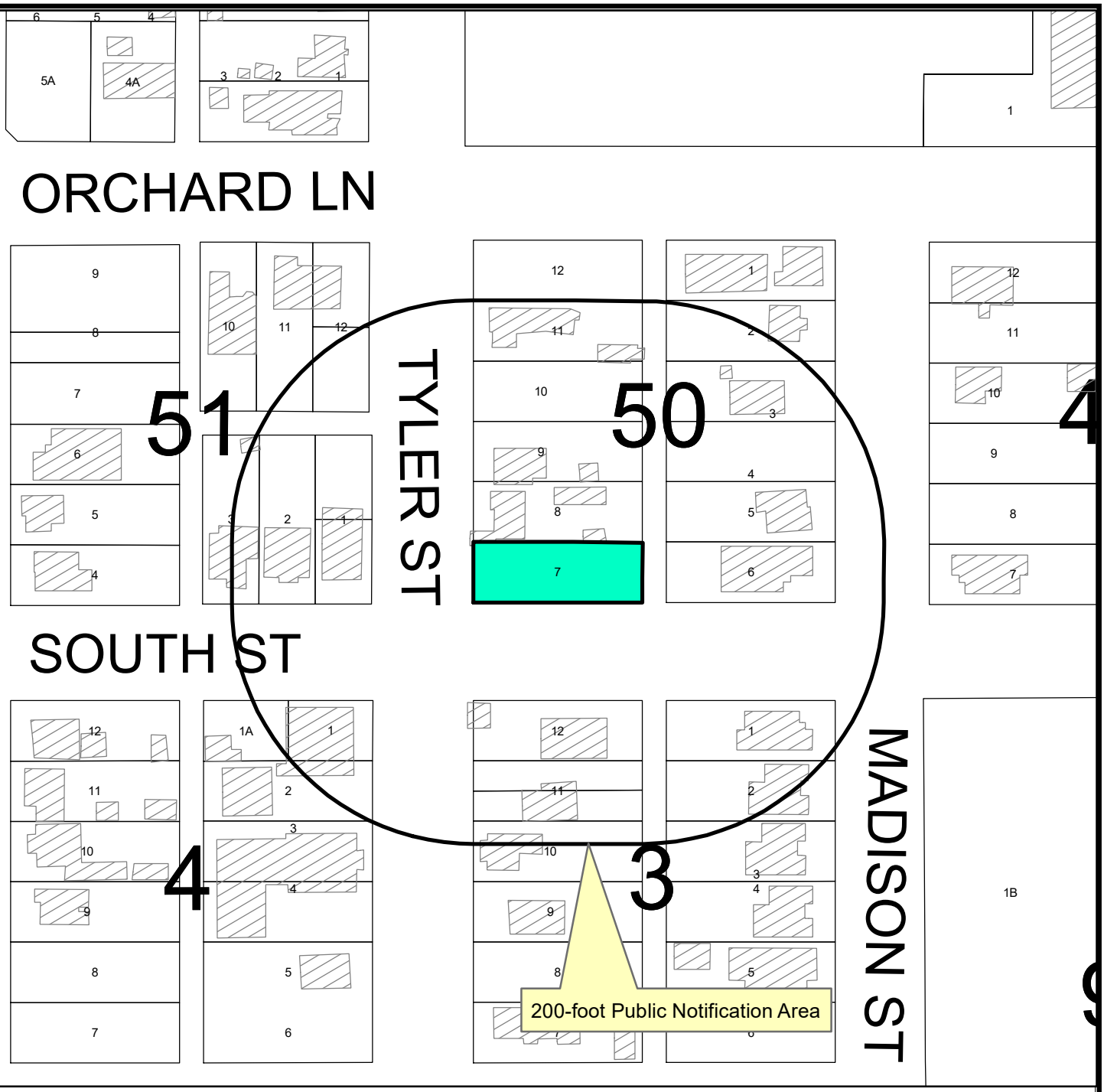
30 15 0 30

SCALE: 1" = 30'

STATE OF TEXAS
REGISTERED
BRUCE R. PENNELL
4170
PROFESSIONAL
LAND SURVEYOR

PENNELL LAND SURVEYING
PROFESSIONAL LAND SURVEYING
P.O. BOX 51622, MIDLAND, TEXAS 79710
VOICE:(432)570-6256 FAX: (432)682-3262 MOBILE: (432)528-1027

ABSTRACT OFFICE: N/A	G.F. #: N/A	COMMITMENT EFFECTIVE DATE: N/A	
CAD FILE: BRP22726	DATA FILE: 1301SOUTH	DRAWN BY: MARCY N.	FIRM NO.: 10193978



LOCATION MAP

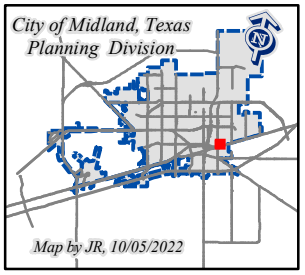
E-22-0087 **Scale: 1" = 110'**

Consider a request by Erica Hernandez for a Special Exception from the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, concerning the minimum corner lot width dimension on Lot 7, Block 50, East Midland Addition, City and County of Midland, Texas.

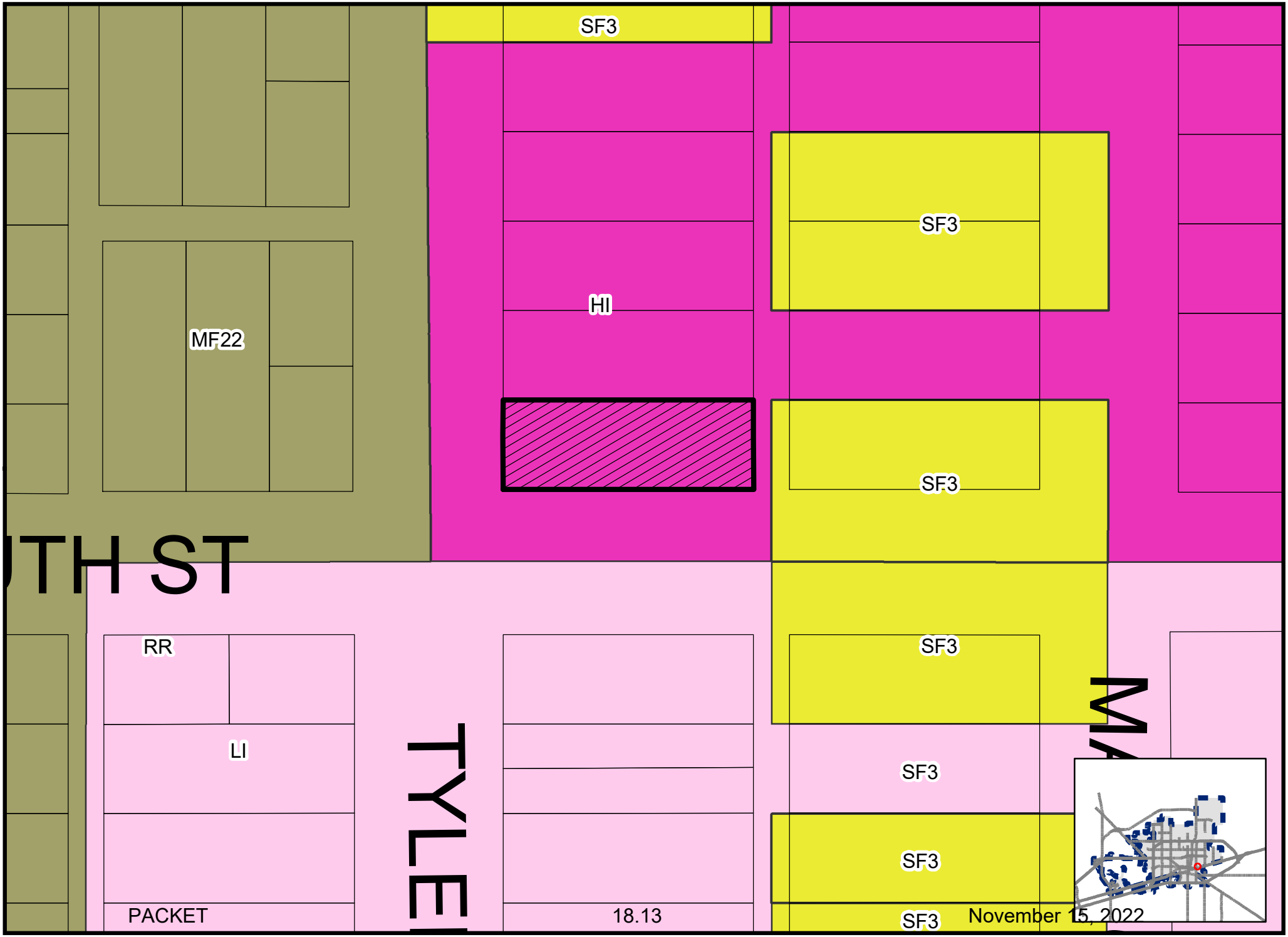
Generally located on the northeast corner of the intersection of South Street and Tyler Street - Council District 2

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND IS NOT 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 JR, 9/15/2022

Z-22-0303

Scale: 1" = 100'

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.








TORTILLAS
TAMALES

City Council Meeting

Item Number: 19

Meeting Date: November 15, 2022 (October 25, 2022)

To: City Council / City Manager

From: James Reber, Planner

Subject: Motion approving a request by Nader Mezher for a zone change from O-1, Office District, to RR, Regional Retail District, on Lot 1, Block 26, Wedgwood Park, Section 4, City and County of Midland, Texas. (Generally located on the east side of N. Midland Drive, approximately 510-feet north of Neely Avenue - DISTRICT 3) (DEVELOPMENT SERVICES)

Purpose:

The applicant, Nader Mezher**,** is requesting a Zone Change from O-1, Office District to RR, Regional Retail District, for a future development of retail and office space located at 2800 North Midland Drive.

Recommended City Council Action:

Approve

Fiscal Impact:

No City funds are required to process this request.

Current Zoning:

HI, Heavy Industrial District.

Surrounding Zoning and Land Use:

The properties to the north and east are zoned HI, Heavy Industrial District, with the exception of three lots to the north and east who's zoning has been corrected to SF-3, Single-Family Dwelling District. Properties to the west zoned MF-22, Multi-Family Dwelling District. Properties to the south are zoned LI, Light Industrial District, RR, Regional Retail District, with the exception

of four lots who's zoning has been corrected to SF-3, Single-Family Dwelling District.
Analysis:

The property is currently vacant and in the process of being platted. They are proposing to develop the property for office use and retail. The current zoning district does not allow for the development of an office center and retail. Therefore, the new proposed district will allow flexibility in the development of offices and retail.

They will need to comply with Section 5.05, Nonresidential Zoning District Dimensional Regulations Chart and Chapter 9-Landscaping Regulations.

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 objections to zone change request.

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, 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.]

Code: (Approved)

No Oil and Gas issues.

Transportation: (Approved)

No objection to zone change. [For the Applicant's information only.]

Planning (Approved):

The request does fit with the Tall City Tomorrow Comprehensive Plan, Chapter 3-Land Use Vision. This designation calls for U-M, Urban-Medium. These areas are designed to be vibrant, urban areas that draw customers and employees from outside the immediate area. A mix of housing types, neighborhood, and community commercial, office, and service uses. The City of Midland Planning Department supports this rezone because the surrounding area already has many offices and retail uses bordering the single-family dwellings and multi-family dwellings. Urban-Medium is intended to encourage closer proximity between transportation, housing, and

shopping choices.

This request was recommended for approval at the October 17, 2022, Planning and Zoning Commission meeting.

Therefore, staff recommends approval of this zone change from O-1, Office District to RR, Regional Retail District to conditions A

Conditions:

A. That the use and development of this property shall conform to the regulations of the RR, Regional Retail District.

Letters of Objection:

Staff has not received any letters of objection as of October 19, 2022.

Attachments:

Application
Maps
Site Plan (Exhibit A)

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 1, BLOCK 26, WEDGWOOD PARK ADDITION, SECTION 4, CITY AND COUNTY OF MIDLAND, TEXAS, FROM O-1, OFFICE DISTRICT, TO RR, REGIONAL RETAIL DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF NORTH MIDLAND DRIVE, APPROXIMATELY 510 FEET NORTH OF NEELY 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 1, Block 26, Wedgwood Park Addition, Section 4, 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 O-1, Office District, 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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, 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: 2-22-0308

Case Number:

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Nader Mezher		Phone (832) 509-6216 Email	
Address 703 W Indiana Ave #28	City Midland	State TX	Zip 79701

Property Owner Printed Name: MR Property Holdings LLC		Phone (832) 509-6216 Email	
Address 1001 Sinclair Ave	City Midland	State TX	Zip 79705

Representative *(if different from Applicant or Property Owner)* Firm: Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 2800 N Midland Dr, Midland TX 79707

Legal Description
Lot: 001 Block: 026 Subdivision: WEDGEWOOD PARK, SEC 4

Current Zoning: 01 **Proposed Zone:** RR
(List by tracts if more than one district is requested)

Reason for Zone Change Request: New Development

Present Use of Property: Vacant

Proposed Use of Property: Retail

How would this zone change affect the public health, safety and welfare?

Describe how conditions affecting the property have changed since present zoning designation: Building was demolished

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: 09/28/2022
Applicant (printed): Nader Mezher	
Property Owner (signature):	Date: 09/28/2022
Property Owner (printed) : MR Property Holdings 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 Nader Mezher who, being by me duly sworn, upon oath says: That (s)he is the owner of MR Property Holding LLC 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 28 day of September, 2022, to certify which witness my hand and seal of office.

JANET LEE PRUITT
Notary Public, State of Texas
Comm. Expires 04-14-2025
Notary ID 130905056

Janet Lee Pruitt

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

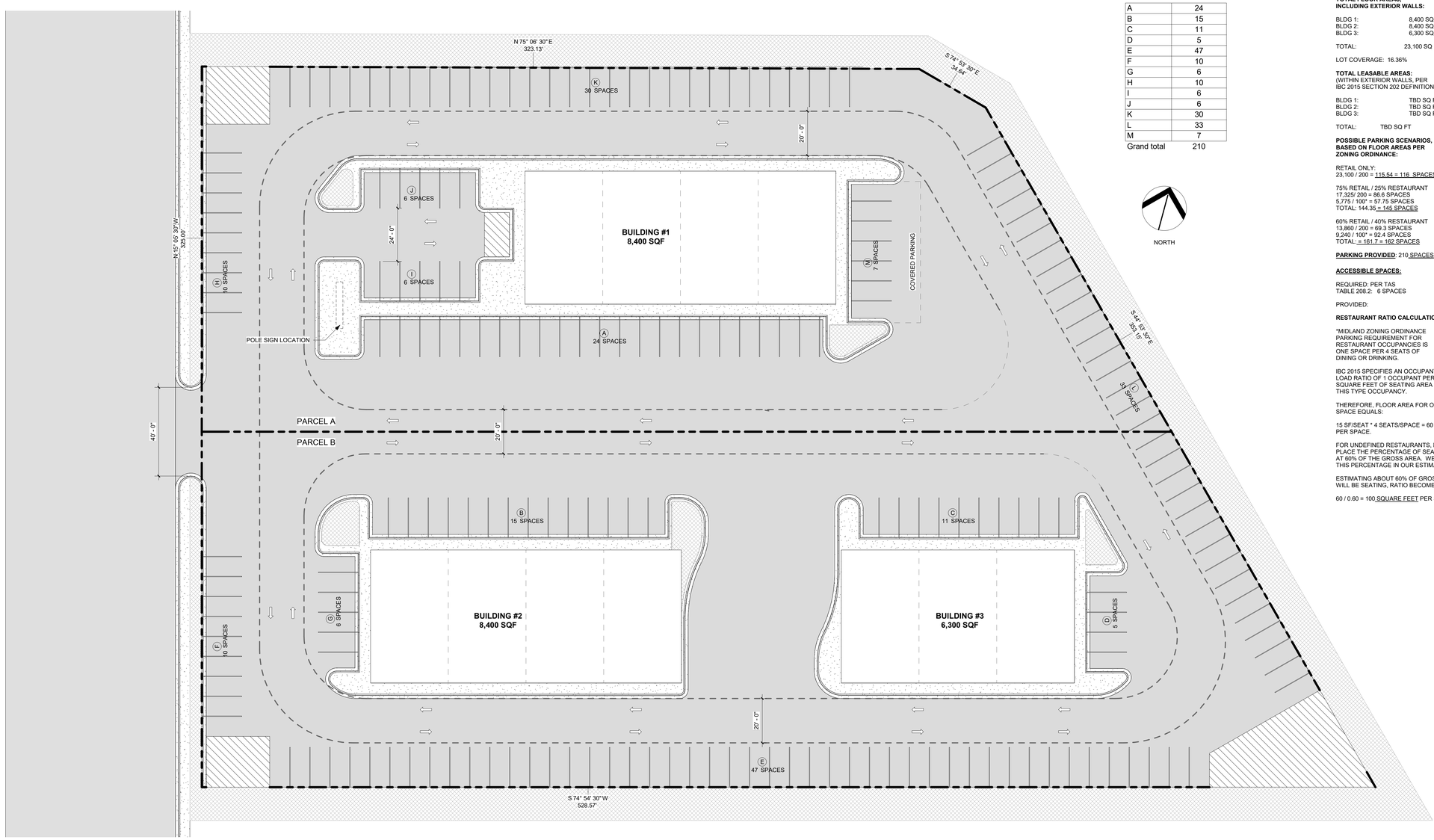
FOR OFFICE USE ONLY

- ☑ Property Owner Authorization
- ☑ Application Fee
  Check # Credit Card
- ☑ Dimensioned Site Plan
- ☐ Plans in Digital Format (PDF/JPEG)

Received By: James Reber Date: 9/28/22

RECEIVED
SEP 28 2022
BY: James Reber

****Application will not be considered for scheduling until reviewed by a planner.****



1 A-101.1 Site Plan
1" = 20'-0"

PARCEL A: 63,787 SQF

PARCEL B: 77,528 SQF

Parking Schedule	
Mark	Spaces
A	24
B	15
C	11
D	5
E	47
F	10
G	6
H	10
I	6
J	6
K	30
L	33
M	7
Grand total	210

NORTH

Site Development Data

ZONING: LR-3 Local Retail District

Use: Retail / Personal Service

Provision will be made for some reasonable percentage of restaurant occupants. See below.

Parking Requirements:

Retail/Personal Service: 1 space per 200 Sq Ft

Restaurant: 1 space per 4 seats

TOTAL LOT AREA: 141,163 SQ FT

TOTAL FLOOR AREAS, INCLUDING EXTERIOR WALLS:

BLDG 1: 8,400 SQ FT
BLDG 2: 8,400 SQ FT
BLDG 3: 6,300 SQ FT

TOTAL: 23,100 SQ FT

LOT COVERAGE: 16.36%

TOTAL LEASABLE AREAS: (WITHIN EXTERIOR WALLS, PER IBC 2015 SECTION 202 DEFINITION)

BLDG 1: TBD SQ FT
BLDG 2: TBD SQ FT
BLDG 3: TBD SQ FT

TOTAL: TBD SQ FT

POSSIBLE PARKING SCENARIOS, BASED ON FLOOR AREAS PER ZONING ORDINANCE:

RETAIL ONLY:
23,100 / 200 = 115.54 = 116 SPACES

75% RETAIL / 25% RESTAURANT
17,325/ 200 = 86.6 SPACES
5,775 / 100* = 57.75 SPACES
TOTAL: 144.35 = 145 SPACES

60% RETAIL / 40% RESTAURANT
13,860 / 200 = 69.3 SPACES
9,240 / 100* = 92.4 SPACES
TOTAL: = 161.7 = 162 SPACES

PARKING PROVIDED: 210 SPACES

ACCESSIBLE SPACES:

REQUIRED: PER TAS TABLE 208.2: 6 SPACES

PROVIDED:

RESTAURANT RATIO CALCULATIONS

*MIDLAND ZONING ORDINANCE PARKING REQUIREMENT FOR RESTAURANT OCCUPANCIES IS ONE SPACE PER 4 SEATS OF DINING OR DRINKING.

IBC 2015 SPECIFIES AN OCCUPANT LOAD RATIO OF 1 OCCUPANT PER 15 SQUARE FEET OF SEATING AREA FOR THIS TYPE OCCUPANCY.

THEREFORE, FLOOR AREA FOR ONE PARKING SPACE EQUALS:

15 SF/SEAT * 4 SEATS/SPACE = 60 SQUARE FEET PER SPACE.

FOR UNDEFINED RESTAURANTS, MANY SOURCES PLACE THE PERCENTAGE OF SEATING AREAS AT 60% OF THE GROSS AREA. WE WILL USE THIS PERCENTAGE IN OUR ESTIMATE.

ESTIMATING ABOUT 60% OF GROSS AREA WILL BE SEATING, RATIO BECOMES:

60 / 0.60 = 100 SQUARE FEET PER SPACE.

ARRIS consulting
219 34th Street Lubbock, Texas
806-773-6763

THIS DOCUMENT IS RELEASED ON 09-14-22 UNDER THE AUTHORITY OF STEPHEN LINDEL FILLIPP, TEXAS R.A. #9733, FOR PURPOSES OF INTERIM REVIEW ONLY.

NOT FOR USE IN CONSTRUCTION OR REGULATORY APPROVAL.

Consultant
Address
Address
Address
Phone

Consultant
Address
Address
Address
Phone

Consultant
Address
Address
Address
Phone

Consultant
Address
Address
Address
Phone

Consultant
Address
Address
Address
Phone

No.	Description	Date

Nader Merher, Jose Corpus, Lucy Sisniega

2800 N. Midland Drive

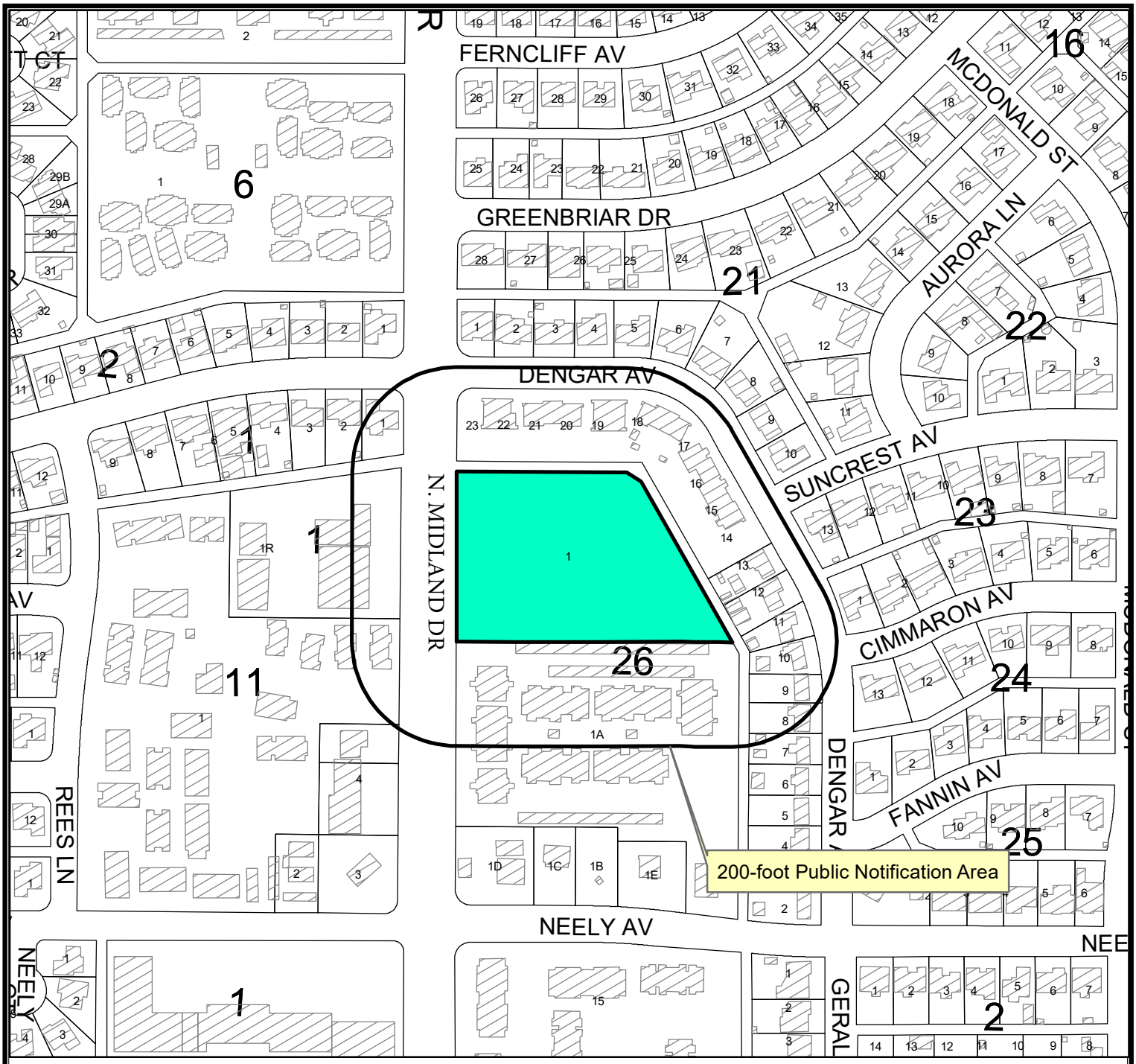
Architectural Site Plan

Project Number	22.002
Date	09-14-22
Drawn By	Author
Checked By	Checker

A-101.1

Scale	1" = 20'-0"

9/14/2022 3:32:56 PM



LOCATION MAP

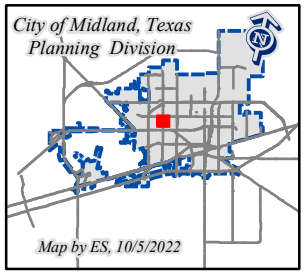
Z-22-0308 **Scale: 1" = 200'**

Consider a request by Nader Mezher for a zone change from O-1, Office District, to RR, Regional Retail District, on Lot 1, Block 26, Wedgwood Park, Section 4, City and County of Midland, Texas.

Generally located on the east side of N. Midland Drive, approximately 510-feet north of Neely Avenue. (Council District 3)

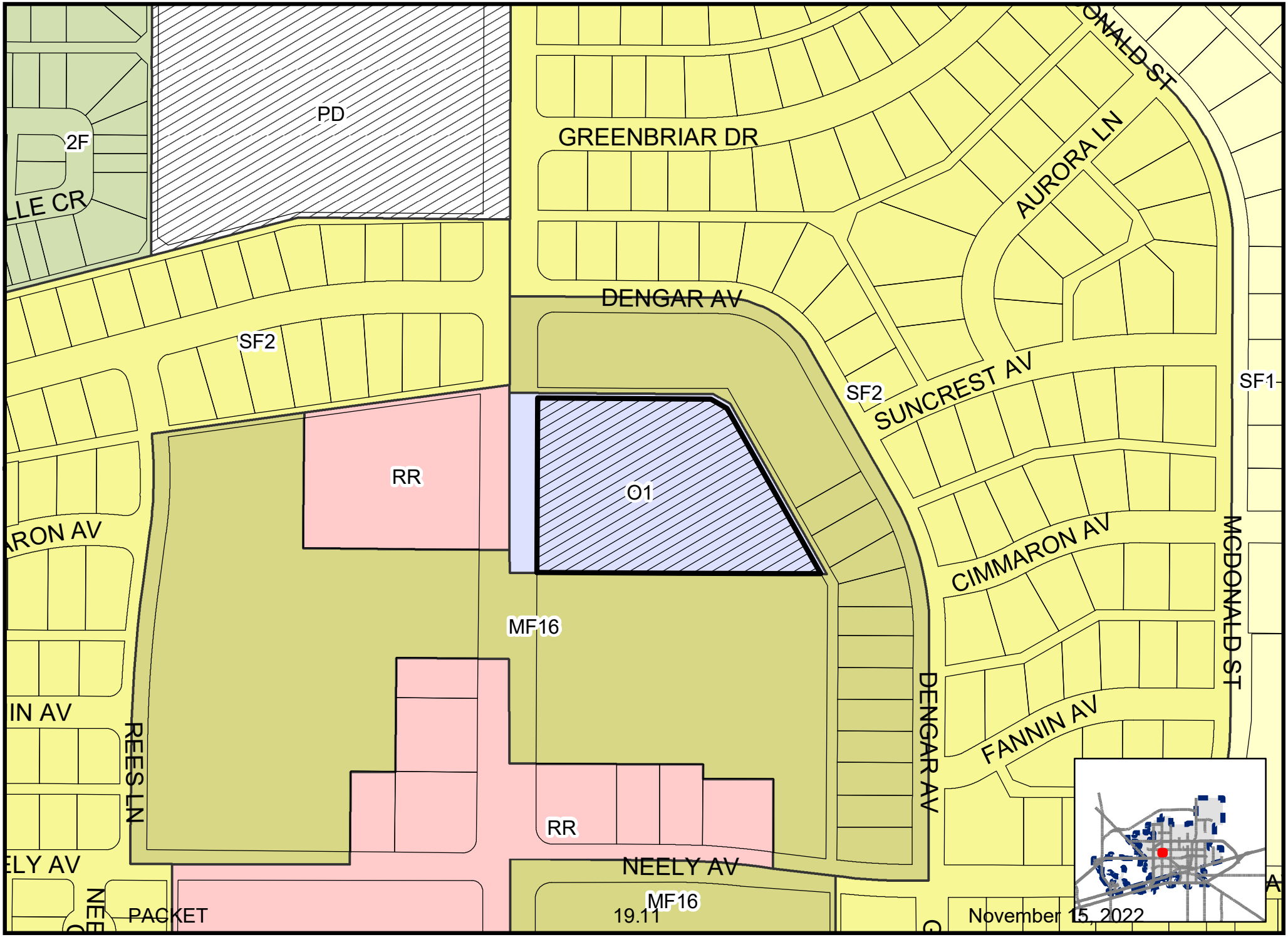
LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY 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 15, 2022



Map By JR, 10/5/2022

Z-22-0308

Scale: 1" = 200'

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.


STELLAR
IMMEDIATE
MOVE-IN!







City Council Meeting

Item Number: 20

Meeting Date: November 15, 2022 (October 25, 2022)

To: City Council / City Manager

From: Alexandra Walling, Planner

Subject: **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE WEST 40 FEET OF LOT 4 AND THE EAST 25 FEET OF LOT 5, BLOCK J, GARRETT PLACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST INDIANA AVENUE, APPROXIMATELY 80 FEET EAST OF CARLTON STREET), BY PERMITTING A REDUCED MINIMUM LOT DEPTH; 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, Robert Wilson Sr., is requesting a Special Exception from the City of Midland Zoning Ordinance, Section 5.05 – *Nonresidential Zoning District Dimensional Regulations Chart*, concerning the minimum lot dimensions for the property located at 2407 West Indiana Avenue, for the purpose of future re-platting.

Recommended City Council Action:

Approve

Fiscal Impact:

No City funds are required to process this request.

Discussion:

The applicant's property is located at 2407 West Indiana Avenue and the location of an

established business. The applicant is requesting a special exception to the minimum lot depth dimension of the current zoning RR, Regional Retail District to be able to proceed with his application of re-plating for ownership purpose.

As mentioned previously the property is zoned RR, Regional Retail District and does not meet the minimum lot depth dimension. Per our City of Midland Zoning Ordinance, *Section 5.05 – Nonresidential Zoning District Dimensional Regulations Chart:*

RR, Regional Retail District
Lot Dimensions
Minimum Lot Depth:
Lot: 100 Feet

As shown on original plat of Garrett Place, all lots where originally subdivided with lot dimensions 50 feet wide and 80 feet deep, making it conforming at that time. Therefore, the applicant is requesting to reduce the required minimum lot depth dimension for the proposed lot to be approximately 90-feet deep, in order to proceed with the re-plating process.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

Engineering: (Approved)

No objections. [For the Applicant's information only.]

Transportation: (Approved)

No objections to plat. [For the Applicant's information only.]

Fire: (Approved)

No objections.

Code Compliance: (Approved)

No Oil and Gas issues.

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, 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.

Planning Analysis:

While this request represents a deviation from the existing Zoning Ordinance, due to the unique circumstances surrounding the lot in question, staff is recommending approval of this application for a Special Exception to the City of Midland Zoning Ordinance, Section 5.05 - Nonresidential Zoning District Dimensional Regulations Chart. This lot has been platted and zoned in a way that prohibits further development, therefore, the City has inadvertently forced this property and others around it to be restricted of any modifications to existing development under the current zoning ordinance. Furthermore, the area has developed into a local business district and most of the development happened with the original plat of Garrett Place, therefore, continue developing this property as a business would fit with the character of the neighborhood. This special exception is required to re-plat. This request is in compliance with the Tall City Tomorrow Comprehensive Plan, Chapter 3 An Integrated Land Use Vision, "Future Land Use Map" as it designates this area for Urban-Low, a classification which calls for "neighborhoods with relatively low-density housing and easily accessed neighborhood commercial services." This special exception would allow for the existing business to be in compliance on this lot.

Due to these factors, staff is recommending approval of this special exception subject to condition A.

Condition:

A. That the minimum lot depth of the property shall be 90-feet.

Letters of Objection:

As of October 14, 2022, staff has not received any letters of objection.

Attachments:

Application
Site Plan (Exhibit A)
Maps

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR THE WEST 40 FEET OF LOT 4 AND THE EAST 25 FEET OF LOT 5, BLOCK J, GARRETT PLACE ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTH SIDE OF WEST INDIANA AVENUE, APPROXIMATELY 80 FEET EAST OF CARLTON STREET), BY PERMITTING A REDUCED MINIMUM LOT DEPTH; 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 west 40 feet of Lot 4 and the east 25 feet of Lot 5, Block J, Garrett Place Addition, City and County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum lot depth.

SECTION TWO. Said special exception is subject to the following special condition:

That the minimum lot depth on the Property shall be 90 feet.

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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____

John Ohnemiller, City Attorney

MIDLAND Planning Division

Special Exception Application

Project Number: E-22-0086

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Property Owner Printed Name: Robert Wilson Jr.		Phone ( ) Email	
Address	City	State	Zip

Representative *(if different from Applicant or Property Owner)* Firm: Schumann Engineering Printed Name:		Phone (432) 684-5548 Email ealeman@schumannonline.net	
Address 800 N. Marienfeld, Suite 100	City Midland	State ~~TX~~	Zip 79701

Street Address:

Legal Description E 25' of Lot 5 & W. 40' of Lot 4
Lot: ~~E 25~~ Block: J Subdivision: Garrett Place.

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: Lot width doesn't meet minimum Requirement by 10 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): Eduardo J Aleman	Date: 9-19-22
Applicant (printed): Ed Aleman	
Property Owner (signature):	Date: 9-19-22
Property Owner (printed) : Robert Wilson Jr.	

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 Ed Aleman who, being by me duly sworn, upon oath says: That (s)he is authorized by Robert Wilson Jr., 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.

Eduardo J Aleman
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 19th day of September, 20 22, to certify which witness my hand and seal of office.

DALIA SALINAS
My Notary ID # 128541568
Expires March 9, 2023

Dalia Salinas
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

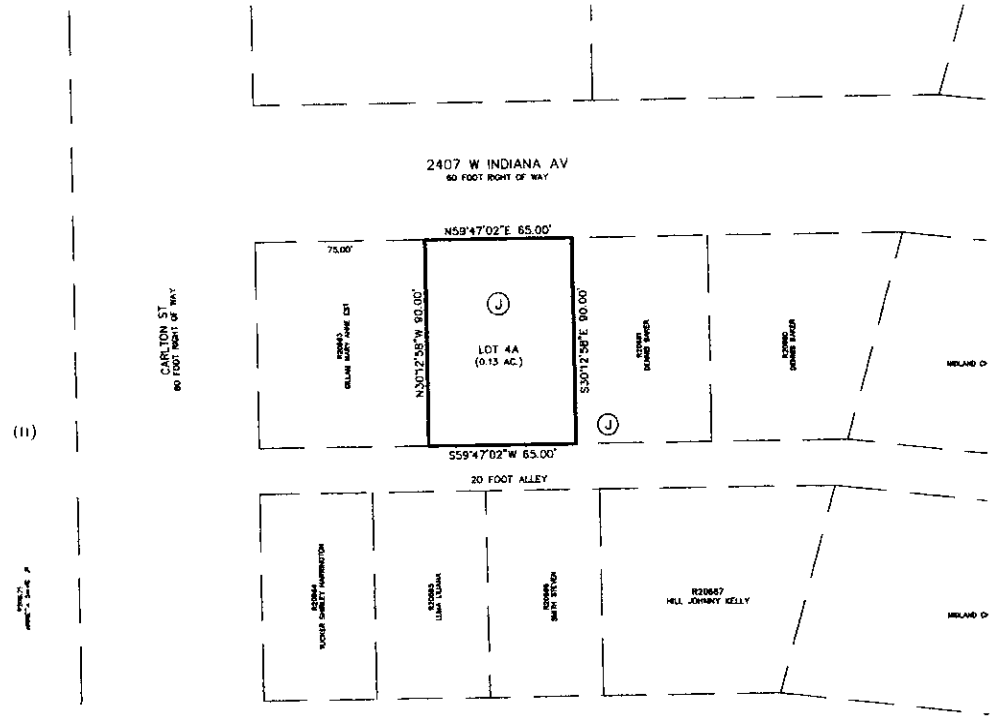
FOR OFFICE USE ONLY

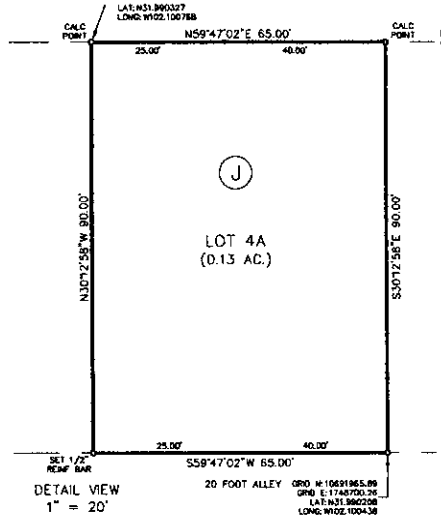
- ☒ Property Owner Authorization
- ☒ Application Fee
  Check # CC
- ☒ Dimensioned Site Plan
- ☐ Plans in Digital Format (PDF/JPEG)

Received By: KM | Date: 9/21/22

SEP 21 2022

****Application will not be considered for scheduling until reviewed by a planner.****





BEING A RE-PLAT
5 AND THE WEST 4
AS RECORDED
PI
CITY AND CO

STATE OF TEXAS

COUNTY OF MIDLAND

WHEREAS, I AM THE RECORD
PLACE, CITY AND COUNTY OF

NOW, THEREFORE, KNOW ALL

THAT I DO HEREBY ADOPT TH
AS GARRETT PLACE, SECTION
DEDICATE TO THE PUBLIC USE
PARKWAYS) SHOWN HEREON.

WITNESS MY HAND AT MIDLAN

ROBERT WILSON JR

STATE OF TEXAS:
COUNTY OF MIDLAND:

THIS INSTRUMENT WAS ACKNO
_____, 20__

NOTARY PUBLIC
MIDLAND COUNTY, TEXAS

OWNER:

ROBERT WILSON JR
PO BOX 9693
MIDLAND, TEXAS 78708

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. 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.

4. THE INSTALLATION OF PUBLIC IMPROVEMENTS MAY BE REQUIRED BY THE CITY OF MIDLAND AS SUCH TIME AS: (1) THE 43.867 ACRE TRACT IS RE-PLATTED FOR SUBDIVISION INTO MORE THAN ONE TRACT OR (2) THE PROPERTY IS REZONED FOR A MORE INTENSIVE USE.

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 INCREASES IN FEES MAY NOT BE ASSESSED AGAINST THE TRACT UNLESS THE NUMBER OF SERVICE UNITS TO BE DEVELOPED ON THE TRACT INCREASES.

6. THIS PROPERTY LIES WITHIN ZONE "X" AS PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) 48329-C0201F WITH THE EFFECTIVE DATE OF SEPTEMBER 16, 2005.

LEGEND

MONUMENT AS DESCRIBED	PROPERTY LINE
ADJOINING PROPERTIES	FENCE LINE
SANITARY SEWER MANHOLE	CONCRETE
AIR CONDITIONER	LIGHT POLE
FIRE HYDRANT / COVERED	GAS METER
WATER LINE	WATER VALVE
SEWER LINE	CLEAN OUT
SANITARY SEWER MANHOLE	MIDLAND TAX ACCT ID

Texas 811
Know what's below.
Call before you dig.

THIS PLAT HAS BEEN CHECKED FOR ACCESSIBILITY OF UTILITIES.

SIGNED: _____
ONCOR ELECTRIC DELIVERY COMPANY

SIGNED: _____
AT&T TEXAS

SIGNED: _____
ATMOS ENERGY

SIGNED: _____
SUDDENLINK COMMUNICATIONS

CERTIFICATE OF APPROVAL

FOR APPROVAL BY THE COMMISSION:

THIS IS TO CERTIFY THAT THE ABOVE AND FOREGOING PLAT OF GARRETT PLACE, SECTION 7, WAS APPROVED BY PROPER ACTION OF THE CITY PLANNING AND ZONING COMMISSION OF THE CITY OF MIDLAND, ON THIS _____ DAY OF _____ 2022.

SIGNED: _____
CHAIRMAN LUCY SISNIEGA

ATTEST: _____
SECRETARY ELIZABETH SHAUGHNESSY

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.

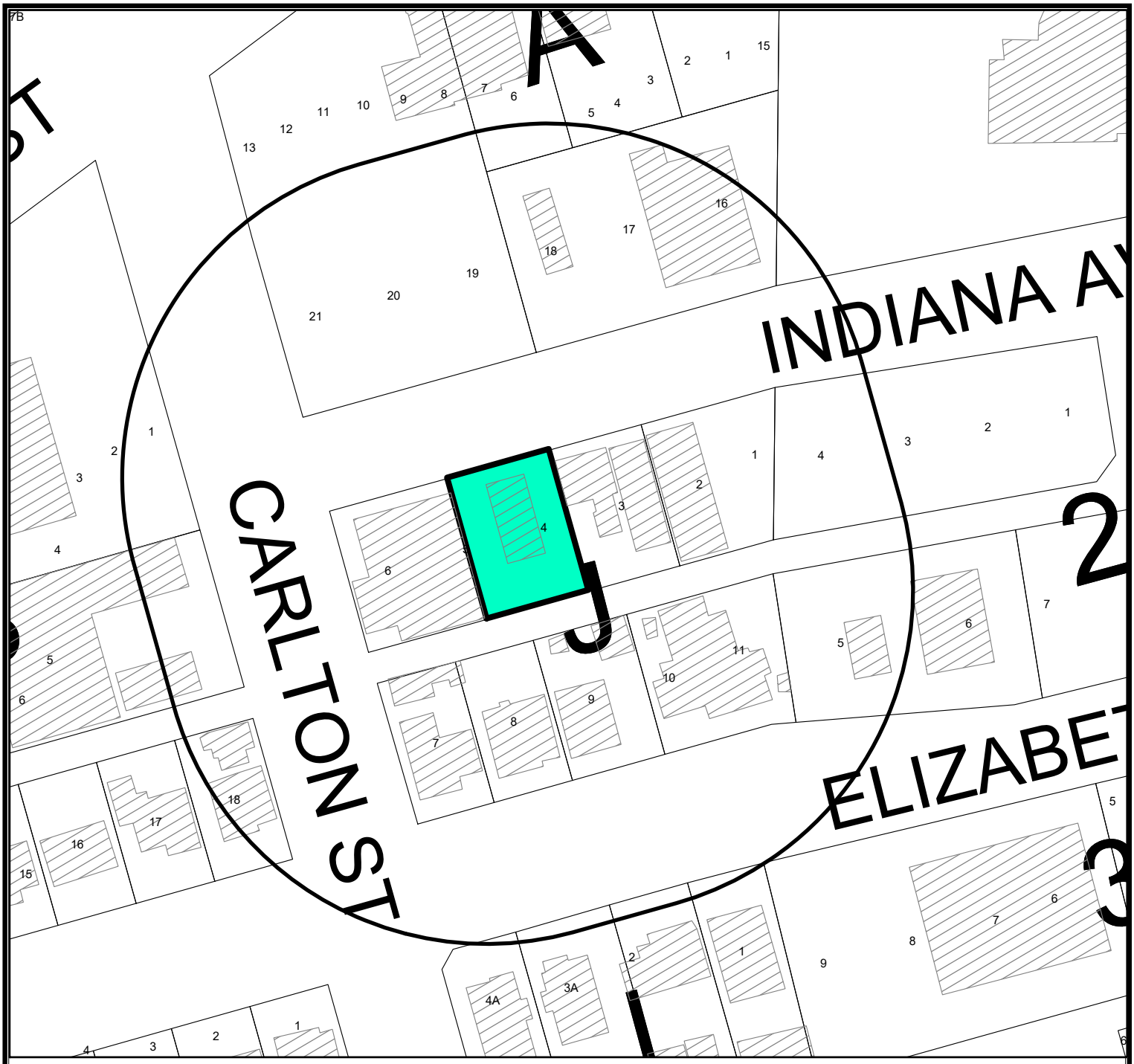
"THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND MARK-UP UNDER THE AUTHORITY OF RJ DAUM, RPLS 4826, ON AUGUST 4TH, 2022. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, PERMIT OR RECORDING PURPOSES."

STATE OF TEXAS
REGISTERED
RJ DAUM
4826
PROFESSIONAL
LAND SURVEYOR

RJ DAUM
TEXAS RPLS 4826

GRAPHIC SCALE

DRAWN BY: KDS DATE: 08/04/2022



LOCATION MAP

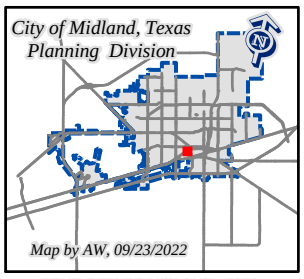
E-22-0086 **Scale: 1" = 200'**

Consider a request by Robert Wilson Sr. for a Special Exception from the City of Midland Zoning Ordinance, Section 5.05 - Nonresidential Zoning District Dimensional Regulations Chart, concerning the minimum lot depth on the east 25-feet of Lot 5 and the west 40-feet of Lot 4, Block J, Garrett Place, City and County of Midland, Texas.

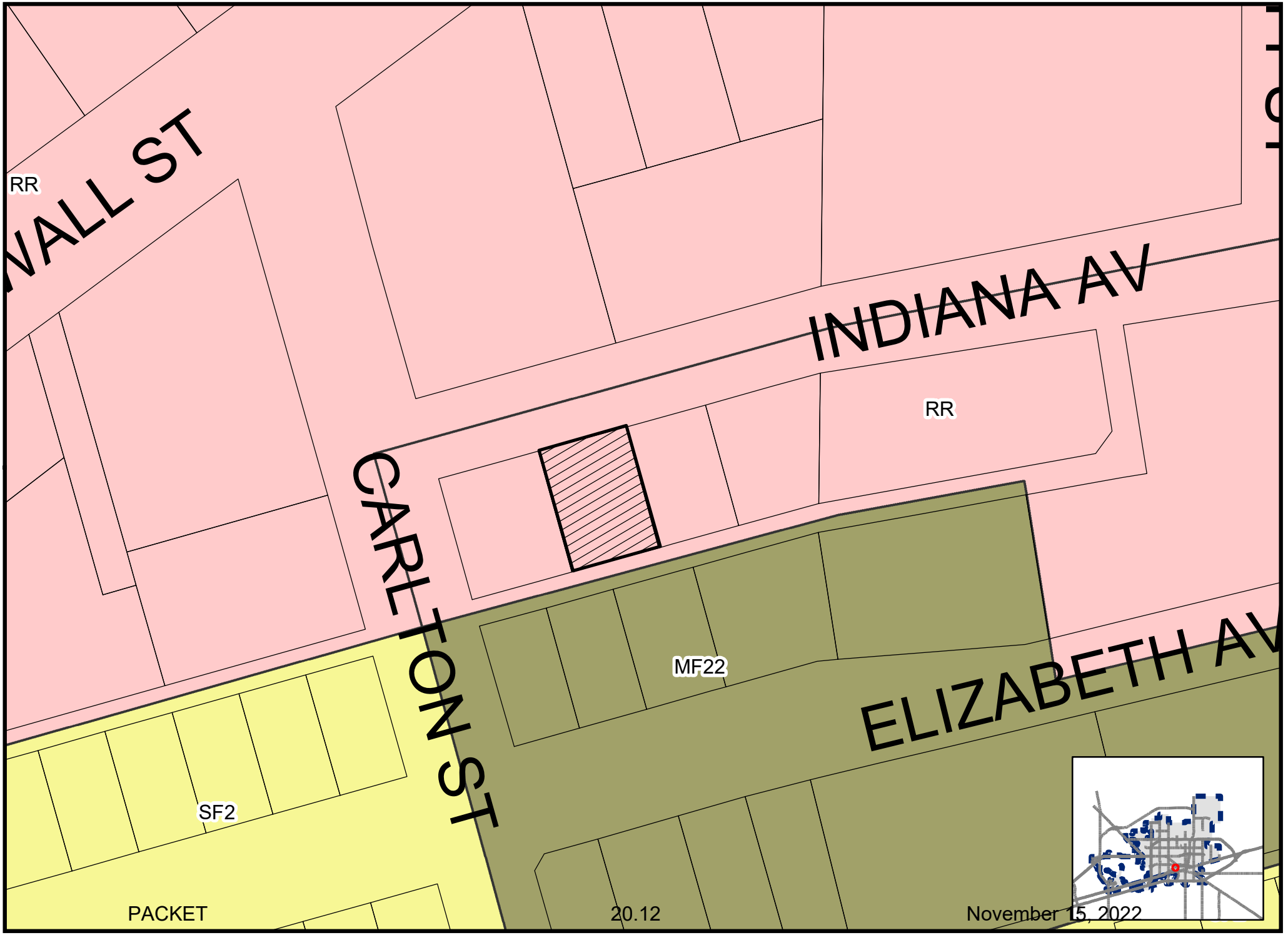
Generally located on the sout side of West Indiana Avenue,approximately 80-feet east of Carton Street (Council District 2)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



November 15, 2022



Map By AW, 10/10/2022

E-22-0086

Scale: 1" = 200'

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.






NO
PARKING
Welcome
Yesterday's News
and Antiques
Open Saturdays 11-3



City Council Meeting

Item Number: 21

Meeting Date: November 15, 2022 (October 25, 2022)

To: City Council / City Manager

From: Landon Ochoa, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITHOUT TERM FOR LOT 22 AND THE WEST 97.3 FEET OF LOT 23, BLOCK 81, PERMIAN ESTATES ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF WEST WALL STREET, APPROXIMATELY 438 FEET WEST OF THOMASON DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AUTOMOBILE OR OTHER MOTORIZED VEHICLE SALES AND SERVICE; 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 2) (DEVELOPMENT SERVICES)

Purpose:

The applicant, LCA Inc., is requesting a Specific Use Designation without Term for to operate a Car Dealership.

Recommended City Council Action:

Approve

Fiscal Impact:

This proposal does not have a significant financial impact to the City.

Surrounding Zoning and Land Use:

This property is currently zoned RR, Regional Retail District, and has an approved SUD without Term for a Food Truck. The properties to the north are zoned SF-2, Single-Family Dwelling District, and the location of residential. The properties to the east and west are zoned RR, Regional Retail and the location of motels. The property to the south across W. Wall Street is zoned C, Commercial District, and the location of a dealership.

Discussion:

The applicant is proposing to use the former used Mobile Food Vendor Park as a Car Dealership. The property is currently vacant and is zoned RR, Regional Retail District. Per section 4.03 Use Chart of the zoning ordinance, a car dealership is allowed in the RR, Regional Retail District with a Specific Use Designation without Term.

The site plan (Exhibit A) provided shows the front of the property will be used for customer parking and car display, while the rear will have parking for additional cars for sale. There is an existing 4,200 square foot building that will only be use as office space; the building has one (1) women's and one (1) men's restroom.

The proposed hours of operation are the following:

Monday through Saturday, 8:00 a.m. to 7:00 p.m.

The Automobile or Other Motorized Vehicle Sales and Services will need to comply with the standards as listed in Section 4.04.A.6 of the Zoning Ordinances.

6. Automobile or Other Motorized Vehicle Sales and Service Standards

a. Allowed by Specific Use Designation, according to the permitted Use Chart.

b. All exterior light sources shall be of a down-light type, indirect, diffused, or shielded type luminaries and so installed as to reduce glare effect and consequent interference with use of adjacent properties and boundary streets.

c. No intermittent or flashing lights shall be permitted.

d. Luminaries shall be mounted at a height not to exceed 30 feet as measured vertically from the horizontal surface of the nearest parking pavement.

e. All building façades shall be constructed with the same masonry materials that meet the masonry regulations for the zoning district in which the property is located.

f. No exterior auditory devices shall be permitted.

This project has been circulated to all City departments for review. Below are the department comments.

Engineering: (Approved)

No objections.

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.]

Building Code: (Approved)

No objections.

Fire: (Approved)

No objection

Planning: (Approved)

No objections.

The Future Land Use Map in the Tall City Tomorrow Comprehensive Plan calls for Urban-High uses in this area, encompassing a higher mix of housing types, major commercial, office and services uses, and limited industrial in suitable locations. Therefore, the new car dealership fit the recommendations of the Tall City Tomorrow Comprehensive Plan. Furthermore, it will stich itself with the already existing businesses that are primary Car Dealerships.

This request was recommended for approval at the September 19, 2022, Planning and Zoning Commission Meeting.

This request meets all requirements; therefore, staff recommends approval of the request of the Specific Use Designation without Term for an Automobile or other Motorized Vehicle Sales and Services, subject to Condition A through C.

Conditions:

A. **That the Automobile and other Motorized Vehicle Sales and Service shall significantly conform to the Site Plan (Exhibit A) which is attached hereto and incorporated herein for all purposes.**

B. **That the development of the automobile or other motorized vehicle sales and services shall comply with the standards listed in Section 4.04. A.6 of the Zoning Ordinance.**

C. **That the applicant shall obtain a Certificate of Occupancy prior to the commencement of the Automobile Sales and Services to ensure that the conditions of this permit are satisfied**

Letters of Objection:

As of October 22, 2022, staff has not received any letters of objection.

Attachments:

Site Plan (Exhibit A)
Application
Maps

.

Morris William Jr.

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 22 AND THE WEST 97.3 FEET OF LOT 23, BLOCK 81, PERMIAN ESTATES ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF WEST WALL STREET, APPROXIMATELY 438 FEET WEST OF THOMASON DRIVE), WHICH IS PRESENTLY ZONED RR, REGIONAL RETAIL DISTRICT, ALLOWING SAID PROPERTY TO BE USED FOR AUTOMOBILE OR OTHER MOTORIZED VEHICLE SALES AND SERVICE; 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 22 and the west 97.3 feet of Lot 23, Block 81, Permian Estates Addition, 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 automobile or other motorized vehicle sales and service (the "Specific Use"), 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 use and development of the Property for the Specific Use:

1. shall significantly conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes; and

2. shall conform to standards set forth in Section 11-4.04.A.6 of the City Code.

B. That the operator shall obtain a Certificate of Occupancy prior to engaging in the Specific Use to ensure that the conditions of this Specific Use Designation Without Term are satisfied.

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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

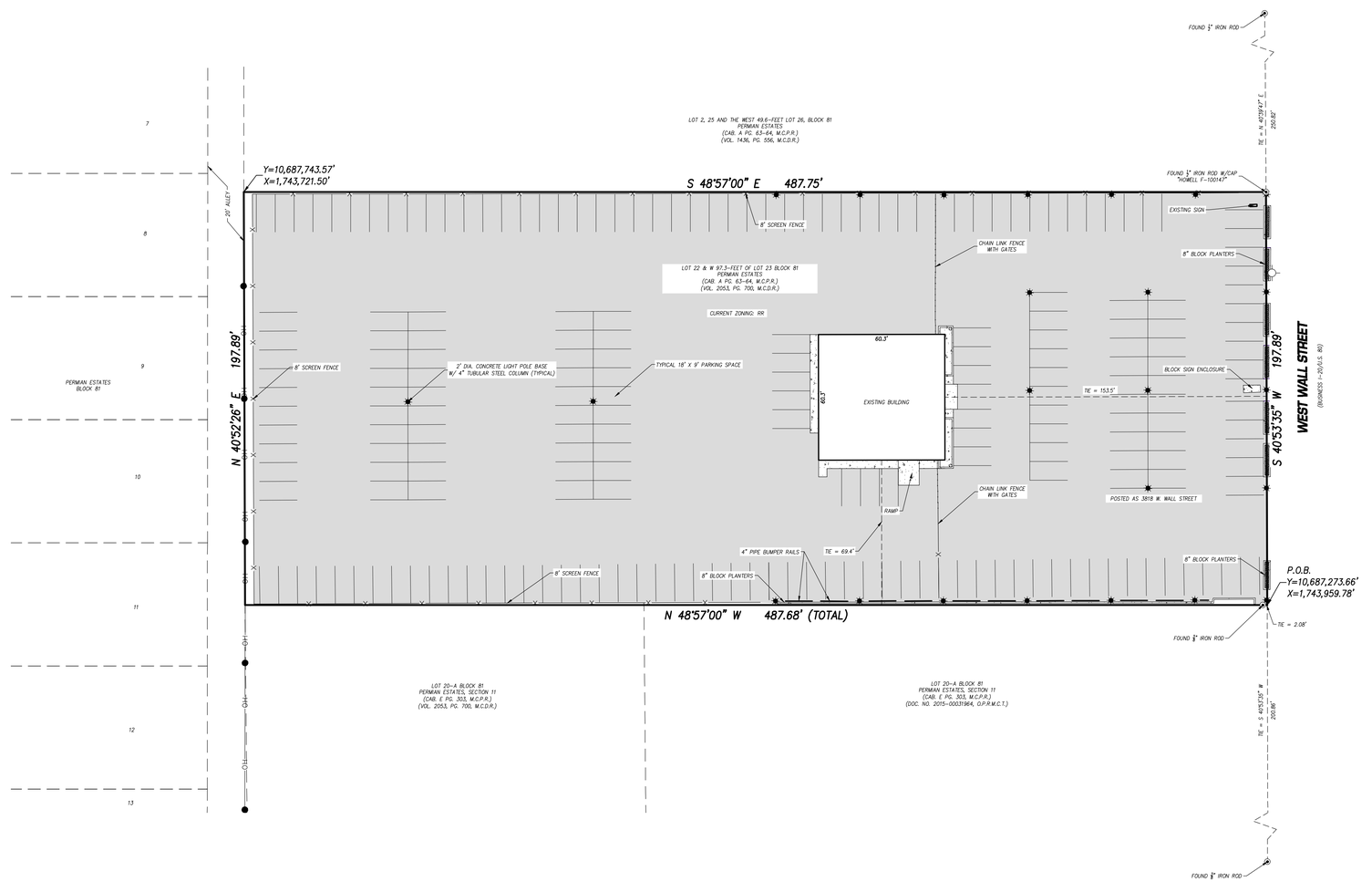
_____
John Ohnemiller, City Attorney

EXHIBIT "A"

EXISTING CONDITIONS & SITE PLAN SURVEY

LOT 22 & THE WEST 97.3-FEET OF LOT 23, BLOCK 81
PERMIAN ESTATES

CABINET A, PAGES 63-64
PLAT RECORDS OF MIDLAND COUNTY, TEXAS



30' 0 30'
SCALE : 1" = 30'

LEGEND

☼	EXISTING FIRE HYDRANT
●	EXISTING POWER POLE
✸	EXISTING STREET LIGHT
⊙	FOUND 1/2" I.R. W/CAP UNLESS OTHERWISE NOTED
○	SET 1/2" I.R. W/CAP UNLESS OTHERWISE NOTED
	EXISTING CONCRETE
	EXISTING PAVEMENT
—X—	EXISTING FENCE
—OH—	EXISTING OVERHEAD ELECTRIC
	PARKING STRIPE
M.C.D.R.	MIDLAND COUNTY DEED RECORDS
M.C.P.R.	MIDLAND COUNTY PLAT RECORDS
O.P.R.M.C.T.	OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS

NOTES:

1. COORDINATES ARE RELATIVE TO THE TEXAS COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE AND NAVD '88, AND BASED UPON WESTERN DATA SYSTEMS VRS NETWORK, MIDLAND STATION (WTLS1012).
2. THE REFERENCE SUBDIVION PLATS ARE SHOWN ON THE SITE PLAN SURVEY.
3. THIS PROPERTY WAS POSTED WITH AN ADDRESS OF 3818 W. WALL STREET, MIDLAND TEXAS.
4. THE SUBJECT PROPERTY IS ZONED: RR

ENG. _____ E.T. _____
SVY. _____ DFT. _____
LCA JOB No. 20220432

LCA ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING
321 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-3058 E-Mail : lca@lcaodessa.com
Personal Service, Today and Tomorrow

E:\2022\2022-JOLLY\DWG\Drafting\Site Sketch\2022-JOLL Site Sketch.dwg, 5/6/2022 2:34:18 PM, AutoCAD PDF (General Documentation).pc3

LCA Job No.: 22-052.1

MIDLAND Planning Division

Specific Use Designation Application (Non-Alcohol)

Case Number: SUDno-22-0030

Ord. Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: LCA, Inc. (Agent)		Phone (432) 332-5058 Email mbo@lcaodessa.com	
Address 521 N. Texas Ave.	City Odessa	State TX	Zip 79761

Property Owner Printed Name: DJK Inc.		Phone (432) 334-8881 Email tomg@icaproperties.com	
Address 700 N. Grant Suite 600	City Odessa	State TX	Zip 79761

Representative *(if different from Applicant or Property Owner)* Firm: LCA, Inc (Agent) Printed Name: LCA, Inc. (Agent)		Phone (432) 332-5058 Email mbo@lcaodessa.com	
Address 521 N. Texas Ave	City Odessa	State TX	Zip 79761

Type of Permit: Non-Alcohol SUD

For Office Use Only
☐ with Term ☐without Term

Is there any Code Enforcement action pending on property? ☐ Yes ■ No

Street Address: 3818 W. Wall

Legal Description
Lot: Block: 81 Subdivision: Lot 22 & the West 97.3 feet of Lot 23, Block 81 Permian Estates (Cab. A, Pgs 63-64 M.C.P.R.)

Current Zoning: RR

Maximum Floor Area: 3,600 S.F.

Maximum Occupancy: 25 Employees

Proposed hours and days of use or operation: 8am -7pm

Reason for request: To operate a car dealership

Applicant's opinion as to why the request will not adversely affect the public safety, health, morals, general welfare, and convenience: This use is very similar to other uses within 1/4 mile of the subject property. Previous use of this property.

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): See attachment	Date:
Applicant (printed):	
Property Owner (signature):	Date:
Property Owner (printed) :	

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 George E. Thornley who, being by me duly sworn, upon oath says: That (s)he is authorized by DJK, Inc. Attn: Tom Glasman, 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.

George E. Thornley
Authorized Agent (*signature*)

Subscribed and sworn to before me, this 24th day of August, 20 22, to certify which witness my hand and seal of office.

Melanie Martinez
My Commission Expires
12/09/2022
ID No. 130046270

Melanie Martinez
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

RECEIVED
AUG 24 2022

FOR OFFICE USE ONLY

BY: James Reber

- ☑ Property Owner Authorization
- ☑ Application Fee
- Check # 38612
- ☑ Dimensioned Site Plan
- ☑ Site Plan in Digital Format (PDF/JPEG)

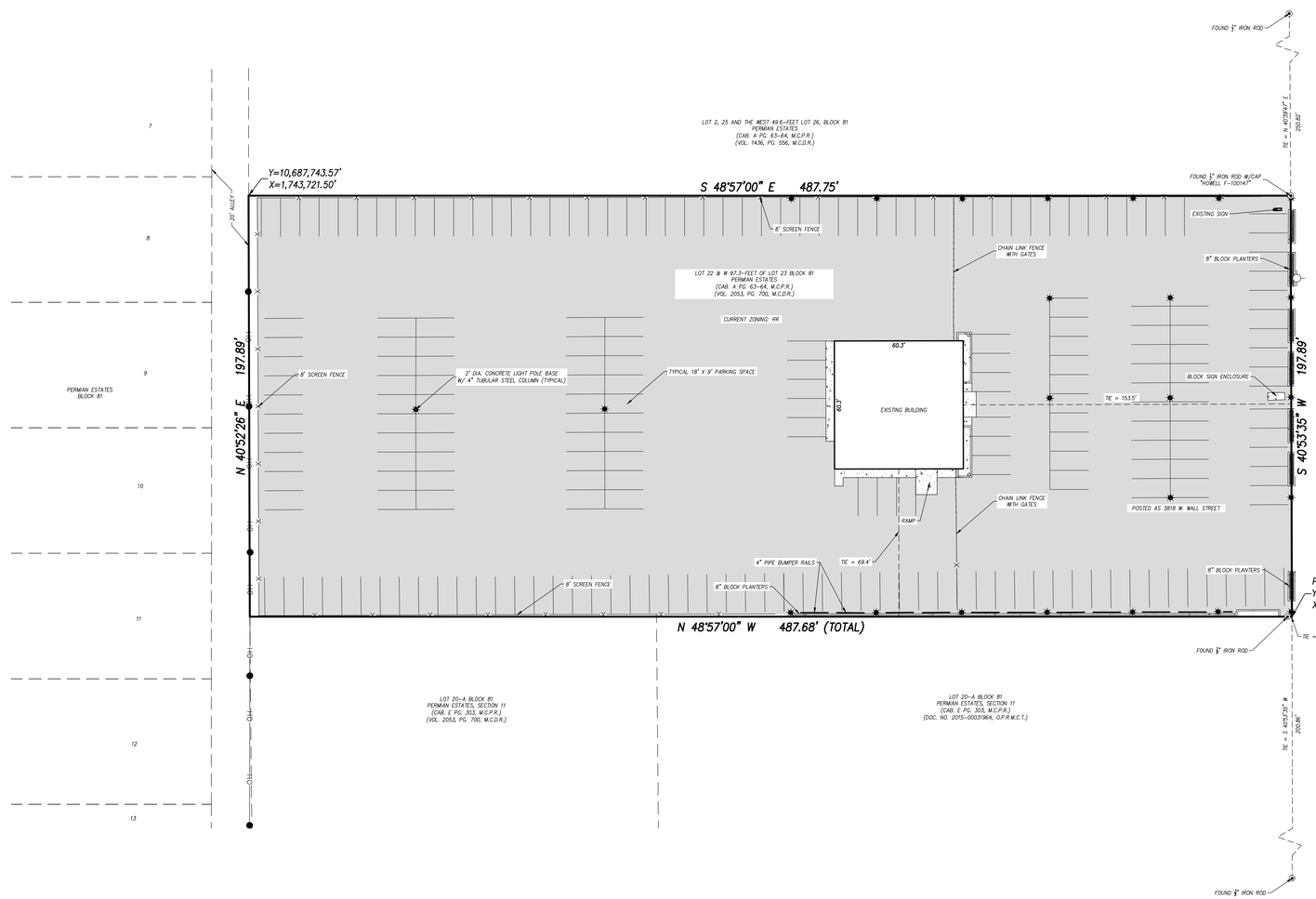
Received By: James Reber Date: 8/24/22

****Application will not be considered for scheduling until reviewed by a planner.****

EXISTING CONDITIONS & SITE PLAN SURVEY

LOT 22 & THE WEST 97.3-FEET OF LOT 23, BLOCK 81 PERMIAN ESTATES

CABINET A, PAGES 63-64
PLAT RECORDS OF MIDLAND COUNTY, TEXAS





30' 0 30'
SCALE : 1" = 30'

LEGEND

	EXISTING FIRE HYDRANT
	EXISTING POWER POLE
	EXISTING STREET LIGHT
	FOUND 1/2" I.R. W/CAP UNLESS OTHERWISE NOTED
	SET 1/2" I.R. W/CAP UNLESS OTHERWISE NOTED
	EXISTING CONCRETE
	EXISTING PAVEMENT
—X—	*EXISTING FENCE*
—OH—	*EXISTING OVERHEAD ELECTRIC*
	PARKING STRIPE
M.C.D.R.	*MIDLAND COUNTY DEED RECORDS*
M.C.P.R.	*MIDLAND COUNTY PLAT RECORDS*
O.P.R.M.C.T.	*OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS*

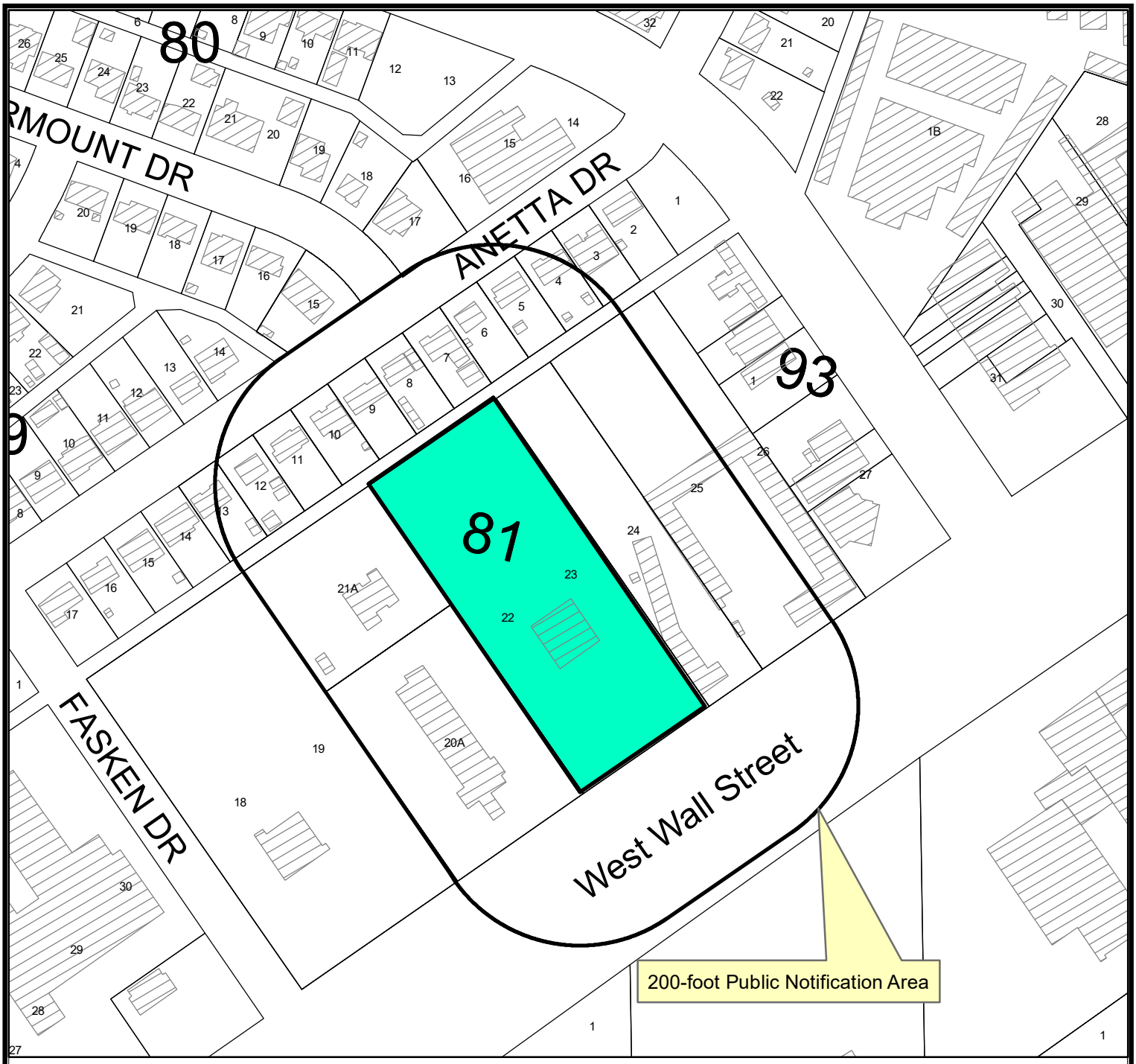
NOTES:

1. COORDINATES ARE RELATIVE TO THE TEXAS COORDINATE SYSTEM, 1983 NAD, CENTRAL ZONE AND NAVD '88, AND BASED UPON WESTERN DATA SYSTEMS VRS NETWORK, MIDLAND STATION (WTLS1012).
2. THE REFERENCE SUBDIVION PLATS ARE SHOWN ON THE SITE PLAN SURVEY.
3. THIS PROPERTY WAS POSTED WITH AN ADDRESS OF 3818 W. WALL STREET, MIDLAND TEXAS.
4. THE SUBJECT PROPERTY IS ZONED: RR

ENG._____ E.T. _____
SVY._____ DFT. _____
LCA JOB No. 20220432

ENVIRONMENTAL • CIVIL ENGINEERING • LAND SURVEYING
321 North Texas, Odessa Tx. 79761 F-001363 F-10034300
Phone # (432) 332-3058 E-Mail : lca@lcaodessa.com

E:\2022\2022-JOLLY\DWG\Drafting\Site Sketch\2022-JOLLY Site Sketch.dwg, 5/6/2022 2:34:18 PM, AutoCAD PDF (General Documentation).pc3



LOCATION MAP

SUDwo-22-0030 **Scale: 1" = 2,243'**

Consider a request by LCA Inc. for a Specific Use Designation without Term for a car dealershipon a Lot 22 & the west 97.3 feet of lot 23, Block 81, Permian Estates Addition, City and County of Midland, Texas.

Generally located on the north side of West Wall Street, approximately 438-feet west of Thomason Drive. (Council District 2)

PACKET 21.13

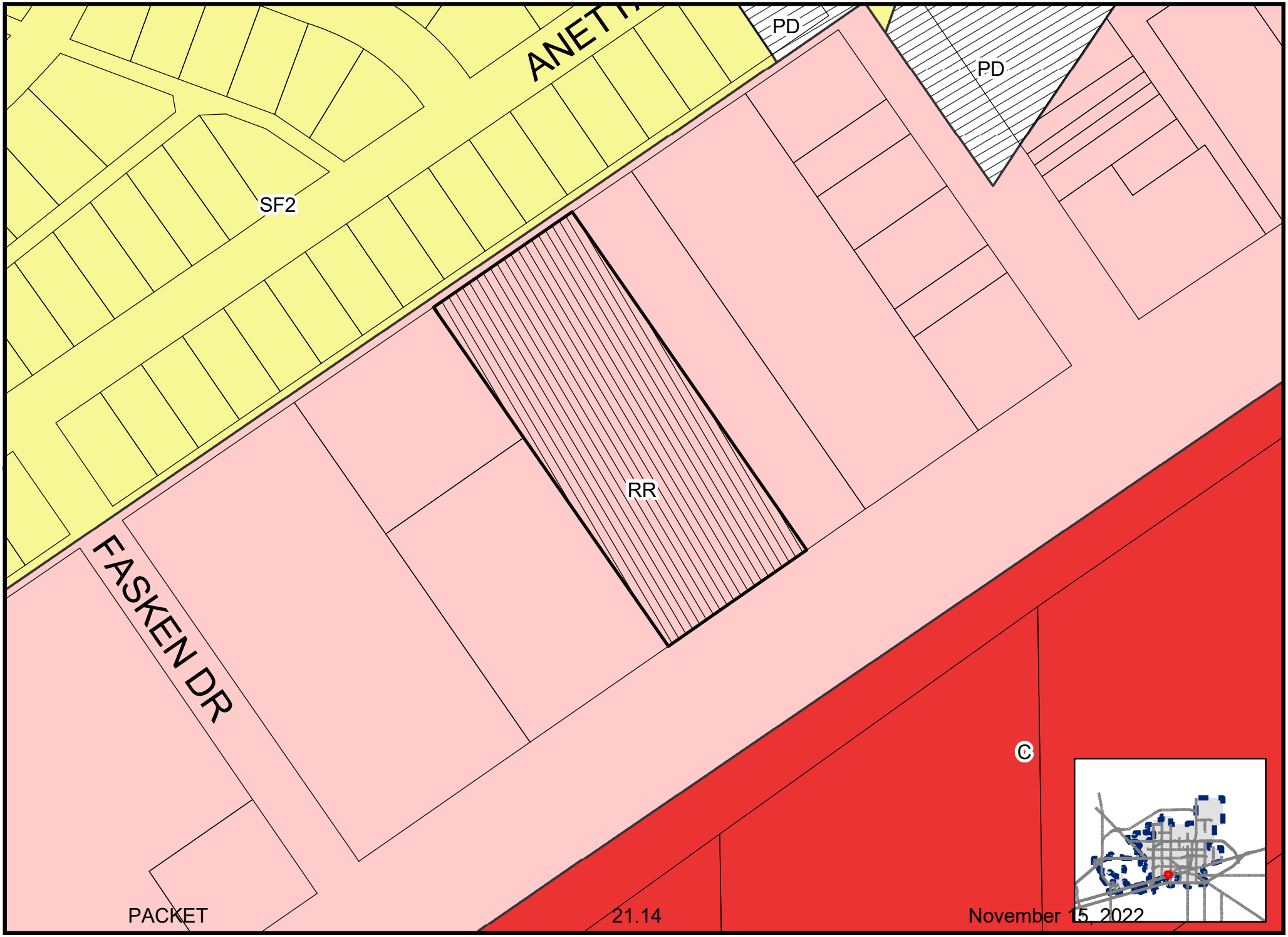
LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



November 15, 2022

©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND NOR IS IT DESIGNED TO BE USED AS THE 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, 8/31/2022

SUDwo-22-0030

Scale: 1" = 1,715'

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.


Platinum
MOTORS
ENTER


D TRUCK
Alley
EST.
2020
mily and Locally
ned Businesses"
. Wall St. Midland, TX


All American
DODGE
Jeep
RAM


Super 8
Super 8

City Council Meeting

Item Number: 22

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Tina Jauz, Assistant City Manager

Subject: RESOLUTION REAUTHORIZING AND ADOPTING GUIDELINES AND CRITERIA FOR TAX ABATEMENT AGREEMENTS AS AUTHORIZED BY CHAPTER 312 OF THE TEXAS TAX CODE; AND AUTHORIZING THE CITY SECRETARY TO SUBMIT A COPY OF THIS RESOLUTION TO THE TEXAS COMPTROLLER OF PUBLIC ACCOUNTS (DISTRICT: ALL) (CITY MANAGER)

Purpose:

Resolution reauthorizing and adopting guidelines and criteria for tax abatement agreements as authorized by Chapter 312 of the Texas Tax Code; and authorizing the city secretary to submit a copy of this resolution to the Texas Comptroller of public accounts.

Recommended City Council Action:

Approve

Fiscal Impact:

There is no fiscal impact in approving this resolution.

Discussion:

As outlined in the Texas Tax Code, a city must adopt guidelines and criteria before entering into a tax abatement agreement with a property owner. As shown in the attached guidelines and criteria, it addresses such items as: length of term, proposed improvements, limits to the use of the property, recapture of revenue, and possible public improvements.

To keep the same guidelines and criteria, the guidelines must be reauthorized. This reauthorization will extend the existing guidelines and criteria for another two years as outlined in Chapter 312 and will apply to new Tax Abatement Agreement applications. The City Council

will then consider each application based on the criteria.

Morris William Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION REAUTHORIZING AND ADOPTING GUIDELINES AND CRITERIA FOR TAX ABATEMENT AGREEMENTS AS AUTHORIZED BY CHAPTER 312 OF THE TEXAS TAX CODE; AND AUTHORIZING THE CITY SECRETARY TO SUBMIT A COPY OF THIS RESOLUTION TO THE TEXAS COMPTROLLER OF PUBLIC ACCOUNTS

WHEREAS, on August 25, 2020, the Council approved Resolution No. 2020-143, by which the Council reauthorized and adopted guidelines and criteria governing tax abatement agreements (the "Guidelines and Criteria for Tax Abatement Agreements"); and

WHEREAS, the Council held a public hearing on November 15, 2022, regarding the proposed reauthorization and adoption of the Guidelines and Criteria for Tax Abatement Agreements at which members of the public were given the opportunity to be heard; and

WHEREAS, the Council finds that the statutory prerequisites for reauthorization and adoption of the Guidelines and Criteria for Tax Abatement Agreements have been satisfied; and;

WHEREAS, the Council finds it to be in the public interest to reauthorize and adopt the Guidelines and Criteria for Tax Abatement Agreements, which will allow the City to consider requests for tax abatement;

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

SECTION ONE. That the Guidelines and Criteria for Tax Abatement Agreements, which are attached hereto as Exhibit "A" and made a part hereof for all legal purposes, are hereby approved, reauthorized and adopted as authorized by Chapter 312 of the Texas Tax Code.

SECTION TWO. That the City Secretary is hereby authorized and directed to submit a copy of this resolution to the Texas Comptroller of Public Accounts, Property Tax Division, P.O. Box 13528, Austin, Texas 78711-3528.

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 special meeting on the _____ day of _____, A.D., 2022, by the following vote:

Council members voting "AYE":

Council members voting "NAY":

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

_____
Robert Patrick, City Manager

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

CITY OF MIDLAND, TEXAS
GUIDELINES AND CRITERIA
FOR TAX ABATEMENT AGREEMENTS

The guidelines and criteria contained herein were reauthorized and adopted on the 15th day of November, 2022, by the City Council of the City of Midland, Texas, in accordance with Texas Tax Code, Chapter 312, "Property Redevelopment and Tax Abatement Act". These guidelines and criteria are effective for two years from the date adopted unless amended as provided for in the above referenced act.

1. The City of Midland may agree in writing with the owner of taxable real property that is located in a reinvestment zone, but that is not in an improvement project financed by tax increment bonds, to exempt from taxation all or a portion of the value of the real property or of tangible personal property located on the real property, or both, for a period not to exceed ten years, subject to the rights of holders of outstanding bonds of the municipality, on the condition that the owner of the property make specific improvements or repairs to the property. As used herein, a "reinvestment zone" is an area designated by the City Council of the City of Midland as a reinvestment zone in accordance with the Texas Tax Code §312.201, and meeting the criteria for a reinvestment zone set forth in the Texas Tax Code §312.202.

2. An agreement may provide for the exemption of the real property in each year covered by the agreement only to the extent its taxable value as determined by the Midland Central Appraisal District for that year exceeds its value on January 1 of the year in which the agreement is executed.

3. An agreement may provide for the exemption of tangible personal property located on the real property in each year covered by the agreement other than tangible personal property that was located on the real property at any time before the period covered by the agreement with the municipality.

4. An improvement, repair, development, or redevelopment taking place under a tax abatement agreement must conform to the comprehensive zoning ordinance.

5. The agreements made with the owners of property in the same reinvestment zone must contain identical terms for the portion of the value of the property that is to be exempt and the duration of the exemption.

6. The property subject to a tax abatement agreement may be located in the extraterritorial jurisdiction of the municipality. In that event, the agreement applies to taxes of the municipality if the municipality annexes the property during the period specified in the agreement.

7. Property that is in a reinvestment zone and that is owned or leased by a member of the City Council of the City of Midland, Texas, or by a member of a zoning or planning board or commission of the City of Midland is excluded from property tax abatement.

8. The City Council of the City of Midland may agree in writing with the owner or lessee of real property, which is located in a reinvestment zone, to exempt from taxation for a period not to exceed ten years, a portion of the value of the real property or of personal property owned or leased by a certificated air carrier. The certificated air carrier must make specific improvements on the property. A lessee, to be eligible for tax abatement, must lease the property for at least ten years and agree to make certain improvements to the property. All of the guidelines and criteria herein shall apply to an agreement with the certificated air carrier.

9. All tax abatement agreements must:

   a. list the kind, number, and location of all proposed improvements of the property;

   b. provide access to and authorize inspection of the property by City of

Midland employees to ensure that the improvements or repairs are made according to the specifications and conditions of the agreement;

c. limit the uses of the property consistent with the general purpose of encouraging development or redevelopment of the zone during the period that property tax exemptions are in effect;

d. provide for recapturing property tax revenue lost as a result of the agreement if the owner of the property fails to make the improvements or repairs as provided by the agreement;

e. contain each term agreed to by the owner of the property;

f. require the owner of the property to certify annually to the governing body of each taxing unit that the owner is in compliance with each applicable term of the agreement; and

g. provide that the governing body of the City of Midland may cancel or modify the agreement if the property owner fails to comply with the agreement.

10. The City Council of the City of Midland may include in the tax abatement agreement provisions for:

a. improvements or repairs by the City of Midland to streets, sidewalks, and utility services or facilities associated with the property, except that the agreement may not provide for lower rates than are made for other services or properties of a similar character, though refundable utility deposits may be adjusted as part of the agreement;

b. an economic feasibility study, including a detailed list of estimated improvement costs, a description of the methods of financing all

estimated costs, and the time when related costs or monetary obligations are to be incurred;

c. a map showing existing uses and conditions of real property in the reinvestment zone; and

d. a map showing proposed improvements and uses in the reinvestment zone.

11. The Midland City Council will consider capital investment, increased employment and additional payroll when considering tax abatement.

12. An agreement with a lessee may provide for the exemption of tangible personal property located on the real property in each year covered by the agreement other than tangible personal property that was located on the real property at any time before the period covered by the agreement with the municipality, including inventory or supplies.

13. An agreement may provide for the recapture of all or a portion of property tax revenue abated as a result of the agreement if the owner of the property fails to create all or a portion of the number of new jobs provided by the agreement, and may provide for payment of a penalty or interest, or both, on that recaptured property tax revenue.

14. An agreement may provide for the recapture of all or a portion of property tax revenue abated as a result of the agreement if the appraised value of the property subject to the agreement does not attain the value specified in the agreement, and may provide for payment of a penalty or interest, or both, on that recaptured property tax revenue.

15. An agreement may provide that the City may offset any amounts due and payable under a Tax Abatement Agreement against any debt, (including financial incentives and taxes) lawfully due the City from the person, individual, corporation or entity receiving the tax abatement, regardless of whether the amount due arises pursuant to the terms of the

Tax Abatement Agreement or otherwise and regardless of whether or not the debt due the City has been reduced to judgment by a court.

16. The property owner who is given an abatement is solely responsible for timely filing an exemption application for the tax abatement each year with the appraisal district.

17. To be designated as a reinvestment zone under the subchapter, an area must be reasonably likely, as a result of the designation, to contribute to the retention or expansion of primary employment or to attract major investment in the zone that would be a benefit to the property and that would contribute to the economic development of the municipality or the other criteria listed in Section 312.202 of the Texas Tax Code.

18. These guidelines and criteria may be amended or repealed only by a vote of three-fourths of the Midland City Council.

19. These criteria and guidelines provide for the availability of tax abatement for both new facilities and structures and for the expansion or modernization of existing facilities and structures.

20. The adoption of these guidelines and criteria by the Midland City Council does not limit the discretion of the Midland City Council to decide whether or not to enter into a specific tax abatement agreement.

21. The adoption of these guidelines and criteria by the Midland City Council does not create any property, contract, or other legal right in any person to have the Midland City Council consider or grant a specific application or request for tax abatement.

22. The City Secretary shall provide a copy of these guidelines and criteria to the Texas Comptroller of Public Accounts, and shall file all required forms with the Texas Comptroller of Public Accounts, Property Tax Division, P.O. Box 13528, Austin, Texas 78711-3528.

Tax Abatement Steps for the City of Midland:

1. **TAX ABATEMENT RESOLUTION:** The City Council adopted a resolution stating that it elects to become eligible to participate in a tax abatement. The Council approved a resolution on April 24, 2001.

2. **GUIDELINES:** The City Council adopted guidelines and criteria governing tax abatement agreements, and the guidelines and criteria are effective for two years from the date adopted. Most recent guidelines need to be evaluated and reviewed.

3. **REINVESTMENT ZONE:** The City Council must hold a public hearing and adopt an ordinance designating a reinvestment zone.

   A. At least seven days before the public hearing, notice must be:
      i. Published in a newspaper having general circulation in the municipality and
      ii. Delivered in writing to the presiding officer of the governing body of each taxing unit that includes in its boundaries real property that is to be included in the proposed reinvestment zone.

4. **TAX ABATEMENT AGREEMENT:** At a regularly scheduled Council meeting, a majority of total Council members (not just a majority of a quorum) must vote to approve a tax abatement agreement with the owner of taxable real property that is located in the reinvestment zone.

   A. The public notice of a meeting at which the governing body will consider the approval of a tax abatement agreement must be given at least 30 days before the scheduled time of the meeting and must contain:

      i. The name of the property owner and the name of the applicant for the tax abatement agreement,
      ii. The name and location of the reinvestment zone in which the property subject to the agreement is located,
      iii. A general description of the nature of the improvements or repairs included in the agreement, and
      iii. The estimated cost of the improvements or repairs.

5. **NOTIFY OTHER TAX ENTITIES AND MCAD:** Not later than the seventh day before entering into a tax abatement agreement, the City Council or a designated officer or employee of the municipality must deliver to the presiding officer of the governing body of each other taxing unit in which the property to be subject to the agreement is located a written notice that the municipality intends to enter into the agreement, and the notice must include a copy of the proposed agreement.

***If an ordinance established an existing reinvestment zone prior to the expiration of the last guidelines and criteria, a new ordinance won't be needed if the Council reauthorizes the expired guidelines and criteria. However, a *new* reinvestment zone ordinance will be needed if Council adopts new guidelines and criteria that differ from the guidelines and criteria that were in effect when the ordinance was approved.**

City Council Meeting

Item Number: 23

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: **The proposed granting of oil and gas well permits to Pioneer Natural Resources, USA, Inc. ("Operator") for the drilling of the following oil and gas wells: Stimson W17A 1H; Stimson W17B 2H; Stimson W17C 3H; Stimson W17D 4H; Stimson W17E 5H; Stimson W17F 6H; Stimson W17G 7H; Stimson W17H 8H; Stimson W17I 9H; and Stimson W17J 10H; said wells being generally located between 375 feet and 376 feet south of Arapahoe Road and between 1,040 feet and 1,220 feet east of Todd Drive extension (District 1) (Development Services)**

Purpose:

The proposed granting of oil and gas well permits to Pioneer Natural Resources, USA, Inc. ("Operator") for the drilling of the following oil and gas wells: Stimson W17A 1H; Stimson W17B 2H; Stimson W17C 3H; Stimson W17D 4H; Stimson W17E 5H; Stimson W17F 6H; Stimson W17G 7H; Stimson W17H 8H; Stimson W17I 9H; and Stimson W17J 10H; said wells being generally located 375 feet and 376 feet south of Arapahoe Road and between 1,040 feet and 1,220 feet east of Todd Drive extension. 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:

Direction/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 exhibits. A 24 ft. sound wall will be used during drilling and fracturing operations being located on the west and south sides of location. Closest upcoming neighborhood approximately 1,550 feet to the north east of the drill pad site. Pad site is planned to be a 20 well pad site. No quiet frac system being used. Tank Battery will be in the County to the east of Elkins Road. The operator has a surface agreement. Receiving support of the Oil & Gas Advisory Committee, Pioneer Natural Resources is requesting the following variances:

(1) Pioneer Natural Resources requests to allow for twenty-four-hour fracing operations.
(2) Pioneer Natural Resources requests variance to close reserve pit 3 months (90 days) after operations are completed on all wells on the pad.
(3) Pioneer Natural Resources requests a variance to remove drill cuttings from surface location to be taken off site.
(4) Pioneer Natural Resources requests variance for irrigation and landscaping of the pad. Proposed fencing provides adequate screening around the pad.

Attachments: Applications; Location maps; Exhibit - Drill site maps, 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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17A 1H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1040' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

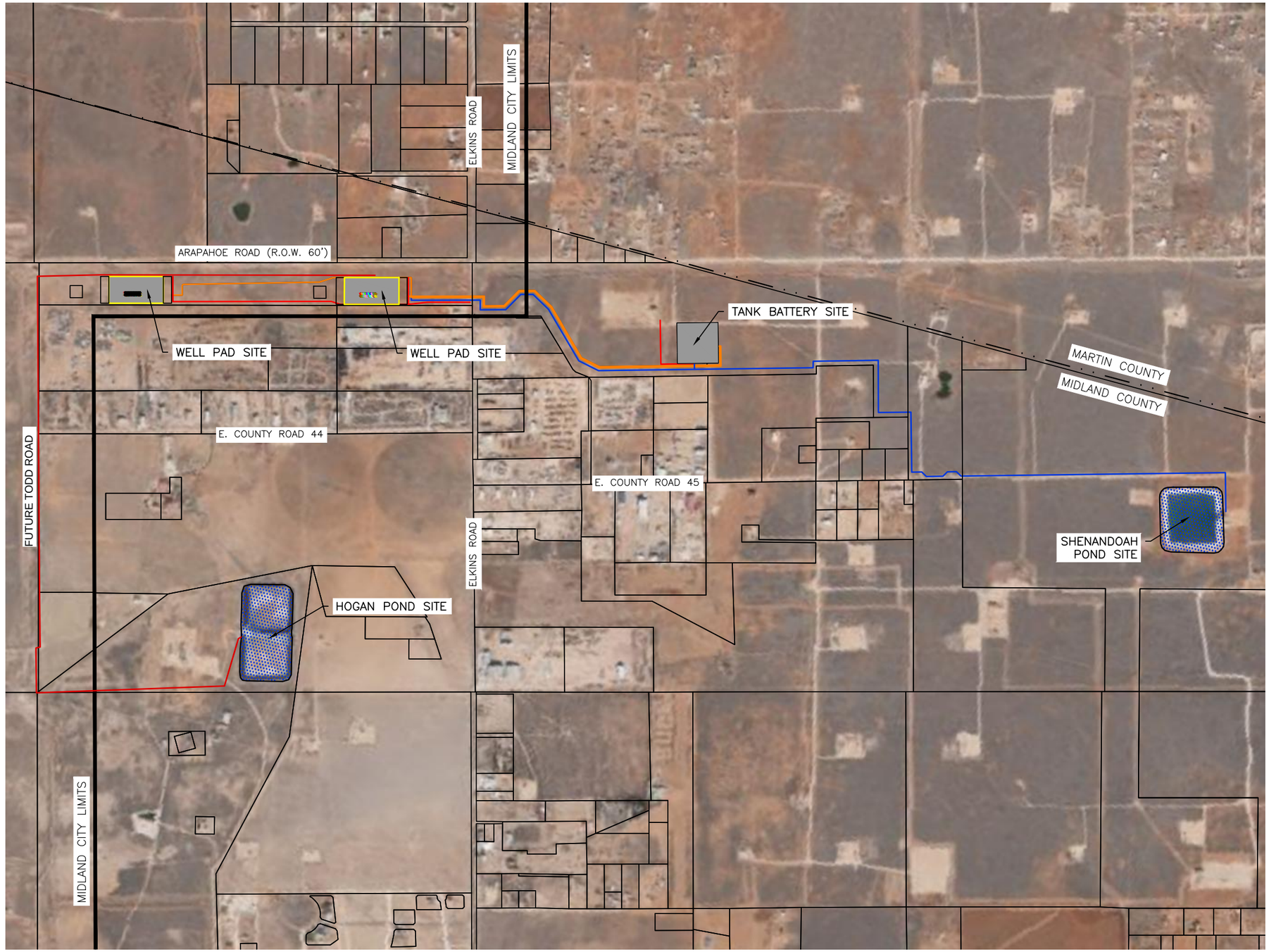
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



N

0' 1200' 2400'

SCALE: 1" = 1200'

NOTES:

1. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.
2. ANY ADJACENT WELLS ARE BASED SOLELY OFF RAILROAD COMMISSION (RRC) RECORDS AND ACCURACY CANNOT BE GUARANTEED.
3. ANY LEASE INFORMATION DEPICTED IS PROVIDED BY THE CLIENT.
4. WELL LOCATION IS APPROXIMATELY 2.0 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- PROPOSED WELL PAD SITE
- TANK BATTERY SITE
- POND SITE
- PROPOSED FLOWLINE
- PROPOSED PRODUCED WATERLINE
- PROPOSED TEMPORARY WATERLINE
- PROPOSED ELECTRICAL
- E — E — EXISTING OVERHEAD ELECTRICAL
- UG — UG — EXISTING BURIED PIPELINE

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 4/27/2022
REV.: 05/16/2022 J. ALVAREZ
BY: J. GONZALEZ
AVO: 39678.698

PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "N"
DRILL SITE, GATHERING LINES, ELECTRICAL

STIMSON 17 PADS

LOCATED IN
SECTION 17, BLOCK 38,
TOWNSHIP-1-SOUTH,
T. & P. R.R. CO. SURVEY,
ABSTRACT NO. 152,
MIDLAND COUNTY, TEXAS

I:\39000s\39678\698\CADD\SheetsMLD\EXHIBIT_PLATS\039678.698_EXHIBIT_N_DRILL_SITE.dwg

NOTES:
1. THIS DOES NOT CONSTITUTE A BOUNDARY SURVEY.
2. ANY ADJACENT WELLS ARE BASED SOLELY OFF RAILROAD COMMISSION (RRC) RECORDS AND ACCURACY CANNOT BE GUARANTEED.
3. ANY LEASE INFORMATION DEPICTED IS PROVIDED BY THE CLIENT.
4. WELL LOCATIONS ARE APPROXIMATELY 2.0 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

GENERAL COORDINATES FOR MULTI-WELL SITE:
NAD83-TX-CENTRAL
N: 10724759.7'
E: 1764235.5'
LAT: 32.081003°
LON: -102.051974°
NAD27-TX-CENTRAL
N: 882154.4'
E: 1467776.3'
LAT.: 32.080803°
LON.: -102.051533°
NAVD88 ELEVATION: 2798'

EXISTING WELL SITE
STIMSON-BURLEY "H" #1

LEASE ROAD

FENCED IN YARDS

ARAPAHOE ROAD (R.O.W. 60')

TANK BATTERY SITE

169'

PROPOSED WELL LOCATION SEE LEGEND FOR NAME

MIDLAND CITY LIMITS

R500.0' (TYP.)

R860.0' (TYP.)

MIDLAND CITY LIMITS

LEASE ROAD

FENCED IN YARD

LEGEND

●	STIMSON W17A #1H
●	STIMSON W17B #2H
●	STIMSON W17C #3H
●	STIMSON W17D #4H
●	STIMSON W17E #5H
●	STIMSON W17F #6H
●	STIMSON W17G #7H
●	STIMSON W17H #8H
●	STIMSON W17I #9H
●	STIMSON W17J #10H
●	W17K #11H
●	W17L #12H
●	W17M #13H
●	W17N #14H
●	W17O #15H
●	W17P #16H
●	W17Q #17H
●	W17R #18H
●	W17S #19H
●	W17T #20H
MULTI-COLOR	860-FOOT BUFFER/HALO
MULTI-COLOR	500-FOOT BUFFER/HALO
	PROPOSED WELL PAD SITE
	PROPERTY OWNERSHIP BOUNDARY
	CITY LIMITS
BPL	BURIED PIPELINE
E	OVERHEAD ELCTRIC
X	FENCE

N

0' 300' 600'

SCALE: 1" = 300'

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

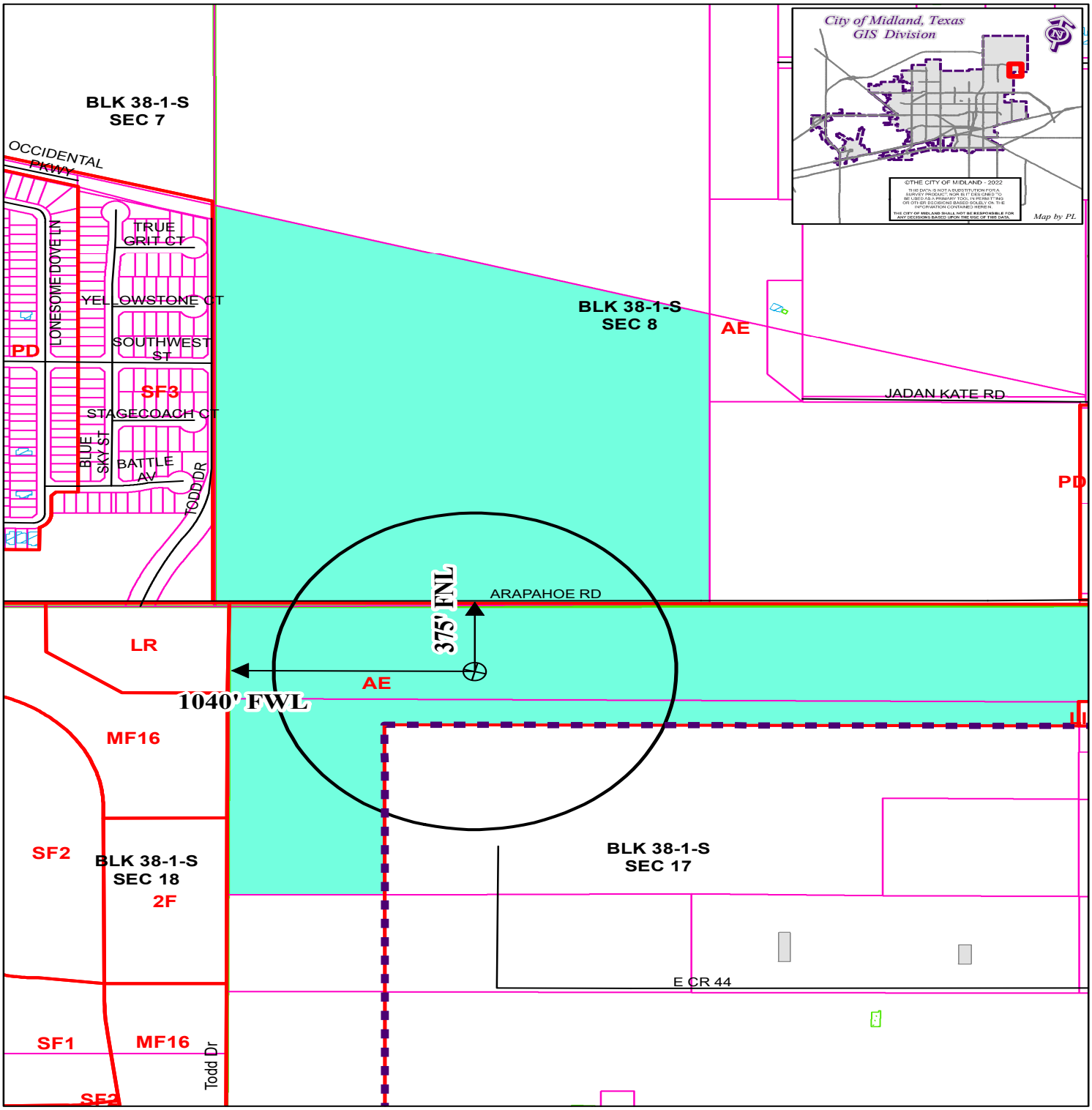
DATE: 10/21/2021
REV.: 05/16/2022
BY: J. ALVAREZ
AVO: 39678.698

PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "E"
AERIAL SITE PLAN

LOCATED IN
SECTION 17, BLOCK 38,
TOWNSHIP-1-SOUTH,
T. & P. R.R. CO. SURVEY,
ABSTRACT NO. 152,
MIDLAND COUNTY, TEXAS

I:\39000s\39678\698\CADD\SheetsMLD\EXHIBIT_PLATS\039678.698_EXHIBIT_E_AERIAL_SITE_PLAN.dwg



LOCATION AND ZONING MAP

Oil-044075-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1040' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,040 feet east of Todd Drive extension.

Stimson W17A 1H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 1F3	ONE-FAMILY DWELLING	C1R1, C1R2, C1R3	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17B 2H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1060' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

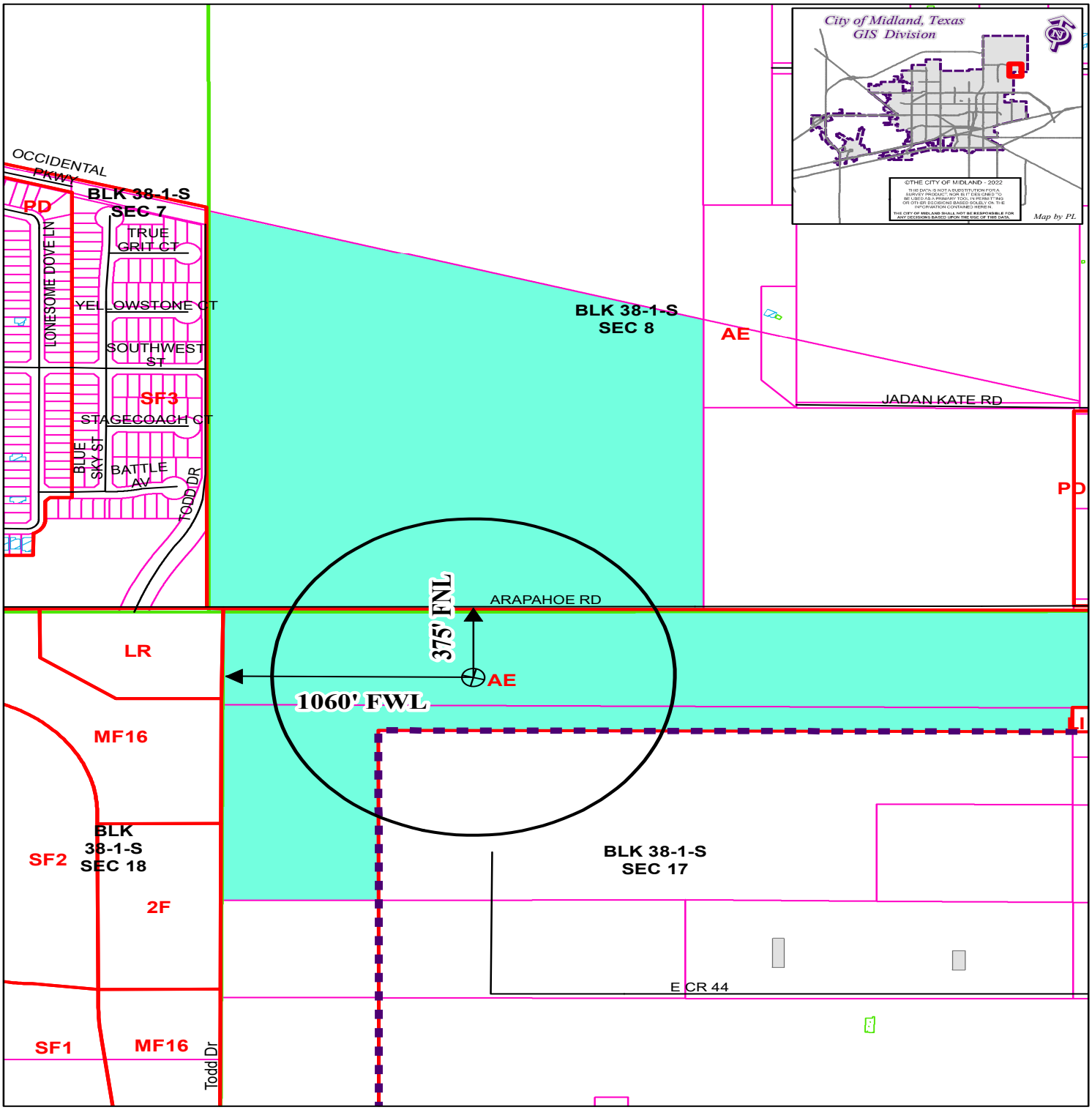
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044074-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1060' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,060 feet [illegible] Todd Drive extension.

Stimson W17B 2H

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
[illegible]	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17C 3H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1080' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

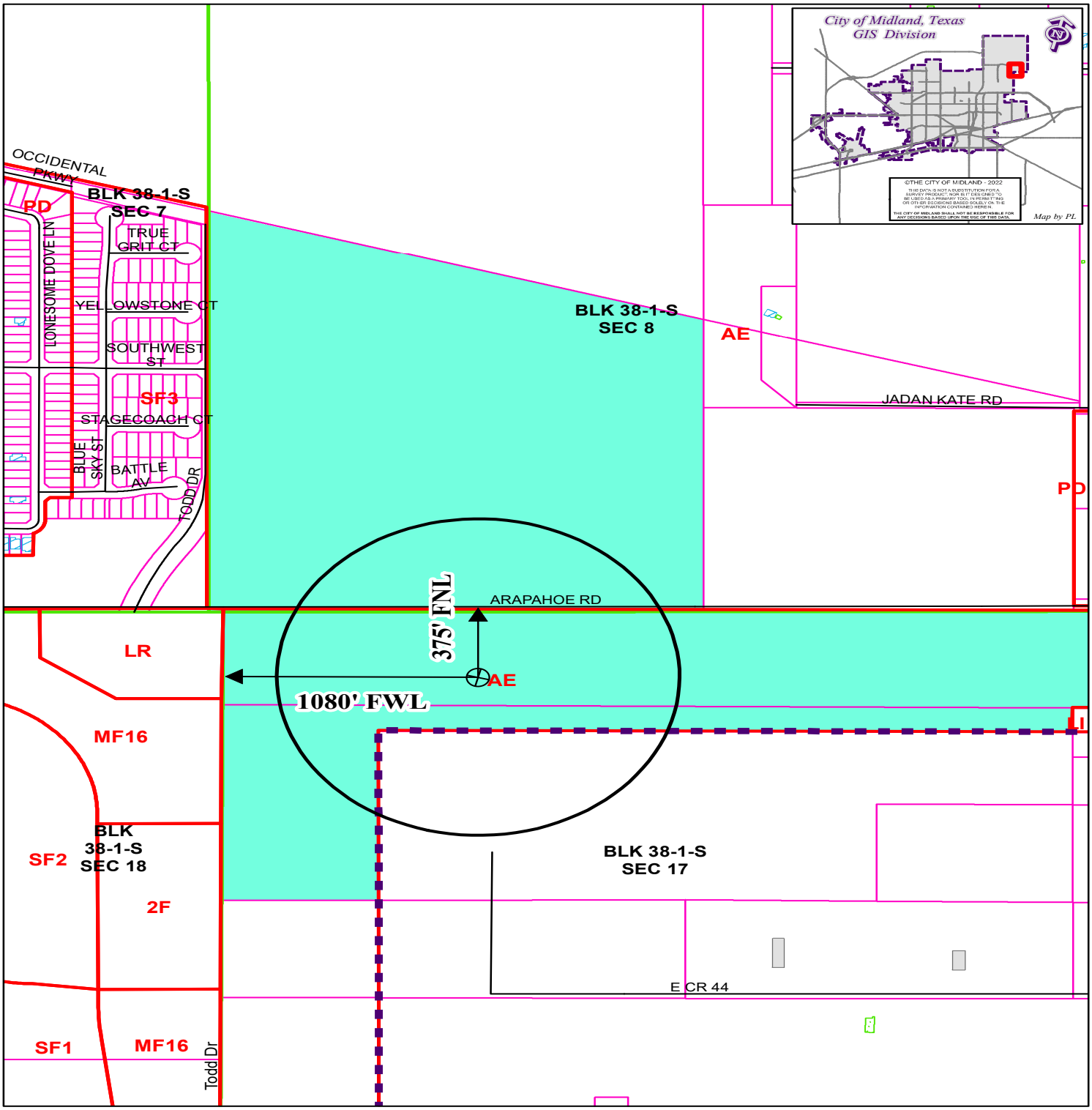
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044073-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1080' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,080 feet [illegible] Todd Drive extension.

Stimson W17C 3H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, SF3	ONE-FAMILY DWELLING	CR1, CR2, CRR	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17D 4H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1100' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

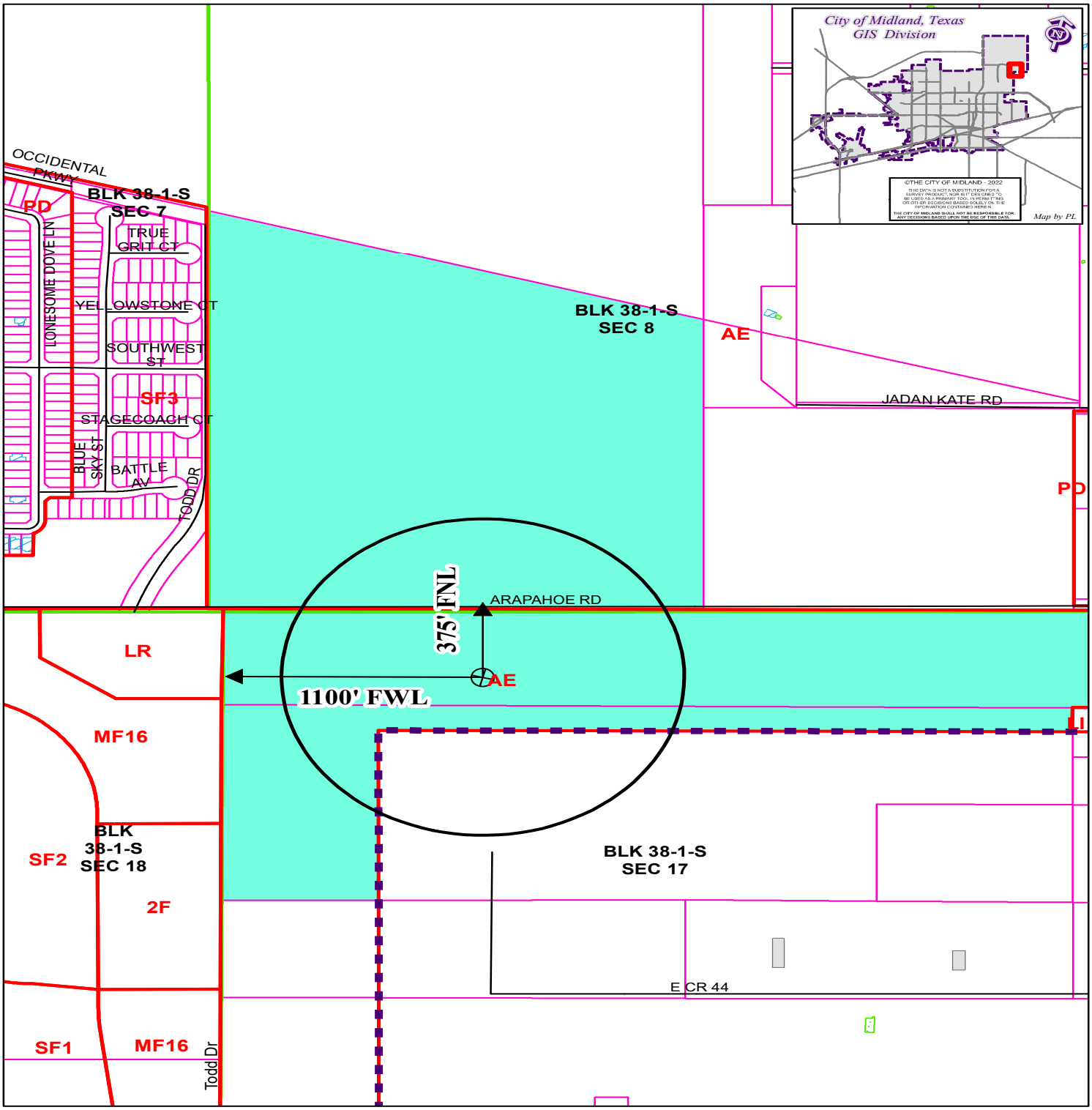
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044072-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1,100' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,100 feet [illegible] Todd Drive extension.

Stimson W17D 4H

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
SE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17E 5H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1120' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

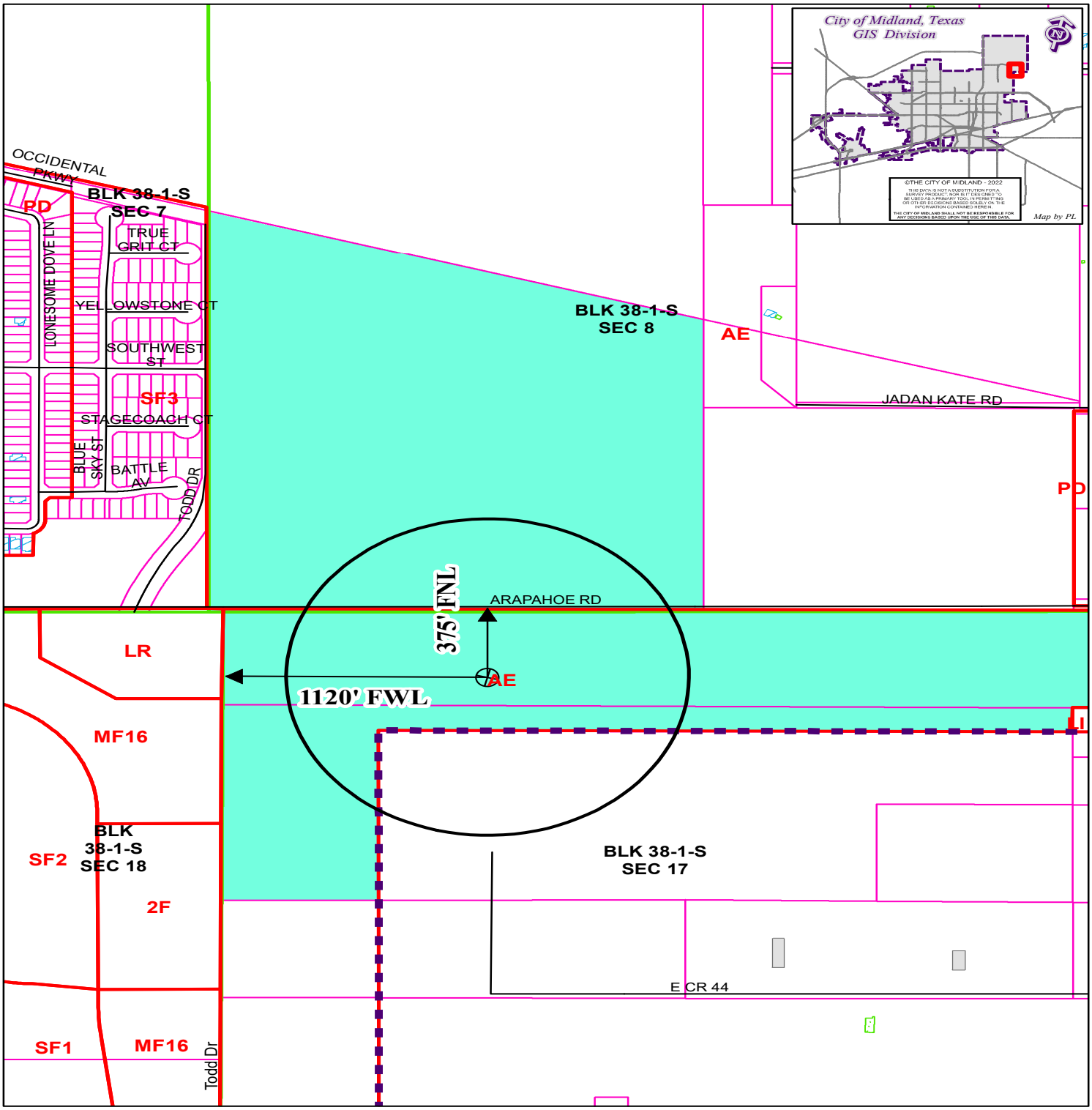
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044070-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1,120' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,120 feet east of Todd Drive extension.

Stimson W17E 5H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17F 6H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1140' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

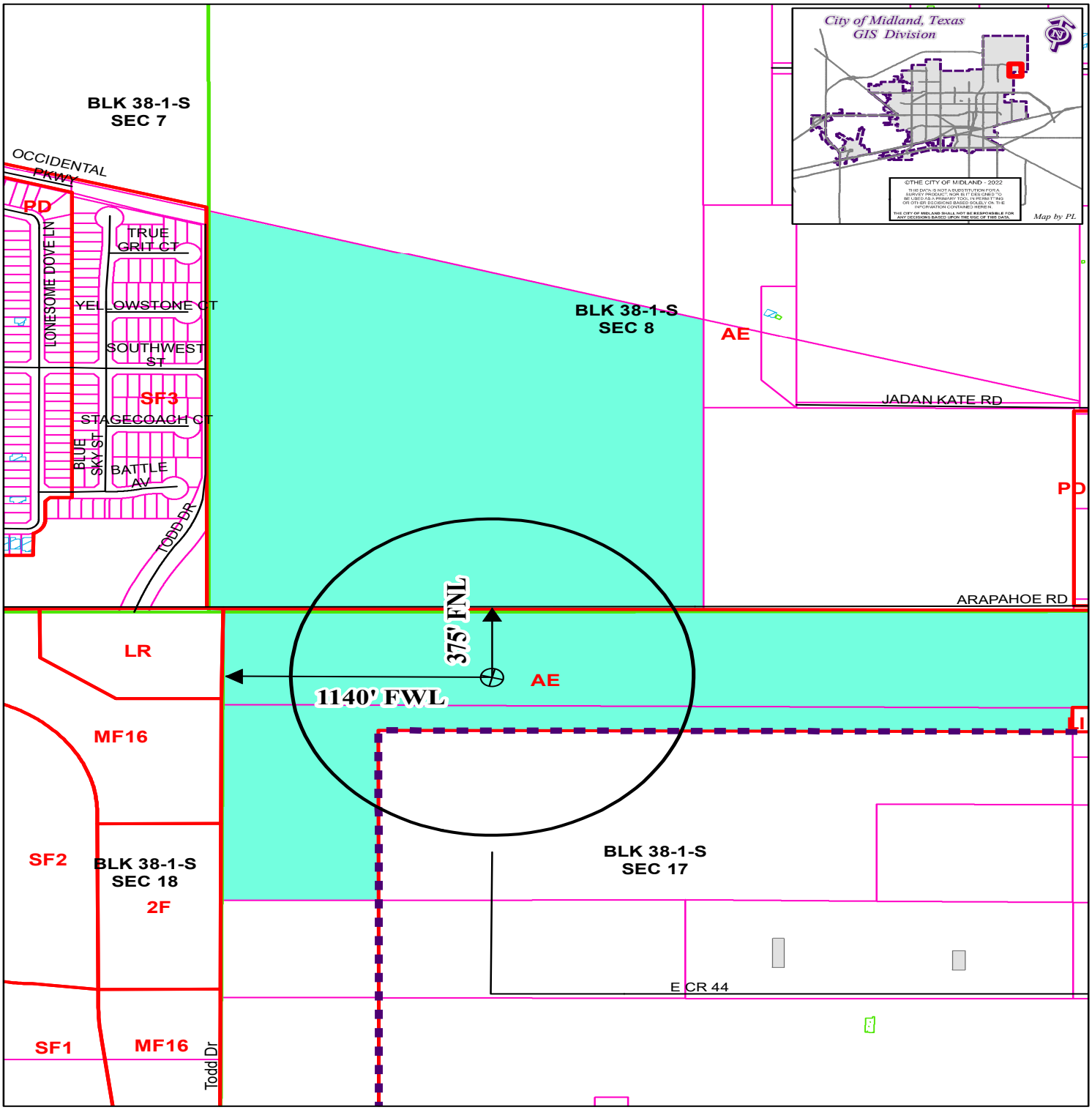
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044069-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1,140' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,140 feet east of Todd Drive extension.

Stimson W17F 6H

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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17G 7H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1160' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

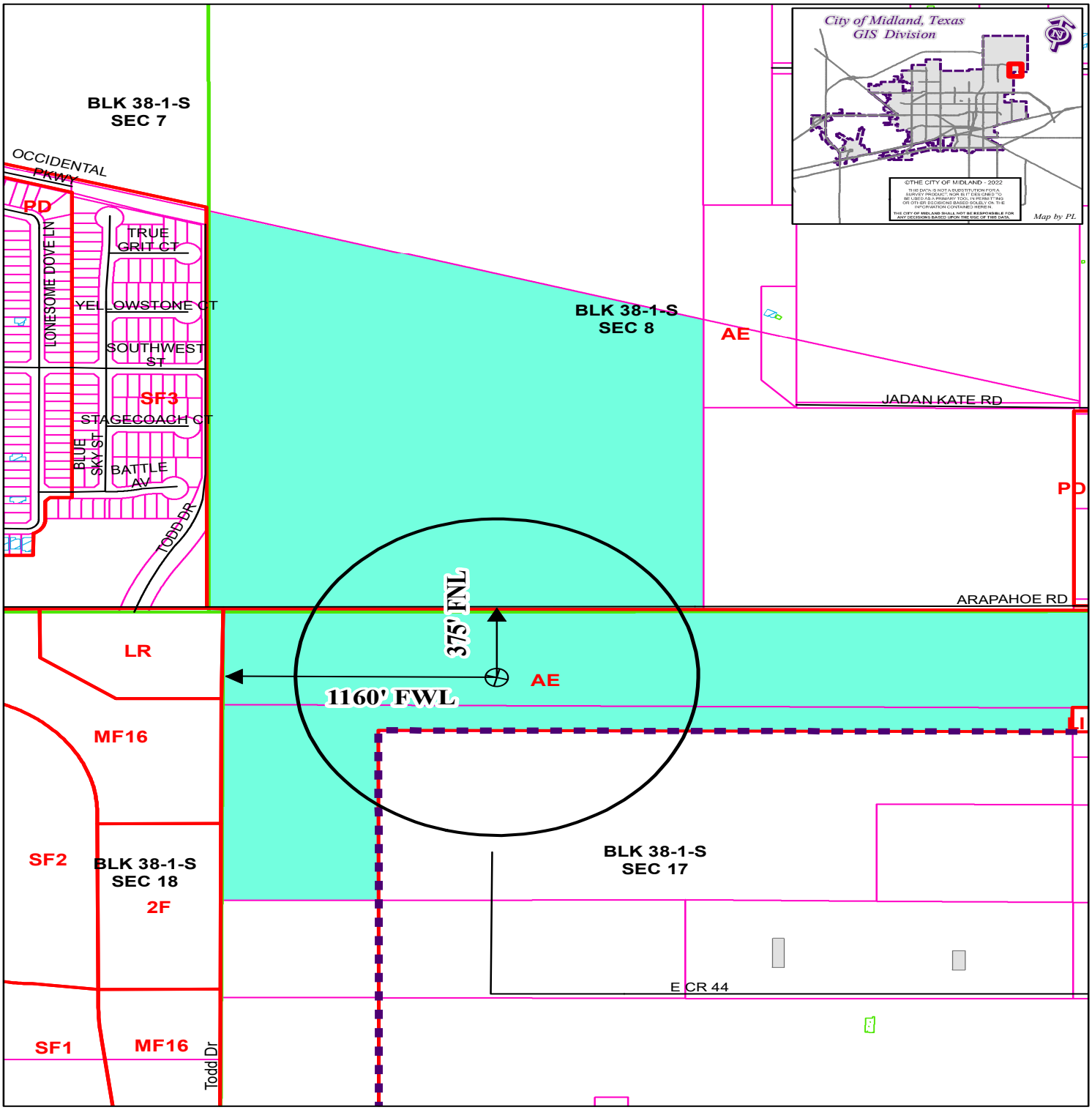
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044068-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1,160' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,160 feet east of Todd Drive extension.

Stimson W17G 7H

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
SE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, LRD	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17H 8H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

375' FNL, 1180' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

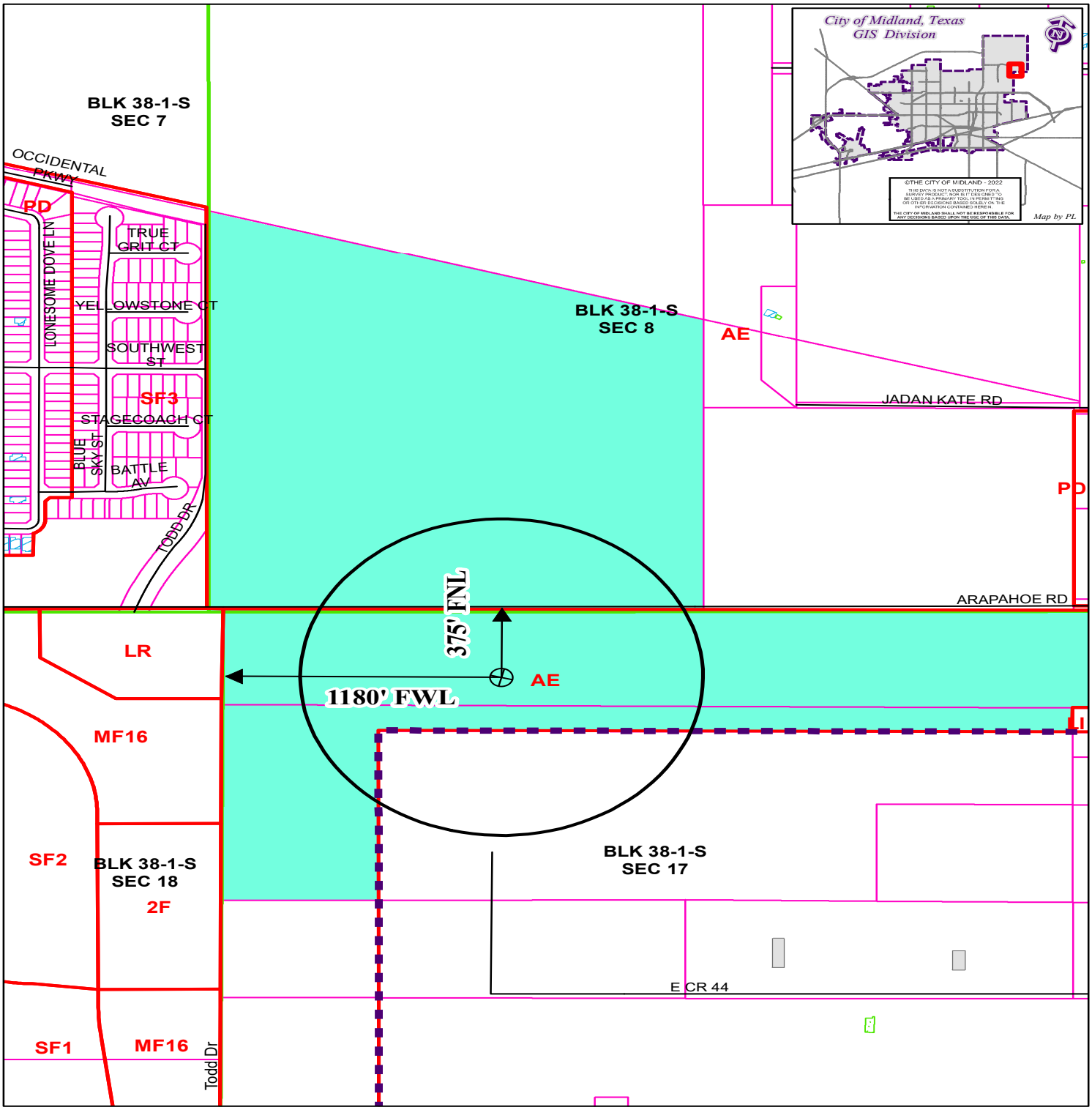
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044067-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 375' FNL and 1,180' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 375 feet south of Arapahoe Road and 1,180 feet east of Todd Drive extension.

Stimson W17H 8H

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, CR3	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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17I 9H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

376' FNL, 1200' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

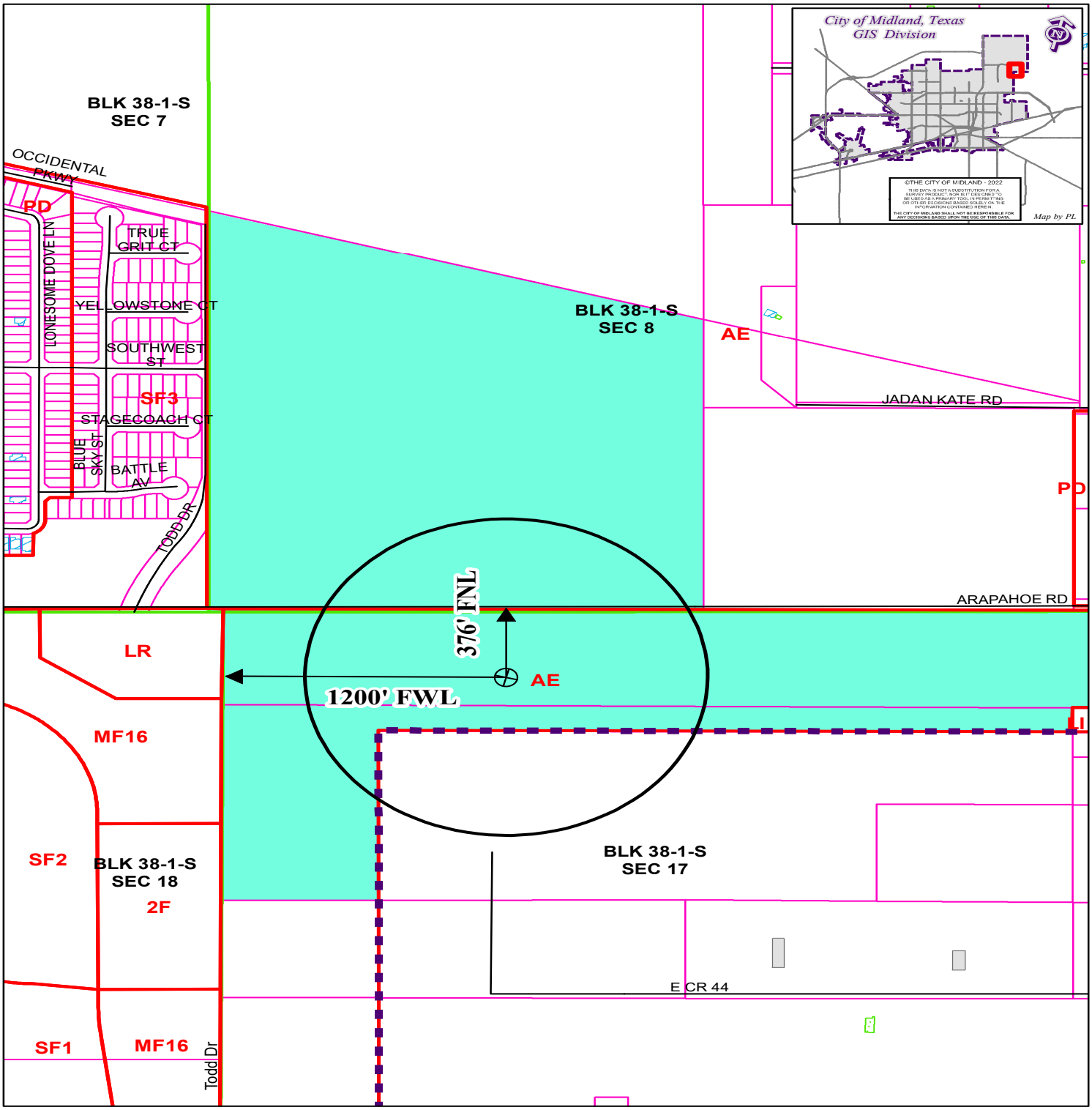
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044065-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 376' FNL and 1,200' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 376 feet south of Arapahoe Road and 1,200 feet [illegible] Todd Drive extension.

Stimson W17I 9H

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
[illegible]	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, 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

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
04/27/2022	Pioneer Natural Resources, USA, Inc.	777 Hidden Ridge Lane Irving, Texas 75038

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Matt Mathis, Field Production Operations Manager	3617 N Big Spring St Midland, Texas 79705	432-571-3086 Office 469-203-5174 Mobile Rep. Fax
Fee: $4,000.00 Rec'd Yes X No___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1): Laura Wallace, Sr Staff Regulatory Specialist
972-969-1742 Office or 817-682-3483 Mobile

Option A:

24/7 Answering Services - No. 1 (Tele.): 432-571-2666 **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** Attached as Exhibit A

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):
Pioneer Remote Operations Hub
3617 N Big Spring St. Midland, Texas 79705
432-571-2666 (Available 24/7)

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** Attached as Exhibit B

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1. See Attached Exhibit C
2.
3.

ATTACHED AS EXHIBIT C **is (a** ***Title Opinion by*** Various - See Exhibits ***, a licensed Texas Attorney/Title Commitment by Abstract Company/a Take-off from , a Certified Petroleum Landman/an opinion letter from ,*** ***a licensed Texas Attorney)*** **indicating that [Operator] has a legal right to develop the mineral estate that is the subject of this Application. [See § J(5)].**

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):

Located in Section 17, Block 38, T1S, T&P RR Co., Abstract 152, Midland County, Texas

Surface is owned by Pioneer Natural Resources. There are seven additional owners of property within 860' of proposed Surface Hole Locations. See attached Exhibit C for details.

Property is currently undeveloped. Tank battery will be located outside the city limits.

ATTACHED AS EXHIBIT D **is a Current Tax Roll from Martin & Midland Central Appraisal District.**

***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: Stimson W17J 10H

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

A wellbore schematic with the applicable information is attached within Exhibit G.

Legal Description of Proposed Well Site: Surface Hole Location:

376' FNL, 1220' FWL, Section 17, Block 38, T1S, T&P RR Co., Abstract 152, 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* is the Road Repair Agreement and *Letter of Credit/Certificate of Deposit/Surety Bond* in the amount of at least $25,000. *Option (if applicable): Applicant would further state that no City-owned streets or alleys will be used by the Operator in connection with its oil and gas operations and as a result, requests a waiver from the Council of this requirement. Option B (if applicable):* Because Applicant has three Road Repair Agreements in effect that have been approved by the Council, Applicant requests that the Council consolidate all agreements into one and is filing the necessary $75,000 *letter of credit/certificate of deposit/surety bond* in conjunction with this request. [See § J(31)].**

***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: N/A

(2) Operations: Electric is required to support production operations for this well.

Description of water source to be used during Drilling:

Water for drilling will be pulled from an existing fresh water pond located 3750' southeast of the pad. See Exhibit N.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

The route for electric lines can be found on Exhibit N

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]:

A freshwater pit is proposed. See Exhibit O and V for details on closing. Variance on timing is requested.

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* are 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 approved by the City Engineer 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)].**

Pioneer Natural Resources
[NAME OF COMPANY]

By Laura E Wallace
Its Regulatory Advisor

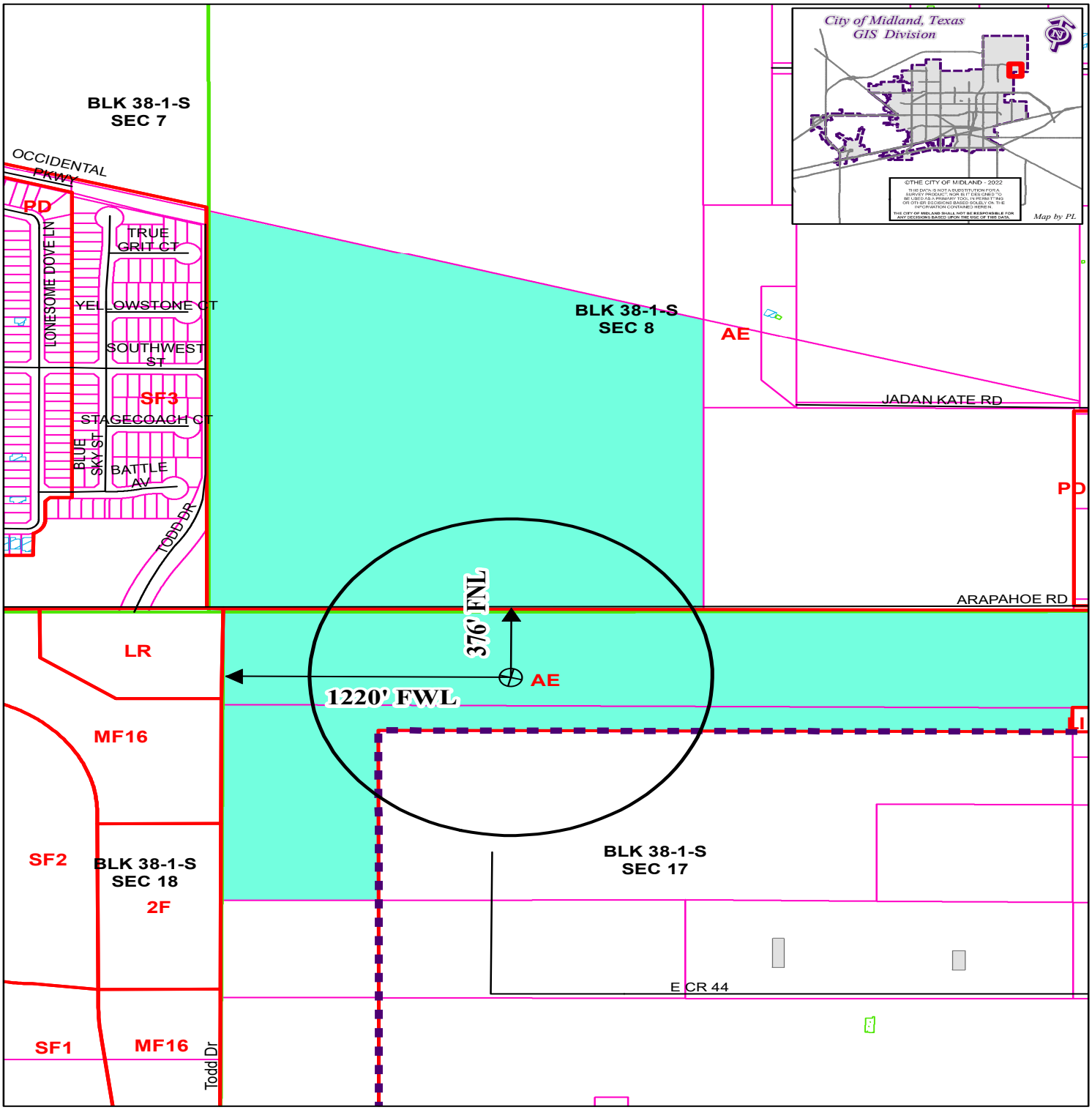
State of Texas)

County of DALLAS)

, 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.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022
[SEAL]

Notary Public, State of 6/01/2022



LOCATION AND ZONING MAP

Oil-044066-2022 **Scale: 1" = 600'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 376' FNL and 1,220' FWL, Section 17, Block 38-1-S, T&P RR CO Survey, Midland County, Texas.

Generally located 376 feet south of Arapahoe Road and 1,220 feet east of Todd Drive extension.

Stimson W17J 10H

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
SE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
SF1, SF2, 1F3	ONE-FAMILY DWELLING	CR1, CR2, 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

City Council Meeting

Item Number: 24

Meeting Date: November 15, 2022

To: City Council / City Manager

From: James Reber, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND NORTH TYLER 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, Erica Hernandez**,** is requesting a Zone Change from HI, Heavy Industrial District, to SF-3, Single-Family Dwelling District, for a future development of a house located at 1301 South Street.

Recommended City Council Action:

Approve

Fiscal Impact:

This request does not require any City funds.

Current Zoning:

HI, Heavy Industrial District.

Surrounding Zoning and Land Use:

The properties to the north and east are zoned HI, Heavy Industrial District, with the exception of three lots to the north and east who's zoning has been corrected to SF-3, Single-Family Dwelling District. Properties to the west zoned MF-22, Multi-Family Dwelling District. Properties to the south are zoned LI, Light Industrial District, RR, Regional Retail District, with the exception of four lots who's zoning has been corrected to SF-3, Single-Family Dwelling District.

Analysis:

The property is located at 1301 South Street and is currently vacant. The applicant is requesting this zone change for the purposes of constructing a single-family residence on the property. The current zoning is HI, Heavy Industrial District. Per the previous zoning ordinance, single-family detached dwellings were allowed within this zoning district. As of July 1, 2019, the new zoning ordinance does not allow the use of single-family detached dwellings within the HI, Heavy Industrial District. The property does not meet the minimum lot size requirements for the SF-3, Single Family Dwelling District, however; a special exception for the minimum lot dimensions was approved by the City Council on October 25, 2022.

Per the previous zoning ordinance, single-family detached dwellings were allowed within this zoning district. As of July 1, 2019, the new zoning ordinance does not allow the use of single-family detached dwellings within the HI, Heavy Industrial District.

The applicant will be required to adhere to the site plan review standards outline within the City of Midland Zoning Ordinance Section 5.04: - Residential Zoning District Dimensional Regulations Chart.

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 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, 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: (Approved)

No Oil and Gas Issues.

Transportation: (Approved with Conditions)

No access will be allowed on South St. Access should be on the side street.

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):

The City of Midland Planning Department supports this rezone because of the existing surrounding uses. The surrounding use is comprised of single-family and multi-family residences. According to the Tall City Tomorrow Comprehensive Plan, Urban Residential-Medium (UR-M) land use intends to blend a mix of housing types, especially in older neighborhoods. Potential zoning for UR-M land use includes Single-Family Dwelling District, however, does not list HI, Heavy Industrial District. Therefore, changing 1301 South Street to SF-3, Single Family Dwelling District would fit in the intended land use appropriately.

This request was recommended for approval at the September 23, 2022, Planning and Zoning Commission meeting.

Staff recommends approval of this zone change from HI, Heavy Industrial District, to SF-3, Single-Family Dwelling District, subject to condition A.

Conditions:

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:

Staff has not received any letters of objection as of November 8, 2022.

Attachments:

Application
Survey (Exhibit A)
Maps

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 7, BLOCK 50, EAST MIDLAND ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM HI, HEAVY INDUSTRIAL DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF SOUTH STREET AND NORTH TYLER 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 7, Block 50, East Midland 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 HI, Heavy Industrial 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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting "AYE":

Council members voting "NAY":

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

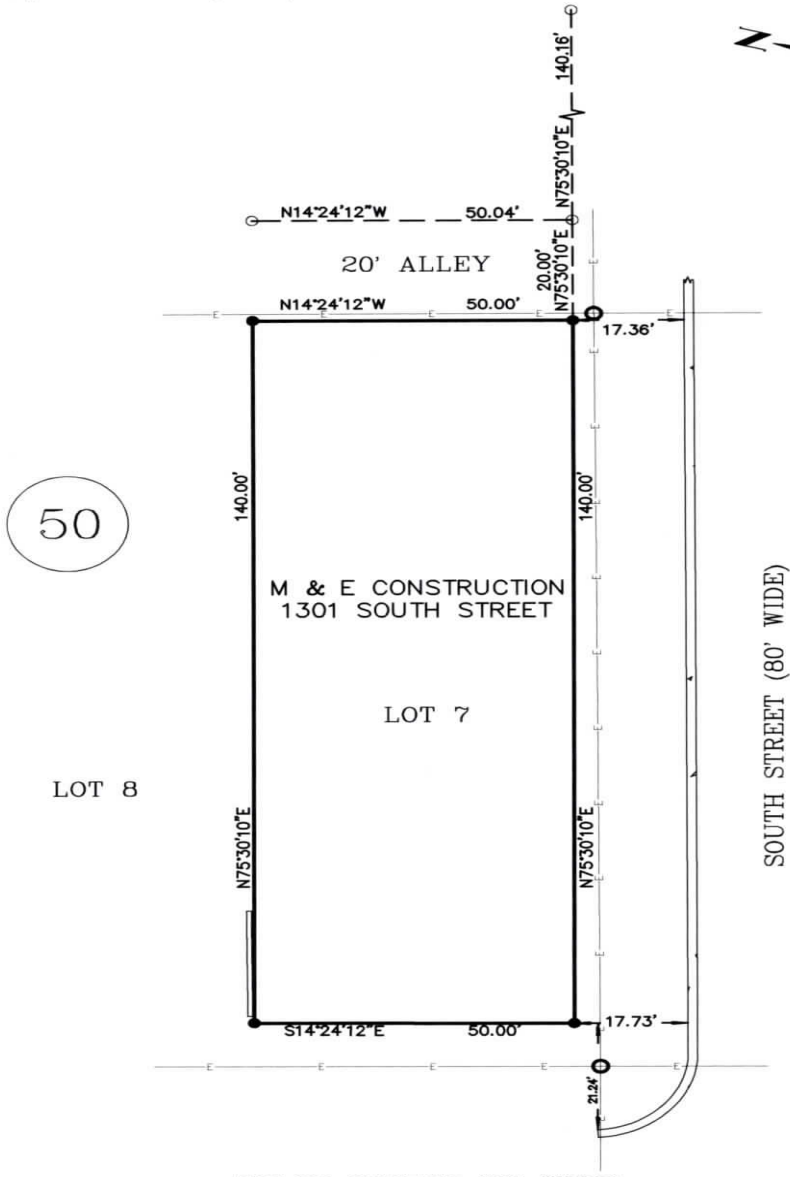
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

COPYRIGHT 2021
This survey plat is being provided solely for the use of: M & E Construction and that no license has been created, express or implied, to copy the survey plat except as is necessary in conjunction with the original transaction dated October 26, 2021, which shall take place within 90 days after the survey was provided.



LEGEND
- ● Set 1/2" I.R. W/Cap "RPLS 4170"
- ○ Fnd. 1/2" I.R.
- O Power Pole
- —E—E— Overhead Electric Line

SURVEY OF
LOT SEVEN (7), BLOCK FIFTY (50), EAST MIDLAND ADDITION, AN ADDITION TO THE CITY OF MIDLAND MIDLAND COUNTY, TEXAS

ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN VOLUME 180, PAGE 80, DEED RECORDS, MIDLAND COUNTY, TEXAS

Census Tract: 17

This tract is in Flood Zone "X" as shown on the Flood Insurance Rate Map, Dated September 16, 2005 provided by the Federal Emergency Management Agency Flood Map Number: 48329C0093 F

The undersigned does hereby certify that this survey was this day 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, easements or rights-of-way, except as shown hereon, and that said property has access to and from a dedicated roadway.

Dated this the 26th day of October 2021.

Bruce R. Pennell
Registered Professional Land Surveyor No. 4170
Date: 10/26/2021

(IF SURVEYORS SIGNATURE IS NOT SIGNED IN RED INK, THIS IS NOT AN ORIGINAL DOCUMENT)

Basis of Bearings:
NAD 83 Lambert Grid

Bearings and Distances Shown
Inside ( ) Indicate Record Information

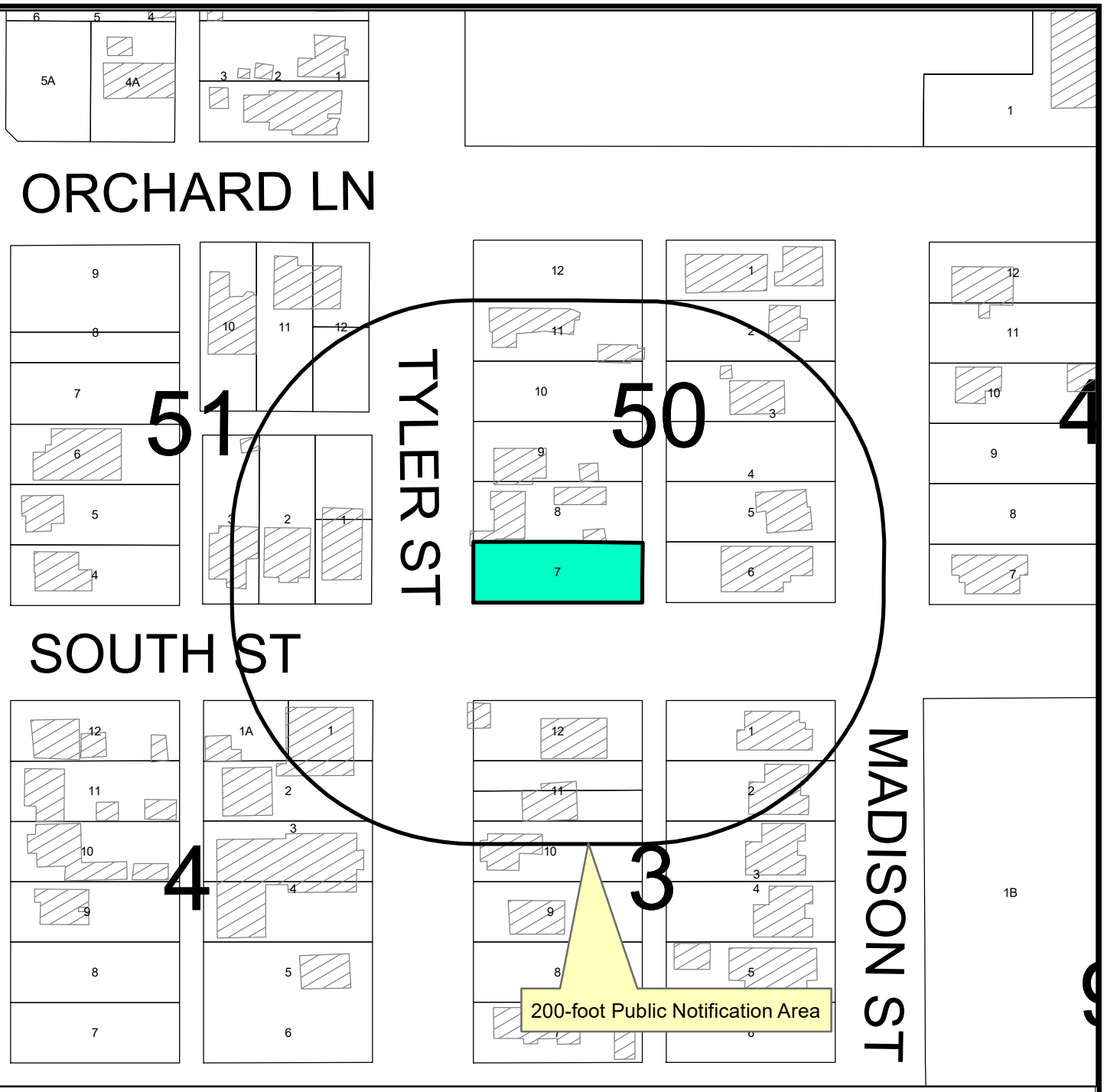
30 15 0 30

SCALE: 1" = 30'

STATE OF TEXAS
REGISTERED
BRUCE R. PENNELL
4170
PROFESSIONAL
LAND SURVEYOR

PENNELL LAND SURVEYING
PROFESSIONAL LAND SURVEYING
P.O. BOX 51622, MIDLAND, TEXAS 79710
VOICE:(432)570-6256 FAX: (432)682-3262 MOBILE: (432)528-1027

ABSTRACT OFFICE: N/A	G.F. #: N/A	COMMITMENT EFFECTIVE DATE: N/A	
CAD FILE: BRP22726	DATA FILE: 1301SOUTH	DRAWN BY: MARCY N.	FIRM NO.: 10193978



LOCATION MAP

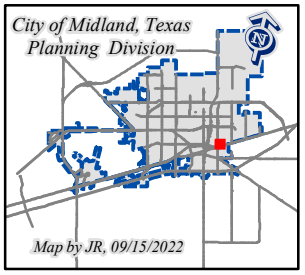
Z-22-0303 **Scale: 1" = 110'**

Consider a request by Erica Hernandez for a zone change from HI, Heavy Industrial District, to SF-3, Single-Family Dwelling District, on Lot 7, Block 50, East Midland Addition, City and County of Midland, Texas.

Generally located on the northeast corner of the intersection of South Street and Tyler Street - Council District 2

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND IS NOR IS IT DESIGNED TO BE USED AS THE 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

Zone Change/Planned District Amendment/Site Plan Approval

Project Number: 2-22-0303

Case Number:

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Erica Hernandez		Phone (432) 215-5108 Email edelaro1@yahoo.com	
Address 102 Cedar Ave	City Midland	State TX	Zip 79705
Property Owner Printed Name: Erica Hernandez		Phone ( ) Email	
Address 102 Cedar Ave	City Midland	State TX	Zip 79705
Representative *(if different from Applicant or Property Owner)* Firm: Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Street Address: 1301 South St Midland TX

Legal Description
Lot: 7 Block: 50 Subdivision: East Midland Addition

Current Zoning: Heavy Industrial

Proposed Zone: ~~SFS~~ SF-3
(List by tracts if more than one district is requested)

Reason for Zone Change Request: I want to build a house.

Present Use of Property: Empty lot

Proposed Use of Property: Single Family (SF3)

How would this zone change affect the public health, safety and welfare? It would not affect public health safety or Welfare.

Describe how conditions affecting the property have changed since present zoning designation: The property is surrounded by residential properties.

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)

RECEIVED
AUG 26 2022
BY: .....

Signature *(by property owner only – authorized agent must sign affidavit below)*	
Applicant (signature):	Date:
Applicant (printed):	
Property Owner (signature):	Date: 8/9/22
Property Owner (printed) : Erica Hernandez	

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_____who, being by me duly sworn, upon oath says: That (s)he is the owner of _____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

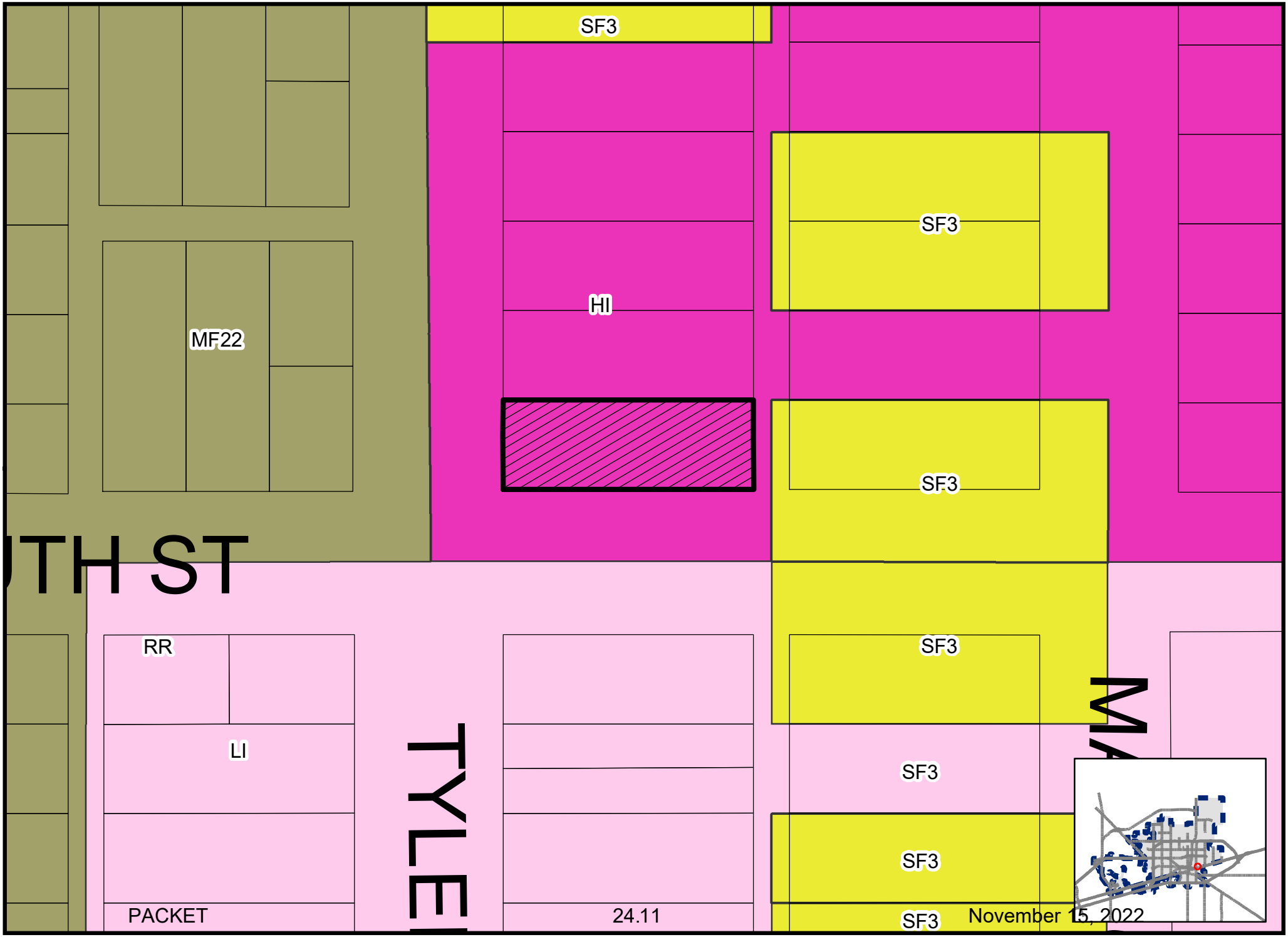
FOR OFFICE USE ONLY

- ☒ Property Owner Authorization
- ☒ Application Fee
  Check # 1690
- ☒ Dimensioned Site Plan
- ☒ Plans in Digital Format (PDF/JPEG)

Received By: _____ Date: RECEIVED AUG 26 2022

BY: .....

****Application will not be considered for scheduling until reviewed by a planner.****



Map By JR, 9/15/2022

Z-22-0303

Scale: 1" = 100'

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.




TORTILLAS
TAMALES









City Council Meeting

Item Number: 25

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Alexandra Walling, Planner

Subject: AN ORDINANCE VACATING AND ABANDONING A 0.067-ACRE PORTION OF ALLEY RIGHT-OF-WAY LOCATED ADJACENT TO LOTS 5 THROUGH 9, BLOCK 17, KELVIEW HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF SCHARBAUER DRIVE, APPROXIMATELY 209 FEET WEST OF NORTH BIG SPRING STREET); ADOPTING THE APPRAISAL BY THE CITY MANAGER OF $5,836.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY (DISTRICT 3) (DEVELOPMENT SERVICES)

Purpose:

The applicant, Gary Glasscock, is requesting to vacate a 0.067-acre portion of the alley right-of-way, located adjacent to Lots 5 through 9, Block 17, Kelview Heights, City and County of Midland, Texas, to support the development site plan as proposed.

Recommended City Council Action:

Approve

Fiscal Impact:

The 2022 appraised value of the right-of-way is $2.00 per square foot, for a total value of $5,836.

Discussion:

The property is currently in the process of being replatted. The approximated area that will be vacated is 2,918 square feet (0.06-acres). The vacation will aid their client in utilization of this area for their projected future development.

All the appropriate adjacent owners are aware of the proposed vacation and have signed the application.

The Midland Central's Appraisal District's appraisal of the land is $2.00 per square foot or $5,836.00.

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. [For Applicant's Information Only.]

Fire: (Approved)

No objections.

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.

Surveyor: (Approved)

No comments.

AT&T: (Approved)

We do not seem to have anything in this ROW so we are good with this.

Atmos: (Approved with Conditions)

Atmos Energy currently has facilities located within the above-described alley Right of Way between Big Spring Street and Loma Drive. We currently have a gas main that extends along

this alley right of way. Atmos could vacate the referenced portion however since we are currently serving customers off this line, we would need to maintain a utility easement or relocate our facilities. Any relocation costs would be passed on to the individual or entity requesting the vacate

Grande: (Approved)

We have been vacated from these poles for some time now if you have any other questions please feel free to contact me at any time.

Oncor: (Approved with Conditions)

After discussion with our Right of Way group, it will be best if Oncor can secure an easement on the portion that will be vacated.

Suddenlink: (Approved with Conditions)

Optimum, has aerial plant that dead ends on the 1st pole south of Alta Ave. And we have an aerial coax service line that feeds the Bldg.
We cannot legally vacate the area as long as we service the bldg., if you wish to continue with the vacate, we will need to run conduit underground up to the bldg. At the vacate requester's expense. We will need to maintain a utility easement.

Midland Central Appraisal District:

The vacation area indicated has a current value of $2.00 per square foot or $5,836.

Planning:

Pertinent City departments and franchise utility companies have reviewed this vacation request and have approved the request.

Therefore, staff recommends approval of the vacation of a 0.067-acre portion of the alley right-of-way, located in between Lots 5 through 9, Block 17, Kelview Heights, City and County of Midland, Texas, for future development to be subject to conditions A through C.

Conditions:

A. That the City of Midland has received from the property owner the sum of $5,836.00.

B. 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.

C. That an accessible nonexclusive utility easement is retained.

Letters of Objection:

As of November 3, 2022, staff has not received any letters of objection to this request.

Attachments:

Vacation Survey (Exhibit A)
Application
Maps
Responses from Franchise Utility Companies and Midland Central Appraisal District

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE VACATING AND ABANDONING A 0.067-ACRE PORTION OF ALLEY RIGHT-OF-WAY LOCATED ADJACENT TO LOTS 5 THROUGH 9, BLOCK 17, KELVIEW HEIGHTS ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF SCHARBAUER DRIVE, APPROXIMATELY 209 FEET WEST OF NORTH BIG SPRING STREET); ADOPTING THE APPRAISAL BY THE CITY MANAGER OF $5,836.00; RETAINING A NONEXCLUSIVE UTILITY EASEMENT; AND ORDERING RECORDATION BY THE CITY SECRETARY

WHEREAS, it has been determined by the Midland City Council that a 0.067-acre portion of alley right-of-way located adjacent to Lots 5 through 9, Block 17, Kelview Heights 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 City Manager has appraised the value of the City's property interest in the Property at $5,836.00, 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 $5,836.00; 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 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., 2022; 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., 2022, at a regular meeting of the City Council:

Council members voting “AYE”:

Council members voting “NAY”:

PASSED AND APPROVED THIS _____ day of _____, A.D., 2022.

_____
Patrick N. Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

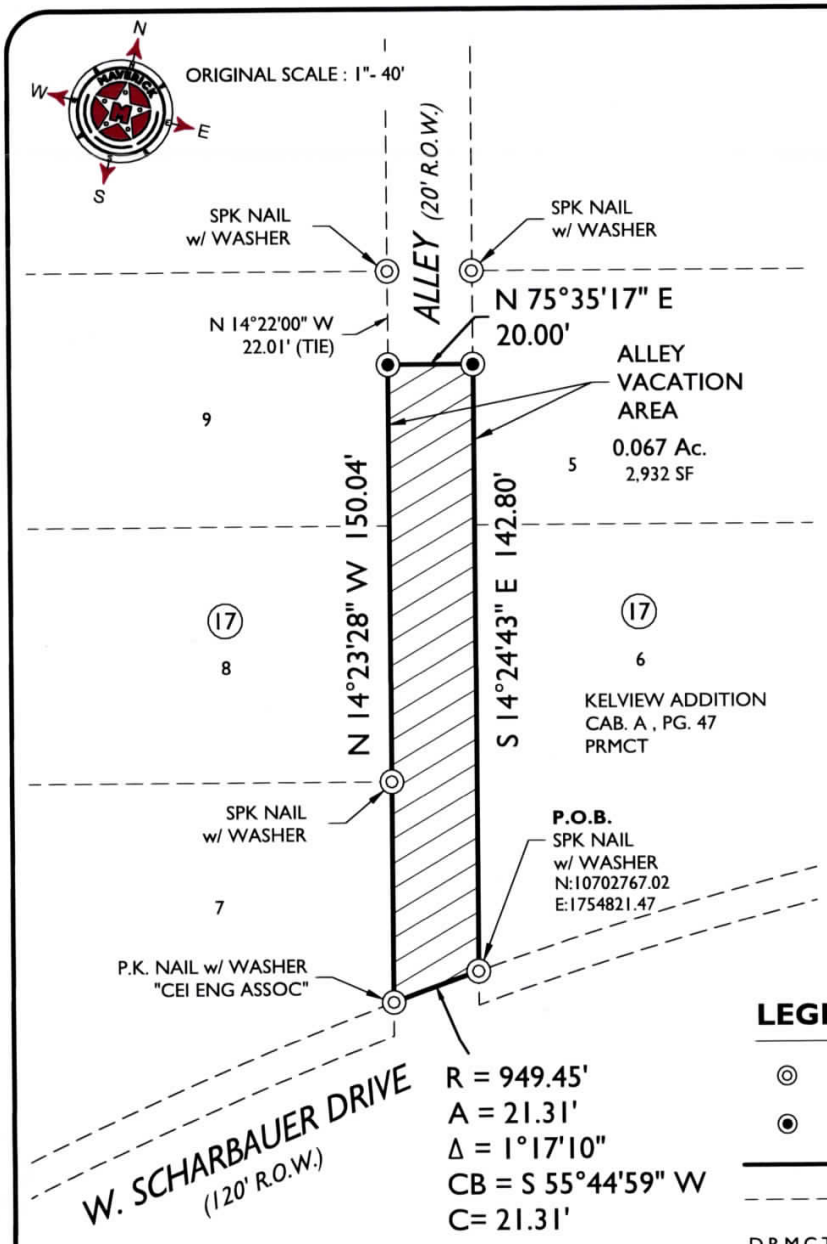
_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

"EXHIBIT A"

OF A 0.067 ACRE TRACT OF LAND, SITUATED IN SECTION 23, BLOCK 39, T-1-S, T.&P. RY Co. SURVEY, MIDLAND COUNTY, TEXAS, FOR THE ABANDONMENT OF A PORTION OF 20 FOOT ALLEY AS DEPICTED ON THE PLAT OF KELVIEW HEIGHTS, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY , TEXAS



LEGAL DESCRIPTION

FIELD NOTES DESCRIPTION OF A 0.067 ACRE TRACT OF LAND SITUATED IN SECTION 23, BLOCK 39, T-1-S, MIDLAND COUNTY, TEXAS, FOR THE ABANDONMENT OF A PORTION OF 20 FOOT ALLEY AS DEPICTED ON THE PLAT OF KELVIEW HEIGHTS, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY , TEXAS RECORDED IN CABINET A, PAGE 47, PRMCT, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

***BEGINNING** AT N: 10702767.02, E:1754812.47, A SPIKE NAIL W/ WASHER BEING THE SOUTHWEST CORNER OF LOT 6, BLOCK 17, OF SAID KELVIEW HEIGHTS ADDITION ;*

***THENCE** WITH A NON-TANGENT CURVE TO THE LEFT WITH A RADIUS OF 949.45 FEET, A DELTA ANGLE OF 01°17'10", AN ARC LENGTH OF 21.31 FEET, A CHORD BEARING OF SOUTH 55°44'59" WEST, AND A CHORD DISTANCE OF 21.31 FEET TO A PK NAIL WITH WASHER "CEI ENG ASSOC" BEING THE SOUTHEAST CORNER OF LOT 7, BLOCK 17, OF SAID KELVIEW HEIGHTS ADDITION;*

***THENCE** NORTH 14°23'28" WEST, A DISTANCE OF 150.04 FEET TO A PK NAIL SET FOR THE NORTHWEST CORNER OF THIS TRACT ;*

***THENCE** NORTH 75°35'17" EAST, A DISTANCE OF 20.00 FEET TO A PK NAIL SET FOR THE NORTHEAST CORNER OF THIS TRACT ;*

***THENCE** SOUTH 14°24'43" EAST, A DISTANCE OF 142.80 FEET TO THE **POINT OF BEGINNING**, CONTAINING 0.067 ACRES.*

BASIS OF BEARING, COORDINATES, DISTANCES AND ACREAGE IS A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, CENTRAL ZONE, NORTH AMERICAN DATUM 1983, U.S. SURVEY FOOT.

I GREGORY W. SHOULTS DO HEREBY CERTIFY THAT THIS PLAT IS BASED UPON FIELD NOTES OR ELECTRONIC DATA OF AN ACTUAL ON THE GROUND SURVEY AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

GREGORY W. SHOULTS R.P.L.S.#5356

AUGUST 5, 2022

STATE OF TEXAS REGISTERED GREGORY W. SHOULTS 5356 PROFESSIONAL LAND SURVEYOR

LEGEND

◎	FOUND 1/2" IRON ROD UNLESS MARKED
◉	PK NAIL SET
———	TRACT BOUNDARY
- - - - -	EXISTING LOTS
D.R.M.C.T.	DEED RECORDS MIDLAND CO. TX
P.R.M.C.T.	PLAT RECORDS MIDLAND CO. TX

MAVERICK
ENGINEERING / SURVEY / WATER RESOURCES
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

Drawing : F:\2022\220064-HAYNES DEVCO (COY HAYNES)-BIG SPIRNG & SCHARBAUER DR\DRAWINGS\VACATION\220064 - ALLEY VACATION BOUNDARY.DWG Last Saved By: AKalenak on 8/5/22

MIDLAND
Feel the Energy!

Office of the City Manager

November 3, 2022

Midland City Council
City of Midland, Texas

RE: Request for vacation of a 0.067-acre portion of alley right-of-way located adjacent to Lots 5 through 9, Block 17, Kelview Heights 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 $5,836.00. 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,

Robert Patrick
City Manager

EXHIBIT "B"

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: V-22-0042

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Gary Glasscock - Stagg Investment Group		Phone ( ) Email	
Address 203 W Wall St Ste 1200	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: 0.67 Ac. 2,391 SF of Alley at 2301 N Big Spring St

Reason for Request: to support the development site plan as proposed

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: Alleyway will be re-routed to the west and relocation and improvement of public utilities within a dedicated alley to accompany the re-plat of of this property. See concurrent plat submittal

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 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: 8/6/22
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:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****

Kelly Martinez

From: UNDERWOOD, JERRY D <ju1659@att.com>
Sent: Monday, October 17, 2022 9:49 AM
To: Alexandra Walling
Subject: RE: New Vacation Request for Alley ROW

Good morning,

We do not seem to have anything in this ROW so we are good with this.

Thanks,
Jerry

From: Alexandra Walling <awalling@midlandtexas.gov>
Sent: Tuesday, October 11, 2022 9:07 AM
To: UNDERWOOD, JERRY D <ju1659@att.com>
Subject: New Vacation Request for Alley ROW

Good morning,

Garry Glassglock has requested to vacate the above described Right of Way (see attachment: Exhibit A). Please advise this office if your company has utilities within this right-of-way. 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) 685-7409 if you have any questions.

Thank You,

Alexandra Walling
Planner
Planning Division
Development Services
O. 432-685-7409
awalling@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.

ATMOS ENERGY

West Texas Division
P.O. Box 1111,
Midland, Texas 79702

City of Midland
Alexandra Walling
Planner/Planning Division
300 N. Loraine
Midland, Texas 79701

October 18, 2022

Re: Case Name: 2301 N. Big Spring
Case Number: V-22-0042

Ms. Walling,

Atmos Energy currently has facilities located within the above-described alley Right of Way between Big Spring Street and Loma Drive. We currently have a gas main that extends along this alley right of way. Atmos could vacate the referenced portion however since we are currently serving customers off this line, we would need to maintain a utility easement or relocate our facilities. Any relocation costs would be passed on to the individual 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
432-617-3447 office
432-967-0370 cell
mark.lieb@atmosenergy.com

Kelly Martinez

From: Ruben Guerra <ruben.guerra@astound.com>
Sent: Tuesday, October 18, 2022 6:27 PM
To: Alexandra Walling
Subject: Re: New Vacation Request for Alley ROW - Comments Needed

Alexandra

We have been vacated from these poles for some time now if you have any other questions please feel free to contact me at any time.

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 Tue, Oct 18, 2022 at 11:20 AM Alexandra Walling <awalling@midlandtexas.gov> wrote:

> Good morning Mr. Ruben,
>
> Garry Glassglock has requested to vacate the above described Right of Way (see attachment: Exhibit A). Please advise this office if your company has utilities within this right-of-way. 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) 685-7409 if you have any questions.
>
> Just wanted to reach out to get the status on this as we do have a timeline to follow with this process!
>
> Thank You,
>
> Alexandra Walling

Planner

Planning Division

Development Services

O. 432-685-7409

awalling@midlandtexas.gov









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.

Kelly Martinez

From: Ortega, Gustavo <Gustavo.Ortega@oncor.com>
Sent: Thursday, November 3, 2022 11:37 AM
To: Kelly Martinez
Cc: Arguello, Martin
Subject: FW: 2301 N Big Spring Vacation of Alley

FYI….

Gus Ortega
West Region Manager - Customer Service
2401 West Industrial Avenue
Midland, Texas 79701

Tel: 432.620.6004
Cell: 940.682.1308
Gustavo.ortega@oncor.com
oncor.com

From: Arguello, Martin
Sent: Monday, October 31, 2022 1:26 PM
To: Alexandra Walling <awalling@midlandtexas.gov>
Cc: Ortega, Gustavo <Gustavo.Ortega@oncor.com>
Subject: RE: 2301 N Big Spring Vacation of Alley

Good Afternoon Alexandra! Hoping this email finds you well. After discussion with our Right of Way group, it will be best if Oncor can secure an easement on the portion that will be vacated.

From: Alexandra Walling [mailto:awalling@midlandtexas.gov]
Sent: Thursday, October 27, 2022 9:29 AM
To: Arguello, Martin <Martin.Arguello@oncor.com>
Subject: 2301 N Big Spring Vacation of Alley

Hello again,

I located the corresponding plat, I also attached it so you could take a look at the plan. The plan is to vacate the southern partition of the alley and re-route the alleyway to the west. The city has a utility line running through the current alleyway. It is up to you guys if you want an easement or to relocate your lines. Let me know what you think works best. I will be out of my office for the next couple hours. I will need your comment in writing so I can include it in my report for City Council. Let me know if you have any questions!

Thank You,

Alexandra Walling
Planner
Planning Division
Development Services
O. 432-685-7409
awalling@midlandtexas.gov





300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

WARNING: This email message did not originate from Oncor and is from an external organization. DO NOT CLICK links or attachments unless you recognize the sender and are certain the content is safe.

Confidentiality Notice: This email message, including any attachments, contains or may contain confidential information intended only for the addressee. If you are not an intended recipient of this message, be advised that any reading, dissemination, forwarding, printing, copying or other use of this message or its attachments is strictly prohibited. If you have received this message in error, please notify the sender immediately by reply message and delete this email message and any attachments from your system.

CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.

Kelly Martinez

From: Luis Montez <Luis.Montez@AlticeUSA.com>
Sent: Thursday, November 3, 2022 12:19 PM
To: Alexandra Walling; Eron Zapata; Raymond Revilla
Cc: Kelly Martinez
Subject: RE: External E-mail - FW: New Vacation Request for Alley ROW - Comments Needed Please

Optimum, has aerial plant that dead ends on the 1st pole south of Alta Ave. And we have an aerial coax service line that feeds the Bldg.
We cannot legally vacate the area as long as we service the bldg., if you wish to continue with the vacate, we would need to run conduit underground up to the bldg..
At the vacate requester's expense.

From: Alexandra Walling <awalling@midlandtexas.gov>
Sent: Thursday, October 27, 2022 9:32 AM
To: Luis Montez <Luis.Montez@AlticeUSA.com>; Eron Zapata <Eron.Zapata@AlticeUSA.com>; Raymond Revilla <Raymond.Revilla@AlticeUSA.com>
Subject: External E-mail - FW: New Vacation Request for Alley ROW - Comments Needed Please

[External Email]

Caution: This email originated outside of Altice USA. Please do not click links or attachments unless you recognize the sender and know the content is safe.

Hello again,

I was just emailing to inform you all that this vacation will go to City Council without any comments from Altice if I don't hear back. The deadline is today. We would really appreciate any comments. Thanks.

From: Alexandra Walling
Sent: Wednesday, October 26, 2022 11:10 AM
To: luis.montez@alticeusa.com; eron.zapata@alticeusa.com; raymond.revilla@alticeusa.com
Subject: FW: New Vacation Request for Alley ROW - Comments Needed Please

Good morning,

I am just reaching out to remind y'all that we are approaching the deadlines on this vacation. Your comments/input are highly appreciated. If possible, please review this vacation when you can within the next couple of days. My number is 432-685-7409 if you have any questions. Thank you!

From: Alexandra Walling
Sent: Tuesday, October 18, 2022 11:21 AM
To: luis.montez@alticeusa.com; eron.zapata@alticeusa.com; raymond.revilla@alticeusa.com
Subject: New Vacation Request for Alley ROW - Comments Needed Please

Good morning all,

This is Lexie from the planning department for the City of Midland. I was reaching out and just wondering if there were any updates on this vacation or if y'all have gotten a chance to look at it. Attached you will see the location map, letter, and the exhibit. Please let me know if you have any questions! It would be great if you could review asap! Thanks!

Thank You,

Alexandra Walling
Planner
Planning Division
Development Services
O. 432-685-7409
awalling@midlandtexas.gov





300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

Caution: This email originated outside of Altice USA. Please do not click links or attachments unless you recognize the sender and know the content is safe.

The information transmitted in this email and any of its attachments is intended only for the person or entity to which it is addressed and may contain information concerning Altice USA and/or its affiliates and subsidiaries that is proprietary, privileged, confidential and/or subject to copyright. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient(s) is prohibited and may be unlawful. If you received this in error, please contact the sender immediately and delete and destroy the communication and all of the attachments you have received and all copies thereof.

CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.

Kelly Martinez

From: drambo@midcad.org
Sent: Monday, October 10, 2022 3:08 PM
To: Alexandra Walling
Cc: LReyna@midcad.org
Subject: Re: Vacation Request for 2301 N Big Spring St.

Alexandra:

The 2,918 square feet vacation should be valued at $2.00 per sf or $ 5,836.00.

Lisa Reyna, the new Assistant Chief will be receiving these requests for vacation in the future. Her email address is LReyna@midcad.org

Thank you
Dennis Rambo
Midland Central Appraisal District
432 699 4991 ext 3030
432 689 7185 fax

From:	Alexandra Walling <awalling@midlandtexas.gov>
To:	"drambo@midcad.org" <drambo@midcad.org>
Date:	10/10/2022 02:13 PM
Subject:	Vacation Request for 2301 N Big Spring St.

Good evening,

Garry Glasscock of Stagg Investment Group has submitted a request to vacate the above described Right of Way (See attached exhibits). If you could please send a value for the property, that would be greatly appreciated. If you have any questions please reach me at (432)-685-7409.

Thank You,

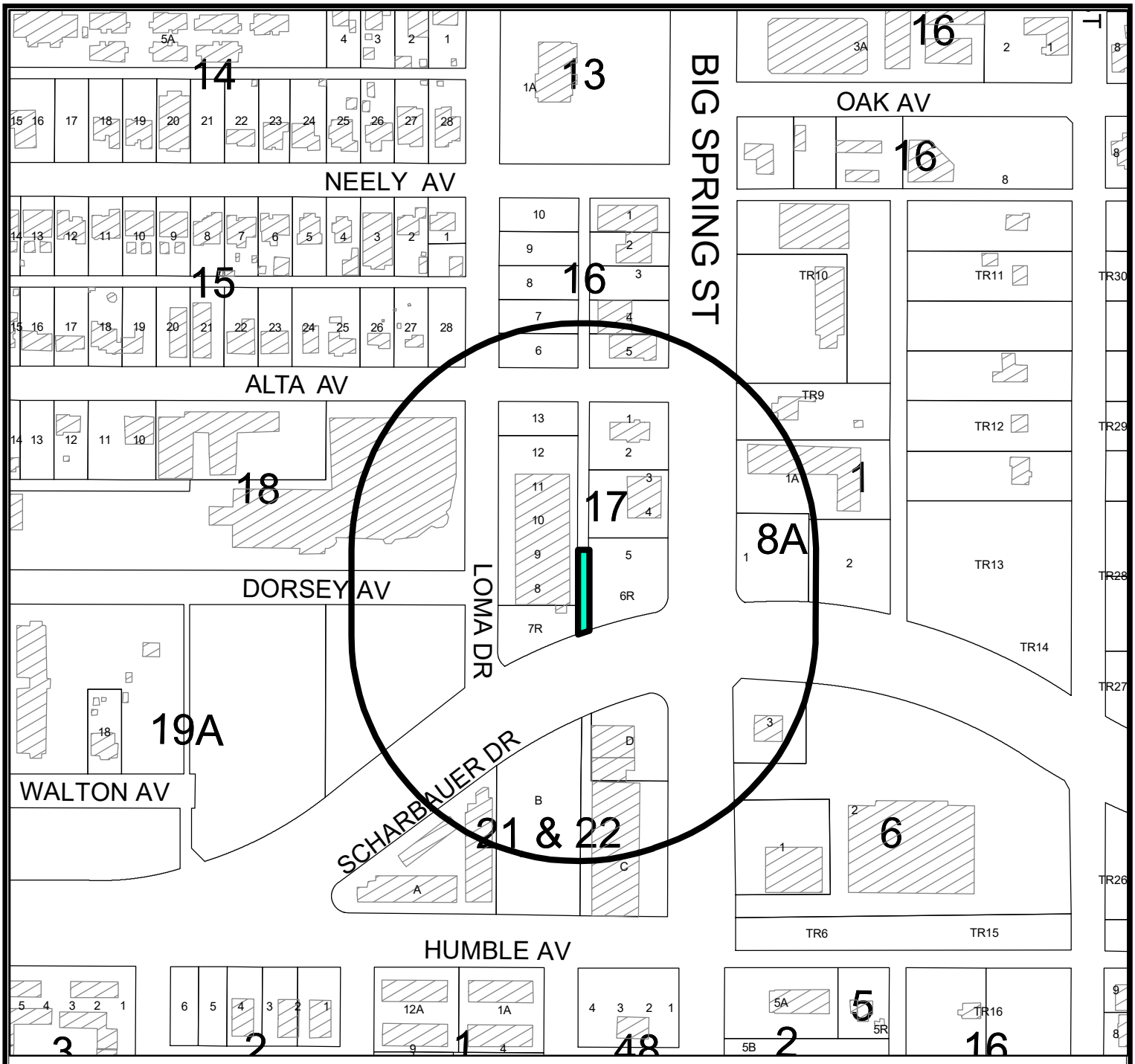
Alexandra Walling
Planner
Planning Division
Development Services
O. 432-685-7409
awalling@midlandtexas.gov

MIDLAND
Feel the Energy!

300 N. Loraine | P.O. Box 1152 | Midland, TX 79702

[attachment "V-22-0042, Exhibit.pdf" deleted by Dennis Rambo/MCAD] [attachment "V-22-0042, Location Map.pdf" deleted by Dennis Rambo/MCAD] [attachment "V-22-0042, MCAD Letter.pdf" deleted by Dennis Rambo/MCAD]

CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.



LOCATION MAP

V-22-0042 **Scale: 1" = 200'**

Consider a request for a vacation of a 0.0670-acre portion of the alley right-of-way, located in between Lots 7 through 9, Block 17, Kelview Heights and Lots 5 through 6, Block 17, Kelview Heights, City and County of Midland, Texas.

Generally located on the northwest corner of North Big Spring Street and West Scharbauer Drive. (Council District 3)

PACKET 25.23

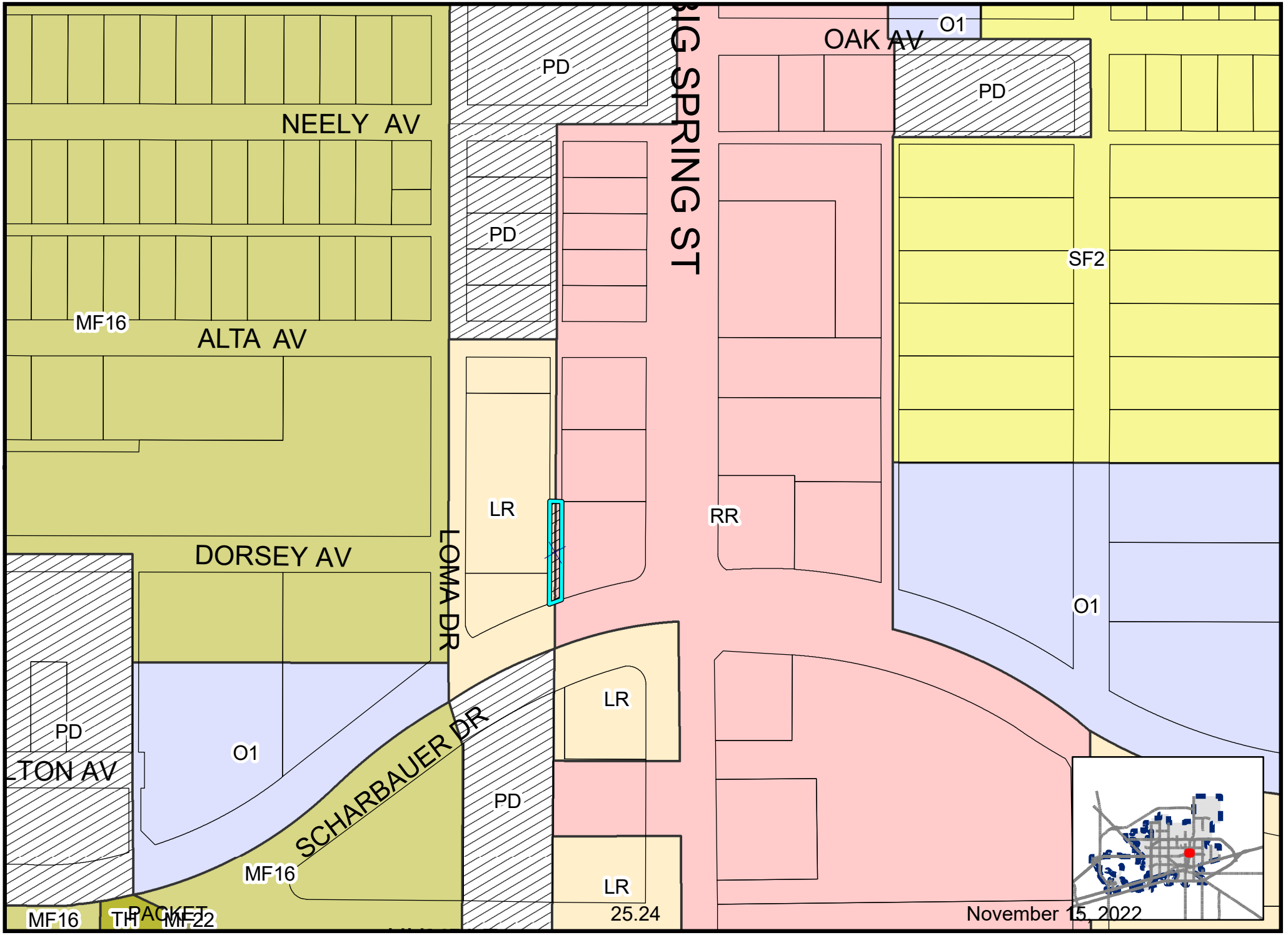
LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



November 15, 2022

©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY AND PRIOR IS IT DESIGNED TO BE USED AS THE 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 KM, 11/03/2022

V-22-0042

Scale: 1" = 200'

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.




DOLLAR TREE


ONE WAY



City Council Meeting

Item Number: 26

Meeting Date: November 15, 2022

To: City Council / City Manager

From: Morris Williams Jr, Deputy City Manager

Subject: Motion regarding the pedestrian island along Wadley Avenue north of Abell Junior High, including possible removal or modification, or other action related thereto (DISTRICT 4) (CITY MANAGER)

Purpose:

Motion regarding the pedestrian island along Wadley Avenue north of Abell Junior High, including possible removal or modification, or other action related thereto.

Recommended City Council Action:

Deny

Fiscal Impact:

There have been no bids taken to remove the pedestrian island so there is no noted fiscal impact at this time.

Discussion:

Around 2017, discussions began between City staff and MISD staff to look at safety concerns with students crossing Wadley Avenue at various locations (jaywalking) between Crowley Blvd and Heritage Blvd. During discussions between MISD and City staff, it was determined that the location of the pedestrian crosswalk be placed so that it aligned with the main entrance to Abell Junior High School.

City staff also referred to the Manual of Uniform Traffic Control Devices, The Federal AASTHO Greenbook Manual, and the Institute of Transportation Engineer Manual to determine the appropriate action to take regarding the proposed crossing. Based on the recommendations of these manuals, City staff determined that a 6-foot pedestrian island was needed for safety purposes for pedestrians crossing at this location.

Over the last few weeks, staff conducted some research to validate the efforts made in 2017 and it is the staff's professional assessment that the pedestrian island remains in place for the following reasons:

1. The U.S. Department of Transportation - Federal Highway Administration has considerable information about pedestrian refuge islands and their safety benefits. (See attached PDF). It states in this document, "Refuge islands are highly desirable for midblock pedestrian crossing" and roadways where the speed limits are posted at or above 35 mph.
2. The Institute of Transportation Engineers proposes that pedestrian refuge islands be provided when the width of a multilane roadway exceeds 75 feet. The length of the crossing at Wadley Avenue is just over 80 feet.
3. The median serves as a landing area for pedestrians and for additional flashers to ensure drivers are alerted when pedestrians are entering the crosswalk. Wadley Avenue is wide and placing an additional flasher in the median brings the flasher closer to the driver which enhances awareness of pedestrians crossing the roadway. (See attached photo)
4. A field visit was conducted on September 22, 2022, during the afternoon dismissal of Abell Junior High and the crossing in question had over 100 students using the flashers to cross Wadley Avenue.
5. The pedestrian island location meets City standards for placement so drivers will need to navigate the median as they would any other median located throughout the city.

It was noted during public comments that the two-way left turn lane is used as an acceleration lane. However, it is unlawful to use a two-way left turn lane as an acceleration lane.

Morris Williams Jr.

City Manager's Office

Pedestrian Refuge Island

SAFE TRANSPORTATION FOR EVERY PEDESTRIAN

COUNTERMEASURE TECH SHEET



A pedestrian refuge island is a median with a refuge area that is intended to help protect pedestrians who are crossing a multilane road. This countermeasure is sometimes referred to as a crossing island, refuge island, or pedestrian island. The presence of a pedestrian refuge island at a midblock location or intersection allows pedestrians to focus on one direction of traffic at a time as they cross, and gives them a place to wait for an adequate gap in oncoming traffic before finishing the second phase of a crossing.

Refuge islands are highly desirable for midblock pedestrian crossings on roads with four or more travel lanes, especially where speed limits are 35 mph or greater and/or where annual average daily traffic (AADT) is 9,000 or higher. They are also a candidate treatment option for uncontrolled pedestrian crossings on 3-lane or 2-lane roads that have high vehicle speeds or volumes. When installed at a midblock crossing, the island should be supplemented with a marked high-visibility crosswalk.

U.S. Department of Transportation
Federal Highway Administration

Safe Roads for a Safer Future

EDC

The combination of a long crossing distance and multiple lanes of oncoming traffic can create an unsafe pedestrian environment.

A pedestrian refuge island can improve safety and comfort by providing pedestrians with the option of waiting in the median area before beginning the next stage of the crossing.

Pedestrian refuge islands can reduce pedestrian crashes by

32%

FEATURES:

- Median can enhance visibility of the crossing and reduce speed of approaching vehicles.
- Refuge area provides a place to rest and reduces the amount of time a pedestrian is in the roadway

OFTEN USED WITH:

- Crosswalk visibility enhancements
- Curb extensions (where road width allows)

June 2018, Updated | *FHWA-SA-18-062*

Pedestrian Refuge Island

EDC-4 STEP: https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/step.cfm



CONSIDERATIONS

The design must accommodate pedestrians with disabilities. Islands should be at least 4 feet wide (preferably 8 feet) and of adequate length to allow the anticipated number of pedestrians to stand and wait for gaps in traffic before crossing. The cut-through must include detectable warnings if island width is at least 6 feet.

Islands should be illuminated or highlighted with street lights, signs, and/or reflectors to ensure that they are visible to motorists. They can be constructed so that crossing pedestrians are directed to the right, so they can more easily view oncoming traffic after they are halfway through the crossing. If applicable, evaluate the impact of the island on bicycle facility design.

COST

The cost of a median island depends on its size and construction materials. The costs range from $2,140 to $41,170 per island, depending on the length of the island, with an average cost of $13,520. The average cost per square foot is approximately $10. Costs will be higher for concrete islands versus asphalt islands, though the lifespan of concrete is longer compared to the lifespan of asphalt. Cost reductions may be realized if the refuge island can be incorporated into planned roadway improvements or utility work.

References

Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirsk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board. Washington, D.C.

Federal Highway Administration. (2013). "Crossing Islands" in PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System. Available: http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=6

Federal Highway Administration. "Medians and Pedestrian Crossing Islands in Urban and Suburban Areas." Proven Safety Countermeasures. Available: https://safety.fhwa.dot.gov/provencountermeasures/fhwa_sa_12_011.cfm

Bushell, M., Poole, B., Zegeer, C., & Rodriguez, D. (2013). Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public. Pedestrian and Bicycle Information Center.

