CITY OF MIDLAND, TEXAS
AGENDA FOR CITY COUNCIL MEETING
March 22, 2022 - 10:00 AM
300 North Loraine
Midland, Texas
Council Chamber - City Hall

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

OPENING ITEMS

1. Invocation – Pastor Pat Bryant, Travis 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 “American Red Cross Month”

   3b. Presentation of Proclamation for “Women’s History Month”

CONSENT AGENDA

4. MOTION APPROVING THE FOLLOWING MINUTES:

   4a. REGULAR SESSION OF FEBRUARY 22, 2022

   4b. SPECIAL SESSION OF FEBRUARY 22, 2022 AT 7:00 PM

5. 2022-029 – RESOLUTION AUTHORIZING THE SOLE-SOURCE PURCHASE OF NIGHT VISION EQUIPMENT FOR THE POLICE DEPARTMENT FROM EMERGING TACTICAL SOLUTIONS, LLC, FOR A TOTAL COST OF $287,748.00 (DISTRICT: ALL) (GENERAL SERVICES)

6. 2022-030 – RESOLUTION AWARDING A CONTRACT FOR THE WADLEY AVENUE AND SCHARBAUER DRAW MANHOLE PROJECT TO TEC EXCAVATION, INC., FOR AN AMOUNT OF $1,094,470.00; APPROVING $109,447.00 FOR CONTINGENCIES; APPROVING $50,000.00 FOR PROJECT RELATED COSTS; AND APPROPRIATING FUNDS (DISTRICT 3) (GENERAL SERVICES)

7. 2022-031 – RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH MAVERICK CIVIL & SURVEY, LLC, FOR DESIGN SERVICES FOR THE BIG SPRING WATER REPLACEMENT PROJECT FOR THE UTILITIES DEPARTMENT FOR A COST NOT TO EXCEED $130,000.00; AND APPROVING $26,000.00 FOR CONTINGENCIES (DISTRICT 2) (GENERAL SERVICES)

8. 2022-032 – RESOLUTION AWARDING A CONTRACT FOR THE ILLINOIS AVENUE UTILITY BOND PROJECT TO BOLER EQUIPMENT SERVICE, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $4,270,720.00; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT (DISTRICT 3) (GENERAL SERVICES)

9. 026-2022 – MOTION AUTHORIZING THE CITY MANAGER OR THE CITY MANAGER'S DESIGNEE TO ADVERTISE A REQUEST FOR PROPOSALS FOR GENERATOR CONTINGENCY BACK-UP POWER PLAN FOR THE UTILITIES DEPARTMENT AND TO NEGOTIATE A CONTRACT FOR SAID SERVICES; PROVIDED, HOWEVER, THAT SAID AGREEMENT SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL (DISTRICT: NONE) (GENERAL SERVICES)

10. 2022-033 – RESOLUTION APPROVING A CONTRACT WITH GAME COURT SERVICES THROUGH BUYBOARD, FOR THE PURCHASE AND INSTALLATION OF BASEBALL SYSTEM PADDING AT MOMENTUM BANK BALLPARK FOR A TOTAL COST OF $123,380.00; APPROVING $6,620.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS FOR SAID CONTRACT (DISTRICT 4) (GENERAL SERVICES)

11. 2022-034 – RESOLUTION APPROVING THE PURCHASE OF REPLACEMENT SERVERS FOR THE MUNICIPAL COURT FROM PRESIDIO NETWORKED SOLUTIONS GROUP, LLC, THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $159,141.79 (DISTRICT: NONE) (GENERAL SERVICES)

12. 027-2022 – MOTION AUTHORIZING THE EXECUTION OF A MEMORANDUM OF UNDERSTANDING WITH THE MIDLAND DEVELOPMENT CORPORATION PROVIDING FOR THE MARKETING OF CERTAIN CITY-OWNED REAL PROPERTY LOCATED AT THE MIDLAND INTERNATIONAL AIR & SPACE PORT (DISTRICT 4) (CITY MANAGER)

13. 028-2022 – MOTION AUTHORIZING THE EXECUTION OF AN ECONOMIC DEVELOPMENT AGREEMENT WITH THE MIDLAND DEVELOPMENT CORPORATION AS AUTHORIZED BY CHAPTER 501 OF THE TEXAS LOCAL GOVERNMENT CODE; SAID AGREEMENT PROVIDING FOR THE CITY OF MIDLAND DEPARTMENT OF AIRPORT'S PURCHASE OF CERTAIN REAL PROPERTY DESCRIBED AS AN APPROXIMATE 327.67-ACRE TRACT OF LAND LOCATED IN SECTIONS 4 AND 9, BLOCK 40, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (DISTRICT 4) (CITY MANAGER)

14. 2022-035 – RESOLUTION AUTHORIZING THE CITY MANAGER TO PURCHASE AN APPROXIMATE 327.67-ACRE TRACT OF LAND OUT OF SECTIONS 4 AND 9, BLOCK 40, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF CHALLENGER DRIVE, APPROXIMATELY 2,300 FEET NORTH

OF BUSINESS INTERSTATE 20); AUTHORIZING THE CITY MANAGER TO NEGOTIATE, EXECUTE AND FILE ALL DOCUMENTS NECESSARY TO PURCHASE SAID TRACT, PURCHASE A TITLE INSURANCE POLICY AND HOLD THE CLOSING; AND ORDERING THE CITY SECRETARY TO RECORD, OR ENSURE THAT THE TITLE COMPANY RECORDS, THE INSTRUMENT OF CONVEYANCE (DISTRICT 4) (ENGINEERING SERVICES)

15. 2022-036 – 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 2,395 FEET EAST OF RANKIN HIGHWAY AND 170 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT SERVICES)

16. 2022-037 – RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 2,220 FEET NORTH OF OCCIDENTAL PARKWAY EXTENSION AND 5,945 FEET WEST OF NORTH ELKINS ROAD); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

17. 2022-038 – RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 1, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 3,172 FEET NORTH OF OCCIDENTAL PARKWAY AND 2,135 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

18. 2022-039 – RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 6, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 4,098 FEET NORTH OF OCCIDENTAL PARKWAY AND 7,385 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

19. 029-2022 – MOTION AUTHORIZING THE EXECUTION OF A 2.56-ACRE PIPELINE EASEMENT AGREEMENT LOCATED IN SECTIONS 31, BLOCK 38, T-1-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS, FROM GEORGE V. ANDERSON, JR. AND DIANN H. ANDERSON; AND ORDERING THE CITY SECRETARY TO RECORD SAID INSTRUMENT IN THE OFFICIAL REAL PROPERTY RECORDS OF MIDLAND COUNTY, TEXAS (DISTRICT 2) (UTILITIES)

20. 030-2022 – MOTION AUTHORIZING THE EXECUTION OF A 3.588-ACRE PIPELINE

EASEMENT AGREEMENT LOCATED IN SECTIONS 31, BLOCK 38, T-1-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS, FROM CURTIS SCHMID; AND ORDERING THE CITY SECRETARY TO RECORD SAID INSTRUMENT IN THE OFFICIAL REAL PROPERTY RECORDS OF MIDLAND COUNTY, TEXAS (DISTRICT: ALL) (UTILITIES)

SECOND READINGS

21. 10291 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 3, BLOCK 6, EASTOVER ADDITION, THIRD EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH CALHOUN STREET, APPROXIMATELY 112 FEET SOUTH OF EAST ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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 FEBRUARY 22, 2022)

22. 10292 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 1, EASTOVER ADDITION, SECOND EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF JESSE STREET AND ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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 FEBRUARY 22, 2022)

23. 10293 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 16, BLOCK 64, PARK AVENUE HEIGHTS, SECOND SECTION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-22, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF BUNCHE STREET, APPROXIMATELY 250 FEET SOUTH OF CALIFORNIA AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES) (FIRST READING HELD FEBRUARY 22, 2022)

24. 10294 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 11, BLOCK 5, AVALON ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF HUMBLE AVENUE, APPROXIMATELY 145 FEET EAST OF NORTH L STREET), BY PERMITTING A REDUCED MINIMUM SIDE YARD SETBACK ON THE WEST SIDE OF THE LOT; 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 FEBRUARY 22, 2022)

25. 10295 – AN ORDINANCE AMENDING TITLE XI, “PLANNING AND DEVELOPMENT”, CHAPTER 3, “FLOOD DAMAGE PREVENTION CODE”, SO AS TO REVISE CERTAIN STANDARDS FOR CONSTRUCTION IN FLOOD HAZARD AREAS WITHIN THE CITY OF MIDLAND; SETTING FORTH VARIANCE AND APPEAL PROCEDURES; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; AND ORDERING PUBLICATION (DISTRICT: NONE) (ENGINEERING SERVICES) (FIRST READING HELD FEBRUARY 22, 2022)

PUBLIC HEARINGS

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

26. 10296 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 6,924-SQUARE FOOT PORTION OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF TREMONT AVENUE AND NORTH LOOP 250 WEST), 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 1) (DEVELOPMENT SERVICES)

27. 031-2022 – THE PROPOSED GRANTING OF OIL AND GAS WELL PERMITS TO PERMIAN DEEP ROCK OIL CO., LLC FOR THE DRILLING OF THE FOLLOWING OIL AND GAS WELLS: REBEL #H130LS; REBEL #H130WB; REBEL #H135WA; REBEL #H140WB; REBEL #H145LS; REBEL #H145UH; REBEL #H145WA; REBEL #H150WB; REBEL #H155WA; REBEL #H160LS; AND REBEL #160WB; SAID WELLS BEING GENERALLY LOCATED BETWEEN 231 FEET AND 2,392 FEET WEST OF SOUTH LAMESA ROAD AND BETWEEN 150 FEET AND 170 FEET SOUTH OF I-20 (DISTRICT 2) (DEVELOPMENT SERVICES)

28. 10297 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.41-ACRE

TRACT OF LAND OUT OF LOT 3, ASHLIN PLACE, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTHEAST SIDE OF LIVE OAK DRIVE, APPROXIMATELY 233 FEET SOUTH OF WEST SCHARBAUER DRIVE), BY PERMITTING (1) AN INCREASED MAXIMUM LIVING AREA OF AN ACCESSORY DWELLING UNIT AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)

29. 2022-040 – RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A CONCERT ON LOT 2, BLOCK 11, WESTRIDGE PARK ADDITION, SECTION 27, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF TRADEWINDS BOULEVARD AND WINDHAVEN DRIVE) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS (DISTRICT 4) (DEVELOPMENT SERVICES)

MISCELLANEOUS

30. 10298 – DISCUSSION AND CONSIDERATION OF ALL MATTERS INCIDENT AND RELATED TO THE ISSUANCE AND SALE OF THE “CITY OF MIDLAND, TEXAS GENERAL OBLIGATION REFUNDING BONDS, SERIES 2022,” INCLUDING THE ADOPTION OF AN ORDINANCE AUTHORIZING THE ISSUANCE OF SUCH BONDS, ESTABLISHING PARAMETERS FOR THE SALE AND ISSUANCE OF SUCH BONDS AND DELEGATING CERTAIN MATTERS TO AN AUTHORIZED OFFICIAL OF THE CITY (DISTRICT: NONE) (FINANCE)

31. MOTION MAKING APPOINTMENTS TO VARIOUS BOARDS AND COMMISSIONS (CITY SECRETARY’S OFFICE)

PUBLIC COMMENT

32. 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

33. 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 551.071, Consultation with the City Attorney

b.1. Discuss matters in which the duty of the attorney(s) to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551 of the Texas Government Code

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
MINUTES
February 22, 2022

The City Council convened in regular session in the Council Chamber, City Hall, Midland, Texas, at 10:00 a.m., February 22, 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 Mabio Gomes, Seventh-Day Adventist 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 a Proclamation for Women's History Month

   This item will be presented at a future date.

   3b. Presentation of a Proclamation for Midland RSVP Recognition Day

CONSENT AGENDA

Lori Blong moved to approve Consent Agenda items 4-17, excluding item(s) 5, 9, 11, 12 and 13; seconded by Dan Corrales.

The motion passed by the following vote:

DRAFT

AYE: Corrales, Poole, Blong, Payton, Dufford, Ladd, Norman
NAY: None
ABSTAIN: None
ABSENT: None

4. MOTION APPROVING THE FOLLOWING MINUTES:

   4a. BRIEFING SESSION OF FEBRUARY 8, 2022

   4b. REGULAR SESSION OF FEBRUARY 8, 2022

6. 2022-022 – RESOLUTION AWARDING A PROFESSIONAL SERVICES AGREEMENT FOR THE REYES-MASHBURN-NELMS PARK PHASE 1 IMPROVEMENTS PROJECT TO LUCK DESIGN TEAM, LLC, FOR A TOTAL COST OF $295,750.00; AND APPROPRIATING FUNDS FOR SAID PROJECT (DISTRICT 2) (GENERAL SERVICES)

7. 2022-023 – RESOLUTION AWARDING A CONTRACT FOR THE PAUL DAVIS PUMP STATION REHABILITATION PROJECT TO EDGARDO MADRID & ASSOCIATES, LLC, FOR AN AMOUNT OF $2,725,387.00; APPROVING $681,346.75 FOR CONTINGENCIES; AND APPROPRIATING FUNDS (DISTRICT: NONE) (GENERAL SERVICES)

8. 021-2022 – MOTION RATIFYING THE CITY OF MIDLAND'S ACCEPTANCE OF CONCESSIONS RENT RELIEF AIRPORT RESCUE GRANT NO. 3-48-0150-067-2022 IN THE AMOUNT OF $576,026.00, WHICH IS DISTRIBUTED BY THE FEDERAL AVIATION ADMINISTRATION IN ACCORDANCE WITH THE AMERICAN RESCUE PLAN ACT GRANT PROGRAM; AND RATIFYING THE EXECUTION OF ALL DOCUMENTS NECESSARY TO EVIDENCE THE CITY OF MIDLAND'S ACCEPTANCE OF SAID GRANT FUNDS (DISTRICT 4) (AIRPORTS)

10. 023-2022 – MOTION APPROVING A CONSULTANT SERVICES AGREEMENT BETWEEN THE MIDLAND DEVELOPMENT CORPORATION AND INTERFLIGHT GLOBAL CORPORATION FOR SERVICES RELATED TO THE PROCUREMENT OF NEW TENANTS FOR FACILITIES LOCATED AT THE SPACEPORT BUSINESS PARK (DISTRICT 4) (CITY MANAGER)

14. 2022-026 – RESOLUTION REAPPOINTING SHARLA HOTCHKISS TO THE MIDLAND DOWNTOWN PARK CONSERVANCY BOARD OF DIRECTORS; AND DIRECTING THE CITY MANAGER TO DELIVER A COPY OF THIS RESOLUTION TO THE MIDLAND DOWNTOWN PARK CONSERVANCY (DISTRICT 2) (COMMUNITY SERVICES)

15. 2022-027 – 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 10, BLOCK 39, T-2-S, T&P RR CO. SURVEY, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED 1,690 FEET WEST OF RANKIN HIGHWAY AND 605 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT

DRAFT

SERVICES)

16. 2022-028 – 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 2,365 FEET EAST OF RANKIN HIGHWAY AND 170 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT SERVICES)

17. 025-2022 – MOTION AUTHORIZING THE EXECUTION OF A RIGHT-OF-WAY LICENSE (22-329-007) WITH ENVIRONMENTAL DISPOSAL SYSTEMS LLC, REGARDING CITY-OWNED PROPERTY DESCRIBED AS SECTION 21, BLOCK 37, T-3-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (DISTRICT: NONE) (UTILITIES)

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

5. 020-2022 – MOTION ALLOCATING THE SUM OF $700,000.00 OF CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY ACT FUNDS TO THE HEALTH DEPARTMENT'S COVID-19 PROGRAM (DISTRICT: NONE) (FINANCE)

Community Services Director Cristina Burns reported the number calculated is the amount needed to continue with temporary help and office supplies for case investigating due to COVID. Council Member Blong asked for a report on contract tracing. Health Services Manager Whitney Craig reported that when cases are lower we are able to be on top of it but with surges such as Omicron that produced 500 cases a day, it becomes much more difficult. Deputy City Manager Morris Williams added that we have actually gotten away from contact tracing and have moved more into case investigation for information that is needed to report to the state. Council Member Ladd inquired if this money can go to other areas? Finance Director Christy Weakland reported the $700,000.00 funds are left over from the federal grant which has been committed to being used for COVID related supplies within the community. Deputy City Manager Morris Williams reported that even though we would like the $700,000.00, at least $200,000.00 will keep the Health Department going with regards to case investigations and supplies. The State has approved their investigators to continue working with our three contract tracers until the 30th of June. Council Member Dufford suggested deferring this item until they have more information.

Scott Dufford moved to defer Motion No. 020-2022; seconded by Jack Ladd.

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

9. 022-2022 – MOTION APPROVING AN ECONOMIC DEVELOPMENT AGREEMENT BETWEEN THE MIDLAND DEVELOPMENT CORPORATION AND THE CITY OF

DRAFT

MIDLAND, TEXAS, AS AUTHORIZED BY CHAPTER 501 OF THE TEXAS LOCAL GOVERNMENT CODE; SAID AGREEMENT PROVIDING FOR CERTAIN COSTS ASSOCIATED WITH THE TODD DRIVE EXPANSION AND COUNTY ROAD 1160 OVERPASS IMPROVEMENTS PROJECT (DISTRICT: ALL) (CITY MANAGER)

Midland Development Corporation Executive Director Sara Harris reported in terms of allocation for this fiscal year, funding is at $1.73 million out of a projected $10 million revenue. Development corporations Type A are authorized to provide funding for new roads and infrastructure. What the 30 percent commitment of MDC revenue realized was an intention to strategically devise multi-year programs with the City to look at new and expanded corridors throughout the City and MDC funds cannot go to repair existing roads. They must be used for expanding new roads and corridors.

Engineering Services Director Jose Ortiz reported that the overpass is a $25 million project but it will take the State ten years to get to the project. By us taking this on we have the ability to get those projects and designs on the shelf and ready to go which will have a tremendous economic benefit to our region.

Dan Corrales moved to approve Motion No. 022-2022; 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

11. 2022-024 – RESOLUTION ESTABLISHING GUIDELINES FOR PERSONS SUBMITTING SPECIFIC REDISTRICTING PROPOSALS AND PROVIDING COMMENTS (DISTRICT: ALL) (CITY MANAGER)

Council Member Norman wanted to know who can submit proposals. City Attorney John Ohnemiller reported that any citizen can.

John Norman moved to approve Resolution No. 2022-024; seconded by Dan Corrales.

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

12. 2022-025 – RESOLUTION ADOPTING CRITERIA FOR USE IN THE CITY OF MIDLAND'S 2022 REDISTRICTING PROCESS (DISTRICT: ALL) (CITY MANAGER)

Council Member Norman asked who can submit proposals. City Attorney John Ohnemiller reported that any citizen can.

John Norman moved to approve Resolution No. 2022-025; seconded by Dan Corrales.

DRAFT

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

13. 024-2022 – MOTION AUTHORIZING THE EXECUTION OF SPORTS AGREEMENTS WITH THE FOLLOWING ORGANIZATIONS: BOYS AND GIRLS CLUB OF THE PERMIAN BASIN, GREATER MIDLAND FOOTBALL LEAGUE, MIDLAND JUNIOR BASEBALL ASSOCIATION, INC., MIDLAND SOCCER ASSOCIATION, INC., MIDLAND SOFTBALL ASSOCIATION, INC., MIDLAND UNITED GIRLS SOFTBALL ASSOCIATION, INC., TEXAS CRICKET CLUB, UNDER THE LIGHTS FLAG FOOTBALL LEAGUE, WEST TEXAS BMX, AND THE YMCA OF MIDLAND; SAID AGREEMENTS PROVIDING FOR THE ORGANIZATIONS' ADMINISTRATION OF RECREATIONAL PROGRAMS, SPECIAL EVENTS, AND OTHER RELATED SERVICES THROUGH THE USE OF CITY-OWNED PROPERTY AND FACILITIES (DISTRICT: ALL) (COMMUNITY SERVICES)

Council Member Poole highlighted all of the sports organizations that we have here in the City, noting we are fortunate to have such wonderful organizations that work with the City.

Council Member Corrales asked if we are paying for everything for them. Community Services Director Cristina Burns reported that the City supplies the general maintenance for the fields and the organizations prepare the playing fields for their events. There are provisions in capital improvements for costs of more than $5,000.00.

Robin Poole moved to approve Motion No. 024-2022; 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

SECOND READINGS

18. 10288 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 6, 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 NORTHWEST CORNER OF THE INTERSECTION OF NORTH MADISON STREET AND SOUTH 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) (FIRST READING HELD FEBRUARY 08, 2022)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10288.

John Norman moved to approve second and final reading of Ordinance No. 10288; seconded by Jack Ladd.

DRAFT

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

19. 10289 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE A 4.97-ACRE TRACT OF LAND OUT OF LOT 2, BLOCK 2, GREEN HILL TERRACE, CITY AND COUNTY OF MIDLAND, TEXAS, FROM AE, AGRICULTURAL ESTATE DISTRICT TO CE, COUNTRY ESTATE DISTRICT (GENERALLY LOCATED ON THE NORTH SIDE OF PIMLICO DRIVE, APPROXIMATELY 170 FEET EAST OF HOLIDAY HILL 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 FEBRUARY 08, 2022)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10289.

Dan Corrales moved to approve second and final reading of Ordinance No. 10289; seconded by Robin Poole.

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

20. 10290 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 43, PERMIAN ESTATES, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF THOMASON DRIVE AND RUBY DRIVE), BY PERMITTING A REDUCED MINIMUM FRONT YARD SETBACK AND A REDUCED MINIMUM SIDE YARD SETBACK ON THE NORTH SIDE OF THE LOT; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 4) (DEVELOPMENT SERVICES) (FIRST READING HELD FEBRUARY 08, 2022)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10290.

Jack Ladd moved to approve second and final reading of Ordinance No. 10290; seconded by Lori Blong.

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

DRAFT

ABSTAIN: None
ABSENT: None

PUBLIC HEARINGS

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

21. 10291 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 3, BLOCK 6, EASTOVER ADDITION, THIRD EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH CALHOUN STREET, APPROXIMATELY 112 FEET SOUTH OF EAST ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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 Jan Hamilton read the caption of Ordinance No. 10291.

Mayor Payton inquired if we have street and paving issues out there that need to be addressed. Development Services Director Chuck Harrington reported some streets are pave as we go but suggested that Engineering Director Jose Ortiz could better answer that question.

Mayor Payton opened the public hearing at 10:45 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Jack Ladd moved to approve the first of two readings of Ordinance No. 10291; seconded by Robin Poole.

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

22. 10292 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 1, EASTOVER ADDITION, SECOND EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF JESSE STREET AND ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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

DRAFT

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

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10292.

Mayor Payton opened the public hearing at 10:46 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. 10292; seconded by Jack Ladd.

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

23. 10293 – AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 16, BLOCK 64, PARK AVENUE HEIGHTS, SECOND SECTION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-22, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF BUNCHE STREET, APPROXIMATELY 250 FEET SOUTH OF CALIFORNIA AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10293.

Mayor Payton opened the public hearing at 10:47 a.m. There being no one present wishing to speak, the public hearing was immediately closed.

Lori Blong moved to approve the first of two readings of Ordinance No. 10293; seconded by Jack Ladd.

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

24. 10294 – AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 11, BLOCK 5, AVALON ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF HUMBLE AVENUE, APPROXIMATELY 145 FEET EAST OF NORTH L STREET), BY PERMITTING A REDUCED MINIMUM SIDE YARD SETBACK ON THE WEST SIDE OF THE LOT; 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

DRAFT

RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10294.

Development Services Director Chuck Harrington gave a brief overview of the item noting this item is unique in that there is an L or T shaped alley where one property is accessing both alleys. The problem is a portion of the wall encroaches on a 5 foot side-yard setback and the rear yard is right up to the alley. Staff can't recommend approval due to the 5 foot setback.

Mayor Payton opened the public hearing at 10:48 a.m.

Kristina Leigh Johnson, 2403 Texland Circle, agrees this is a highly unique situation and suggested that when situations like this are discovered that the City firms it up and places the interpretation in the zoning.

Discussion ensued with questions and about how having the one-stop shop for designers and architects will assist them with issues like this.

Vickey Thomas, 2000 N. L Street, says they bought their house about five years ago. There is a brick wall on her property that people kept hitting when coming out of the alley. They had the wall rebuilt last year and there are huge lines on the wall where people continue to hit it. Ms. Thomas explained how vehicles who try to make the turns there are unsuccessful and building the wall out will only make for more issues.

John Morris, 9 Hanover, builder, said he's not sure why it's considered a side-yard setback. In the past it's been considered a rear yard setback. The wall that goes to the property line is no different than a fence and feels like this design will be better.

Council Member Ladd wanted to know if they could wait two more weeks to see if the neighbors can come to an agreement. City Manager Robert Patrick reported that the next Council Meeting will be March 22.

There being no one else wishing to speak, the public hearing was closed at 11:07 a.m.

Scott Dufford moved to approve the first of two readings of Ordinance No. 10294; seconded by John Norman.

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

25. 10295 – AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER 3, "FLOOD DAMAGE PREVENTION CODE", SO AS TO REVISE CERTAIN STANDARDS FOR CONSTRUCTION IN FLOOD HAZARD AREAS WITHIN THE CITY OF

DRAFT

MIDLAND; SETTING FORTH VARIANCE AND APPEAL PROCEDURES; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; AND ORDERING PUBLICATION (DISTRICT: NONE) (ENGINEERING SERVICES)

Deputy City Secretary Jan Hamilton read the caption of Ordinance No. 10295.

Transportation Manager Gabe McClellen gave a brief overview of the item noting this is a step required by FEMA regarding flood plains. It is a tedious process but if we accrue enough points for flood mitigation efforts, residents in the flood plain can receive a discount on flood insurance.

Mayor Payton opened the public hearing at 11:10 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. 10295; seconded by Jack Ladd.

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

MISCELLANEOUS

26. MOTION MAKING APPOINTMENTS TO VARIOUS BOARDS AND COMMISSIONS (CITY SECRETARY'S OFFICE)

Ms. Lucy Sisniega thanked everyone for their support.

Robin Poole moved to appoint Garner Gonzales to the Midland Development Corporation to replace Wesley Bownds; seconded by Lori Blong.

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

Dan Corrales moved to appoint Lucy Sisniega to the Midland Development Corporation to replace Wesley Bownds.; seconded by Jack Ladd.

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

DRAFT

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.)

Regan Hignojos, 516 N. Loop 250, expressed a need for a long term plan for access to public education and the need for the three entities to work together.

Council Member Poole reported that Keep Midland Beautiful will be having their spring clean up on March 26th noting she has partnered with the Symphony Bells for this cleanup. She challenged other Council Members to partner with local non-profit organizations for the community clean-up.

EXECUTIVE SESSION

Mayor Payton recessed the meeting to go to executive session at 11:26 a.m.

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 551.074, Personnel Matters

a.1. Deliberate the employment, evaluation, and duties of the City Manager, City Attorney, City Secretary, Municipal Court Presiding Judge, and Municipal Court Associate Judge

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

All the business at hand having been completed, the meeting adjourned at 1:45 p.m.

PASSED AND APPROVED March 22, 2022.

Patrick Payton, Mayor

ATTEST:

Amy M. Turner, City Secretary

DRAFT

CITY OF MIDLAND, TEXAS
MIDLAND CITY COUNCIL
SPECIAL MINUTES
February 22, 2022

The City Council convened in **Special** Session in the Wagner Noel Rea-Greathouse Recital Hall, Midland, Texas, at 7:00 PM, Tuesday, February 22, 2022.

Council Members present: Dan Corrales, Lori Blong, Patrick Payton, Jack Ladd

Council Members absent: Robin Poole, Scott Dufford, John Norman

The meeting was called to order at 7:00 p.m.

SPECIAL SESSION

1. To attend the Midland Entrepreneurial Challenge Awards Ceremony

All the business at hand having been completed, the meeting adjourned at 9:00 p.m.

PASSED AND APPROVED March 22, 2022.

_____
Patrick Payton, Mayor

ATTEST:

_____
Amy M. Turner, City Secretary

DRAFT

City Council Meeting

Item Number: 5

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION AUTHORIZING THE SOLE-SOURCE PURCHASE OF NIGHT VISION EQUIPMENT FOR THE POLICE DEPARTMENT FROM EMERGING TACTICAL SOLUTIONS, LLC, FOR A TOTAL COST OF $287,748.00 (DISTRICT: ALL) (GENERAL SERVICES)

Purpose:

Resolution approving the sole source purchase of night vision equipment.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the Operation Lone Star Grant Program Project.

Discussion:

Staff recommends approving the sole source purchase of night vision equipment for the Police Department from Emerging Tactical Solutions, LLC. According to Texas Local Government Code 252.022 (a)(7)(A), competitive bidding requirements do not apply to items that are available from only one source because of patents, copyrights, secret processes, or natural monopolies. Please see the attached memo from Seth Herman, Chief of Police, for additional information.

Therefore, please consider a resolution approving the sole source purchase of night vision equipment from Emerging Tactical Solutions, LLC. of Mesa, Arizona for a cost of $287,748.00.

Tina Dawg

City Manager's Office

City of Midland

Midland Police Department

Interoffice Memorandum

Date: **March 1, 2022**

To: **Donna Wootan, Acquisitions and Supply Manager**

From: **Seth Herman, Chief of Police**

Subject: **Sole Source Requirement – Emerging Tactical Solutions**

Please accept this memorandum as a Sole Source notification regarding the approved purchase of night vision optics and accompanying equipment through Emerging Tactical Solutions of Mesa, Arizona. Emerging Tactical Solutions is the preferred vendor for the requested equipment deployed by police special operations teams throughout the United States as well as U.S. military special operations groups tasked with similar missions. This equipment is highly specialized, restricted to government agencies, and subject to ITAR and other federal regulations. Emerging Tactical Solutions provides proprietary information in terms of assistance with the formation of agency policy concerning deployment. Local, state and federal law enforcement agencies as well as the United States Department of Defense have properly vetted Emerging Tactical Solutions and affirmed the company's reliability and adherence to prescribed laws.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE SOLE-SOURCE PURCHASE OF NIGHT VISION EQUIPMENT FOR THE POLICE DEPARTMENT FROM EMERGING TACTICAL SOLUTIONS, LLC, FOR A TOTAL COST OF $287,748.00

WHEREAS, the City of Midland Police Department is in need of certain night vision equipment, which is only available for purchase through a sole-source provider; and

WHEREAS, the sole-source provider of said night vision equipment, Emerging Tactical Solutions, LLC, submitted a total quote of $287,748.00, as shown on the document attached hereto as Exhibit A and incorporated herein for all purposes; and

WHEREAS, said night vision equipment is available only from Emerging Tactical Solutions, LLC; and

WHEREAS, the City Council finds the price proposed for said night vision equipment to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to authorize the purchase of said night vision equipment from Emerging Tactical Solutions, LLC;

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

SECTION ONE. That the City Manager is hereby authorized and directed to purchase said night vision equipment from Emerging Tactical Solutions, LLC, for a total cost of $287,748.00.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Emerging Tactical Solutions, LLC, from funds available in the Operations Lone Star Grant Program Project upon receipt of proper invoices or statements approved by the City Manager.

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



Emerging Tactical Solutions
10215 East Pampa Ave.
Mesa, AZ 85212
AZ State Vendor # 000012935
DUNS # 03-927-6730
CAGE Code - 89N13
TIN # 27-2973813

Date: 12/30/2021
Quote # MPD NVG 12 30 21

TO: Michael Nickell
Midland, TX P.D.

Qty	Description	Unit Price	Extended
24	L3 BNG-000-A48M, PVS-31A Kit, 2376 Min FOM, WP, AG, UNF, with Wilcox G24 Mount and standard Accs. (Est. 210 days delivery)	$10,803.00	$259,272.00
24	ATP-000-A18, PEQ-15, Standard Power, Tan (Est. 150 day delivery)	$1,174.00	$28,176.00
1	Shipping		$300.00
		Subtotal	$287,748.00
		Tax (8.3%)	N/A
		Total	$287,748.00

All Quotes are valid for 60 Days and are based on payment by check. Credit card payments will incur a 3.0% convenience fee.

Payment is due no later than 30 days from the invoice date.

Pat Hickcox
Cell # 602 885-1160
Email: path@emergingtacticalsolutions.com

Exhibit A

Emerging Tactical Solutions
10215 East Pampa Ave.
Mesa, AZ 85212
AZ State Vendor # 000012935
DUNS # 03-927-6730
CAGE Code - 89N13
TIN # 27-2973813

Date: 12/30/2021
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24	ATP-000-A18, PEQ-15, Standard Power, Tan (Est. 150 day delivery)	$1,174.00	$28,176.00
1	Shipping		$300.00
		Subtotal	$287,748.00
		Tax (8.3%)	N/A
		Total	$287,748.00

All Quotes are valid for 60 Days and are based on payment by check. Credit card payments will incur a 3.0% convenience fee.

Payment is due no later than 30 days from the invoice date.

Pat Hickcox
Cell # 602 885-1160
Email: path@emergingtacticalsolutions.com

Emerging Tactical Solutions
10215 East Pampa Ave
Mesa, AZ 85212
Tel 602 885-1160

February 17th 2022

Via email to: dwootan@midlandtexas.gov

The L3/Harris BNG-000-A48M, PVS-31A Kit, 2376 Min FOM, WP, AG, UNF. And the L3/Harris ATP-000-A18, PEQ-15, Standard Power, Tan are both highly technical specialized items that are restricted to government agency sales and subject to ITAR and other federal regulations. Emerging Tactical Solutions specializes in Night Vision Equipment sales and training specifically for the domestic Law Enforcement Tactical community and is the L3/Harris dealer with preferred pricing. Emerging Tactical Solutions also provides proprietary information in terms of assistance with agency policy development for use of this specialized equipment. Please contact us if you have any further questions.

Respectfully

John "Pat" Hickcox
Managing Partner
Emerging Tactical Solutions
Cell # 602 885-1160
Email: path@emergingtacticalsolutions.com

City Council Meeting

Item Number: 6

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **RESOLUTION AWARDING A CONTRACT FOR THE WADLEY AVENUE AND SCHARBAUER DRAW MANHOLE PROJECT TO TEC EXCAVATION, INC., FOR AN AMOUNT OF $1,094,470.00; APPROVING $109,447.00 FOR CONTINGENCIES; APPROVING $50,000.00 FOR PROJECT RELATED COSTS; AND APPROPRIATING FUNDS (DISTRICT 3) (GENERAL SERVICES)**

Purpose:

Resolution authorizing the execution of a contract for Wadley Ave & Scharbauer Draw Manhole Project.

Recommended City Council Action:

Approve

Fiscal Impact:

The amount of $1,253,917 is available in the FY22 Utilities Fund operating budget, and will be transferred and appropriated to a project for said purpose.

Discussion:

The City Manager approved plans and specifications and authorized advertisement for bids for the Wadley Ave & Scharbauer Draw Manhole Project. The bid request was sent to seventy-two (72) companies. We received one (1) bid. Staff recommends awarding a contract to TEC Excavation Inc. for the amount of $1,094,470.00. Please see the attached memo from Carl Craigo, Utilities Director, for more information.

Therefore, please consider a resolution awarding a contract for the Wadley Ave & Scharbauer Draw Manhole Project to TEC Excavation Inc. of Midland, Texas for the amount of

$1,094,470.00. Staff is also requesting an additional $109,447.00 in contingences plus $50,000.00 for project related costs for a total cost of $1,253,917.00.

Tina Dawg

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Martinez; City of Midland, Purchasing Manager

FROM: Carl Craigo; City of Midland, Utilities Director

SUBJECT: Wadley Avenue & Scharbauer Draw Manhole Replacement ♦ Engr. Project No. U21-01 ♦ Bid Tabulation ♦ Funding #_____

DATE: October 18, 2022

Erika,

Engineer staff has reviewed the bid tabulation for the Wadley Avenue & Scharbauer Draw Manhole Replacement project. TEC Excavation, Inc. of Midland, Texas, is the apparent successful low bidder. Staff recommends awarding the Wadley Avenue & Scharbauer Draw Manhole Replacement project to TEC Excavation, Inc.

TEC Excavation, Inc. has an established history with the City of Midland of performing work of similar scale and scope to the Wadley Avenue & Scharbauer Draw Manhole Replacement project. 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 **$1,094,470.00** as outlined in the bidding documents. In addition, we would like to request that a 10% contingency in the amount of **$109,447.00** 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, material testing services, etc.). The total amount made available for the project would be **$1,253,917.00**.

The agreement specifies a construction period beginning within 15 calendar days of a written notice to proceed for construction.

Carl Craigo
Utilities Director

Cc: Cory Moose
Regina Stephenson

RESOLUTION NO. _____

RESOLUTION AWARDING A CONTRACT FOR THE WADLEY AVENUE AND SCHARBAUER DRAW MANHOLE PROJECT TO TEC EXCAVATION, INC., FOR AN AMOUNT OF $1,094,470.00; APPROVING $109,447.00 FOR CONTINGENCIES; APPROVING $50,000.00 FOR PROJECT RELATED COSTS; AND APPROPRIATING FUNDS

WHEREAS, the City Manager approved plans and specifications and authorized the advertisement for bids for the Wadley Avenue and Scharbauer Draw Manhole Project; and

WHEREAS, Bid No. U21-01 was opened on February 16, 2022, with the sole 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 Wadley Avenue and Scharbauer Draw Manhole Project;

WHEREAS, the City Council finds it to be in the public interest to approve $109,447.00 for contingencies; and

WHEREAS, the City Council finds it to be in the public interest to approve $50,000.00 for project related costs

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 Wadley Avenue and Scharbauer Draw Manhole Project for an amount of $1,094,470.00. Said contract to be kept on file in the office of the City Secretary, referenced by the date and number of this Resolution.

SECTION TWO. That the sum of $109,447.00 for contingencies is hereby approved for said agreement.

SECTION THREE. That the sum of $50,000.00 for project related costs is hereby approved for said agreement.

SECTION FOUR. That funds are available in the FY22 Utilities Fund operating budget and will be transferred and appropriated to a project for said purpose.

SECTION FIVE. That the City Comptroller is hereby authorized and directed to pay TEC Excavation, Inc., pursuant to the terms of said contract 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

U21-01 - City of Midland: Wadley Avenue & Scharbauer Draw Manhole Replacement

City of Midland - Engineering Services; Febraury 16, 2022

BID TAB					TEC Excavation		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total
1	M1	Mobilization	5	MO	$ 2,500.00	$ 12,500.00	$ 12,500.00
2	M2	Bypass Pumping	5	MO	$ 84,000.00	$ 420,000.00	$ 420,000.00
3	M3	Erosion/Sediment Control	5	MO	$ 1,200.00	$ 6,000.00	$ 6,000.00
4	M4	Job Site Safety	5	MO	$ 3,500.00	$ 17,500.00	$ 17,500.00
5	M5	Material Mark-up	N/A	%	15%	N/A	N/A
6	M6	Labor Mark-up (Regular Work Hours)	N/A	%	15%	N/A	N/A
7	M7	Equipment Rental Mark-up (Non-Standard Equipment Only)	N/A	%	15%	N/A	N/A
1	D1	Removal & Disposal of Existing 60" Manhole (0'-5' Deep)	6	EA	$ 1,600.00	$ 9,600.00	$ 9,600.00
2	D2	Removal & Disposal of Existing 60" Manhole Additional Depth (> 5' Deep)	39	VF	$ 155.00	$ 6,045.00	$ 6,045.00
3	D1	Removal & Disposal of Existing 48" Manhole (0'-5' Deep)	8	EA	$ 1,600.00	$ 12,800.00	$ 12,800.00
4	D2	Removal & Disposal of Existing 48" Manhole Additional Depth (> 5' Deep)	73	LF	$ 155.00	$ 11,315.00	$ 11,315.00
5	D3	Removal & Disposal of Existing Unclassified Pavement	188	SY	$ 10.00	$ 1,880.00	$ 1,880.00
1	WW1	60" Fiberglass Manhole & Cover (0'-5' Deep)	7	EA	$ 28,500.00	$ 199,500.00	$ 199,500.00
2	WW2	60" Fiberglass Manhole & Watertight Cover (0'-5' Deep)	6	EA	$ 28,900.00	$ 173,400.00	$ 173,400.00
3	WW3	60" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	106	VF	$ 535.00	$ 56,710.00	$ 56,710.00
4	WW1	48" Fiberglass Manhole & Cover (0'-5' Deep)	1	EA	$ 23,700.00	$ 23,700.00	$ 23,700.00
5	WW3	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	6	VF	$ 315.00	$ 1,890.00	$ 1,890.00
6	WW4	Connect to Existing Wastewater Main	34	EA	$ 2,500.00	$ 85,000.00	$ 85,000.00
7	WW5	6" Manhole Drop Structure (0'-5' Deep, External)	3	EA	$ 2,600.00	$ 7,800.00	$ 7,800.00
8	WW6	6" Manhole Drop Structure Additional Bury Depth (> 5' Deep, External)	19	VF	$ 115.00	$ 2,185.00	$ 2,185.00
1	P1	12" Concrete Pavement Repair	81	SY	$ 205.00	$ 16,605.00	$ 16,605.00
2	P2	3" Type C HMAC Asphalt Pavement Repair (PG64-22)	94	SY	$ 80.00	$ 7,520.00	$ 7,520.00
3	P3	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	108	SY	$ 60.00	$ 6,480.00	$ 6,480.00
4	P4	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	22	GAL	$ 8.00	$ 176.00	$ 176.00
5	P5	Tack Coat (MC-30, 0.10 Gal / SY)	9	GAL	$ 8.00	$ 72.00	$ 72.00
6	P6	Flowable Fill / 2-Sack Backfill	188	SY	$ 84.00	$ 15,792.00	$ 15,792.00
					Base Bid Total =	$ 1,094,470.00	**$ 1,094,470.00**

$0.00

SPECIFICATIONS

Project Name: Wadley Avenue & Scharbauer Draw Manhole Replacement

Project Number: U21-01

MAYOR

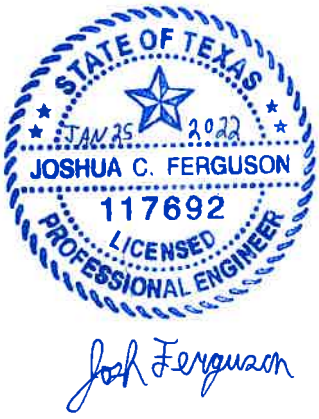
Patrick Payton

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

UTILITIES DIRECTOR

Carl Craigo



Josh Ferguson

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 _16th_ day of _February_, 2022, and publicly opened and read aloud at that time.

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

The Proposed Work provides for the furnishing of materials and labor for __Wadley Avenue & Scharbauer Draw Manhole Replacement___ together with other miscellaneous and appurtenant work.

ATTENTION: A NON-MANDATORY PRE-BID MEETING will be held at 3:00 p.m. on _Wednesday_, _February 9th_, 2022 in the basement conference room of City Hall, 300 N. Loraine Street, Midland, Texas. Bidders may attend the meeting either in person or by calling the number listed below:

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

jferguson@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting is Noon on Friday, February 11, 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 January 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 January 25, 2022 and numbered from 1 through 29 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 January 2022

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.**

N/A

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.**

N/A

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.**

N/A

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

2.16.22

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): 11/17/2021

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: Ty Hartley
All Insured Group 14550 Spring Cypress RD Suite B Cypress TX 77429	PHONE (A/C, No, Ext): (432)349-0398 FAX (A/C, No): (940)468-7273 E-MAIL ADDRESS: ty@hartley-usa.com

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
TEC Excavation Inc PO BOX 80455 Midland TX 79708	INSURER A: CONTINENTAL INS CO	35289
	INSURER B: CONTINENTAL CAS CO	20443
	INSURER C: TEXAS MUTUAL INS COMPANY	22945
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [X] OTHER: POLLUTION			6081573553	08/14/2021	08/14/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG OCCURRENCE/AGGF	$ 1,000,000 $ 100,000 $ 15,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $ 1 MIL/2MIL
A	AUTOMOBILE LIABILITY [X] ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY			6081573567	08/14/2021	08/14/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	[X] UMBRELLA LIAB [X] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [X] RETENTION $ 10000			6081573570	08/14/2021	08/14/2022	EACH OCCURRENCE AGGREGATE PR/COMP OPS AGG	$ 5,000,000 $ 5,000,000 $ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0001116944	05/10/2021	05/10/2022	[X] PER STATUTE [ ] 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
B	Commercial Inland Marine EQUIPMENT FLOATER			6081576209	08/14/2021	08/14/2022	SCHEDULED	3,478,307

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

The City of Midland is included as an additional Insured on a occurrence basis, on the policies listed above, except for Worker's Compensation, when required by a written contract..

All policies contain an automatic blanket waiver of subrogation endorsement in favor of The City of Midland. This waives the rights of subrogation with respect to claims against The City of Midland, it's agents, employees and officers, on all policies listed above, when required by a written contract.

The Commercial General Liability is Primary and Non-Contributory

30 Day Notice of cancellation. Umbrella is Follow-form.

CERTIFICATE HOLDER

City of Midland
300 N Loraine
Midland TX 79701

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

Ty Hartley

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PACKET
6.22
March 22, 2022

TECHNICAL SPECIFICATIONS

FOR: Wadley Avenue & Scharbauer Draw Manhole Replacement

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 January 2022

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 **_Wadley Avenue & Scharbauer Draw Manhole Replacement_** to be performed as outlined in the Plans and Specifications, which are necessary to satisfactorily complete the work.

The project base bid will include removal, replacement, and installation of existing and proposed wastewater manholes and appurtenances installation including all necessary mobilization saw-cutting, pavement removal, excavation, embedment, 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.

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 will be made for material installed, not for material delivery, for all Proposal Bid Items except those specifically listed below, which will be the only Proposal Bid Items to be paid upon material delivery for this project:

Wastewater Bid Items: 1-5, 7-8

Retainage will apply the same to all bid items and invoices regardless of whether an invoice is for bid items pair upon material delivery or not.

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 property stored or protected and becomes weathered or damaged before installation must be replaced with new material meeting the standards and requirements of the construction drawings and specifications before it can be installed, and this will be done at not additional cost to the City of Midland.

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.

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:

Traffic control for this project will be the City of Midland's responsibility. The Contractor is to coordinate construction activities with the Barricade Company operating at the City of Midland's direction for this project. If at any time or for any reason there should be traffic control handled by the Contractor rather than the City of Midland or the Barricade Company operating at the City of Midland's direction, then that traffic control is to adhere to the rest of the requirements outlined in 'Special Provisions, 7. Traffic Control' that follow after this paragraph.

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and 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.

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 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 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.

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 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.

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.

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.

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. INTENT OF THE PROPOSAL:

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.

21. CONTRACT DEADLINE:

The deadline for substantial completion of this project is __150_____ 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: Wadley Avenue & Scharbauer Draw Manhole Replacement

Project Number: U21-01

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	5 MO	Mobilization, furnished, installed, complete and in place, for the sum of: TWENTY FIVE HUNDRED dollars and NO cents per month. (Pay Note M1)	$ 2,500.00	$ 12,500.00
2)	5 MO	Bypass Pumping, furnished, installed, complete and in place, for the sum of: EIGHTY FOUR THOUSAND dollars and NO cents per week. (Pay Note M2)	$ 84,000.00	$ 420,000.00
3)	5 MO	Erosion/Sediment Control, furnished, installed, complete and in place, for the sum of: TWELVE HUNDRED dollars and NO cents per month. (Pay Note M3)	$ 1,200.00	$ 6,000.00
4)	5 MO	Job Site Safety, furnished, installed, complete and in place, for the sum of: THIRTY FIVE HUNDRED dollars and NO cents per month. (Pay Note M4)	$ 3,500.00	$ 17,500.00
5)	N/A	Material Mark-up, complete and in place, for the sum of: FIFTEEN percent. (Pay Note M5)	% 15	$ N/A

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
6)	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: FIFTEEN percent. (Pay Note M6)	% 15	$ N/A
7)	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: FIFTEEN percent. (Pay Note M7)	% 15	$ N/A
Total Miscellaneous Items 1-7		$ 456,000.00		

Type text here

Base Bid: Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	6 EA	Removal & Disposal of Existing 60" Manhole, (0'-5' Deep), complete and in place, for the sum of: SIXTEEN HUNDRED dollars and NO cents per each. (Pay Note D1)	$ 1,600.00	$ 9,600.00
2)	39 VF	Remove & Disposal of Existing 60" Manhole Additional Depth, (> 5' Deep), complete and in place, for the sum of: ONE HUNDRED FIFTY FIVE dollars and NO cents per vertical foot. (Pay Note D2)	$ 155.00	$ 6,045.00
3)	8 EA	Removal & Disposal of Existing 48" Manhole, (0'-5' Deep), complete and in place, for the sum of: SIXTEEN HUNDRED dollars and NO cents per each. (Pay Note D1)	$ 1,600.00	$ 12,800.00
4)	73 VF	Remove & Disposal of Existing 48" Manhole Additional Depth, (> 5' Deep), complete and in place, for the sum of: ONE HUDRED FIFTY FIVE dollars and NO cents per vertical foot. (Pay Note D2)	$ 155.00	$ 11,315.00
5)	188 SY	Removal & Dispose of Existing Unclassified Pavement, complete and in place, for the sum of: TEN dollars and NO cents per square yard. (Pay Note D3)	$ 10.00	$ 1,880.00
Total Demolition Items 1-5		$ 41,640.00		

Base Bid: Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	7 EA	60" Fiberglass Manhole & Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: TWENTY EIGHT THOUSAND FIVE HUNDRED dollars and NO cents per each. (Pay Note WW1)	$ 28,500.00	$ 199,500.00
2)	6 EA	60" Fiberglass Manhole & Watertight Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: TWENTY EIGHT THOUSAND NINE HUNDRED dollars and NO cents per each. (Pay Note WW2)	$ 28,900.00	$ 173,400.00
3)	106 VF	60" Fiberglass Manhole Additional Bury Depth, (> 5' Deep), furnished, installed, complete and in place, for the sum of: FIVE HUNDRED THIRTY FIVE dollars and NO cents per vertical foot. (Pay Note WW3)	$ 535.00	$ 56,710.00
4)	1 EA	48" Fiberglass Manhole & Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: TWENTY THREE THOUSAND SEVEN HUNDRED dollars and NO cents per each. (Pay Note WW1)	$ 23,700.00	$ 23,700.00
5)	6 VF	48" Fiberglass Manhole Additional Bury Depth, (> 5' Deep), furnished, installed, complete and in place, for the sum of: THREE HUNDRED FIFTEEN dollars and NO cents per vertical foot. (Pay Note WW3)	$ 315.00	$ 1,890.00
6)	34 EA	Connection to Existing Wastewater Main, furnished, installed, complete and in place, for the sum of: TWENTY FIVE HUNDRED dollars and NO cents per each. (Pay Note WW4)	$ 2,500.00	$ 85,000.00

Base Bid: Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	3 EA	6" Manhole Drop Structure (0'-5' Deep, External), furnished, installed, complete and in place, for the sum of: TWENTY SIX HUNDRED dollars and NO cents per each. (Pay Note WW5)	$2,600.00	$7,800.00
8)	19 VF	6" Manhole Drop Structure Additional Bury Depth (> 5' Deep, External), furnished, installed, complete and in place, for the sum of: ONE HUNDRED FIFTEEN dollars and NO cents per vertical foot. (Pay Note WW6)	$115.00	$2,185.00
Total Sewer Items 1-6		$550,185.00		

Base Bid: Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	81 SY	12" Concrete Pavement Repair, furnished, installed, complete and in place, for the sum of: TWO HUNDRED FIVE dollars and NO cents per square yard. (Pay Note P1)	$ 205.00	$ 16,605.00
2)	94 SY	3" Type C HMAC Asphalt Pavement Repair (PG64-22), furnished, installed, complete and in place, for the sum of: EIGHTY dollars and NO cents per square yard. (Pay Note P2)	$ 80.00	$ 7,520.00
3)	108 SY	2" Type D HMAC Asphalt Pavement Repair (PG70-22), furnished, installed, complete and in place, for the sum of: SIXTY dollars and NO cents per square yard. (Pay Note P3)	$ 60.00	$ 6,480.00
4)	22 GAL	Bituminous Prime Coat (MC-30, 0.20 Gal / SY), furnished, installed, complete and in place, for the sum of: EIGHT dollars and NO cents per gallon. (Pay Note P4)	$ 8.00	$ 176.00
5)	9 GAL	Tack Coat (MC-30, 0.10 Gal / SY), furnished, installed, complete and in place, for the sum of: EIGHT dollars and NO cents per gallon. (Pay Note P5)	$ 8.00	$ 72.00
6)	188 SY	Flowable Fill / 2-Sack Backfill, furnished, installed, complete and in place, for the sum of: EIGHTY FOUR dollars and NO cents per square yard. (Pay Note P6)	$ 84.00	$ 15,792.00
Total Paving Items 1-7		$ 46,645.00		

Bid Price For:	
1. Miscellaneous Items	$456,000.00
2. Demolition Items	$41,640.00
3. Wastewater Items	$550,185.00
4. Paving Items	$46,645.00
Total Price	$1,094,470.00

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

ONE MILLION NINETY FOUR THOUSAND FOUR HUNDRED SEVENTY dollars

and NO 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 150 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 agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

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

5% GAB dollars

and 5% GAB cents total. ($ 5% GAB)

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.

TEC EXCAVATION, INC.

Name of Contractor

Tuyla Clutter — Tuyla Clutter Pres.

Submitted by — Print Name and Title

P.O. BOX 80455

Mailing Address

MIDLAND	TX	79708
City	State	Zip

PAY NOTES

Wadley Avenue & Scharbauer Draw Manhole Replacement

Bid Item		Pay Quantity Note
Miscellaneous Items		
1	Mobilization	M1
2	Bypass Pumping	M2
3	Erosion/Sediment Control	M3
4	Job Site Safety	M4
5	Material Mark-up	M5
6	Labor Mark-up (Regular Work Hours)	M6
7	Equipment Rental Mark-up (Non-Standard Equipment Only)	M7
Demolition Items		
1	Removal & Disposal of Existing 60" Manhole (0'-5' Deep)	D1
2	Removal & Disposal of Existing 60" Manhole Additional Depth (> 5' Deep)	D2
3	Removal & Disposal of Existing 48" Manhole (0'-5' Deep)	D1
4	Removal & Disposal of Existing 48" Manhole Additional Depth (> 5' Deep)	D2
5	Removal & Disposal of Existing Unclassified Pavement	D3
Wastewater Items		
1	60" Fiberglass Manhole & Cover (0'-5' Deep)	WW1
2	60" Fiberglass Manhole & Watertight Cover (0'-5' Deep)	WW2
3	60" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	WW3
4	48" Fiberglass Manhole & Cover (0'-5' Deep)	WW1
5	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	WW3
6	Connect to Existing Wastewater Main	WW4
7	6" Manhole Drop Structure (0'-5' Deep, External)	WW5
8	6" Manhole Drop Structure Additional Bury Depth (> 5' Deep, External)	WW6
Paving Items		
1	#" Concrete Pavement Repair	P1
2	#" Type C HMAC Asphalt Pavement Repair (PG64-22)	P2
3	#" Type D HMAC Asphalt Pavement Repair (PG70-22)	P3
4	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	P4
5	Tack Coat (MC-30, 0.10 Gal / SY)	P5
6	Flowable Fill / 2-Sack Backfill	P6

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 for Bypass Pumping per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each week.

M3 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.

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 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.

M6 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.

M7 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.

D1 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.

D2 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'.

D3 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.

WW1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Cover to a depth of 5' 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.

WW2 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Watertight Cover to a depth of 5' 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.

WW3 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' below the rim elevation.

WW4 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing Wastewater Main per the construction drawings and City of Midland standards and specifications, including all grouting, sealing, repairs, and appurtenances. Measurement and payment to be made per each connection made.

WW5 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Manhole Drop Structure (External) per the construction drawings and City of Midland standards and specifications, including all coring, repairs, and appurtenances for a vertical adjustment of up to 5'. Additional pipe required for a vertical adjustment of more than 5' will be addressed in a separate pay note. Measurement and payment of drop structures to be made per each drop structure installed.

WW6 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Manhole Drop Structure Additional Bury Depth (> 5' Deep, External) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment of drop structures to be made per each vertical foot installed below a depth of 5' below the manhole rim elevation.

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 the installation of Type "C" HMAC Asphalt Pavement Repair (110 LBS / SY at 1" thick, PG 64-22) 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.

P3 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.

P4 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.

P5 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.

P6 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.

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

Wadley Avenue & Scharbauer Draw Manhole Replacement-U21-01

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 **16th** day of **February**, 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

PACKET
6.69
March 22, 2022

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,

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 11th day of February , 2020 .

MERCHANTS NATIONAL BONDING, INC. INCORPORATED -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 11th day of February 2020 , 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 16th day of February , 2022.

MERCHANTS NATIONAL BONDING, INC. INCORPORATED -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

William Warner Jr.
Secretary

POA 0018 (1/20)

PACKET
6.70
March 22, 2022

BID BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND § SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ (Hereinafter called the Principal), as Principal, 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 submitted a Bid or Proposal to enter into a certain written contract for the construction of Wadley Avenue & Scharbauer Draw Manhole Replacement.

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

CONTRACT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

THIS CONTRACT, made and entered into this 23rd day of March, 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 TEC Excavation, Inc. of the City Midland, County of Midland, 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: Wadley Avenue & Scharbauer Draw Manhole Replacement

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 150 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: $1,094,470.00.

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, 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.

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 TEC Excavation, 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 February 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 ___Wadley Avenue & Scharbauer Draw Manhole Replacement_ , 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 Wadley Avenue & Scharbauer Draw Manhole Replacement, 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 §

Wadley Avenue & Scharbauer Draw Manhole Replacement

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 January 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.

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

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

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CURB AND GUTTER *2*
DRIVEWAYS AND ALLEY RETURNS *3*
CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS *4*
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4. BACKFILL AND CLEANUP 6

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

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
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2. MATERIALS 2
3. CONSTRUCTION 3
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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.

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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 –	Retained on ¾" Sieve -	0% by weight
(Texas Highway	Retained on 5/8" Sieve -	0 – 2% by weight
Department 1982	Retained on ½" Sieve -	20, 35% by weight
Grade 3)	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 -	Retained on ½" Sieve -	0% by weight
(Texas Highway	Retained on 3/8" Sieve -	0 – 5% by weight
Department 1982	Retained on No. 4 Sieve -	40 – 85% by weight
Grade 5)	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.

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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

ADDENDUM #01
Project Number U21-01

TO ALL BIDDERS ON THE SUBJECT BID: Wadley Avenue & Scharbauer Draw Manhole Replacement

ADDENDUM #01

DATE: February 11, 2022

1. Q/A and Clarification
2. Revised Special Provisions
3. Revised Proposal
4. Revised Pay Notes
5. Non-Mandatory Pre-Bid Meeting Agenda
6. 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.

TEC EXCAVATION, INC.
Company Name

Twyla Clutter
Bidder Authorized Signature

2/16/22
Date

Twyla Clutter
Please Print Above Name

432-682-2619
Phone

www.MidlandTexas.gov
Utilities • 300 N. Loraine, Midland TX 79701 • 432-685-7286

Wadley Avenue & Scharbauer Draw Manhole Replacement
Project Number U21-01

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.

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.

Clarification: The Special Provisions section of the Bid Packet has been revised. The revision includes assigning responsibility for traffic control to the City of Midland rather than the Contractor as described in the first paragraph of the revised Special Provisions, section 7. TRAFFIC CONTROL attached to this Addendum 01. Bidders are to remove all previous versions of the Special Provisions section in its entirety from the original bid documents and replace it with the attached Special Provisions section revision.

Clarification: The Proposal and Pay Notes sections of the Bid Packet have been revised. The revisions include the removal of the miscellaneous bid item and corresponding pay note for Traffic Control. The revised Proposal and Pay Notes sections are attached to this Addendum 01. Bidders are to remove all previous versions of the Proposal and Pay Notes sections in their entirety from the original bid documents and replace them with the attached Proposal and Pay Notes section revisions.

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 must include 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 an active Wastewater D license or an active 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 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 immediately and the City of Midland will have sole discretion to either allow the Contractor to renew their active licenses before resuming work or to end the project immediately. If the Contractor is allowed to renew the required licenses then the City of Midland will have sole discretion on whether or not to grant a stay of

contract time while the required licenses are renewed or to hold the Contractor to the original contract time. There will be no additional payments for traffic controls, erosion controls, site safety measures, material storage, equipment storage, mobilization or remobilization, or similar items during any pause in construction if it is a result of the Contractor's failure to maintain the required licenses for this project.

Clarification: Contractor is solely responsible for all construction staking and survey.

Clarification: Contractor is solely responsible for all construction testing.

Clarification: The City of Midland is responsible for all traffic control during this project. Contractor is responsible for coordinating construction activities with the Barricade Company operating at the City of Midland's direction on this project.

Clarification: A minimum of one (1) lane of travel in each direction, east and west, must be maintained at all times on Wadley Avenue and Scharbauer Drive where 2-way traffic typically exists.

Clarification: Contractor is responsible for notifying all adjacent properties of any planned service interruptions no less than two (2) business days in advance of any such interruptions. Service interruptions are to be kept as short as is reasonably possible. This requirement does not apply in emergency situations.

Clarification: Contractor is responsible for maintaining access to all adjacent properties at all times, barring those times when actual construction activity necessary to complete the work is taking place in front of driveway approaches or similar points of access. When such work is not occurring then access must be restored by means of traffic rated steel plates or other equivalent means until such time as the work is completed.

Clarification: Utility covers matching City Details are now available. All utility covers and cover patterns are to match the City standard details.

Clarification: Saw-cutting is considered subsidiary to the bid items listed in the Proposal.

Clarification: All invoice submittals are to be itemized and are to match the Proposal item listed.

Clarification: There is a one (1) calendar year warranty period on this project. This include all infrastructure installed, and will not take effect until all work for this project is complete and all infrastructure installed has been accepted.

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 and the pre-bid meeting agenda.

Clarification: The National Diving competition event is being held at the COM Aquatics center located at the northwest corner of 'A' Street and Dengar Avenue from July 27th to

August 3rd. The City will coordinate traffic control with the Contractor, Barricade Company, and the COM Aquatics event staff as needed to mitigate any increases or changes in vehicle traffic, parking, etc.

Clarification: Rex Swearinger is the Water & Wastewater Operations Superintendent, and will manage utility coordination. This is a correction from what was previously stated in the Non-Mandatory Pre-Bid Meeting Agenda.

Clarification: Troy Clabaugh is the City of Midland's Traffic Operations Superintendent. This is a correction from what was previously stated in the Non-Mandatory Pre-Bid Meeting Agenda.

Clarification: Michael Williams is the City of Midland's Stormwater Manager. This is a correction from what was previously stated in the Non-Mandatory Pre-Bid Meeting Agenda.

Question: Will the City take over traffic control?
Answer: Yes, per the previously stated clarifications in this Addendum 01.

Question: Can the Contractors store material and equipment on Wadley Avenue? Where would Contractors be able to store materials and equipment?
Answer: Contractors can store material and equipment in the work areas designated by the approved traffic control plans along Wadley Avenue and Scharbauer Draw. Any staging or storage of material or equipment outside of the approved work areas within the public Right-of-Way is not allowed, and any staging or storage of material or equipment on private property is not allowed unless the Contractor works out an agreement with the property owner or the property belongs to the Contractor.

Question: Can you provide the flow rates for calculating by-pass pump size?
Answer: The City does not have the exact flow rates for these specific manhole locations, however most of the primary trunk lines passing through the manholes in this project frequently operate at or close to full capacity. The primary trunk pipe for the Wadley Avenue manholes is a 33" diameter pipe, the primary trunk pipe for the Scharbauer Draw manholes is a 36" diameter pipe, and the primary trunk pipe for the manhole on the west side of Midland Draw is a 6" diameter pipe. Additionally, according to the Wastewater Collection System Analysis report, the average flow rates for the wastewater system containing the Wadley Avenue manholes is 0.12 MGD (million gallons per day), and the average flow rates for the wastewater system containing the Scharbauer Draw and Midland Draw manholes is 1.00 MGD (million gallons per day.

Question: Does the by-pass pump need to be sized to 50% or 100% flow capacity?
Answer: The by-pass pump needs to be sized to handle the 100% flow capacity.

Question: Would contractor need to anchor down the pipe for by-pass?
Answer: It is the Contractor's responsibility to ensure that all equipment is secured in place as needed to perform the work required for the completion of this project. The method of securing the equipment is the sole responsibility of the contractor so long as the method complies with any applicable standards or regulations, does not negatively

impact the area outside the approve work zone, and does not cause permanent damage to any public or private infrastructure.

Question: Does the plans or contract state where to start?
Answer: No, the City does not have a preference on where the Contractor starts. However, the Contractor will be required to complete all manholes in Wadley Avenue before proceeding to the manholes in Scharbauer Draw if the Contractor starts working on Wadley Avenue first, or they will be required to complete all manholes in Scharbauer Draw before proceeding to the manholes in Wadley Avenue if the Contractor starts working on Scharbauer Draw first.

Question: Are you going to take safety into consideration?
Answer: Safety is always the paramount consideration for any City of Midland project, both for the general public and for the Contractor's work crews and City staff at the project site. The City will coordinate with the Contractor and the City's designated Barricade Company on the approved traffic control plans and all reasonable measures needed for the implementation of those plans, while also managing the adjacent traffic and public access in a responsible manner. Likewise, it is the Contractor's responsibility to comply with the approved traffic control plan and to conduct all construction work and activity in a safe and responsible manner, including compliance with all applicable rules and regulations of Federal, State, or Local entities, such as OSHA. For this project it is anticipated that two-way traffic can be maintained on both Wadley Avenue and Scharbauer Draw during the course of this project's construction, but that there will likely be site specific elements to address at each manhole location as is common with most projects.

Question: When will the Addendum be sent out? Where will it be sent?
Answer: Addendum 01 will be sent out Friday afternoon on February 11, 2022 as per the Bid Packet, Notice To Bidders, page NB 1. Addendum 01 will be distributed by email to all attendees of the Non-Mandatory Pre-Bid Meeting, and an electronic PDF copy will also be available from the Purchasing Department. Bidders bear sole responsibility for making sure that they have obtained and acknowledge all addendums issued prior to submitting their bid as per the Bid Packet's Special Provisions section, 23. Bid Packet Completion Items Of Note and per the previously stated clarification in this Addendum 01.

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 **_Wadley Avenue & Scharbauer Draw Manhole Replacement_** to be performed as outlined in the Plans and Specifications, which are necessary to satisfactorily complete the work.

The project base bid will include removal, replacement, and installation of existing and proposed wastewater manholes and appurtenances installation including all necessary mobilization saw-cutting, pavement removal, excavation, embedment, 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.

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 will be made for material installed, not for material delivery, for all Proposal Bid Items except those specifically listed below, which will be the only Proposal Bid Items to be paid upon material delivery for this project:

Wastewater Bid Items: 1-5, 7-8

Retainage will apply the same to all bid items and invoices regardless of whether an invoice is for bid items pair upon material delivery or not.

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 property stored or protected and becomes weathered or damaged before installation must be replaced with new material meeting the standards and requirements of the construction drawings and specifications before it can be installed, and this will be done at not additional cost to the City of Midland.

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.

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:

Traffic control for this project will be the City of Midland's responsibility. The Contractor is to coordinate construction activities with the Barricade Company operating at the City of Midland's direction for this project. If at any time or for any reason there should be traffic control handled by the Contractor rather than the City of Midland or the Barricade Company operating at the City of Midland's direction, then that traffic control is to adhere to the rest of the requirements outlined in 'Special Provisions, 7. Traffic Control' that follow after this paragraph.

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and 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.

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 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 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.

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 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.

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.

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.

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. INTENT OF THE PROPOSAL:

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.

21. CONTRACT DEADLINE:

The deadline for substantial completion of this project is __150_____ 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: Wadley Avenue & Scharbauer Draw Manhole Replacement

Project Number: U21-01

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	5 MO	Mobilization, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per month. (Pay Note M1)	$_____	$_____
2)	5 MO	Bypass Pumping, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per week. (Pay Note M2)	$_____	$_____
3)	5 MO	Erosion/Sediment Control, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per month. (Pay Note M3)	$_____	$_____
4)	5 MO	Job Site Safety, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per month. (Pay Note M4)	$_____	$_____
5)	N/A	Material Mark-up, complete and in place, for the sum of: _____percent. (Pay Note M5)	%_____	$ N/A_____

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
6)	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: _____percent. (Pay Note M6)	%_____	$_N/A_____
7)	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: _____percent. (Pay Note M7)	%_____	$_N/A_____
Total Miscellaneous Items 1-7		$_____		

Base Bid: Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	6 EA	Removal & Disposal of Existing 60" Manhole, (0'-5' Deep), complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note D1)	$_____	$_____
2)	39 VF	Remove & Disposal of Existing 60" Manhole Additional Depth, (> 5' Deep), complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note D2)	$_____	$_____
3)	8 EA	Removal & Disposal of Existing 48" Manhole, (0'-5' Deep), complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note D1)	$_____	$_____
4)	73 VF	Remove & Disposal of Existing 48" Manhole Additional Depth, (> 5' Deep), complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note D2)	$_____	$_____
5)	188 SY	Removal & Dispose of Existing Unclassified Pavement, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note D3)	$_____	$_____
Total Demolition Items 1-5		$_____		

Base Bid: Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	7 EA	60" Fiberglass Manhole & Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW1)	$_____	$_____
2)	6 EA	60" Fiberglass Manhole & Watertight Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW2)	$_____	$_____
3)	106 VF	60" Fiberglass Manhole Additional Bury Depth, (> 5' Deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____
4)	1 EA	48" Fiberglass Manhole & Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW1)	$_____	$_____
5)	6 VF	48" Fiberglass Manhole Additional Bury Depth, (> 5' Deep), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW3)	$_____	$_____
6)	34 EA	Connection to Existing Wastewater Main, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW4)	$_____	$_____

Base Bid: Wastewater Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	3 EA	6" Manhole Drop Structure (0'-5' Deep, External), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per each. (Pay Note WW5)	$_____	$_____
8)	19 VF	6" Manhole Drop Structure Additional Bury Depth (> 5' Deep, External), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per vertical foot. (Pay Note WW6)	$_____	$_____
Total Sewer Items 1-6		$_____		

Base Bid: Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	81 SY	12" Concrete Pavement Repair, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P1)	$_____	$_____
2)	94 SY	3" Type C HMAC Asphalt Pavement Repair (PG64-22), furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P2)	$_____	$_____
3)	108 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 P3)	$_____	$_____
4)	22 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 P4)	$_____	$_____
5)	9 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 P5)	$_____	$_____
6)	188 SY	Flowable Fill / 2-Sack Backfill, furnished, installed, complete and in place, for the sum of: _____dollars and _____cents per square yard. (Pay Note P6)	$_____	$_____
Total Paving Items 1-7		$_____		

Bid Price For:	
1. Miscellaneous Items	$_____
2. Demolition Items	$_____
3. Wastewater Items	$_____
4. Paving 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 _150_ 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 agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

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

Wadley Avenue & Scharbauer Draw Manhole Replacement

Bid Item		Pay Quantity Note
Miscellaneous Items		
1	Mobilization	M1
2	Bypass Pumping	M2
3	Erosion/Sediment Control	M3
4	Job Site Safety	M4
5	Material Mark-up	M5
6	Labor Mark-up (Regular Work Hours)	M6
7	Equipment Rental Mark-up (Non-Standard Equipment Only)	M7
Demolition Items		
1	Removal & Disposal of Existing 60" Manhole (0'-5' Deep)	D1
2	Removal & Disposal of Existing 60" Manhole Additional Depth (> 5' Deep)	D2
3	Removal & Disposal of Existing 48" Manhole (0'-5' Deep)	D1
4	Removal & Disposal of Existing 48" Manhole Additional Depth (> 5' Deep)	D2
5	Removal & Disposal of Existing Unclassified Pavement	D3
Wastewater Items		
1	60" Fiberglass Manhole & Cover (0'-5' Deep)	WW1
2	60" Fiberglass Manhole & Watertight Cover (0'-5' Deep)	WW2
3	60" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	WW3
4	48" Fiberglass Manhole & Cover (0'-5' Deep)	WW1
5	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	WW3
6	Connect to Existing Wastewater Main	WW4
7	6" Manhole Drop Structure (0'-5' Deep, External)	WW5
8	6" Manhole Drop Structure Additional Bury Depth (> 5' Deep, External)	WW6
Paving Items		
1	#" Concrete Pavement Repair	P1
2	#" Type C HMAC Asphalt Pavement Repair (PG64-22)	P2
3	#" Type D HMAC Asphalt Pavement Repair (PG70-22)	P3
4	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	P4
5	Tack Coat (MC-30, 0.10 Gal / SY)	P5
6	Flowable Fill / 2-Sack Backfill	P6

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 for Bypass Pumping per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment to be made per each week.

M3 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.

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 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.

M6 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.

M7 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.

D1 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.

D2 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'.

D3 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.

WW1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Cover to a depth of 5' 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.

WW2 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Watertight Cover to a depth of 5' 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.

WW3 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' below the rim elevation.

WW4 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing Wastewater Main per the construction drawings and City of Midland standards and specifications, including all grouting, sealing, repairs, and appurtenances. Measurement and payment to be made per each connection made.

WW5 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Manhole Drop Structure (External) per the construction drawings and City of Midland standards and specifications, including all coring, repairs, and appurtenances for a vertical adjustment of up to 5'. Additional pipe required for a vertical adjustment of more than 5' will be addressed in a separate pay note. Measurement and payment of drop structures to be made per each drop structure installed.

WW6 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Manhole Drop Structure Additional Bury Depth (> 5' Deep, External) per the construction drawings and City of Midland standards and specifications, including all appurtenances. Measurement and payment of drop structures to be made per each vertical foot installed below a depth of 5' below the manhole rim elevation.

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 the installation of Type "C" HMAC Asphalt Pavement Repair (110 LBS / SY at 1" thick, PG 64-22) 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.

P3 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.

P4 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.

P5 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.

P6 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.

Wadley Avenue & Scharbauer Draw Manhole Replacement
Non-Mandatory Pre-Bid Meeting Agenda
Project No. U21-01
January 09, 2022

Discussion Items

1. Sign-In Sheet

2. Project Overview and Scope
   - Jose Ortiz – Engineering Services Director
   - Josh Ferguson – Engineering Manager – CIP, project engineer
   - Patricia Kingston – Engineering Tech, project designer
   - Bobby Wojciechowski – Capital Improvement Project Manager
   - Jesse Trejo – Construction Manager, construction management & inspections
   - Andy Navarro – Franchise Utility Coordinator
   - Jesus Perez – Project Manager
   - Carl Craigo – Utilities Director
   - Cory Moose – Assistant Utilities Director
   - Rex Swearinger – Operations Planner, utility coordinator
   - Taha Sakrani – Associate Traffic Engineer
   - Troy Clabaugh – Senior Traffic Engineering Tech
   - Natalie Burgard – Administrative Assistance, document processing
   - Erika Martinez – Purchasing Manager, conduct bid process & bid opening

3. Detail Overview
   - This project will include removal, replacement, and installation of existing and proposed wastewater manhole infrastructure and appurtenance as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Construction Drawings and Specifications, to satisfactorily complete the work.
   - In general, this project involves removing and replacing existing wastewater manholes on Wadley Avenue between Garfield Street and 'I' Street, and also in Scharbauer Draw from Midland Draw to just west of Edwards Street.

4. Bid Process
   - Pre-Bid meeting attendance is non-mandatory to bid on this 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, February 11, 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.
   - 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:

     <u>USPS Mailing Address:</u>
     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, February 16, 2022 at 2:00 PM** in the City Secretary office located on the 3rd 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 project bid is awarded.

6. Payment
   - Invoices are to be submitted on or before the 1st day of each month and cover work completed up to the 25th day of the preceding month.
   - Invoice submittals are to be itemized and match the bid items listed in the bid packet Proposal.
   - Payment will be made for material installed, not for material delivered, for all Proposal Bid Items except those specifically listed in the Bid Packet's Special Provision section, sub-section 4. Payment.
   - 5% retainage until project completion, acceptance, and final payment.
   - 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. Project Schedule
   - City Inspector must be notified of all work occurring and be able to perform inspection on any construction or installation that occurs.
   - Typically 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.

8. Project Specifics
   - Bidders must provide documentation as part of the bid packet submittal proving that they possess both an active Water Operator D license and either an active Wastewater D license or an active Class 1 Collections license, and the Contractor must maintain both of these active licenses for the entirety of the project.
   - Comply with all OSHA and other applicable safety requirements and regulations at all times.
   - Contractor is responsible for maintaining service to adjacent lots during this project.
     - Contractor must notify affected properties at least two (2) business days prior to any planned service interruption.
   - The City is responsible for Traffic Control for this project.
     - Contractor is responsible for coordinating with the City of Midland and their designated barricade company for all barricades and other traffic control.

measures for the duration of this project. Access to adjacent properties must be maintained at all times.
    - Construction staking and survey are solely the responsibility of the Contractor.
    - Construction testing is solely the responsibility of the Contractor.
    - Material stored on the project site must be properly stored and protected from damage and weathering.
        - Material and equipment storage is not permitted in the Scharbauer Draw or Midland Draw channels.
    - 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 of spoils, backfill material, etc. are to include sand bag BMPs or similar temporary erosion protection emplacements at all times.
    - There is a one (1) calendar year warranty period on this project. This includes all infrastructure installed, and will not take effect until all work for this project is complete and all infrastructure installed has been accepted.

9. Additional Information, Clarifications, and Corrections
    - Bidders are directed to bid the item quantities in the Bid Packet's Proposal, not the quantities listed in the design drawings.
    - Contractor is reminded that this project is located in an urban environments. Trees and overhead lines are common, and Contractor is to provide the proper equipment to complete all required work for this project in an urban environment.
    - The existing Spiralite wastewater pipe noted in the construction drawing set is actually the brand name of the pipe that was originally installed for this existing wastewater system rather than the pipe material itself. The existing pipe material is centrifugally cast, glass-fiber-reinforced, polymer mortar (CCFRPM) pipe. The company Spirolite no longer carries this type of pipe, however other supply companies that provide pipe to this region do.

10. Any Additional Questions

Please direct all questions or comments following the Pre-Bid Meeting to Josh Ferguson with the City of Midland.

Engineering Services

Josh Ferguson
Phone: (432) 685-7290
Email: jferguson@midlandtexas.gov

Jesus Perez
Phone: (432) 685-7471
Email: jperez@midlandtexas.gov

Pre-Bid Meeting Attendance

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT

U21-01

Date: 02-09-2022 - 3:00 PM

☑	Name (Please Print)	Company Name (Please Print)	Phone Number	Fax Number	Email
	PATRICIA KINGSTON	COM	432-685-7515		PKINGSTON@MIDLANDTEXAS.GOV
	Troy Clabaugh	Com	432-685-7285		tclabaugh@midlandtexas.gov
	Emily Williams	Boler	432.694.0000		emily@boler.net
	Bobby Wasserman	Com	432 685 7579		
	Erika Martinez	Com	685-7480		
	Zane Zoeller	Rain For Rent	(210) 501-9030		zmzoeller@rainforrent.com
	JEFF ANDERSON	RAIN FOR RENT	210.712.0381		jjanderson@rainforrent.com
	REX SWEARINGEN	CITY OF MID	432 413 5130		RSWEARINGEN@MIDLANDTEXAS.GOV
	Tyler Clutter	TEC	432-967-0032		tylerclutter@TECexcavation.com
	Michael Williams	City of Midland	432-685-7517		MDwilliams@midlandtexas.gov
	JESSE TREJO	COM			JTREJO@MIDLANDTEXAS.GOV

TEC EXCAVATION, INC.

P.O. Box 80455
MIDLAND, TX 79708

PH. 432-682-2619
FAX 432-684-1151

February 16, 2022

Joshua Ferguson
City of Midland
300 N. Loraine
Midland, TX 79701

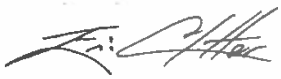
Project: Wadley Ave. and Scharbauer Draw Manhole Replacement

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.



PACKET
6.285
March 22, 2022

CITY OF MIDLAND
WADLEY AVENUE &
SCHARBAUER DRAW MANHOLE REPLACEMENT
PROJECT NUMBER: U21-01
JANUARY 2022

CONTRACTOR _____

DATE WORK BEGAN _____

DATE WORK COMPLETED _____

DATE WORK ACCEPTED _____

FINAL CONTRACT COST _____

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

UTILITIES DIRECTOR
CARL CRAIGO

PROJECT ENGINEER
JOSHUA C. FERGUSON, P.E.
OFFICE: (432) 685-7290
EMAIL: JFERGUSON@MIDLANDTEXAS.GOV

CITY OF MIDLAND
300 N. LORAINE ST.
MIDLAND, TX 79702

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

SHEET INDEX	
SHEET	DESCRIPTION
1	COVER
2	GENERAL NOTES
3	VICINITY MAP
4	EXISTING CONDITIONS S WADLEY AVENUE
5	EROSION CONTROL S WADLEY AVENUE
6	MASTER LAYOUT S WADLEY AVENUE
7 - 13	PLANS S WADLEY AVENUE
14	EXISTING CONDITIONS SCHARBAUER DRAW
15	EROSION CONTROL SCHARBAUER DRAW
16	MASTER LAYOUT SCHARBAUER DRAW
17 - 23	PLANS SCHARBAUER DRAW
24 - 29	DETAILS

PACKET

6.286

March 22, 2022

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MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
COVER

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GENERAL NOTES:

i) THIS DESIGN IS FOR PUBLIC WASTEWATER IMPROVEMENTS ALONG WADLEY AVENUE FROM GARFIELD STREET TO I STREET AND ALONG SCHARBAUER DRAW FROM EDWARDS STREET TO MIDLAND DRAW.

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, 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.

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 THE 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 A 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) OSHA REQUIREMENTS AND ALL OTHER APPLICABLE FEDERAL, STATE, OR CITY OF MIDLAND SAFETY REQUIREMENTS ARE TO BE FOLLOWED AND COMPLIED WITH AT ALL TIMES.

x) CONTRACTOR MUST COMPLY WITH ALL STAKING AND TESTING REQUIREMENTS AS DESCRIBED IN PROJECT BID PACKET.

xi) 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.

xii) CONTRACTOR IS REMINDED THAT THIS PROJECT IS LOCATED IN AN URBAN ENVIRONMENT. TREES AND OVERHEAD LINES ARE COMMON, AND CONTRACTOR IS TO PROVIDE PROPERTY EQUIPMENT TO COMPLETE ALL REQUIRED WORK FOR THIS PROJECT IN AN URBAN ENVIRONMENT.

xiii) THERE IS TO BE NO MATERIAL STORAGE WITHIN SCHARBAUER DRAW. MATERIAL STORAGE IS TO BE PLACED IN WORK ZONE APPROVED BY TRAFFIC CONTROL PLAN.

DEMOLITION NOTES:

A. 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.

B. NO EXISTING INFRASTRUCTURE IS TO BE REMOVED THAT IS NOT NOTED FOR REMOVAL ON THIS STREET 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.

C. 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.

D. ALL SAW-CUTS ARE TO HAVE CLEAN, STRAIGHT EDGES AND ARE CONSIDERED INCIDENTAL TO ALL PROJECT WORK.

E. 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.

F. EXISTING WASTEWATER INFRASTRUCTURE, INCLUDING MANHOLE STRUCTURES, IDENTIFIED FOR REMOVAL ARE TO BE REMOVED IN THEIR ENTIRETY, INCLUDING ANY APPURTENANCES.

G. CONTRACTOR IS TO NOTIFY ENGINEER OF ANY CONFLICTS OR DISCREPANCIES BEFORE REMOVING ANYTHING NOT NOTED FOR REMOVAL.

CONSTRUCTION NOTES:

1. ALL NEW OR EXISTING MANHOLE JUNCTION COVERS MUST BE ADJUSTED TO EXISTING GRADE AND BE SET FLUSH WITH ADJACENT EXISTING SURFACE WHETHER EXISTING SURFACE IS PAVED OR UNPAVED.
2. 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.
3. 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.
4. ALL CONCRETE PAVEMENT AND COLLAR JOINTS ARE TO BE SEALED PER CITY STANDARDS.
5. NOTIFY CITY INSPECTOR OF ALL FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE ISSUES AND COORDINATE WITH BOTH CITY AND FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE OWNER.
6. ALL DIMENSIONS BETWEEN UTILITIES ARE MEASURED TO UTILITY CENTERLINE UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO SET ALL MANHOLE COVERS FLUSH WITH EXISTING ADJACENT SURFACES. IF DISCREPANCIES BETWEEN DESIGN DRAWINGS AND EXISTING SURFACES EXIST, CONTRACTOR IS TO NOTIFY PROJECT ENGINEER PRIOR TO FINAL COVER ADJUSTMENT.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

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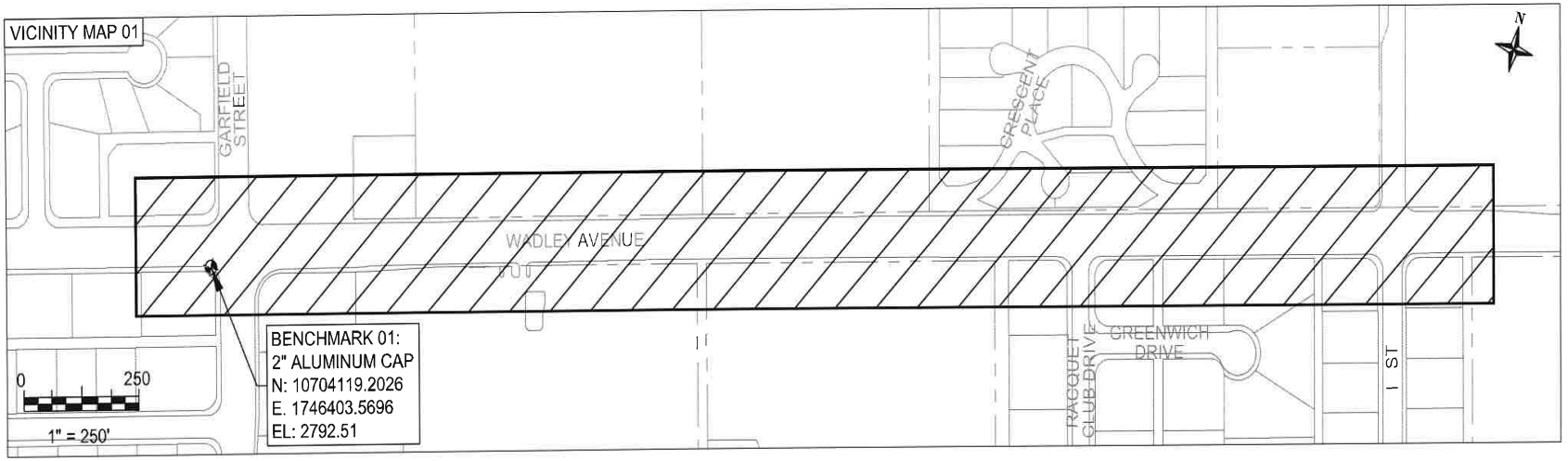
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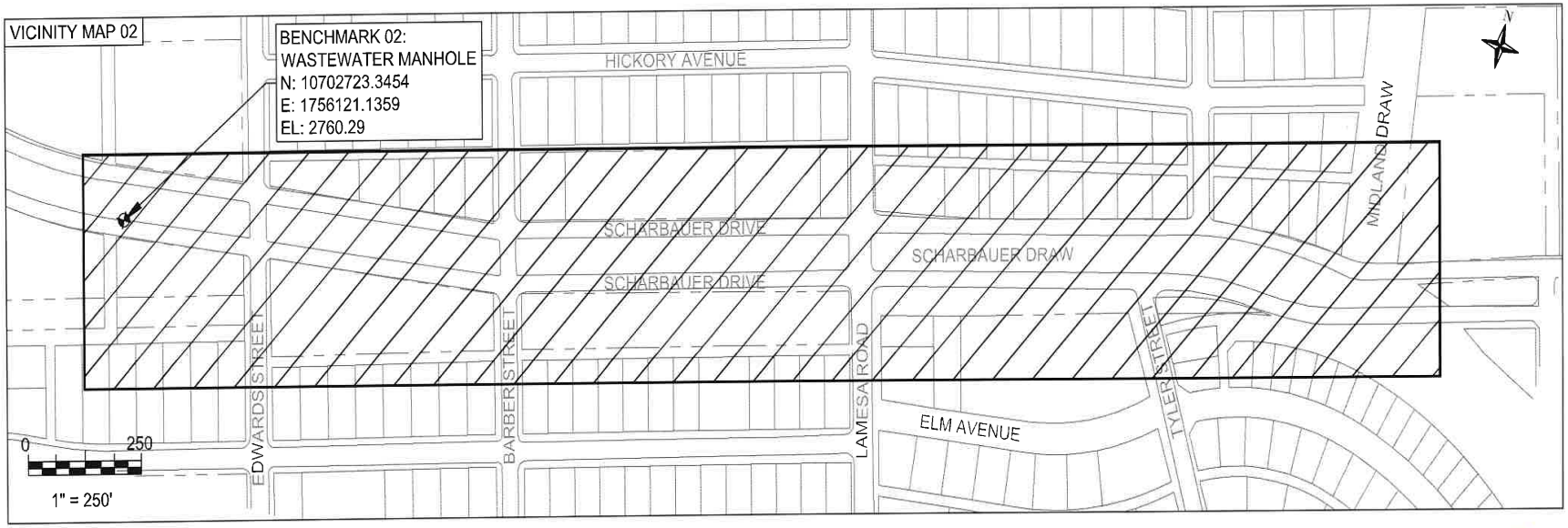
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
GENERAL NOTES

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PLAN SET SHEETS:

A) S WADLEY AVENUE MANHOLE REPLACEMENTS, SHEETS 4 - 13

B) SCHARBAUER DRAW MANHOLE REPLACEMENTS, SHEETS 14 - 24

NOTE:

1) EXISTING BENCHMARKS ARE BASED ON NGVD29 DATUM. TYPICAL CONVERSION TO NAVD88 DATUM FOR MIDLAND, TEXAS IS +1.22'.

STATE OF TEXAS
JAWS 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

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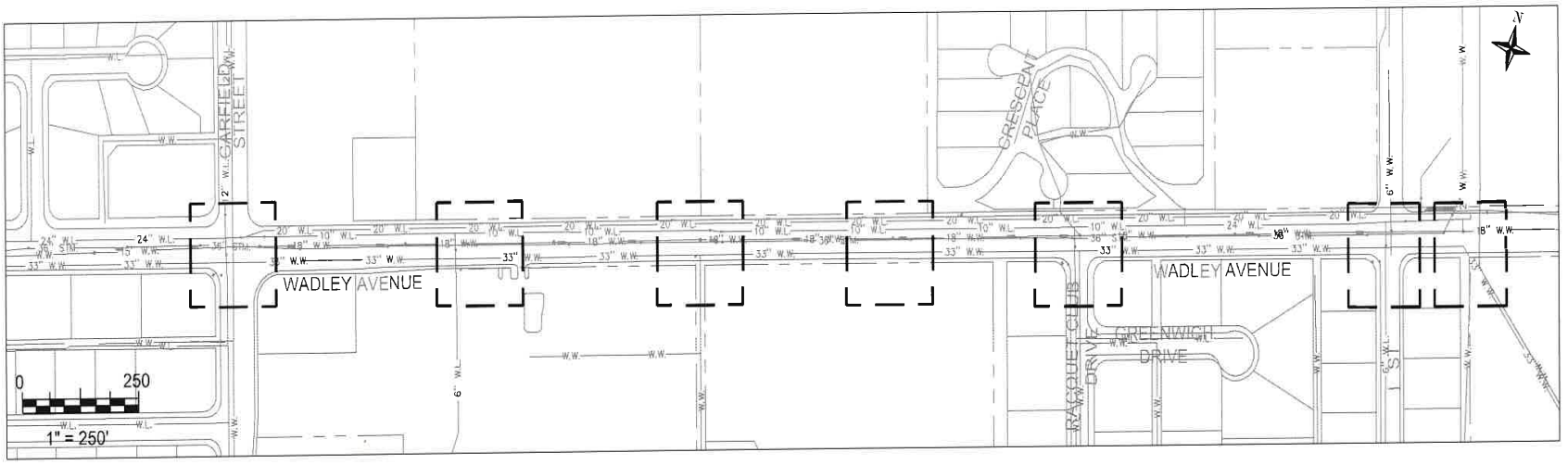
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
VICINITY MAP

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WADLEY AVENUE EXISTING CONDITIONS



EXISTING CONDITIONS KEYED NOTES:

A. EXISTING CONDITIONS ARE SHOWN BASED ON AVAILABLE CITY OF MIDLAND GIS DATA, CITY OF MIDLAND LIDAR CONTOUR DATA, SURVEY DATA, AND SITE VISITS. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

B. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN TRENCHING OR OTHER WORK THAT IS TAKING PLACE NEAR OVERHEAD ELECTRIC, POWER, OR PHONE LINES.

STATE OF TEXAS
JAN 26 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

DRAWN: PAK
CHECKED: JCF
APPROVED: JCF
VERT.: N/A
HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

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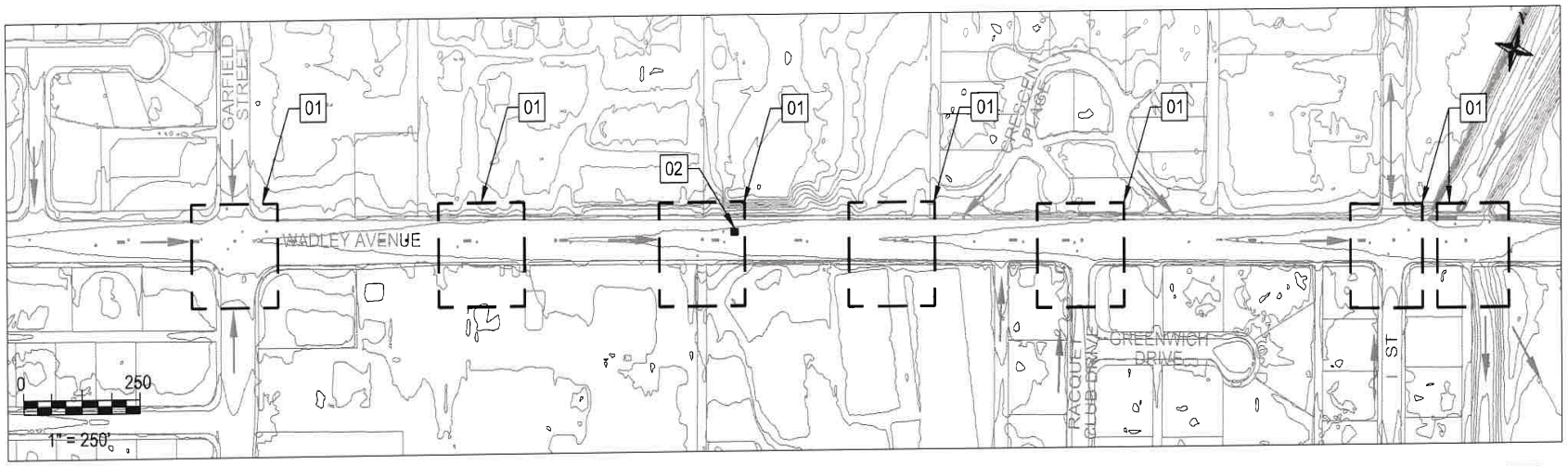
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
EXISTING CONDITIONS

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WADLEY AVENUE EROSION CONTROL LAYOUT



EROSION CONTROL KEYED NOTES:

01 WORK ZONE AREA

02 LOCATE CONCRETE WASH OUT WITHIN PROJECT AREA AND SHIFT AS NECESSARY FOR CONSTRUCTION ACTIVITY. ALL WASHOUT AND OTHER SPOILS ARE TO BE REMOVED FROM SITE. CONCRETE TRUCKS ARE NEVER TO WASHOUT INTO ON-SITE TRENCHES.

03 PLACE INLET PROTECTION AROUND STORM DRAIN INLETS IN ROAD, SEE THIS CONSTRUCTION SET SHEET 29 DETAIL D01

04 PLACE SAND BAGS AROUND WASTEWATER MANHOLE WORK AREA AND SPOILS.

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.

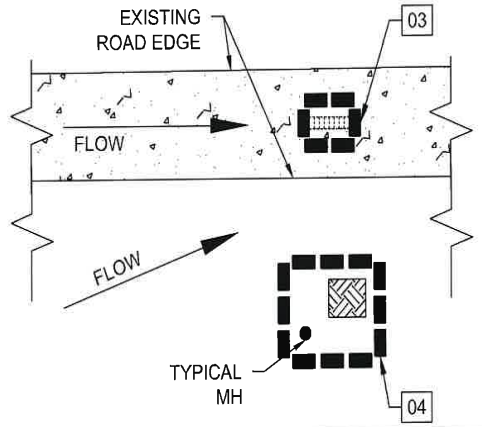
C. ANY ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE TO BE LOCATED WITHIN WORK ZONES APPROVED AS PART OF APPROVED TRAFFIC CONTROL PLANS. ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE NOT PERMITTED IN WADLEY AVENUE OUTSIDE APPROVED WORK ZONES. ON-SITE STORAGE SPOILS, MATERIALS, OR EQUIPMENT ARE NOT PERMITTED WITHIN SCHARBAUER DRAW.

D. EROSION CONTROL MEASURES THAT DAMAGE PAVEMENT ARE NOT TO BE USED IN PAVED AREAS. THIS INCLUDES EROSION CONTROL SECURED IN PLACE THROUGH STAKING, EXCAVATIONS, ETC.

E. CONTRACTOR IS TO MAINTAIN A REASONABLY CLEAN PROJECT SITE AT ALL TIMES. ANY SEDIMENT, DEBRIS, ETC. OUTSIDE PROJECT SITE ARE TO BE REMOVED PROMPTLY.

F. ALL STOCKPILES ARE TO BE SURROUNDED BY SILT FENCE OR EQUIVALENT MEASURES AS APPROVED BY ENGINEER TO PROPERLY CONTROL SEDIMENT RUNOFF.

G. CONCRETE TRUCKS CANNOT UNDER ANY CIRCUMSTANCE WASHOUT IN STORM DRAIN TRENCH. CONTRACTOR IS TO PROVIDE A WASHOUT CONTAINER FOR CONCRETE TRUCKS AND MUST REMOVE ALL WASHOUT AND SPOILS FROM PROJECT SITE.



TYPICAL MANHOLE EROSION CONTROL SETUP
S WADLEY AVENUE

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

PACKET 6.290 March 22, 2022

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						Description
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						Rev. No.

DRAWN: PAK
CHECKED: JCF
APPROVED: JCF
VERT.: N/A
HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

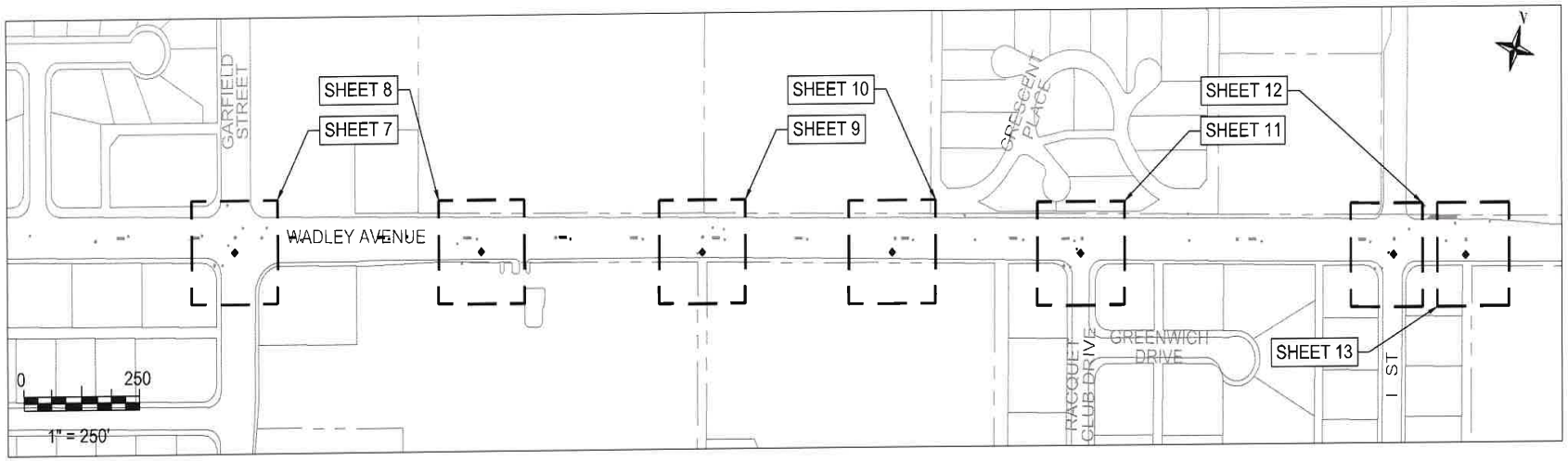
WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
EROSION CONTROL PLAN

Scale: NTS File: 2021U21-01 WADLEY & SCHAR

5
OF 29

File: P:\Engineering Services\Engineering Projects\2021\U21-01 S Wadley_Schar Drive MH Replace\03 DWGS\U21-01 S Wadley.dwg Jan 14, 2022 - 2:45pm jhampton

WADLEY AVENUE MASTER LAYOUT



MASTER KEYED NOTES:

A. ALL PROPOSED WASTEWATER IMPROVEMENTS ARE TO CONNECT TO EXISTING WASTEWATER SYSTEM REGARDLESS OF DIMENSIONS SHOWN.

B. NOTIFY CITY INSPECTOR OF ALL FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE ISSUES AND COORDINATE WITH BOTH CITY AND FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE OWNER.

C. AT NO POINT WILL A DISRUPTION IN WASTEWATER SERVICE BE ALLOWED. CONTRACTOR IS REQUIRED TO TEMPORARILY BYPASS MANHOLE(S) AS NECESSARY TO ACCOMPLISH IMPROVEMENTS SHOWN HEREIN.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
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LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

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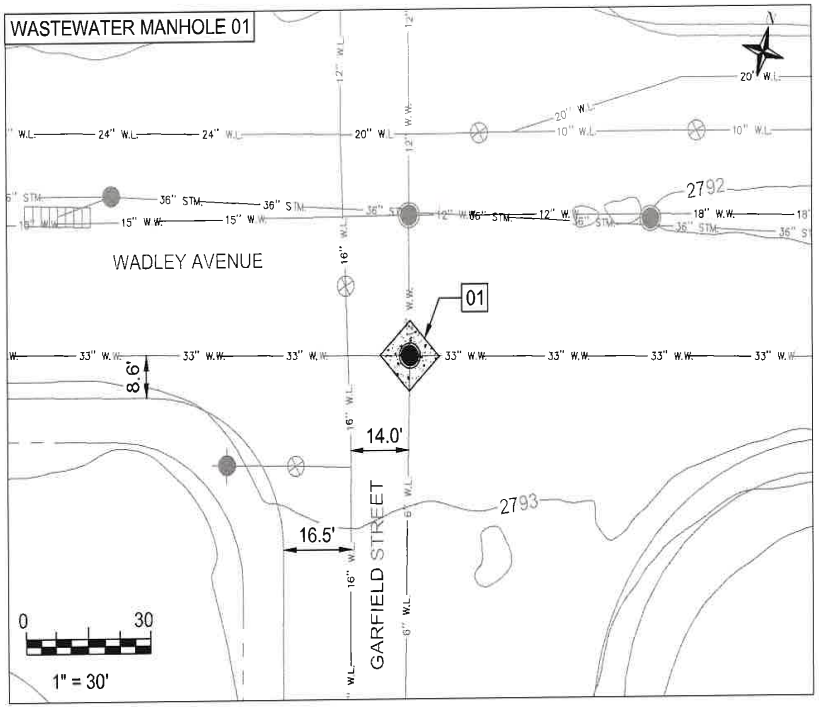
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

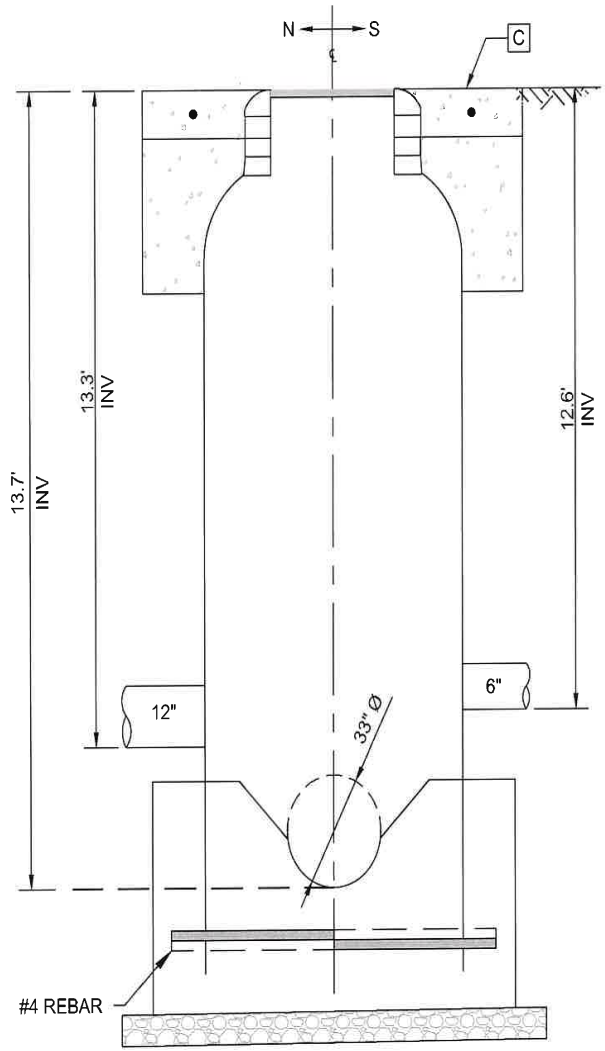
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
MASTER LAYOUT

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

Jan 18, 2022 - 2:53pm jpingston





FACING EAST

KEYED NOTES:

01 WASTEWATER MANHOLE 01
N: 10704142.27
E: 1746448.78
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2791.23
EX. 12" INV, N = 2777.89
EX. 33" INV, E = 2777.57
EX. 6" INV, S = 2778.63
EX. 33" INV, W = 2778.63
DEPTH = 13.66'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

A. EXISTING 33" WASTEWATER PIPE IS SPIRALITE.

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
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PROFESSIONAL ENGINEER

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VERT.: N/A
HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

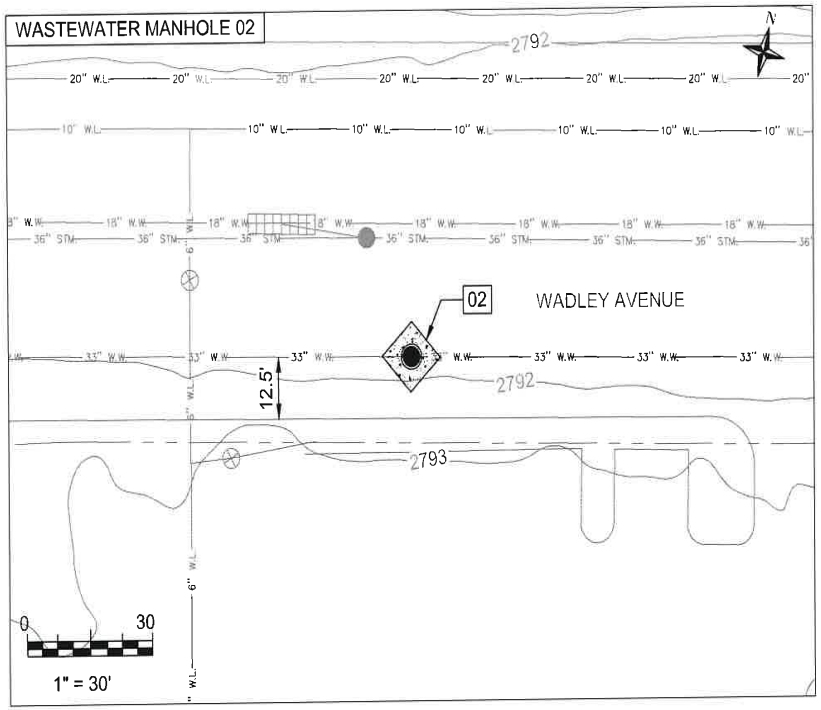
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
1 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

7
OF 29

File: P:\Engineering Services\Engineering Projects\2021\U21-01 S Wichita_Scharbauer Draw MH Replaced\03 DWGS\3.1 LWO\Plan\7 Final.dwg Jan 19, 2022 - 2:39pm dukgalon



KEYED NOTES:

02 WASTEWATER MANHOLE 02
N: 10704275.94
E: 1746967.31
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2777.45
EX. 33" INV, E = 2763.11
EX. 33" INV, W = 2763.13
DEPTH = 14.35'
CONNECT EXISTING WASTEWATER MAINS.

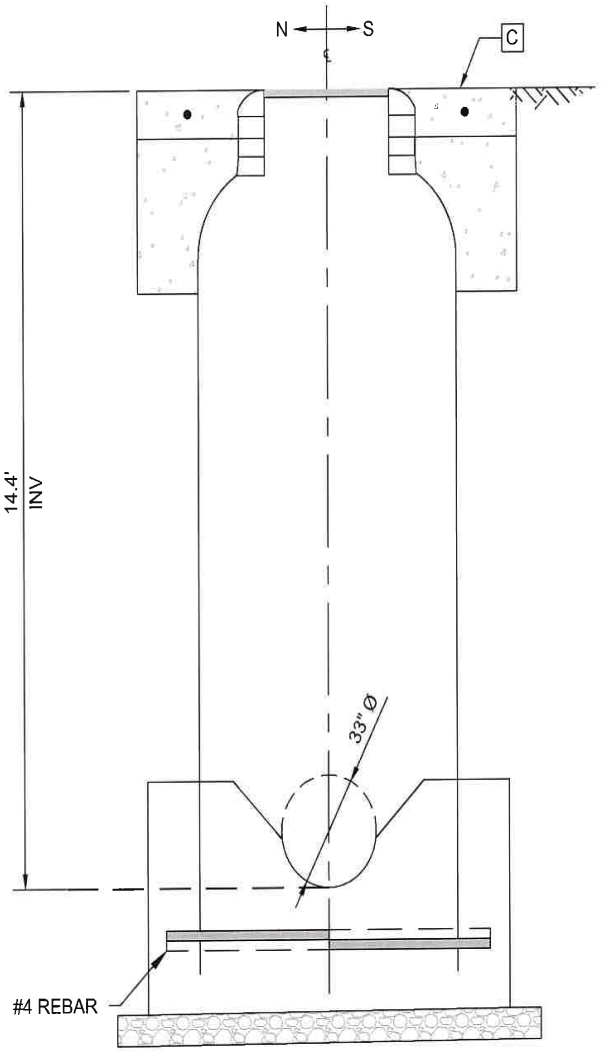
CONSTRUCTION NOTES:

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B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.



FACING EAST

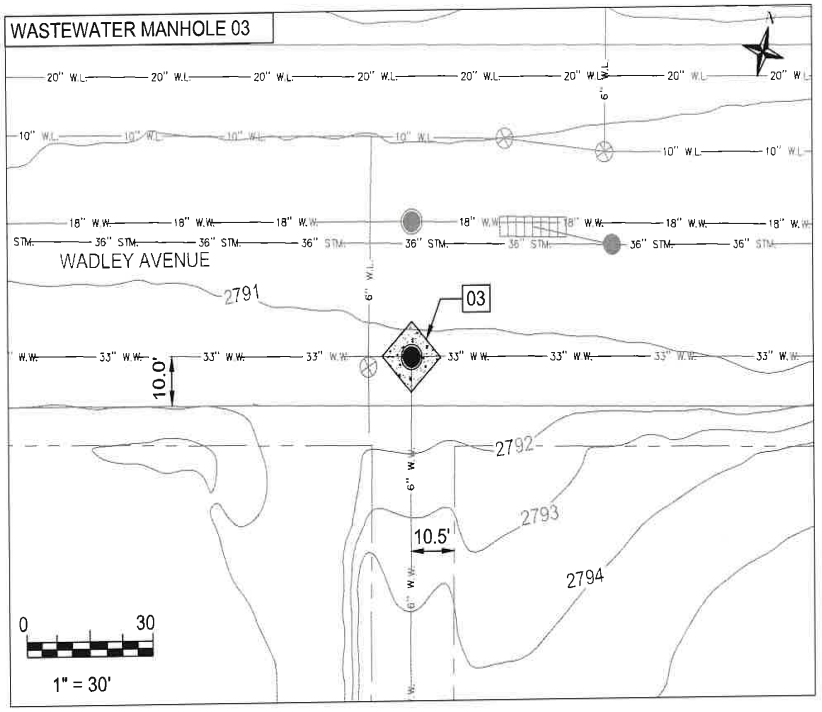
STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

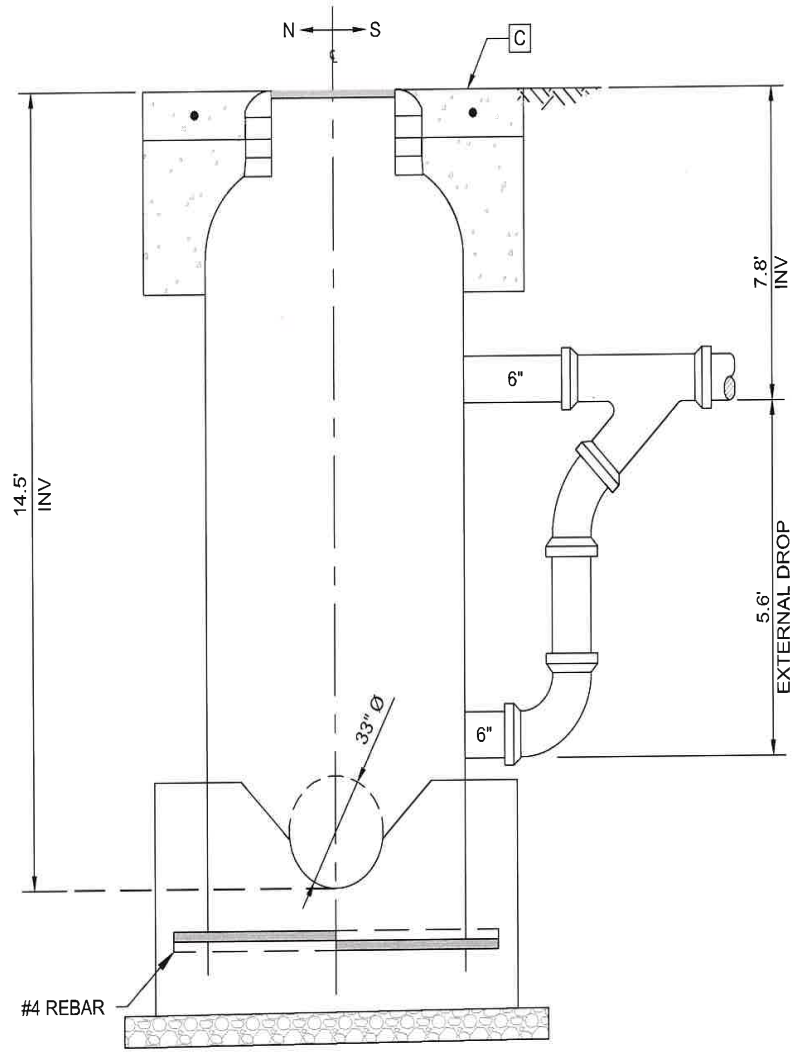
WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
2 OF 7

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PROJECT NO.:	U21-01
Date:	JAN 2022

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FACING EAST

KEYED NOTES:

03 WASTEWATER MANHOLE 03
N: 10704394.57
E: 1747430.57
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2789.98
EX. 33"INV, E = 2775.52
EX. 6" INV, S = 2782.21
PROP. 6" INV, S = 2776.52
EX. 33" INV, W = 2775.56
DEPTH = 14.46'
5.69' - 6" EXTERNAL DROP
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

A. EXISTING 33" WASTEWATER PIPE IS SPIRALITE.

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Josh Ferguson

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PROJECT NO.: U21-01
Date: JAN 2022

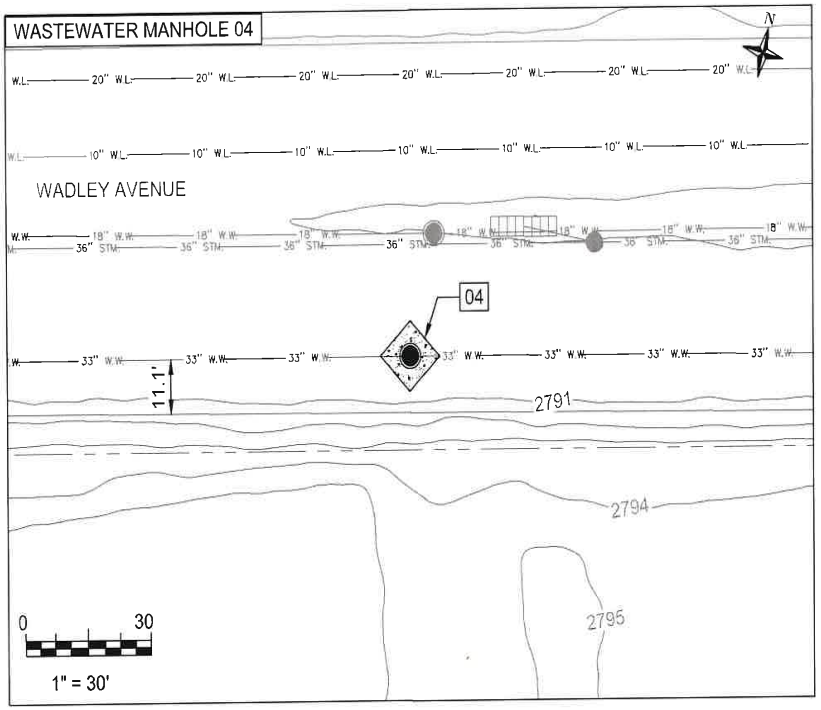
MIDLAND Utilities

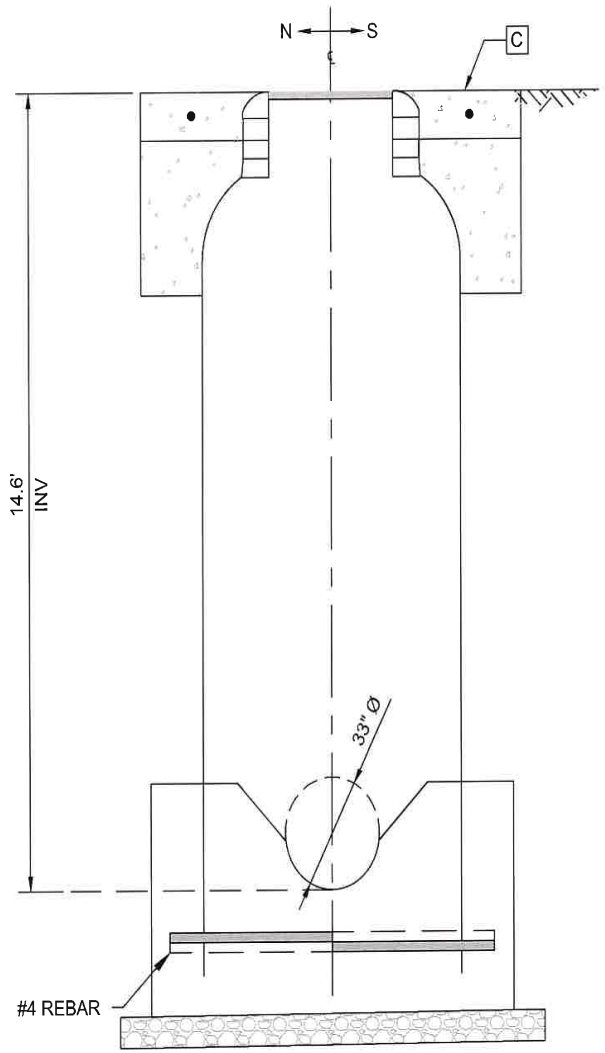
WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
3 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

9
OF 29

File: P:\Engineering Services\Engineering Projects\2021\U21-01 S Wadley_Scharbauer Draw MH Replacement\03 DWG\01 1 ENVP\Plan\P Plan.dwg Jan 19, 2022 - 2:34pm mhodgkiss





FACING EAST

KEYED NOTES:

04 WASTEWATER MANHOLE 04
N: 10704496.88
E: 1747829.31
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2776.13
EX. 33" INV, E = 2761.61
EX. 33" INV, W = 2761.51
DEPTH = 14.62'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

A. EXISTING 33" WASTEWATER PIPE IS SPIRALITE.

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

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VERT.: N/A
HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

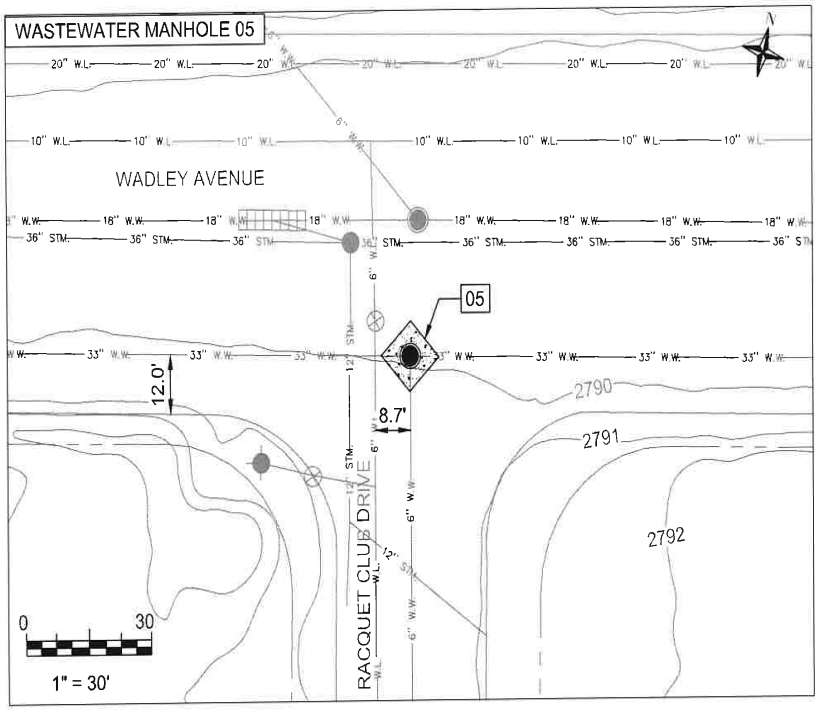
MIDLAND Utilities

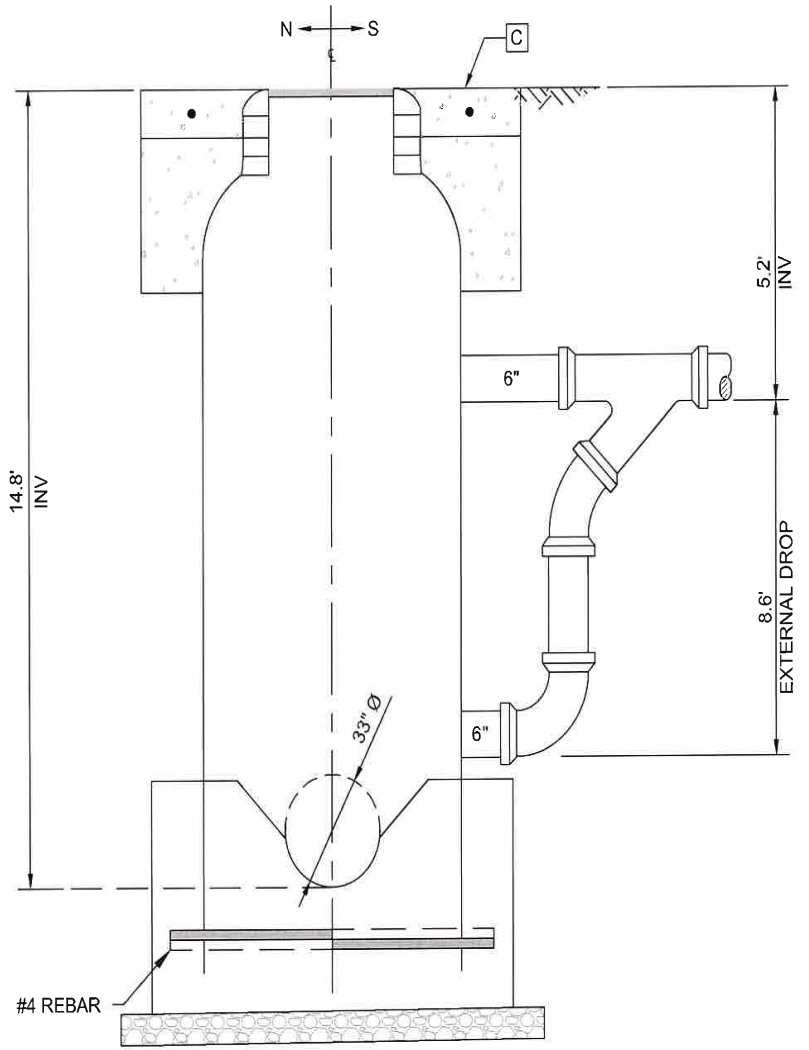
WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
4 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

10
OF 29

File: I:\Engineering Services\Engineering Projects\2021\U21-01 S Wadley_Scharbauer Draw MH Replacement\05 DWG\05-3 1 DWG\Sheets\10 Plan.dwg Jan 19, 2022 - 2:59pm jpeagan





FACING EAST

KEYED NOTES:

05 WASTEWATER MANHOLE 05
N: 10704596.64
E: 1748226.11
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2788.83
EX. 33" INV, E = 2760.83
EX. 6" INV, S = 2770.45
PROP. 6" INV, S = 2761.83
EX. 33" INV, W = 2760.94
DEPTH = 14.80'
8.62' - 6" EXTERNAL DROP
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

A. EXISTING 33" WASTEWATER PIPE IS SPIRALITE.

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

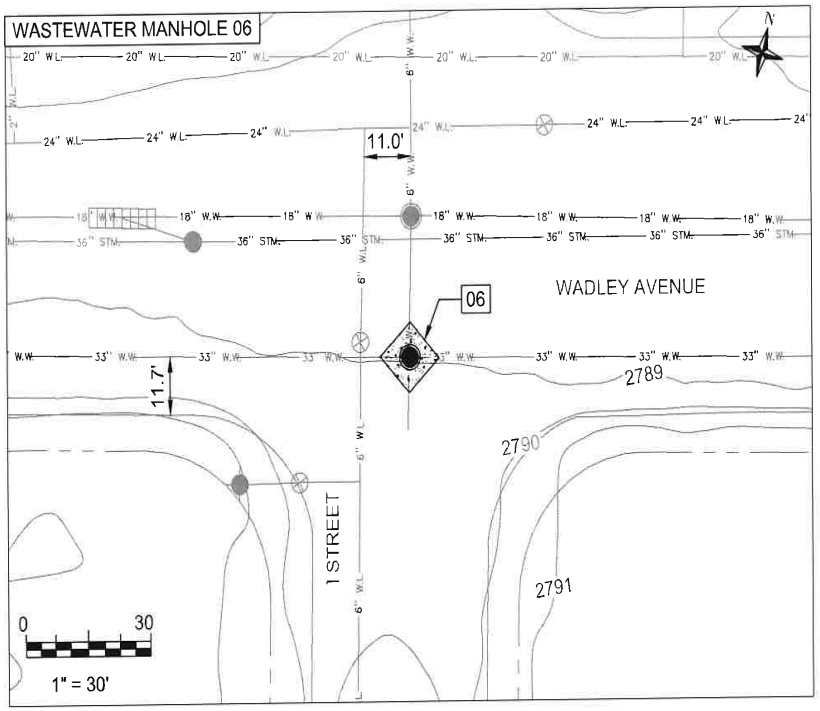
D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
5 OF 7

DRAWN: PAK
CHECKED: JCF
APPROVED: JCF
VERT.: N/A
HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022
Scale: NTS
File: 2021\U21-01 WADLEY & SCHAR

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KEYED NOTES:

06 WASTEWATER MANHOLE 06
N: 10704764.12
E: 1748884.12
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2787.88
EX. 33" INV, E = 2772.92
EX. 33" INV, W = 2772.93
DEPTH = 14.96'
CONNECT EXISTING WASTEWATER MAINS.

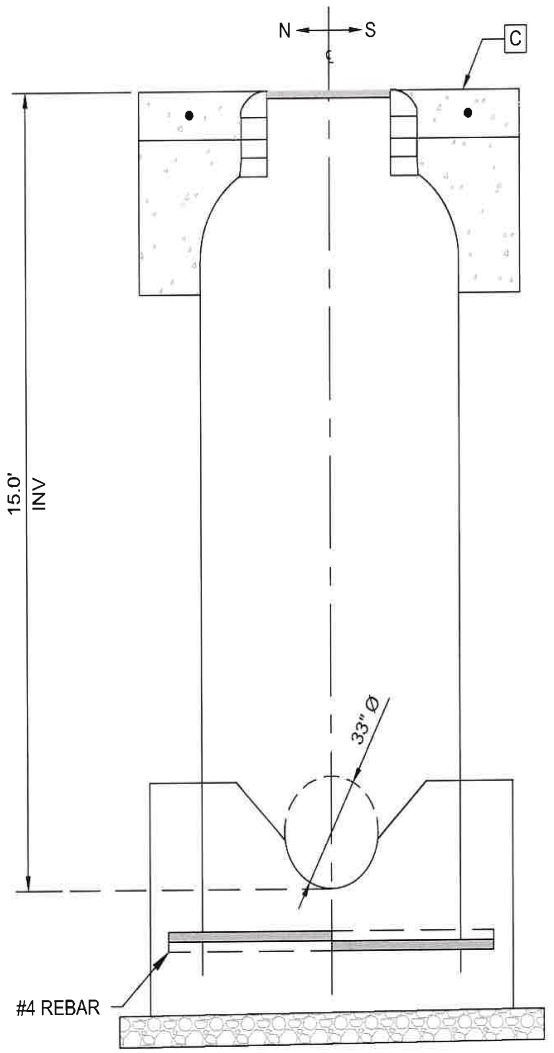
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FACING EAST

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
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PROFESSIONAL ENGINEER

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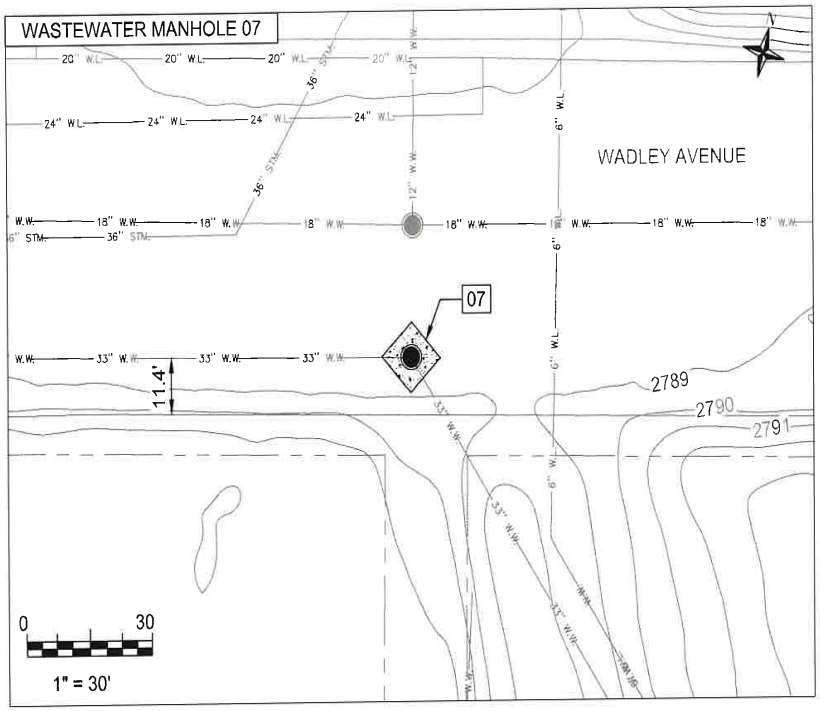
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
6 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

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KEYED NOTES:

07 WASTEWATER MANHOLE 07
N: 10704596.66
E: 17448226.10
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2788.84
EX. 33" INV, SE = 2772.60
EX. 33" INV, W = 2772.64
DEPTH = 15.04'
CONNECT EXISTING WASTEWATER MAINS.

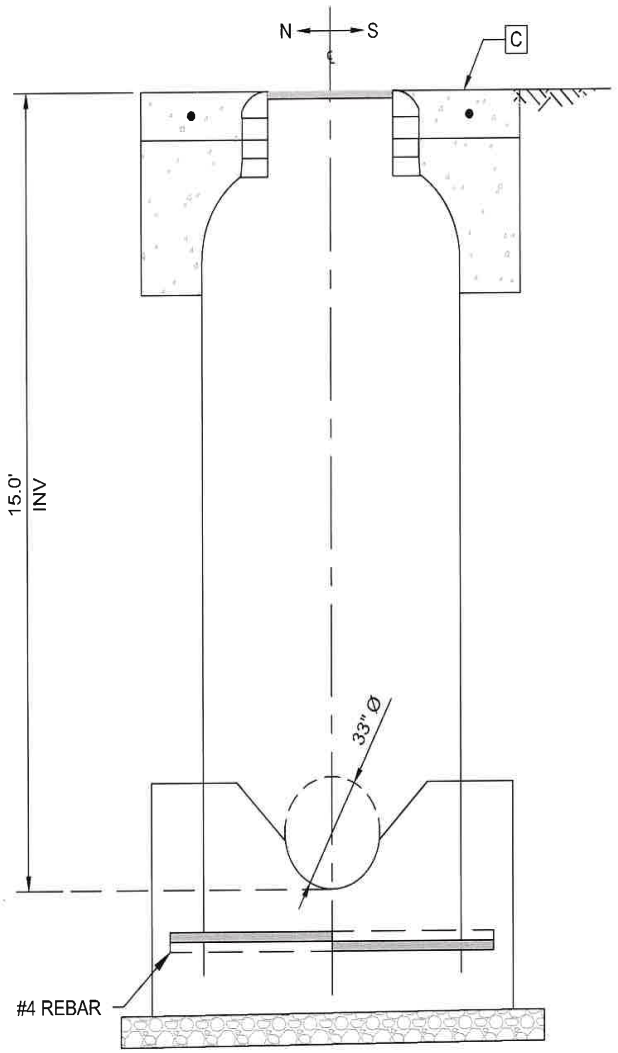
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STATE OF TEXAS
JAN 25 2022
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

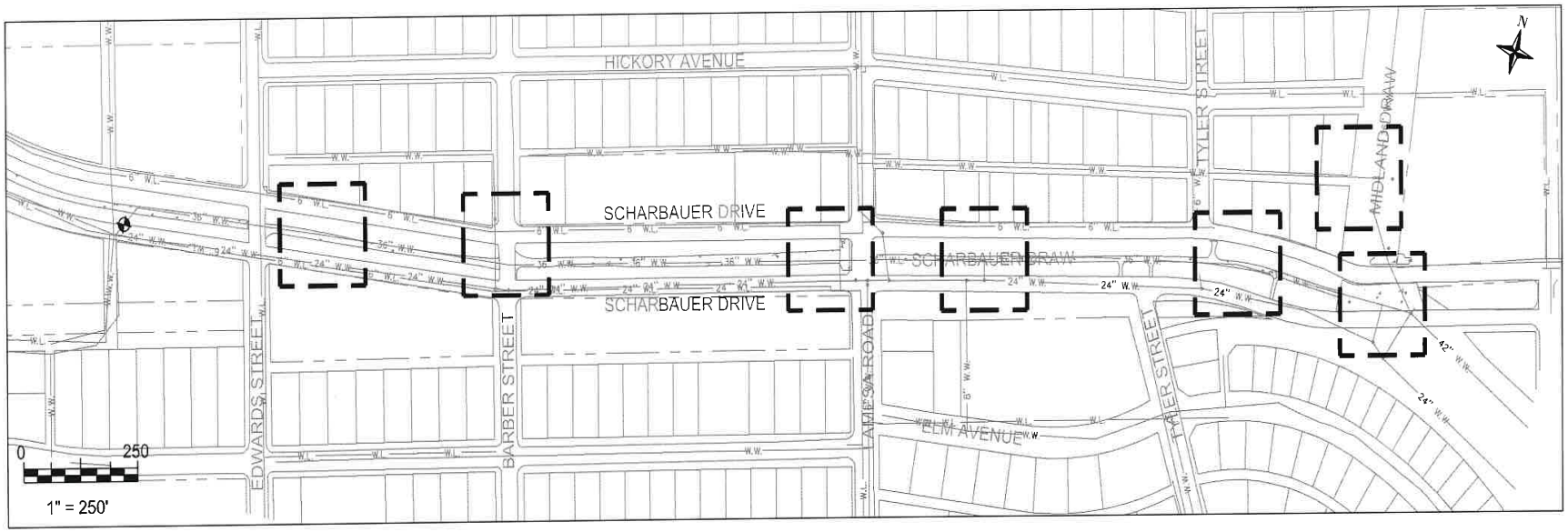
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
7 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

File: P:\Engineering Services\Engineering Projects\2021\U21-01 S Wadley_Scrar Drw MH Replacement\3 DWG\3-1 ENG\Plans\3-1 Plan.dwg Jan 19, 2022 - 2:57pm pmgallon

SCHARBAUER DRAW EXISTING CONDITIONS



EXISTING CONDITIONS KEYED NOTES:

A. EXISTING CONDITIONS ARE SHOWN BASED ON AVAILABLE CITY OF MIDLAND GIS DATA, CITY OF MIDLAND LIDAR CONTOUR DATA, SURVEY DATA, AND SITE VISITS. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

B. CONTRACTOR IS TO TAKE ALL NECESSARY STEPS AND PRECAUTIONS TO ENSURE SAFETY OF BOTH PUBLIC AND CONTRACTOR'S WORKERS WHEN TRENCHING OR OTHER WORK THAT IS TAKING PLACE NEAR OVERHEAD ELECTRIC, POWER, OR PHONE LINES.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
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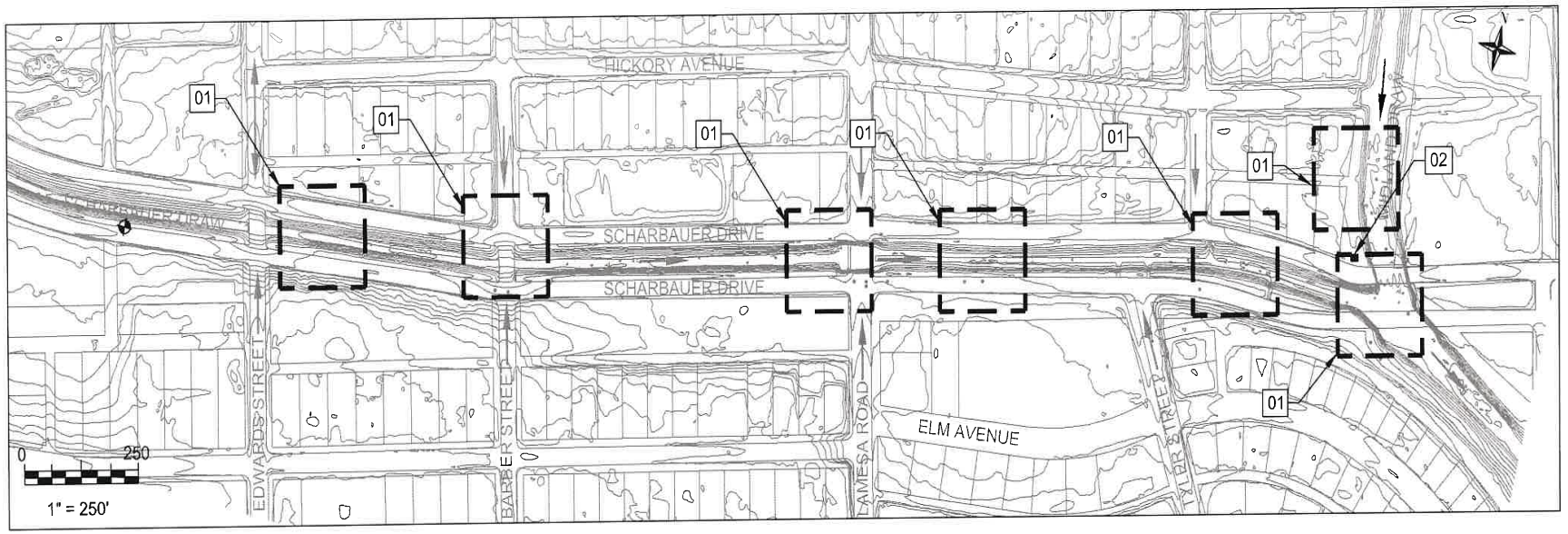
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
EXISTING CONDITIONS

Scale: NTS File: 2021\U21-01 WADLEY & SCHAR

File: P:\Engineering Services\Engineering Projects\2021\U21-01 S Wadley_Schar Draw MH Replace\03 DWGS\ 1 DWG\Planet14 MC Schar Draw.dwg Jan 18, 2022 - 2:57pm dhampton

SCHARBAUER DRAW EROSION CONTROL PLAN



EROSION CONTROL KEYED NOTES:

01 WORK ZONE AREA

02 LOCATE CONCRETE WASH OUT WITHIN PROJECT AREA AND SHIFT AS NECESSARY FOR CONSTRUCTION ACTIVITY. ALL WASHOUT AND OTHER SPOILS ARE TO BE REMOVED FROM SITE. CONCRETE TRUCKS ARE NEVER TO WASHOUT INTO ON-SITE TRENCHES.

05 PLACE ROCK DAM DOWNSTREAM OF WASTEWATER MANHOLE.

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.

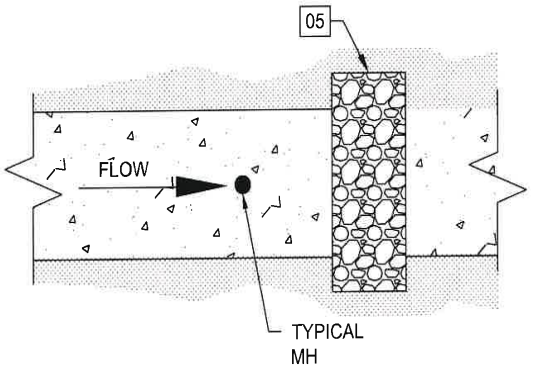
C. ANY ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE TO BE LOCATED WITHIN WORK ZONES APPROVED AS PART OF APPROVED TRAFFIC CONTROL PLANS. ON-SITE STORAGE OF SPOILS, MATERIALS, OR EQUIPMENT ARE NOT PERMITTED IN WADLEY AVENUE OUTSIDE APPROVED WORK ZONES. ON-SITE STORAGE SPOILS, MATERIALS, OR EQUIPMENT ARE NOT PERMITTED WITHIN SCHARBAUER DRAW.

D. EROSION CONTROL MEASURES THAT DAMAGE PAVEMENT ARE NOT TO BE USED IN PAVED AREAS. THIS INCLUDES EROSION CONTROL SECURED IN PLACE THROUGH STAKING, EXCAVATIONS, ETC.

E. CONTRACTOR IS TO MAINTAIN A REASONABLY CLEAN PROJECT SITE AT ALL TIMES. ANY SEDIMENT, DEBRIS, ETC. OUTSIDE PROJECT SITE ARE TO BE REMOVED PROMPTLY.

F. ALL STOCKPILES ARE TO BE SURROUNDED BY SILT FENCE OR EQUIVALENT MEASURES AS APPROVED BY ENGINEER TO PROPERLY CONTROL SEDIMENT RUNOFF.

G. CONCRETE TRUCKS CANNOT UNDER ANY CIRCUMSTANCE WASHOUT IN STORM DRAIN TRENCH. CONTRACTOR IS TO PROVIDE A WASHOUT CONTAINER FOR CONCRETE TRUCKS AND MUST REMOVE ALL WASHOUT AND SPOILS FROM PROJECT SITE.



TYPICAL MANHOLE EROSION CONTROL SETUP
SCHARBAUER DRAW
NO SCALE

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Joshua C. Ferguson

811 Know what's below. Call before you dig.

DRAWN:	PAK
CHECKED:	JCF
APPROVED:	JCF
VERT.:	N/A
HORIZ.:	N/A
PROJECT NO.:	U21-01
Date:	JAN 2022

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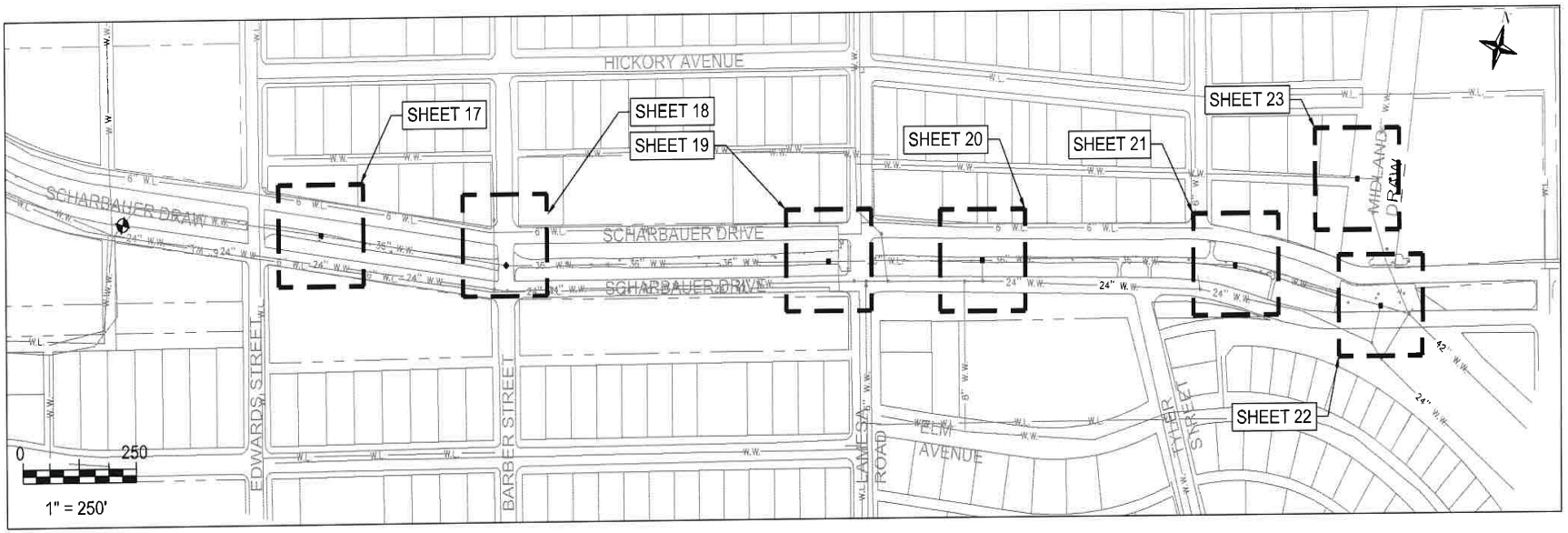
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
EROSION CONTROL PLAN

Scale: NTS File: 2021\U21-01 WADLEY & SCHAR

15
OF 29

SCHARBAUER DRAW MASTER LAYOUT



MASTER KEYED NOTES:

A. ALL PROPOSED WASTEWATER IMPROVEMENTS ARE TO CONNECT TO EXISTING WASTEWATER SYSTEM REGARDLESS OF DIMENSIONS SHOWN.

B. NOTIFY CITY INSPECTOR OF ALL FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE ISSUES AND COORDINATE WITH BOTH CITY AND FRANCHISE UTILITY OR PRIVATE INFRASTRUCTURE OWNER.

C. AT NO POINT WILL A DISRUPTION IN WASTEWATER SERVICE BE ALLOWED. CONTRACTOR IS REQUIRED TO TEMPORARILY BYPASS MANHOLE(S) AS NECESSARY TO ACCOMPLISH IMPROVEMENTS SHOWN HEREIN.

D. REPLACE ALL CONCRETE REMOVED WITHIN SCHARBAUER DRAW WITH 12" THICKNESS AT EXISTING WIDTH. MATCH EXISTING SLOPE TO FLOW WEST TO EAST.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
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PROFESSIONAL ENGINEER

PACKET 6.301 March 22, 2022

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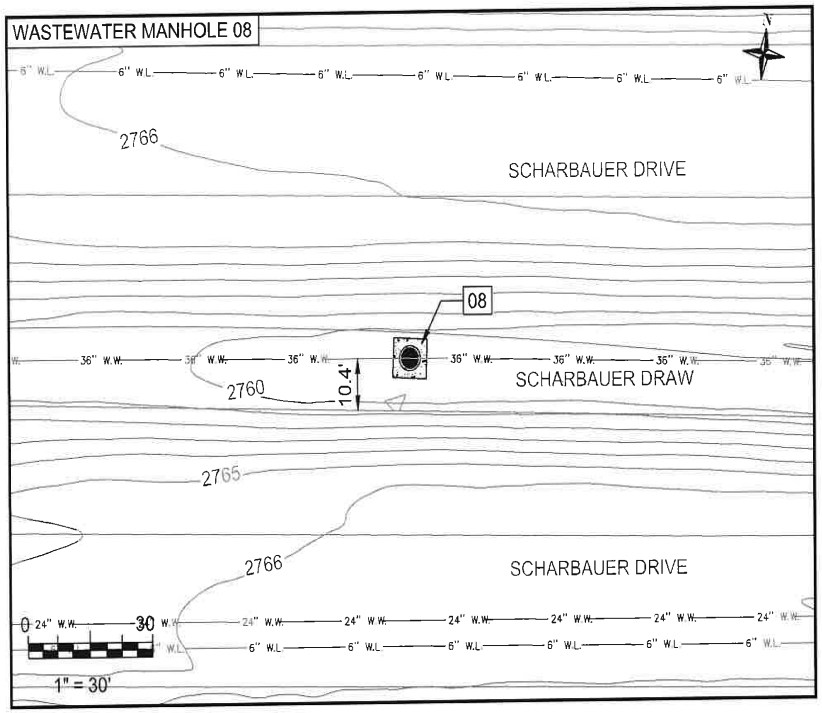
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Date: JAN 2022

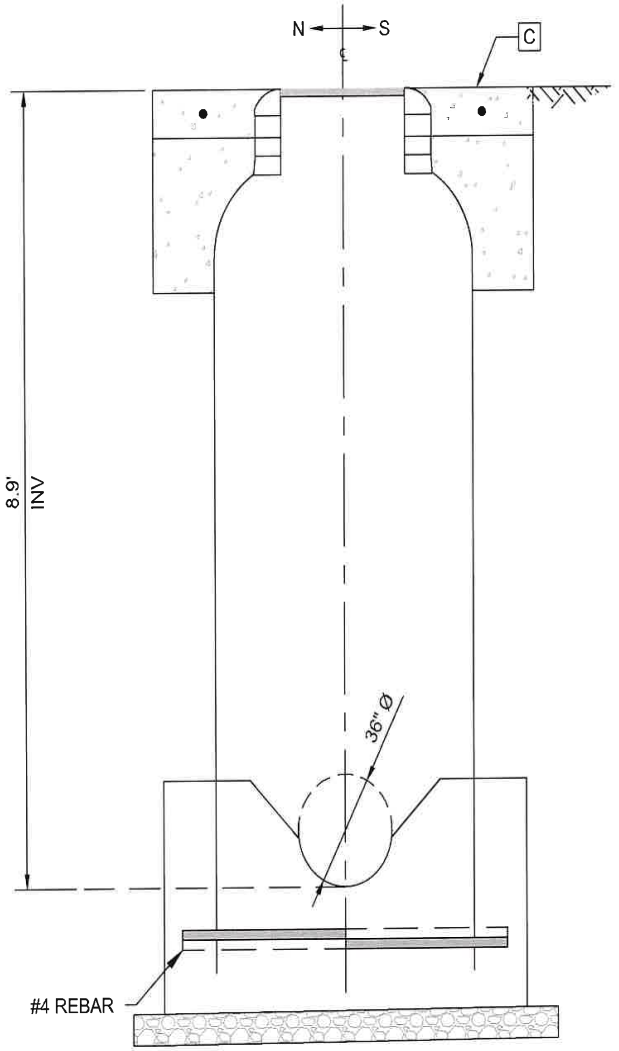
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
MASTER LAYOUT

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

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FACING EAST

KEYED NOTES:

08 WASTEWATER MANHOLE 08
N: 10702806.13
E: 1756552.14
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2759.07
EX. 36" INV, E = 2750.17
EX. 36" INV, W = 2750.17
DEPTH = 8.90'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

E. EXISTING 36" WASTEWATER PIPE IS SPIRALITE.

F. CONCRETE RING TO BE 12" THICK ALONG SCHARBAUER DRAW.

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JAN 25 2022
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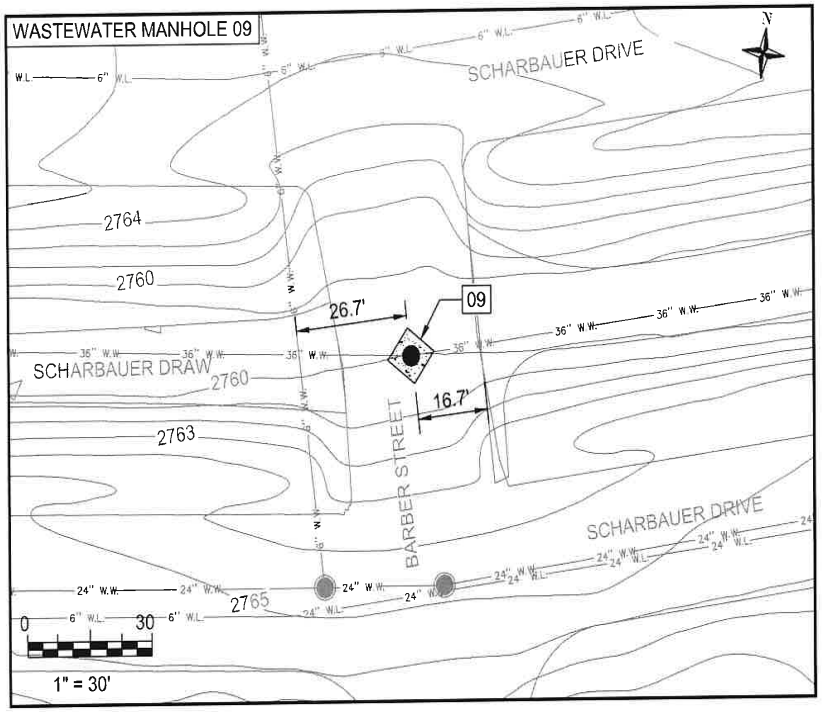
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APPROVED: JCF
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HORIZ.: N/A
PROJECT NO.: U21-01
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MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
1 of 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

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KEYED NOTES:

09 WASTEWATER MANHOLE 09
N: 10702848.62
E: 1756963.14
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2759.44
EX. 36" INV, E = 2749.59
EX. 36" INV, W = 2749.59
DEPTH = 10.35'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

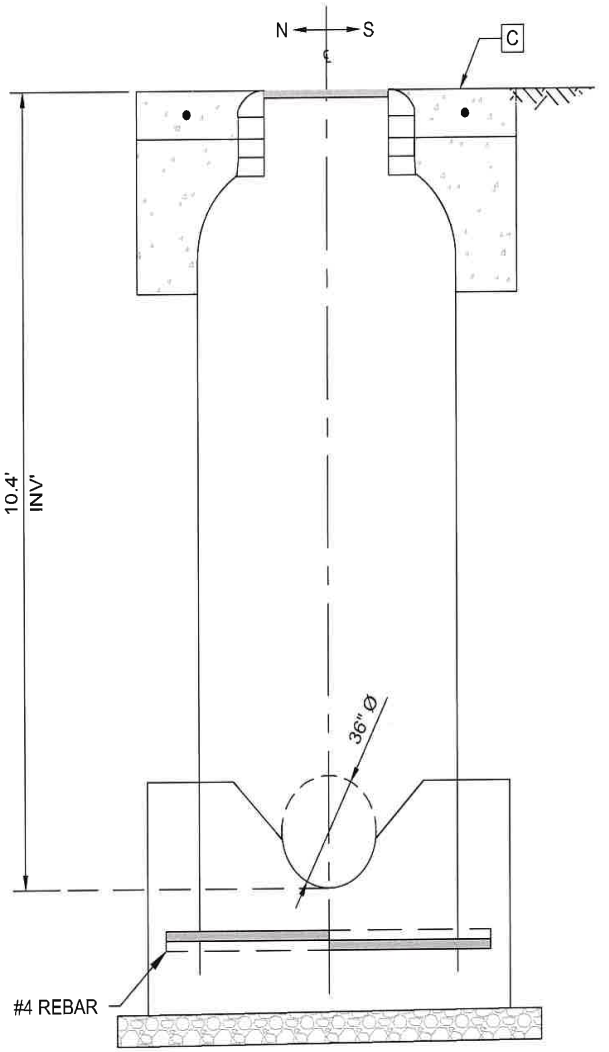
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F. CONCRETE RING TO BE 12" THICK ALONG SCHARBAUER DRAW.



FACING EAST

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

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PROJECT NO.: U21-01
Date: JAN 2022

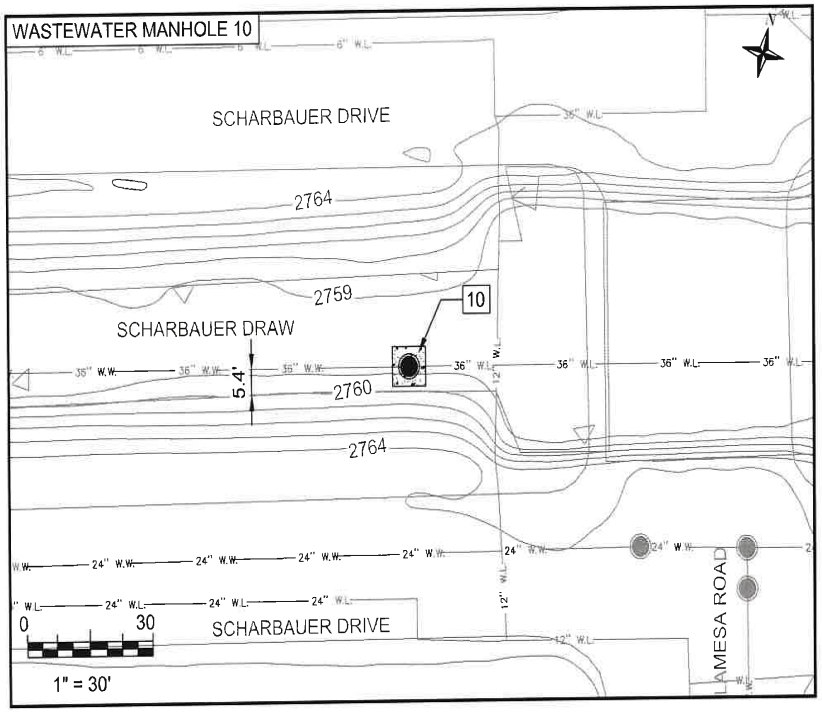
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
PLAN SHEET
2 of 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

18
OF 29

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KEYED NOTES:

10 WASTEWATER MANHOLE 10
N: 10703020.39
E: 1757655.38
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2757.67
EX. 36" INV, E = 2747.37
EX. 36" INV, W = 2747.37
DEPTH = 10.30'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

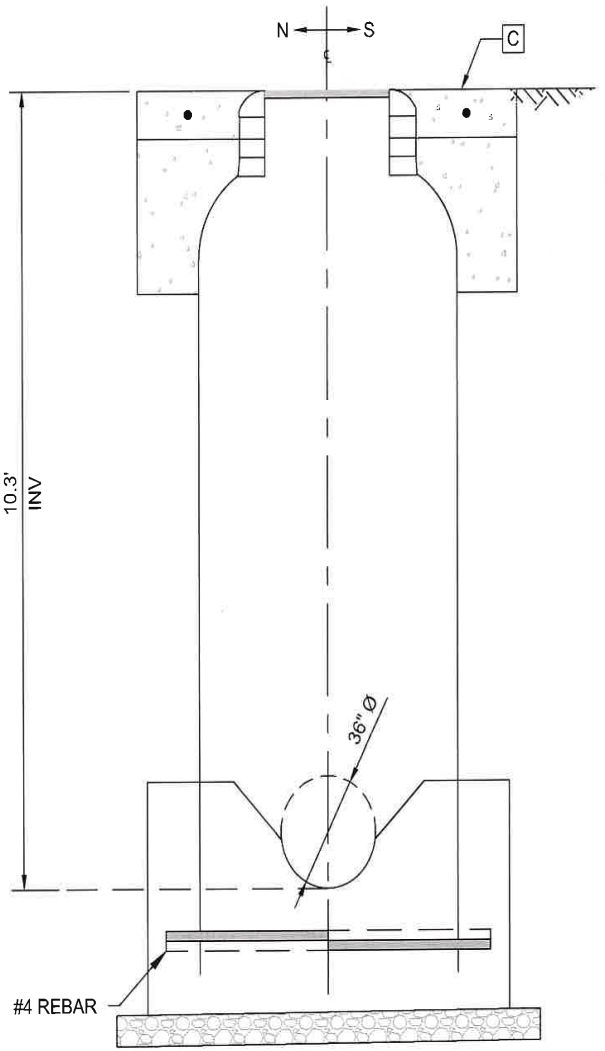
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C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

E. EXISTING 36" WASTEWATER PIPE IS SPIRALITE.

F. CONCRETE RING TO BE 12" THICK ALONG SCHARBAUER DRAW.



FACING EAST

STATE OF TEXAS
JAN 25 2022
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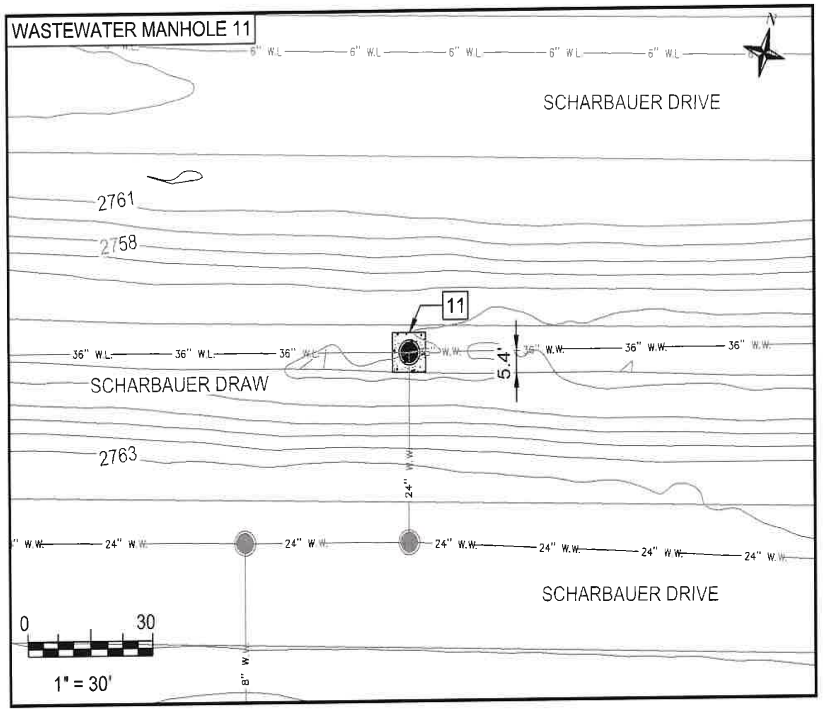
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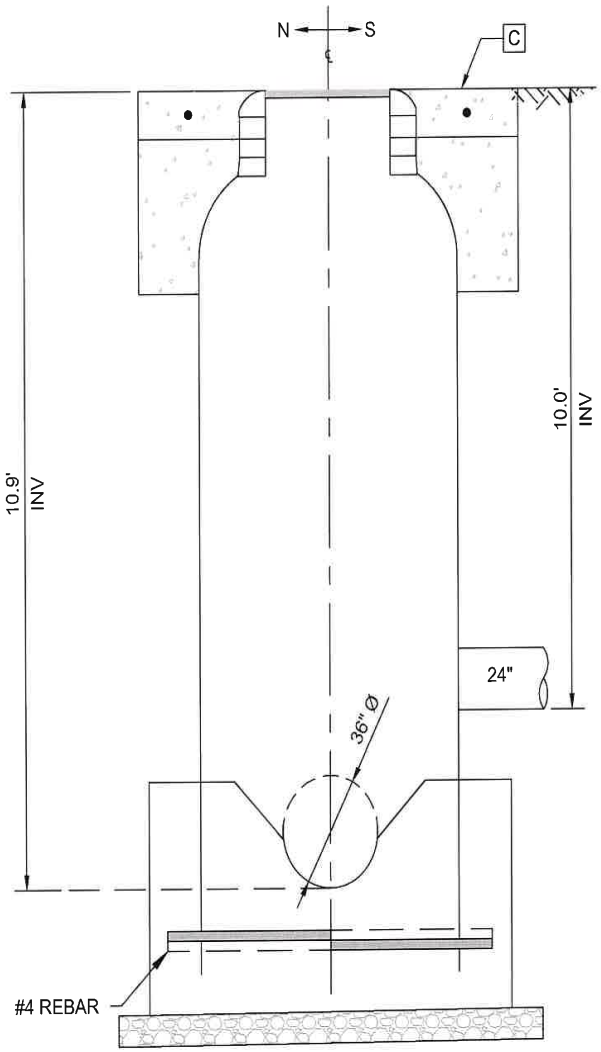
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
3 of 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR





FACING EAST

KEYED NOTES:

11 WASTEWATER MANHOLE 11
N: 10703102.18
E: 1757987.76
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2758.05
EX. 36" INV, E = 2747.15
EX. 24" INV, S = 2748.00 (APPROX)
EX. 36" INV, W = 2747.15
DEPTH = 10.90'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

E. EXISTING 36" WASTEWATER PIPE IS SPIRALITE.

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STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Joshua C. Ferguson

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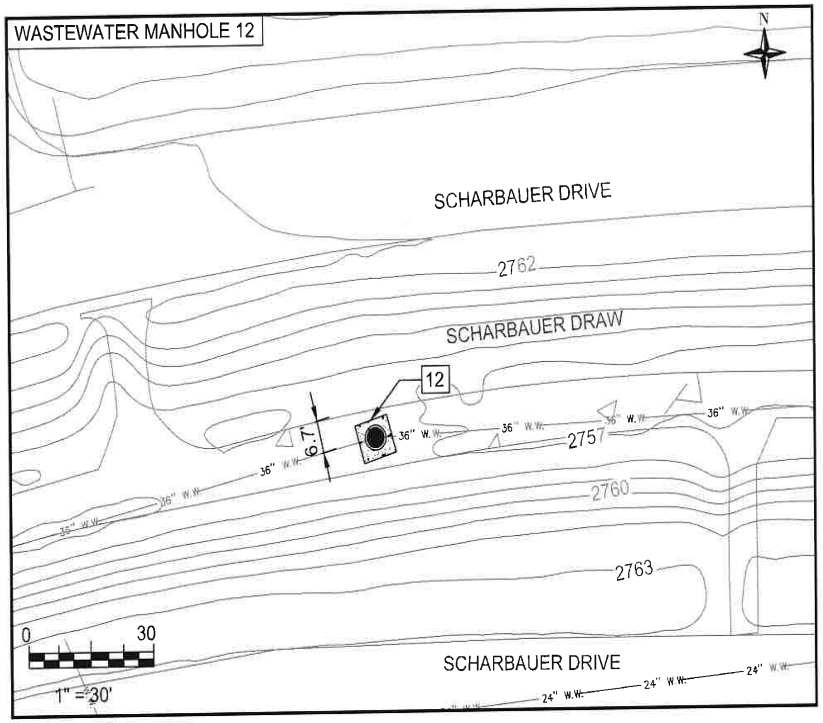
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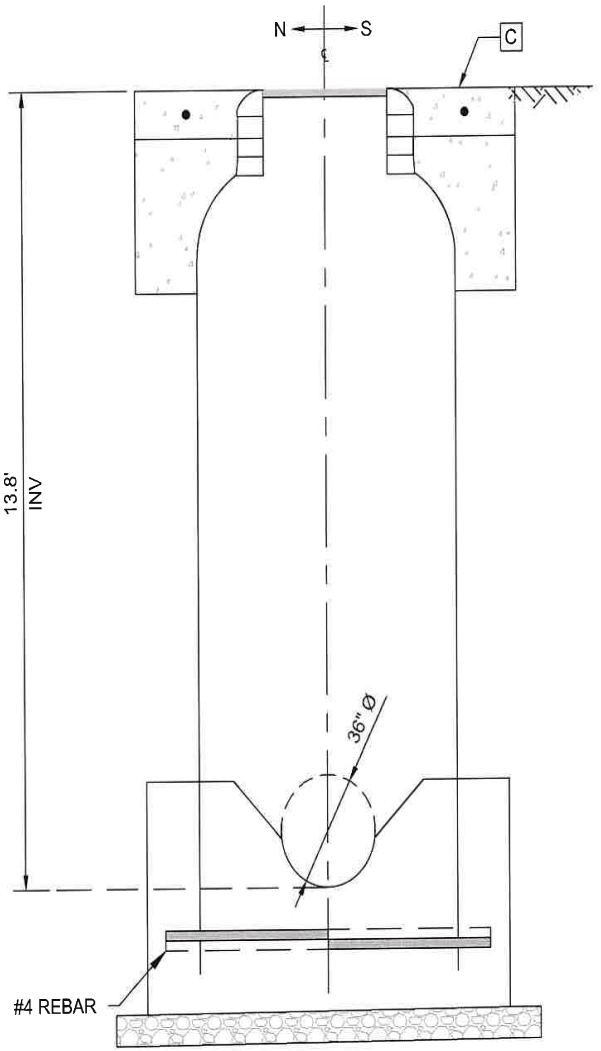
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
4 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR





FACING EAST

KEYED NOTES:

12 WASTEWATER MANHOLE 12
N: 10703240.00
E: 1758542.25
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2760.74
EX. 36" INV, E = 2746.97
EX. 36" INV, W = 2746.97
DEPTH = 13.77'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

E. EXISTING 36" WASTEWATER PIPE IS SPIRALITE.

F. CONCRETE RING TO BE 12" THICK ALONG SCHARBAUER DRAW.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
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PROFESSIONAL ENGINEER

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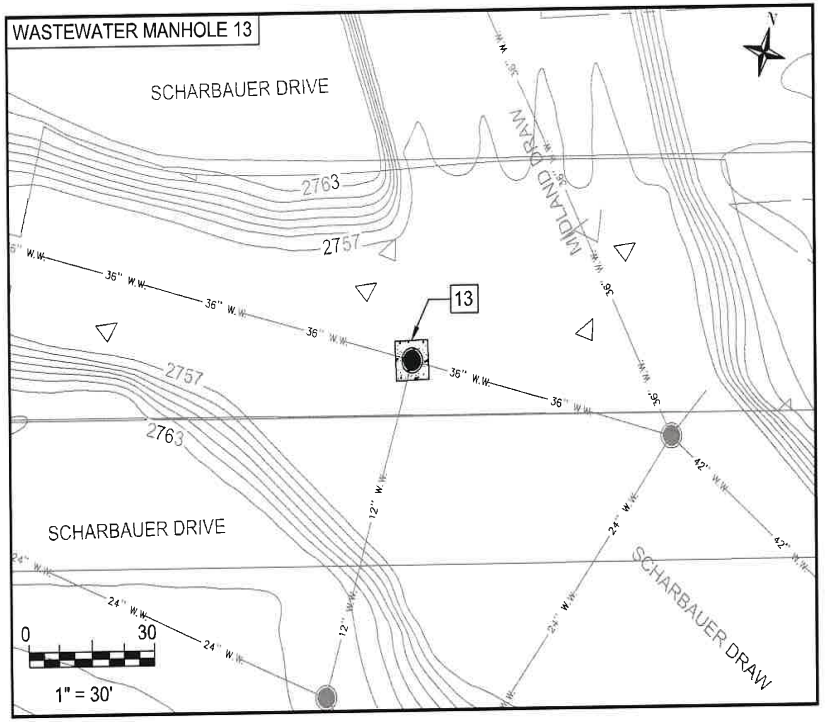
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT
PLAN SHEET
5 OF 7

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

21
OF 29



KEYED NOTES:

13 WASTEWATER MANHOLE 13
N: 10703226.30
E: 1758863.80
REMOVE:
1 - EX 60" WASTEWATER MANHOLE

INSTALL:
1 - 60" FIBERGLASS MANHOLE
RIM = 2761.85
EX. 12" INV, NE = 2748.03 (APPROX.)
EX. 36" INV, E = 2746.87
EX. 36" INV, W= 2746.87
DEPTH = 14.98'
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

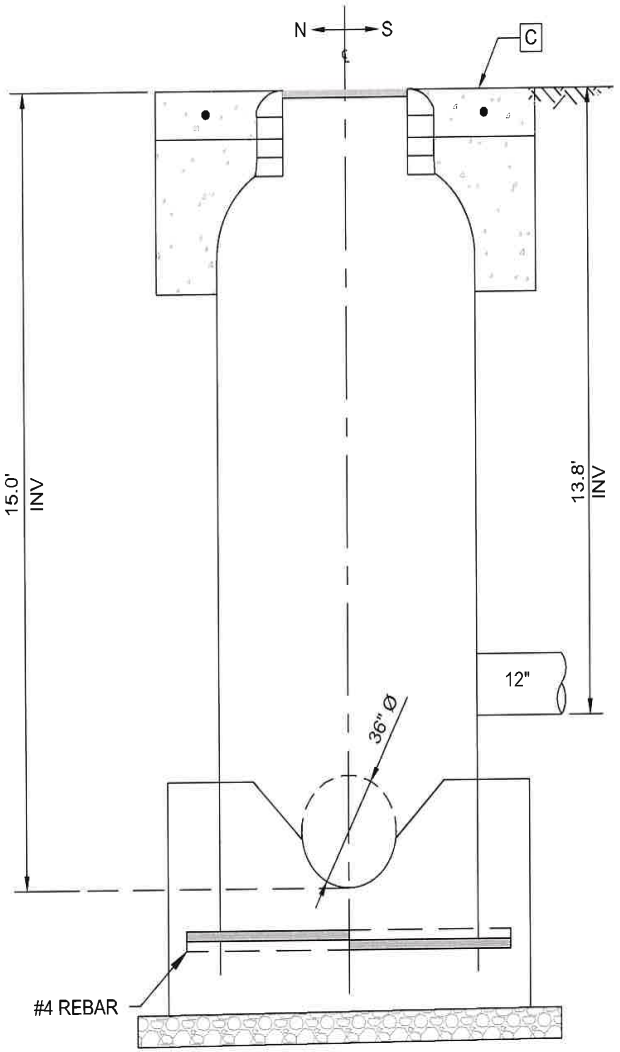
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E. EXISTING 36" WASTEWATER PIPE IS SPIRALITE.

F. CONCRETE RING TO BE 12" THICK ALONG SCHARBAUER DRAW.



FACING EAST

STATE OF TEXAS
JAN 28 2022
JOSHUA C. FERGUSON
117692
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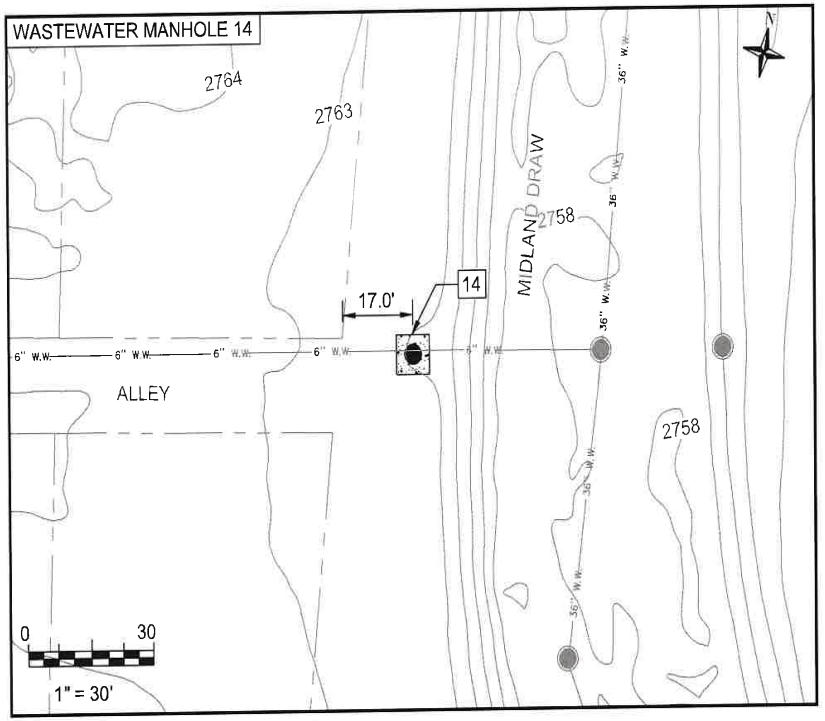
MIDLAND Utilities

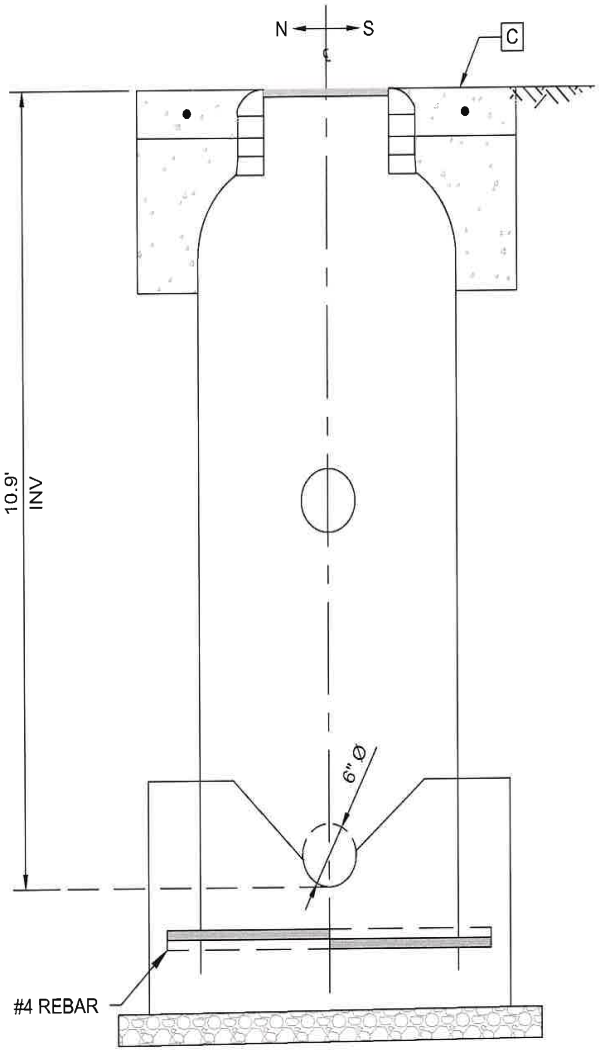
WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
6 of 7

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OF 29

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FACING EAST

KEYED NOTES:

14 WASTEWATER MANHOLE 14
N: 10703441.12
E: 1758757.10
REMOVE:
1 - EX 48" WASTEWATER MANHOLE

INSTALL:
1 - 48" FIBERGLASS MANHOLE
RIM = 2762.45
EX. 6" INV, E = 2751.55
EX. 6" INV, W = 2756.55
PROP. 6" INV, W = 2751.55
DEPTH = 10.90'
5.00' - 6" EXTERNAL DROP
CONNECT EXISTING WASTEWATER MAINS.

CONSTRUCTION NOTES:

B. ALL OTHER EXISTING WASTEWATER PIPE IS VENTRIFIED CLAY PIPE UNLESS OTHERWISE NOTED.

C. CONCRETE RING & COVER WITH REBAR TO BE INSTALLED PER DETAIL D02, SHEET 26.

D. TYPICAL PAVEMENT REPAIR AREA IS 11.0' X 11.0', CENTERED ON MANHOLE, PER DETAIL 311 OR 312 AS APPLICABLE.

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

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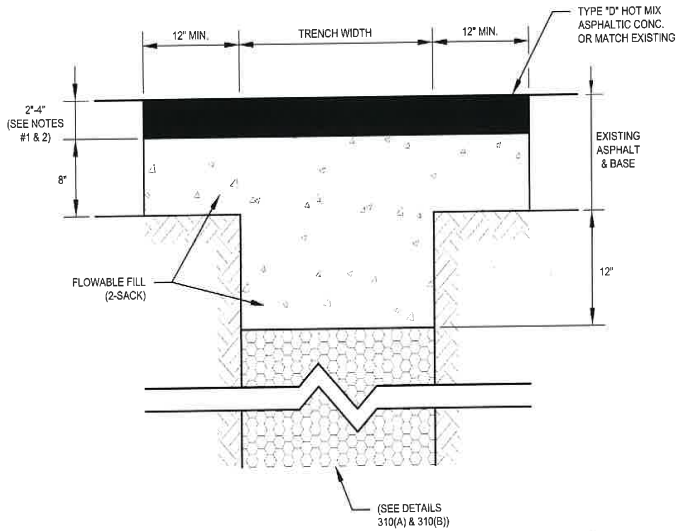
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APPROVED: JCF
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HORIZ.: N/A
PROJECT NO.: U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
PLAN SHEET
7 of 7

Scale: NTS
File: 2021\U21-01 WADLEY & SCHAR

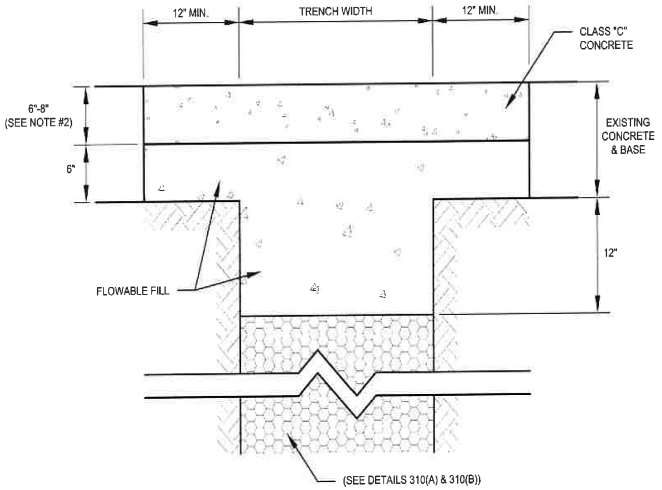
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NOTES:

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: JEO	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 311
	ASPHALT TRENCH PAVEMENT REPLACEMENT		



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 6" 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: JEO	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL: 312
	CONCRETE TRENCH PAVEMENT REPLACEMENT		

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
LICENSED
PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

DRAWN: PAK	5		
CHECKED: JCF	4		
APPROVED: JCF	3		
VERT.: N/A	2		
HORIZ.: N/A	1		
PROJECT NO. U21-01	0		Description
Date: JAN 2022	Rev. No.	Date	

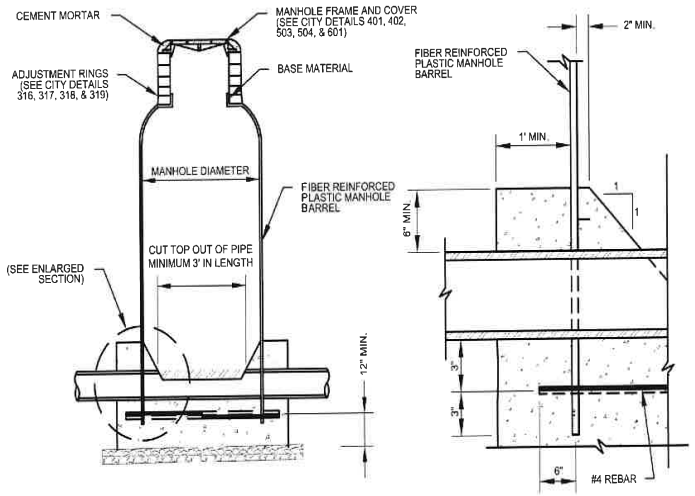
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
DETAILS
1 OF 6

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

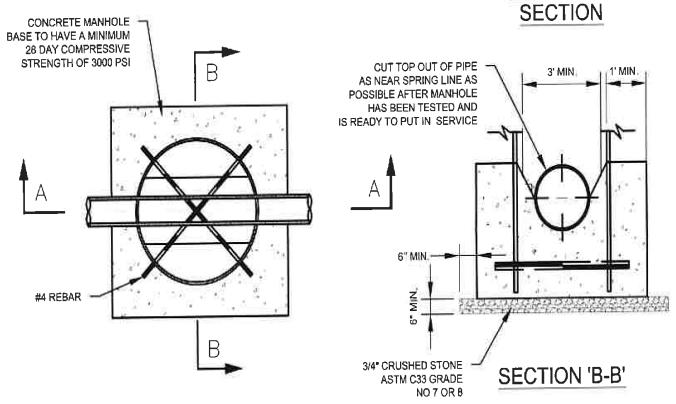
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SECTION 'A-A'

ENLARGED SECTION



SECTION 'B-B'

DRAWN: DPM	CHECKED: JCF	APPROVED: JEO	
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: JEO	
EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:	
MIDLAND Engineering Services	TYPICAL FIBERGLASS MANHOLE	313(B)	

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
117692
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PROFESSIONAL ENGINEER

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Rev. No.	Date	Description
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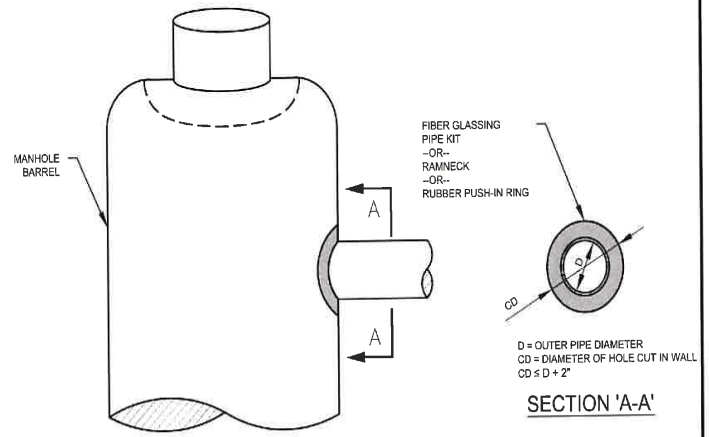
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APPROVED: JCF
VERT.: N/A
HORIZ.: N/A
PROJECT NO. U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
DETAILS
2 OF 6

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

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OF 29

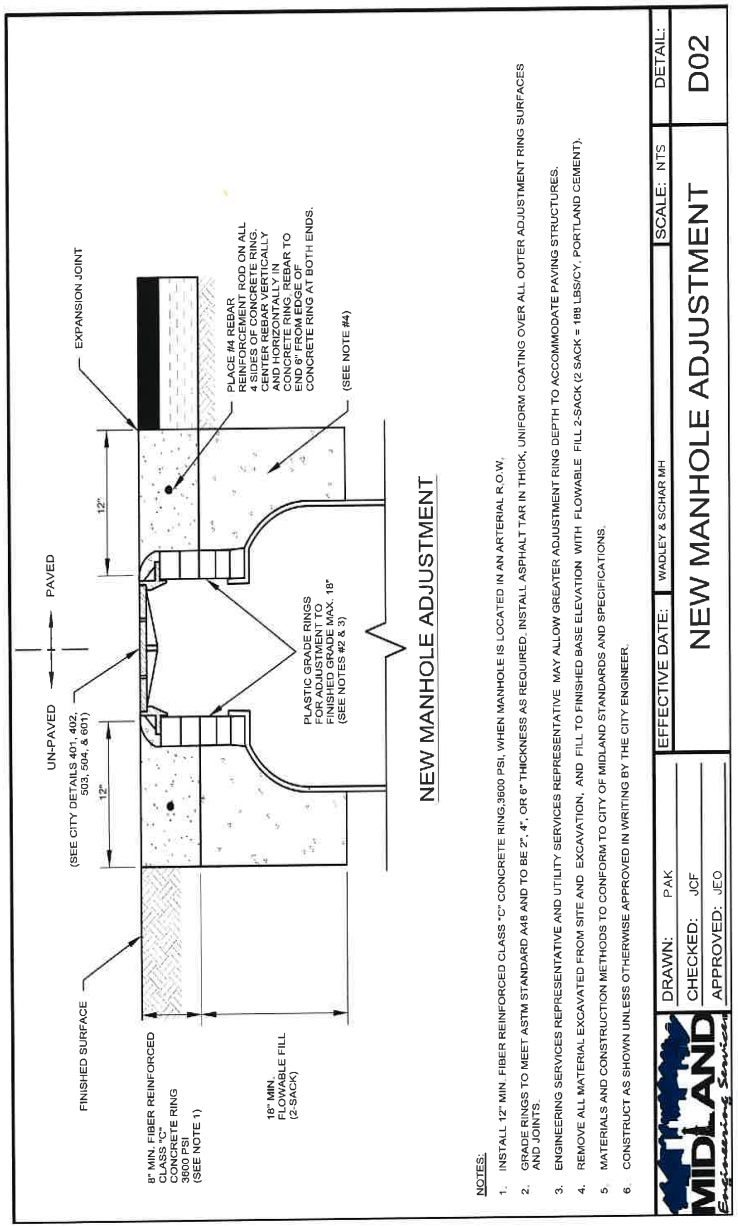


SECTION 'A-A'

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: JEO	
MIDLAND Engineering Services	EFFECTIVE DATE: 10/01/2018	SCALE:	DETAIL:
TYPICAL FIBERGLASS MANHOLE PIPE PENETRATION			314



NEW MANHOLE ADJUSTMENT

NOTES:

1. INSTALL 12" MIN. FIBER REINFORCED CLASS "C" CONCRETE RING,3900 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 = 180 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.

DRAWN: PAK	EFFECTIVE DATE:	WADLEY & SCHAR MH	SCALE: NTS	DETAIL:
CHECKED: JCF		NEW MANHOLE ADJUSTMENT		D02
APPROVED: JEO				

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
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PROFESSIONAL ENGINEER

Josh Ferguson

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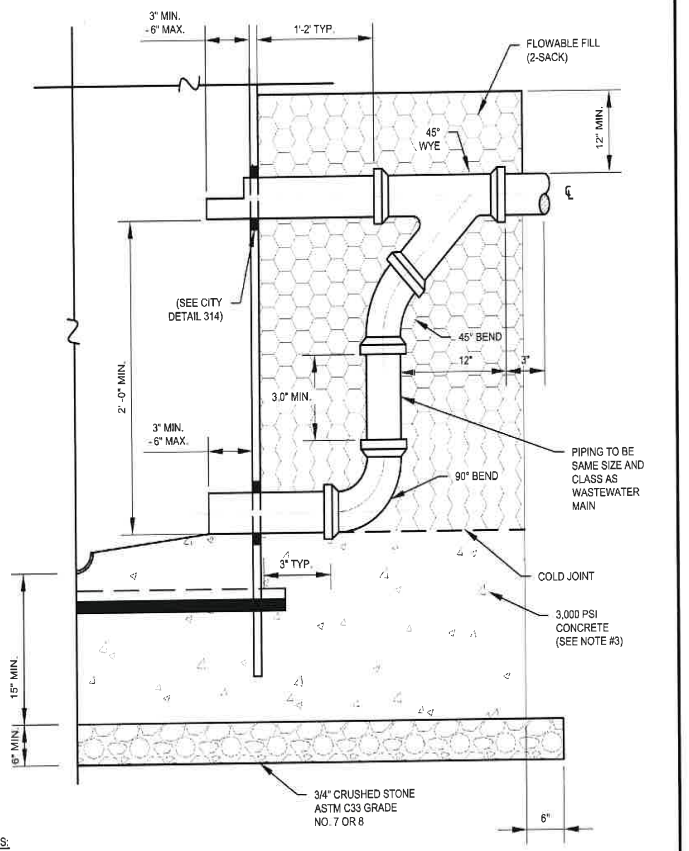
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HORIZ.: N/A	1		
PROJECT NO. U21-01	0		Description
Date: JAN 2022	Rev. No.	Date	

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
DETAILS
3 OF 6

Scale: NTS | File: 2021U21-01 WADLEY & SCHAR

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NOTES:

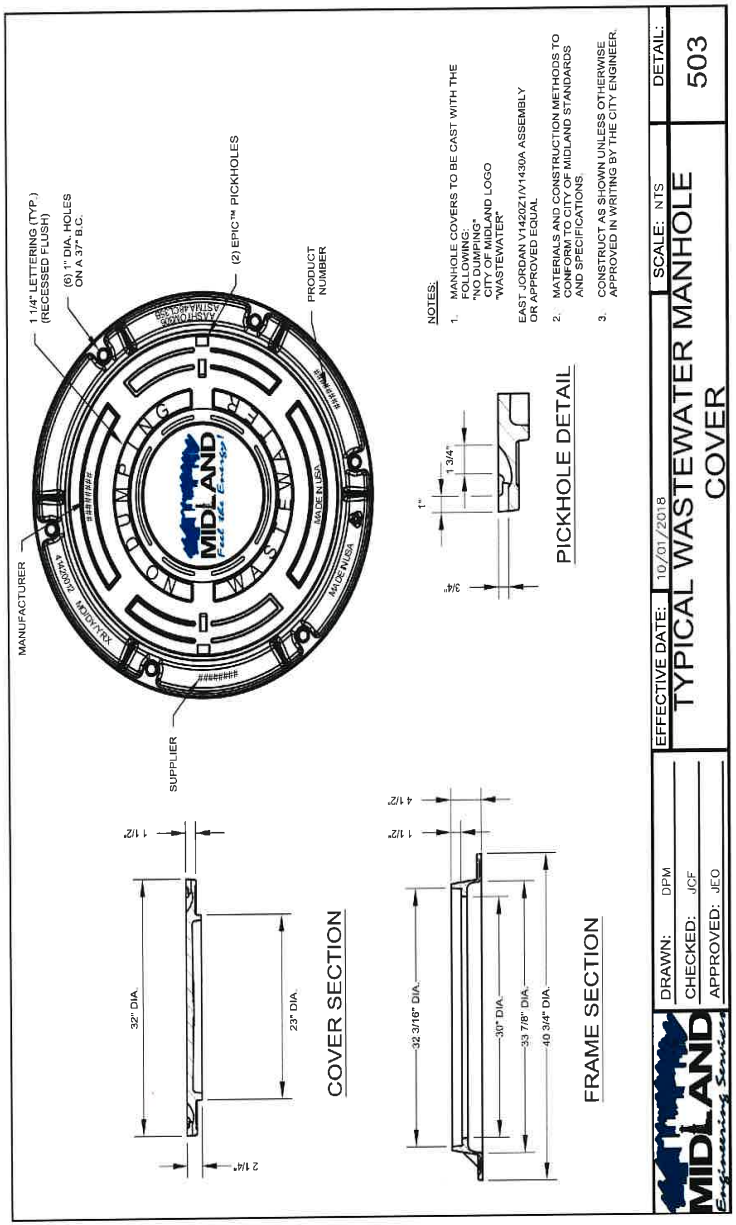
1. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT). REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
2. INSTALL BEND AND WYE AS NEAR TO MANHOLE WALL AS PRACTICAL, USUALLY 3'-4" FROM THE BEND AT THE BOTTOM.
3. ALL CONCRETE TO BE CLASS "A" CONCRETE.
4. MATERIALS AND CONSTRUCTION METHODS TO CONFORM 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: JEO	
EFFECTIVE DATE: 10/01/2018		SCALE: NTS	DETAIL:

MIDLAND Engineering Services

EXTERNAL DROP STRUCTURE

501



DRAWN: DPM	EFFECTIVE DATE: 10/01/2018	SCALE: NTS	DETAIL:
CHECKED: JCF	TYPICAL WASTEWATER MANHOLE COVER		503
APPROVED: JEO			

MIDLAND Engineering Services

STATE OF TEXAS
JAN 25 2022
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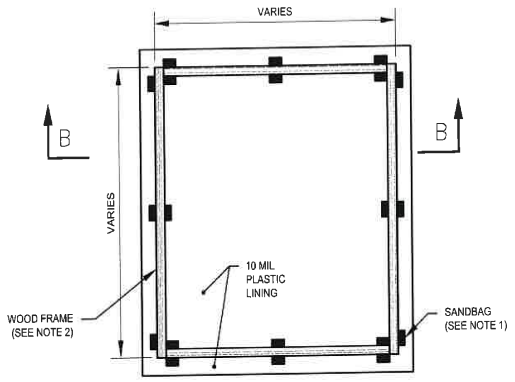
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VERT.: N/A
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PROJECT NO. U21-01
Date: JAN 2022

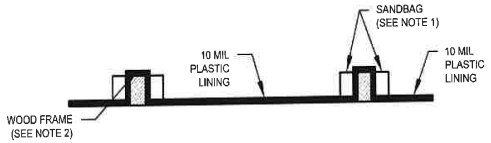
MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
DETAILS
4 OF 6

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR



ELEVATED WASHOUT

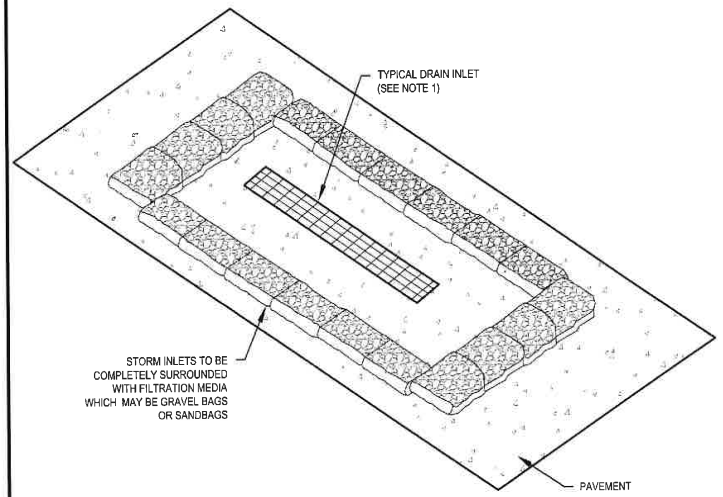


SECTION 'B-B'

NOTES:

1. SECURE WASHOUT STRUCTURE AND LINING WITH SANDBAGS AROUND ENTIRE WASHOUT PERIMETER.
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: PAK	CHECKED: JCF	APPROVED: JEO	
	EFFECTIVE DATE: WADLEY & SCHAR MH	SCALE: NTS	DETAIL:
MIDLAND Engineering Services	CONCRETE WASHOUT OPTION 3		D03



GRAVEL BAGS OR SANDBAGS

NOTES:

1. THIS DESCRIBES GRATED MANHOLE OR JUNCTION BOX COVERS AS WELL AS SLOT DRAIN INLETS.
2. FILL BAGS TO 60% CAPACITY WITH CLEAN GRAVEL OR CLEAN SAND.
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 SURFACE.
4. GRAVEL TO BE NO LESS THAN 1" DIAMETER OR GREATER THAN 2" DIAMETER.
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: PAK	CHECKED: JCF	APPROVED: JEO	
	EFFECTIVE DATE: WADLEY & SCHAR MH	SCALE: NTS	DETAIL:
MIDLAND Engineering Services	ROAD INLET PROTECTION OPT 1		D01

STATE OF TEXAS
JAN 25 2022
JOSHUA C. FERGUSON
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Josh Ferguson

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HORIZ.: N/A
PROJECT NO U21-01
Date: JAN 2022

MIDLAND Utilities

WADLEY AVENUE & SCHARBAUER
DRAW MANHOLE REPLACEMENT
DETAILS
5 OF 6

Scale: NTS | File: 2021\U21-01 WADLEY & SCHAR

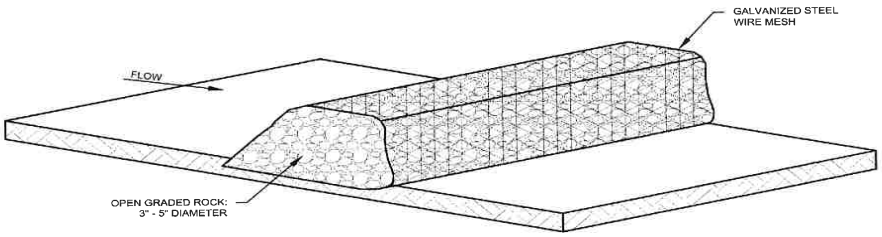
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OF 29

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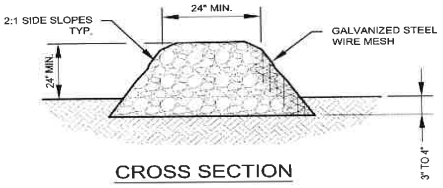
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6.314

March 22, 2022



ISOMETRIC VIEW



CROSS SECTION

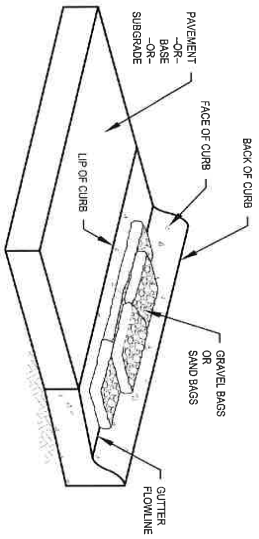
NOTES:

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.

MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: JEO	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
		ROCK FILTER DAM	DETAIL: 708

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.



MIDLAND Engineering Services	DRAWN: DPM CHECKED: JCF APPROVED: JEO	EFFECTIVE DATE: 10/01/2018	SCALE: NTS
		CURB GRAVEL OR SAND BAGS	DETAIL: 712

JOSHUA C. FERGUSON 117692 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

29 OF 29	WADLEY AVENUE & SCHARBAUER DRAW MANHOLE REPLACEMENT DETAILS 6 OF 6 Scale: NTS File: 2021\U21-01 WADLEY & SCHAR	MIDLAND Utilities	DRAWN: PAK 5 CHECKED: JCF 4 APPROVED: JCF 3 VERT.: N/A 2 HORIZ.: N/A 1 PROJECT NO. U21-01 0 Date: JAN 2022 Rev. No. Date Description

811 Know what's below. Call before you dig.

City Council Meeting

Item Number: 7

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: Resolution authorizing the execution of a professional service agreement with Maverick Civil and Survey LLC. for Big Spring Water Replacement Project, for the On-Call Engineering support services for the Utilities Department. (DISTRICT 2) (GENERAL SERVICES)

Purpose:

Resolution authorizing the execution of a professional service agreement with Maverick Civil and Survey LLC, for the Big Spring Water Replacement Project.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the FY22 Utilities Fund operating budget.

Discussion:

Resolution 2020-091 approved the selection of engineering firms for on-call engineering services for the Utilities Department. Maverick Civil and Survey LLC, an on-call engineer was selected to perform the task. The project continues the design of a water and wastewater replacement along Big Spring from I-20 to I-250. 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 for Big Spring Water Replacement Project, for the On-Call Engineering support services with Maverick Civil and Survey LLC. Of Midland, Texas for the amount of $130,000.00 and a contingency of $26,000.00 for a not to exceed amount of $156,000.00.

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Munoz Martinez, Purchasing Manager

FROM: Carl Craigo, PE, Utilities Director

SUBJECT: Consider a Resolution approving a task order with Maverick Civil and Survey LLC for the design of a water and wastewater replacement along Big Spring from I-20 to I-250.

DATE: March 22, 2022

The project generally includes evaluating and designing conflicts of existing water and sewer mains along Big Spring due to TXDots 2023 rehab of Big Spring. Maverick is on-call engineer (Resolution 2020-091) and has been assigned to perform the task.

TXDots reconstruction of Big Spring involves 8" mill and inlay of the road and Utilities concluded that the construction activity will be detrimental to the City's utility infrastructure. Maverick will evaluate all potential conflicts and will design for the replacements of them. Most notably the water line from the railroad tracks and Big Spring to almost I-250 is in the middle of the road and is over 40 years old.

The scope of services is on a task fee bases with an amount of $130,000 and a contingency of $26,000 for a not to exceed amount of $156,000. Contingency will be used based on the possible need to replace lines east to west along the route. This will be paid for with Utilities Admin FY22 Operating Fund.

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE EXECUTION OF A PROFESSIONAL SERVICES AGREEMENT WITH MAVERICK CIVIL & SURVEY, LLC, FOR DESIGN SERVICES FOR THE BIG SPRING WATER REPLACEMENT PROJECT FOR THE UTILITIES DEPARTMENT FOR A COST NOT TO EXCEED $130,000.00; AND APPROVING $26,000.00 FOR CONTINGENCIES

WHEREAS, the City Council approved Resolution No. 2020-091 selecting six engineering firms to provide professional services for engineering designs and studies on an as-needed basis; and

WHEREAS, the Utilities Department has selected Maverick Civil & Survey, LLC, to provide design services for the Big Spring Water Replacement Project; and

WHEREAS, Maverick Civil & Survey, LLC, has agreed to perform said professional services for a cost not to exceed $130,000.00; and

WHEREAS, the City Council finds that Maverick Civil & Survey, LLC, is qualified to perform said professional services; and

WHEREAS, the City Council finds that the professional fees proposed by Maverick Civil & Survey, LLC, 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 Maverick Civil & Survey, LLC, 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 Maverick Civil & Survey, LLC, 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 $26,000.00 for contingencies;

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

SECTION ONE. That the Interim 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 Maverick Civil & Survey, LLC, for said professional services. A copy said agreement is attached hereto as Exhibit "1" and incorporated herein for all purposes.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay Maverick Civil & Survey, LLC, for said professional services from funds available in the FY22 Utilities 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:

_____
Carl Craigo, Utilities Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

PROFESSIONAL SERVICES AGREEMENT
22002237

THIS AGREEMENT is made and effective the 23 day of March 2022, by and between the CITY OF MIDLAND, TEXAS ("*CITY*"), a home-rule municipal corporation, and MAVERICK CIVIL & SURVEY LLC DBA MAVERICK ENGINEERING ("*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 engineering services at Big Spring Avenue Water Main Replacement Survey and Analysis (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 $130,000.00 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 March 23, 2022 until March 22, 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: MAVERICK CIVIL & SURVEY LLC DBA MAVERICK ENGINEERING
1909 WEST WALL STREET, SUITE K
MIDLAND, TEXAS 79701

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.

[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 MAVERICK CIVIL & SURVEY LLC DBA MAVERICK ENGINEERING, 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

TASK ORDER NO. M4 2022_

EXHIBIT A

This Task Order pertains to an Agreement by and between City of Midland, Texas, ("CITY"), and **Maverick Civil and Survey LLC** ("COMPANY"), dated **February 12, 2022** ("the Agreement"). COMPANY shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order shall supplement the Agreement as it pertains to the project described below.

TASK ORDER NUMBER: **M4 2022**
PROJECT NAME: **Big Spring Avenue Water Main Replacement Survey and Analysis**

PART 1.0 PROJECT DESCRIPTION:

To survey project limits and provide water system replacement analysis. This analysis will locate the exact location of water lines within Big Spring Street as well as other utilities that could conflict with future design. This survey scope shall also cover necessary lines in the right of way to appropriately replace shallow or dilapidating water lines to prevent breaks from TXDOTS Pavement replacement project.

Once Survey is Complete Maverick will Analyze the water system and provide complete plan views of water re-placement alignments with identified conflicts and issues. With the new alignments Maverick will provide EOPC's regarding coordinated sections of the new alignments so the city can best determine what to replace or not replace according to budgets.

This scope is to also provide an immediate design of an 8" water line along W. Francis Avenue between Big Spring/Rankin Hwy to Belmont Street to help facilitate the existing Kent Kwik with appropriate line size regarding there low pressure issues.

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY COMPANY ON THE PROJECT:

Surveying Services

Design Topography **Estimated Not to Exceed Fee: $87,000**

Separate from any boundary and title considerations, Maverick will analyze existing site conditions by performing topographical survey on the site for design purposes. This topography typically includes horizontal and vertical location of visible or marked utilities, including, but not limited to water, sanitary sewer, storm drain, electric, telephone, gas, and data Curb and gutter, centerline,

sidewalks, necessary trees and right of way obstructions. Where access allows, the inverts of any conflicting sanitary sewer and storm drain are also included in this task. Topographic survey will generally be shot on a 50-100 foot interval grid extending out 25 feet to either side of the property limits where access allows and according to project design needs. All Survey point will be in NAVD88 Texas Central Zone, NAD83 Horizontal Datum.

Survey will pick up the top of Nut withing existing water valves to help determine water line depths without potholing where applicable.

Deliverables will be sent to the City of Midland into whatever format the city needs it in.

Engineering Services

Project Management **Estimated Not to Exceed Fee: $30,000**

Maverick will provide oversight Project Management throughout the course of the design. We have estimated 80 hours of of Professional Engineer Time and Engineer in Training time and Drafting Time to complete the project analysis. This will include, but is not necessarily limited to the following:

- Client and Governing Agency Meetings
- Site Plan Development Meetings
- Cost Estimates
- Various Exhibits for Project Coordination
- Dry Utility Coordination
- Coordinate with TXDOT if necessary
- Coordination with City Staff over pipeline identification system
- Water Replacement Plan View Exhibits

Final Product will be a short Analysis letter and Plan View Exhibits of Water Line Replacement Lines with New Alignments with Cost Analysis regarding said lines.

Public Water Plans for W. Francis Avenue **Estimated Not to Exceed Fee: $8,000**

Maverick will prepare public improvement water plans for the proposed water main replacement from the existing connection at “A” Street and Michigan Avenue to the exiting connection at Main Street and Michigan. The Plans will adhere to City of Midland guidelines. The plans will consist of a plan view section at a scale of 1”-40’ and a profile to match the proposed design. Plans will be performed in 22”x34” design sheets in pdf format, Cad Files Civil 3D.

Potholing and Administration **Estimated not to Exceed: $5,000**

ONLY IF NECESSARY and with Director of Utilities Permission

Maverick Engineering will facilitate the pot-holing of existing underground utilities and or obstructions that may cause questions on design in order to help Alleviate any in field problems with crossings or re-directions.

Total Estimated Fee: $130,000

PART 3.0 CITY'S RESPONSIBILITIES:

PART 4.0 PERIODS OF SERVICE: **Cannot exceed September 30th, 2022**

PART 5.0 PAYMENTS TO COMPANY:

PART 6.0 OTHER:

This Task Order is executed this _____ day of _____, 20___.

CITY OF MIDLAND, TEXAS			
"CITY"		"Maverick Civil and Survey, LLC"	
BY:		BY:	
NAME:	Robert Patrick	NAME:	Andrew Mellen
TITLE:	City Manager	TITLE:	Managing Partner
ADDRESS:	P.O. Box 1152 Midland, TX 79702	ADDRESS:	1909 W. Wall St. Suite "K" Midland TX 79701

RESOLUTION NO. 2020-091

RESOLUTION APPROVING THE SELECTION OF PARKHILL, SMITH & COOPER, INC., HDR ENGINEERING, INC., ENPROTEC / HIBBS & TODD, INC., FREESE AND NICHOLS, INC., JACOBS ENGINEERING GROUP INC., AND MAVERICK CIVIL & SURVEY, LLC D/B/A MAVERICK ENGINEERING, INC., AS RESPECTIVE FIRST CHOICES FOR PERFORMANCE OF ON-CALL ENGINEERING SUPPORT SERVICES FOR THE UTILITIES DEPARTMENT OVER THE NEXT FIVE (5) YEARS; AND PROVIDING THAT ANY AGREEMENT EXCEEDING $100,000 SHALL NOT BECOME EFFECTIVE UNTIL APPROVED BY THE CITY COUNCIL

WHEREAS, on February 25, 2020, the City Council approved Motion 029-2020 authorizing the City Manager to advertise a Request for Qualifications for on-call engineering support services ("Professional Services") for the Utilities Department; and

WHEREAS, Motion 029-2020 also authorized the City Manager to negotiate professional services agreements with the most qualified providers of said Professional Services; and

WHEREAS, the Utilities Department advertised a Request for Qualifications for said Professional Services for the Utilities Department over the next five (5) years; and

WHEREAS, numerous engineering firms responded to the City's Request for Qualifications; and

WHEREAS, after careful consideration, the Utilities Department is recommending Parkhill, Smith & Cooper, Inc., HDR Engineering, Inc., Enprotec / Hibbs & Todd, Inc., Freese and Nichols, Inc., Jacobs Engineering Group Inc., and Maverick Civil & Survey, LLC D/B/A Maverick Engineering, Inc., as respective first choices for the performance of said Professional Services over the next five (5) years; and

WHEREAS, the Council finds Parkhill, Smith & Cooper, Inc., HDR Engineering, Inc., Enprotec / Hibbs & Todd, Inc., Freese and Nichols, Inc., Jacobs Engineering Group Inc., and Maverick Civil & Survey, LLC D/B/A Maverick Engineering, Inc., to be the most highly qualified providers of such professional services based on demonstrated competence,

knowledge, and qualifications; and

WHEREAS, the Council finds it to be in the public interest to select Parkhill, Smith & Cooper, Inc., HDR Engineering, Inc., Enprotec / Hibbs & Todd, Inc., Freese and Nichols, Inc., Jacobs Engineering Group Inc., and Maverick Civil & Survey, LLC D/B/A Maverick Engineering, Inc., as respective first choices for the performance of said Professional Services over the next five (5) years;

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

SECTION ONE. That Parkhill, Smith & Cooper, Inc., HDR Engineering, Inc., Enprotec / Hibbs & Todd, Inc., Freese and Nichols, Inc., Jacobs Engineering Group Inc., and Maverick Civil & Survey, LLC D/B/A Maverick Engineering, Inc., are hereby selected as respective first choices for the performance of said professional services over the next five (5) years.

SECTION TWO. That in the event negotiations fail with any selected provider of said professional services, that other qualified engineering firms will be contacted and negotiated with regarding the performance of said professional services according to applicable rules and regulations.

SECTION THREE. That the City Manager is hereby authorized and directed to negotiate and execute, on behalf of the City of Midland, professional services agreements with the firms listed in Section One hereof for said Professional Services. Provided, however, that any agreement exceeding $100,000 shall not become effective until approved by the City Council.

On motion of Council member Robnett, seconded by Council member Norman, the above and foregoing resolution was adopted by the City Council of the City of Midland at a regular meeting on the 26th day of May, A.D., 2020, by the following vote:

Council members voting "AYE": Blong, Trost, Robnett, Payton, Dufford, Ladd, Norman

Council members voting "NAY": None

Patrick N. Payton, Mayor

ATTEST:

Amy M. Turner, City Secretary

RECOMMENDED AND APPROVED:

Courtney Sharp, City Manager

APPROVED AS TO CONTENT
AND COMPLETENESS:

Carl Craigo, Utilities Director

APPROVED ONLY AS TO FORM:

John Ohnemiller, City Attorney

City Council Meeting

Item Number: 8

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION AWARDING A CONTRACT FOR THE ILLINOIS AVENUE UTILITY BOND PROJECT TO BOLER EQUIPMENT SERVICE, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $4,270,720.00; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT (DISTRICT 3) (GENERAL SERVICES)

Purpose:

Resolution authorizing the execution of a contract for Illinois Ave Utility Bond Project.

Recommended City Council Action:

Approve

Fiscal Impact:

That the sum of $1,566,771.00 is hereby appropriated from the Road Bond Projects Fund 179 and the sum of $3,181,021.00 is hereby appropriated from the Road Bond Projects Fund 120 to a project account for said project.

Discussion:

The City Manager approved plans and specifications and authorized advertisement for bids for the approval of a resolution authorizing the execution of a contract for the Illinois Ave Utility Bond Project. The bid request was sent to sixty-two (62) companies. We received two (2) bids. Staff recommends awarding a contract to Boler Equipment Service Inc. for the amount of $4,270,720.00. Please see the attached memo from Jose Ortiz, Engineering Services Director, for more information.

Therefore, please consider a resolution awarding a contract for the Illinois Ave Utility Bond Project to Boler Equipment Service Inc. of Midland, Texas for the amount of $4,270,720.00. Staff

is also requesting an additional $427,072.00 in contingences plus $50,000.00 for project related costs for a total cost of $4,747,792.00.

Tina Jaug

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Martinez; City of Midland, Purchasing Manager

FROM: Jose Ortiz; City of Midland, Engineering Services Director

SUBJECT: Illinois Ave Utility Bond Project ♦ Engr. Project No. BPU20-02 ♦ Bid Tabulation ♦ Funding #_____

DATE: March 04, 2022

Erika,

Engineer staff has reviewed the bid tabulation for the Illinois Ave Utility Bond Project, a paving and utility bond project. Boler Equipment Service, Inc. of Midland, Texas, is the apparent successful low bidder. Staff recommends awarding the Illinois Ave Utility Bond Project to Boler Equipment Service, Inc.

Boler Equipment Service, Inc. has an established history with the City of Midland of performing work of similar scale and scope to the Illinois Ave Utility Bond Project. 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 **$4,270,720.00** as outlined in the bidding documents. In addition, we would like to request that a 10% contingency in the amount of **$427,072.00** 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, material testing services, etc.). The total amount made available for the project would be **$4,747,792.00**.

The agreement specifies a construction period beginning within 15 calendar days of a written notice to proceed for construction.

Jose Ortiz
Engineering Services Director

Cc: Jesus Perez
Regina Stephenson

RESOLUTION NO. _____

RESOLUTION AWARDING A CONTRACT FOR THE ILLINOIS AVENUE UTILITY BOND PROJECT TO BOLER EQUIPMENT SERVICE, INC. OF MIDLAND, TEXAS, AT A TOTAL COST NOT TO EXCEED $4,270,720.00; APPROPRIATING FUNDS; AND AUTHORIZING PAYMENT

WHEREAS, the City Manager approved the plans and specifications and advertised for competitive bids for the Illinois Avenue Utility Bond Project (the "Project"); and

WHEREAS, Bid No. 22002168 was opened on March 2, 2022, with the lowest responsible bidder being Boler Equipment Service, Inc. of Midland, Texas ("Contractor"), having submitted a bid of $4,270,720.00 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 $4,270,720.00; 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 the 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 not to exceed $4,270,720.00, 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 $427,072.00.

SECTION THREE. That the sum of $4,747,792.00 is hereby appropriated to a project account for said Project as follows:

A. $1,566,771.00 from the Road Bond Projects Fund 179; and

B. $3,181,021.00 from the Road Bond Projects Fund 120.

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 $4,697,792.00 from funds available in the project account for said Project upon receipt of proper invoices or statements approved by the City Manager.

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

BPU20-02 - City of Midland: Illinois Ave Utility Bond Project

City of Midland - Engineering Services; March 2, 2022

BID TAB					Boler Equipment Service Inc.			TEC Excavation Inc		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
1	M1	Mobilization	10	MO	$ 20,300.00	$ 203,000.00	$ 203,000.00	$ 25,000.00	$ 250,000.00	$ 250,000.00
2	M2	20" Steel Pipe Casing (1/4" Wall Thickness)	80	LF	$ 150.00	$ 12,000.00	$ 12,000.00	$ 200.00	$ 16,000.00	$ 16,000.00
3	M3	Erosion/Sediment Control	10	MO	$ 2,950.00	$ 29,500.00	$ 29,500.00	$ 2,000.00	$ 20,000.00	$ 20,000.00
4	M4	Job Site Safety	10	MO	$ 2,950.00	$ 29,500.00	$ 29,500.00	$ 1,500.00	$ 15,000.00	$ 15,000.00
5	M5	Material Mark-up	N/A	%	20%	N/A	N/A	15%	N/A	N/A
6	M6	Labor Mark-up (Regular Work Hours)	N/A	%	20%	N/A	N/A	15%	N/A	N/A
7	M7	Equipment Rental Mark-up (Non-Standard Equipment Only)	N/A	%	20%	N/A	N/A	15%	N/A	N/A
1	D1	Removal & Disposal of Existing Water Main	1700	LF	$ 8.00	$ 13,600.00	$ 13,600.00	$ 20.00	$ 34,000.00	$ 34,000.00
2	D1	Removal & Disposal of Existing Storm Drain	4800	LF	$ 12.00	$ 57,600.00	$ 57,600.00	$ 30.00	$ 144,000.00	$ 144,000.00
3	D2	Flowable Fill for Existing Pipes Abandoned In Place	250	CY	$ 110.00	$ 27,500.00	$ 27,500.00	$ 150.00	$ 37,500.00	$ 37,500.00
4	D3	Removal & Disposal of Existing Fire Hydrant Assembly	6	EA	$ 750.00	$ 4,500.00	$ 4,500.00	$ 1,500.00	$ 9,000.00	$ 9,000.00
5	D4	Removal & Disposal of Existing Manhole (0'-5' Deep)	8	EA	$ 1,200.00	$ 9,600.00	$ 9,600.00	$ 2,000.00	$ 16,000.00	$ 16,000.00
6	D5	Removal & Disposal of Existing Manhole Additional Depth (> 5' Deep)	40	VF	$ 150.00	$ 6,000.00	$ 6,000.00	$ 160.00	$ 6,400.00	$ 6,400.00
7	D6	Removal & Disposal of Existing Curb Inlet	11	EA	$ 950.00	$ 10,450.00	$ 10,450.00	$ 2,000.00	$ 22,000.00	$ 22,000.00
8	D7	Removal & Disposal of Existing Unclassified Pavement	11700	SY	$ 6.00	$ 70,200.00	$ 70,200.00	$ 8.00	$ 93,600.00	$ 93,600.00
9	D8	Removal & Disposal of Existing Concrete Curb & Gutter	930	LF	$ 5.00	$ 4,650.00	$ 4,650.00	$ 10.00	$ 9,300.00	$ 9,300.00
10	D9	Removal & Disposal of Existing Concrete Sidewalk & Ramps	290	SY	$ 20.00	$ 5,800.00	$ 5,800.00	$ 20.00	$ 5,800.00	$ 5,800.00
1	W1	12" AWWA C-900 DR18, PVC, Water Main	300	LF	$ 102.00	$ 30,600.00	$ 30,600.00	$ 145.00	$ 43,500.00	$ 43,500.00
2	W1	8" AWWA C-900 DR18, PVC, Water Main	4500	LF	$ 80.00	$ 360,000.00	$ 360,000.00	$ 115.00	$ 517,500.00	$ 517,500.00
3	W1	6" AWWA C-900 DR18, PVC, Water Main	1160	LF	$ 72.00	$ 83,520.00	$ 83,520.00	$ 105.00	$ 121,800.00	$ 121,800.00
4	W2	12" Gate Valve & Box (MJxMJ/FL)	4	EA	$ 3,850.00	$ 15,400.00	$ 15,400.00	$ 4,000.00	$ 16,000.00	$ 16,000.00
5	W2	8" Gate Valve & Box (MJxMJ/FL)	9	EA	$ 2,500.00	$ 22,500.00	$ 22,500.00	$ 2,500.00	$ 22,500.00	$ 22,500.00
6	W2	6" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 1,975.00	$ 29,625.00	$ 29,625.00	$ 1,500.00	$ 22,500.00	$ 22,500.00
7	W3	Fire Hydrant Assembly (≤ 5' Water Main Bury Depth)	9	EA	$ 4,250.00	$ 38,250.00	$ 38,250.00	$ 4,500.00	$ 40,500.00	$ 40,500.00
8	W4	Fire Hydrant Riser (> 5' Water Main Bury Depth)	20	VF	$ 595.00	$ 11,900.00	$ 11,900.00	$ 700.00	$ 14,000.00	$ 14,000.00
9	W5	Ductile Iron Fittings	1.7	TON	$ 18,750.00	$ 31,875.00	$ 31,875.00	$ 20,000.00	$ 34,000.00	$ 34,000.00
10	W6	Connect to Existing Water Main	14	EA	$ 1,250.00	$ 17,500.00	$ 17,500.00	$ 2,500.00	$ 35,000.00	$ 35,000.00
11	W7	8"x1" Tapping Saddle	56	EA	$ 250.00	$ 14,000.00	$ 14,000.00	$ 350.00	$ 19,600.00	$ 19,600.00
12	W7	6"x1" Tapping Saddle	2	EA	$ 250.00	$ 500.00	$ 500.00	$ 300.00	$ 600.00	$ 600.00
13	W8	1" Water Service Connection	58	EA	$ 1,195.00	$ 69,310.00	$ 69,310.00	$ 1,200.00	$ 69,600.00	$ 69,600.00
14	W9	1" Water Service Lateral	2200	LF	$ 10.00	$ 22,000.00	$ 22,000.00	$ 10.00	$ 2,000.00	$ 22,000.00
15	W10	Water Meter Installation (New Service Lateral)	58	EA	$ 200.00	$ 11,600.00	$ 11,600.00	$ 300.00	$ 17,400.00	$ 17,400.00
16	W11	Open Trenching of Water Main	5960	LF	$ 12.00	$ 71,520.00	$ 71,520.00	$ 15.00	$ 89,400.00	$ 89,400.00
1	SD1	24" Reinforced Concrete Pipe (RCP), Storm Drain	9300	LF	$ 108.00	$ 1,004,400.00	$ 1,004,400.00	$ 180.00	$ 1,674,000.00	$ 1,674,000.00
2	SD1	18" Reinforced Concrete Pipe (RCP), Storm Drain	280	LF	$ 98.00	$ 27,440.00	$ 27,440.00	$ 150.00	$ 42,000.00	$ 42,000.00
3	SD2	6'x6'x5'-8" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 14,000.00	$ 14,000.00	$ 14,000.00
4	SD2	6'x6'x5'-6" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 14,000.00	$ 14,000.00	$ 14,000.00
5	SD2	6'x6'x3'-8" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 11,500.00	$ 11,500.00	$ 11,500.00
6	SD3	48" Fiberglass Manhole & Cover (0'-5' Deep)	30	EA	$ 5,525.00	$ 165,750.00	$ 165,750.00	$ 7,000.00	$ 210,000.00	$ 210,000.00
7	SD4	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	140	VF	$ 150.00	$ 21,000.00	$ 21,000.00	$ 350.00	$ 49,000.00	$ 49,000.00
8	SD5	5'x4' Reinforced Concrete Curb Inlet	26	EA	$ 7,200.00	$ 187,200.00	$ 187,200.00	$ 10,000.00	$ 260,000.00	$ 260,000.00
9	SD6	Connect to Existing Junction Box	2	EA	$ 1,850.00	$ 3,700.00	$ 3,700.00	$ 2,000.00	$ 4,000.00	$ 4,000.00
10	SD7	Open Trenching of Storm Drain (0'-10' Deep)	5140	LF	$ 20.00	$ 102,800.00	$ 102,800.00	$ 20.00	$ 102,800.00	$ 102,800.00
11	SD7	Open Trenching of Storm Drain (10'-16' Deep)	4400	LF	$ 25.00	$ 110,000.00	$ 110,000.00	$ 32.00	$ 140,800.00	$ 140,800.00
1	P1	6" Concrete Pavement Repair	4	SY	$ 225.00	$ 900.00	$ 900.00	$ 200.00	$ 800.00	$ 800.00
2	P2	Concrete Curb & Gutter Repair	930	LF	$ 22.00	$ 20,460.00	$ 20,460.00	$ 40.00	$ 37,200.00	$ 37,200.00
3	P3	Concrete Pedestrian Access Ramp Repair	50	SY	$ 100.00	$ 5,000.00	$ 5,000.00	$ 150.00	$ 7,500.00	$ 7,500.00
4	P4	4" Concrete Sidewalk Repair	240	SY	$ 45.00	$ 10,800.00	$ 10,800.00	$ 110.00	$ 26,400.00	$ 26,400.00
5	P5	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	11700	SY	$ 38.00	$ 444,600.00	$ 444,600.00	$ 65.00	$ 760,500.00	$ 760,500.00
6	P6	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	2340	SY	$ 8.00	$ 18,720.00	$ 18,720.00	$ 8.00	$ 18,720.00	$ 18,720.00
7	P7	Flowable Fill / 2-Sack Backfill	11900	SY	$ 68.00	$ 809,200.00	$ 809,200.00	$ 99.00	$ 1,178,100.00	$ 1,178,100.00
						Base Bid Total =	$ 4,270,720.00	**$ 4,270,720.00**	Base Bid Total =	$ 6,315,820.00	**$ 6,315,820.00**
							$0.00			$0.00

BPU20-02 - City of Midland: Illinois Ave Utility Bond Project

City of Midland - Engineering Services; March 2, 2022

BID TAB					Boler Equipment Service Inc.			TEC Excavation Inc		
Bid Item	Pay Note	Description	Quantity	Units	Unit Price	Bid Total	Actual Bid Total	Unit Price	Bid Total	Actual Bid Total
1	M1	Mobilization	10	MO	$ 20,300.00	$ 203,000.00	$ 203,000.00	$ 25,000.00	$ 250,000.00	$ 250,000.00
2	M2	20" Steel Pipe Casing (1/4" Wall Thickness)	80	LF	$ 150.00	$ 12,000.00	$ 12,000.00	$ 200.00	$ 16,000.00	$ 16,000.00
3	M3	Erosion/Sediment Control	10	MO	$ 2,950.00	$ 29,500.00	$ 29,500.00	$ 2,000.00	$ 20,000.00	$ 20,000.00
4	M4	Job Site Safety	10	MO	$ 2,950.00	$ 29,500.00	$ 29,500.00	$ 1,500.00	$ 15,000.00	$ 15,000.00
5	M5	Material Mark-up	N/A	%	20%	N/A	N/A	15%	N/A	N/A
6	M6	Labor Mark-up (Regular Work Hours)	N/A	%	20%	N/A	N/A	15%	N/A	N/A
7	M7	Equipment Rental Mark-up (Non-Standard Equipment Only)	N/A	%	20%	N/A	N/A	15%	N/A	N/A
1	D1	Removal & Disposal of Existing Water Main	1700	LF	$ 8.00	$ 13,600.00	$ 13,600.00	$ 20.00	$ 34,000.00	$ 34,000.00
2	D1	Removal & Disposal of Existing Storm Drain	4800	LF	$ 12.00	$ 57,600.00	$ 57,600.00	$ 30.00	$ 144,000.00	$ 144,000.00
3	D2	Flowable Fill for Existing Pipes Abandoned In Place	250	CY	$ 110.00	$ 27,500.00	$ 27,500.00	$ 150.00	$ 37,500.00	$ 37,500.00
4	D3	Removal & Disposal of Existing Fire Hydrant Assembly	6	EA	$ 750.00	$ 4,500.00	$ 4,500.00	$ 1,500.00	$ 9,000.00	$ 9,000.00
5	D4	Removal & Disposal of Existing Manhole (0'-5' Deep)	8	EA	$ 1,200.00	$ 9,600.00	$ 9,600.00	$ 2,000.00	$ 16,000.00	$ 16,000.00
6	D5	Removal & Disposal of Existing Manhole Additional Depth (> 5' Deep)	40	VF	$ 150.00	$ 6,000.00	$ 6,000.00	$ 160.00	$ 6,400.00	$ 6,400.00
7	D6	Removal & Disposal of Existing Curb Inlet	11	EA	$ 950.00	$ 10,450.00	$ 10,450.00	$ 2,000.00	$ 22,000.00	$ 22,000.00
8	D7	Removal & Disposal of Existing Unclassified Pavement	11700	SY	$ 6.00	$ 70,200.00	$ 70,200.00	$ 8.00	$ 93,600.00	$ 93,600.00
9	D8	Removal & Disposal of Existing Concrete Curb & Gutter	930	LF	$ 5.00	$ 4,650.00	$ 4,650.00	$ 10.00	$ 9,300.00	$ 9,300.00
10	D9	Removal & Disposal of Existing Concrete Sidewalk & Ramps	290	SY	$ 20.00	$ 5,800.00	$ 5,800.00	$ 20.00	$ 5,800.00	$ 5,800.00
1	W1	12" AWWA C-900 DR18, PVC, Water Main	300	LF	$ 102.00	$ 30,600.00	$ 30,600.00	$ 145.00	$ 43,500.00	$ 43,500.00
2	W1	8" AWWA C-900 DR18, PVC, Water Main	4500	LF	$ 80.00	$ 360,000.00	$ 360,000.00	$ 115.00	$ 517,500.00	$ 517,500.00
3	W1	6" AWWA C-900 DR18, PVC, Water Main	1160	LF	$ 72.00	$ 83,520.00	$ 83,520.00	$ 105.00	$ 121,800.00	$ 121,800.00
4	W2	12" Gate Valve & Box (MJxMJ/FL)	4	EA	$ 3,850.00	$ 15,400.00	$ 15,400.00	$ 4,000.00	$ 16,000.00	$ 16,000.00
5	W2	8" Gate Valve & Box (MJxMJ/FL)	9	EA	$ 2,500.00	$ 22,500.00	$ 22,500.00	$ 2,500.00	$ 22,500.00	$ 22,500.00
6	W2	6" Gate Valve & Box (MJxMJ/FL)	15	EA	$ 1,975.00	$ 29,625.00	$ 29,625.00	$ 1,500.00	$ 22,500.00	$ 22,500.00
7	W3	Fire Hydrant Assembly (≤ 5' Water Main Bury Depth)	9	EA	$ 4,250.00	$ 38,250.00	$ 38,250.00	$ 4,500.00	$ 40,500.00	$ 40,500.00
8	W4	Fire Hydrant Riser (> 5' Water Main Bury Depth)	20	VF	$ 595.00	$ 11,900.00	$ 11,900.00	$ 700.00	$ 14,000.00	$ 14,000.00
9	W5	Ductile Iron Fittings	1.7	TON	$ 18,750.00	$ 31,875.00	$ 31,875.00	$ 20,000.00	$ 34,000.00	$ 34,000.00
10	W6	Connect to Existing Water Main	14	EA	$ 1,250.00	$ 17,500.00	$ 17,500.00	$ 2,500.00	$ 35,000.00	$ 35,000.00
11	W7	8"x1" Tapping Saddle	56	EA	$ 250.00	$ 14,000.00	$ 14,000.00	$ 350.00	$ 19,600.00	$ 19,600.00
12	W7	6"x1" Tapping Saddle	2	EA	$ 250.00	$ 500.00	$ 500.00	$ 300.00	$ 600.00	$ 600.00
13	W8	1" Water Service Connection	58	EA	$ 1,195.00	$ 69,310.00	$ 69,310.00	$ 1,200.00	$ 69,600.00	$ 69,600.00
14	W9	1" Water Service Lateral	2200	LF	$ 10.00	$ 22,000.00	$ 22,000.00	$ 10.00	$ 2,000.00	$ 22,000.00
15	W10	Water Meter Installation (New Service Lateral)	58	EA	$ 200.00	$ 11,600.00	$ 11,600.00	$ 300.00	$ 17,400.00	$ 17,400.00
16	W11	Open Trenching of Water Main	5960	LF	$ 12.00	$ 71,520.00	$ 71,520.00	$ 15.00	$ 89,400.00	$ 89,400.00
1	SD1	24" Reinforced Concrete Pipe (RCP), Storm Drain	9300	LF	$ 108.00	$ 1,004,400.00	$ 1,004,400.00	$ 180.00	$ 1,674,000.00	$ 1,674,000.00
2	SD1	18" Reinforced Concrete Pipe (RCP), Storm Drain	280	LF	$ 98.00	$ 27,440.00	$ 27,440.00	$ 150.00	$ 42,000.00	$ 42,000.00
3	SD2	6'x6'x5'-8" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 14,000.00	$ 14,000.00	$ 14,000.00
4	SD2	6'x6'x5'-6" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 14,000.00	$ 14,000.00	$ 14,000.00
5	SD2	6'x6'x3'-8" Reinforced Concrete Junction Box	1	EA	$ 8,250.00	$ 8,250.00	$ 8,250.00	$ 11,500.00	$ 11,500.00	$ 11,500.00
6	SD3	48" Fiberglass Manhole & Cover (0'-5' Deep)	30	EA	$ 5,525.00	$ 165,750.00	$ 165,750.00	$ 7,000.00	$ 210,000.00	$ 210,000.00
7	SD4	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	140	VF	$ 150.00	$ 21,000.00	$ 21,000.00	$ 350.00	$ 49,000.00	$ 49,000.00
8	SD5	5'x4' Reinforced Concrete Curb Inlet	26	EA	$ 7,200.00	$ 187,200.00	$ 187,200.00	$ 10,000.00	$ 260,000.00	$ 260,000.00
9	SD6	Connect to Existing Junction Box	2	EA	$ 1,850.00	$ 3,700.00	$ 3,700.00	$ 2,000.00	$ 4,000.00	$ 4,000.00
10	SD7	Open Trenching of Storm Drain (0'-10' Deep)	5140	LF	$ 20.00	$ 102,800.00	$ 102,800.00	$ 20.00	$ 102,800.00	$ 102,800.00
11	SD7	Open Trenching of Storm Drain (10'-16' Deep)	4400	LF	$ 25.00	$ 110,000.00	$ 110,000.00	$ 32.00	$ 140,800.00	$ 140,800.00
1	P1	6" Concrete Pavement Repair	4	SY	$ 225.00	$ 900.00	$ 900.00	$ 200.00	$ 800.00	$ 800.00
2	P2	Concrete Curb & Gutter Repair	930	LF	$ 22.00	$ 20,460.00	$ 20,460.00	$ 40.00	$ 37,200.00	$ 37,200.00
3	P3	Concrete Pedestrian Access Ramp Repair	50	SY	$ 100.00	$ 5,000.00	$ 5,000.00	$ 150.00	$ 7,500.00	$ 7,500.00
4	P4	4" Concrete Sidewalk Repair	240	SY	$ 45.00	$ 10,800.00	$ 10,800.00	$ 110.00	$ 26,400.00	$ 26,400.00
5	P5	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	11700	SY	$ 38.00	$ 444,600.00	$ 444,600.00	$ 65.00	$ 760,500.00	$ 760,500.00
6	P6	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	2340	SY	$ 8.00	$ 18,720.00	$ 18,720.00	$ 8.00	$ 18,720.00	$ 18,720.00
7	P7	Flowable Fill / 2-Sack Backfill	11900	SY	$ 68.00	$ 809,200.00	$ 809,200.00	$ 99.00	$ 1,178,100.00	$ 1,178,100.00
						Base Bid Total =	$ 4,270,720.00	**$ 4,270,720.00**	Base Bid Total =	$ 6,315,820.00	**$ 6,315,820.00**
							$0.00			$0.00

MIDLAND
Engineering Services

SPECIFICATIONS

Project Name: Illinois Ave Utility Bond Project
Project Number: BPU20-02

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 SERVICE DIRECTOR

Jose Ortiz



Prepared by City of Midland, Texas
Engineering Services Division

February 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 2nd day of March, 2022, and publicly opened and read aloud at that time.

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

The Proposed Work provides for the furnishing of materials and labor for Illinois Ave Utility Bond 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, February 23rd, 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:

jferguson@midlandtexas.gov

The deadline for submitting additional questions after the Non-Mandatory Pre-Bid Meeting is Noon on Friday, February 25, 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 February 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 February 1, 2022 and numbered from 1 (1) through 52 (52) 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 February 2022

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.**

Boler Equipment Service, 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.**

N/A - No Relationship

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.**

N/A - No Relationship

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

3.2.2022

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.

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: Boler Equipment Service, Inc.

Local Address (must be within the City limits): 4611 Sinclair Ave. Midland, TX 79707

1. Is the above address the principal place of business for the business named above? [X] Yes [ ] No
2. How many residents of the City of Midland are employed at the above business location? 17
3. Year your business was established in the City of Midland: 1987
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:
   Reseller Permit Number: 17524445826
   Company Name and Address (as it appears on permit):
   Boler Equipment Service, Inc.
   4611 Sinclair Ave.
   Midland, TX 79707
5. Does your business have more than one office in the State of Texas? [ ] Yes [X] 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?
   [X] Yes [ ] No
   If Yes, did the local business pay any of this tax to the City of Midland? [X] 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: Greg Boler Date: 3/2/2022

Printed Name and Title: Greg Boler - Vice President

POWER OF ATTORNEY

RLI Insurance Company
Contractors Bonding and Insurance Company

9025 N. Lindbergh Dr. Peoria, IL 61615
Phone: 800-645-2402

Know All Men by These Presents:

That this Power of Attorney is not valid or in effect unless attached to the bond which it authorizes executed, but may be detached by the approving officer if desired.

That **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, each an Illinois corporation, (separately and together, the "Company") do hereby make, constitute and appoint:

Deborah Ervin, Beverly Richardson, Jessica Ervin-Battles, jointly or severally

in the City of Midland, State of Texas its true and lawful Agent(s) and Attorney(s) in Fact, with full power and authority hereby conferred, to sign, execute, acknowledge and deliver for and on its behalf as Surety, in general, any and all bonds and undertakings in an amount not to exceed **Twenty Five Million** Dollars (**$25,000,000.00**) for any single obligation.

The acknowledgment and execution of such bond by the said Attorney in Fact shall be as binding upon the Company as if such bond had been executed and acknowledged by the regularly elected officers of the Company.

RLI Insurance Company and/or **Contractors Bonding and Insurance Company**, as applicable, have each further certified that the following is a true and exact copy of a Resolution adopted by the Board of Directors of each such corporation, and is now in force, to-wit:

> "All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or Agents who shall have authority to issue bonds, policies or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

IN WITNESS WHEREOF, the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, as applicable, have caused these presents to be executed by its respective Vice President with its corporate seal affixed this 3rd day of April, 2020.

CONTRACTORS BONDING AND INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI INSURANCE COMPANY CORPORATE SEAL ILLINOIS

RLI Insurance Company
Contractors Bonding and Insurance Company

By: B. W. D.
Barton W. Davis — Vice President

State of Illinois
County of Peoria } SS

On this 3rd day of April, 2020, before me, a Notary Public, personally appeared Barton W. Davis, who being by me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** and acknowledged said instrument to be the voluntary act and deed of said corporation.

By: Jacqueline M. Bockler
Jacqueline M. Bockler — Notary Public

OFFICIAL SEAL
JACQUELINE M BOCKLER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES JAN 14 2022

CERTIFICATE

I, the undersigned officer of **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable; and furthermore, that the Resolution of the Company as set forth in the Power of Attorney, is now in force. In testimony whereof, I have hereunto set my hand and the seal of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** this 2nd day of March, 2022.

RLI Insurance Company
Contractors Bonding and Insurance Company

By: Jeffrey D Fick
Jeffrey D Fick — Corporate Secretary

4259160020212

A0058D19

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/1/2022

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 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 ERVIN INSURANCE AGENCY 3100 North A Street Bldg D Midland, TX 79705 License #:	CONTACT NAME: Jessica Ervin-Battles PHONE (A/C, No, Ext): (432) 682-3717 FAX (A/C, No): (432) 682-3002 E-MAIL ADDRESS: jessica@ervinins.com
INSURED Boler Equipment Service PO Box 80428 Midland, TX 79708 432-694-0660 TX 79708	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Mid-Continent Casualty — 23418 INSURER B : Liberty Mutual Insurance Company — 23043 INSURER C : Texas Mutual Insurance Company — 22945 INSURER D : INSURER E : INSURER F :

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	Y	Y	04GL1063400	7/13/2021	7/13/2022	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 $ 100,000 $ 0 $ 1,000,000 $ 5,000,000 $ 5,000,000
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [X] SCHEDULED AUTOS [X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	Y	Y	BAS60891370	3/2/2022	3/2/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	[X] UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED [X] RETENTION $ 10,000	Y	Y	04XS220443	7/13/2021	7/13/2022	EACH OCCURRENCE AGGREGATE	$ 5,000,000 $ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	0001118970	7/13/2021	7/13/2022	[X] PER STATUTE [ ] 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
A	Inland Marine-Rented Equipment			04CIM20846	7/13/2021	7/13/2022		$200,000

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

Install New Gas Pumps, Tanks, Piping and Canopies. Installation of Underground Utilities. The City of Midland is listed as an Additional Insured, on a claims occurred basis, on all policies listed above. The Insured and Insuror 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 captioned above.

CERTIFICATE HOLDER

City of Midland
PO Box 1152
Midland, TX 79702
432-686-1609(F)

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

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TECHNICAL SPECIFICATIONS

FOR: Illinois Ave Utility Bond 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 February 2022

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 the **Illinois Ave Utility Bond 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, abandonment, replacement, relocation, and installation of existing and proposed water and storm drain infrastructure and appurtenances including all necessary mobilization, saw-cutting, pavement removal, excavation, embedment, 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.

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, for all Proposal Bid Items except those specifically listed below, which will be the only Proposal Bid Items to be paid upon material delivery for this project:

Miscellaneous Bid Items: 2

Water Bid Items: 1 – 9 & 11 – 14

Storm Drain Bid Items: 1 – 8

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.

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 property stored or protected and becomes weathered or damaged before installation must be replaced with new material meeting the standards and requirements of the construction drawings and specifications before it can be installed, and this will be done at no additional cost to the City of Midland.

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 area around Midland High School is a very active area for pedestrian traffic, including children, and especially when school is in session. The Contractor is directed to take every precaution to protect the public and secure the project site when working in or near the portion of the project work area adjacent to Midland High School. 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.

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:

Traffic control for this project will be the City of Midland's responsibility. The Contractor is to coordinate construction activities with the Barricade Company operating at the City of Midland's direction for this project. If at any time or for any reason there should be traffic control handled by the Contractor rather than the City of Midland or the Barricade Company operating at the City of Midland's direction, then that traffic control is to adhere to the rest of the requirements outlined in 'Special Provisions, 7. Traffic Control' that follow after this paragraph.

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and 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.

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 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 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.

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 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.

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.

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. INTENT OF THE PROPOSAL:

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.

21. CONTRACT START DATE AND DEADLINES:

The start date for this project is June 4, 2022. This will also serve as the Notice to Proceed date for this project.

The deadline for substantial completion of the portion of the project from 'A' Street to the intersection at 'D' Street is August 1, 2022. All work for this project in this area must be completed along Illinois Avenue, the side streets, and through the 'D' Street intersection by this deadline.

The deadline for substantial completion of this entire project is _300_ 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: Illinois Ave Utility Bond Project

Project Number: BPU20-02

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	10 MO	Mobilization, furnished, installed, complete and in place, for the sum of: Twenty thousand three hundred dollars and no cents per month. (Pay Note M1)	$ 20,300.00	$ 203,000.00
2)	80 LF	20" Steel Pipe Casing (1/4" Wall Thickness), furnished, installed, complete and in place, for the sum of: One hundred fifty dollars and no cents per linear foot. (Pay Note M2)	$ 150.00	$ 12,000.00
3)	10 MO	Erosion/Sediment Control, furnished, installed, complete and in place, for the sum of: Two Thousand nine hundred fifty dollars and no cents per month. (Pay Note M3)	$ 2,950.00	$ 29,500.00
4)	10 MO	Job Site Safety, furnished, installed, complete and in place, for the sum of: Two Thousand nine hundred fifty dollars and no cents per month. (Pay Note M4)	$ 2,950.00	$ 29,500.00

Base Bid: Miscellaneous Items				
Item No.	Quantity	Description	Unit Price	Total Amount
5)	N/A	Material Mark-up, complete and in place, for the sum of: Twenty percent. (Pay Note M5)	% 20	$ N/A
6)	N/A	Labor Mark-up (Regular Work Hours), complete and in place, for the sum of: Twenty percent. (Pay Note M6)	% 20	$ N/A
7)	N/A	Equipment Rental Mark-up (Non-Standard Equipment Only), complete and in place, for the sum of: Twenty percent. (Pay Note M7)	% 20	$ N/A
Total Miscellaneous Items 1-7		$ 274,000.00		

Base Bid: Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	1,700 LF	Removal & Disposal of Existing Water Main, complete and in place, for the sum of: Eight dollars and no cents per linear foot. (Pay Note D1)	$ 8.00	$ 13,600.00
2)	4,800 LF	Removal & Disposal of Existing Storm Drain, complete and in place, for the sum of: Twelve dollars and no cents per linear foot. (Pay Note D1)	$ 12.00	$ 57,600.00
3)	250 CY	Flowable Fill for Existing Pipes Abandoned In Place, furnished, installed, complete and in place, for the sum of: One hundred ten dollars and no cents per cubic yard. (Pay Note D2)	$ 110.00	$ 27,500.00
4)	6 EA	Removal & Disposal of Existing Fire Hydrant Assembly, complete and in place, for the sum of: Seven hundred fifty dollars and no cents per each. (Pay Note D3)	$ 750.00	$ 4,500.00
5)	8 EA	Removal & Disposal of Existing Manhole, (0'-5' Deep), complete and in place, for the sum of: One thousand two hundred dollars and no cents per each. (Pay Note D4)	$ 1,200.00	$ 9,600.00
6)	40 VF	Remove & Disposal of Existing Manhole Additional Depth, (> 5' Deep), complete and in place, for the sum of: One hundred fifty dollars and no cents per vertical foot. (Pay Note D5)	$ 150.00	$ 6,000.00
7)	11 EA	Removal & Disposal of Existing Curb Inlet, complete and in place, for the sum of: Nine hundred fifty dollars and no cents per each. (Pay Note D6)	$ 950.00	$ 10,450.00

Base Bid: Demolition Items				
Item No.	Quantity	Description	Unit Price	Total Amount
8)	11,700 SY	Removal & Dispose of Existing Unclassified Pavement, complete and in place, for the sum of: Six dollars and no cents per square yard. (Pay Note D7)	$ 6.00	$ 70,200.00
9)	930 LF	Removal & Dispose of Existing Concrete Curb & Gutter, complete and in place, for the sum of: Five dollars and no cents per linear foot. (Pay Note D8)	$ 5.00	$ 4,650.00
10)	290 SY	Removal & Disposal of Existing Concrete Sidewalk & Ramps, complete and in place, for the sum of: Twenty dollars and no cents per square yard. (Pay Note D9)	$ 20.00	$ 5,800.00
Total Demolition Items 1-10		$ 209,900.000		

Base Bid: Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	300 LF	12" AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: One hundred two dollars and no cents per linear foot. (Pay Note W1)	$ 102.00	$ 30,600.00
2)	4,500 LF	8" AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: Eighty dollars and no cents per linear foot. (Pay Note W1)	$ 80.00	$ 360,000.00
3)	1,160 LF	6" AWWA C-900 DR18, PVC, Water Main, furnished, installed, complete and in place, for the sum of: Seventy two dollars and no cents per linear foot. (Pay Note W1)	$ 72.00	$ 83,520.00
4)	4 EA	12" Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: Three thousand eight hundred fifty dollars and no cents per each. (Pay Note W2)	$ 3,850.00	$ 15,400.00
5)	9 EA	8" Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: Two thousand five hundred dollars and no cents per each. (Pay Note W2)	$ 2,500.00	$ 22,500.00
6)	15 EA	6" Gate Valve & Box (MJxMJ/FL), furnished, installed, complete and in place, for the sum of: One thousand nine hundred seventy five dollars and no cents per each. (Pay Note W2)	$ 1,975.00	$ 29,625.00

Base Bid: Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	9 EA	Fire Hydrant Assembly, (≤ 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: Four thousand two hundred fifty dollars and no cents per each. (Pay Note W3)	$ 4,250.00	$ 38,250.00
8)	20 VF	Fire Hydrant Riser, (> 5' Water Main Bury Depth), furnished, installed, complete and in place, for the sum of: Five hundred ninety five dollars and no cents per vertical foot. (Pay Note W4)	$ 595.00	$ 11,900.00
9)	1.70 TON	Ductile Iron Fittings, furnished, installed, complete and in place, for the sum of: Eighteen thousand seven hundred fifty dollars and no cents per ton. (Pay Note W5)	$ 18,750.00	$ 31,875.00
10)	14 EA	Connect to Existing Water Main, furnished, installed, complete and in place, for the sum of: One thousand two hundred fifty dollars and no cents per each. (Pay Note W6)	$ 1,250.00	$ 17,500.00
11)	56 EA	8"x1" Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: Two hundred fifty dollars and no cents per each. (Pay Note W7)	$ 250.00	$ 14,000.00

Base Bid: Water Items				
Item No.	Quantity	Description	Unit Price	Total Amount
12)	2 EA	6"x1" Tapping Saddle for water service connection, furnished, installed, complete and in place, for the sum of: Two hundred fifty dollars and no cents per each. (Pay Note W7)	$ 250.00	$ 500.00
13)	58 EA	1" Water Service Connection, furnished, installed, complete and in place, for the sum of: One thousand one hundred ninety five dollars and no cents per each. (Pay Note W8)	$ 1,195.00	$ 69,310.00
14)	2,200 LF	1" Water Service Lateral, furnished, installed, complete and in place, for the sum of: Ten dollars and no cents per linear foot. (Pay Note W9)	$ 10.00	$ 22,000.00
15)	58 EA	Water Meter Installation (New Service Lateral), furnished, installed, complete and in place, for the sum of: Two hundred dollars and no cents per each. (Pay Note W10)	$ 200.00	$ 11,600.00
16)	5,960 LF	Open Trenching of Water Main, furnished, installed, complete and in place, for the sum of: Twelve dollars and no cents per linear foot. (Pay Note W11)	$ 12.00	$ 71,520.00
Total Water Items 1-16		$ 830,100.00		

Base Bid: Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	9,300 LF	24" Reinforced Concrete Pipe (RCP), Storm Drain, furnished, installed, complete and in place, for the sum of: One hundred eight dollars and no cents per linear foot. (Pay Note SD1)	$ 108.00	$ 1,004,400.00
2)	280 LF	18" Reinforced Concrete Pipe (RCP), Storm Drain, furnished, installed, complete and in place, for the sum of: Ninety eight dollars and no cents per linear foot. (Pay Note SD1)	$ 98.00	$ 27,440.00
3)	1 EA	6'x6'x5'-8" Reinforced Concrete Junction Box, furnished, installed, complete and in place, for the sum of: Eight thousand two hundred fifty dollars and no cents per each. (Pay Note SD2)	$ 8,250.00	$ 8,250.00
4)	1 EA	6'x6'x5'-6" Reinforced Concrete Junction Box, furnished, installed, complete and in place, for the sum of: Eight thousand two hundred fifty dollars and no cents per each. (Pay Note SD2)	$ 8,250.00	$ 8,250.00
5)	1 EA	6'x6'x3'-8" Reinforced Concrete Junction Box, furnished, installed, complete and in place, for the sum of: Eight thousand two hundred fifty dollars and no cents per each. (Pay Note SD2)	$ 8,250.00	$ 8,250.00
6)	30 EA	48" Fiberglass Manhole & Cover, (0'-5' Deep), furnished, installed, complete and in place, for the sum of: Five thousand five hundred twenty five dollars and no cents per each. (Pay Note SD3)	$ 5,525.00	$ 165,750.00

Base Bid: Storm Drain Items				
Item No.	Quantity	Description	Unit Price	Total Amount
7)	140 VF	48" Fiberglass Manhole Additional Bury Depth, (> 5' Deep), furnished, installed, complete and in place, for the sum of: One hundred fifty dollars and no cents per vertical foot. (Pay Note SD4)	$ 150.00	$ 21,000.00
8)	26 EA	5'x4' Reinforced Concrete Curb Inlet, furnished, installed, complete and in place, for the sum of: Seven thousand two hundred dollars and no cents per each. (Pay Note SD5)	$ 7,200.00	$ 187,200.00
9)	2 EA	Connect to Existing Junction Box, furnished, installed, complete and in place, for the sum of: One thousand eight hundred fifty dollars and no cents per each. (Pay Note SD6)	$ 1,850.00	$ 3,700.00
10)	5,140 LF	Open Trenching of Storm Drain, (0'-10' Deep), furnished, installed, complete and in place, for the sum of: Twenty dollars and no cents per linear foot. (Pay Note SD7)	$ 20.00	$ 102,800.00
11)	4,400 LF	Open Trenching of Storm Drain, (10'-16' Deep), furnished, installed, complete and in place, for the sum of: Twenty five dollars and no cents per linear foot. (Pay Note SD7)	$ 25.00	$ 110,000.00
Total Miscellaneous Items 1-11		$ 1,647,040.00		

Base Bid: Paving Items				
Item No.	Quantity	Description	Unit Price	Total Amount
1)	4 SY	6" Concrete Pavement Repair, furnished, installed, complete and in place, for the sum of: Two hundred twenty five dollars and no cents per square yard. (Pay Note P1)	$ 225.00	$ 900.00
2)	930 LF	Concrete Curb & Gutter Repair, furnished, installed, complete and in place, for the sum of: Twenty two dollars and no cents per linear foot. (Pay Note P2)	$ 22.00	$ 20,460.00
3)	50 SY	Concrete Pedestrian Access Ramp Repair, furnished, installed, complete and in place, for the sum of: One hundred dollars and no cents per square yard. (Pay Note P3)	$ 100.00	$ 5,000.00
4)	240 SY	4" Concrete Sidewalk Repair, furnished, installed, complete and in place, for the sum of: Forty five dollars and no cents per square yard. (Pay Note P4)	$ 45.00	$ 10,800.00
5)	11,700 SY	2" Type D HMAC Asphalt Pavement Repair (PG70-22), furnished, installed, complete and in place, for the sum of: Thirty eight dollars and no cents per square yard. (Pay Note P5)	$ 38.00	$ 444,600.00
6)	2,340 GAL	Bituminous Prime Coat (MC-30, 0.20 Gal / SY), furnished, installed, complete and in place, for the sum of: Eight dollars and no cents per gallon. (Pay Note P6)	$ 8.00	$ 18,720.00
7)	11,900 SY	Flowable Fill / 2-Sack Backfill, furnished, installed, complete and in place, for the sum of: Sixty eight dollars and no cents per square yard. (Pay Note P7)	$ 68.00	$ 809,200.00
Total Paving Items 1-7			$ 1,309,680.00	

Bid Price For:	
1. Miscellaneous Items	$ 274,000.00
2. Demolition Items	$ 209,900.00
3. Water Items	$ 830,100.00
5. Storm Drain Items	$ 1,647,040.00
6. Paving Items	$ 1,309,680.00
Total Price	$ 4,270,720.00

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

Four million two hundred seventy thousand seven hundred twenty dollars

and no 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 300 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 agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

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

Two hundred thirteen thousand five hundred thirty six dollars

and no cents total. ($ 213,536.00)

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.

Boler Equipment Service, Inc.

Name of Contractor

Greg Boler - Vice President

Submitted By | Print Name and Title

4611 Sinclair Ave

Mailing Address

Midland	TX	79707
City	State	Zip

PAY NOTES

Illinois Ave Utility Bond Project

Bid Item		Pay Quantity Note
Miscellaneous Items		
1	Mobilization	M1
2	20" Steel Pipe Casing (1/4" Wall Thickness)	M2
3	Erosion/Sediment Control	M3
4	Job Site Safety	M4
5	Material Mark-up	M5
6	Labor Mark-up (Regular Work Hours)	M6
7	Equipment Rental Mark-up (Non-Standard Equipment Only)	M7
Demolition Items		
1	Removal & Disposal of Existing Water Main	D1
2	Removal & Disposal of Existing Storm Drain	D1
3	Flowable Fill for Existing Pipes Abandoned In Place	D2
4	Removal & Disposal of Existing Fire Hydrant Assembly	D3
5	Removal & Disposal of Existing Manhole (0'-5' Deep)	D4
6	Removal & Disposal of Existing Manhole Additional Depth (> 5' Deep)	D5
7	Removal & Disposal of Existing Curb Inlet	D6
8	Removal & Disposal of Existing Unclassified Pavement	D7
9	Removal & Disposal of Existing Concrete Curb & Gutter	D8
10	Removal & Disposal of Existing Concrete Sidewalk & Ramps	D9
Water Items		
1	12" AWWA C-900 DR18, PVC, Water Main	W1
2	8" AWWA C-900 DR18, PVC, Water Main	W1
3	6" AWWA C-900 DR18, PVC, Water Main	W1
4	12" Gate Valve & Box (MJxMJ/FL)	W2
5	8" Gate Valve & Box (MJxMJ/FL)	W2
6	6" Gate Valve & Box (MJxMJ/FL)	W2
7	Fire Hydrant Assembly (≤ 5' Water Main Bury Depth)	W3
8	Fire Hydrant Riser (> 5' Water Main Bury Depth)	W4
9	Ductile Iron Fittings	W5
10	Connect to Existing Water Main	W6
11	8"x1" Tapping Saddle	W7
12	6"x1" Tapping Saddle	W7
13	1" Water Service Connection	W8
14	1" Water Service Lateral	W9
15	Water Meter Installation (New Service Lateral)	W10
16	Open Trenching of Water Main	W11
Storm Drain Items		
1	24" Reinforced Concrete Pipe (RCP), Storm Drain	SD1
2	18" Reinforced Concrete Pipe (RCP), Storm Drain	SD1
3	6'x6'x5'-8" Reinforced Concrete Junction Box	SD2
4	6'x6'x5'-6" Reinforced Concrete Junction Box	SD2
5	6'x6'x3'-8" Reinforced Concrete Junction Box	SD2
6	48" Fiberglass Manhole & Cover (0'-5' Deep)	SD3
7	48" Fiberglass Manhole Additional Bury Depth (> 5' Deep)	SD4
8	5'x4' Reinforced Concrete Curb Inlet	SD5
9	Connect to Existing Junction Box	SD6
10	Open Trenching of Storm Drain (0'-10' Deep)	SD7
11	Open Trenching of Storm Drain (10'-16' Deep)	SD7

Paving Items

1	6" Concrete Pavement Repair	P1
2	Concrete Curb & Gutter Repair	P2
3	Concrete Pedestrian Access Ramp Repair	P3
4	4" Concrete Sidewalk Repair	P4
5	2" Type D HMAC Asphalt Pavement Repair (PG70-22)	P5
6	Bituminous Prime Coat (MC-30, 0.20 Gal / SY)	P6
7	Flowable Fill / 2-Sack Backfill	P7

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 for the installation of Pipe Casing 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.

M3 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.

M4 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.

M5 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.

M6 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.

M7 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.

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.

D2 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.

D3 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Fire Hydrant Assembly per the construction drawings and City of Midland standards and specifications. Fire hydrant assemblies are to be returned to the City Utility Maintenance Department unless otherwise directed by the Engineer of Record or their representative. This includes removal and disposal of all structures, fittings, pipes, and appurtenances. Measurement and payment to be per each fire hydrant assembly removed.

D4 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.

D5 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'.

D6 Includes the necessary equipment, labor, materials, and incidentals for the Removal & Disposal of Existing Curb Inlet per the construction drawings and City of Midland standards and specifications, including the removal and disposal of all appurtenances. Measurement and payment to be made per each curb inlet removed.

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 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.

D9 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.

W1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Water Mains 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 valves, fittings, structures, and appurtenances.

W2 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Gate Valve & Box per the construction drawings and City of Midland standards and specifications, including all embedment, valve box, joint restraint, thrust blocking, concrete collar, and appurtenances. Measurement and payment to be made per each valve and box installed. Includes valves associated with tapping sleeves.

W3 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Fire Hydrant Assembly to a depth of 5' per the construction drawings and City of Midland standards and specifications, including all risers, embedment, gravel sump, thrust blocking, necessary testing, and appurtenances. Measurement and payment to be made per each fire hydrant assembly installed.

W4 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Fire Hydrant Riser (> 5' Water Main 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 of riser below a water main bury depth of 5' measured from the water main invert and rounded up to the nearest 0.5'.

W5 Includes the necessary equipment, labor, materials, and incidentals for the installation of Ductile Iron Fittings per the construction drawings and City of Midland standards and specifications, including all embedment, wrapping, thrust blocking, joint restraints, and appurtenances. All fittings are to be C153 ductile iron compact fittings. Fitting weights are established from Tyler Union Quality Waterworks Products Catalog PC-U2014, December, 2014 and payment will be made at the standard compact weight. Nuts, bolds, glands, and other associated accessories are not included as part of the fitting weight and are considered subsidiary to the weight of the fitting. Any additional required fittings not shown on the drawings will be paid for at weights established in the Tyler Union Waterworks Catalog.

W6 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing Water Main per the construction drawings and City of Midland standards and specifications, including all fittings, repairs, and appurtenances. Measurement and payment to be made per each connection made.

W7 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Tapping Saddle for a water service connection per the construction drawings and City of Midland standards and specifications, including all embedment, thrust blocking, and appurtenances. Measurement and payment to be per each tapping saddle installed.

W8 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Water Service Connection per the construction drawings and City of Midland standards and specifications, including all brass goods from the corporation stop to the brass angle valve (inclusive), as well as the installation of a new meter box and all appurtenances. Measurement and payment to be made per each water service connection installed.

W9 Includes the necessary equipment, labor, materials, and incidentals for the installation of Water Service Lateral pipe per the construction drawings and City of Midland standards and specifications, including all excavation, embedment, backfill, polyethylene service line or other pipe, and appurtenances. Measurement and payment to be made per linear foot measured along the ground surface following the pipe centerline through all valves, fittings, and appurtenances.

W10 Includes the necessary equipment, labor, materials, and incidentals for a new Water Meter Installation as part of a new water service lateral installation per the construction drawings and City of MIdland standards and specifications, including all appurtenances. The new water meter will be provided by the City of Midland. Measurement and payment to be per each water meter set.

W11 Includes the necessary equipment, labor, materials, and incidentals for Open Trenching of Water 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.

SD1 Includes the necessary equipment, labor, materials, and incidentals for the installation of Storm Drains 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 Reinforced Concrete Junction Box per the consturction drawings and City of Midland standards and specifications, including all embedment, base, securing of junction box to fiberglass manhole riser, forms, reinforcement, placement, necessary testing, and appurtenances. Measurement and payment to be made per each junction box installed.

SD3 Includes the necessary equipment, labor, materials, and incidentals for the installation of Fiberglass Manhole & Cover to a depth of 5' 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.

SD4 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' below the rim elevation.

SD5 Includes the necessary equipment, labor, materials, and incidentals for the installation of a Reinforced Concrete Curb Inlet per the consturction drawings and City of Midalnd 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.

SD6 Includes the necessary equipment, labor, materials, and incidentals to Connect to Existing Junction Box 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.

SD7 Includes the necessary equipment, labor, materials, and incidentals for Open Trenching of Storm Drain 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.

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 Pedestrian Access Ramp 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 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.

P5 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.

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 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.

BID BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

SURETY NO RCB0021045

KNOW ALL MEN BY THESE PRESENTS, THAT Boler Equipment Service, Inc. (Hereinafter called the Principal), as Principal, and RLI Insurance Company (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 of The Greatest Amount Bid Dollars ($ 5%GAB) 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 Illinois Ave Utility Bond 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 2nd day of March, 2022.

Principal

By Greg Boler

Address 4611 Sinclair Ave.

Midland, TX 79707

Surety

By Jessica Ervin-Battles, Attorney In Fact

Address 3100 N. A Street Bldg. D

Midland, TX 79705

APPROVED AS TO FORM:

City Attorney

RLI INSURANCE COMPANY CORPORATE SEAL ILLINOIS

NOTE: Attach Power of Attorney

Form Revised February 2022

CONTRACT

THE STATE OF TEXAS §

COUNTY OF MIDLAND §

THIS CONTRACT, made and entered into this 23rd day of March, 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 Boler Equipment Service, Inc. of the City Midland, County of Midland, 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: Illinois Ave Utility Bond 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 300 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: $4,270,720.00 .

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 Boler Equipment Service, 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 March 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 Illinois Ave Utility Bond 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 Illinois Ave Utility Bond 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 §

Illinois Avenue Utility Bond 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 February 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.

8/07

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° F or lower. Concrete may be placed when the ground temperature is rising from 35° 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.

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

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

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2. MATERIALS 1
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GENERAL *2*
CURB AND GUTTER *2*
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CONCRETE VALLEY GUTTERS, CENTER DRAINS AND DRAINWAYS *4*
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4. BACKFILL AND CLEANUP 6

GENERAL *6*
CONCRETE STRUCTURES WITHIN THE PAVED AREA OF STREETS *6*
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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.

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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 –	Retained on ¾" Sieve -	0% by weight
(Texas Highway	Retained on 5/8" Sieve -	0 – 2% by weight
Department 1982	Retained on ½" Sieve -	20, 35% by weight
Grade 3)	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 -	Retained on ½" Sieve -	0% by weight
(Texas Highway	Retained on 3/8" Sieve -	0 – 5% by weight
Department 1982	Retained on No. 4 Sieve -	40 – 85% by weight
Grade 5)	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 ACI0 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 (I') 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 (I") 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° F Minimum
Initial Boiling Point (ASTM D-86)	340° F Minimum
Dry Point (ASTM D-86)	390° - 415° 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° 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° 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.

I5.3 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.

I5.4 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

I5.5 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.

I5.9 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.

I5.I0 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.II 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.

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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

MIDLAND
Engineering Services

ADDENDUM #01
Project Number BPU20-02

TO ALL BIDDERS ON THE SUBJECT BID: Illinois Ave Utility Bond Project

ADDENDUM #01

DATE: February 25, 2022

1. Q/A and Clarification
2. Revised Design Drawing Sheets 23 – 31 and Sheets 33 – 43
3. Revised Special Provisions
4. Non-Mandatory Pre-Bid Meeting Agenda
5. 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.

Boler Equipment Service, Inc.
Company Name

Bidder Authorized Signature

3.2.2022
Date

Greg Boler
Please Print Above Name

432-694-0660
Phone

Illinois Ave Utility Bond Project
Project Number BPU20-02

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.

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.

Clarification: The Construction Drawing Set Sheets 23 – 31 and Sheets 33 – 43 have been revised and are attached to this Addendum 01. The revisions correct the vertical grade information for the curb inlet structures on these sheets. Bidders are to remove all previous versions of the Construction Drawing Set Sheets 23 – 31 and Sheets 33 – 43 in their entirety from the original bid document construction drawing set and replace them with the attached sheet revisions.

Clarification: The Special Provisions section of the Bid Packet has been revised and is attached to this Addendum 01. The revision adds the list of Bid Item exceptions that were previously missing from the Special Provisions' sub-section 4. Payment. Bidders are to remove all previous versions of the Special Provisions section in its entirety from the original bid documents and replace it with the attached Special Provisions section revision.

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 must include 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 an active 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 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 immediately and the City of Midland will have sole discretion to either allow the Contractor to renew their active licenses before resuming work or to end the project immediately. If the Contractor is allowed to renew the required licenses then the City of Midland will have sole discretion on whether or not to grant a stay of contract time while the required licenses are renewed or to hold the Contractor to the

original contract time. There will be no additional payments for traffic controls, erosion controls, site safety measures, material storage, equipment storage, mobilization or remobilization, or similar items during any pause in construction if it is a result of the Contractor's failure to maintain the required licenses for this project.

Clarification: Contractor is responsible for all construction staking and surveying.

Clarification: Contractor is responsible for all traffic control during this project.

Clarification: One (1) lane of travel in each direction, east-bound and west-bound, must be maintained at all times at a minimum on Illinois Avenue where 2-way traffic typically exists.

Clarification: One (1) lane of travel, west-bound, must be maintained at all times at a minimum on Illinois Avenue where 1-way traffic typically exists.

Clarification: A full closure of Illinois Avenue will be allowed from 'A' Street to 'D' Street between June 4, 2022 and August 1, 2022 while work is occurring in this location. All work must be substantially completed from 'A' Street to 'D' Street by August 1, 2022 at which time Illinois Avenue must be opened back up to through traffic.

Clarification: The Notice to Proceed date for this project is June 4, 2022.

Clarification: The Pre-Construction Meeting date for this project is May 4, 2022.

Clarification: There will be no more than three (3) consecutive intersecting street closures allowed at a time in series for this project.

Clarification: Contractor is responsible for notifying all adjacent properties of any planned service interruptions no less than two (2) business days in advance of any such interruptions. Service interruptions are to be kept as short as is reasonably possible. This requirement does not apply in emergency situations.

Clarification: Contractor is responsible for maintaining access to all adjacent properties at all times, barring those times when actual construction activity necessary to complete the work is taking place in front of driveway approaches or similar points of access. When such work is not occurring then access must be restored by means of traffic rated steel plates or other equivalent means until such time as the work is completed.

Clarification: Utility covers matching City Details are now available. All utility covers and cover patterns are to match the City standard details.

Clarification: Contractor is to return all existing fire hydrants removed during this project to the City of Midland Utilities. Fire hydrant removal is considered subsidiary to the bid items listed in the Proposal.

Clarification: Contractor is to return all existing water meters removed during this project to the City of Midland Utilities. Water meter removal is considered subsidiary to the bid items listed in the Proposal.

Clarification: Saw-cutting is considered subsidiary to the bid items listed in the Proposal.

Clarification: Note that all storm drain concrete junction box walls on sides with no pipe connection are to be full thickness walls.

Clarification: Contractor is required to provide Closed Circuit Televising of all storm drains installed, but this requirement does not apply to storm drain laterals.

Clarification: All invoice submittals are to be itemized and are to match the Proposal item listed.

Clarification: The City will be more open to work occurring on Saturdays for this project than typical City projects if that is what is needed to meeting the project deadlines, particularly for the work along Illinois Avenue from 'A' Street to 'D' Street.

Clarification: There is a one (1) calendar year warranty period on this project.

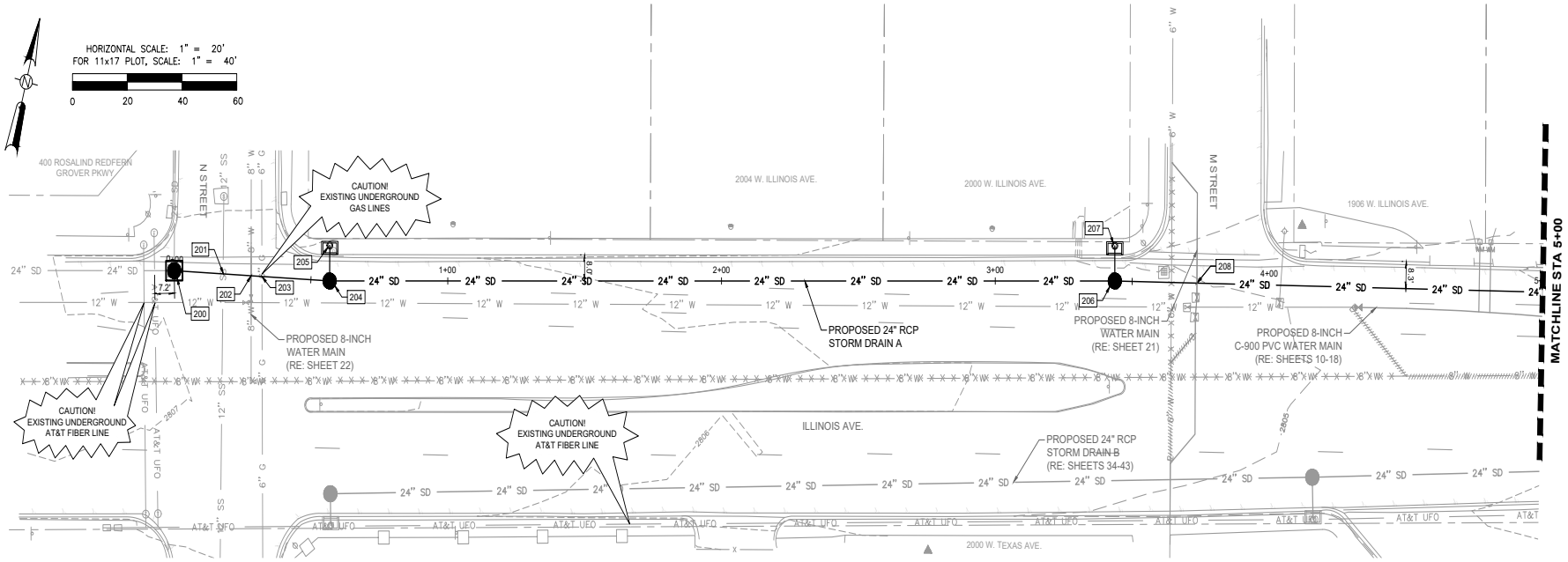
Clarification: It is recommended that Bidders use the USPS mailing address rather than the physical City Hall address for bid submittals that are mailed in as the physical address has experienced issues on occasion in the past. The USPS mailing address is unchanged from what is listed in the original bid packet and the pre-bid teleconference meeting agenda.

Question: Is it possible to have more calendar days added to complete this project or do we need to figure multiple crews to complete in the 300 Calendar Days?

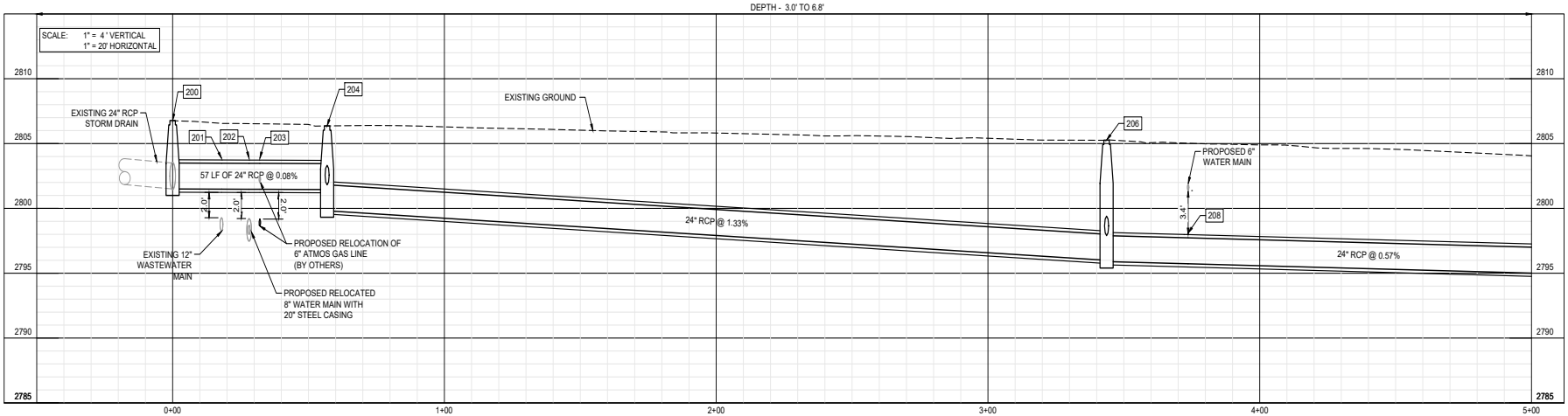
Answer: The 300 calendar days for the completion of this project will remain unchanged, and the number of work crews needed to meet this deadline will be considered incidental to this project bid and will not be paid for with a separate bid item. There are multiple properties adjacent to this project site that each generate an above average amount of pedestrian and vehicle traffic, along with all the accompanying safety and operation issues that those higher numbers create. Additionally, Illinois Avenue is a heavily traveled arterial roadway that is a primary route to Midland Memorial Hospital, and a direct route from downtown Midland. Illinois Avenue also transitions from two-way traffic with medians to two-way traffic to one-way traffic along this project area. As a result of all of these factors, the City feels the public safety is best served by keeping the construction operations to as short a time as possible, even if that means the Contractor has to bring in additional work crews to meet the project deadline or have more work occurring on Saturdays than might normally occur on a typical City project.

Question: The rim elevations and flowlines for the curb inlet depths on all of the storm plan sheets have the inlets at 2' depth on average and the lateral pages (33 and 43) have the inlets drawn significantly deeper but there is not a rim elevation specifically called out here. Please confirm that the depths of the curb inlets drawn on the lateral pages are correct so the inlet depths are properly quoted and accounted for.

Answer: The vertical data for the curb inlets has been corrected for Sheets 23 – 31 and Sheets 33 – 43 of the construction drawing set, and the revised sheets are attached to this Addendum 01. Approved sheet revisions have the City of Midland's Engineering "APPROVED" stamp dated February 25, 2022. Bidders are to remove all previous versions of the Construction Drawing Set Sheets 23 – 31 and Sheets 33 – 43 in their entirety from the original bid document construction drawing set and replace them with the attached sheet revisions.



PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

200	STA: 0+00.00 INSTALL: 1 - 6'x6'x3'-8" CONCRETE JUNCTION BOX 1 - GRATED COVER SET ON MANHOLE ADJUSTMENT RINGS FOR THE CLEARANCE BETWEEN THE JUNCTION BOX AND GROUND ELEVATION RIM ELEV: 2806.77' CONNECT TO EXISTING 24" RCP STORM DRAIN (W) CONNECT TO EXISTING 24" RCP STORM DRAIN (N) FL IN 24" (N) = 2801.50' FL IN 24" (W) = 2801.50' FL OUT 24" =2801.50' DEPTH: 5.27' N: 10694069.77 E: 1749608.30
201	STA: 0+17.99 N: 10694073.28 E: 1749625.94 12" WASTEWATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN 12" WASTEWATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2806.56' STORM INV: 2801.49' 12" WASTEWATER T.O.P.: 2799.29'
202	STA: 0+28.14 N: 10694075.25 E: 1749635.89 8" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN WATER MAIN CASING PIPE AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2806.54' 20" CASING T.O.P: 2799.23' STORM INV: 2798.78'
203	STA: 0+32.08 N: 10694076.02 E: 1749639.76 6" ATMOS GAS CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 6" ATMOS GAS LINE AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2806.52' EXISTING GAS T.O.P: 2801.98' RELOCATED GAS T.O.P: 2799.175' STORM INV: 2801.23'
204	STA: 0+56.84 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2806.36' FL IN 24" =2801.45' FL IN 18" =2801.82' FL OUT 24" =2799.82' DEPTH: 6.54' N: 10694080.85 E: 1749664.04
205	STA: 0+56.30, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694091.40 E: 1749661.39 RIM ELEV: 2806.94' 18" RCP FL OUT: 2803.01'
206	STA: 3+43.66 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2805.26' FL IN 24" =2796.00' FL IN 18" =2797.90' FL OUT 24" =2795.90' DEPTH: 9.36' N: 10694152.29 E: 1749841.62
207	STA: 3+43.66, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694162.70 E: 1749939.15 RIM ELEV: 2805.51' 18" RCP FL OUT: 2799.08'
208	STA: 3+73.67 N: 10694159.13 E: 1749971.04 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 6" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2805.03' PROP WTR INV: 2801.39' STORM T.O.P: 2797.98'

PACKET 8.265 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KMW	2/1/2022

2/1/2022 — 120159 — BENNETT ALLEN FRAM — 02-13-2019 — REGISTERED PROFESSIONAL ENGINEER

MIDLAND *Feel the Energy!*

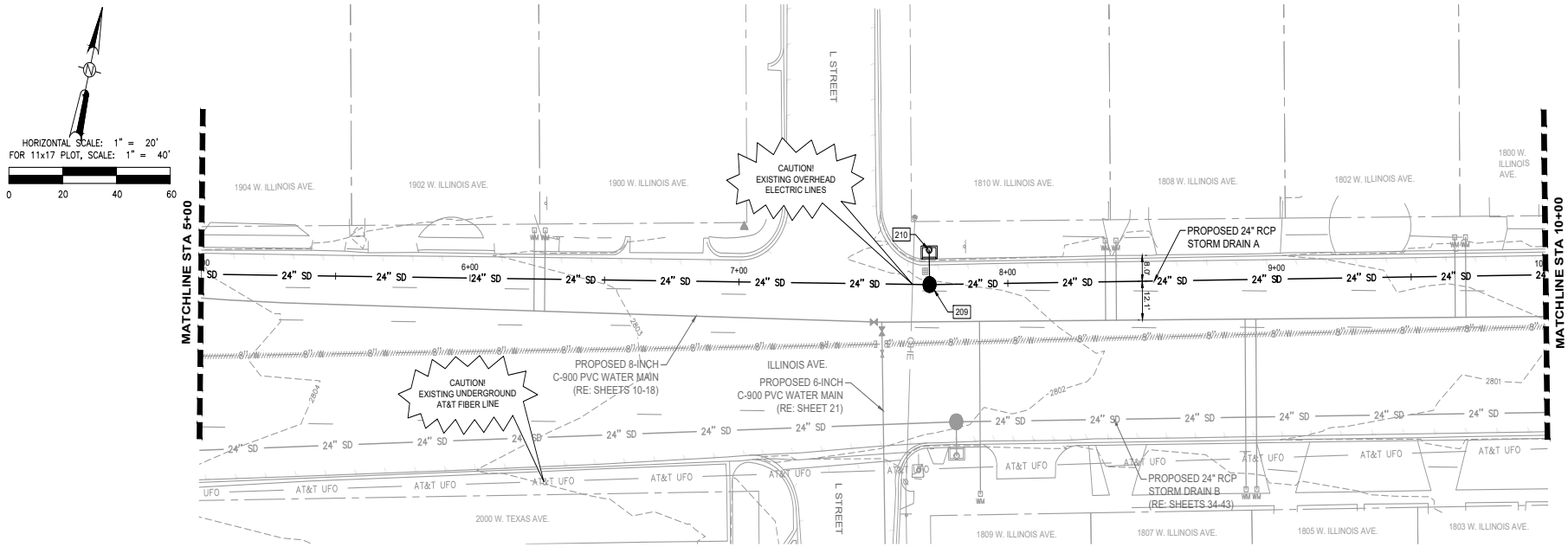
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 0+00 TO 5+00

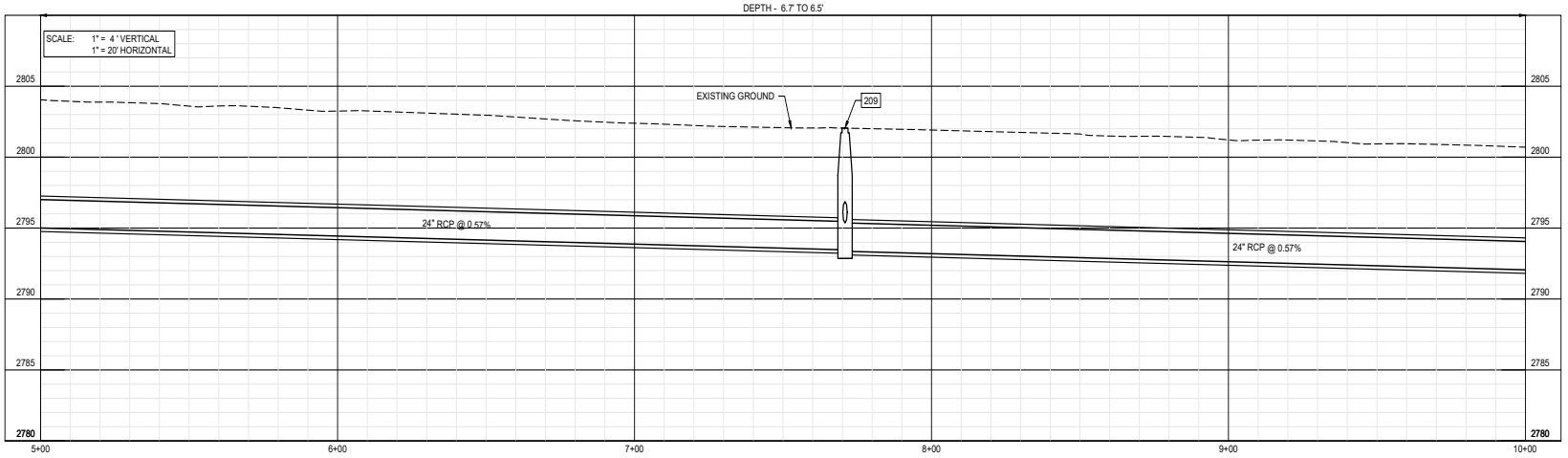
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KHA NO.: 064465316

SHEET
23

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

209	STA: 7+70.88 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2802.05' FL IN 24" =2793.46' FL IN 18" =2795.36' FL OUT 24" =2793.36' DEPTH: 8.68' N: 10694249.60 E: 1750057.82
210	STA: 7+70.61, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694260.05 E: 1750355.09 RIM ELEV: 2802.42' 18" RCP FL OUT: 2796.55'

PACKET

8.266

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KSW	2/1/2022

2/1/2022

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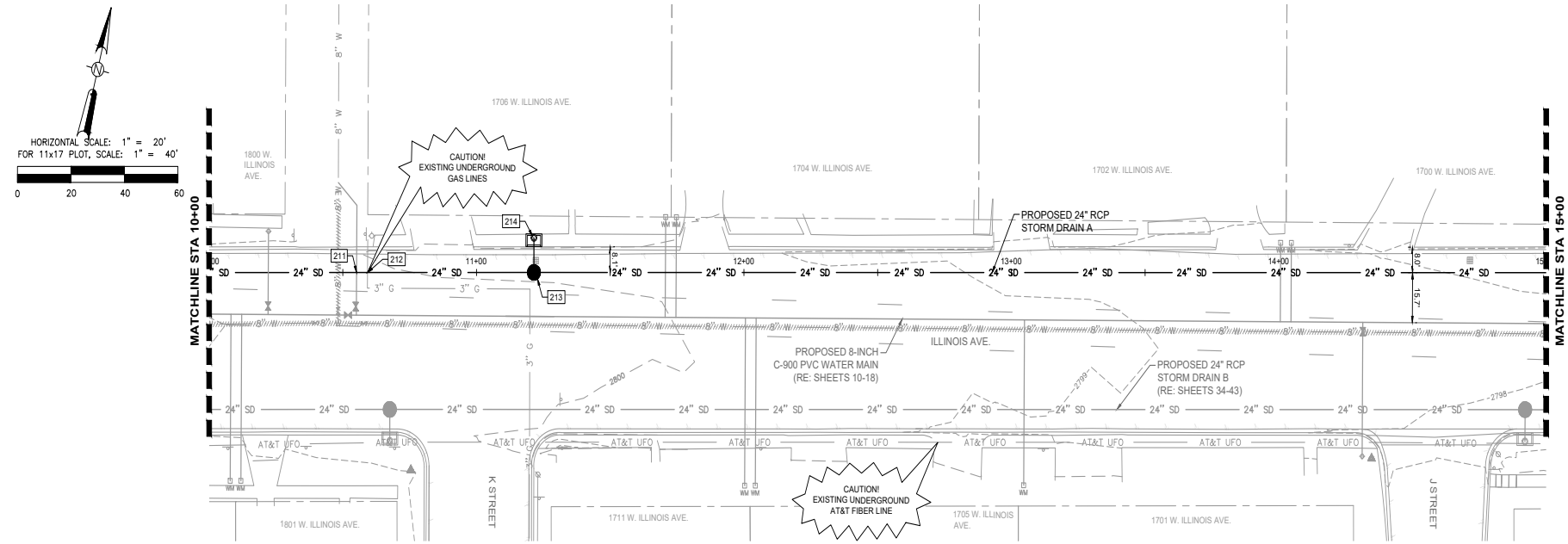
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 5+00 TO 10+00

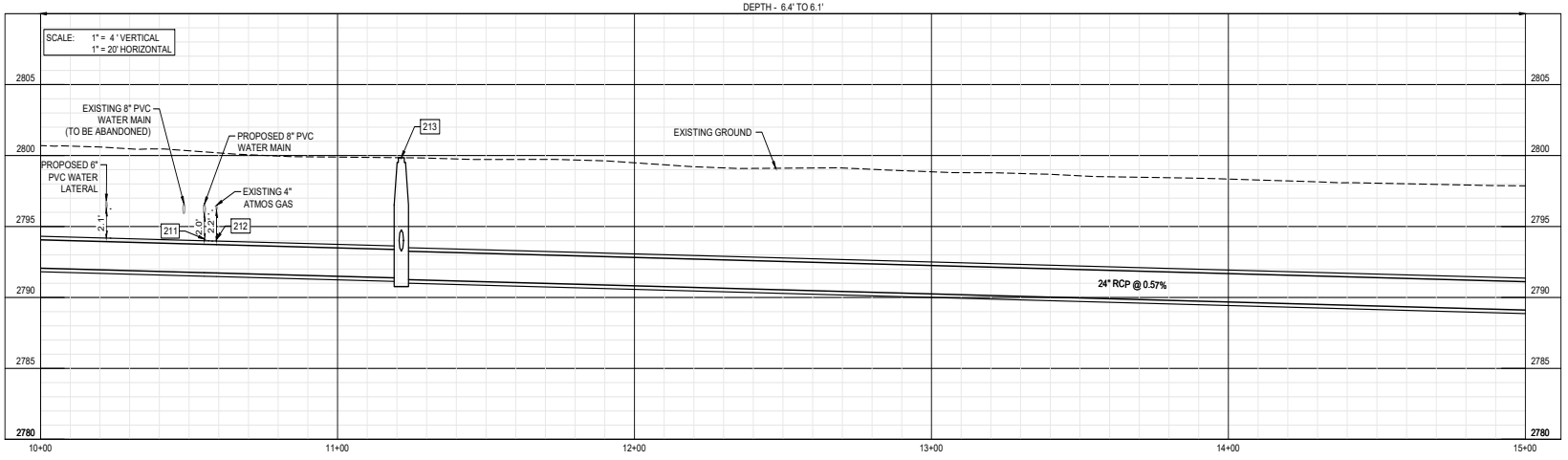
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KHA NO.: 064465316

SHEET
24

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

211	STA: 10+55.15 N: 10694321.36 E: 1750632.88 8" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2800.26' PROP WTR INV: 2795.9' STORM T.O.P: 2793.99'
212	STA: 10+59.25 N: 10694322.40 E: 1750636.84 3" ATMOS GAS MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2800.20' EX. GAS INV: 2796.15' STORM T.O.P: 2793.97'
213	STA: 11+21.47 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2799.85' FL IN 24" =2791.37' FL IN 18" =2793.27' FL OUT 24" =2791.27' DEPTH: 8.58' N: 10694338.10 E: 1750697.05
214	STA: 11+21.47, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694348.59 E: 1750694.32 RIM ELEV: 2800.32' 18" RCP FL OUT: 2794.46'

Kimley»Horn
TBPE Firm Registration No. F-928
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No.	Revision	By	Date
1	ADDENDUM #1	KMW	2/1/2022

2/1/2022

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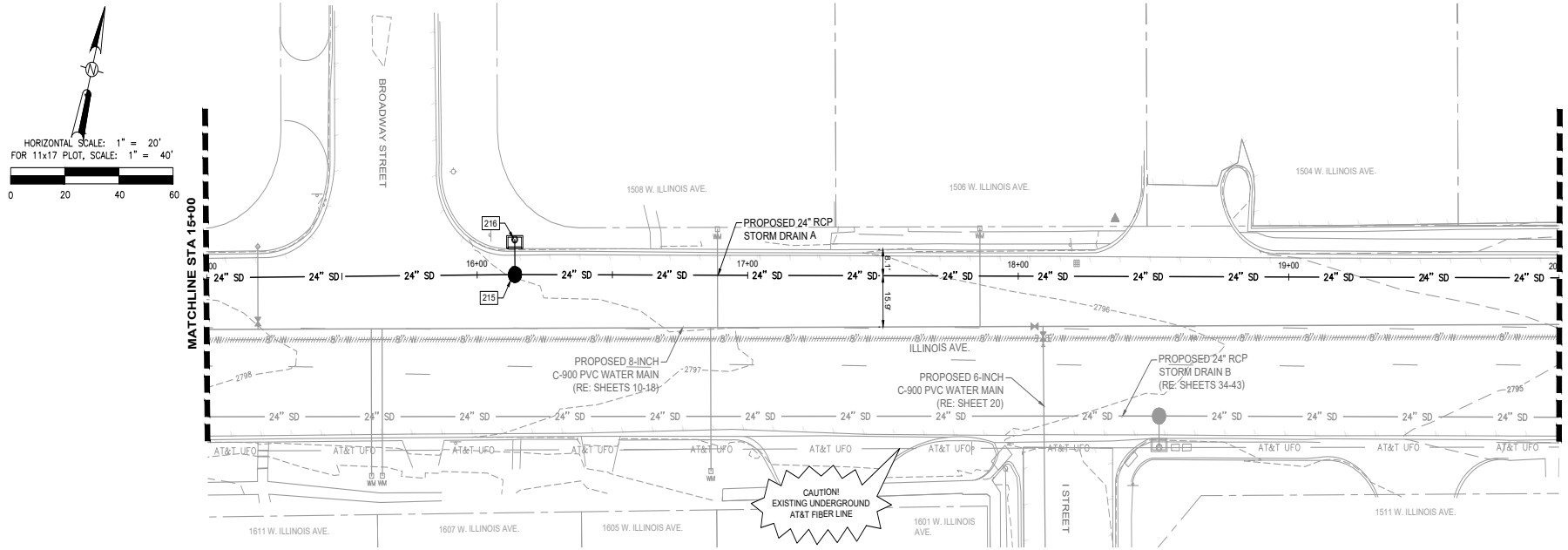
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 10+00 TO 15+00

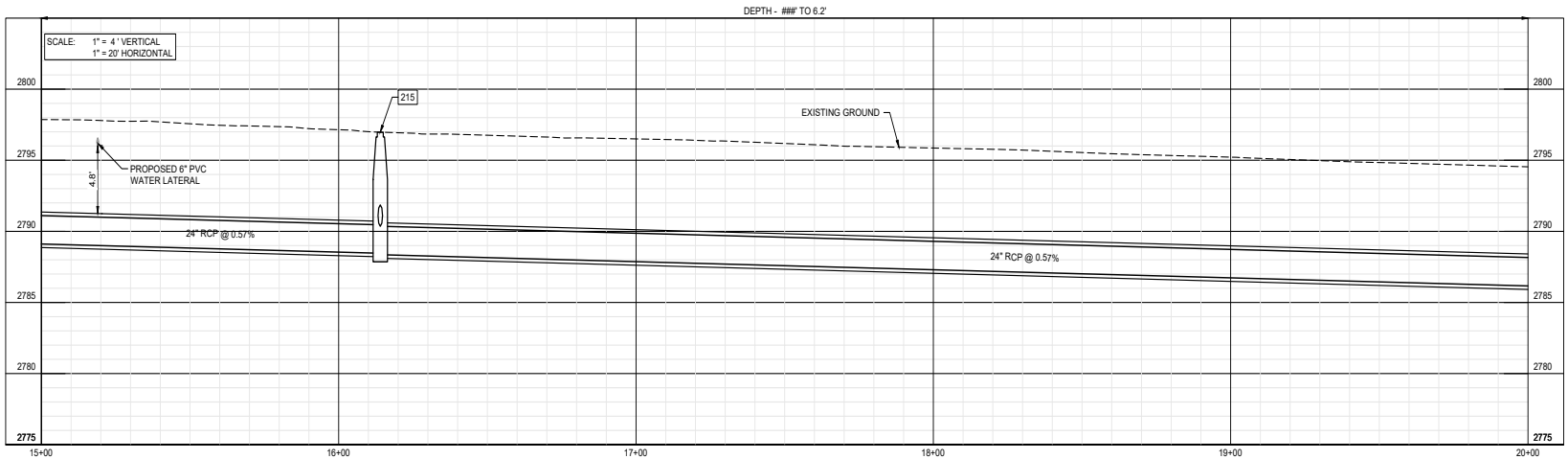
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KHA NO.: 064465316

SHEET 25

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

215	STA: 16+13.99 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2796.97' FL IN 24" =2788.46' FL IN 18" =2790.36' FL OUT 24" =2788.36' DEPTH: 8.61' N: 10694462.24 E: 1751173.68
216	STA: 16+13.99, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694472.69 E: 1751170.95 RIM ELEV: 2797.21' 18" RCP FL OUT: 2791.55'

PACKET 8.268 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	ADS/NDJ/MF1	KSW 2/1/2022

2/1/2022

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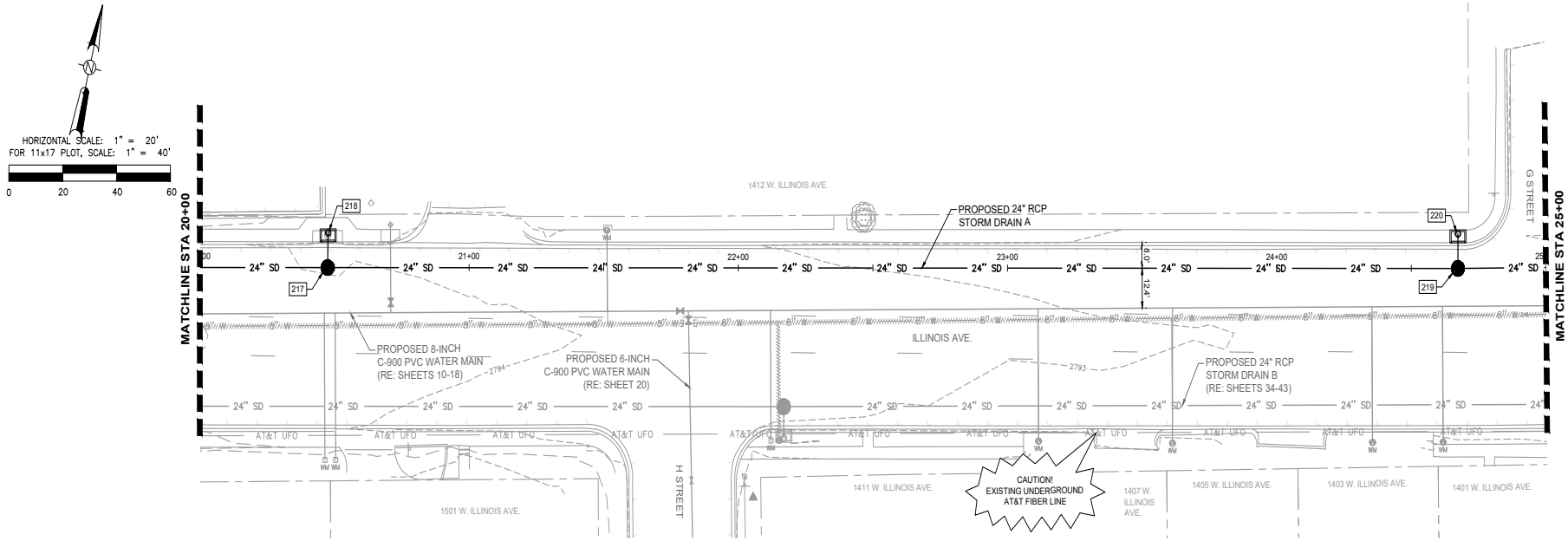
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 15+00 TO 20+00

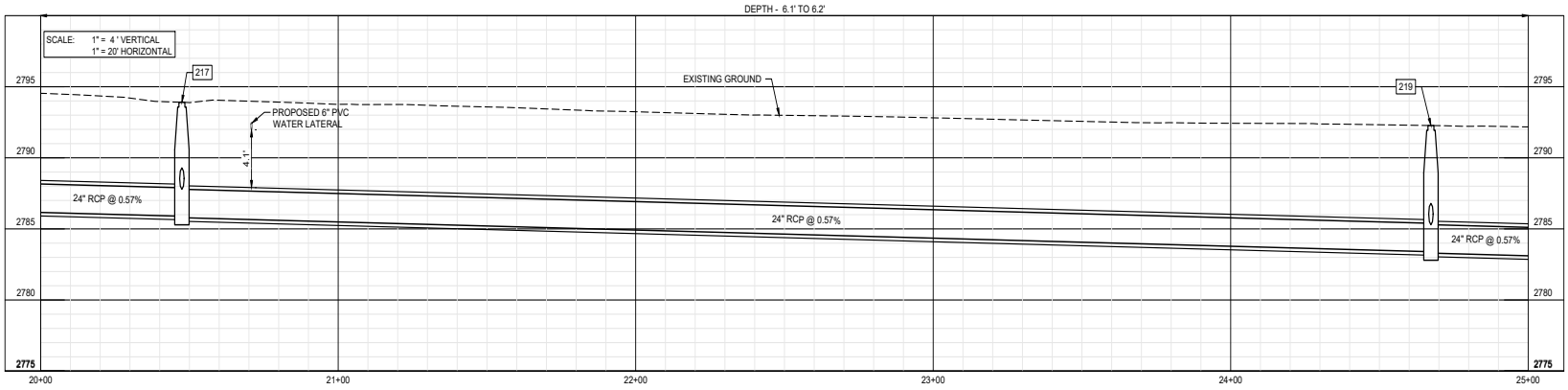
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KHA NO.: 064465316

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26

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

217	STA: 20+47.46 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2793.90' FL IN 24" =2785.89' FL IN 18" =2787.79' FL OUT 24" =2785.79' DEPTH: 8.11' N: 10694566.64 E: 1751594.38
218	STA: 20+47.63, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694577.15 E: 1751591.95 RIM ELEV: 2794.40' 18" RCP FL OUT: 2788.97'
219	STA: 24+67.31 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2792.27' FL IN 24" =2783.40' FL IN 18" =2785.29' FL OUT 24" =2783.30' DEPTH: 8.97' N: 10694667.77 E: 1752001.67
220	STA: 24+67.42, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694678.18 E: 1751999.29 RIM ELEV: 2792.61' 18" RCP FL OUT: 2786.47'

PACKET 8.269 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	EMW	2/1/2022

2/1/2022 BENNETT ALLEN FRAM 120159 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS

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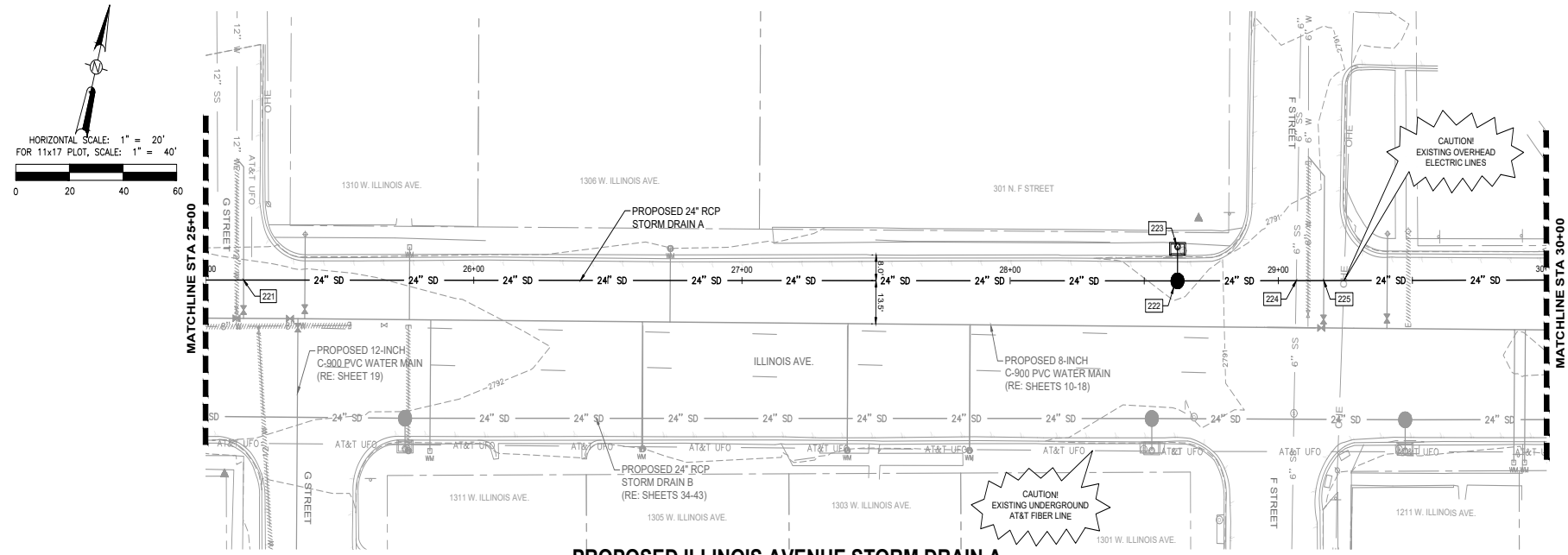
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 20+00 TO 25+00

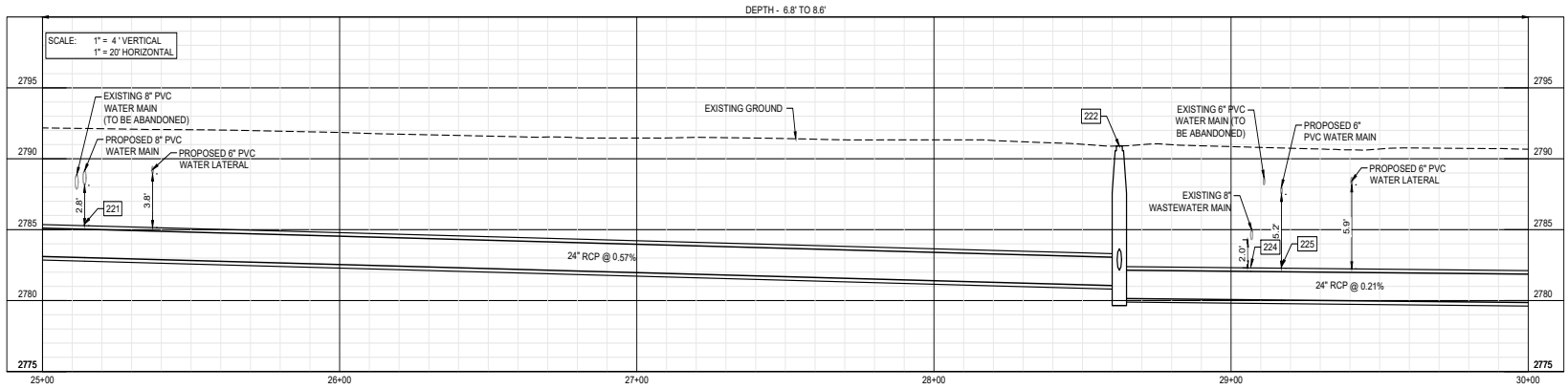
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KHA NO.: 064465316

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27

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

221	STA: 25+14.15 N: 10694679.51 E: 1752047.22 12" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2792.14' PROP WTR INV: 2788.15' STORM T.O.P: 2785.28'
222	STA: 28+62.41 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2790.90' FL IN 24" =2781.04' FL IN 18" =2782.15' FL OUT 24" =2780.15' DEPTH: 10.76' N: 10694766.79 E: 1752384.36
223	STA: 28+62.45, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694777.19 E: 1752381.68 RIM ELEV: 2791.57' 18" RCP FL OUT: 2783.33'
224	STA: 29+05.70 N: 10694778.01 E: 1752427.21 6" WASTEWATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2790.82' EX WASTEWATER INV: 2784.31' STORM T.O.P: 2782.31'
225	STA: 29+16.96 N: 10694780.61 E: 1752437.13 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2790.76' PROP WTR INV: 2787.51' STORM T.O.P: 2782.28'

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	KMW	2/1/2022

ADDENDUM #1

Kewilson

2/1/2022

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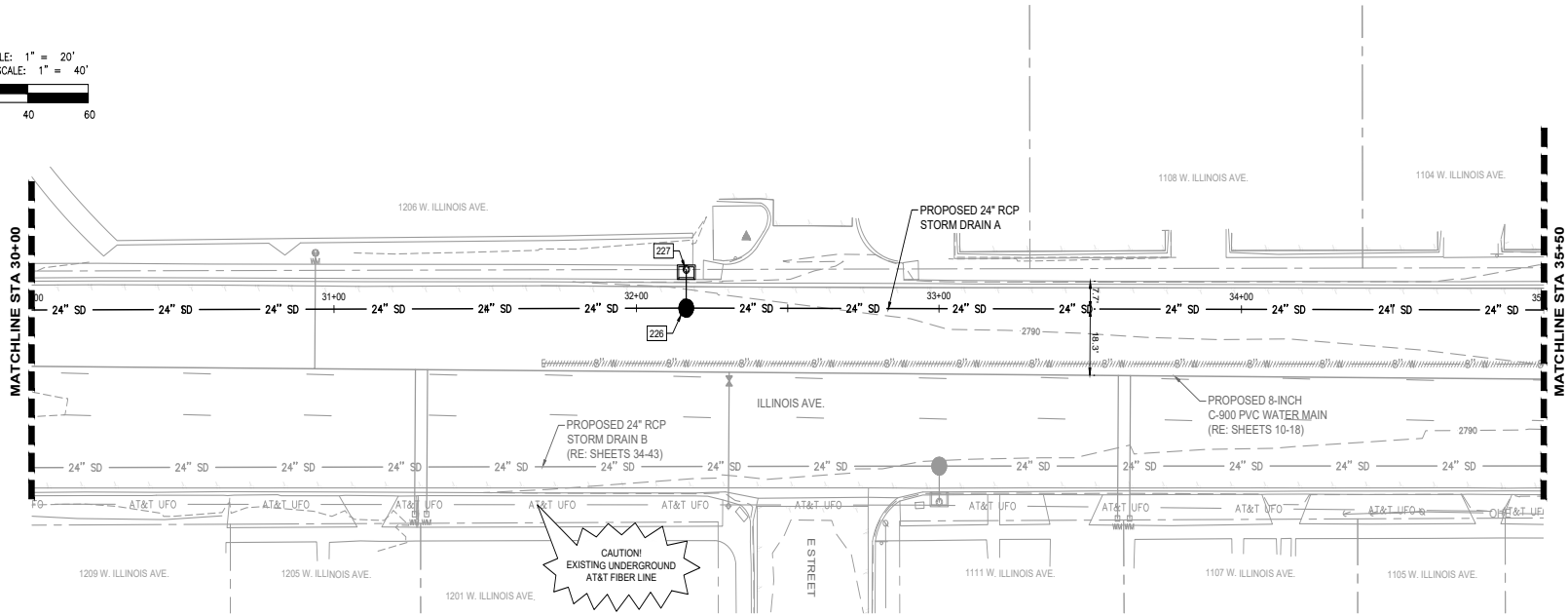
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 25+00 TO 30+00

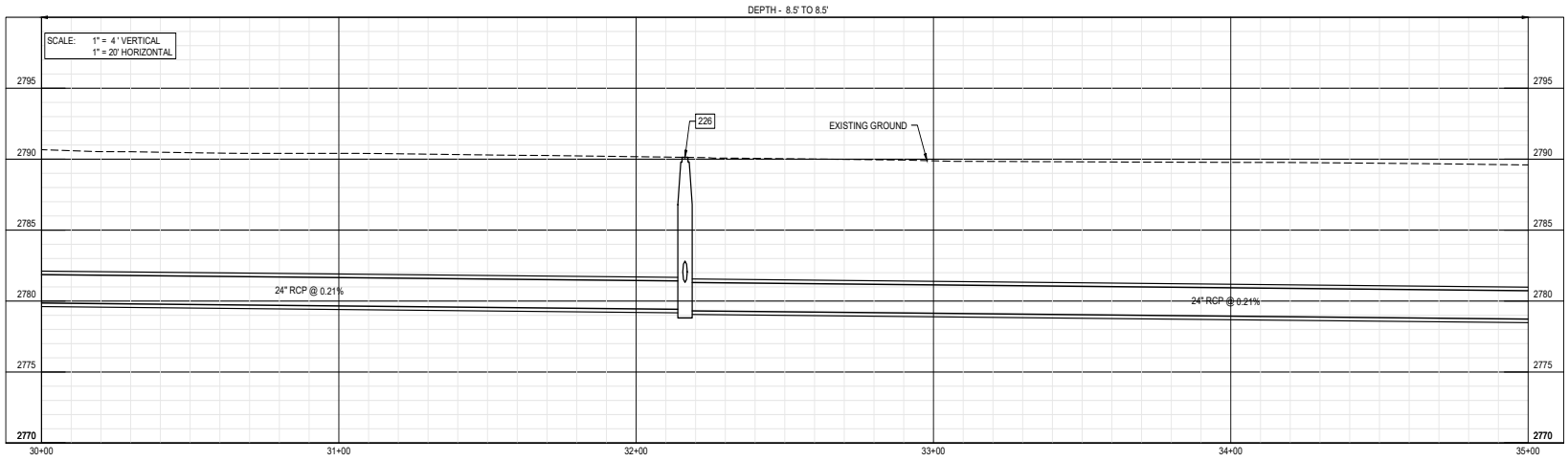
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KHA NO.: 064465316

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28

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

226	STA: 32+16.44 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2790.13' FL IN 24" =2779.41' FL IN 18" =2781.32' FL OUT 24" =2779.31' DEPTH: 10.81' N: 10694856.45 E: 1752720.65
227	STA: 32+16.44, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694866.80 E: 1752724.19 RIM ELEV: 2790.47' 18" RCP FL OUT: 2782.49'

PACKET 1

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	ADDENDUM #1	Kewilson 2/1/2022

2/1/2022

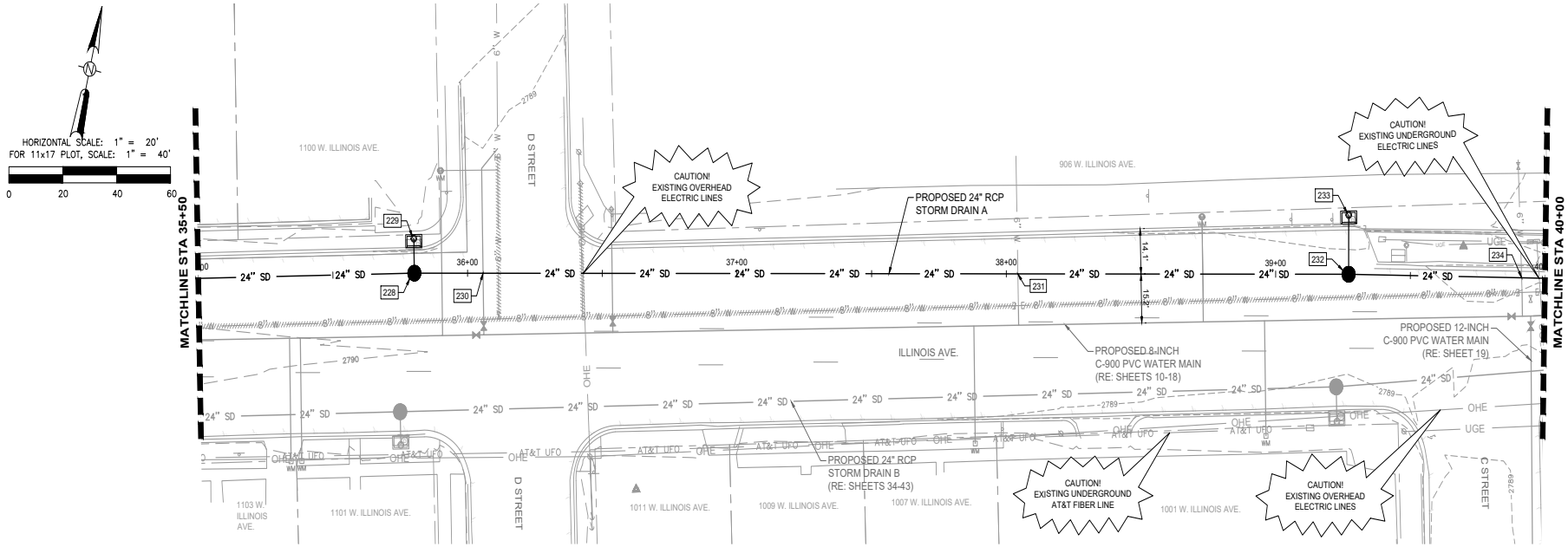
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 30+00 TO 35+50

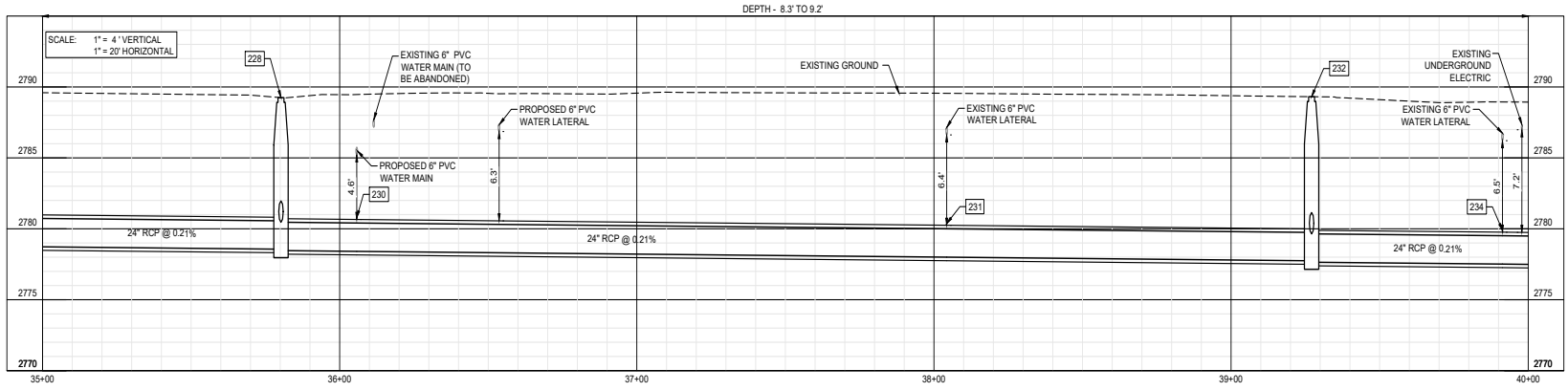
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SHEET
29

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

228	STA: 35+80.24 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2789.24' FL IN 24" =2778.56' FL IN 18" =2780.46' FL OUT 24" =2778.46' DEPTH: 10.78' N: 10694947.08 E: 1753079.16
229	STA: 35+80.24, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694957.49 E: 1753076.50 RIM ELEV: 2789.72' 18" RCP FL OUT: 2781.64'
230	STA: 36+05.75 N: 10694952.91 E: 1753104.01 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2789.47' PROP WTR INV: 2785.24' STORM T.O.P: 780.66'
231	STA: 38+04.30 N: 10694998.28 E: 1753297.31 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2789.55' EX. WTR INV: 2786.64' STORM T.O.P: 2780.25'
232	STA: 39+27.10 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2789.31' FL IN 24" =2777.74' FL IN 18" =2779.64' FL OUT 24" =2777.64' DEPTH: 11.67' N: 10695026.34 E: 1753418.66
233	STA: 39+27.10, O/S 18' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10695044.29 E: 1753412.65 RIM ELEV: 2789.34' 18" RCP FL OUT: 2781.67'
234	STA: 39+91.34 N: 10695040.01 E: 1753479.63 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2788.94' EX WTR INV: 2786.23' STORM T.O.P: 2779.76'

PACKET 8.272 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	KRW	2/1/2022

ADDENDUM #1

Kewilson

2/1/2022

KENNETH ALLEN FRAM 120159 LICENSED PROFESSIONAL ENGINEER

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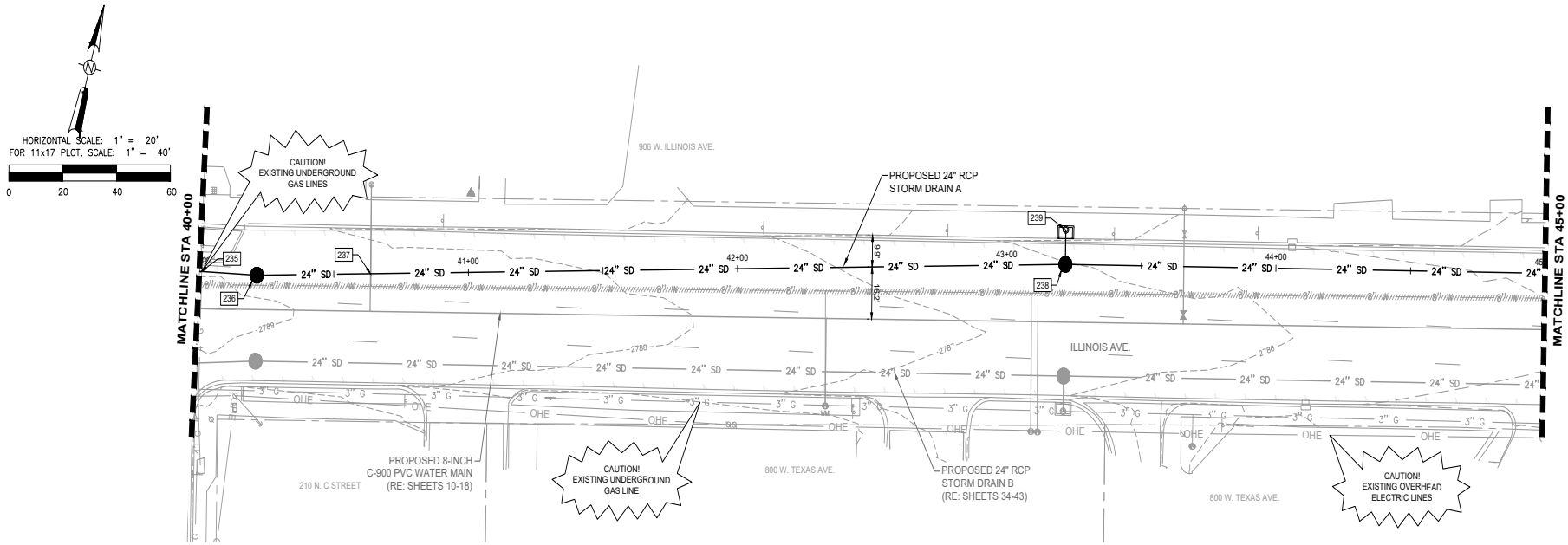
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 35+50 TO 40+00

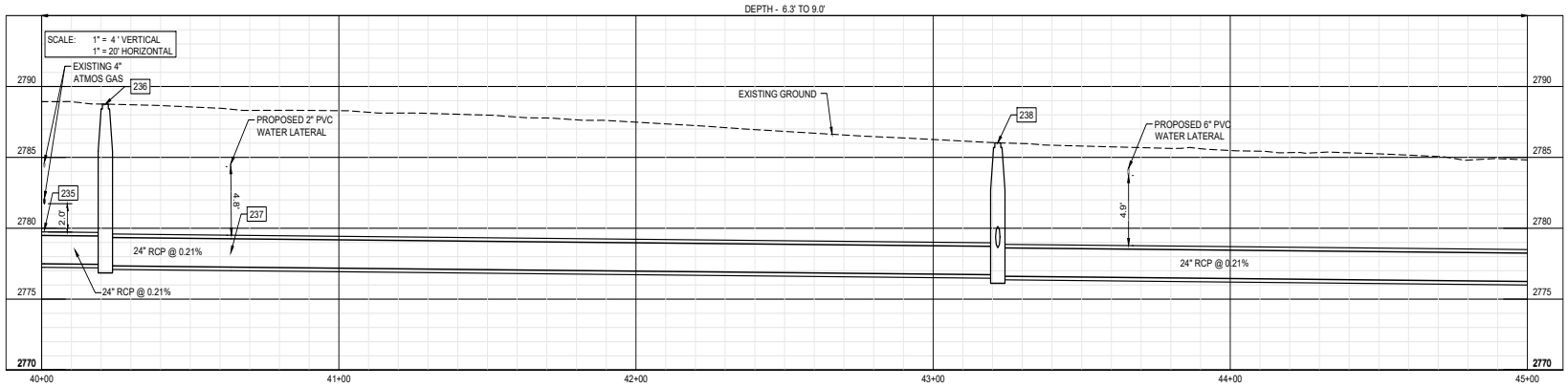
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KHA NO.: 064465316

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30

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PROPOSED ILLINOIS AVENUE STORM DRAIN A



Keyed Notes:

235	STA: 40+00.90 N: 10695042.04 E: 1753488.97 4" ATMOS GAS MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2788.93' EX GAS INV: 2784.31' PROP RELOCATED GAS INV: 2781.74' STORM T.O.P: 2779.74'
236	STA: 40+21.42 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2788.76' FL IN 24" =2777.45' FL OUT 24" =2777.35' DEPTH: 11.41' N: 10695046.40 E: 1753509.03
237	STA: 40+63.62 N: 10695058.15 E: 1753549.56 2" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 2" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2788.40' 2" WATER MAIN FL: 2784.36' STORM T.O.P: 2779.51'
238	STA: 43+21.77 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2786.02' FL IN 24" =2776.72' FL IN 18" =2778.63' FL OUT 24" =2776.62' DEPTH: 9.41' N: 10695129.97 E: 1753797.51
239	STA: 43+21.77, O/S 11' LT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10695140.39 E: 1753794.80 RIM ELEV: 2786.31' 18" RCP FL OUT: 2779.81'

Kimley»Horn
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4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	EMW	2/1/2022

2/1/2022 BENNETT ALLEN FRAM 120159 LICENSED PROFESSIONAL ENGINEER

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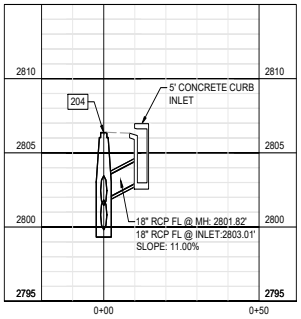
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STA 40+00 TO 45+00

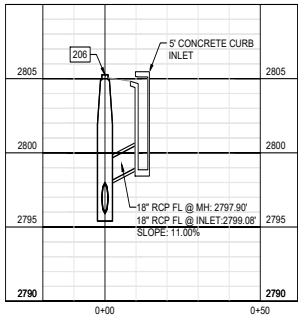
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KHA NO.: 064465316

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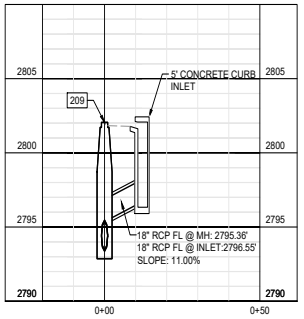
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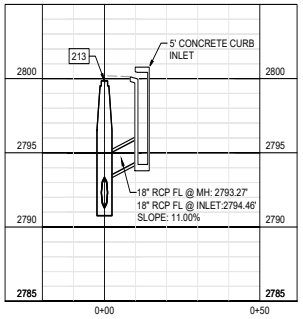
LATERAL AT MH 204



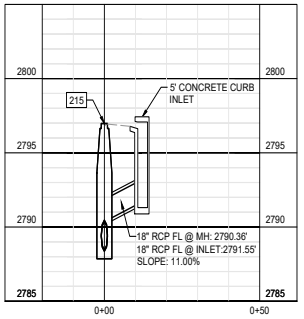
LATERAL AT MH 206



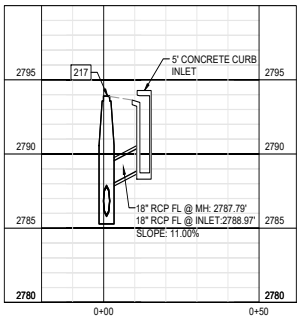
LATERAL AT MH 209



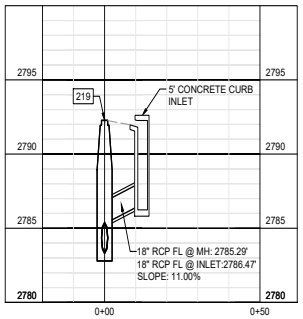
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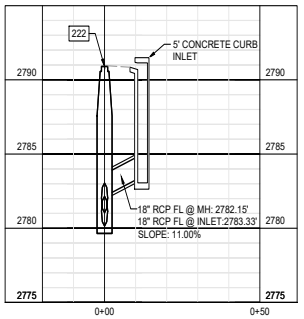
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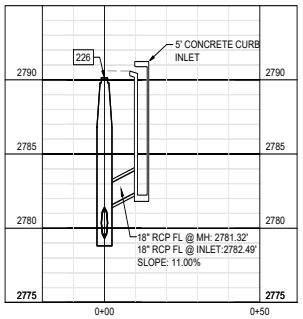
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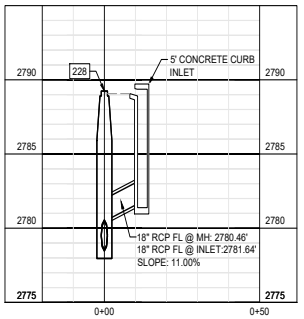
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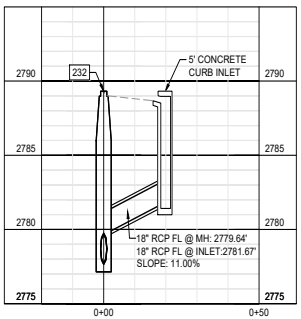
LATERAL AT MH 222



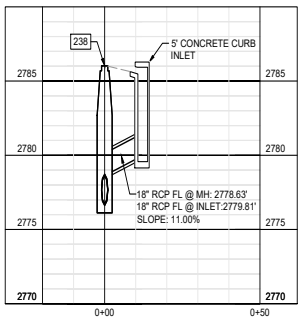
LATERAL AT MH 226



LATERAL AT MH 228



LATERAL AT MH 232



LATERAL AT MH 238

1

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KMW	2/7/2022

2/1/2022 BENNETT ALLEN FRAM 120159 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS

MIDLAND Feel the Energy!

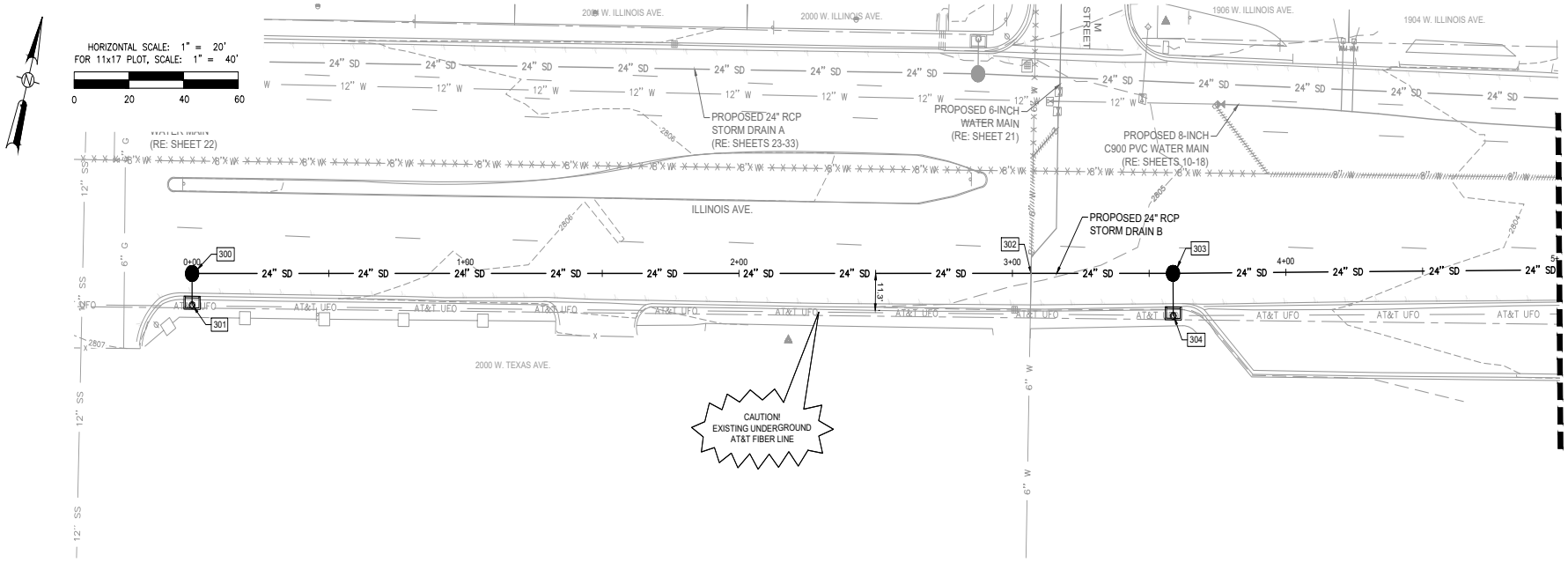
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN A
STORM DRAIN A LATERAL PROFILES

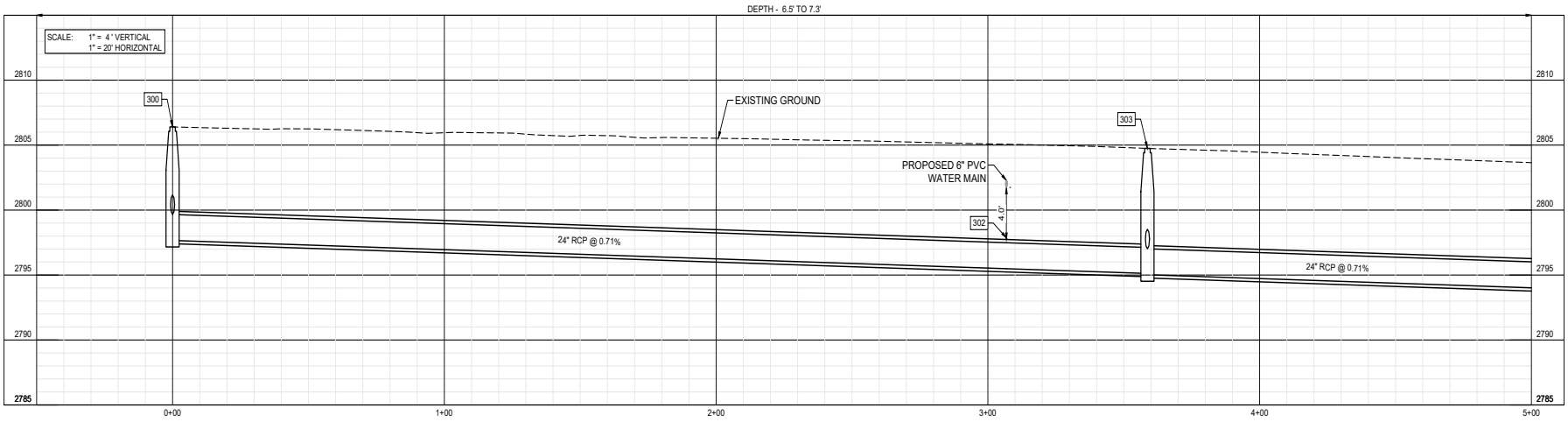
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DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET
33

K:\LUB_UTILITIES\064465316-MIDLAND ILLINOIS AVE\CADD\SHEETS\STORM DRAIN A – CURB INLET SHEETS.DWG 2/25/2022 11:10 AM



PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

300	STA: 0+00.00 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2806.40' FL IN 18" =2799.66' FL OUT 24" =2797.66' DEPTH: 8.74' N: 10694017.86 E: 1749960.33
301	STA: 0+00.00, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694008.47 E: 1749683.08 RIM ELEV: 2806.77' 18" RCP FL OUT: 2800.73'
302	STA: 3+06.82 N: 10694098.45 E: 1749976.57 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 6" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2805.07' PROP WTR INV: 2801.76' STORM T.O.P: 2797.74'
303	STA: 3+58.72 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2804.75' FL IN 24" =2795.12' FL OUT 24" =2795.02' DEPTH: 9.73' N: 10694112.09 E: 1750026.85
304	STA: 3+58.72, O/S 13' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694099.56 E: 1750030.16 RIM ELEV: 2805.09' 18" RCP FL OUT: 2798.45'

PACKET 8.275 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	KRW	2/2/2022

Revision: ADDENDUM #1

2/1/2022 BENNETT ALLEN FRAM 120159 LICENSED PROFESSIONAL ENGINEER

MIDLAND Feel the Energy!

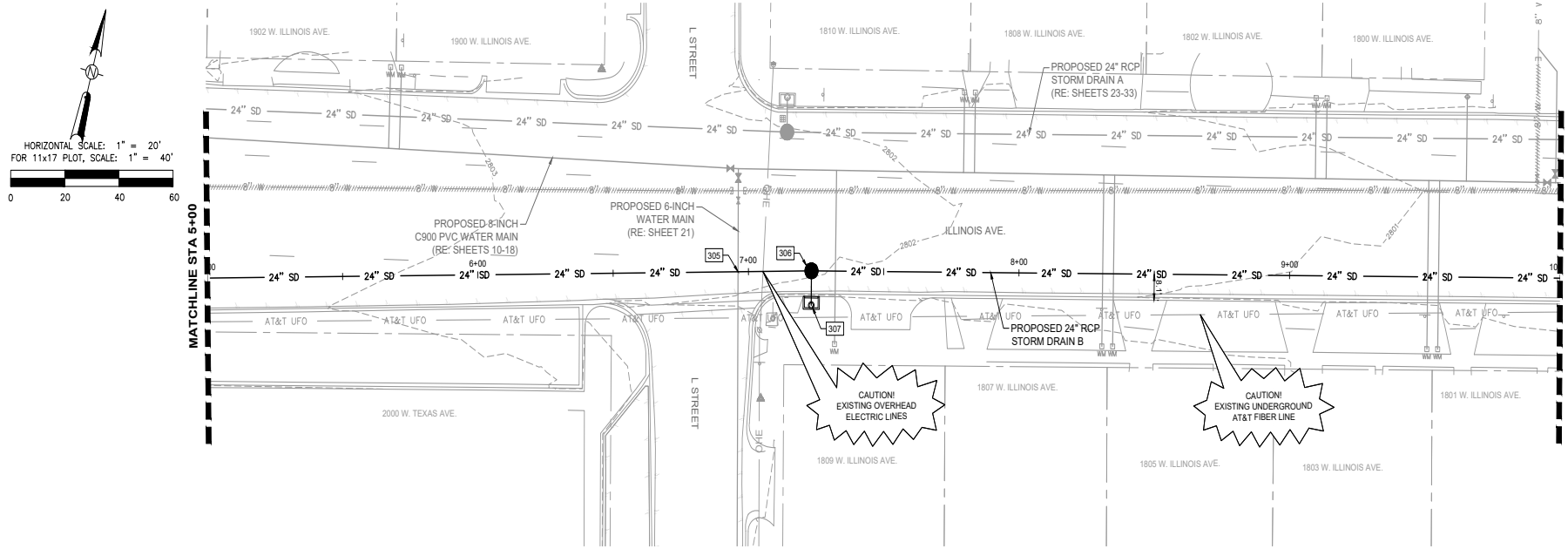
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 0+00 TO 5+00

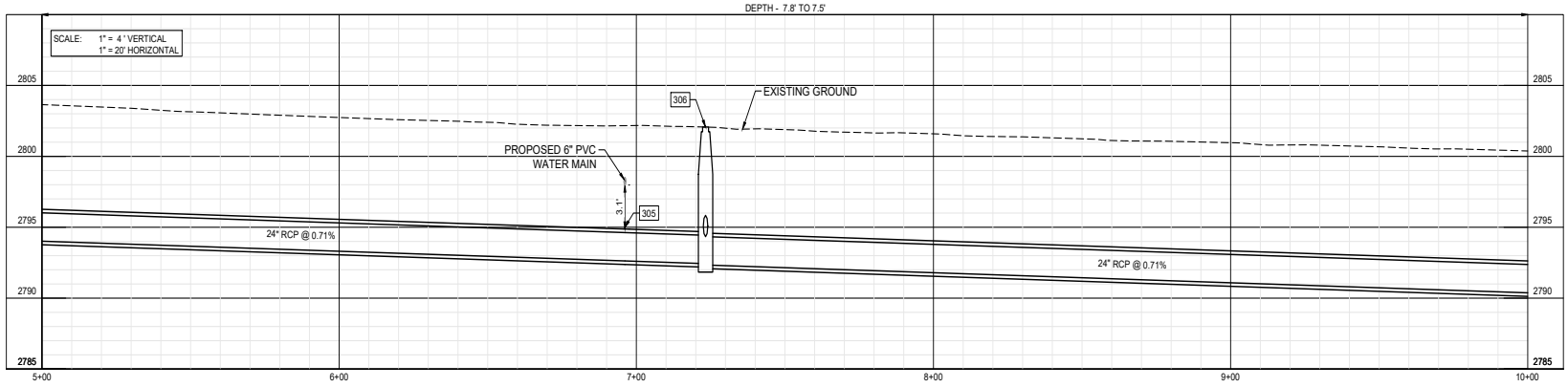
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DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET 34

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:	
305	STA: 6+96.15 N: 10694203.16 E: 1750351.56 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2802.16' PROP WTR INV: 2797.99' STORM T.O.P: 2794.87'
306	STA: 7+23.30 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2802.07' FL IN 24" =2792.43' FL IN 18" =2794.34' FL OUT 24" =2792.34' DEPTH: 9.73' N: 10694210.49 E: 1750377.70
307	STA: 7+23.10, O/S 11' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694200.19 E: 1750380.38 RIM ELEV: 2802.40' 18" RCP FL OUT: 2795.51'

1

No.	Revision	By	Date
1	ADDENDUM #1	KMW	2/7/2022

2/1/2022

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ILLINOIS AVENUE
UTILITY IMPROVEMENTS

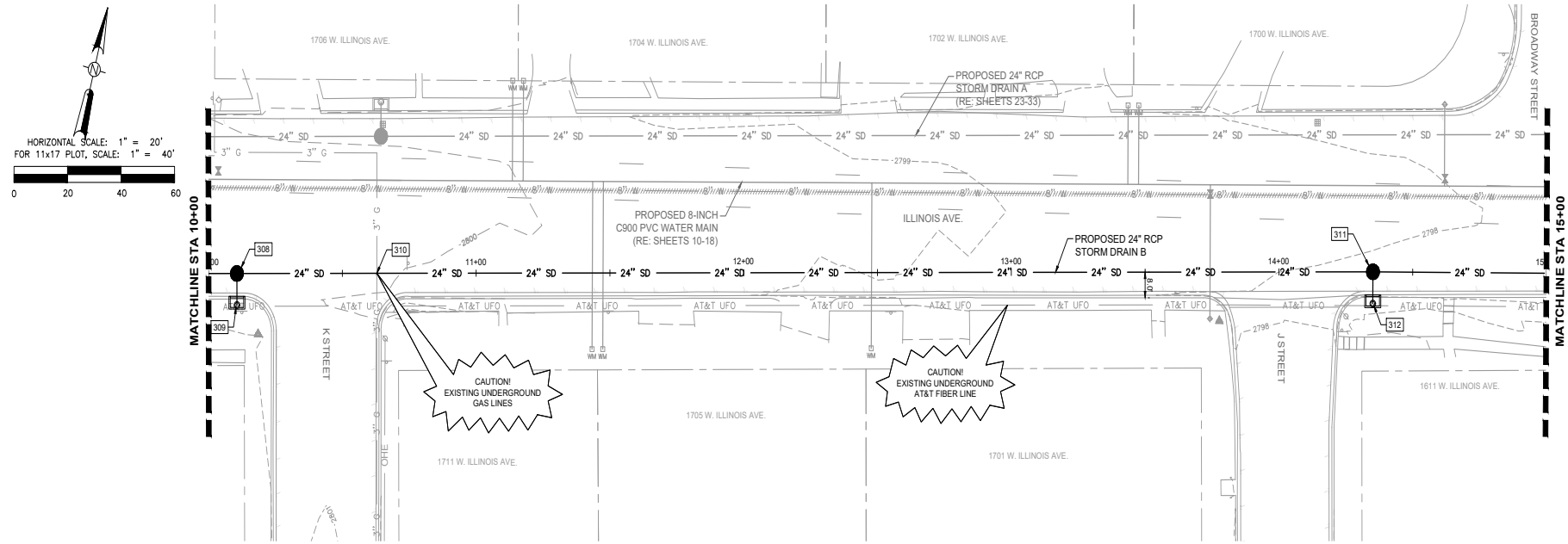
ILLINOIS AVENUE STORM DRAIN B
STA 5+00 TO 10+00

DATE: FEBRUARY 2022
DESIGN: WCS/KAF
DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

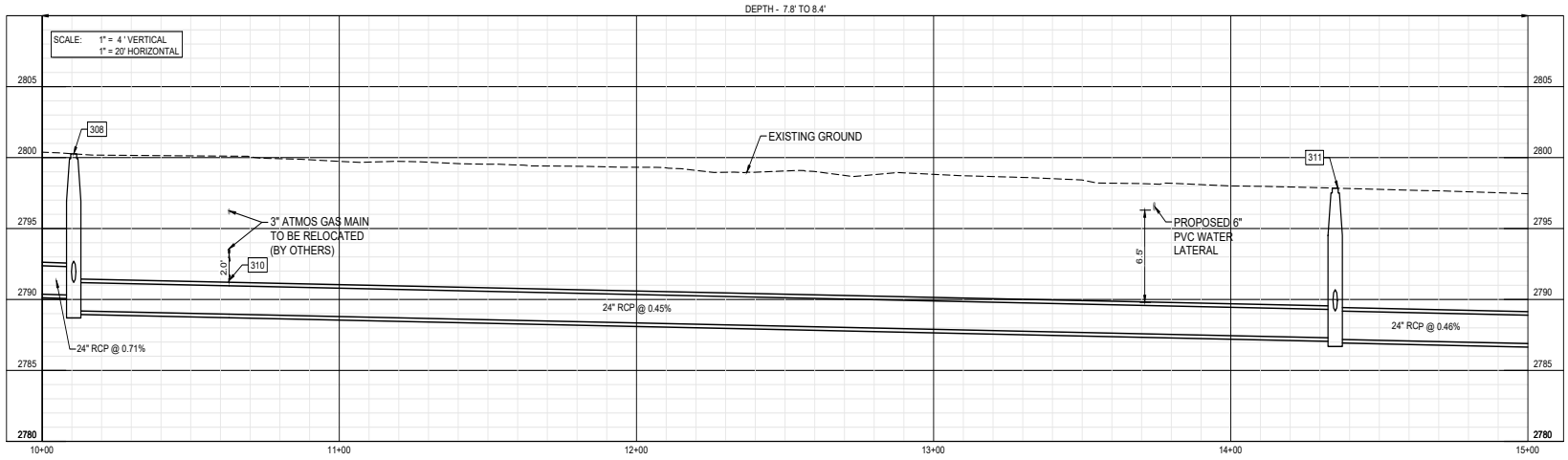
SHEET
35

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Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080



PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

308	STA: 10+10.60 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2800.26' FL IN 24" =2790.30' FL IN 18" =2791.20' FL OUT 24" =2789.20' DEPTH: 11.06' N: 10694283.00 E: 1750636.70
309	STA: 10+10.60, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694273.43 E: 1750658.19 RIM ELEV: 2800.68' 18" RCP FL OUT: 2792.29'
310	STA: 10+62.90 N: 10694296.18 E: 1750706.31 3" ATMOS GAS MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2800.10' EX GAS INV: 2796.03' PROP RELOCATED GAS INV: 2793.21 STORM T.O.P: 2791.21'
311	STA: 14+35.15 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2797.85' FL IN 18" =2789.19' FL IN 24" =2787.29' FL OUT 24" =2787.19' DEPTH: 10.66' N: 10694390.00 E: 1751066.54
312	STA: 14+35.07, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694380.31 E: 1751068.98 RIM ELEV: 2798.51' 18" RCP FL OUT: 2790.29'

PACKET

8.277

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	KSW	2/1/2022

ADDENDUM #1

Kewilson

2/1/2022

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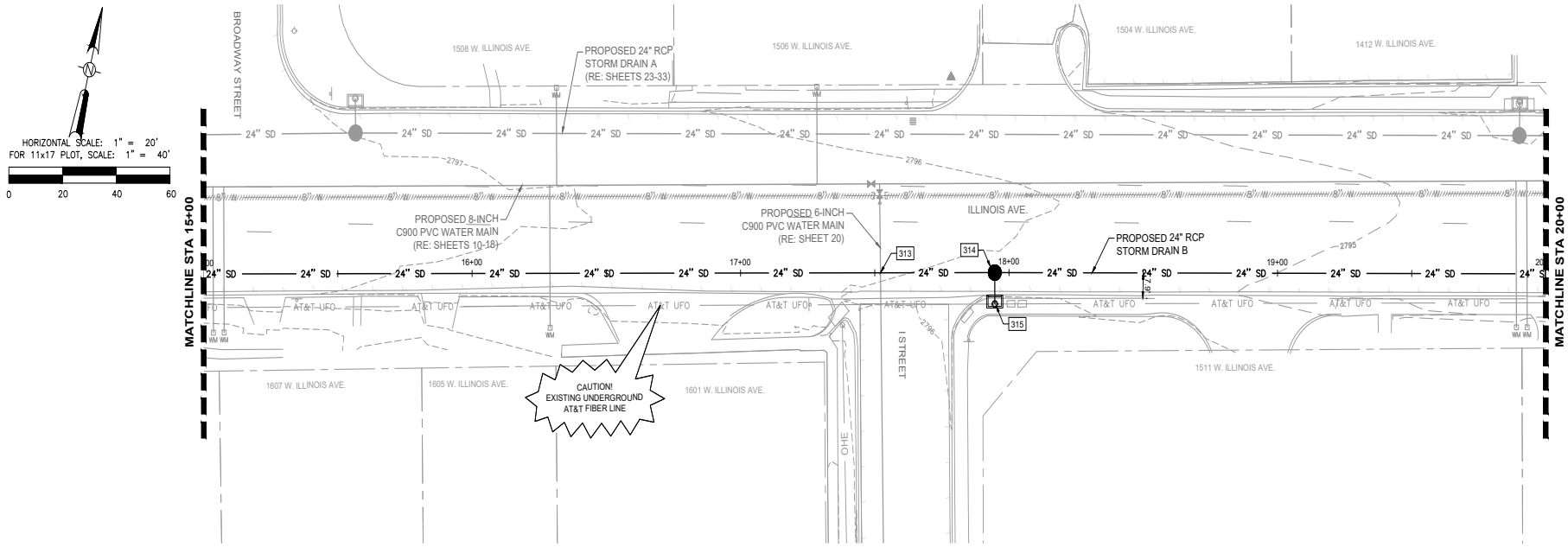
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 10+00 TO 15+00

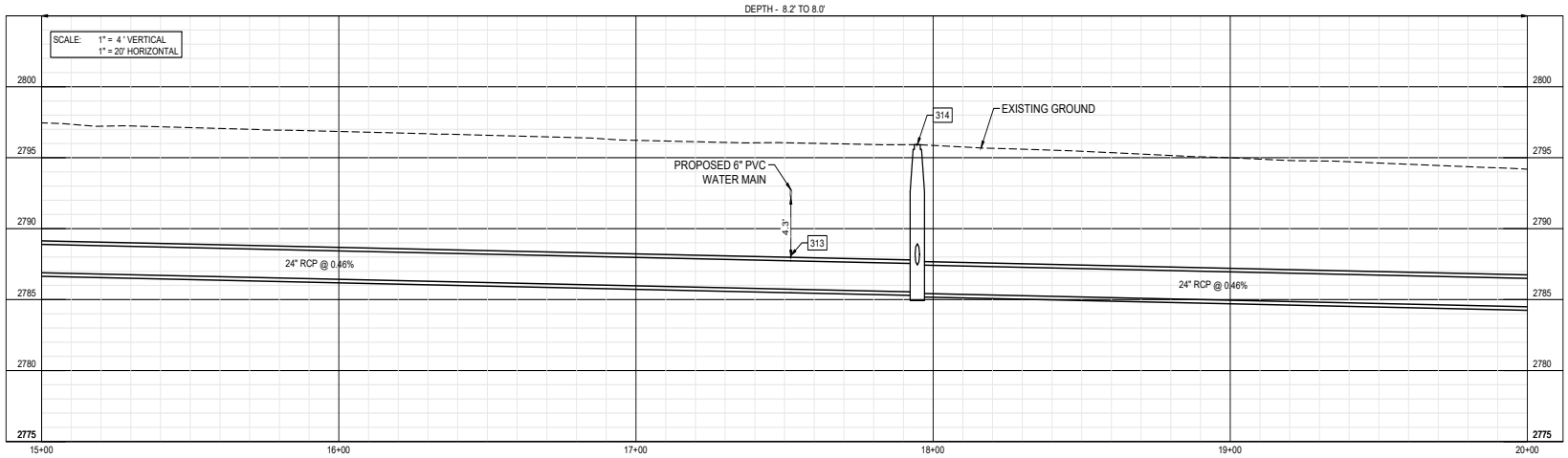
DATE: FEBRUARY 2022
DESIGN: WCS/KAF
DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET
36

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:	
313	STA: 17+52.13 N: 10694467.37 E: 1751373.94 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2796.05' PROP WTR INV: 2792.25' STORM T.O.P: 2787.98'
314	STA: 17+94.69 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2795.92' FL IN 24" =2785.54' FL IN 18" =2787.44' FL OUT 24" =2785.44' DEPTH: 10.48' N: 10694477.76 E: 1751415.21

315 — STA: 17+94.69, O/S 10' RT
INSTALL:
5' X 4' CONCRETE CURB INLET
N: 10694468.32
E: 1751417.58
RIM ELEV: 2796.35'
18" RCP FL OUT: 2788.51'
1

PACKET 8.278 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KSW	2/2022

2/1/2022 — BENNETT ALLEN FRAM 120159 — LICENSED PROFESSIONAL ENGINEER

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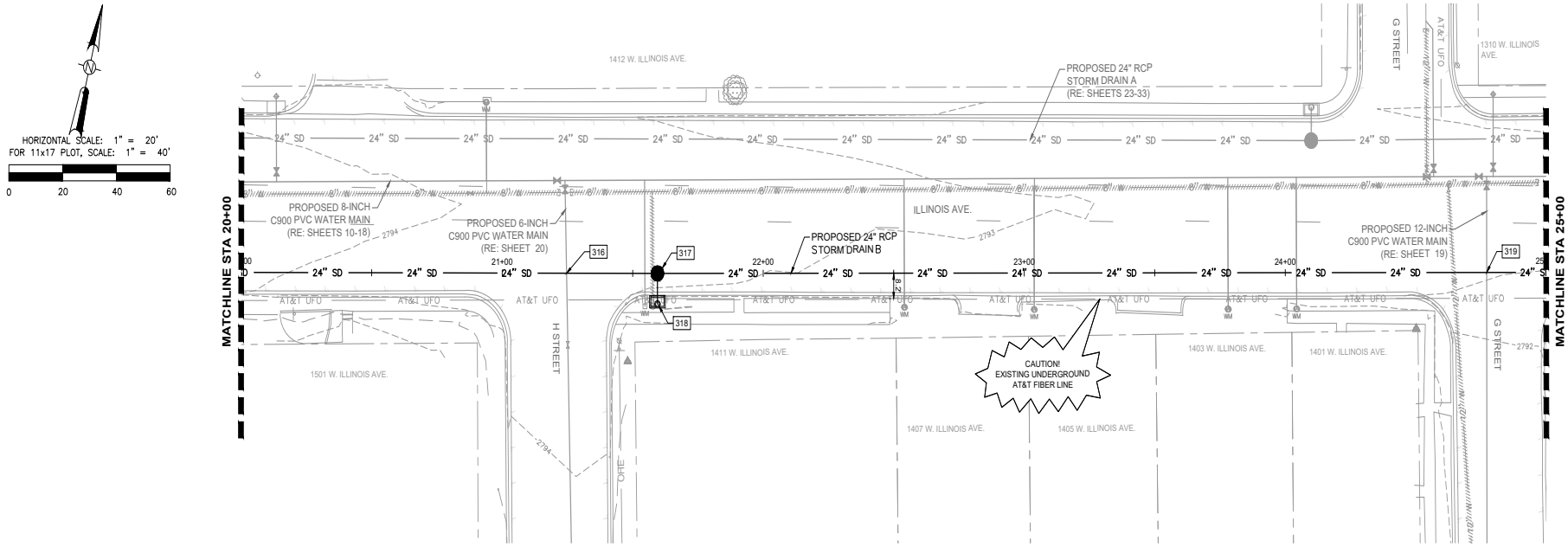
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 15+00 TO 20+00

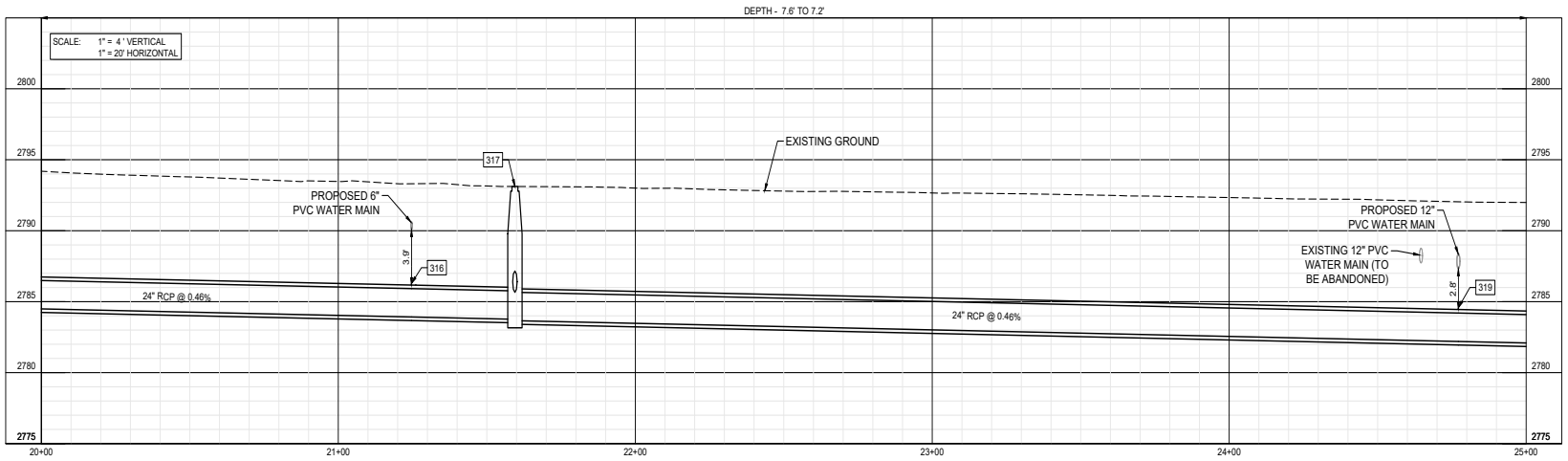
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DESIGN: WCS/KAF
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CHECKED: WCS
KHA NO.: 064465316

SHEET
37

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:	
316	STA: 21+24.66 N: 10694557.22 E: 1751735.47 6" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2793.31' PROP WTR INV: 2790.1' STORM T.O.P: 2786.17'
317	STA: 21+59.47 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2793.12' FL IN 24" =2783.76' FL IN 18" =2785.66' FL OUT 24" =2783.66' DEPTH: 9.46' N: 10694565.60 E: 1751769.25
318	STA: 21+59.47, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694556.08 E: 1751771.84 RIM ELEV: 2793.71' 18" RCP FL OUT: 2786.74'
319	STA: 24+77.49 N: 10694643.07 E: 1752077.38 12" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2792.04' PROP WTR INV: 2787.35' STORM T.O.P: 2784.45'

1

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KRW	2/1/2022

2/1/2022

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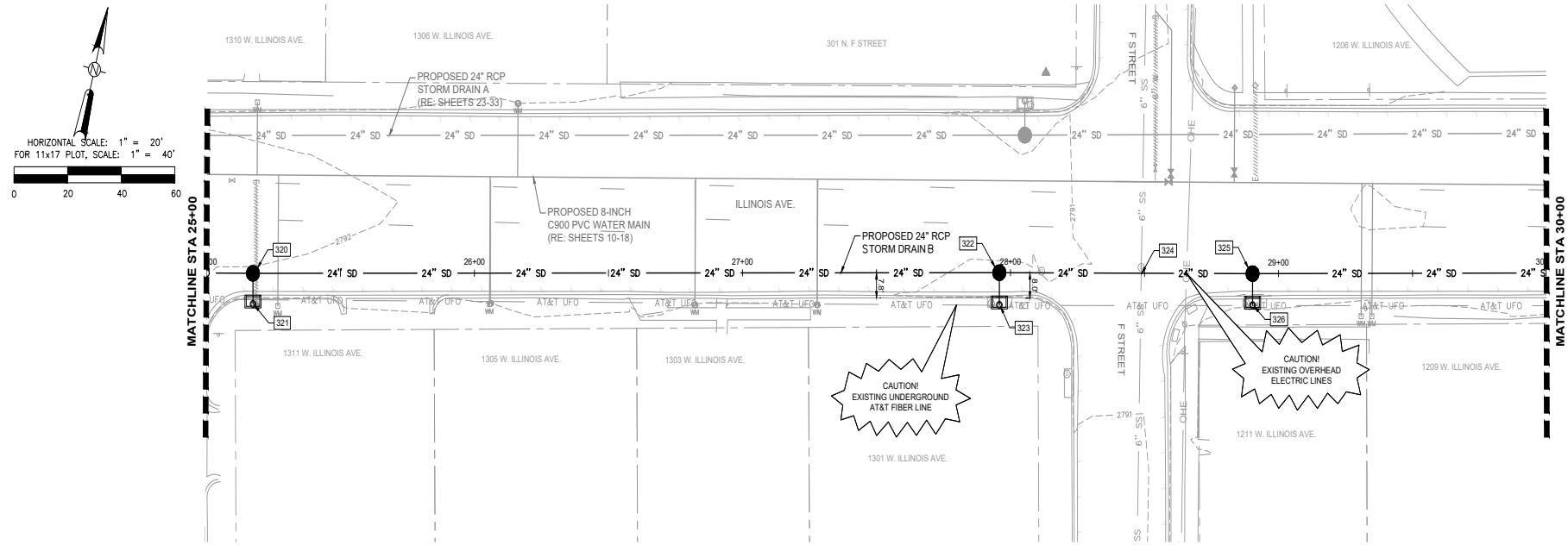
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 20+00 TO 25+00

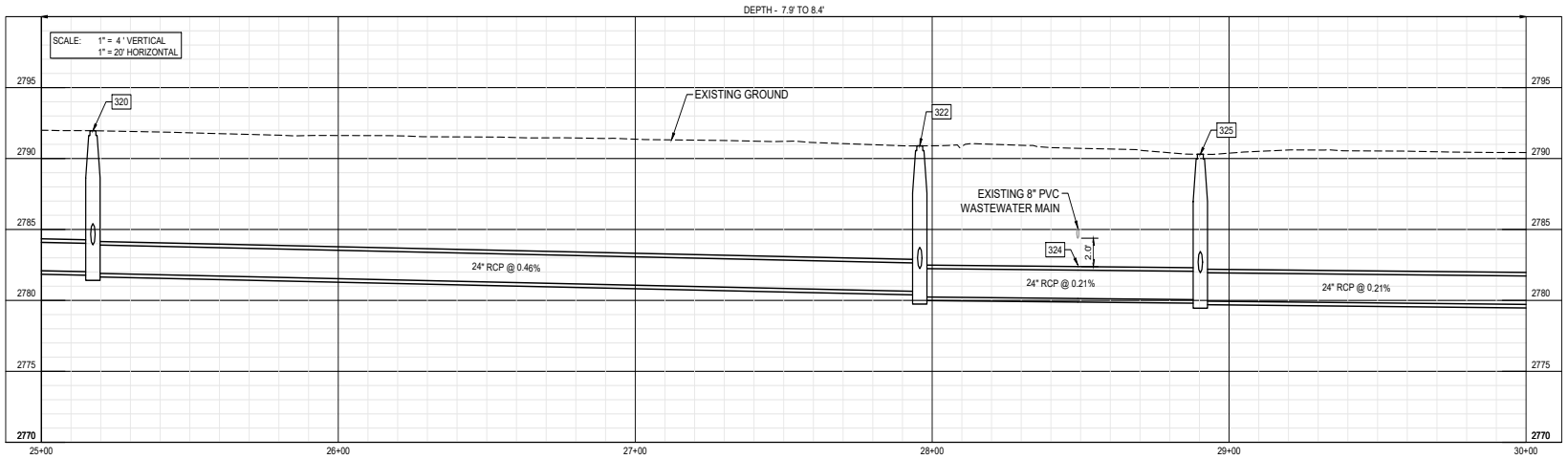
DATE:	FEBRUARY 2022
DESIGN:	WCS/KAF
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CHECKED:	WCS
KHA NO.:	064465316

SHEET 38

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

320	STA: 25+17.36 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2791.96' FL IN 24" =2782.01' FL IN 18" =2783.91' FL OUT 24" =2781.91' DEPTH: 10.05' N: 10694652.86 E: 1752116.34
321	STA: 25+17.36, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694643.60 E: 1752118.75 RIM ELEV: 2792.12' 18" RCP FL OUT: 2784.97'
322	STA: 27+95.83 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2790.89' FL IN 24" =2780.63' FL IN 18" =2782.24' FL OUT 24" =2780.24' DEPTH: 10.65' N: 10694722.78 E: 1752386.89
323	STA: 27+95.87, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694713.03 E: 1752388.42 RIM ELEV: 2791.37' 18" RCP FL OUT: 2783.35'
324	STA: 28+49.04 N: 10694735.94 E: 1752437.45 6" WASTEWATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2790.72' EX WASTEWATER INV: 2784.41' STORM T.O.P: 2782.38'
325	STA: 28+90.30 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2790.30' FL IN 24" =2780.05' FL IN 18" =2781.95' FL OUT 24" =2779.95' DEPTH: 10.35' N: 10694746.15 E: 1752477.43
326	STA: 28+90.30, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694736.61 E: 1752479.92 RIM ELEV: 2790.79' 18" RCP FL OUT: 2783.03'

PACKET 8.28A

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KMM	2/7/2022

2/1/2022 BENNETT ALLEN FRAM 120159 REGISTERED PROFESSIONAL ENGINEER

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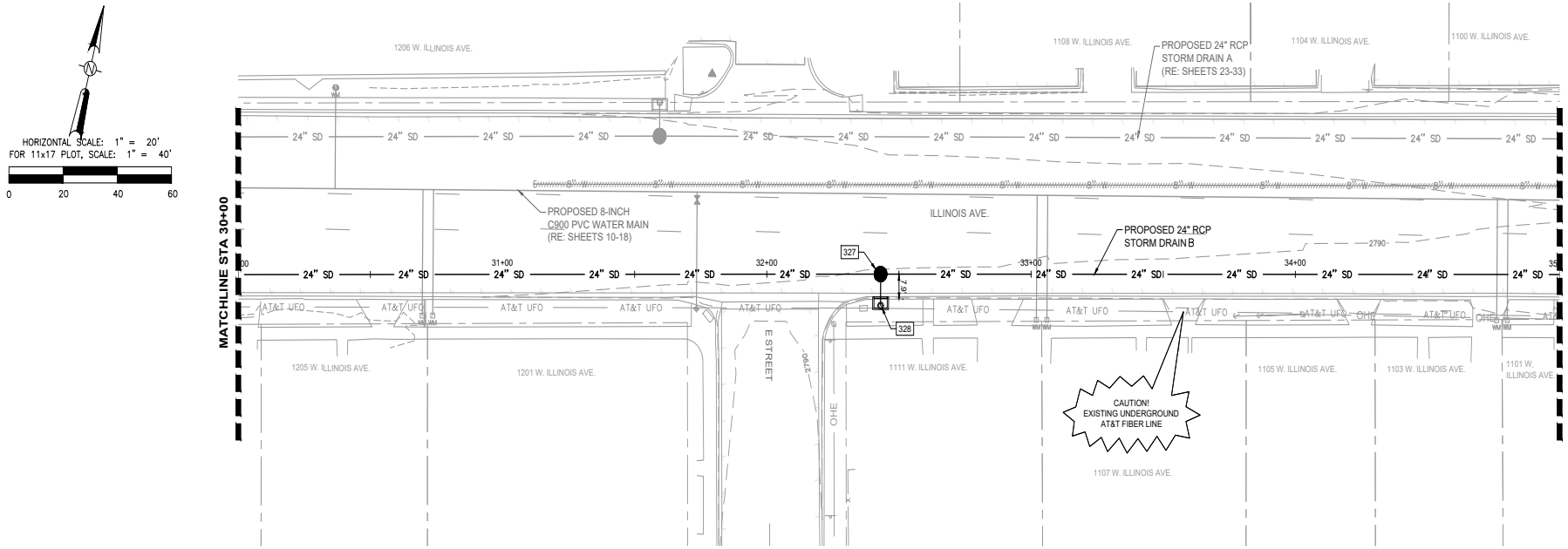
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 25+00 TO 30+00

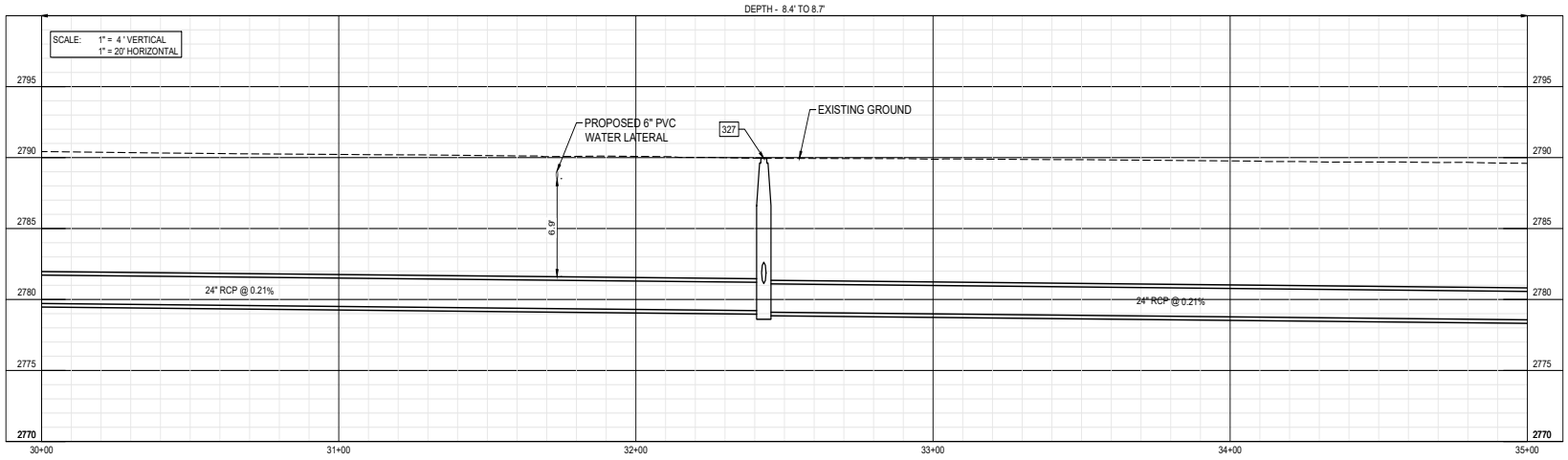
DATE: FEBRUARY 2022
DESIGN: WCS/KAF
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CHECKED: WCS
KHA NO.: 064465316

SHEET
39

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

327	STA: 32+43.06 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2789.95' FL IN 24" =2779.21' FL IN 18" =2781.13' FL OUT 24" =2779.11' DEPTH: 10.85' N: 10694835.13 E: 1752818.78
328	STA: 32+43.06, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694825.48 E: 1752821.28 RIM ELEV: 2790.42' 18" RCP FL OUT: 2782.22'

PACKET 8.281 March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	KSW	2/1/2022

2/1/2022

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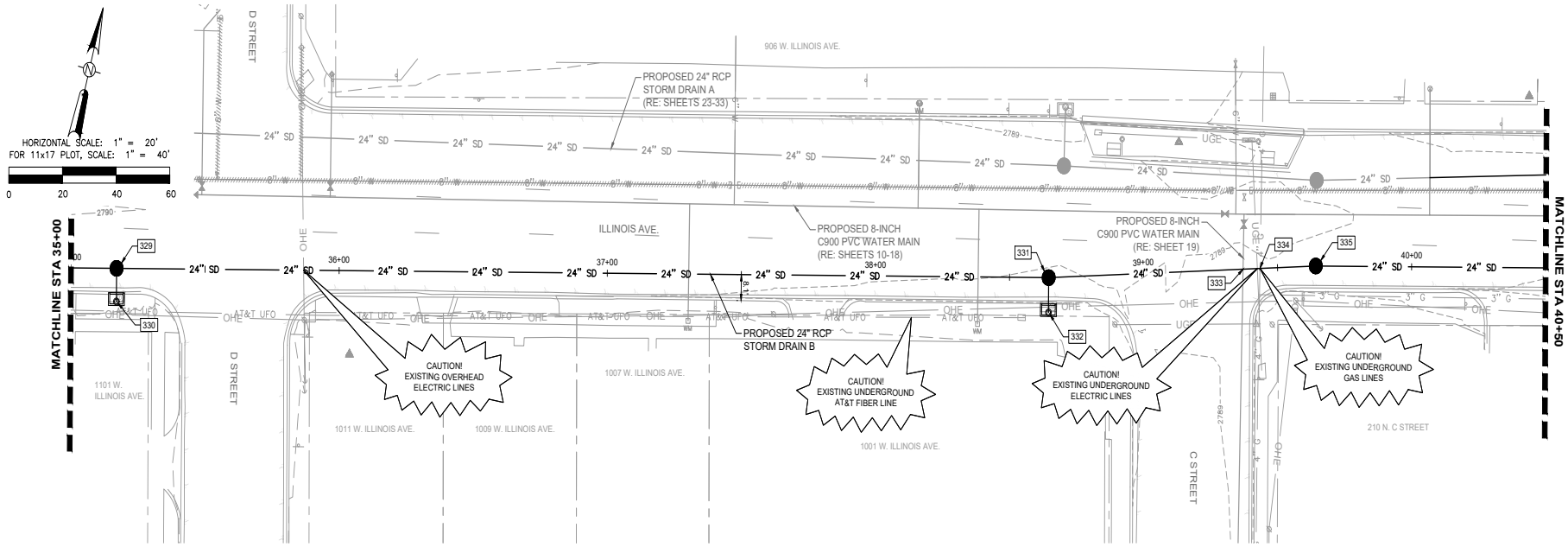
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 30+00 TO 35+00

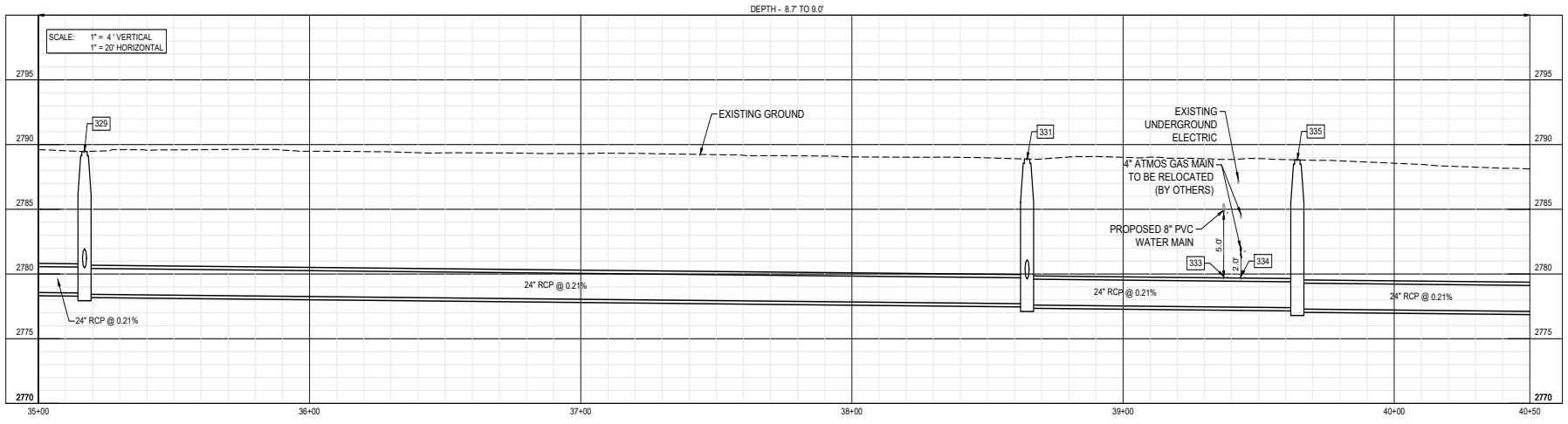
DATE: FEBRUARY 2022
DESIGN: WCS/KAF
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KHA NO.: 064465316

SHEET
40

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

329	STA: 35+17.01 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2789.47' FL IN 24" =2778.53' FL IN 18" =2780.46' FL OUT 24" =2778.43' DEPTH: 11.04' N: 10694903.93 E: 1753088.93
330	STA: 35+17.02, O/S 10' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694893.92 E: 1753086.56 RIM ELEV: 2789.85' 18" RCP FL OUT: 2781.60'
331	STA: 38+64.60 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2788.88' FL IN 24" =2777.70' FL IN 18" =2779.60' FL OUT 24" =2777.60' DEPTH: 11.27' N: 10694991.21 E: 1753426.40
332	STA: 38+64.60, O/S 11' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10694980.68 E: 1753423.13 RIM ELEV: 2789.28' 18" RCP FL OUT: 2780.80'
333	STA: 39+37.12 N: 10695012.54 E: 1753489.72 8" WATER MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2788.85' PROP WTR INV: 2784.75' STORM INV: 2779.70'
334	STA: 39+43.45 N: 10695014.40 E: 1753495.76 4" ATMOS GAS MAIN CROSSING MAINTAIN MINIMUM VERTICAL SEPERATION OF 2.0' BETWEEN RELOCATED 12" WATER MAIN AND OUTSIDE WALL OF 24" RCP STORM DRAIN SURFACE: 2788.88' EX GAS INV: 2784.31' PROP GAS INV: 2781.76' STORM T.O.P: 2779.69'
335	STA: 39+64.26 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2788.82' FL IN 24" =2777.39' FL OUT 24" =2777.29' DEPTH: 11.53' N: 10695020.52 E: 1753515.66

PACKET

8.282

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	By	Date
1	MDM	02/2022

Revision
ADDENDUM #1

2/1/2022

MIDLAND Feel the Energy!

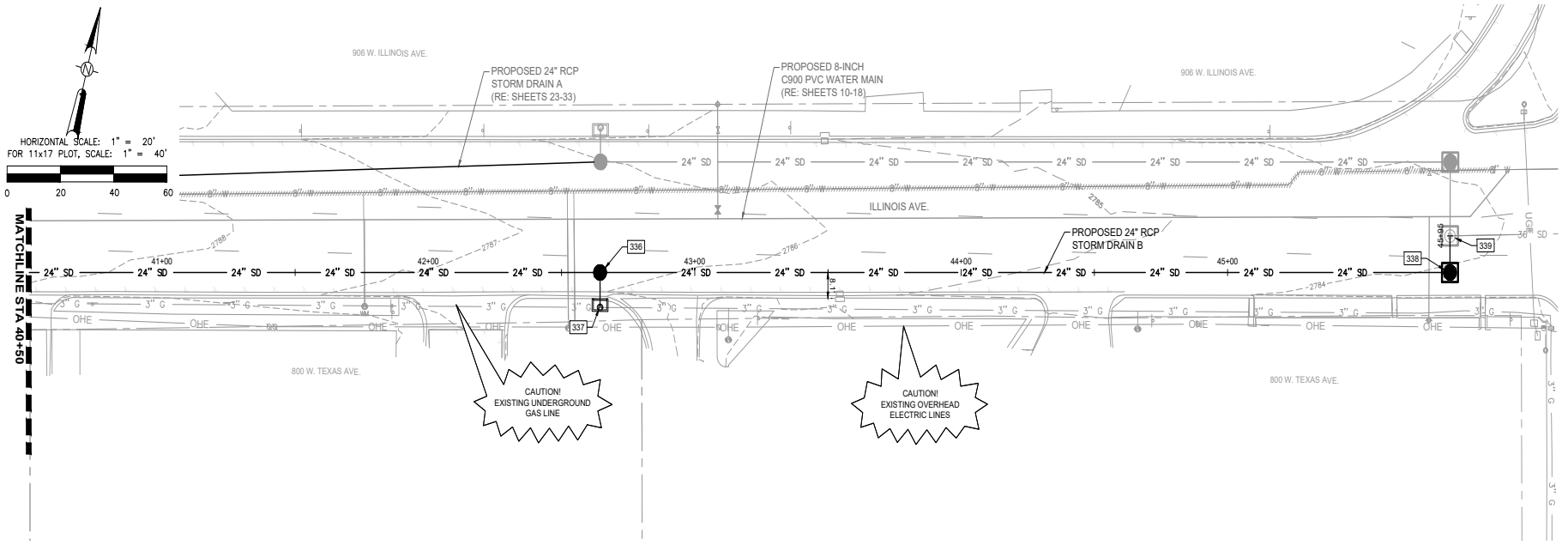
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 35+00 TO 40+50

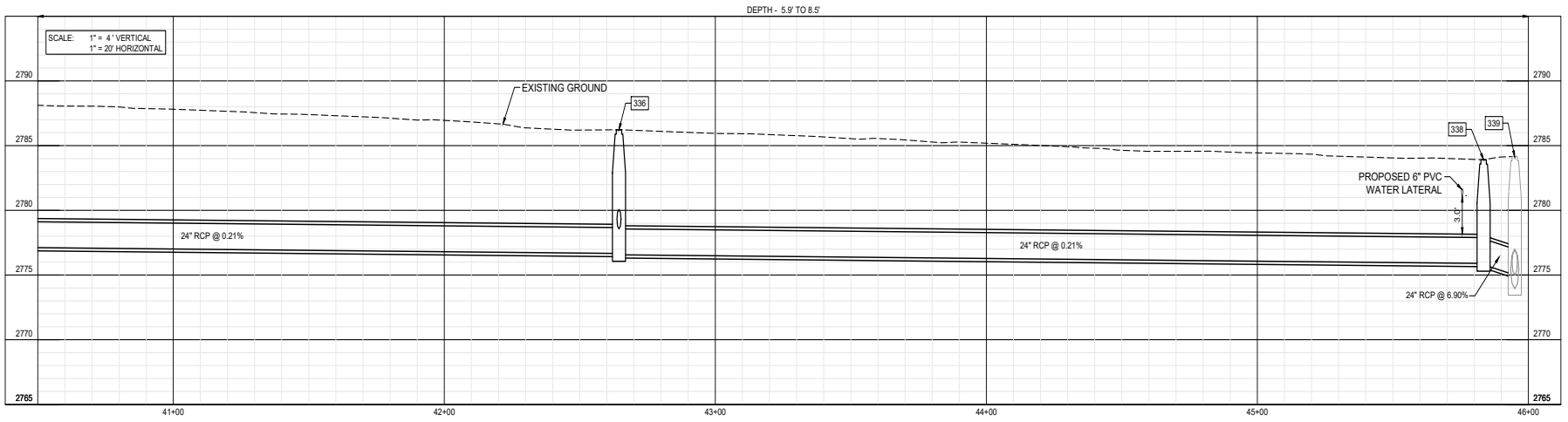
DATE: FEBRUARY 2022
DESIGN: WCS/KAF
DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET
41

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PROPOSED ILLINOIS AVENUE STORM DRAIN B



Keyed Notes:

336	STA: 42+64.46 INSTALL: 1 - 48" FIBERGLASS MANHOLE WITH GRATED COVER RIM ELEV: 2786.22' FL IN 24" =2776.66' FL IN 18" =2776.56' FL OUT 24" =2776.56' DEPTH: 9.66' N: 10695096.31 E: 1753600.13
337	STA: 42+64.46, O/S 11' RT INSTALL: 5' X 4' CONCRETE CURB INLET N: 10695085.69 E: 1753808.90 RIM ELEV: 2786.63' 18" RCP FL OUT: 2779.77'
338	STA: 45+83.49 INSTALL: 1 - 6'x6'x5'-8" CONCRETE JUNCTION BOX 1 - 48" FIBERGLASS MANHOLE SET ON JUNCTION BOX WITH ADJUSTMENT RINGS AND GRATED COVER RIM ELEV: 2783.91' FL IN 24" =2775.89' FL OUT 24" =2775.79' DEPTH: 8.11' N: 10695176.86 E: 1754114.82
339	STA 45+94.99 CONNECT TO EXISTING CONCRETE 6'x6'x7'-2" JUNCTION BOX (S) PROP FL IN 24" = 2775.00' PROP FL IN 24" = 2775.00' EX FL OUT 36" = 2773.94' DEPTH: 10.16' N: 10695187.99 E: 1754111.92

PACKET 1

8.283

March 22, 2022

Kimley»Horn
TBPE Firm Registration No. F-928
4411 98th St. Lubbock, TX 79424 P:806-606-1080

No.	Revision	By	Date
1	ADDENDUM #1	EMW	2/1/2022

2/1/2022

MIDLAND Feel the Energy!

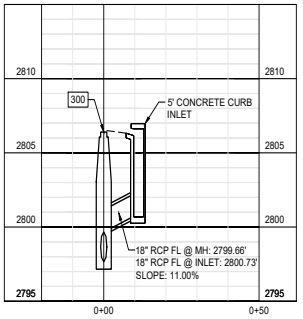
ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STA 40+50 TO END

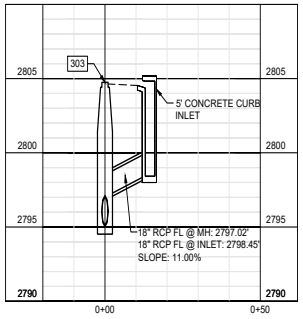
DATE: FEBRUARY 2022
DESIGN: WCS/KAF
DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET
42

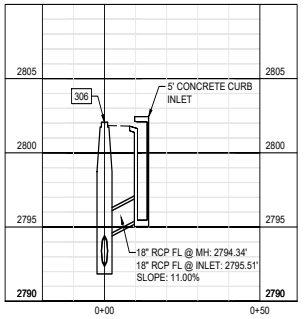
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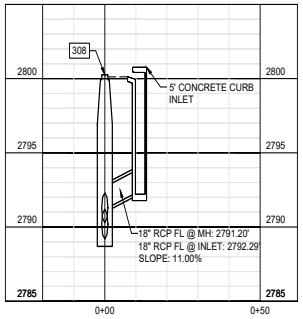
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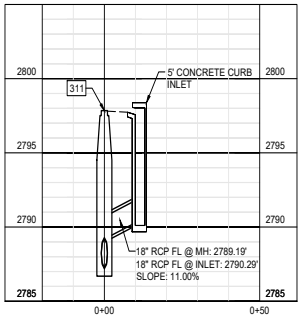
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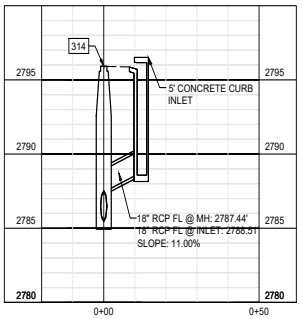
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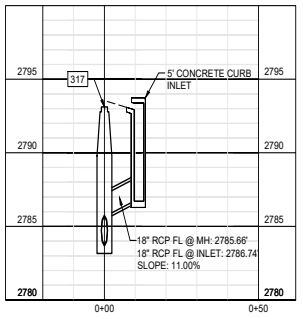
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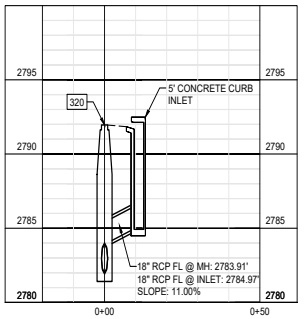
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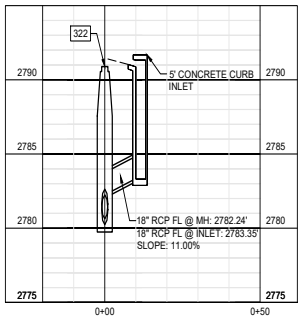
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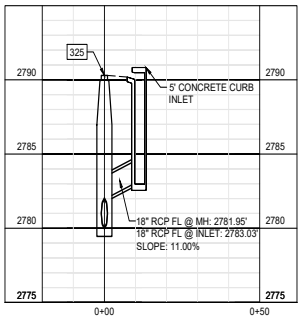
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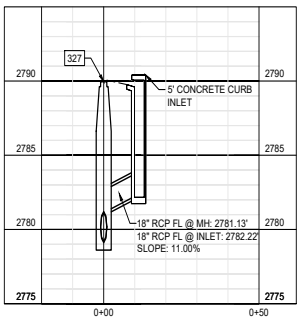
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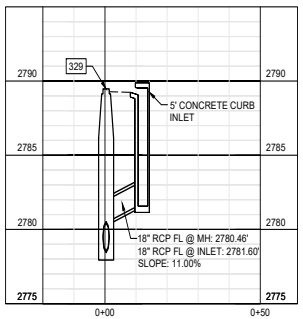
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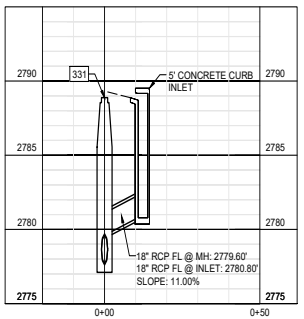
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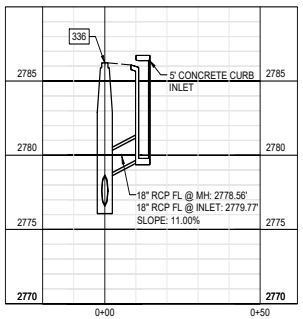
LATERAL AT MANHOLE 327



LATERAL AT MANHOLE 329



LATERAL AT MANHOLE 331



LATERAL AT MANHOLE 336

Kimley»Horn
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No.	Revision	By	Date
1	ADDENDUM #1	EMW	2/1/2022

2/1/2022

ILLINOIS AVENUE
UTILITY IMPROVEMENTS

ILLINOIS AVENUE STORM DRAIN B
STORM DRAIN B LATERAL PROFILES

DATE: FEBRUARY 2022
DESIGN: WCS/KAF
DRAWN: MDM
CHECKED: WCS
KHA NO.: 064465316

SHEET
43

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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 the **Illinois Ave Utility Bond 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, abandonment, replacement, relocation, and installation of existing and proposed water and storm drain infrastructure and appurtenances including all necessary mobilization, saw-cutting, pavement removal, excavation, embedment, 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.

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, for all Proposal Bid Items except those specifically listed below, which will be the only Proposal Bid Items to be paid upon material delivery for this project:

Miscellaneous Bid Items: 2

Water Bid Items: 1 – 9 & 11 – 14

Storm Drain Bid Items: 1 – 8

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.

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 property stored or protected and becomes weathered or damaged before installation must be replaced with new material meeting the standards and requirements of the construction drawings and specifications before it can be installed, and this will be done at no additional cost to the City of Midland.

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 area around Midland High School is a very active area for pedestrian traffic, including children, and especially when school is in session. The Contractor is directed to take every precaution to protect the public and secure the project site when working in or near the portion of the project work area adjacent to Midland High School. 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.

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:

Traffic control for this project will be the City of Midland's responsibility. The Contractor is to coordinate construction activities with the Barricade Company operating at the City of Midland's direction for this project. If at any time or for any reason there should be traffic control handled by the Contractor rather than the City of Midland or the Barricade Company operating at the City of Midland's direction, then that traffic control is to adhere to the rest of the requirements outlined in 'Special Provisions, 7. Traffic Control' that follow after this paragraph.

All proposed traffic control shall be approved by the City where applicable. All traffic control plans must be submitted to and 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.

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 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 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.

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 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.

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.

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. INTENT OF THE PROPOSAL:

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.

21. CONTRACT START DATE AND DEADLINES:

The start date for this project is June 4, 2022. This will also serve as the Notice to Proceed date for this project.

The deadline for substantial completion of the portion of the project from 'A' Street to the intersection at 'D' Street is August 1, 2022. All work for this project in this area must be completed along Illinois Avenue, the side streets, and through the 'D' Street intersection by this deadline.

The deadline for substantial completion of this entire project is _300_ 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.

Illinois Ave Utility Bond Project
Non-Mandatory Pre-Bid Meeting Agenda
Project No. BPU20-02
February 23, 2022

Discussion Items

1. Sign-In Sheet

2. Personnel Overview
   - Jose Ortiz – Engineering Services Director
   - Gabe McClelland – Senior Engineering Manager
   - Bobby Wojciechowski – Capital Improvement Project Manager
   - Josh Ferguson – Engineering Manager – CIP, project engineer
   - Jesse Trejo – Construction Manager, construction management & inspections
   - Andy Navarro – Franchise Utility Coordinator
   - Jesus Perez – Project Manager
   - Carl Craigo – Utilities Director
   - Cory Moose – Assistant Utilities Director
   - Rex Swearinger – Water & Wastewater Operations Superintendent, utility coordination
   - Taha Sakrani – Associate Traffic Engineer
   - Troy Clabaugh – Traffic Operations Superintendent
   - Michael Williams – Stormwater Manager
   - Natalie Burgard – Administrative Assistant, document processing
   - Erika Martinez – Purchasing Manager, conduct bid process & bid opening

3. Project Overview and Scope
   - This project will include the removal, abandonment, relocation, replacement, and installation of existing and proposed water and storm drain infrastructure and appurtenances as well as all equipment, labor, materials, etc. necessary to complete the work outlined in the Construction Drawings and Specifications, and to satisfactorily complete the work.
   - In general, this project involves replacing and extending the existing water and storm drain infrastructure along Illinois Avenue from ‘A’ Street to ‘N’ Street.

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:

     jferguson@midlandtexas.gov.

   - Addendum distributed by email the Friday afternoon following the Non-Mandatory Pre-Bid Meeting.
     - The deadline to ask or send questions for the addendum is this Friday, February 25, 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.
   - 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, March 2, 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 is June 4, 2022.
    - Pre-Construction Meeting date is May 4, 2022.

6. Payment
    - Invoices should be submitted on or before the 1st day of each month and cover work completed up to the 25th day of the preceding month.
    - Invoices submittals need to be itemized and match the bid items listed in the bid packet Proposal.
    - Payment will be made for material installed, not for material delivery, for all Proposal Bid Items except those specifically listed in the Bid Packet's Special Provision section, sub-section 4. Payment.
        - The Bid Packet's Special Provision section, sub-section 4. Payment will be revised with Addendum 01 to include the missing list of Proposal Bid Items that this applies to. These Proposal Bid Items include:
            - Miscellaneous Bid Items: 2
            - Water Bid Items: 1 – 9, 11 – 14
            - Storm Drain Bid Items: 1 – 8
    - 5% retainage until project completion, acceptance, and final payment.
    - 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. Project Schedule
    - Construction start date is June 4, 2022.
    - All work between 'A' Street and 'D' Street along Illinois Avenue must be substantially completed by August 1, 2022, including all work on the side streets and through the 'D' Street intersection.
    - Work cannot proceed west of the 'D' Street intersection until all work east of this intersection on Illinois Avenue has been substantially completed.
    - 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 will not 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.

8. Project Specifics
   - 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.
   - Comply with all OSHA and other applicable safety requirements and regulations at all times.
   - Construction on this project is to proceed from east to west.
   - Contractor is responsible for maintaining service to adjacent lots during this project.
     - Contractor must notify affected properties at least two (2) business days prior to any planned service interruption.
   - Construction staking and survey is solely the responsibility of the Contractor.
   - Construction testing is solely the responsibility of the Contractor.
   - City of Midland is responsible for Traffic Control for this project.
     - Contractor is responsible for coordinating with the City and their barricade company during this project, as well as TxDOT if needed.
     - Contractor is responsible for maintaining access to adjacent properties during this project.
     - Contractor must notify affected properties at least two (2) business days prior to any planned access interruption.
     - Full closure of Illinois Avenue between ‘A’ Street and ‘D’ Street will be allowed so long as all work within this area is complete and Illinois Avenue is opened back up to through traffic by the previously described deadline.
     - Work west of ‘D’ Street must maintain at least one (1) through travel lane for traffic at all times in section of Illinois Avenue that are one-way, and at least one (1) through travel lane in each direction in sections of Illinois Avenue that are two-way.
   - Contractor is responsible for coordinating with City Transportation to have any traffic control signs removed or relocated as needed by the City.
   - Material stored on the project site must be properly stored and protected from damage and weathering.
   - 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 of spoils, backfill material, etc. are to include sand bag BMPs or similar temporary erosion protection emplacements at all times.
   - There is a one (1) calendar year warranty period on this project. This includes all infrastructure installed.

9. Additional Information, Clarifications, and Corrections
   - As previously stated in 6. Payment of this Agenda, the Special Provisions section of the Bid Packet will be revised to address the missing bid item information.
   - Bidders are directed to bid the item quantities in the Bid Packet’s Proposal, not the quantities listed in the design drawings.
   - Contractor is reminded that Illinois Avenue transitions from a one-way street to a two-way street between the intersections of ‘K’ Street and ‘L’ Street.
   - Contractor is reminded that Illinois Avenue has raised concrete medians from ‘M’ Street to Andrews Highway. These raised medians are <u>not</u> to be damaged or removed, and will need to be accounted for when coordinating traffic control for this project.
   - Contractor is to take particular care when working in the vicinity of Midland High School and First Presbyterian Church. This area sees a considerable amount of pedestrian traffic, especially at ‘A’ Street and ‘C’ Street, with a substantial amount of student pedestrians as well as student drop-off and pick-up vehicle activity.
   - Contractor is to take particular care when working in the vicinity of Holy Trinity Episcopal Church. This area could potentially have a lot of pedestrian activity, especially during services.
   - Contractor is to take particular care when working in the vicinity of St. Ann’s Catholic Church. This area sees a considerable amount of pedestrian traffic, with a substantial amount of

student pedestrians, as well as student drop-off and pick-up vehicle activity and occasional special events held on campus.

- Contractor is to take particular care when working in the vicinity of Cottage of Mama Bears, a daycare facility. There are likely a number of young children in this facility, and every precaution should be exercised to keep the work area as secure and safe as possible when the construction activity reaches this area.
- Contractor is to take particular care when working in the vicinity of Midland Memorial Hospital. This areas see considerable pedestrian traffic, including pedestrians who may not always be physically able to respond or move quickly in certain situations.
- 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.

10. Any Additional Questions

Please direct all questions or comments following the Non-Mandatory Pre-Bid Meeting to Josh Ferguson with the City of Midland.

Engineering Services

Josh Ferguson
Phone: (432) 685-7290
Email: jferguson@midlandtexas.gov

Jesus Perez
Phone: (432) 685-7471
Email: jperez@midlandtexas.gov

Non-Mandatory Pre-Bid Meeting Attendance

BPU20-02

Illinois Ave Utility Bond Project

Date: 02-23-2022 - 3:00 PM

PACKET

☑	Name (Please Print)	Company Name (Please Print)	Phone Number	Fax Number	Email
✓	Josh Ferguson	City of Midland	(432) 685-7290		jferguson@midlandtexas.gov
	Tyler Clatty	TEC	432-967-0082		tylerclatty@tecexcavation.com
	Emily Williams	Boler	432.694.0660		emily@boler.net
	EDGARDO MADRID	EDGARDO MADRID & ASSOC.	432.940.9683		edgardo@edgardomadrid.com
	Jesus Perez	COM	432-685-7471		jperez@midlandtexas.gov
	JESSE TREJO	COM			JTREJO@MIDLANDTEXAS.GOV
	Bobby Bustaccadus	COM	6857985		Bustaccadusaid@Midlandtexas.gov
	Troy Clabaugh	Com	685-7285		tclabaugh@midlandtexas.gov
	Abe Langston	COM	685-7299		alangston@midlandtexas.gov
	JOSE ORTIZ	"	685 7288		JORTIZ@MIDLANDTEXAS.GOV
	Tala Sakeni	COM	685-7511		tsakeni@midlandtexas.gov
	Cory Moose	CoM			
	Erika Munoz	CoM			

8.298

March 22, 2022

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Be it known that

CHRISTOPHER LANCE ADAMS

has fulfilled the requirements in accordance with the laws of the State of Texas for

CLASS D WATER OPERATOR

License Number: WO0046458
Issue Date: 08/24/2020
Expiration Date: 08/24/2023

Executive Director
Texas Commission on Environmental Quality

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Be it known that

CHRISTOPHER LANCE ADAMS

has fulfilled the requirements in accordance with the laws of the State of Texas for

CLASS D WASTEWATER TREATMENT OPERATOR

License Number: WW0068129
Issue Date: 08/27/2021
Expiration Date: 08/27/2024

Executive Director
Texas Commission on Environmental Quality

City Council Meeting

Item Number: 9

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: **Motion authorizing the City Manager or the City Manager's designee to advertise a request for proposals for generator contingency back-up power plan for the Utilities Department for and to negotiate a contract for said services; provided, however, that said agreement shall not become effective until approved by the City Council. (DISTRICT: NONE) (GENERAL SERVICES)**

Purpose:

Motion authorizing the City Manager or the City Manager's designee to advertise a request for proposals for generator contingency back-up power plan for the Utilities Department for and to negotiate a contract for said services; provided, however, that said agreement shall not become effective until approved by the City Council.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding not required at this time.

Discussion:

Please consider approval of a motion approving plans and specifications and authorizing advertisement for a request for proposals for generator contingency back-up power plan for the Utilities Department. Please see the attached memo from Carl Craigo, Utilities Director, for more information.

Tina Dang

City Manager's Office

INTEROFFICE MEMORANDUM

TO: Erika Martinez, Purchasing Manager

FROM: Carl Craigo, P.E., Utilities Director

SUBJECT: Consider a Resolution Approving the Request for Bid & Authorizing Advertisement for Bids for the Generator Contingency Backup Power Plan.

DATE: March 22, 2022

In response to the winter storms that occurred in February of 2021, the 87th Legislature drafted and passed SB-3. The bill has several requirements impacting public water utilities. One requirement is the formulation and submittal of an Emergency Preparedness Plan (EPP). The plan contains information about the affected Pubic Water System, how it operates under emergency conditions and proposes to TCEQ how the system will maintain a water pressure of 35 psi throughout the distribution system when the power has been off for more than 24 hours during an emergency. Submittal of the plan was due on March 1, 2022, the City of Midland met the submittal deadline.

The Emergency Preparedness Plan includes a deadline of July 1, 2022, for utilities to start implementing selected options to meet state requirements. One of the options selected by the City of Midland was a leasing agreement for emergency power equipment and fuel. Before the department can meet leasing requirements for this option, site surveys, power assessments, emergency power plans, and ancillary equipment has to be installed for the backup generation. This bid covers all necessary services required to meet the needs of this portion of the EPP. This bid does not include generation equipment as part of the proposal only the items needed to support mobile electric generation operations.

The five locations selected for backup generation include three sites at the Water Purification Plant and two distribution pump stations. The Department believes with backup generation capabilities at these sites along with additional measures outlined in the EPP we will be able to provide safe and adequate drinking water to the citizens of Midland during extended power outages.

The Utilities department requests to bid the Generator Contingency Backup Power Plan. After review of the bids/bidders, a resolution for approval for bid award will be brought to Council for approval to move forward with this work. This project will be paid for out of the Utilities operating fund.

Request for Proposals

RFP 22002452

for

Generator Contingency Backup Power Plan

Proposals for this requirement will be accepted until 2:00 P.M. on April 27, 2022

Proposals May be Mailed or Delivered to:

City Secretary
City of Midland
Suite 330
P.O. BOX 1152
Midland, Texas 79702-1153
(300 N. Loraine, Suite 330 Midland, TX 79701)

No Late Proposals Will Be Accepted

NOTICE TO PROPOSERS:

1. THE ATTACHED CONTRACT AND INSURANCE REQUIREMENTS ARE **NON-NEGOTIABLE**. MODIFICATIONS BY PROPOSER/CONTRACTOR OF ANY MATERIAL TERM(S) TO THE CONTRACT DOCUMENTS WILL BE DEEMED A NON-RESPONSIVE PROPOSAL. NON-RESPONSIVE PROPOSALS WILL BE REJECTED. PROPOSER/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.

2. IF THE SELECTED PROPOSER/CONTRACTOR CANNOT MEET THE REQUIREMENTS OF PARAGRAPH 1, THEN THE CITY RESERVES THE RIGHT TO AWARD THIS PURCHASE TO ANOTHER PROPOSER.

3. **IMPORTANT NOTICE** – IF THE CONTRACT DOCUMENTS REQUIRE WORKER'S COMPENSATION INSURANCE, PROPOSER/CONTRACTOR MUST CARRY WORKER'S COMPENSATION INSURANCE TO BE ELIGIBLE FOR THIS CONTRACT. IF YOU CANNOT PROVIDE WORKER'S COMPENSATION INSURANCE AS REQUIRED BY STATE OF TEXAS STATUTE WE RESPECTFULLY REQUEST THAT YOU "NO BID" THIS WORK

4. 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.

5. PUBLIC INFORMATION. TO THE EXTENT THAT PROPOSER IS SUBMITTING A PROPOSAL FOR A CONTRACT DESCRIBED BY SECTION 552.371 OF THE TEXAS GOVERNMENT CODE, PROPOSER AGREES AS FOLLOWS IN ACCORDANCE WITH SECTION 552.372(B) OF THE TEXAS GOVERNMENT CODE: THE REQUIREMENTS OF SUBCHAPTER J, CHAPTER 552, GOVERNMENT CODE, MAY APPLY TO THIS PROPOSAL, AND THE CONTRACTOR OR VENDOR AGREES THAT THE CONTRACT CAN BE TERMINATED IF THE CONTRACTOR OR VENDOR KNOWINGLY OR INTENTIONALLY FAILS TO COMPLY WITH A REQUIREMENT OF THAT SUBCHAPTER.

See Section 1.9 for Pre-proposal Meeting Information

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SCHEDULE OF EVENTS

RFP 220002452

For

Generator Contingency Backup Power Plan

Event	Date*
RFP Released	March 26, 2022
Pre-proposal Conference	April 13, 2022
Cutoff Date for inquiries and clarification	April 15, 2022
Proposal Due Date	April 27, 2022
Notification of Vendor Interviews / Product Demonstrations	To be determined
Intended Date for Contract Award	To be determined

*These dates are our intended schedule; however, they may be changed as necessary without further notice.

NOTE:

From the issuance date of this RFP until a Contractor(s) is selected, all verbal communication is not binding. The City will only be bound by written comments submitted by the Purchasing Office.

SPECIAL TERMS AND CONDITIONS

Proposal Requirements /Terms

1. Unless otherwise called for, the number of copies specified in the RFP, shall be submitted typewritten or printed in ink. Many Requests for Proposals are in a word format that can be completed on your computer and will be noted on the cover page if available.

2. Each proposal should be placed in a separate envelope completely and properly identified with the RFP number, due time and date. Proposal must be time stamped at the appointed receipt location before the hour and date specified for the proposal receipt. Responsibility for having the proposal properly marked and to the opening location by the specified date and time is solely the offeror's. All copies of the proposal may be delivered in the same box/package.

3. Any Proposal may be withdrawn in writing prior to the date and time set for receipt of proposals. Any proposals not so withdrawn shall constitute an irrevocable offer, for a minimum period as stated in the RFP following the final acceptance date, to provide the commodity or service set forth in the attached specifications, or until a selection has been made by the City.

4. Late proposals will not be accepted under any circumstances.

5. Proposal should give full firm name and address of Offeror. Failure to manually sign the proposal will disqualify it. The person signing the proposal should show title or authority to bind his/her firm in contract. Insert your Federal Employer's Identification Number _____ or Sole owner should enter SSN _____-____-_____.

6. Purchases made for City use are exempt from State Sales Tax and Federal Excise Tax. Do not include tax in your proposal. Tax exemption certificates will be furnished by the City upon request.

7. Telephone proposals are not acceptable when in response to an RFP.

Conditions

The City of Midland is requesting proposals with the intent of awarding a contract for the requirement contained in this RFP. However, the City is not obligated to award a contract on this solicitation and reserves the right to reject any and all proposals and award the proposal to best serve the interests of the City.

1. Offerors electing to respond to this RFP are responsible for all costs of proposal preparation. The City is not liable for any costs incurred by a offeror in response to this RFP.

2. No public disclosures or news releases pertaining to this RFP shall be made without prior written approval from purchasing.

3. In case of a tie between two or more offerors, the award will be made in accordance with preferences as outlined by statute.

4. The Offeror agrees to protect the City from claims involving infringement of patents or copyrights.

5. The Offeror hereby assigns to Purchaser, any and all claims for overcharges associated with any contract resulting from this RFP which arise under the antitrust laws of the United States 15 U.S.C.A. Section 1, et seq. 1973 and which arise under the antitrust laws of the State of Texas, Texas Business and Commercial Code Ann. Sec. 15.01, et seq. (1967).

6. No substitutions or cancellation permitted without the written approval of the City Purchasing Agent. Deliveries made pursuant to a resulting contract shall be made during normal working hours only, unless approval for late delivery has been obtained.

7. Contractor shall submit two copies of an itemized invoice to Accounts Payable, The City of Midland, Texas, P.O. Box 1152, Midland Texas 79702. Each copy of the invoice shall reference the P.O. and the RFP numbers.

8. In the event of a conflict between the standard proposal requirements and conditions and the attached detail specification, the detail specifications shall govern.

9. Governing Law & Venue: This agreement shall be governed by and construed in accordance with the laws of the State of Texas. Venue for any disputes or lawsuits arising from the performance of this contract shall be exclusively in Midland County, Texas. The parties agree that all performance under this contract shall take place in Midland, County, Texas. The Contractor and City agree that all payments made under this contract shall take place in Midland County, Texas.

10. This obligation and undertakings of each of the parties to this contract shall be deemed to have been performed in Midland County, Texas.

1. GENERAL INFORMATION

1.1. INTRODUCTION

The City of Midland (Name of Agency) (hereinafter referred to as "the City") is pleased to invite you to submit a proposal for a Generator Contingency Backup Power Plan as specified herein. Proposals submitted in response to the specifications contained herein shall comply with the following instructions and procedures.

Request for Proposal Standard Information

This Request for Proposal (RFP) is issued in accordance with City of Midland Policy, the RFP Manual and the statutes of the State of Texas. The RFP process is a procurement option allowing the award to be evaluated based on stated criteria. The RFP states the relative importance of all criteria. No other criteria, other than as outlined in the Request for Proposal, will be used.

1.2. INITIAL EVALUATION

Upon receipt, the proposal information will be disclosed only to persons participating in the evaluation or contracting process until the proposal has been reviewed and all marked trade secrets have been removed (see "Trade Secrets and Other Withheld Information" statement below). After this review, all remaining proposal materials will be available under the open records act. The proposals will be initially evaluated by the committee as being "responsive" or "non-responsive".

1.3. DISCUSSION/NEGOTIATION

Although proposals may be accepted and a contract awarded without discussion, the City may initiate discussions should clarification or negotiation be necessary. Offerors should be prepared to send qualified personnel to Midland, Texas to discuss technical and contractual aspects of the proposal.

1.4. BEST AND FINAL OFFER

The "Best and Final Offer" is an option available to the City under the RFP process allowing one or more offerors to submit a best and final offer. Offerors may be contacted, asking that they submit their best and final offer, which must include the discussed and/or negotiated changes.

1.5. AWARD

1.5.1. If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.

1.6. TRADE SECRETS

1.6.1. All information received in response to this RFP will be available to the public except for:

1.6.1.1. trade secrets meeting the requirements of Texas Government Code Title 5, Chapter 552, Subchapter C, § 552.110; and

1.6.1.2. matters involving individual safety as determined by the department.

1.6.2. In order for an offeror to claim trade secret material, the following conditions must be met. Information to be withheld must be clearly marked and separated from the rest of the proposal.

1.6.2.1. The proposal may not contain trade secret matter in the cost or price.

1.6.2.2. An affidavit from the offeror's legal counsel attesting to and explaining the validity of

the trade secret claim must be attached to each proposal containing trade secrets. In addition, offerors submitting a proposal containing trade secrets must be prepared to pay all legal costs and fees associated with defending the claim for trade secret protection in the event of an open records request from another party.

1.6.3. Documents not meeting all of the requirements of (1) and (2) will be available for public inspection, including copyrighted materials.

1.7. LATE PROPOSALS

Proposals received after the time specified for receipt of proposals will be destroyed or returned at the offeror's expense after consultation with the offeror. There are no exceptions to this deadline.

1.8. PREPARING A RESPONSE

This RFP contains the instructions governing the proposals to be submitted and a description of the mandatory requirements. To be eligible for consideration, an offeror must meet the intent of all mandatory requirements. Compliance with the intent of a mandatory requirement will be determined by the Purchasing Office. When imperative language (shall, will, must) appears in any section of the RFP, it is considered to be mandatory.

1.8.1. Offerors shall promptly notify the City of any ambiguity, inconsistency or error, which they may discover upon examination of this RFP.

1.9. PRE-PROPOSAL CONFERENCE:

A Pre-Proposal Conference will be conducted at City Hall, 300 N. Loraine in the basement conference room, on April 13, 2022 at 1:30 p.m. Offerors may use this opportunity to notify the City of any ambiguity, inconsistency, or error, which they may discover upon examination of this RFP. All responses to questions at the Pre-Proposal Conference will be oral and in no way binding on the City.

1.10. CLARIFICATION/ INTERPRETATION

Offerors requiring clarification or interpretation of any section or sections contained in this RFP shall make a written request to the City Purchasing Agent by the deadline described in the Schedule of Events. All written correspondence must be addressed to:

The City Of Midland
Office of the Purchasing Agent OR
P.O. Box 1152
Midland, TX 79702

FAX: (432) 685-0523

e-mail: purchasing@midlandtexas.gov

1.11. FORMAT FOR INQUIRIES:

Each offeror submitting written questions must clearly address each question by reference to a specific section, page and item of this RFP. An official written answer will be provided to all questions received. Verbal responses shall not be considered binding.

1.12. INTERPRETATION:

Any interpretation, correction or change of this RFP will be made by written Addendum. Interpretations, corrections or changes of this RFP made in any other manner will not be binding and offerors shall not rely upon such interpretations, corrections or changes.

The City of Midland Purchasing Office will issue any necessary Addenda.

A point-by-point response to all numbered sections, subsections, paragraphs, subparagraphs and appendices must be submitted by each offeror in order to be considered for selection.

1.13. PROPOSAL ORGANIZATION AND SUBMISSION

Offerors must organize proposals into sections following the format of this RFP, with tabs separating each section. If no exception, explanation, or clarification is required in the offeror's response to a specific subsection, the offeror shall indicate so in the point-by-point response with the following:

"(Offeror's Name)", understands and will comply.

1.14. OFFER PRICING

Offerors must respond to this RFP by utilizing the RFP Cost Summary. The cost summary will be used as the primary representation of each offeror's cost and will be used extensively during proposal evaluations. Additional information should be included as necessary to explain in detail the offeror's cost.

Proposals should be complete to the degree that all of the information sought by this RFP is supplied in the order requested.

1.15. ALTERNATE PROPOSALS

Offerors may submit, at their option, multiple proposals, in which case each proposal shall be evaluated as a separate document.

1.16. SUBMITTING A SEALED PROPOSAL

1.16.1. Number of copies and Location:

1.16.1.1. Offerors must submit one original, 2 hard copies and one (1) soft copy (PDF or Word) to the City Secretary. Sealed Proposals must be received by the date before the time stated on the face of the Request for Proposal Cover Page, local time. Sealed Proposals received after this time will not be accepted for consideration. Facsimile copies are not acceptable.

1.16.1.2. Please be sure to label the outermost package of the RFP whether it is an envelope, box or overnight package with the RFP number, RFP description and closing date so that it is visible when received by the City.

1.16.2. Each Offeror who submits a proposal represents that:

1.16.2.1. The proposal is based upon an understanding of the specifications and requirements described in this RFP.

1.16.2.2. Costs for developing and delivering responses to this RFP and any subsequent presentations of the proposal as requested by the City are entirely the responsibility of the offeror. The City is not liable for any expense incurred by the offerors in the preparation and presentation of their proposals.

1.16.2.3. All materials submitted in response to this RFP become the property of the City and are to be appended to any formal documentation, which would further define or expand any contractual relationship between the City and offeror resulting from this RFP process.

1.16.3. The proposals must be signed in ink by an individual authorized to legally bind the business submitting the proposal.

1.16.4. A proposal may not be modified, withdrawn or canceled by the offeror for a 60-day period following the deadline for proposal submission,

or receipt of best and final offer, if required, as defined in the Schedule of Events, and offeror so agrees in submitting the proposal.

1.17. RIGHTS RESERVED

While the City has every intention to award a contract as a result of this RFP, issuance of the RFP in no way constitutes a commitment by the City of Midland to award a contract. Upon a determination, such actions would be in its best interests, the City in its sole discretion reserves the right to:

A) waive any formality;

b) cancel or terminate this RFP;

c) reject any or all proposals received in response to this document;

d) waive any undesirable, inconsequential, or inconsistent provisions of this document, which would not have significant impact on any proposal; not award, or if awarded, terminate any contract if the City determines adequate City funds are not available.

1.18. BONDING REQUIREMENTS

See Exhibit C

1.19. OFFEROR INTERVIEW / PRODUCT DEMONSTRATION

After receipt of all proposals and before the determination of the award, respondents may be required to make an oral presentation and product demonstration in Midland, Texas to clarify their response or to further define their offer. Oral presentations and product demonstrations, if requested, shall be at the offeror's expense.

1.20. SUBCONTRACTING

1.20.1. The successful offeror will be the Prime Contractor and shall be responsible, in total, for all work of subcontractors. All subcontractors must be listed in the proposal. The City reserves the right to approve all subcontractors.

1.20.2. The contractor shall be responsible to the City for the acts and omissions of all subcontractors or agents and of persons directly or indirectly employed by such subcontractors, and for the acts and omissions of persons employed directly by the contractor. Further, nothing contained within this document or any contract documents created as a result of any contract awards derived from this RFP shall create any contractual relationships between any subcontractor and the City.

1.21. INSURANCE REQUIREMENTS

See Contract or Agreement

1.22. CONTRACTOR'S RESPONSIBILITIES

The successful offeror shall keep informed of, and shall comply with all applicable laws, ordinances, rules, regulations and orders of the City, County, State, Federal or public bodies having jurisdiction affecting any work to be done to provide the services required. The offeror shall provide all necessary safeguards for safety and protection, as set forth by the United States Department of Labor, Occupational Safety and Health Administration.

1.23. OFFEROR COMPETITION

The City encourages free and open competition among offerors. Whenever possible, specifications, proposal requests and conditions are designed to accomplish this objective, consistent with the necessity to satisfy the City's need to procure technically sound, cost-effective services.

The offeror's signature on a proposal in response to this RFP guarantees that the prices quoted have been established without collusion of other eligible offerors and without effort to preclude the City of Midland from obtaining the best possible price.

1.24. CONTRACT PROVISIONS AND TERMS

1.24.1. Contract Execution

1.24.1.1. The City will execute a contract with the successful offeror(s). The City requires that the RFP and the terms and conditions attached to it, the offeror's response, the best and final offer (if required), and any formal addenda to the RFP be included as part of any contract documents.

1.24.2. Terms and Conditions

Contract that will be executed by the successful offeror and the City is found in Appendix A.

1.24.3. Exceptions to Contract Terms & Conditions

Offerors should notify the City of any terms within the sample contract that either precludes them from responding to the RFP or add unnecessary cost.

1.24.4. The initial contract(s) term is for a period of _(1) one_year(s). Renewals of the contract may be made at (1) one year intervals, not to exceed a total of (7) seven years, at the City's option.

1.24.5. Contract Extension

The offeror agrees that, through the term of the initial contract and any agreed-upon extension, the City will be entitled to any price reductions at least equal to any lower prices made available to any other customer of comparable volume.

1.24.6. Escalation

Annual pricing adjustments to contract extensions following the initial contract term, if applicable, shall not exceed seventy-five percent (75%) of the rate of increase in the cost of living as reflected in the Federal Bureau of Labor Statistics, Consumer Price Index (CPI) for all Urban Consumers (1982-84=100; through November 1991 = 137.8) or any other index which may be substituted in the future. The CPI for the latest twelve (12) month period of the contract will be the CPI base on which later adjustments are computed. Each time an adjustment is made, the earlier CPI base will be replaced by the adjusted CPI base. The percentage of adjustment to contract prices shall in no event exceed the percentage change in the index.

2. PROPOSAL WAIVERS:

2.1. WAIVER OF ATTORNEY FEES: BY SUBMITTING THIS PROPOSAL, OFFEROR AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST CITY REGARDING THE AWARD OR ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THIS PROPOSAL, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THIS PROPOSAL. OFFEREOR SPECIFICALLY AGREES THAT IF OFFEROR BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS PROPOSAL, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS PROPOSAL, INCLUDING, BUT NOT LIMITED TO, ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, OFFEROR AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH OFFEROR MIGHT OTHERWISE BE ENTITLED.

2.2. OFFEROR AGREES THAT THIS IS THE VOLUNTARY AND INTENTIONAL RELINQUISHMENT AND ABANDONMENT OF A PRESENTLY-EXISTING KNOWN RIGHT. OFFEROR ACKNOWLEDGES THAT IT UNDERSTANDS ALL TERMS AND CONDITIONS OF THIS PROPOSAL. OFFEROR FURTHER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN CITY AND OFFEROR. THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OR GOVERNMENTAL IMMUNITY AND SHALL SURVIVE THE TERMINATION OF THE CONTRACT.

2.3. OFFEROR IS RELYING ON ITS OWN JUDGMENT. OFFEROR HAD THE OPPORTUNITY TO DISCUSS THESE PROPOSAL DOCUMENTS WITH COMPETENT LEGAL COUNSEL PRIOR TO SUBMISSION OF THE PROPOSAL OR EXECUTION OF THE CONTRACT.

2.4. <u>WAIVER:</u>

2.5. BY SUBMITTING A PROPOSAL, THE OFFEROR AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE OFFEROR HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

2.5.1. THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY PROPOSAL;

2.5.2. WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE PROPOSAL DOCUMENTS OR THE CONTRACT DOCUMENTS;

2.5.3. ACCEPTANCE OR REJECTION OF ANY PROPOSALS; OR

2.5.4. AWARD OF THE CONTRACT.

2.6. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES THAT THE OFFEROR UNDERSTANDS ALL OF THE TERMS OF THE PROPOSAL DOCUMENTS AND CONSENTS TO THE PROPOSAL PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A PROPOSAL, THE OFFEROR ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE OFFEROR AND THE CITY OF MIDLAND, TEXAS. THE OFFEROR AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY EXISTING KNOWN RIGHT. BY SIGNING THE PROPOSAL AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).

2.7. BY SIGNING THE EXECUTION OF OFFER, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S). IF THIS FORM IS NOT SIGNED AND INCLUDED WITH YOUR PROPOSAL DOCUMENTS YOUR PROPOSAL WILL BE CONSIDERED NON-RESPONSIVE AND WILL BE REJECTED.

3. SCOPE OF PROJECT

The City of Midland is soliciting proposals from qualified organizations for furnishing engineering, labor, materials, tools and equipment and performing all work necessary to supply backup power to five (5) locations around the City of Midland. This project will consist of the following but will not include the supply of the electric generator. Organizations should have expert knowledge and experience with emergency backup-generation sizing, construction, and installation.

Organization's proposals shall provide engineering documentation with a written emergency power plan for each location, to supply efficient power to run all pumps and ancillary loads. In general each location will be designed with external quick connections, all necessary cables with matching color-coded quick connections, "Tap Box", and permanent mounted lockable exterior cabinet for cables. The primary fuel supply will be natural gas. As an optional element, the City of Midland would like to consider the use of diesel fuel as a secondary fuel source, with auto-changeover.

4. REQUIREMENTS

NOTE: Where the term "required Field" appears in the requirements, the intent is that the user may not leave that field blank.

*Included means that if the feature or requirement is normally included and will be at No Extra Charge

**Will be at an additional cost. These added costs shall be listed on the cost summary/price sheet proposal page (whichever is attached)

	Feature	Included In Package*	Will Add or Modify**	Exception Detail
4.1.	**GENERAL**			
4.1.1.	Required Site Survey	☐	☐	
4.1.1.1.	Site-specific engineering with one-line diagrams	☐	☐	
4.1.1.2.	Power assessment	☐	☐	
4.1.1.3.	Temporary backup power plan for each location	☐	☐	
4.1.1.4.	Emergency power plan per location	☐	☐	
4.1.1.5.	Documents associated with the temporary & emergency power plan	☐	☐	
4.1.1.6.	Implementation/deployment plan for temporary & emergency power plan	☐	☐	
4.1.1.7.	A full scoping study conducted by licensed professional engineers and operational experts	☐	☐	
4.1.1.8.	Documents provided for equipment & services required for temporary & emergency power plans	☐	☐	
4.1.1.9.	Implementation/deployment plan for temporary and emergency power plan	☐	☐	
4.1.1.10.	full scoping study conducted by licensed professional engineers and operational experts	☐	☐	
4.1.1.11.	O&M for equipment & services required for temporary & emergency power plans	☐	☐	
4.1.1.12.	Install provision for backup generation and supply power to respective location	☐	☐	

4.1.1.13. Install provisions include, but is not limited to the site civil work for drainage and equipment pad, underground duct bank, wire, conduit, interconnection of this into the existing electrical distribution and controls infrastructure along with the integration of this equipment into the existing SCADA system. The known demand for each site as well as current one-line diagrams is provided in Appendix A. Site Visits to each site is mandatory for proposal submittal. Generators are not part of this proposal.	☐	☐	
4.1.5 See Appendix A	☐	☐	

5. VENDOR QUALIFICATIONS

5.1. INFORMATION VERIFICATION

The City may make such investigations as deemed necessary to determine the ability of the offeror to supply the products and perform the services specified.

5.2. RIGHT TO REJECT

The City reserves the right to reject any proposal if the evidence submitted by, or investigation of, the offeror fails to satisfy the City that offeror is properly qualified to carry out the obligations of the contract.

5.3. VENDOR CAPABILITIES

In determining the capabilities of an offeror to perform the services specified herein, the following informational requirements must be met by the offeror and will be weighed by the City. (Note: Each item must be thoroughly addressed. Taking exception to any requirements listed in this Section may disqualify the proposal):

5.3.1. References

5.3.1.1. Offeror shall provide a minimum of_5 references that are using services of the type proposed in this RFP. The references should fall within the categories identified below. At a minimum, the offeror shall provide the company name, the location where the services were provided, contact person(s), customer telephone number, a complete description of the service type, and dates the services were provided. The City reserves the right to use any information or additional references deemed necessary to establish the ability of the offerors to perform the conditions of the contract. Negative references may be grounds for proposal disqualification.

5.3.1.2. These references should include City government and universities where the offeror, preferably within the last 7 years, has successfully completed Generator Contingency Backup Power Plan.

5.3.2. Vendor Stability

5.3.2.1. Offerors shall demonstrate their financial stability to supply, install and support the services specified.

5.3.2.2. Provide financial statements, preferably audited, for the 2 consecutive years immediately preceding the issuance of this RFP.

5.3.2.3. Provide copies of any quarterly financial statements that have been prepared since the end of the period reported by your most recent annual report.

5.3.2.4. Offerors shall specify how long the company submitting the proposal has been in business installing Generator Contingency Backup Power Plan.

6. EVALUATION PROCESS

6.1. EVALUATION PROCEDURE

6.1.1. Committee Actions

6.1.1.1. The evaluation committee will separate proposals into "responsive" and "non-responsive" proposals. Non-responsive proposals will be eliminated from further consideration.

6.1.1.2. The evaluation committee will evaluate the remaining proposals and determine whether to award the contract to the best proposal or to seek a best and final offer before awarding a contract. Selection and award will be based on the offeror's proposal and other items outlined in this RFP.

6.1.1.3. Responses must be complete and address all the criteria listed. Information or materials presented by offerors outside the formal response or subsequent "best and final offer," if requested, will not be considered and will have no bearing on any award.

6.2. EVALUATION CRITERIA

The evaluation committee will review and evaluate the offers according to the following criteria:

The Proposals will be considered and evaluated for award based upon the criteria set forth in this RFP.

A Price Proposal Sheet shall be complete with pricing of all items as required by the Proposal Documents of this RFP, and meet the terms thereof. The Owner may waive any informalities or minor defects or reject any or all proposals. The Owner reserves the right to reject any and all proposals, in whole or in part; to waive any informality in any proposal, and to accept the proposal which, in its discretion, is in the best interest of the Owner. In case of ambiguity or lack of completeness in stating the prices in any proposal, the Owner reserves the right to consider the most advantageous thereof.

Criteria for award of the Project will include a weighted matrix developed by the Owner, for a maximum number of 100 points, based on the following criteria:

6.2.1. Proposal Pricing 60%

6.2.2. Proposer Qualifications 40%

7. PROPOSAL CONTENTS

The following items constitute the RFP submittal in response to the request herein:

7.1. THE RFP

7.1.1 The RFP shall be the basis for each proposal

7.1.2 Proposals shall be addressed to the owner, as indicated, in a sealed package that shall be independent of the mailing/shipping packages. The proposal package shall be clearly marked as "City of Midland, Utilities Department Contingency Back-up Power Plan" on the package label. The package label shall include the name and address of the

Respondent's company

7.1.3 Proposals shall be submitted in bound documents

7.1.4 Proposals sent by facsimile (fax) machine or by email shall be rejected as being non-responsive to the RFP

7.1.5 Proposal Pricing shall be for the entirety of the work shown or specified and shall be listed in the Cost Proposal Section

7.1.6 No Respondent may withdraw its Proposal within 60 days after the actual date of the opening thereof

7.1.7 Respondents shall satisfy themselves with the accuracy of the requirements in the RFP by examination of the sites in addition to the review of the Proposal Documents. After proposals have been submitted, the Respondent shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done. The RFP contains the provisions required for the Project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Respondent or relieve them from fulfilling any of the conditions of any Contract awarded under this RFP.

7.1.8 A certificate of insurance, naming Owner and Engineer as co-insured, shall be required for any Contract awarded under this RFP. Respondent's insurance company shall be required to give a minimum of 30 days prior notice of policy or coverage cancellation

7.1.9 PERFORMANCE and PAYMENT BOND, each in the amount of 100 percent (100%) of the Contract Price, issued by a corporate surety authorized to conduct business in the State of Texas under Article 7.19-1, Texas Insurance Code, will be required for the faithful performance of any Contract awarded under this RFP. Attorneys-in-fact who sign PAYMENT BONDS and PERFORMANCE BONDS must file with each bond a certified and effective dated copy of the power of attorney. The party to whom the contract is awarded will be required to execute the Agreement and obtain the PERFORMANCE AND PAYMENT BONDS within ten (10) calendar days from the date when the NOTICE OF AWARD is delivered to the Proposer. The NOTICE OF AWARD shall be accompanied by the necessary Agreement, Bond Forms, and insurance requirements. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period.

7.1.10 Proposals shall include, at a minimum, the following sections and documentation in response to the RFP:

7.2. THE COST SUMMARY OR PROPOSAL FORM

7.2.1 Organizations shall provide a rate schedule applicable to the RFP. Pricing shall include all proposal development costs, mobilization, labor, material, transportation, equipment, incidentals, appurtenances, demolition, removal, demobilization, overhead, and profit to cover the finished work specified in this RFP document. Pricing shall reflect the owner's tax-exempt status, all freight and handling costs, bonding and insurance costs. Include an acknowledgment of addenda, if any, as part of the Cost Proposal Section.

The pricing shall include a separate lump sum, turn-key cost for each of the five (5) sites. Failure to price all sites and listed services may be considered non-responsive to the RFP.

7.3. QUALIFICATIONS, EXPERIENCE AND REFERENCES SECTION:

7.3.1 Company Profile with a listing of principals by percent ownership and their role in the company.

7.3.2 Type of company – corporation, sole proprietorship, etc.

7.3.3 Primary field of business interest (water/wastewater, industry, oil & gas, etc.), listed by percent of revenue.

7.3.4 Date of Incorporation and/or start-up.

7.3.5 The number of years under the current ownership structure and business name.

7.3.6 Number and location of offices and technical support centers.

7.3.7 Percentage of the project, based on costs, that shall be:

- Self-Performed- completed by the company
- Sub-Contracted- completed by other companies

7.3.8 Listing of all subcontractors proposed to be used.

7.3.9 The number of employees (not subcontractor employees) dedicated to construction, integration and technical support.

7.3.10 Resume and experience of each person to be assigned to the project shall be limited to one page and include:

- The individual's technical background as it relates to this project and the related field of interest.
- The individual's duration with the Proposer's company.
- The individual's proximity to the Owner's facilities as a reasonable response expectation for technical and service support.
- The individual's company of employment if different from the Respondent.
- Detailed project-specific and Owner's references for the proposed Project Manager.
- Areas of specialization including required licenses and certifications.
- Area of geographical coverage of related project and service activities.

7.3.11 The reference section shall include a listing of precious project referenced experience and shall include:

- Name of entity
- Project Name
- Contact person
- Phone number
- City of office
- Year work was completed

7.3.12 Project Schedule Section:

Include with this proposal a detailed project schedule from the Notice to Proceed for the timetable for completing the work.

7.4. REQUESTED ATTACHMENTS

7.4.1. References

7.4.2. Resumes

7.4.3. Business Plan

7.4.4. Financial Information

7.4.5. Signed Execution of Offer

8. TEXAS PUBLIC INFORMATION ACT

Notwithstanding any other provisions, this request for proposals, along with any associated contract, is subject to the Texas Public Information Act.

EXECUTION OF OFFER

Date:

In compliance with this RFP, and subject to all the conditions herein, the undersigned offers and agrees to furnish any or all commodities or services at the prices quoted.

By executing this offer, Offeror affirms that he/she has not given, offered to give, nor intends to give at anytime hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted offer. Failure to sign the offer, or signing it with a false statement, shall void the submitted offer or any resulting contracts, and the Offeror shall be removed from all proposal lists.

By the signature hereon affixed, the Offeror hereby certifies that neither the Offeror or the firm, corporation, or institution represented by the Offeror or anyone acting for such firm, corporation, or institution has violate the antitrust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the offer being made to any competitor or any other person in such line of business. By signing this offer, Offeror certifies that if a Texas address is shown as the address of the Offeror, Offeror qualifies as a Texas Resident Offeror as defined in Rule 1 TAC 113.8.

This offer consists of pages number 1 through _____.

Offeror/ COMPANY: _____

SIGNATURE (INK): _____

NAME: (TYPED/PRINTED) _____

TITLE: _____

STREET: _____

CITY/STATE/ZIP: _____

TELEPHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

Appendix A

Location Overview

High Service Pump Station (HSPS) Pump Building
Address: 5000 N. Midland Dr., Midland, Texas 79707
Switch Gear ID: SWGR-1
Utility: Oncor
Meter Number: 158 710 333
MAX 3 Year kW: 1,162kW
ESIID: 10443720008574581
Service: 3 Phase
Voltage: 2400/4160
Service Feed: Underground Direct feed from transformer to MMC
FIVE (5) 400kW Parallel Generators

Raw Water Pump Station
Address: 5000 N. Midland Dr., Midland, Texas 79707
Switch Gear ID: MCCR1
Utility: Oncor
Meter Number: 111 722 543
MAX 3 Year kW: 198kW
ESIID: 10443720002340543
Service: 3 Phase
Voltage: 277/480
Service Feed: Underground Direct feed from transformer to MMC
ONE (1) 400kW Generator

Chemical Building
Address: 5000 N. Midland Dr., Midland, Texas 79707
Switch Gear ID: SWB-C1
Utility: Oncor
Meter Number: Unknown
ESIID: 10443720002337877
Service: 3 Phase
Voltage: 277/480
MAX 3 Year kW: 221kW
Service Feed: Underground Direct feed from transformer to MMC
MAX 3 Year kW: 221kW
ONE (1) 400kW Generator

Shell Tower
Address: 3809 SHELL AVE., Midland, Texas 79707
Switch Gear ID: MCC SPS
Utility: Oncor
Meter Number: 111 723 400
MAX 3 Year kW: 243kW
Meter Number: 111 723 400

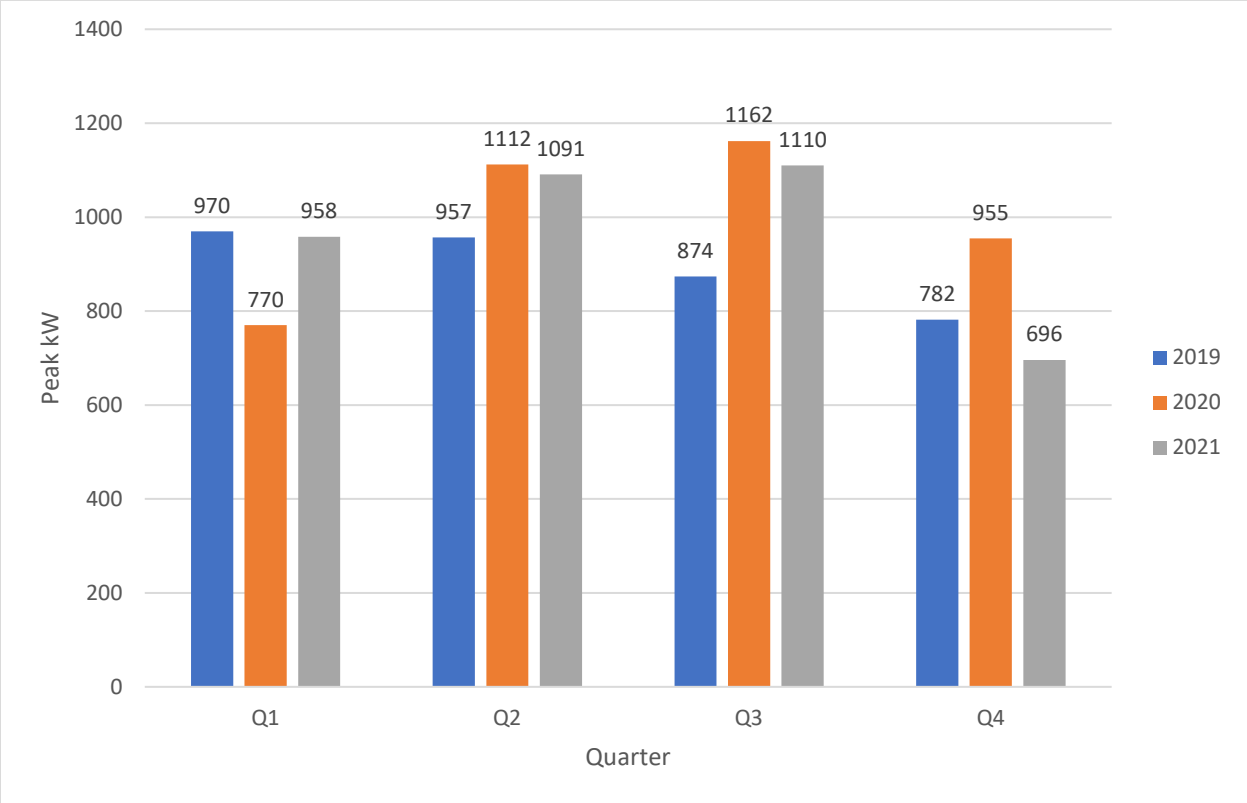
ESIID: 10443720002337567
Service: 3 Phase
Voltage: 240/480
Service Feed: Overhead
ONE (1) 400kW Generator

Edgewood Booster Pump Station
Address: 412 EDGEWOOD DR., Midland, Texas 79703
Switch Gear ID: EBPS-MCC
Utility: Oncor
Meter Number: 111 120 415
ESIID: 10443720008151741
Service: 3 Phase
Voltage: 277/480
Service Feed: Underground
MAX 3 Year kW: 440kW
TWO (2) 400kW Parallel Generators

HSPS Pump Building

Meter Historical Data | Max Demand kW

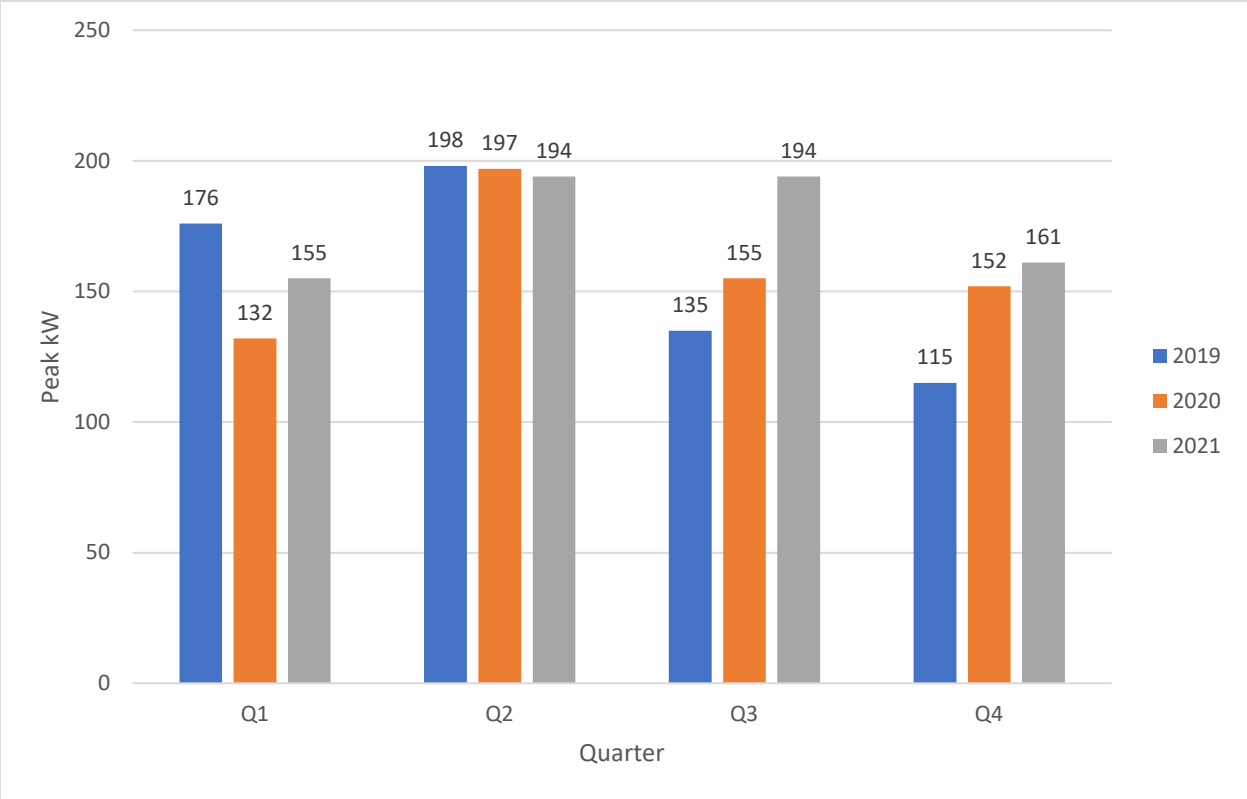
Max of Metered KW	Column Labels			
Row Labels	2019	2020	2021	Grand Total
Q1	970	770	958	970
Q2	957	1112	1091	1112
Q3	874	1162	1110	1162
Q4	782	955	696	955
Grand Total	**970**	**1162**	**1110**	**1162**



Raw Water Pump Station

Meter Historical Data | Max Demand kW

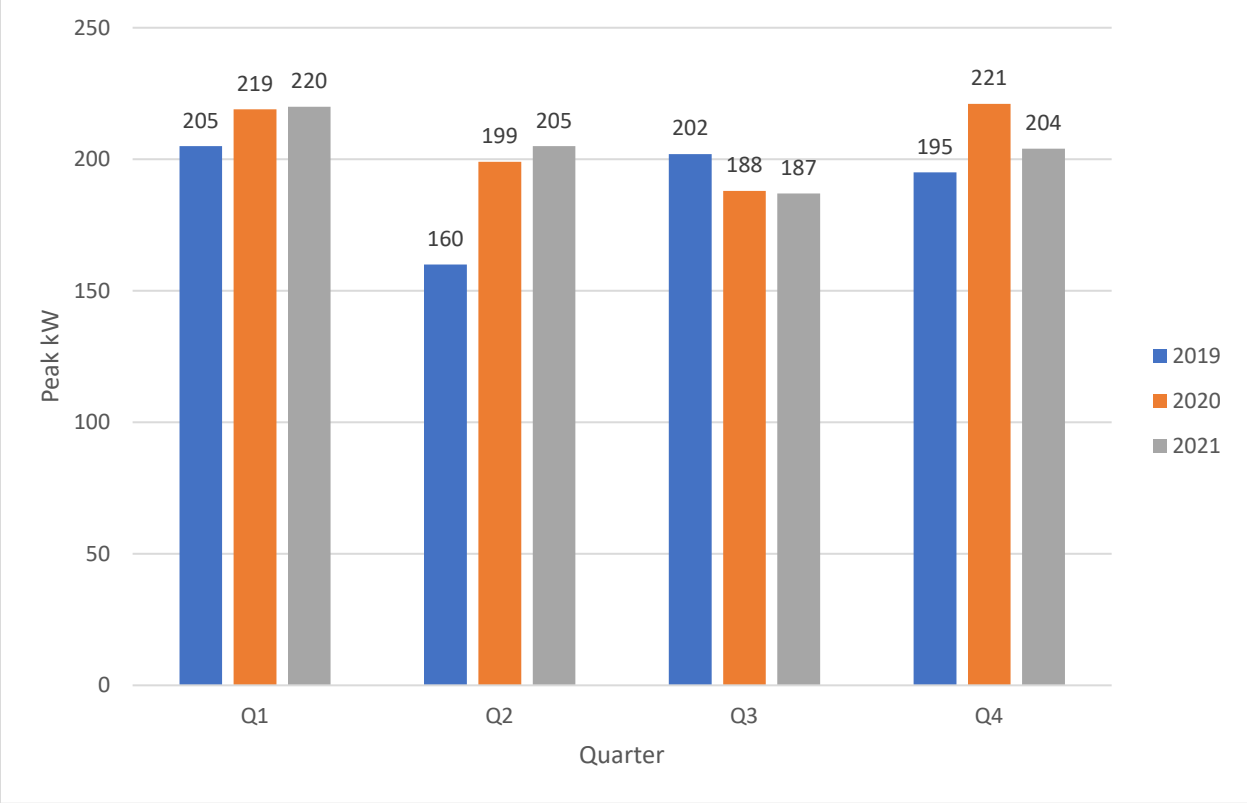
Max of Metered KW	Column Labels			
Row Labels	2019	2020	2021	Grand Total
Q1	176	132	155	176
Q2	198	197	194	198
Q3	135	155	194	194
Q4	115	152	161	161
Grand Total	**198**	**197**	**194**	**198**



Chemical Building

Meter Historical Data | Max Demand kW

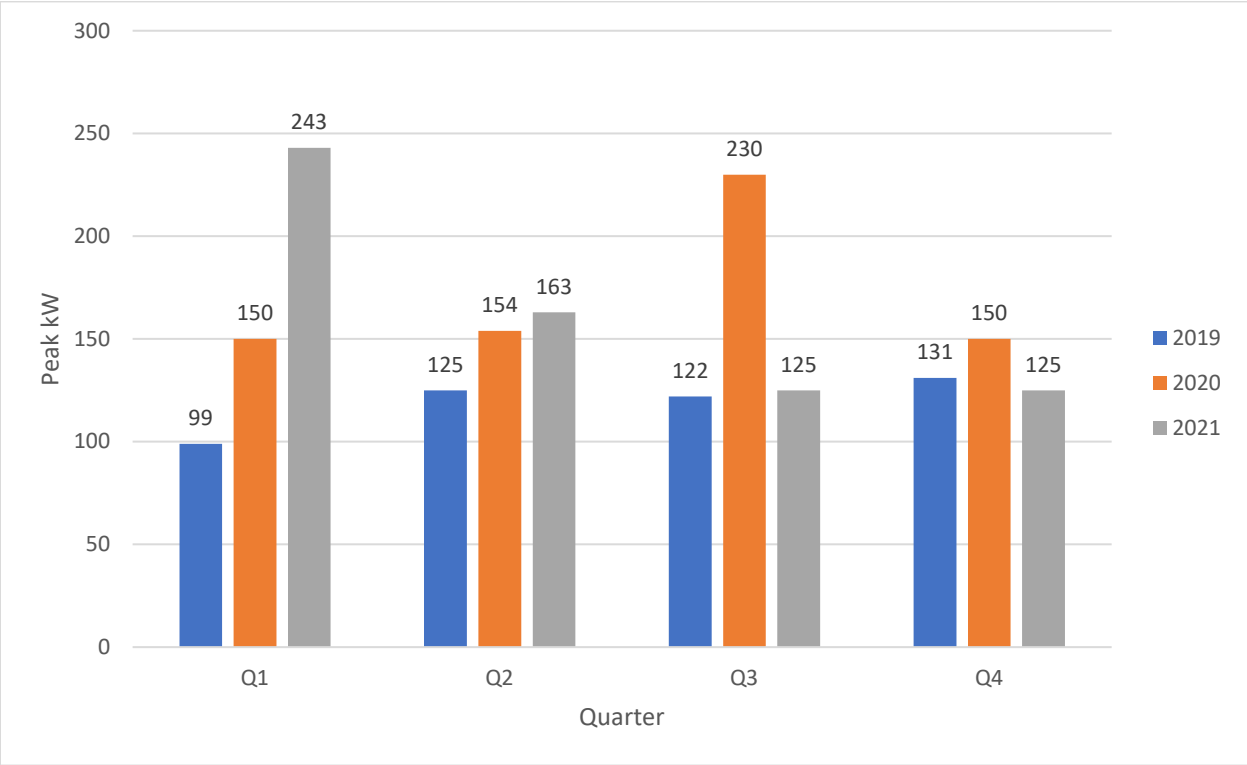
Max of Metered KW	Column Labels			
Row Labels	2019	2020	2021	Grand Total
Q1	205	219	220	220
Q2	160	199	205	205
Q3	202	188	187	202
Q4	195	221	204	221
Grand Total	**205**	**221**	**220**	**221**



Shell Tower

Meter Historical Data | Max Demand kW

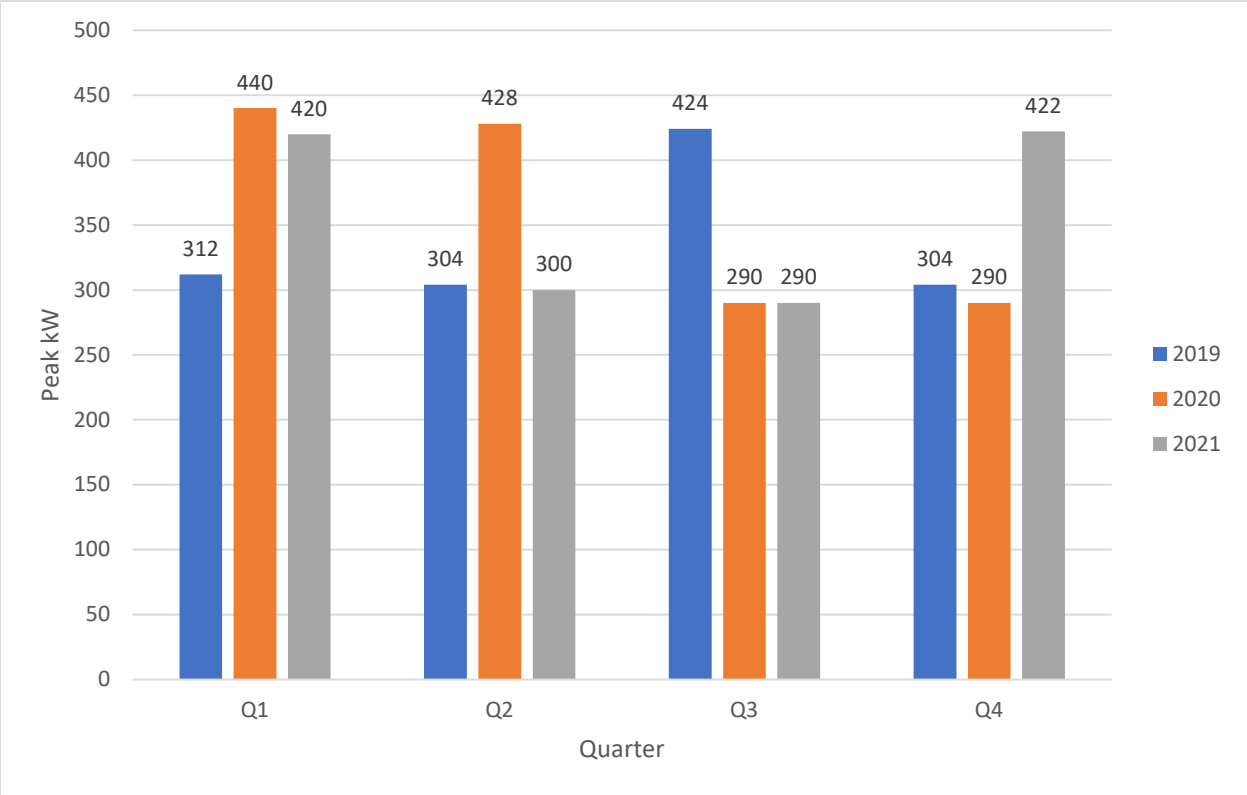
Max of Metered KW	Column Labels			
Row Labels	2019	2020	2021	Grand Total
Q1	99	150	243	243
Q2	125	154	163	163
Q3	122	230	125	230
Q4	131	150	125	150
Grand Total	**131**	**230**	**243**	**243**



Edgewood Booster Pump Station

Meter Historical Data | Max Demand kW

Max of Metered KW	Column Labels			
Row Labels	2019	2020	2021	Grand Total
Q1	312	440	420	440
Q2	304	428	300	428
Q3	424	290	290	424
Q4	304	290	422	422
Grand Total	**424**	**440**	**422**	**440**



Contractor's Name

PROPOSAL
RFP #22002452

To: Purchasing Manager
City of Midland
Midland, Texas

Gentlemen: The undersigned bidder, having examined the plans, 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 materials, equipment and to perform all labor and work necessary for the complete work described by and in accordance with the attached plans, specifications and contract for the sum of:

Materials Portion Incorporated Into Project _____DOLLARS

Labor Portion Incorporated Into Project _____DOLLARS

Other Costs Not Incorporated Into Project _____ DOLLARS

Total Proposal _____ DOLLARS

The undersigned bidder hereby declares that he has visited the site of the work and has carefully examined the Contract Documents pertaining to the work covered by the above bid and he further agrees to commence work within ten (10) days after the date of written notice to do so and to substantially complete same within _____ calendar days.

VENDOR CONTACT:
All potential vendors shall direct ALL questions, areas for bid clarification and specification verification to the Purchasing Agent IN WRITING, via mail or fax as follows:

The City Of Midland
Office of the Purchasing Manager
P.O. Box 1152
Midland, TX 79702

OR

FAX: (432) 685-0523

E-mail: purchasing@midlandtexas.gov

All vendors on the bid list will then be notified of the questions and presented an answer. Verbal responses shall not be considered binding.

NOTE: Bid and Proposal terms are interchangeable.

AWARD
If the Contract is awarded, it will be awarded to either the lowest responsible bidder, or to the bidder who provides goods or services at the best value for the City of Midland. In determining the best value for the City of Midland, the City of Midland may consider the criteria enumerated in Section 252.043 of the Texas Local Government Code.

Public Information. To the extent that Bidder is submitting a bid for a contract described by Section 552.371 of the Texas Government Code, Bidder agrees as follows in accordance with Section 552.372(b) of the Texas Government Code: The requirements of Subchapter J, Chapter 552, Government Code, may apply to this bid, and the contractor or vendor agrees that the contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

BID WAIVERS:

A. <u>WAIVER OF ATTORNEY FEES</u>: BY SIGNING THIS PROPOSAL, BIDDER AGREES TO WAIVE AND DOES HEREBY KNOWINGLY, CONCLUSIVELY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY CLAIM IT HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY, REGARDING THE AWARD OF ATTORNEY'S FEES, WHICH ARE IN ANY WAY RELATED TO THE CONTRACT, OR THE CONSTRUCTION, INTERPRETATION OR BREACH OF THE CONTRACT. THE BIDDER SPECIFICALLY AGREES THAT IF THE BIDDER BRINGS OR COMMENCES ANY LEGAL ACTION OR PROCEEDING RELATED TO THIS CONTRACT, THE CONSTRUCTION, INTERPRETATION, VALIDITY OR BREACH OF THIS CONTRACT, INCLUDING BUT NOT LIMITED TO ANY ACTION PURSUANT TO THE PROVISIONS OF THE TEXAS UNIFORM DECLARATORY JUDGMENTS ACT (TEXAS CIVIL PRACTICE AND REMEDIES CODE SECTION 37.001, ET SEQ., AS AMENDED), OR CHAPTER 271 OF THE TEXAS LOCAL GOVERNMENT CODE, THE BIDDER AGREES TO ABANDON, WAIVE AND RELINQUISH ANY AND ALL RIGHTS TO THE RECOVERY OF ATTORNEY'S FEES TO WHICH BIDDER MIGHT OTHERWISE BE ENTITLED.

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

THIS SECTION SHALL NOT BE CONSTRUED OR INTERPRETED AS A WAIVER OF SOVEREIGN IMMUNITY.

THE BIDDER AND THE CITY ARE RELYING ON THEIR OWN JUDGMENT. EACH PARTY HAD THE OPPORTUNITY TO DISCUSS THIS CONTRACT WITH COMPETENT LEGAL COUNSEL PRIOR TO ITS EXECUTION.

B. WAIVER: BY SUBMITTING A BID, THE BIDDER AGREES TO WAIVE AND DOES HEREBY VOLUNTARILY AND INTENTIONALLY WAIVE, ABANDON AND RELINQUISH ANY CLAIM THE BIDDER HAS OR MAY HAVE IN THE FUTURE AGAINST THE CITY OF MIDLAND, TEXAS, AND THE CITY'S EMPLOYEES, AGENTS AND OFFICERS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FOLLOWING:

1. **THE ADMINISTRATION, EVALUATION OR RECOMMENDATION OF ANY BID;**
2. **WAIVER OR DELETION OF ANY OF THE REQUIREMENTS UNDER THE BID DOCUMENTS OR THE CONTRACT DOCUMENTS;**
3. **ACCEPTANCE OR REJECTION OF ANY BIDS; OR**
4. **AWARD OF THE CONTRACT.**

BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES THAT THE BIDDER UNDERSTANDS ALL OF THE TERMS OF THE BIDDING DOCUMENTS AND CONSENTS TO THE BIDDING PROCESS AND THE POSSIBILITY OF A NEGATIVE ASSESSMENT. BY SUBMITTING A BID, THE BIDDER ACKNOWLEDGES AND AGREES THAT THERE WAS AND IS NO DISPARITY OF BARGAINING POWER BETWEEN THE BIDDER AND THE CITY OF MIDLAND, TEXAS. THE BIDDER AGREES THAT THIS IS THE INTENTIONAL RELINQUISHMENT OF A PRESENTLY

EXISTING KNOWN RIGHT. BY SIGNING THE REQUEST FOR BID AND/OR BELOW, YOUR COMPANY AGREES TO THE ABOVE WAIVER(S).

C. Notice of Alleged Breach; Statutory Prerequisites: As a condition precedent to filing suit for alleged damages incurred by an alleged breach of an express or implied provision of this Contract, Bidder or his legal representative, shall give the City Manager, or any other reasonable official of the City, notice in writing (consisting of one original and seven copies of notice attached to a copy of this Contract) of such damages, duly verified, within one-hundred fifty (150) days after the same has been sustained. The discovery rule does not apply to the giving of this notice. The notice shall include when, where and how the damages occurred, the apparent extent thereof, the amount of damages sustained, the amount for which the Bidder will settle, the physical and mailing addresses of Bidder at the time and date the claim was presented and the physical and mailing addresses of Bidder for the six months immediately preceding the occurrence of such damages, and the names and addresses of the witnesses upon whom the Bidder relies to establish its claim; and a failure to so notify the City Manager within the time and manner provided herein shall exonerate, excuse and except the City from any liability whatsoever. The City is under no obligation to provide notice to Bidder that Bidder's notice is insufficient. The City reserves the right to request reasonable additional information regarding the claim. Said additional information shall be supplied within thirty (30) days after receipt of notice.

The statutory prerequisites outlined herein constitute jurisdictional requirements pursuant to Section 271.154 of the Texas Local Government Code and Section 311.034 of the Texas Government Code. Notwithstanding any other provision, Bidder's failure to comply with the requirements herein shall perpetually bar Bidder's claim for damages under Chapter 271 of the Texas Local Government Code, and Section 311.034 of the Texas Government Code, regardless if the City has actual or constructive notice or knowledge of said claim or alleged damages. Bidder agrees that the requirements of this entire Contract are reasonable.

By Signing below, your company agrees to the above waiver(s). If this form is not signed and included with your bid documents your bid will be considered non-responsive and will be rejected.

GOVERNMENTAL IMMUNITY: By executing this agreement CITY is not waiving its right of governmental immunity. CITY is retaining its immunity from suit. CITY is not granting consent to be sued by legislative resolution or action. **THERE IS NO WAIVER OF GOVERNMENTAL IMMUNITY**.

Bidder	Authorized Signature	Telephone
Address, City and State	Please Print above Name	Fax

Bidder's Enclosure Check List: (Bidder - Please review the following list and check to ensure that you have included the documents with your bid.)

☐ PROOF OF AUTOMOBILE, WORKER'S COMPENSATION AND GENERAL LIABILITY INSURANCE COVERAGE AS REQUIRED BY THE TERMS OF THE CONTRACT. (**Upon award and prior to execution of the contract The City of Midland will have to be added to the policy as an additional insured and a certificate issued reflecting that provision) including a waiver of subrogation as stated in the contract)**

PLEASE NOTE:

FAILURE TO INCLUDE ANY OF THE REQUIRED DOCUMENTS ON THE CHECK LIST, MAY CAUSE REJECTION OF YOUR BID.

***FAILURE TO PROVIDE LIABILITY OR WORKER'S COMPENSATION INSURANCE AND SUBSEQUENT CERTIFICATES; OR,**

PAYMENT AND/OR PERFORMANCE BONDS AS REQUIRED BY THE CONTRACT MAY CAUSE FORFEITURE OF YOUR BID BOND OR OTHER SURETY (I.E.- CASH OR CASHIERS CHECK).

THE CITY OF MIDLAND

CONTRACT

22002452

THIS CONTRACT, effective the _day of __, 20_, by and between the City of Midland, hereinafter referred to as "CITY", and _____, hereinafter referred to as "COMPANY", is made for the following considerations:

1. **Cost:** Total Proposal: $ _____ DOLLARS

2. **Scope of Work:** COMPANY shall perform all work described for engineering, labor, materials, tools and equipment and performing all work necessary to supply backup power to five (5) locations around the City of Midland 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 ___ 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:** After all work is completed by COMPANY, including all Change Orders altering the original scope and amount of said contract are completed, and CITY has inspected and approved that the work is completed and in compliance with the contract and all subsequent Change Orders, CITY shall thereafter issue payment to COMPANY in the amount of the contract and all Change Orders. CITY shall be the final judge of when the work is completed by COMPANY. CITY, in its sole discretion, shall determine if the work under the contract and under any Change Orders has been done to CITY's requirements. CITY may make periodic payments to COMPANY, however such periodic payments may only be made pursuant to this paragraph, and only after all work and all Change Orders are completed by COMPANY and approved by CITY. For contracts exceeding $25,000 and construction time exceeds ninety days, 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 Owner'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. **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.

18. 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.

19. **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.

20. **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.

21. **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.

22. **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**.

23. **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.

24. **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.

25. **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.

26. **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.

27. **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.

28. **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.

29. 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.

30. **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.

31. **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.

32. **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.

33. 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 ONLY AS 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 _____, known to me to be the person and official whose name is subscribed to the forgoing instrument, and acknowledged to me that he executed the same as the act and deed of said corporation, for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the ____day of _____, 20____.

_____
Notary Public, State of _____

EXHIBIT C

Bonding Requirements

The successful bidder shall be required to furnish a Performance & Payment Bond* for bids in excess of $50,000.00, in an amount equal to one hundred percent (100%) of the total contract price, such bond to be executed in five (5) original counterparts by a Corporate Surety authorized to do business in the State of Texas and acceptable to the City of Midland. All bonds must be executed on forms contained in these contract documents. The form of agreement which the successful bidder, as contractor, will be required to execute is also included herewith. The form of agreement and the form of the bonds should be carefully examined by the bidder.

A certified check, cashier's check, bank money order, or irrevocable letter of credit issued by a bank satisfactory to the City, or a bidder's bond on the form provided, in the amount of five percent (5%) of the largest possible lump sum bid submitted, payable without recourse to the City, must accompany the bidder's proposal, as a guaranty that the bidder will enter a contract and execute the required payment bond and guaranty in the forms provided within fifteen (15) days after notice of award of contract to him. Bids or proposals without the required bid guaranty will not be considered. All bid sureties and payment bonds shall name the City of Midland as Obligee.

*A cash security such as a cashier's check or irrevocable letter of credit issued by a bank satisfactory to the City for 100 % of the contract amount may be supplied in lieu of the Performance and Payment Bonds. The check will be returned un-cashed upon satisfactory completion of the work and evidence of payment of all obligations due for the contract.

BID BOND

THE STATE OF TEXAS §

SURETY NO. _____

COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS, THAT _____

_____

_____

(hereinafter called the Principal), as Principal, 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 submitted a Bid or Proposal to enter into a certain written Contract with the obligee to_____

_____.

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 AGREED 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 such events, shall be entitled and is hereby given the right to collect the full amount of this Bid Bond as liquidated damages.

PROVIDED, further that if any legal action be filed upon this Bond venue shall lie in Midland County, Texas

IN WITNESS THEREOF, 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 _____, hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, the condition of the obligation is that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation shall be null and void; otherwise, it is to remain in full force and effect.

Surety, for value received, stipulates and agrees that no change, extension of time alteration or addition to the terms of the contract, or to the work performed there under, or the plans, specifications of drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of

time, alteration or addition to the terms of the contract, assignment thereof, or to the work to be performed there under.

IN WITNESS WHEREOF the said Principal and Surety have signed and sealed this instrument, this _____ day of _____ , 20__ .

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

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

Form Revised August 2012

PERFORMANCE BOND

THE STATE OF TEXAS §

COUNTY OF MIDLAND § SURETY NO _____

KNOW ALL MEN BY THESE PRESENTS, THAT _____ (Hereinafter called the Principal[s]), as Principal(s), and _____ (Hereinafter called the Surety), as Surety, are held and firmly bound unto the City of Midland, Texas a home rule municipal corporation of Midland County, Texas, (hereinafter called the Obligee), in the amount of _____ DOLLARS ($ _____) for the payment whereof the said Principal and surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated the _____day of _____ , 20___ , for the furnishing of materials and equipment to perform all labor and work necessary for the construction of _____ , specifically including in the scope of this work and bond, the additional maintenance guaranty provisions set forth in the contract conditions, which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein, as well as the Principal's primary obligation to perform according to plans and specifications.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform the work in accordance with the plans, specifications, instructions to bidder, general and special conditions and other contract documents, including any addendum thereto, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED further that if any legal action be filed upon this Bond venue shall lie in Midland County, State of Texas.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, or any assignment of the contract as may be provided for in the instructions to bidders, shall in anywise affect its obligation on this Bond, and it does waive notice of any such change, extension of time, alteration or addition to the terms of the contract, assignment thereof, or the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and surety do sign and seal this instrument, this _____ day of _____ , 20___.

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

APPROVED AS TO FORM:

_____

City Attorney

NOTE: Attach Power of Attorney

Form Revised August 2012

EXHIBIT D – BUILDING WAGE RATES rev 01-01-21

General Decision Number: TX20210261 01/01/2021

Superseded General Decision Number: TX20200261

State: Texas

Construction Type: Building

County: Midland County in Texas.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021

BOIL0074-003 01/01/2017

	Rates	Fringes
BOILERMAKER	$ 28.00	22.35

ENGI0178-005 06/01/2020

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
(1) Tower Crane	$ 32.85	13.10
(2) Cranes with Pile Driving or Caisson Attachment and Hydraulic Crane 60 tons and above	$ 28.75	10.60
(3) Hydraulic cranes 59 Tons and under	$ 32.35	13.10

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* IRON0084-011 06/01/2020

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 25.26	7.13

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* PLUM0404-001 09/01/2020

	Rates	Fringes
PLUMBER	$ 26.05	8.81

SUTX2014-037 07/21/2014

	Rates	Fringes
BRICKLAYER	$ 20.00	0.00
CARPENTER	$ 13.82	0.00
CEMENT MASON/CONCRETE FINISHER	$ 13.76	0.00
ELECTRICIAN	$ 23.18	6.31
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation)	$ 19.77	7.13
IRONWORKER, REINFORCING	$ 12.27	0.00

IRONWORKER, STRUCTURAL	$ 22.16	5.26
LABORER: Common or General	$ 11.80	0.00
LABORER: Mason Tender - Brick	$ 11.38	0.00
LABORER: Mason Tender - Cement/Concrete	$ 10.58	0.00
LABORER: Pipelayer	$ 12.49	2.13
LABORER: Roof Tearoff	$ 11.28	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 14.25	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 13.93	0.00
OPERATOR: Bulldozer	$ 18.29	1.31
OPERATOR: Drill	$ 16.22	0.34
OPERATOR: Forklift	$ 14.83	0.00
OPERATOR: Grader/Blade	$ 13.37	0.00
OPERATOR: Loader	$ 13.55	0.94
OPERATOR: Mechanic	$ 17.52	3.33
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 16.03	0.00
OPERATOR: Roller	$ 12.70	0.00
PAINTER (Brush, Roller, and Spray)	$ 15.00	0.73
PIPEFITTER	$ 25.80	8.55
ROOFER	$ 14.75	0.00
SHEET METAL WORKER (HVAC Duct Installation Only)	$ 22.73	7.52
SHEET METAL WORKER, Excludes HVAC Duct Installation	$ 19.50	0.00

TILE FINISHER.....$ 11.22 0.00

TILE SETTER.....$ 14.74 0.00

TRUCK DRIVER: Dump Truck.....$ 12.39 1.18

TRUCK DRIVER: Flatbed Truck.....$ 19.65 8.57

TRUCK DRIVER: Semi-Trailer Truck.....$ 12.50 0.00

TRUCK DRIVER: Water Truck.....$ 12.00 4.11

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts. Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses

(29CFR 5.5 (a) (1) (ii)).

IMPORTANT NOTICE

Conflict Of Interest Reporting Requirements

Compliance with LOCAL GOVERNMENT CODE TITLE 5. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES SUBTITLE C. MATTERS AFFECTING PUBLIC OFFICERS AND EMPLOYEES OF MORE THAN ONE TYPE OF LOCAL GOVERNMENT CHAPTER 176. DISCLOSURE OF CERTAIN RELATIONSHIPS WITH LOCAL GOVERNMENT OFFICERS; PROVIDING PUBLIC ACCESS TO CERTAIN INFORMATION.

Form CIQ: This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire shall be filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

Bidders are responsible for filing Conflict of Interest form "CIQ" in accordance with the above referenced statute. Failure to do so is a class C Misdemeanor. Contracts or Purchase Orders awarded to a vendor that has violated this law is subject to termination at such time that the violation is discovered with no recourse to the City of Midland. The bidder will be subsequently removed from the bidders list for a minimum of one year.

When there is no known conflict of interest as defined by the statute, it is not necessary to file/submit the Form CIQ. The form must be submitted if a conflict is subsequently discovered.

By submitting a response to this request, vendor represents that it complies with the requirements of Chapter 176 of the Texas Local Government Code.

For a current list of the local government officers go to: http://www.midlandtexas.gov/

Upon completion of the form, sign and submit with bid or mail to:

City of Midland
Attn: City Secretary
PO Box 1152
Midland, Texas 79702

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 _____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

Consideration of Location of Bidder's Principal Place of Business
For Bids of $50,000 up to $100,000 for Services and $500,000 for Commodities
Affidavit of Eligibility

Pursuant to Texas Local Government Code 271.9051, in purchasing real property, personal property that is not affixed to real property, or services, if the City receives one or more bids from a bidder whose principal place of business is in the City of Midland and whose bid is within five percent (5%) of the lowest bid price received by the City from a bidder who is not a resident of the City of Midland, the City may enter into a contract with:

(1) the lowest bidder; or

(2) the bidder whose principal place of business is in the City of Midland if the City Council determines, in writing, that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City of Midland created by the contract award, including the employment of residents of the City of Midland and increased tax revenues to the City of Midland.

In order to receive consideration, bidders must submit this affidavit to:

Erika Martinez
Purchasing Manager
City of Midland
300 N. Loraine St.,
PO BOX 1152
Midland, TX 79702-1152

Complete all areas below. Incomplete affidavits may be rejected.

Local Business Name: _____

Local Address (must be within the City limits): _____

1. Is the above address the principal place of business for the business named above? ☐ Yes ☐ No
2. How many residents of the City of Midland are employed at the above business location? _____
3. Year your business was established in the City of Midland: _____
4. If you collect sales tax for ANY class of customer, provide the following Reseller information:

   Reseller Permit Number: _____

   Company Name and Address (as it appears on permit):

   _____

   _____

   _____

5. Does your business have more than one office in the State of Texas? ☐ Yes ☐ No
   If Yes, identify the office location considered as the point-of sale for the purpose of sales tax calculation:

   _____

   _____

6. Was the local business required to pay business and/or real property tax for the most recent tax year?

   ☐ Yes ☐ No

   If Yes, did the local business pay any of this tax to the City of Midland? ☐ Yes ☐ No

Under penalty of perjury, the undersigned states that the foregoing statements are true and correct. It is further acknowledged that any person, firm, corporation or entity intentionally submitting false information to the City in an attempt to qualify for eligibility shall be prohibited from bidding on City of Midland products and services for a period of one (1) year.

Authorized Signature: _____ Date: _____

Printed Name and Title: _____

City Council Meeting

Item Number: 10

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION APPROVING A CONTRACT WITH GAME COURT SERVICES THROUGH BUYBOARD, FOR THE PURCHASE AND INSTALLATION OF BASEBALL SYSTEM PADDING AT MOMENTUM BANK BALLPARK FOR A TOTAL COST OF $123,380.00; APPROVING $6,620.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS FOR SAID CONTRACT (DISTRICT 4) (GENERAL SERVICES)

Purpose:

Resolution authorizing the execution of a contract with Game Court Services through Buyboard contract 583-19 for supply & install for outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the FY22 Scharbauer Sports Complex operating budget and will be transferred and appropriated to a project for said purpose in the Special Revenue Capital Projects Fund (080).

Discussion:

Staff recommends the supply & install for outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark through Buyboard contract 583-19. We are members of the Buyboard 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 memos from Cristina Burns, Community Services Director, for more information.

Therefore, please consider a resolution authorizing the execution of a contract for the supply & install for outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark with Game Court Services of Austin, Texas through Buyboard contract 583-19 for a cost of $123,380.00 plus $6,620.00 of contingencies for a total cost of $130,000.00.

Tina Jaug

City Manager's Office

CITY OF MIDLAND

Community Services Department
Scharbauer Sports Complex Division
Interoffice Memorandum

Date: March 10, 2022
To: Morris Williams, Deputy City Manager
From: Cristina Burns, Community Services Director
Subject: Purchase and Installation of Pads at Scharbauer Sports Complex Momentum Bank Ballpark Field

The Community Services Department recommends the Buy Board purchase of field pads to be installed at the Scharbauer Sports Complex Momentum Bank Ballpark field. Major League Baseball has requested the upgrade of safety padding in the park. The walls along the first and third baselines need the new safety padding, as well as the area behind home plate. In order to save installation costs, additional replacement pads for worn pads in the outfield will be included in this purchase.

The Midland RockHounds have made the City of Midland aware of multiple requests by MLB, and this improvement can be completed before the 2023 season if the purchase is made at this time. Some of the pads must be custom made, and that adds significant time to the manufacturing process. City staff has worked in conjunction with Game Court Services and the contracted architect at Parkhill to plan for this anticipated improvement to the field.

The Buy Board price is $123,380 and includes removal of any existing pads, manufacture and delivery of new pads, and installation. 5% contingency is requested to cover any unforeseen costs, making the total requested funding $130,000.00.

$130,000.00 is available in the Scharbauer Sports Complex FY 2022 Operating Budget 079620 in line item 54010, buildings and grounds.

RESOLUTION NO. _____

RESOLUTION APPROVING A CONTRACT WITH GAME COURT SERVICES THROUGH BUYBOARD, FOR THE PURCHASE AND INSTALLATION OF BASEBALL SYSTEM PADDING AT MOMENTUM BANK BALLPARK FOR A TOTAL COST OF $123,380.00; APPROVING $6,620.00 FOR CONTINGENCIES; AND APPROPRIATING FUNDS FOR SAID CONTRACT

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, Game Court Services has submitted a total proposed cost to the City of $123,380.00 for the purchase and installation of baseball system padding comprised of outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark through Buyboard; and

WHEREAS, the Council finds the price proposed by Game Court Services through Buyboard for said baseball system padding to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to approve a contract with Game Court Services for the purchase and installation of baseball system padding at Momentum Bank Ballpark through Buyboard; and

WHEREAS, the City Council finds it to be in the public interest to approve $6,620.00 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 contract for the purchase and installation of baseball system padding at Momentum Bank Ballpark through Buyboard, for a total cost of $123,380.00. Said contract being attached hereto as Exhibit A and incorporated herein for all purposes.

SECTION TWO. That the sum of $6,620.00 for contingencies is hereby approved.

SECTION THREE. That the sum of $130,000.00 is hereby appropriated from the FY22 Scharbauer Sports Complex Operating Budget to a project established by the City of Midland Finance Department in the Special Revenue Capital Projects Fund (080).

SECTION FOUR. That the City Comptroller is hereby authorized and directed to pay Game Court Services in accordance with the provisions of the above-referenced contract from funds available in project established by the City of Midland Finance Department 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

THE CITY OF MIDLAND

CONTRACT

Contract No. 22002468

THIS CONTRACT, effective the 23 day of March, 2022, by and between the City of Midland, hereinafter referred to as "CITY", and Game Court Services, hereinafter referred to as "COMPANY", is made for the following considerations:

1. **Cost:** Total Proposal: $ 123,380.00 DOLLARS

2. **Scope of Work:** COMPANY shall perform all work described for supply & install for outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark 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 Cristina Burns 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 120 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:** After all work is completed by COMPANY, including all Change Orders altering the original scope and amount of said contract are completed, and CITY has inspected and approved that the work is completed and in compliance with the contract and all subsequent Change Orders, CITY shall thereafter issue payment to COMPANY in the amount of the contract and all Change Orders. CITY shall be the final judge of when the work is completed by COMPANY. CITY, in its sole discretion, shall determine if the work under the contract and under any Change Orders has been done to CITY's requirements. CITY may make periodic payments to COMPANY, however such periodic payments may only be made pursuant to this paragraph, and only after all work and all Change Orders are completed by COMPANY and approved by CITY. For contracts exceeding $25,000 and construction time exceeds ninety days, 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 Owner'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. **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.

18. 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.

19. **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.

20. **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.

21. **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.

22. **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**.

23. **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.

24. **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.

25. **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.

26. **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.

27. **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.

28. **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.

29. 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.

30. **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.

31. **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.

32. **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.

33. 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 ONLY AS 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 Game Court Services, 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 _____

Game Court Services

10901 Circle Dr.
Austin, TX 78736

Phone: (512) 394-0461 Fax: (512) 394-0480

Exhibit A

Bid Info: Field Wall Pads,
Bid Section:
Bid Addn: n/a

We are pleased to submit the following bid:

Bid Number: GCS20202069 **Terms:** **Bid Date:** 1/10/2022 **Revised Date:**

CUSTOMER	JOB ADDRESS
Midland Parks & Recreation **CONTACT: ANDY DECKER 432.250.4398**	**Momentum Bank Ballpark** **5514 Champions Dr, Midland, TX 79706**

Job Description: ***Supply & Install Outfield Wall Pads, Foul Line Wall Pads, Backstop Pads, and Custom Lip Return Baseline Pads.***

COMBO BID

Vendor Part Number	Description *Materials*	Qty	Supply & Install
OUTFIELD WALL PADS FP - 4X10	**Outfield Wall Pads: 4' W x 9'6'' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**5**	
OUTFIELD WALL PADS FP- 4X8	**Outfield Wall Pads: 4' W x 8' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**5**	
OUTFIELD WALL PADS FP- 4X4	**Outfield Wall Pads: 4' W x 41'' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**3**	
FOUL LINE WALL PADS (SLOPE CUT) FP-4X8 / 4X4	**Left Field Foul Line Wall Pads**: **Sizes Range from 4' W x 8' H to 4' W x 12''H** - Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, **CUT TO FIT SLOPE** Color - Forrest Green.	**28**	
FOUL LINE WALL PADS (SLOPE CUT) FP-4X8 / 4X4	**Right Field Foul Line Wall Pads**: Sizes Range from 4' W x 8' H to 4' W x 12"H - Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, **CUT TO FIT SLOP**E Color - Forrest Green.	**28**	
***3rd Baseline Custom Pad FP 4X4**	****3rd Baseline Custom Lip Return Baseline Pads:** 3' 2" H x 4' W, Lag Bolt / Washer Attached to chain link fence & Z Clip concrete attached, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, Color - Standard Selection. Custom Lip return pad provides Full pad coverage over top rail down to concrete wall. Includes gate pads and hinge pads at baseline.	**35**	
***1st Baseline Custom Pad FP 4X4**	****1st Baseline Custom Lip Return Baseline Pads:** 3' 2" H x 4' W, Lag Bolt / Washer Attached to chain link fence & Z Clip concrete attached, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, Color - Standard Selection. Custom Lip return pad provides Full pad coverage over top rail down to concrete wall. Includes gate pads and hinge pads at baseline.	**28**	
BACKSTOP WALL PADS FP-5X1	**Backstop Pads**: **5' W x 12' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**25**	
Demo	Demo Existing Pads at all areas proposed above.		
	Price to Supply and Install Padding Pkg Above:		**$118,900.00**

Game Court Services

10901 Circle Dr.
Austin, TX 78736

Phone: (512) 394-0461 Fax: (512) 394-0480

Bid Info: Field Wall Pads,
Bid Section:
Bid Addn: n/a

We are pleased to submit the following bid:

Bid Number: GCS20202069 **Terms:** **Bid Date:** 1/10/2022 **Revised Date:**

CUSTOMER	JOB ADDRESS
Midland Parks & Recreation **CONTACT: ANDY DECKER 432.250.4398**	**Momentum Bank Ballpark** **5514 Champions Dr, Midland, TX 79706**

Vendor	Part Number	Description	*Materials*	Qty	Supply & Install

TOTAL:	**$118,900.00**
P&P Bonds ADD:	**$4,480.00**
GRAND TOTAL:	**$123,380.00**

Notes: Price based on standard color selections of prime vinyl
Please allow **6-8 weeks** for material delivery
(from date of approved submittals).

EXCLUSIONS:

- Permits and Associated Fees by Others.
- Price Based on Installation to Finished Field Surfaces. Price Excludes Necessary Surface Protection or Repair to Any Finished Surfaces that May be Caused by Heavy Equipment. If field protection is required, additional costs will apply.
- Damage to Any Unseen Utilities, Repair of Any Such Utilities by Others.
- Removal of Any Fence Panels, Existing Equipment or Obstructions for Necessary Access to Working Locations and Any Related Cost by Others.
- Price based on installation to sufficient attachment surfaces, additional costs will apply if attachment surfaces need repair/ replacement to install padding.
- Prices Based on Performing all Work. Price will Vary if Quantities or Scope Changes.
- Price Based on Disposing of Spoils on Site in the proximity of the work area.
- **Additional Cost if Spoils are to be Removed from Site.**
- All hole locations are by others. Game Court is not responsible for marking hole locations.
- All Equipment Must be Installed in the Same Mobilization.
- Price based on shipment within 3 months of quote date
- Quote is valid for 30 days. After 30 days a revised quote will be required
- Excludes Sales Tax, bid bonds, P&P Bonds. Add 3% if P&P bonds are applicable
- 100% due upon completion
- Add 4% to Total cost if paid by credit card
- HUB certificate #1742946185200
- BuyBoard Contract #583-19

APPROVED BY: _____

DATE: _____

Thank You,
Jon Lantrip
512.550.9215

THE CITY OF MIDLAND

CONTRACT

Contract No. 22002468

THIS CONTRACT, effective the 23 day of March, 2022, by and between the City of Midland, hereinafter referred to as "CITY", and Game Court Services, hereinafter referred to as "COMPANY", is made for the following considerations:

1. **Cost:** Total Proposal: $ 123,380.00 DOLLARS

2. **Scope of Work:** COMPANY shall perform all work described for supply & install for outfield wall pads, foul line wall pads, backstop pads, and custom lip return baseline pads at Momentum Bank Ballpark 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 Cristina Burns 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 120 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:** After all work is completed by COMPANY, including all Change Orders altering the original scope and amount of said contract are completed, and CITY has inspected and approved that the work is completed and in compliance with the contract and all subsequent Change Orders, CITY shall thereafter issue payment to COMPANY in the amount of the contract and all Change Orders. CITY shall be the final judge of when the work is completed by COMPANY. CITY, in its sole discretion, shall determine if the work under the contract and under any Change Orders has been done to CITY's requirements. CITY may make periodic payments to COMPANY, however such periodic payments may only be made pursuant to this paragraph, and only after all work and all Change Orders are completed by COMPANY and approved by CITY. For contracts exceeding $25,000 and construction time exceeds ninety days, 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 Owner'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. **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.

18. 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.

19. **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.

20. **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.

21. **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.

22. **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**.

23. **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.

24. **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.

25. **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.

26. **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.

27. **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.

28. **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.

29. 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.

30. **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.

31. **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.

32. **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.

33. 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 ONLY AS 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 Game Court Services, 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 _____

Game Court Services

10901 Circle Dr.
Austin, TX 78736

Phone: (512) 394-0461 Fax: (512) 394-0480

Exhibit A

Bid Info: Field Wall Pads,
Bid Section:
Bid Addn: n/a

We are pleased to submit the following bid:

Bid Number: GCS20202069 **Terms:** **Bid Date:** 1/10/2022 **Revised Date:**

CUSTOMER	JOB ADDRESS
Midland Parks & Recreation **CONTACT: ANDY DECKER 432.250.4398**	**Momentum Bank Ballpark** **5514 Champions Dr, Midland, TX 79706**

Job Description: ***Supply & Install Outfield Wall Pads, Foul Line Wall Pads, Backstop Pads, and Custom Lip Return Baseline Pads.***

COMBO BID

Vendor Part Number	Description	*Materials* Qty	Supply & Install
OUTFIELD WALL PADS FP - 4X10	**Outfield Wall Pads: 4' W x 9'6'' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**5**	
OUTFIELD WALL PADS FP- 4X8	**Outfield Wall Pads: 4' W x 8' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**5**	
OUTFIELD WALL PADS FP- 4X4	**Outfield Wall Pads: 4' W x 41'' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**3**	
FOUL LINE WALL PADS (SLOPE CUT) FP-4X8 / 4X4	**Left Field Foul Line Wall Pads**: **Sizes Range from 4' W x 8' H to 4' W x 12''H** - Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, **CUT TO FIT SLOPE** Color - Forrest Green.	**28**	
FOUL LINE WALL PADS (SLOPE CUT) FP-4X8 / 4X4	**Right Field Foul Line Wall Pads**: Sizes Range from 4' W x 8' H to 4' W x 12"H - Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, **CUT TO FIT SLOP**E Color - Forrest Green.	**28**	
***3rd Baseline Custom Pad FP 4X4**	****3rd Baseline Custom Lip Return Baseline Pads:** 3' 2" H x 4' W, Lag Bolt / Washer Attached to chain link fence & Z Clip concrete attached, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, Color - Standard Selection. Custom Lip return pad provides Full pad coverage over top rail down to concrete wall. Includes gate pads and hinge pads at baseline.	**35**	
***1st Baseline Custom Pad FP 4X4**	****1st Baseline Custom Lip Return Baseline Pads:** 3' 2" H x 4' W, Lag Bolt / Washer Attached to chain link fence & Z Clip concrete attached, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, Color - Standard Selection. Custom Lip return pad provides Full pad coverage over top rail down to concrete wall. Includes gate pads and hinge pads at baseline.	**28**	
BACKSTOP WALL PADS FP-5X1	**Backstop Pads**: **5' W x 12' H** Field Wall Pad, 18oz UV Resistant PRIME Vinyl, 3" Poly Foam, 3/4" Plywood Backing, w/ Z-clip Mounting System, Color - Forrest Green.	**25**	
Demo	Demo Existing Pads at all areas proposed above.		
		Price to Supply and Install Padding Pkg Above:	**$118,900.00**

Game Court Services

10901 Circle Dr.
Austin, TX 78736

Phone: (512) 394-0461 Fax: (512) 394-0480

Bid Info: Field Wall Pads,
Bid Section:
Bid Addn: n/a

We are pleased to submit the following bid:

Bid Number: GCS20202069 **Terms:** **Bid Date:** 1/10/2022 **Revised Date:**

CUSTOMER	JOB ADDRESS
Midland Parks & Recreation **CONTACT: ANDY DECKER 432.250.4398**	**Momentum Bank Ballpark** **5514 Champions Dr, Midland, TX 79706**

Vendor	Part Number	Description	*Materials*	Qty	Supply & Install

TOTAL:	**$118,900.00**
P&P Bonds ADD:	**$4,480.00**
GRAND TOTAL:	**$123,380.00**

Notes: Price based on standard color selections of prime vinyl
Please allow **6-8 weeks** for material delivery
(from date of approved submittals).

EXCLUSIONS:

- Permits and Associated Fees by Others.
- Price Based on Installation to Finished Field Surfaces. Price Excludes Necessary Surface Protection or Repair to Any Finished Surfaces that May be Caused by Heavy Equipment. If field protection is required, additional costs will apply.
- Damage to Any Unseen Utilities, Repair of Any Such Utilities by Others.
- Removal of Any Fence Panels, Existing Equipment or Obstructions for Necessary Access to Working Locations and Any Related Cost by Others.
- Price based on installation to sufficient attachment surfaces, additional costs will apply if attachment surfaces need repair/ replacement to install padding.
- Prices Based on Performing all Work. Price will Vary if Quantities or Scope Changes.
- Price Based on Disposing of Spoils on Site in the proximity of the work area.
- **Additional Cost if Spoils are to be Removed from Site.**
- All hole locations are by others. Game Court is not responsible for marking hole locations.
- All Equipment Must be Installed in the Same Mobilization.
- Price based on shipment within 3 months of quote date
- Quote is valid for 30 days. After 30 days a revised quote will be required
- Excludes Sales Tax, bid bonds, P&P Bonds. Add 3% if P&P bonds are applicable
- 100% due upon completion
- Add 4% to Total cost if paid by credit card
- HUB certificate #1742946185200
- BuyBoard Contract #583-19

APPROVED BY: _____

DATE: _____

Thank You,
Jon Lantrip
512.550.9215

City Council Meeting

Item Number: 11

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Erika Martinez, Manager, Purchasing

Subject: RESOLUTION APPROVING THE PURCHASE OF REPLACEMENT SERVERS FOR THE MUNICIPAL COURT FROM PRESIDIO NETWORKED SOLUTIONS GROUP, LLC, THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $159,141.79 (DISTRICT: NONE) (GENERAL SERVICES)

Purpose:

Resolution approving the purchase for the replacement servers for Municipal Court.

Recommended City Council Action:

Approve

Fiscal Impact:

Funding is available in the FY22 Municipal Court Technology budget.

Discussion:

Staff recommends approving the purchase with Presidio Networked Solutions, LLC., through Department of Information Resources (DIR) contract DIR-TSO-3763 for replacement servers for Municipal Court. Please see attached memo from Jennifer Frescaz, Chief Information Officer, for additional information.

Therefore, please consider a resolution approving the purchase with Presidio Networked Solutions, LLC. of Austin, Texas, through Department of Information Resources (DIR) contract DIR-TSO-3763 for a total cost of $159,141.79.

Tina Dawg

City Manager's Office

DATE: March 6, 2022

TO: Erika Martinez, Purchasing Manager

FROM: Jennifer Frescaz, Chief Information Officer

SUBJECT: Request the approval of replacement servers for Municipal Court from Presidio Networked Solutions Group, LLC via DIR-TSO-3763

Consider a resolution approving the purchase of VXRail server infrastructure from Presidio Networked Solutions Group, LLC via DIR contract DIR-TSO-3763.

The server infrastructure for Municipal Court is due for replacement. The infrastructure purchase will provide a scalable system with robust reliability and performance and include a sandbox for application testing and patching. In addition, the solution offers high availability, data protection, and increased storage to accommodate the Court's expanding initiative to become a paperless environment.

The solution is the same type of environment CISD has at the primary datacenter and has proven to be robust with simplified deployment and management.

The total cost for both hardware, licensing and maintenance is $159,141.79 and is budgeted in the Municipal Court Technology Fund.

RESOLUTION NO. _____

RESOLUTION APPROVING THE PURCHASE OF REPLACEMENT SERVERS FOR THE MUNICIPAL COURT FROM PRESIDIO NETWORKED SOLUTIONS GROUP, LLC, THROUGH THE TEXAS DEPARTMENT OF INFORMATION RESOURCES AT A TOTAL COST OF $159,141.79

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

WHEREAS, Presidio Networked Solutions Group, LLC, has submitted a total proposed cost to the City for the purchase of replacement servers for the Municipal Court, through the DIR, as shown on the quote attached hereto as Exhibit "A" and incorporated herein for all purposes; and

WHEREAS, the City Council finds the price proposed for said replacement servers through the DIR to be fair and reasonable; and

WHEREAS, the City Council finds it to be in the public interest to purchase said replacement servers through DIR;

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 said replacement servers from Presidio Networked Solutions Group, LLC, through the DIR, at a total cost to the City of $159,141.79.

SECTION TWO. That the City Comptroller is hereby authorized and directed to pay for said replacement servers from funds available in the FY22 Municipal Court Technology 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:

_____
Jennifer Frescaz, Chief Information Officer

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

PRESIDIO™

QUOTE: 2003222200725-05
DATE: 02/28/2022
PAGE: 1 of 3

TO:
City of Midland
Hugo Rodriguez
300 N. Loraine
Midland, TX 79702

hrodriguez@midlandtexas.gov
(p) 432-685-7502

FROM:
Presidio Networked Solutions Group, LLC
Daniel Guzman
10415 Morado Circle
The Campus Building 1
Suite 320
Austin, TX 78759

dguzman@presidio.com
(p) +1.512.795.7146

Customer#: CITYO920
Account Manager: Daniel Guzman
Inside Sales Rep: Greg Hubbard
Title: VxRail Option 3 - 5yrs - Single Silver Proc
Contract Vehicle: Texas DIR-TSO-3763 Dell

#	Part #	Description	Unit Price	Qty	Ext Price
Dell					
1	210-BBGR	VxRail E660 Hybrid	$207.27	4	$829.08
2	329-BDWH	PSNT Info	$0.00	4	$0.00
3	329-BGIP	E660 Branding	$24.95	4	$99.80
4	384-BCZU	VxRail E660/F PV670F Firmware Lock	$0.00	4	$0.00
5	634-BYVQ	VxRail Software 7.0.240 Factory Install	$0.00	4	$0.00
6	379-BDYQ	No Transformational License Agreement	$0.00	4	$0.00
7	321-BGKX	2.5" Chassis with up to 10 Hard Drives (SAS/SATA) including max of 2 Universal Drives, 1 PCIe Slot, 1 CPU	$213.16	4	$852.64
8	325-BEBP	VxRail 1U Bezel V2	$67.57	4	$270.28
9	338-CBWJ	Intel Xeon Silver 4310 2.1G, 12C/24T, 10.4GT/s, 18M Cache, Turbo, HT (120W) DDR4-2666	$421.32	4	$1,685.28
10	374-BBBX	No Additional Processor	$0.00	4	$0.00
11	370-AEVR	3200MT/s RDIMMs	$0.00	4	$0.00
12	540-BCRT	Intel X710 Quad Port 10GbE SFP+, OCP NIC 3.0	$362.37	4	$1,449.48
13	461-AADZ	No Trusted Platform Module	$0.00	4	$0.00
14	770-BDMT	Cable Management Arm	$31.29	4	$125.16
15	770-BECD	ReadyRails Sliding Rails Without Cable Management Arm or Strain Relief Bar	$67.57	4	$270.28
16	450-AKLF	Dual, Hot-plug, Redundant Power Supply (1+1) 1100W, Mixed Mode Titanium	$648.09	4	$2,592.36
17	863-5521	Dell Hardware Limited Warranty	$234.13	4	$936.52
18	864-4233	ProSupport Next Business Day Onsite Service After Problem Diagnosis 4 Years Extended	$3,890.14	4	$15,560.56
19	864-4234	ProSupport Next Business Day Onsite Service After Problem Diagnosis 1 Year	$1,648.82	4	$6,595.28
20	864-4237	ProSupport 7x24 Technical Support and Assistance 5 Years	$3,536.24	4	$14,144.96
21	975-3461	Dell Limited Hardware Warranty Extended Year(s)	$0.00	4	$0.00
22	989-3439	Thank you choosing Dell ProSupport. For tech support, visit //www.dell.com/support or call 1-800- 945-3355	$0.00	4	$0.00

23	819-0580	5 Years, ProSupport With Next Business Day, Software Support	$0.00	4	$0.00
24	812-4011	ProDeploy Plus No Charge Training 200	$266.67	4	$1,066.68
25	819-2575	ProDeploy Plus Dell EMC VxRail Deployment	$4,127.97	4	$16,511.88
26	819-2576	ProDeploy Plus Dell EMC VxRail Deployment Verification	$222.96	4	$891.84
27	343-BBQY	R650 Dell/EMC label (BIS) for 2.5" Chassis	$0.00	4	$0.00
28	389-DYIB	PowerEdge R650 CE, CCC, Marking	$0.00	4	$0.00
29	379-BDSW	SAS/SATA/NVMe Capable Backplane	$0.00	4	$0.00
30	634-BWRZ	HCIA RecoverPoint for VMWare for 1 node VT	$0.00	4	$0.00
31	340-CWLR	E660/F Shipping, DAO	$0.00	4	$0.00
32	340-CUQN	R650 Ship 4x3.5, 10x2.5, 8x2.5 NVMe	$22.23	4	$88.92
33	379-BEID	10x2.5 Front Storage	$0.00	4	$0.00
34	330-BBVU	VxRail E660/F, Riser Config 0, 1CPU, 2A+3A, 1x16LP	$99.77	4	$399.08
35	329-BFGW	PowerEdge R650 Motherboard	$0.00	4	$0.00
36	412-AAVO	Heatsink for 1 CPU configuration (CPU less than or equal to 165W)	$0.00	4	$0.00
37	370-AAIP	Performance Optimized	$0.00	4	$0.00
38	780-BCQQ	C35, No RAID, VxRail E660/F	$0.00	4	$0.00
39	405-AAXY	Dell HBA355i Controller Front	$271.67	4	$1,086.68
40	750-ACFQ	Front PERC Mechanical Parts, rear load	$0.00	4	$0.00
41	403-BCMB	BOSS-S2 controller card + with 2 M.2 480GB (RAID 1)	$770.55	4	$3,082.20
42	403-BCNP	BOSS Cables and Bracket for R650	$22.68	4	$90.72
43	385-BBQV	iDRAC9, Enterprise 15G	$221.77	4	$887.08
44	379-BCQY	iDRAC Group Manager, Disabled	$0.00	4	$0.00
45	379-BCSG	iDRAC,Legacy Password	$0.00	4	$0.00
46	379-BCRB	DHCP with Zero Touch Configuration	$0.00	4	$0.00
47	750-ADIF	3 High Performance Fans for 1 CPU	$90.25	4	$361.00
48	350-BBXM	No Quick Sync	$0.00	4	$0.00
49	387-BBEY	No Energy Star	$0.00	4	$0.00
50	800-BBDM	UEFI BIOS Boot Mode with GPT Partition	$0.00	4	$0.00
51	350-BCFY	E660 Luggage Tag	$0.00	4	$0.00
52	370-AGDS	32GB RDIMM, 3200MT/s, Dual Rank 16Gb BASE x8	$752.40	16	$12,038.40
53	400-AZQO	800GB SSD SAS ISE Mix Use 12Gbps 512e 2.5in Hot-plug AG Drive, 3 DWPD,	$951.90	8	$7,615.60

54	400-AVEZ	2.4TB 10K RPM SAS ISE 12Gbps 512e 2.5in Hot-plug Hard Drive	$527.91	32	$16,893.12
55	492-BBDG	Jumper Cord - C13/C14, 4M, 250V, 12A (North America, Guam, North Marianas, Philippines, Samoa)	$13.60	8	$108.80
56	634-BSKX	VxRail VMware, vSAN Advanced, 5 Years	$0.00	4	$0.00
57	634-BYVP	VxRail HCI System Software, A	$3,775.85	4	$15,103.40
58	634-BSKO	VxRail Hyper Converged OS, Capacity Drive 2.4TB HDD	$111.09	32	$3,554.88
59	634-BYME	VxRail HCI System Software Memory, 32GB	$169.80	16	$2,716.80
60	823-4127	ProSupport Next Business Day, vSAN, Advanced, 1 Processor, 5 Years	$2,167.27	4	$8,669.08
			Total (Dell):		**$136,577.84**
VMware					
61	VMWARE LICENSE	DTA VMW VSPHERE 7 STD 1 PROC PROD SUB MNT 1YR	$295.15	20	$5,903.00
62	VMWARE LICENSE	DTA VMW CPP T1 VCENTER SVR 7 STD VSPHERE 7 P/INSANCE LIC	$5,841.51	1	$5,841.51
63	VMWARE LICENSE	DTA VMW CPP T1 VSPHERE 7 STD 1 PROC LIC	$941.26	4	$3,765.04
64	VMWARE LICENSE	DTA VMW VCENTER SVR 7 STD VSPHERE 7 P/INSTANCE PROD SUB MNT 1YR	$1,410.88	5	$7,054.40
			Total (VMware):		**$22,563.95**

Sub Total:	**$159,141.79**
Grand Total:	**$159,141.79**

This quote is governed by Terms and Conditions of Texas DIR-TSO-3763 Contract.
State of Texas Vendor ID 17605152499
Standard-Terms-for-Purchase-of-Services or Goods
Quote valid for 30 days from date shown above.
Prices may NOT include all applicable taxes and shipping charges
All prices subject to change without notice. Supply subject to availability.

Purchase Order should be issued to:
Presidio Networked Solutions Group, LLC
7701 Las Colinas Ridge #600
Irving, TX 75063

Pursuant to this contract your PO must reflect the following contract:
Texas DIR-TSO-3763
Tax ID# 76-0515249; Size Business: Large; CAGE Code: 639L4; DUNS#11-436-9671; CEC 15-506005G
Credit: Net 30 days (all credit terms subject to prior Presidio credit department approval)
Delivery: FOB Destination

Customer hereby authorizes and agrees to make timely payment for products delivered and services rendered, including payments for partial shipments

Customer Signature _____ Date _____

City Council Meeting

Item Number: 12

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Tina Jauz, Assistant City Manager

Subject: Motion authorizing the execution of a Memorandum of Understanding with the Midland Development Corporation providing for the marketing of certain City-owned real property located at the Midland International Air & Space Port (DISTRICT 4) (CITY MANAGER)

Purpose:

The Board of Directors of the Midland Development Corporation approved at a regular meeting on March 7, 2022, the execution of a memorandum of understanding between the Midland Development Corporation and the City of Midland; said memorandum of understanding to provide for the marketing of certain City-owned real property located at the Midland International Air & Space Port.

Recommended City Council Action:

Approve

Fiscal Impact:

$0.00

Discussion:

This agreement gives the MDC the ability to market the 327 acres east of MAF after it is purchased, in addition to the empty parcel south of the MAF terminal. The land will be marketed to prospective tenants including commercial business, manufacturing facilities, testing facilities, and aeronautical/aerospace businesses. Final approval of any prospective tenant is subject to the discretion of the Midland City Council. The MOU is for a term of ten years, but either party can terminate with 30 days written notice.

Morris Williams Jr.

City Manager's Office

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE CITY OF MIDLAND, TEXAS
AND
THE MIDLAND DEVELOPMENT CORPORATION

This Memorandum of Understanding ("*MOU*") is entered into on March 23, 2022, by and between the **City of Midland, Texas**, a Texas home-rule municipal corporation ("*City*"), and the **Midland Development Corporation**, a Type A corporation pursuant to Chapter 504 of the Texas Local Government Code ("*MDC*"). City and MDC are hereinafter collectively referred to as "*the Parties*."

WHEREAS, City owns certain real property located in and around Block 13, Midland International Airport Industrial Park Addition, City of Midland, Midland County, Texas, and City intends to purchase an approximate 327.67-acre tract of land located in Sections 4 and 9, Block 40, Township-2-South, T&P RR. Co. Survey, Midland County, Texas (collectively, the "*Property*"); and

WHEREAS, MDC has successfully attracted tenants to the Property for the purpose of furthering the development of the Spaceport Business Park and Midland International Air & Space Port (the "*Airport*"); and

WHEREAS, City and MDC desire to provide for a framework for the Parties' continued participation in furthering development of the Spaceport Business Park, the Airport, and the Property;

NOW, THEREFORE, City and MDC agree as follows:

A. **Purpose:** The purpose of this MOU is to provide the Parties with the necessary framework and guidance for the marketing of the Property to prospective tenants. The Property is further depicted on **Exhibit A**, which is attached hereto and incorporated herein for all purposes. The activities contemplated herein are in the best interests of the Parties, the benefit of which constitutes suitable consideration. Subject to the approval of the Federal Aviation Administration, as such may be applicable to the Property, prospective tenants shall include, but not be limited to, commercial business, general businesses, manufacturing facilities, testing facilities, and aeronautical/aerospace businesses.

B. **General Principals of Understanding:** The Parties expressly understand and agree to the following:

1. MDC Activities: MDC shall use commercially reasonable efforts to market and advertise (or provide for the marketing and advertising of) the Property for the purpose of attracting prospective tenants. The Parties acknowledge and agree that the activities contemplated herein may also be carried out by consultants employed by MDC, as may be approved by the MDC Board of Directors and the Midland

City Council. MDC's marketing and advertising activities shall consist of, but not be limited to, the following:

a. Media advertising;
b. Direct outreach;
c. Tours of the Property;
d. Trade show attendance; and
e. Any other action or activity reasonably deemed necessary and appropriate by MDC's Executive Director.

2. Property Access: In the event that MDC needs access to the Property to provide any services under this MOU, MDC shall notify City's Director of Airports and make appropriate accommodations in a reasonable and timely manner.

3. Reporting: MDC shall keep City's Director of Airports and City Manager informed of all activities regarding the Property from time to time and in a manner reasonably acceptable to MDC and City.

4. Term: This MOU shall be effective from March 23, 2022, to December 31, 2032 (the "*Initial Term*"). Following the Initial Term, this MOU shall automatically renew for consecutive one-year terms (each a "*Renewal Term*") upon the mutual-written consent of MDC's Executive Director and the City Manager. This MOU may be renewed indefinitely subject to the mutual-written consent referenced herein. The Initial Term and any Renewal Terms are collectively referred to as the "*Term*."

5. Termination: This MOU may be terminated at will upon thirty (30) days' advance-written notice by either Party.

6. Notices: All written notifications required under this MOU may be sent by U.S. mail or email, as deemed appropriate and acceptable by the Parties.

7. Funding: Funding for all MDC activities and services contemplated by this MOU shall be provided from MDC's operating budget as approved by the MDC board and City Council. Nothing in this MOU shall be construed or interpreted to obligate any City funds to support MDC's activities hereunder.

8. Final Approval: Final approval of any prospective tenant shall be subject to the discretion of the MDC Board of Directors and the Midland City Council.

C. General Terms:

1. Modification: This MOU may be modified, in whole or in part, by the mutual written agreement of the Parties at any time during the Term.

2. Public Information Coordination: Public disclosure of information related to, and activities conducted under, this MOU shall be subject to the Freedom of

Information Act (5 U.S.C. § 552) and the Texas Public Information Act (Tex. Gov't Code § 552.001 *et seq.*). Prior to disclosure of any requested information, the Parties shall consult with each other regarding any such proposed disclosure.

3. No Third-Party Beneficiary: The Parties' approval of the MOU does not create a third-party beneficiary. There is no third-party beneficiary to this MOU. No person or entity that is not a party to this MOU shall be considered a third-party beneficiary or have any rights hereunder.

4. Legal Relationship: The Parties are not, and shall not be considered as, joint venturers, partners, or agents of each other; and neither shall have the power to bind nor obligate the other, except as set forth in this MOU. The Parties agree not to represent to anyone that they are agents of one another or have any authority to act on behalf of one another. It is mutually understood and agreed that nothing in this MOU is intended or shall be construed as in any way creating or establishing any partnership, joint venture, or agency between MDC and City. Further, it is specifically understood and agreed that nothing in this MOU 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.

5. Entire Agreement: This MOU constitutes the entire agreement between the Parties and shall not be explained, modified, or contradicted by any prior or contemporaneous negotiations, representations, or agreements, either written or oral. Only a subsequent, written agreement can modify this MOU.

6. Consideration: The Parties hereby agree and acknowledge that this MOU is supported by good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties.

[Signature Page Follows]

This Memorandum of Understanding is entered into on this 23rd day of March, 2022.

CITY OF MIDLAND, TEXAS

_____
Robert Patrick, City Manager

ATTEST:

_____
Amy M. Turner, City Secretary

MIDLAND DEVELOPMENT CORPORATION

_____
Stephen Lowery, Chairman

ATTEST:

_____
Jill Pennington, Secretary

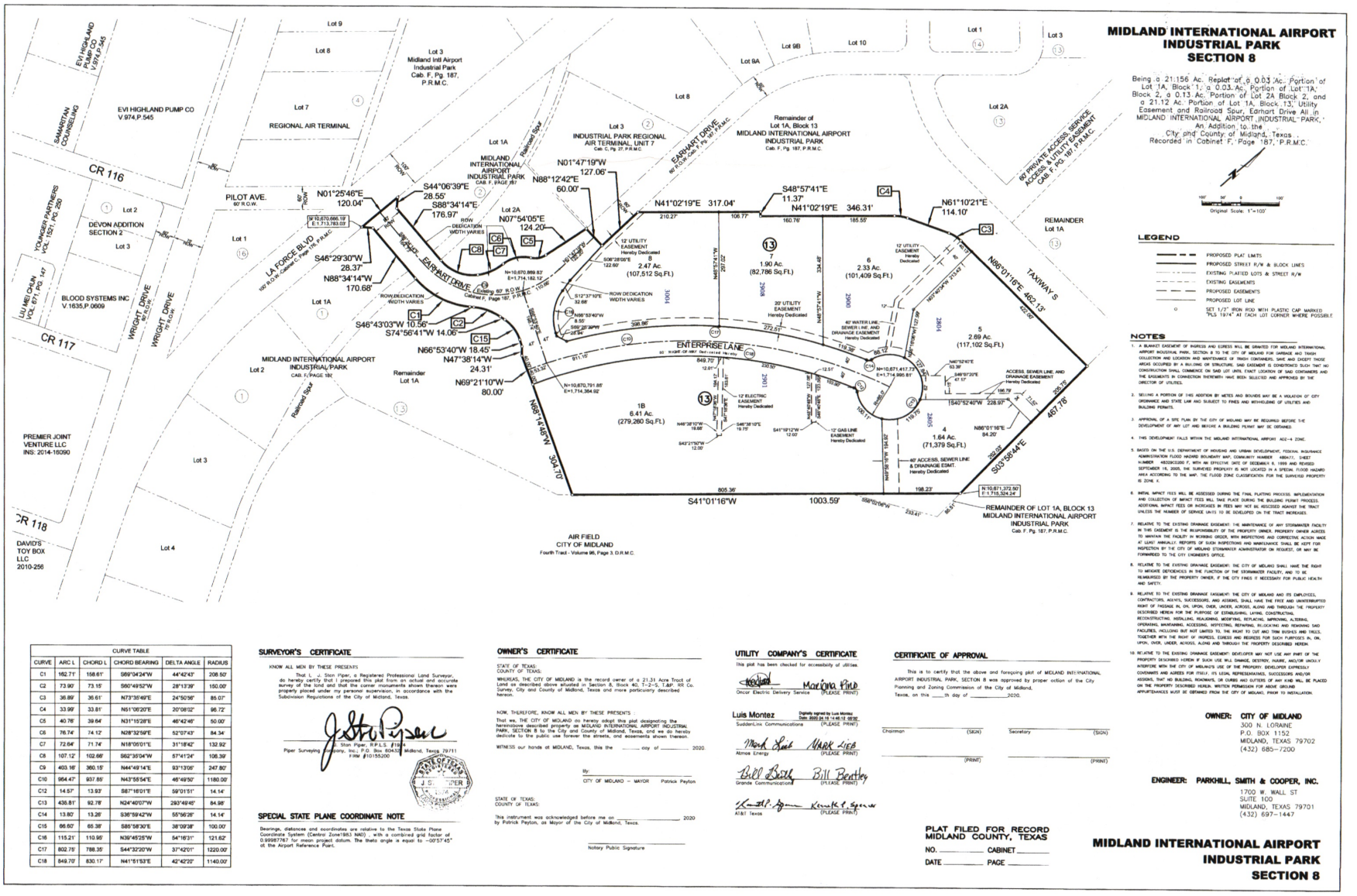
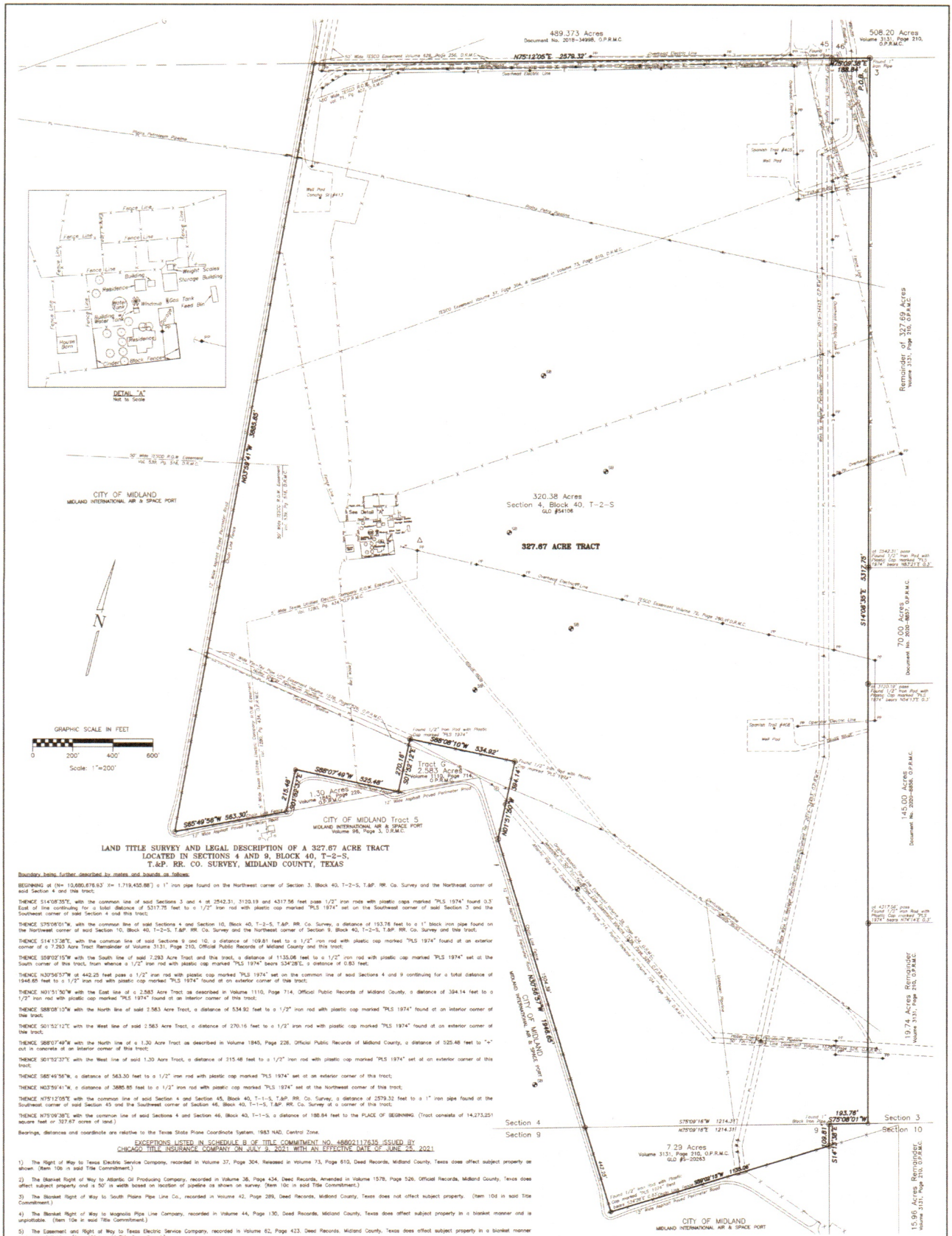


Exhibit A

PACKET
12.7
March 22, 2022



LAND TITLE SURVEY AND LEGAL DESCRIPTION OF A 327.67 ACRE TRACT LOCATED IN SECTIONS 4 AND 9, BLOCK 40, T-2-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,680,678.93' X= 1,719,455.88') a 1" iron pipe found on the Northeast corner of Section 3, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of said Section 4 and this tract;

THENCE S14°08'35"E, with the common line of said Sections 3 and 4 at 2542.31, 3120.19 and 4317.56 feet pass 1/2" iron rods with plastic caps marked "PLS 1974" found 0.3' East of line continuing for a total distance of 5317.75 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set on the Southwest corner of said Section 3 and the Southeast corner of said Section 4 and this tract;

THENCE S75°08'01"W, with the common line of said Sections 4 and Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey, a distance of 193.76 feet to a 1" block iron pipe found on the Northwest corner of said Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of Section 9, Block 40, T-2-S, T.&P. RR. Co. Survey and this tract;

THENCE S14°13'38"E, with the common line of said Sections 9 and 10, a distance of 109.81 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of a 7.293 Acre Tract Remainder of Volume 3131, Page 210, Official Public Records of Midland County and this tract;

THENCE S59°02'15"W with the South line of said 7.293 Acre Tract and this tract, a distance of 1135.06 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the South corner of this tract, from whence a 1/2" iron rod with plastic cap marked "PLS 1974" bears S34°28'E, a distance of 0.83 feet;

THENCE N30°56'57"W at 442.25 feet pass a 1/2" iron rod with plastic cap marked "PLS 1974" set on the common line of said Sections 4 and 9 continuing for a total distance of 1946.85 feet to a 1/3" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE N01°51'50"W with the East line of a 2.583 Acre Tract as described in Volume 1110, Page 714, Official Public Records of Midland County, a distance of 394.14 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S88°08'10"W with the North line of said 2.583 Acre Tract, a distance of 534.92 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S01°52'12"E with the West line of said 2.583 Acre Tract, a distance of 270.16 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE S88°07'48"W with the North line of a 1.30 Acre Tract as described in Volume 1845, Page 226, Official Public Records of Midland County, a distance of 525.48 feet to "+" cut in concrete at an interior corner of this tract;

THENCE S01°52'37"E with the West line of said 1.30 Acre Tract, a distance of 215.48 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE S88°49'56"W, a distance of 563.30 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE N03°59'41"W, a distance of 3885.85 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Northwest corner of this tract;

THENCE N75°12'05"E with the common line of said Section 4 and Section 45, Block 40, T-1-S, T.&P. RR. Co. Survey, a distance of 2579.32 feet to a 1" iron pipe found at the Southeast corner of said Section 45 and the Southwest corner of Section 46, Block 40, T-1-S, T.&P. RR. Co. Survey at a corner of this tract;

THENCE N75°09'38"E with the common line of said Sections 4 and Section 46, Block 40, T-1-S, a distance of 188.84 feet to the PLACE OF BEGINNING. (Tract consists of 14,273,251 square feet or 327.67 acres of land.)

Bearings, distances and coordinate are relative to the Texas State Plane Coordinate System, 1983 NAD, Central Zone.

EXCEPTIONS LISTED IN SCHEDULE B OF TITLE COMMITMENT NO. 48802117635 ISSUED BY CHICAGO TITLE INSURANCE COMPANY ON JULY 9, 2021 WITH AN EFFECTIVE DATE OF JUNE 25, 2021

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LEGEND

- ○ = Set 1/2" iron Rod with Plastic Cap marked "PLS 1974"
- ⊗ = Cut "+" in Concrete
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- ⌀ = Power Pole
- ⊣ = Guy Wire
- ⟵ = Pipeline Sign
- –x– = Fence Line
- ⊕ = Soil Borings

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description are based on an actual survey made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief as surveyed on the ground on July 24, 2021.

J. Stan Piper
Registered Professional Land Surveyor No. 1974

STATE OF TEXAS
J. STAN PIPER
1974
REGISTERED PROFESSIONAL LAND SURVEYOR

Drawing File: Parkhill-327.67AcTr46A.Dwg
Crd File: MA 34R-16E, Topo.Crd
Drawn by: Gene M. Rodriguez
Scale: 1"=100'
Date: 8/23/21
Revised: 9/8/21 by GMR

Prepared for:

SURVEYING
P.O. Box 60430, Midland, Texas 79711
(432)550-7810, Fax (432)560-6312
Firm No. 10136500



City Council Meeting

Item Number: 13

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Tina Jauz, Assistant City Manager

Subject: **Motion authorizing the execution of an Economic Development Agreement with the Midland Development Corporation as authorized by Chapter 501 of the Texas Local Government Code; said agreement providing for the City of Midland Department of Airport's purchase of certain real property described as an approximate 327.67-acre tract of land located in Sections 4 and 9, Block 40, T-2-S, T&P RR Co. Survey, Midland County, Texas (DISTRICT 4) (CITY MANAGER)**

Purpose:

The Board of Directors of the Midland Development Corporation approved at a regular meeting on March 7, 2022, the execution of an economic development agreement with the City of Midland to provide funding for the City of Midland Department of Airports' purchase of real property east of MAF.

Recommended City Council Action:

Approve

Fiscal Impact:

$1,500,000.00

Discussion:

This agreement provides $1.5M in MDC funds to facilitate the Department of Airports' purchase of 327 acres of land east of Midland International Air & Space Port.

Morris Williams Jr.

City Manager's Office

ECONOMIC DEVELOPMENT AGREEMENT

THIS AGREEMENT is entered into by and between the **MIDLAND DEVELOPMENT CORPORATION** ("*MDC*"), an Economic Development Corporation existing under the authority of Chapter 504 of the Texas Local Government Code, and the **CITY OF MIDLAND, TEXAS** ("*City*"), a home-rule municipal corporation.

I.
Recitals

A. MDC and City desire to set forth the terms and conditions upon which One Million Five Hundred Thousand and No/100 Dollars ($1,500,000.00) in incentive funds shall be provided to City as consideration for its: (i) acquisition of certain real property described as an approximate 327.67-acre tract of land located in Sections 4 and 9, Block 40, Township-2-South, T&P RR. Co. Survey, Midland County, Texas (the "*Property*"), which is more particularly shown on **Exhibit A** that is attached hereto and incorporated herein for all purposes, for the purpose of expanding the Midland International Air & Spaceport and its associated facilities (the "*Project*"); and (ii) execution of that certain proposed Memorandum of Understanding regarding marketing activities directed at prospective tenants for City-owned real property.

B. The Project will facilitate commercial and industrial development in the City of Midland, Texas.

C. The MDC Board of Directors (the "*Board*") and the City Council of the City of Midland, Texas (the "*Council*") find that the purpose of this Agreement qualifies as an authorized project under Section 501.101 of the Texas Local Government Code and is therefore eligible for MDC funding.

D. The Board and the Council find that the Project and expenditures therefor are required or suitable to promote or develop new or expanded business enterprises within the City of Midland.

E. The Board and the Council find that this Agreement does not constitute a direct incentive to or expenditure on behalf of a business enterprise as described in Tex. Loc. Gov't Code § 501.158.

NOW, THEREFORE, in consideration of the promises and of the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, MDC and City hereby agree as follows:

II.
MDC Funding

A. **Funds.** Within five (5) days after receiving written notice from City that a purchase and sale agreement, or other such agreement, for the purchase of the Property has been entered into by and between City and a landowner, MDC shall promptly provide City with written confirmation that MDC shall provide to City the incentive funds referenced herein. Within three (3) days after City provides MDC a final closing or settlement statement issued by the title company for City's purchase of the Property, MDC shall provide to City incentive funds in an amount equal to One Million Five Hundred Thousand and No/100 Dollars ($1,500,000.00) (the "*Funds*"). The Funds shall be disbursed and repaid as provided in Section III.

B. **Total Funds.** It is expressly understood that the Funds, cumulative in their amounts, shall not exceed a total of One Million Five Hundred Thousand and No/100 Dollars ($1,500,000.00). MDC agrees to forgive repayment of the Funds if the conditions contained in Section III are met.

III.
Obligations of City

A. **The Project.** City agrees to purchase the Property for the purpose of accommodating the future expansion the Midland International Air & Space Port and its associated facilities.

B. **Completion.** Upon City's purchase of the Property, City shall certify such to MDC in accordance with Section VII.B.

C. **Execution of Memorandum of Understanding.** City agrees to execute a proposed Memorandum of Understanding regarding certain marketing activities to be undertaken by MDC for the purpose of attracting new tenants to the Midland International Air & Space Port and the City of Midland, Texas.

D. **Repayment of Funds.** If City fails to purchase the Property by December 31, 2022 (the "*Property Acquisition Date*"), then City agrees to repay the Funds to MDC. If City fails to Purchase the Property by the Property Acquisition Date, the Funds shall be repaid, without interest, within thirty (30) days following City's receipt of written notice from MDC that the Funds are due to be repaid pursuant to this Section.

E. **Extensions.** The Property Acquisition Date may be extended upon (i) City's submission of a written request to MDC, and (ii) MDC providing to City written approval of such request.

IV.
Term

Upon execution by all of the parties, this Agreement becomes effective on March 23, 2022 (the "*Effective Date*"), and shall terminate when the requirements set forth in Sections II and III are completed, or when terminated by mutual agreement of the parties, or when terminated as hereinafter provided.

V.
Law

The parties are aware of statutory limitations on the Funds and the use of the Funds under Chapters 501 and 504 of the Texas Local Government Code, and the parties acknowledge that the Funds herein granted or guaranteed shall be utilized solely for purposes authorized under that law and by the terms of this Agreement.

VI.
Documents

Prior to any payment by MDC, City shall deliver to MDC an executed copy of this Agreement.

VII.
Special Conditions

A. **Financial Commitment.** Notwithstanding any provision hereof which might be interpreted otherwise, MDC's total financial commitment during the term of this Agreement shall not exceed One Million Five Hundred Thousand and No/100 Dollars ($1,500,000.00) in the aggregate.

B. **Certification.** As to any certification required under this Agreement, City shall provide a letter from the City Manager. E-mail is an acceptable form of certification under this Agreement.

C. **Payment.** Payment to be made to City under Section II shall be made upon a written request from City and completion of all necessary supporting documentation. The payment request and documentation should be directed to the MDC Executive Director, 200 North Loraine Street, Suite 610, Midland, Texas 79701.

VIII.
General Terms

A. **Entire Agreement.** This Agreement embodies the complete agreement of the parties hereto, superseding all oral or written, previous and contemporary agreements between the parties relating to matters in this Agreement; and except as otherwise provided herein, this Agreement cannot be modified or amended without a written agreement of the parties.

B. **No Third-Party Beneficiary.** The parties' approval of the 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.

C. **Legal Relationship.** The parties are not, and shall not be considered as, joint venturers, partners, or agents of each other; and neither shall have the power to bind nor obligate the other, except as set forth in this Agreement. The parties agree not to represent to anyone that they are agents of one another or have any authority to act on behalf of one another. It is mutually understood and agreed that nothing in this Agreement is intended or shall be construed as in any way creating or establishing any partnership, joint venture, or agency between MDC and 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.

D. **Terminations.** This Agreement may be terminated by mutual agreement of the parties or by either party, upon the failure of the other party to fulfill an obligation as set forth herein if the default is not cured within thirty (30) days after written notice from the other party.

E. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and constitute one and the same instrument.

F. **Venue.** The obligations of the parties to this Agreement are deemed to have been performed in Midland County, Texas, and if legal action is necessary to enforce same, exclusive venue shall be in Midland County, Texas. All payments under this Agreement are deemed to have taken place in Midland County, Texas. The obligations and undertakings of each of the parties to this Agreement shall be deemed to have been performed in Midland County, Texas.

G. **Legal Construction.** In case one or more of the provisions contained in this

Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

H. **Law.** This Agreement is subject to all applicable state and federal laws, and the parties agrees that they will comply in all material respects with all such applicable laws, regulations, orders and rules of the State of Texas and other such governmental agencies. This Agreement shall be governed by and construed in accordance with the laws and court decisions of the State of Texas.

I. **Assignment.** This Agreement shall be binding upon the parties hereto and their successors and assigns. This Agreement may not be assigned by City without the prior written consent of MDC.

J. **Notices.** All notices to either party required under this Agreement shall be sent by certified U.S. mail, postage prepaid, addressed to such party at the addresses shown below. All notices shall be deemed given on the date so deposited in the mail, unless otherwise provided herein. Either party hereto may change the address below by sending written notice of such change to the other in the manner provided herein.

If to MDC:	**If to City:**
MDC Executive Director	City Manager
200 N. Loraine St., Suite 610	City of Midland
Midland, Texas 79701	P.O. Box 1152
	Midland, Texas 79702

K. **Amendment.** This Agreement may be amended by written instrument executed by both parties expressly stating the intention to amend this Agreement.

L. **Payments.** All payments to either party required under this Agreement shall be sent by certified U.S. mail, postage prepaid, addressed to such party at the addresses shown below. All payments shall be deemed given on the date so deposited in the mail, unless otherwise provided herein. Either party hereto may change the address below by sending written notice of such change to the other in the manner provided herein.

If to MDC:	**If to City:**
MDC Executive Director	City Manager
200 N. Loraine St., Suite 610	City of Midland

Midland, Texas 79701

P.O. Box 1152
Midland, Texas 79702

M. MDC and City hereby agree and acknowledge that this Agreement is supported by good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties.

IN WITNESS WHEREOF, MDC and City have executed this Agreement on the _____ day of _____ , 2022.

[Signature Page Follows]

MIDLAND DEVELOPMENT CORPORATION

_____
Stephen Lowery, Chairman

ATTEST:

_____
Jill Pennington, Secretary

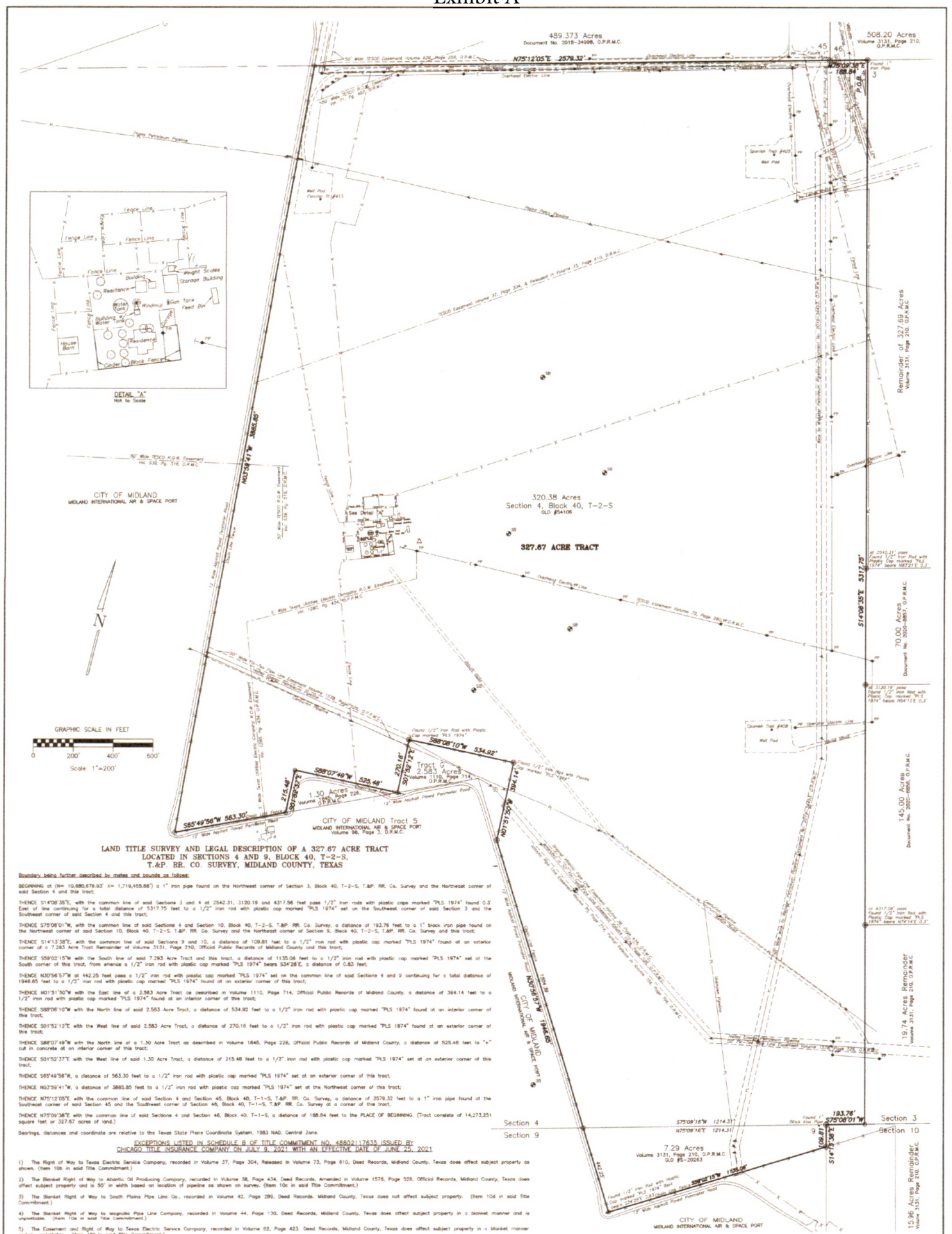
CITY OF MIDLAND, TEXAS

_____
Robert Patrick, City Manager

ATTEST:

_____
Amy M. Turner, City Secretary

Exhibit A



LAND TITLE SURVEY AND LEGAL DESCRIPTION OF A 327.67 ACRE TRACT LOCATED IN SECTIONS 4 AND 9, BLOCK 40, T-2-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,680,678.93' (= 1,719,455.68') a 1" iron pipe found on the Northwest corner of Section 3, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of said Section 4 and this tract;

THENCE S14°08'35"E, with the common line of said Sections 3 and 4 at 2542.31, 3120.19 and 4317.56 feet pass 1/2" iron rods with plastic caps marked "PLS 1974" found 0.3' East of line continuing for a total distance of 5317.75 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set on the Southeast corner of said Section 3 and the Southeast corner of said Section 4 and this tract;

THENCE S75°08'01"W, with the common line of said Sections 4 and Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey, a distance of 193.76 feet to a 1" block iron pipe found on the Northwest corner of said Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of Section 9, Block 40, T-2-S, T.&P. RR. Co. Survey and this tract;

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J. Stan Piper
Registered Professional Land Surveyor

Drawing File: Parkhill-327.67AcTrMIA.Dwg
Crd File: MIA 349-16E, Topo.Crd
Drawn by: Gene M. Rodriguez
Scale: 1"=100'
Date: 8/22/21
Revised: 9/8/21 by GMR

PIPER SURVEYING
P.O. Box 60632, Midland, Texas 79711
(432)550-7810, Fax (432)550-0312
Firm No. 10156200

Prepared for:
Parkhill
1700 W. Wall Street
Ste. 100
Midland, TX 79701

City Council Meeting

Item Number: 14

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Jose Ortiz, Director

Subject: **RESOLUTION AUTHORIZING THE CITY MANAGER TO PURCHASE AN APPROXIMATE 327.67-ACRE TRACT OF LAND OUT OF SECTIONS 4 AND 9, BLOCK 40, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF CHALLENGER DRIVE, APPROXIMATELY 2,300 FEET NORTH OF BUSINESS INTERSTATE 20); AUTHORIZING THE CITY MANAGER TO NEGOTIATE, EXECUTE AND FILE ALL DOCUMENTS NECESSARY TO PURCHASE SAID TRACT, PURCHASE A TITLE INSURANCE POLICY AND HOLD THE CLOSING; AND ORDERING THE CITY SECRETARY TO RECORD, OR ENSURE THAT THE TITLE COMPANY RECORDS, THE INSTRUMENT OF CONVEYANCE (DISTRICT 4) (ENGINEERING SERVICES)**

Purpose:

Resolution authorizing funding to acquire, and purchase on behalf of the City of Midland, 327.67 acres east of the Midland International Air and Space Port for the use and benefit of the public for public facilities, public utility purposes, and for any other ancillary public use as is usual and customary in connection therewith at or near the following described location: Sections 4 and 9, Block 40 Township 2 South. Midland County, Texas

Recommended City Council Action:

Approve

Fiscal Impact:

None

Discussion:

The property of 327.67 acres is located in Sections 4 and 9, Block 40 Township 2 South.

Midland County, east of the Midland International Air and Space Port. The property owner has agreed to sell the property for $8,000,000 which is approximately $24,400 an acre. The additional acreage will accommodate future growth and development as defined in the Midland International Air and Space Port Airport Layout Plan.

Staff recommends approval of this item.

Morris Williams Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO PURCHASE AN APPROXIMATE 327.67-ACRE TRACT OF LAND OUT OF SECTIONS 4 AND 9, BLOCK 40, T-2-S, T&P RR CO. SURVEY, MIDLAND COUNTY, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF CHALLENGER DRIVE, APPROXIMATELY 2,300 FEET NORTH OF BUSINESS INTERSTATE 20); AUTHORIZING THE CITY MANAGER TO NEGOTIATE, EXECUTE AND FILE ALL DOCUMENTS NECESSARY TO PURCHASE SAID TRACT, PURCHASE A TITLE INSURANCE POLICY AND HOLD THE CLOSING; AND ORDERING THE CITY SECRETARY TO RECORD, OR ENSURE THAT THE TITLE COMPANY RECORDS, THE INSTRUMENT OF CONVEYANCE

WHEREAS, the City Council finds it to be in the public interest to authorize the City Manager to purchase, on behalf of the City of Midland, an approximate 327.67-acre tract of land out of Sections 4 and 9, Block 40, T-2-S, T&P RR Co. Survey, Midland County, Texas, said tract being more fully described in Exhibit "A", which is attached hereto and incorporated herein for all purposes (the "Property"); and

WHEREAS, the City Council finds it to be in the public interest to authorize the City Manager to negotiate, execute and file all documents necessary to purchase the Property, purchase a title insurance policy and hold the closing;

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 the Property on behalf of the City of Midland.

SECTION TWO. That the City Manager is hereby authorized and directed to negotiate, execute and file all documents necessary to purchase the Property, purchase a title insurance policy and hold the closing.

SECTION THREE. That the City Comptroller is hereby authorized and directed to pay for:

A. the Property upon receipt of proper invoice or statement therefor approved by

the City Manager from funds that will be available as follows:

1. $1,500,000.00 to be received by the City from the Midland Development Corporation for said purpose; and

2. $6,500,000.00 in the FY22 Airport Operating Budget for said purpose; and

B. the title insurance policy and closing costs upon receipt of proper invoice or statement therefor approved by the City Manager from funds available in the FY22 Airport Operating Budget.

SECTION FOUR. That the City Secretary is hereby authorized and directed to file, or ensure that the title company files, the instrument of conveyance acquired in accordance with this resolution in the Deed Records of Midland County, Texas. A copy of said instrument of conveyance shall be maintained on file in the City Secretary's Office.

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

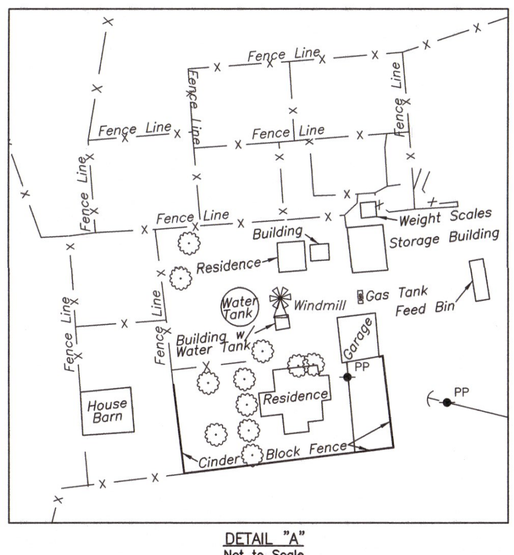
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Jose Ortiz, Engineering Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"



DETAIL "A"
Not to Scale

489.373 Acres
Document No. 2018-34998, O.P.R.M.C.

508.20 Acres
Volume 3131, Page 210, O.P.R.M.C.

50' Wide TESCO Easement Volume 629, Page 256, D.R.M.C.

N75°12'05"E 2579.32'

Found 1" Iron Pipe

N75°09'38"E 188.84'

P.O.B.

Found 1" Iron Pipe

50' Wide TESCO R.O.W. Easement Vol. 71, Pg. 407, D.R.M.C.

Overhead Electric Line

Lease Road

Fence Line

Wink to Webster Pipeline

RSP Permian Esmt. Agrmt. Doc. No. 2016-24629, O.P.R.M.C.

Volume 37, Page 304, Released Overhead Transmission Line

Plains Petroleum Pipeline

Well Pad
Concho St #413

Spanish Trail #405
Well Pad

Plains Petro Pipeline

TESCO Easement Volume 37, Page 304, & Released in Volume 73, Page 610, D.R.M.C.

Remainder of 327.69 Acres
Volume 3131, Page 210, O.P.R.M.C.

Wink to Webster Petroleum Pipeline-Document No. 2019-34453, O.P.R.M.C.

50' Wide TESCO R.O.W. Easement Vol. 539, Pg. 516, D.R.M.C.

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

N03°59'41"W 3885.85'

12' Wide Asphalt Paved Perimeter Road

Chain Link Fence

50' Wide TESCO R.O.W. Easement Vol. 539, Pg. 516, D.R.M.C.

See Detail "A"

320.38 Acres
Section 4, Block 40, T-2-S
GLO #54106

327.67 ACRE TRACT

5' Wide Texas Utilities Electric Company R.O.W. Easement Vol. 1280, Pg. 434, O.P.R.M.C.

TESCO Easement Volume 72, Page 260, D.R.M.C.

at 2542.31' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N83°21'E 0.3'

S14°08'35"E 5317.75'

70.00 Acres
Document No. 2020-8857, O.P.R.M.C.

at 3120.19' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N54°13'E 0.3'

50' Wide Fin-Tex Pipe Line Easement Volume 1578, Page 526, O.P.R.M.C.

Holley Energy Petroleum Pipeline

Centurion Pipeline

Ranch Road

Spanish Trail #408
Well Pad

Operator Electric Line

Lease Road

GRAPHIC SCALE IN FEET

0 200' 400' 600'

Scale: 1"=200'

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

S88°08'10"W 534.92'

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

270.16'

S01°52'12"E

Tract G
2.583 Acres
Volume 1110, Page 714, O.P.R.M.C.

394.14'

N01°51'50"W

S88°07'49"W 525.48'

215.48'

S01°52'37"E

1.30 Acres
Volume 1845, Page 226, O.P.R.M.C.

Chain Link Fence

12' Wide Asphalt Paved Perimeter Road

S65°49'56"W 563.30'

CITY OF MIDLAND Tract 5
MIDLAND INTERNATIONAL AIR & SPACE PORT
Volume 96, Page 3, D.R.M.C.

Original Atlantic Pipe Line Easement Volume 35, Page 434, D.R.M.C.
Amended in 50' Fin-Tex Pipe Line Easement Volume 1578, Page 526, O.P.R.M.C.
Atlantic Pipe Line Easement Volume 70, Page 214, Partial Release in Volume 704, Page 796, D.R.M.C.

Unknown Pipeline

50' Wide Wink to Webster Petroleum Pipeline-Document No. 2019-34453, O.P.R.M.C.

at 4317.56' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N74°14'E 0.3'

19.74 Acres Remainder
Volume 3131, Page 210, O.P.R.M.C.

145.00 Acres
Document No. 2020-8858, O.P.R.M.C.

1504.39'

N30°56'57"W 1946.65'

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

Section 4 / Section 9

S75°09'16"W 1214.31'

N75°09'16"E 1214.31'

Found 1" Black Iron Pipe

193.76'

S75°08'01"W

Section 3 / Section 10

109.81'

S14°13'38"E

7.29 Acres
Volume 3131, Page 210, O.P.R.M.C.
GLO #S-20263

442.25'

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" Bent bears S34°28'E 0.83'

S59°02'15"W 1135.06'

12' Wide Asphalt Paved Perimeter Road

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

15.96 Acres Remainder
Volume 3131, Page 210, O.P.R.M.C.

LAND TITLE SURVEY AND LEGAL DESCRIPTION OF A 327.67 ACRE TRACT LOCATED IN SECTIONS 4 AND 9, BLOCK 40, T-2-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,680,676.93' X= 1,719,455.88') a 1" iron pipe found on the Northwest corner of Section 3, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of said Section 4 and this tract;

THENCE S14°08'35"E, with the common line of said Sections 3 and 4 at 2542.31, 3120.19 and 4317.56 feet pass 1/2" iron rods with plastic caps marked "PLS 1974" found 0.3' East of line continuing for a total distance of 5317.75 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set on the Southwest corner of said Section 3 and the Southeast corner of said Section 4 and this tract;

THENCE S75°08'01"W, with the common line of said Sections 4 and Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey, a distance of 193.76 feet to a 1" black iron pipe found on the Northwest corner of said Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of Section 9, Block 40, T-2-S, T.&P. RR. Co. Survey and this tract;

THENCE S14°13'38"E, with the common line of said Sections 9 and 10, a distance of 109.81 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of a 7.293 Acre Tract Remainder of Volume 3131, Page 210, Official Public Records of Midland County and this tract;

THENCE S59°02'15"W with the South line of said 7.293 Acre Tract and this tract, a distance of 1135.06 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the South corner of this tract, from whence a 1/2" iron rod with plastic cap marked "PLS 1974" bears S34°28'E, a distance of 0.83 feet;

THENCE N30°56'57"W at 442.25 feet pass a 1/2" iron rod with plastic cap marked "PLS 1974" set on the common line of said Sections 4 and 9 continuing for a total distance of 1946.65 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE N01°51'50"W with the East line of a 2.583 Acre Tract as described in Volume 1110, Page 714, Official Public Records of Midland County, a distance of 394.14 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S88°08'10"W with the North line of said 2.583 Acre Tract, a distance of 534.92 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S01°52'12"E with the West line of said 2.583 Acre Tract, a distance of 270.16 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE S88°07'49"W with the North line of a 1.30 Acre Tract as described in Volume 1845, Page 226, Official Public Records of Midland County, a distance of 525.48 feet to "+" cut in concrete at an interior corner of this tract;

THENCE S01°52'37"E with the West line of said 1.30 Acre Tract, a distance of 215.48 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE S65°49'56"W, a distance of 563.30 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE N03°59'41"W, a distance of 3885.85 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Northwest corner of this tract;

THENCE N75°12'05"E with the common line of said Section 4 and Section 45, Block 40, T-1-S, T.&P. RR. Co. Survey, a distance of 2579.32 feet to a 1" iron pipe found at the Southeast corner of said Section 45 and the Southwest corner of Section 46, Block 40, T-1-S, T.&P. RR. Co. Survey at a corner of this tract;

THENCE N75°09'38"E with the common line of said Sections 4 and Section 46, Block 40, T-1-S, a distance of 188.84 feet to the PLACE OF BEGINNING. (Tract consists of 14,273,251 square feet or 327.67 acres of land.)

Bearings, distances and coordinate are relative to the Texas State Plane Coordinate System, 1983 NAD, Central Zone.

EXCEPTIONS LISTED IN SCHEDULE B OF TITLE COMMITMENT NO. 48802117635 ISSUED BY CHICAGO TITLE INSURANCE COMPANY ON JULY 9, 2021 WITH AN EFFECTIVE DATE OF JUNE 25, 2021

1) The Right of Way to Texas Electric Service Company, recorded in Volume 37, Page 304, Released in Volume 73, Page 610, Deed Records, Midland County, Texas does affect subject property as shown. (Item 10b in said Title Commitment.)

2) The Blanket Right of Way to Atlantic Oil Producing Company, recorded in Volume 38, Page 434, Deed Records, Amended in Volume 1578, Page 526, Official Records, Midland County, Texas does affect subject property and is 50' in width based on location of pipeline as shown on survey. (Item 10c in said Title Commitment.)

3) The Blanket Right of Way to South Plains Pipe Line Co., recorded in Volume 42, Page 289, Deed Records, Midland County, Texas does not affect subject property. (Item 10d in said Title Commitment.)

4) The Blanket Right of Way to Magnolia Pipe Line Company, recorded in Volume 44, Page 130, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10e in said Title Commitment.)

5) The Easement and Right of Way to Texas Electric Service Company, recorded in Volume 62, Page 423, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10f in said Title Commitment.)

6) The Blanket Right of Way to Atlantic Pipe Line Company, recorded in Volume 70, Page 214, Amendment and Partial Release in Volume 704, Page 796, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10g in said Title Commitment.)

7) The Blanket Right of Way to Magnolia Pipe Line Company, recorded in Volume 71, Page 35, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10h in said Title Commitment.)

8) The Easement and Right of Way to Texas Electric Service Company, recorded in Volume 71, Page 407 does affect subject property as shown, Volume 71, Page 408 does not affect subject property, Volume 72, Page 259 does not affect subject property, Volume 72, Page 260 does affect subject property as shown, Volume 539, Page 516 does affect subject property as shown, Volume 629, Page 256 does affect subject property as shown, Deed Records, Midland County, Texas. (Item 10i in said Title Commitment.)

9) The Easement and Right of Way to Texas Utilities Electric Company, recorded in Volume 1280, Page 434, Official Records, Midland County, Texas does affect subject property as shown. (Item 10j in said Title Commitment.)

10) The Memorandum of Conveyance and Waiver with Respect to Surface Rights, by and between Cumberland & Western Resources, LLC, IBEX Mineral Resources, LLC, Beehive Partners, LLC, Viper Energy Partners, LLC and Diamondback E&P, LLC, dated September 19, 2013, recorded under Clerk's File No. 2013-23065, Official Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10k in said Title Commitment.)

11) The Easement Agreement with RSP Permian, LLC, recorded under Clerk's File No. 2016-24629, Official Records, Midland County, Texas does affect subject property as shown. (Item 10l in said Title Commitment.)

12) The Memorandum of Surface Use Agreement, by and between Cumberland & Western Resources, LLC and RSP Permian, LLC, dated January 1, 2014, recorded under Clerk's File No. 2017-24281, Official Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10m in said Title Commitment.)

13) The Memorandum of Right of Way and Easement Grant, by and between Cumberland & Western Resources, LLC and Wink to Webster Pipeline, LLC, dated September 27, 2019, recorded under Clerk's File No. 2019-34453, Official Records, Midland County, Texas does affect subject property as shown. (Item 10n in said Title Commitment.)

14) The Waiver of Surface Rights, by and between Viper Energy Partners, LLC and Cumberland & Western Resources, LLC, dated December 18, 2019, recorded under Clerk's File No. 2019-38809, Official Records, Midland County, Texas does not affect subject property. (Item 10o in said Title Commitment.)

15) The Subject property is located in the City of Midland Extra Territorial Jurisdiction, and as such, may be subject to certain ordinances, codes, restrictions and regulatory powers of the City of Midland. (Item 10q in said Title Commitment.)

LEGEND

- ○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"
- ⊗ = Cut "+" in Concrete
- ◎ = Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" Unless Noted Otherwise
- PP = Power Pole
- = Guy Wire
- = Pipeline Sign
- -X- = Fence Line
- SB = Soil Borings

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description are based on an actual survey made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief as surveyed on the ground on July 24, 2021.

J. Stan Piper
Registered Professional Land Surveyor No. 1974

STATE OF TEXAS REGISTERED J. STAN PIPER 1974 PROFESSIONAL LAND SURVEYOR

Drawing File: Parkhill-327.67AcTrMIA.Dwg
Crd File: MIA 34R-16L Topo.Crd
Drawn by: Gene M. Rodriguez
Scale: 1"=100'
Date: 8/22/21
Revised: 9/8/21 by GMR

PIPER SURVEYING
P.O. Box 60432, Midland, Texas 79711
(432)550-7810, Fax (432)550-0312
Firm No. 10155200

Prepared for:
Parkhill
1700 W. Wall Street
Ste. 100
Midland, TX 79701

An Appraisal Report
of
327.642 Acres of Land
Located at the terminus of Challenger Drive, in Midland, Midland County, Texas
Parcel - Cumberland & Western Resources LLC

Effective Date
January 7, 2021

Requested By
Mr. John Simmons
Right of Way Manager
City of Midland
300 N Lorraine Street
Midland, Texas 79701

Prepared By
WT Appraisal, Inc.
P.O. Box 7275
1302 B Petroleum Dr.
Abilene, Texas 79608
800-340-5039
www.wtappraisal.com
Job # 2020-733

January 8, 2021

Mr. John Simmons
Right of Way Manager
City of Midland
300 N Lorraine Street
Midland, Texas 79701

RE: An *Appraisal Report* - 327.642 acres, located at the terminus of Challenger Drive, in Midland, Midland County, Texas.

Dear Sir,

In accordance with your request, we have prepared an *Appraisal Report* of the property referenced above. The purpose of the appraisal is to estimate the market value of the subject property as of the effective date of the appraisal. We understand that the function of the report is to estimate the current "as is" market value of the subject property, surface only, exclusive of any improvements situated on the site.

The effective date of this appraisal is January 7, 2021, and the report is based on date and market conditions prevailing on that date. The research and analysis contained herein was conducted during the month of January 2021.

By reason of our investigation and analysis of the data contained in this report, other information in our files, and our experience in the real estate appraisal profession, it is our opinion that the market value of the fee simple estate in the subject property, as of January 7, 2021, was:

Whole Property

327.642 Acres	**$20,000 Per Acre**	**$6,552,840**
	Rounded To:	**$6,500,000**

This value estimate is subject to the assumptions and limiting conditions set out herein. In our opinion, this report conforms to the Standards of Professional Practice of the Appraisal Institute and the Uniform Standards of Professional Appraisal Practice promulgated by the Appraisal Standards Board of The Appraisal Foundation to the extent that available market data will allow.

It should be noted that, to our knowledge, no environmental hazard was known to be located on the property, as of the effective date of this appraisal. Furthermore, we have concluded that the property has no scientific, cultural, or historical value.

We thank you for the privilege of serving you and should you have any questions, please contact us.

Sincerely yours,

Clint W. Bumguardner, MAI, ASA
State Certification No. TX-1321020-G

Andrew B. Sherwood, R/W-AC
General Certified Appraiser
Texas Certification No. TX-1338083-G

Summary of Salient Facts, Data, and Conclusions

Property Appraised:	327.642 acres of rural agricultural land owned by Cumberland & Western Resources LLC
Property Type:	Vacant Land
Location:	The subject tract is located at the terminus of Challenger Drive just east of the Midland Air and Space Port in Midland, Midland County, Texas.
GPS Coordinates:	Latitude: 31.943892 Longitude: -102.189193
Legal Description:	Being 327.642 acres out of Section 4, Block 40, T-2-S, Midland County, Texas.
Purpose of Appraisal:	Estimate the "as is" market value of the subject property and just compensation for the acquisition of rights for an underground water transmission and distribution pipeline easement and right of way.
Effective Date of Valuation:	January 7, 2021
Date of Report:	January 8, 2021
Property Rights Appraised:	
Whole Property:	Fee simple, surface only estate excluding any building improvements.

Summary of Salient Facts, Data, and Conclusions (Continued)

History of Subject: As of the date of the report, the subject property was under the ownership of Cumberland & Western Resources LLC. To our knowledge there have been no sales or listings of the subject property during the past three years.

Intended Use of Report: This appraisal is prepared for the sole purpose of assisting the client in acquiring water transmission and distribution pipeline easement rights related to the subject property.

Land Data:

Size (Whole):	327.642 acres, or 14,272,085 square feet
Shape:	Irregular
Frontage:	Challenger Drive
Access:	Challenger Drive
Topography:	Level to slightly rolling.

Oilfield Activity: Oil field activity in the area, activity noted on the subject property.

Assessed Values (2019): Midland CAD No. R7551 and R7629

Acres:	327.64
Market Value:	$1,510,050
Assessed Value:	$4,890

Current Use: Rural agricultural, and oil and gas related uses

Highest and Best Use: Hold for future development, and oil and gas related uses

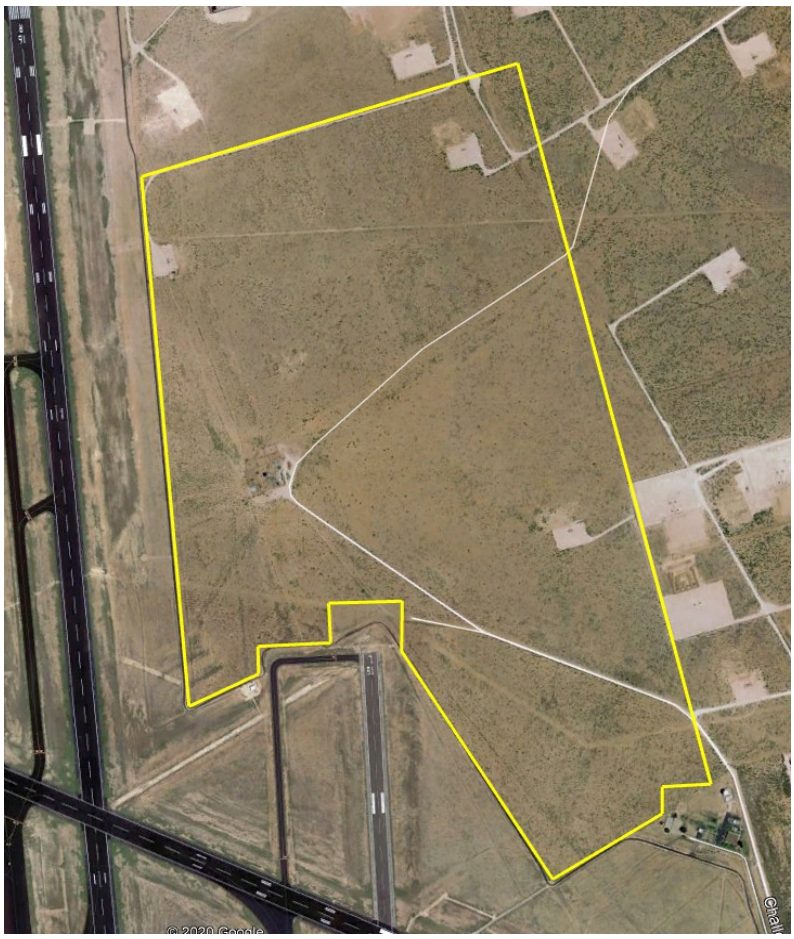
Nuisances, Hazards, and Detrimental Influences: We were not provided with an environmental study on the subject property. For purposes of this appraisal assignment, we have assumed that no hazardous conditions affect the subject. If subsequent environmental studies indicate a hazardous condition at the subject site, it could affect the value conclusions in this report.

Natural, Recreational, Cultural, Or Scientific Value:	None reflected in the market data
Indicated Value by Cost Approach:	N/A
Indicated Value by Sales Comparison Approach:	$6,500,000 ($20,000/Acre x 327.64 Acres)
Indicated Value by Income Approach:	N/A

FINAL MARKET VALUE INDICATION: $6,500,000 ($20,000/Acre)

Estimated Marketing/Exposure Time: 12-24 months

Identification of the Subject Property

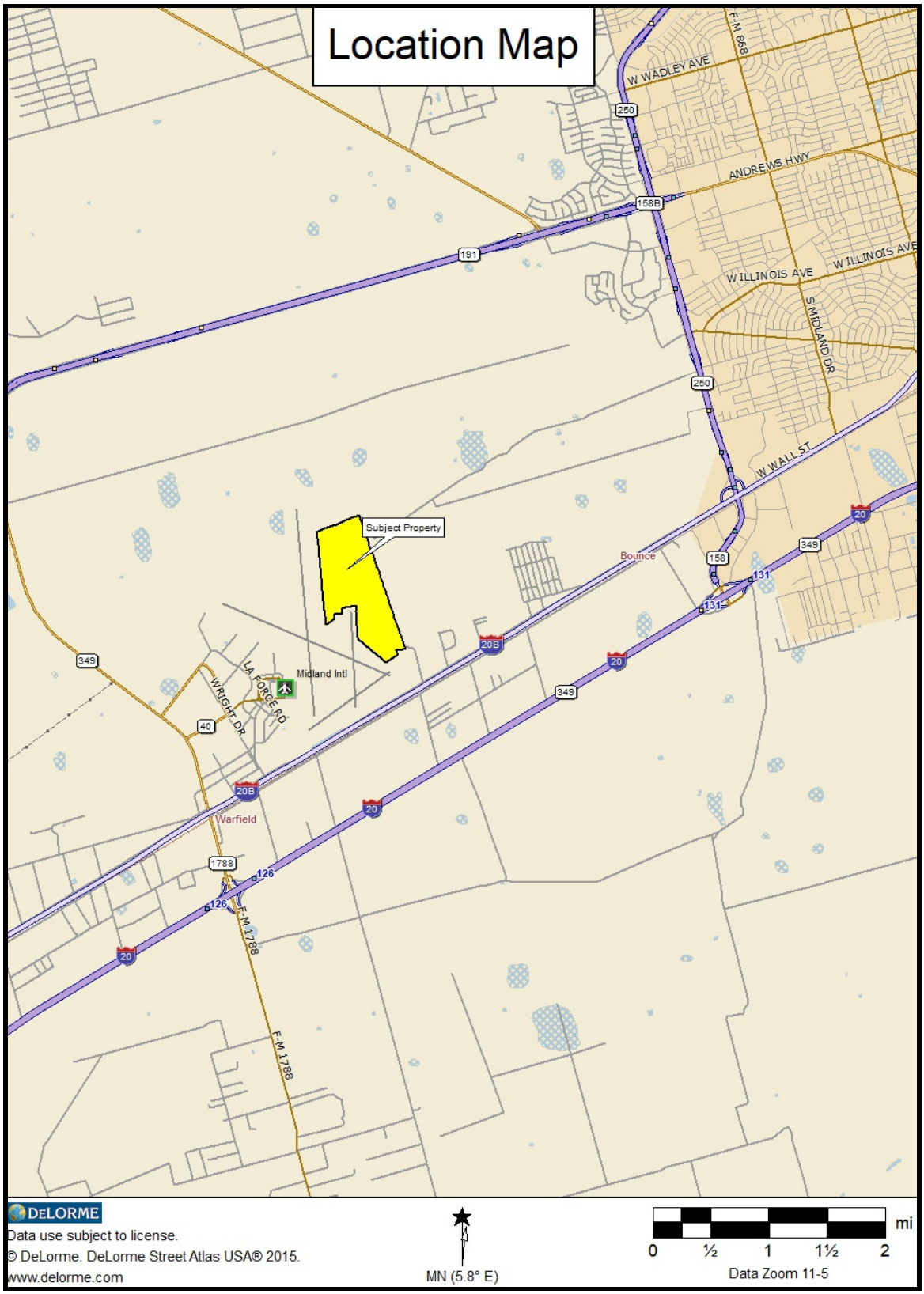


The subject property consists of a tract of land containing 327.642 acres, more or less, located at the terminus of Challenger Drive, just east of the Midland Air and Space Port, in Midland, Midland County, Texas. The subject tract consists entirely of native rangeland and is improved with oil and gas wells and related site improvements. The improvements on the site have been excluded from this analysis and this valuation is limited to a valuation of the land only.

Legal Characteristics

The subject legal description is:

Being 327.642 acres out of Section 4, Block 40, T-2-S, Midland County, Texas.


Location Map
W WADLEY AVE
F-M 868
250
ANDREWS HWY
158B
191
W ILLINOIS AVE
S MIDLAND DR
250
W WALL ST
Subject Property
Bounce
158
349
20
131
20B
Midland Intl
LA FORGE RD
WRIGHT DR
40
Warfield
1788
126
F-M 1788
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MN (5.8° E)
mi
0 ½ 1 1½ 2
Data Zoom 11-5

Scope of Work

Appraisal Problem to be Solved

The problem to be solved in this appraisal assignment is to support and develop an opinion of the "As Is" market value of the surface only real estate in the subject, as of the effective date of appraisal, subject to the assumptions and limiting conditions set forth in the appraisal. The fee simple, surface only interest in the subject property is being appraised.

Intended Use and Intended Users of the Appraisal

This report is intended for use by the client, City of Midland for the intended use stated herein. Use of this report by others is not intended by the appraisers. The intended use of the appraisal is to aid the client with establishing a market value for the subject property. This report is not intended for any other use.

Effective Date of Appraisal and Date of Report

This appraisal has an effective date of January 7, 2021 and is based on data and market conditions prevailing on that date. This appraisal report was written during the month of January 2021, and was completed on January 8, 2021.

Property Rights Appraised

Surface Estate of the Fee Simple and Easement Estates.

A **fee simple estate** is defined as:

> "Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat."[1]

"Easement" is defined by the Appraisal Institute, as follows:

> "An interest in real property that transfers use, but not ownership, of a portion of an owner's property."[2]

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[1] The Appraisal of Real Estate, Fourteenth Edition, The Appraisal Institute, 2013, page 111.

[2] The Appraisal of Real Estate, Fourteenth Edition, The Appraisal Institute, 2013, page 117.

Type and Definition of Value Used in the Appraisal

The Supreme Court of Texas defines market value as being:

> "The price which the property would bring when offered for sale by one who desires to sell, but is not obligated to sell, and is bought by one who desires to buy, but is under no necessity of buying, taking into consideration all those uses to which it is reasonably adaptable and for which it either is or in all reasonable probability will become available within the reasonable future."[3]

Extent of Property Identification

Physical Characteristics

The subject consists of a tract of land containing 327.642 acres, more or less and located at the terminus of Challenger Drive, east of the Midland Air and Space Port, in Midland, Midland County, Texas. The subject tract consists entirely of native rangeland improved with several oil and gas wells and related site improvements. The tract has a level to slightly rolling topography and appears to have adequate slope for the subject tract to drain well. The improvements have been excluded from this analysis and this valuation is limited to a valuation of the land only.

Legal Characteristics

We relied on information from surveys, deeds and county records concerning easements, restrictions and other encumbrances. The subject legal description is:

> Being 327.642 acres out of Section 4, Block 40, T-2-S, Midland County, Texas.

Extent of Property Inspection

The subject property was viewed from aerial photos and physically viewed from the terminus of Challenger Drive. The size and measurement information for the proposed easement was based on information from surveys, provided by the client. As such, the appraiser has relied upon this data within this analysis. The inspection was performed in order to gather information about the physical characteristics of the subject that are relevant to the valuation problem. The inspection was conducted on January 7, 2021.

[3] Source: City of Austin v. Cannizzo, 267 S.W. 2d 808, 815 (Tex. 1954).

Type and Extent of Data Researched

Comparable land sales were obtained and verified by principals, brokers or appraisers in order to form an opinion of value for the subject by the sales comparison approach. All of the sales used were inspected either physically or by plats and/or photographs. All sale information was analyzed in applying the sales comparison to value. In addition, we reported the current assessed value and the applicable tax rates as provided by the County. We reviewed factors controlling highest and best use, formed a preliminary opinion, and checked that opinion against collected data for reasonableness.

Type and Extent of Analysis Applied

The value opinion presented in this report was based upon review and analysis of the market conditions affecting real property value of competitive properties and sales in the subject area.

The appraisal problem did not warrant an intensive highest and best use study. Given the nature of the subject real estate, our conclusion of highest and best use was based on logic, observed evidence and our experience in the real estate appraisal profession.

In the sales comparison approach, a comparative analysis of relevant factors that influence value was undertaken to adjust the sales to the subject based upon the actions and preferences demonstrated by the participants in the market and based upon the appraiser's knowledge and experience in the appraisal business. Thus, the sales comparison approach to value was utilized to form opinions of value for the subject property.

History of Subject Property

According to Standard Rule 1-5, as set out in the Uniform Standards of Professional Appraisal Practice by the Appraisal Standards Board of the Appraisal Foundation, effective January 1, 2012, a three-year sales history of the subject property shall be included for all non-residential real estate.

As of the date of inspection, the subject property was under the ownership of Cumberland & Western Resources LLC. The appraisers are unaware of any name changes, ownership changes, listing prices, previous offers or contracts concerning the subject property that have taken place during the three years prior to the date of appraisal.

Ownership Share	
Owner of Record	**% Interest**
Cumberland & Western Resources LLC	100.00%

Exposure Time Analysis

In accordance with the market value definition contained herein, as requested by the client, consideration has been given to a reasonable estimated exposure period for the subject property **at the appraised value estimate herein**.

Exposure time may be defined as follows: The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective opinion based on an analysis of past events assuming a competitive and open market. The reasonable exposure period is a function of price, time, and use, not an isolated opinion of time alone.

Based upon the historical activity of sales similar to the subject, and the appraiser's personal conversations with area agents/brokers, appraisers, and property owners familiar with the subject market, it is our opinion that a reasonable exposure time for rural properties in the value range of $3,000,000 to $6,000,000, in the Midland County, Texas area to be approximately 12-24 months.

Marketing Time Analysis

In accordance with the market value definition contained herein, as requested by the client, consideration has been given to a reasonable estimated exposure period for the subject property **at the appraised value estimate herein**.

A normal marketing period is a function of various factors including prevailing market conditions, the price of the product being marketed, the competitive position of the property in the market, and the amount and quality of marketing effort allocated to the property. It is strongly emphasized that the appraiser has no control over the aforementioned factors, nor can the appraiser anticipate or predict any of them. Therefore, it is assumed that the property will receive an adequate marketing effort.

Based upon the historical activity of sales similar to the subject and the appraiser's personal conversations with area agents/brokers, appraisers, and property owners familiar with the subject market, it is our opinion that a reasonable marketing time for the subject property is approximately 12-24 months.

Competency Statement

The appraiser(s) who prepared this report have valued numerous agricultural properties throughout the states of Texas during the last ten years. In addition, the appraiser(s) have valued numerous agricultural properties in the subject area during the last five years.

Mr. Bumguardner is a member of the Appraisal Institute (MAI No. 10161), an Accredited Senior Appraiser of the American Society of Appraisers and a State Certified General Real Estate Appraiser in the State of Texas, certificate number TX-1321020-G. Mr. Sherwood is a Designated Right of Way Appraisal Specialist with the International Right of Way Association and a State Certified General Real Estate Appraiser in the State of Texas, certificate number TX-1338083-G.

Report Type

This is an Appraisal Report which is intended to comply with the reporting requirements set forth under Standards Rule 2-2(a) of the Uniform Standards of Professional Appraisal Practice for An Appraisal Report. As such, it presents discussions of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The depth of discussion contained in this report is specific to the needs of the client and for the intended use stated herein. The appraiser is not responsible for unauthorized use of this report.

Hypothetical Condition

Hypothetical Condition: Hypothetical Condition is defined by USPAP as being that which is contrary to what exists, but is supposed for the purpose of analysis. Furthermore, it assumes conditions contrary to known facts about the physical, legal, or economic characteristics of a property or about conditions external to the property. No hypothetical conditions were invoked in the development of this appraisal.

Extraordinary Assumptions

Extraordinary Assumptions: Extraordinary Assumptions are defined by USPAP as an assumption, related to a specific assignment which, if found to be false, could alter the appraiser’s opinion and/or conclusions. The appraiser reserves the right to amend this appraisal based upon further information regarding the project if found to be contrary to what was assumed in the report.

The values reported in the appraisal were based on the assumption that the project was completed in accordance with data furnished to the appraiser regarding the limitations and or restrictions if any, placed on the subject property.

Scattered oil or gas production was noted in the area. However, it is assumed that no nuisances, hazardous conditions, or detrimental influences affect the subject property.

The full extent of the water resources of the subject property was unknown to the appraisers. Therefore, it is assumed that the water is adequate water for the highest and best use.

Midland and Odessa Area Analysis

Analysis of a local economy often focuses on trends in population, employment and income. The conditions and potential of the local economy are relevant to most appraisal assignments. The value of real estate in a community is influenced by the demand for its use. The demand for various types of real estate, including vacant land, depends on the population of the market that the real estate serves, the effective purchasing power of this population, and their desire to own real estate. Demand may change for various types of real estate and between real estate and non-realty investment sources. "Market areas are defined by a combination of factors, such as, physical features, the demographic and socioeconomic characteristics of the residents or tenants, the condition of the improvements, and land use trends."[4]

Regional and City Data

Midland is within the top twenty largest cities in Texas. It is located in the Permian Basin area of West Texas and is situated approximately midway between the Fort Worth-Dallas Metroplex (274 miles) and the city of El Paso (374 miles) along Interstate Highway 20. Midland is located in Midland County and serves as the county seat. It, along with Odessa, dominates the market area primarily to the south and west with the Lubbock market area overlapping to the north.

Odessa is also located in the Permian Basin area of West Texas approximately 18 miles east of Midland on Interstate 20 and is situated approximately midway between the Fort Worth-Dallas metroplex (322 miles) and the city of El Paso (285 miles). Odessa is the county seat of Ector County. Both of the cities are referred to as "The Petroplex."

In the following discussion, the four forces that influence value - social, economic, governmental, and environmental - will be examined. An understanding of the four forces is fundamental to the appraisal of real estate because the interaction of these forces creates the climate in which property values increase, decrease, or remain stable.

SOCIAL FORCES

Population

As stated earlier, the metropolitan Midland area is situated in Midland County, and the metropolitan Odessa area is situated in Ector County, Texas. Together, and along with Martin County, they are a part of the Midland/Odessa Combined Statistical Area (CSA). According to the U.S. Census Bureau, the 2019 population was estimated to be 146,038 for the City of Midland and 172,505 for Midland County. The estimated 2019 population for Odessa declined slightly from the 2018 numbers to 126,568 residents.

[4]The Appraisal of Real Estate, Fourteenth Edition, Appraisal Institute, 2013 p. 166.

Ector County rose slightly from a 2018 population 161,960. Population statistics are represented in the following table.

COMPARATIVE POPULATION STATISTICS						
Year	City of Midland	Percent Change	Midland County	Percent Change	Midland/ Odessa CSA	Percent Change
1980	70,525		82,311		197,685	
1990	89,443	26.82%	112,500	36.68%	213,434	7.97%
1993	95,500	6.77%	110,300	(1.96)%	229,300	7.43%
1994	97,700	2.30%	113,100	2.54%	234,300	2.18%
1997	98,656	0.98%	116,500	3.01%	240,500	2.65%
2000	94,996	(3.71)%	116,009	(0.42)%	237,132	(1.40)%
2007	101,033	6.36%	124,380	7.22%	251,842	6.20%
2009	108,666	7.56%	132,316	6.38%	266,941	6.00%
2010	111,147	2.28%	136,872	3.44%	278,896	4.48%
2013	123,933	11.50%	151,941	11.01%	306,762	9.99%
2014	126,497	2.07%	155,830	2.56%	315,194	2.75%
2015	132,950	5.10%	161,077	3.37%	326,115	3.46%
2016	134,610	1.25%	162,565	0.92%	325,750	(0.11)%
2017	136,089	1.10%	165,049	1.53%	325,785	0.01%
2018	142,340	4.59%	172,505	4.52%	334,702	2.74%
2019	146,038	2.60%	176,832	2.51%	348,826	4.22%

COMPARATIVE POPULATION STATISTICS				
Year	Odessa	Percent Change	Ector County	Percent Change
1980	90,027		115,374	
1990	89,699	(0.36)%	118,934	3.09%
2000	90,943	1.39%	121,123	1.84%
2009	100,810	10.85%	134,625	11.15%
2010	99,940	(0.86)%	137,130	1.86%
2013	110,594	10.66%	143,716	4.80%
2014	114,597	3.62%	153,904	7.09%
2015	118,968	3.81%	159,436	3.59%
2016	117,817	(0.97)%	157,462	(1.24)%
2017	116,861	(0.81)%	157,087	(0.24)%
2018	126,568	8.31%	161,960	3.10%
2019	123,334	(2.56)%	166,223	2.63%

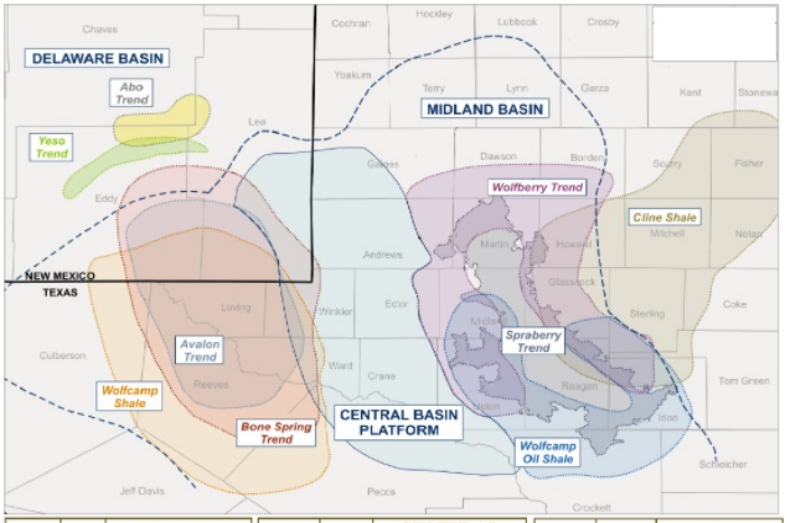
As illustrated in the population figures, Midland and Midland County have almost doubled in population while Odessa and Ector County have also increased in overall population growth from 1980 to the present, however, not as exponentially as Midland. This is mainly attributable to the economy and the increase in numerous petroleum related industries. A comparison of the city and county figures emphasizes the increasing tendency of population centralization in the larger cities. The growth differential is primarily due to housing trends in the Midland and Odessa areas. The greatest increase in population occurred during the periods between 2000 and 2009 and in 2015. Increased population numbers in the MSA are largely due to greater oil and gas production over a long time period.

ECONOMIC FORCES

Oil and Gas Production

The oil and gas industry has been a major economic sector in Ward County since 1920. The area economy has experienced significant ups and downs due to the uncertain nature of the industry which is controlled by the world economy and weather.

The Permian Basin is one of the oldest and most widely recognized oil and gas producing regions in the U.S. The Permian Basin covers approximately 86,000 square miles and encompasses 52 counties in New Mexico and Texas. From East to West, the play spans 250 miles, and 300 miles from North to South. It is often oversimplified and mischaracterized as a singular play with homogeneous geology and stratigraphy. Unlike other "hot" oil plays such as the Bakken, the Permian contains greater geologic complexity, consisting of several unique sub-basins, each with its own unique characteristics. According to an assessment by the U.S. Geological Survey (USGS) in 1995, the Permian had more than 100 billion barrels of oil in place.



PERIOD	SERIES	DELAWARE BASIN FORMATION
GUADALUPE	DELAWARE GROUP	LAMAR BELL CANYON
		CHERRY CANYON
		BRUSHY CANYON
LEONARD		UPPER AVALON SHALE
		LOWER AVALON SHALE
		1ST BONE SPRING
		2ND BONE SPRING
		3RD BONE SPRING
WOLFCAMP		WOLFCAMP
PENN		PENNSYLVANIAN

PERIOD	SERIES	CENTRAL PLATFORM FORMATION
GUADALUPE	WHITE-HORSE	TANSILL
		YATES
		7 RIVERS
		QUEEN
		GRAYBURG
	WARD	SAN ANDRES
		GLORIETA
LEONARD	YESO	PADDOCK
		BLINEBRY
		TUBB
		DRINKARD
		ABO
WOLFCAMP		WOLFCAMP
PENN		PENNSYLVANIAN

PERIOD	SERIES	MIDLAND BASIN FORMATION
GUADALUPE	WHITE-HORSE	TANSILL
		YATES
		7 RIVERS
		QUEEN
		GRAYBURG
	WARD	SAN ANDRES
		GLORIETA
LEONARD	CLEAR FORK	UPPER LEONARD
		UPPER SPRABERRY
		LOWER SPRABERRY
		DEAN
WOLFCAMP		WOLFCAMP
PENN		PENNSYLVANIAN

Permian is divided into three main sub basins/regions as you can see from the map below (Permian basin outline)

Midland Basin (focus has been on the Spraberry and Wolfcamp formations)

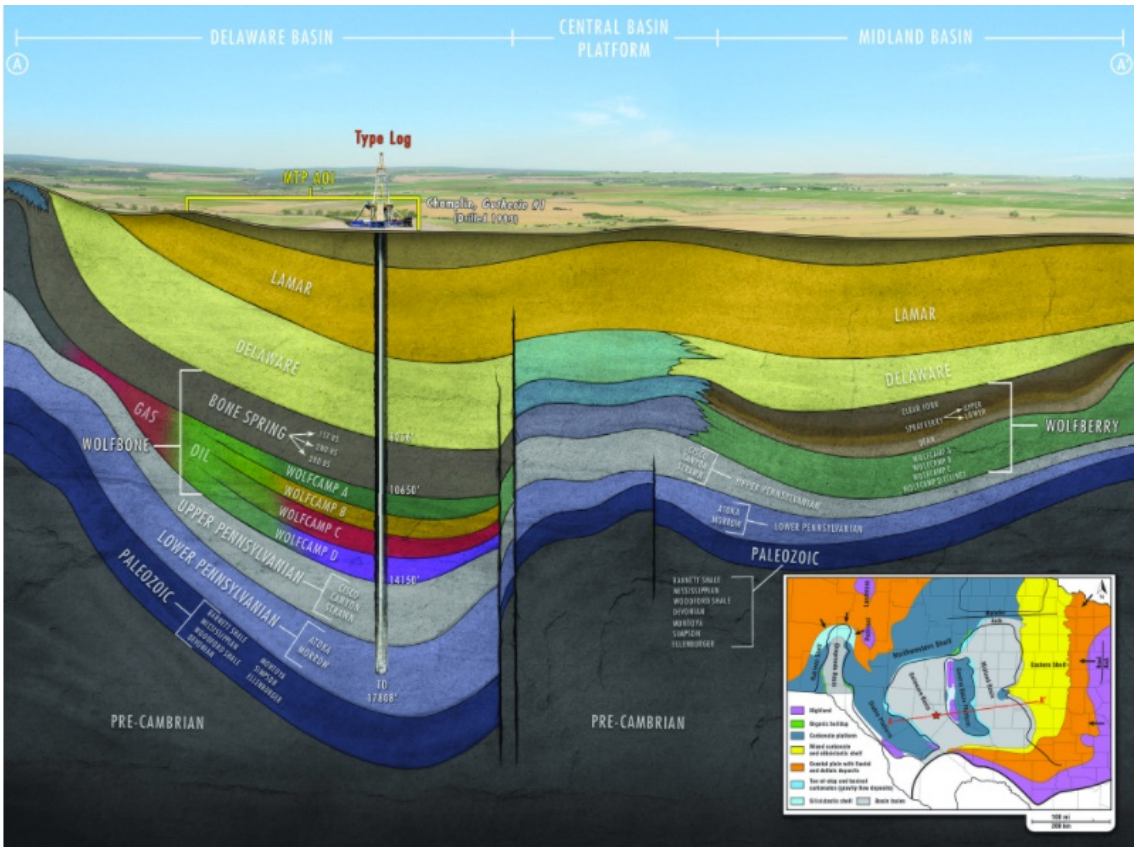
Central Basin (focus has been on the San Andres formation)

Delaware Basin (focus has been on the Bone Springs and Wolfcamp)

Drilling in the Permian began in the 1920's. Since then, there have been many peaks and troughs in respect to production levels. Recently, several factors, including elevated oil prices and new technology, have led to a flurry of drilling activity in the Permian. Exploration and Production companies are now drilling deeper to add new zones, put larger fracs, downspace and now even drill horizontally. This horizontal drilling is drastically different from the shallow vertical drilling that has been done in the past.

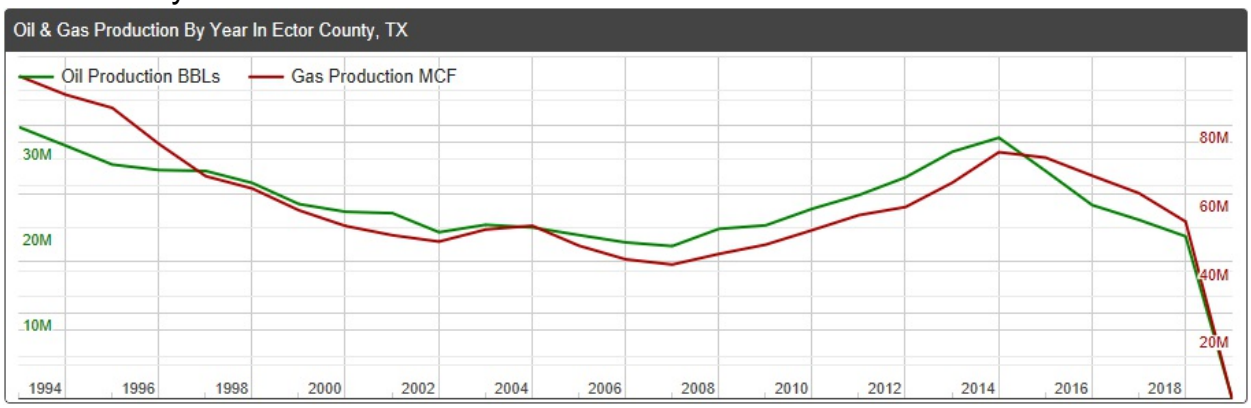
According to the Texas Railroad Commission (which regulates the state's oil and gas activity), "The Permian Basin has produced over 29 billion barrels of oil and 75 trillion cubic feet of gas, and it is estimated by industry experts to contain recoverable oil and natural gas resources exceeding what has been produced over the last 90 years."
Source: http://www.shaleexperts.com/plays/permian-basin/Overview

The Delaware Basin constitutes roughly 10,000 square miles, or 6.4 million acres, extending from the southern New Mexico counties of Eddy and Lea southward into the west Texas counties of Reeves, Loving, Ward, Pecos, and Culberson. Of the various pay zones present in the Delaware Basin, the Wolfcamp and the shallower Bone Spring formations have attracted the bulk of horizontal drilling activity in Reeves County.

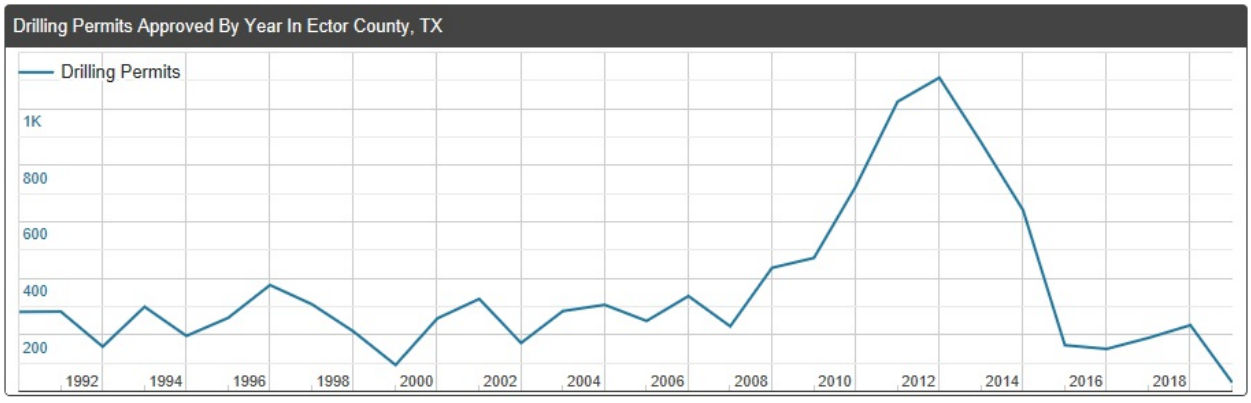


According to Texas-drilling.com the oil and gas drilling is occurring in the entire county, and as of December 2018, there were 1,127 producing leases, 131 producing operators, and 29,900 drilled wells. 3,294,024 MCF of Natural Gas and 1,126,378 BBL of Oil were produced in December 2018.

The table below reflects the drilling permits issued by year from 1992 to January 2019 in Ector County:



The table below reflects the oil & gas production by year from 1993 to January 2019 in Ector County:



As of December 7, 2018, Permian Basin Rig Counts were reported to be 529, up from 459 rigs a year ago, a 15% increase. Furthermore, the Rig Count in Reeves County was reported to be 78, which leads all counties in Texas. Midland County reported the 2nd most active rigs with a count of 57. Other counties with double-digit rig counts were Lea, NM (57); Eddy, NM (47); Loving (22); Martin (44); Ward (24); Howard (20); Reagan (16); Culberson (17); Winkler (14); Glasscock (11); and Pecos (19). The Permian Basin Rig Count of 436 represents approximately 49% of the total U.S. Rig Count of 1,075.

Economic Base and Trends

As mentioned, the economies of Midland and Odessa are based primarily on the petroleum industry and the related support services required to keep the industry moving. Despite attempts by both cities to diversify their economies, it is still subject to the "ups and downs" characteristic of the cyclical oil business. The area was devastated by the downturn which occurred in 1981 and 1982 when oil prices dropped and forced many oil related industries to close their doors. Another bust occurred in 1986 when oil prices plunged to $10 per barrel. This sharp decrease of oil prices effectively eliminated many of the small and large businesses which were considered borderline in terms of profitability and added numerous industrial properties to an already saturated market. However, the increase in the price of oil in the recent past and the sudden, sharp decline in 2015 of oil prices have dramatically affected oil exploration, employment, population and housing statistics. The monthly average price for crude oil dropped below $30 in January at $28.44/bbl, the lowest since November 2003. The monthly average rig count dropped to the 2016 low of 134 rigs, but as of June 9, 2018, increased to 480 rigs in the Permian Basin.

While the Permian Basin has been the leading oil producing area in the state and nation with over 20% of the U.S. oil reserves and over 15% of natural gas reserves, other industries impact the local economy. Two of the more important sectors are the medical and medical related businesses, and agriculture.

Recent Economic Indicators

According to the Karr Ingham Monthly Economic Report, the Midland-Odessa Economic Index as of September 2018 reflected a continued expanding overall economy. According to Ingham, The Midland-Odessa Regional Economic Index logged another strong increase in September improving to 253.0 for the month up from 250.7 in August, and up 18.8% from the September 2017 MOREI of 213.0. That's the 23rd straight monthly increase, and it seems quite apparent that the recovery and expansion will reach the two-year mark with the release of the October index report. The rate of increase is slowing, however, though not unexpectedly; the pace of year-over-year increase topped out at 21.6% in May and has declined modestly with each passing month since then. Further, the index increased at an annualized rate of 12.7% in the third quarter 2018. That still represents a growth rate that no other Texas metro area will likely ever see, but it does suggest the previously scorching rate of expansion is cooling a bit in the second half of the year.

The September/third quarter/year-to-date table of economic indicators remains generally spectacular, however, with continued double-digit percentage year-over-year increases in virtually every component of the Midland-Odessa Regional Economic Index. The only exceptions are payroll employment and the third quarter and year-to-date average home sale price and even at that the numbers are still strong in those categories as well.

The recovery in the regional oil and gas economy reached the two-year mark in September with the 24th straight monthly increase in the Texas Alliance of Energy Producers Texas Permian Basin Petroleum Index. The index improved to 338.4 in September up from 334.0 in August, and up 24.6% from the September 2017 TPBPI of 271.7. Again, though, the index remains down compared to its all-time peak of 384.9 in November 2014.

Crude oil prices had not yet begun to decline in September, at least in terms of posted prices which averaged over $66.50 for the month. The rig count added another five working rigs on average in September at 388 rigs operating in Railroad Commission districts 7C, 8, and 8A. The number of drilling permits issued in the region is up by 11% through September compared to the first nine months of a year ago which in turn was up by over 70% compared to the prior year. However, the total through September 2018 is down by over 30% compared to the 9,150 permits issued through September in the peak year of 2014.

Crude oil production in the region (again, the total for 7C, 8, and 8A) continues to push ever deeper into record territory surpassing 2.5 million barrels per day in September, and nearly 75.6 million bpd for the month, an increase of over 20% compared to September of a year ago. Oil and gas employment in the Midland-Odessa combined metro area actually declined slightly from August to September, though that
could easily be a seasonal phenomenon. The rate of industry employment growth is slowing, however, at about 21% (year-over-year) in September compared to over 30% in June of this year.

The same trends are evident in the general economy of Midland-Odessa – growth rates that remain spectacular, certainly compared to any other metro area in the country, but that have cooled a bit compared to peak rates of growth in recent months. General real (inflation-adjusted) spending per September sales tax receipts were up by 26.6% compared to September of a year ago; those growth rates averaged over 40% in the first half of the year and surpassed 50% in March 2018. Third quarter spending growth was up by over 31% compared to year-ago levels, but that compares to growth rates in excess of 40% in the first and second quarters. For the year-to-date, real spending is up by some 37% compared to the first nine months of 2017.

Inflation-adjusted automobile spending improved by nearly 26% in the third quarter compared to year ago levels, and again that is down from growth rates of 45% and 33% in the first and second quarters. Overall, however, 2018 remains a year of stout growth in auto sales activity with auto spending up by 34% through September compared to the January-September 2017 total.

Construction activity remains on the rise for the second straight year after tanking in 2015 and 2016, with the inflation-adjusted valuation of all building permits issued up by 37% through September compared to the first nine months of last year. The third quarter building permit total is up by over 17% year-over-year, and the September monthly total is up by a sharp 75% compared to lower September numbers in 2016 (and 2015).

Housing construction has only strengthened in 2018 with the number of single-family residence building permits issued at record totals for the third quarter, and the year-to-date 2018 (the September monthly total was not quite a September record). The number of permits issued in Midland-Odessa through September is up by 34% compared to the total through September 2017, which in turn was up by 38% compared to the prior year.

Existing home sales surpassed 400 for the fifth straight month in September, having never done so before May of this year. Housing sales are at a record level for September, the third quarter, and the year-to-date through September, with the January-September total up by 15% compared to the first nine months of a year ago. The nominal (unadjusted for inflation) average Midland-Odessa home sale price exceeded $300,000 for the first time ever in September and posted a sharp 13% increase compared to September of a year ago.

The inflation-adjusted total dollar volume of residential real estate activity in 2018 is simply blowing away all previous records. The September total is up by over 25% compared to September of a year ago, while the third quarter total is up by over 20%. For the year-to-date real home sales activity is up by 17% compared to the total through September of a year ago, which in turn was up by 35% compared to the first nine months of the previous year.

Crude oil prices have slumped in recent weeks thanks to growing US production, ramped up Saudi production in response to anticipated declining marketed Iranian production which did not really materialize. West Texas Intermediate daily posted prices are off by as much as $20/barrel compared to prices in mid-October as the sentiment has rapidly shifted to the bearish side. Permian pricing remains discounted to posted prices, meaning a sizable share of Permian production is fetching even less relative to the benchmark pricing. Surprisingly, the lower prices in recent months that are entirely the result of the discounts related to insufficient takeaway capacity have done little to affect the rig count. A $20/bbl decline will almost certainly knock the regional rig count off its growth track and may begin to affect other measures of regional activity if it lasts for any length of time – or worsens. Meanwhile, the third quarter 2018 brought continued strong general economic growth with more to come, and record levels of aggregate economic activity in the combined Midland-Odessa metro area.

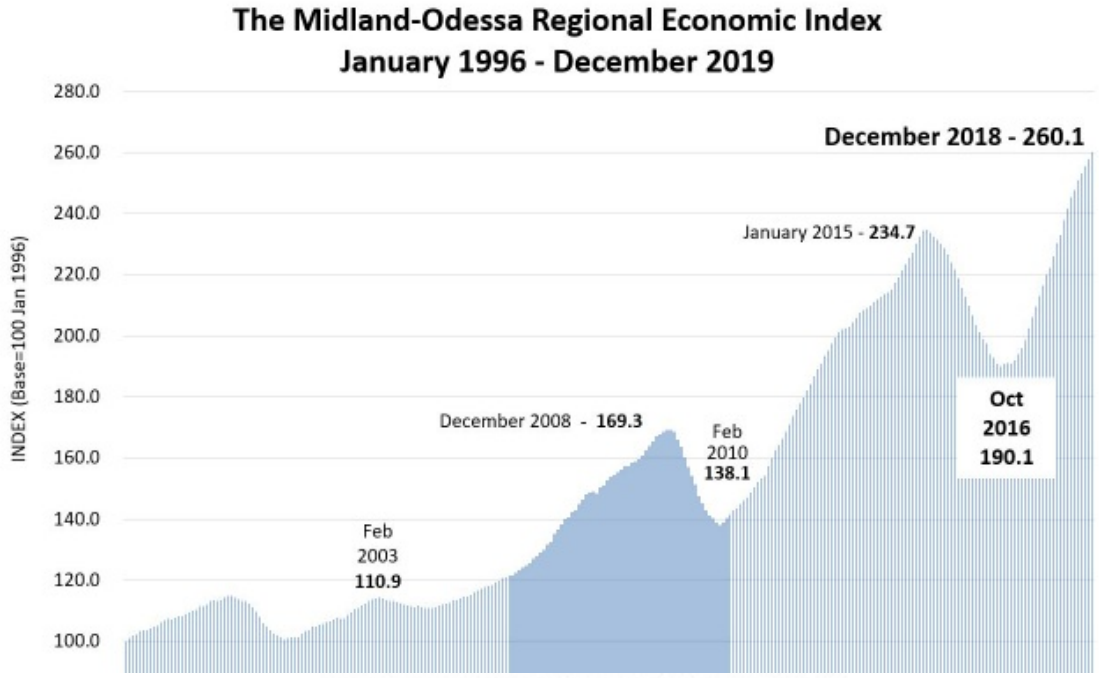
Karr Ingram. InghamEcon, LLC. The Midland-Odessa Regional Economic Index. September/3rd Quarter 2018.

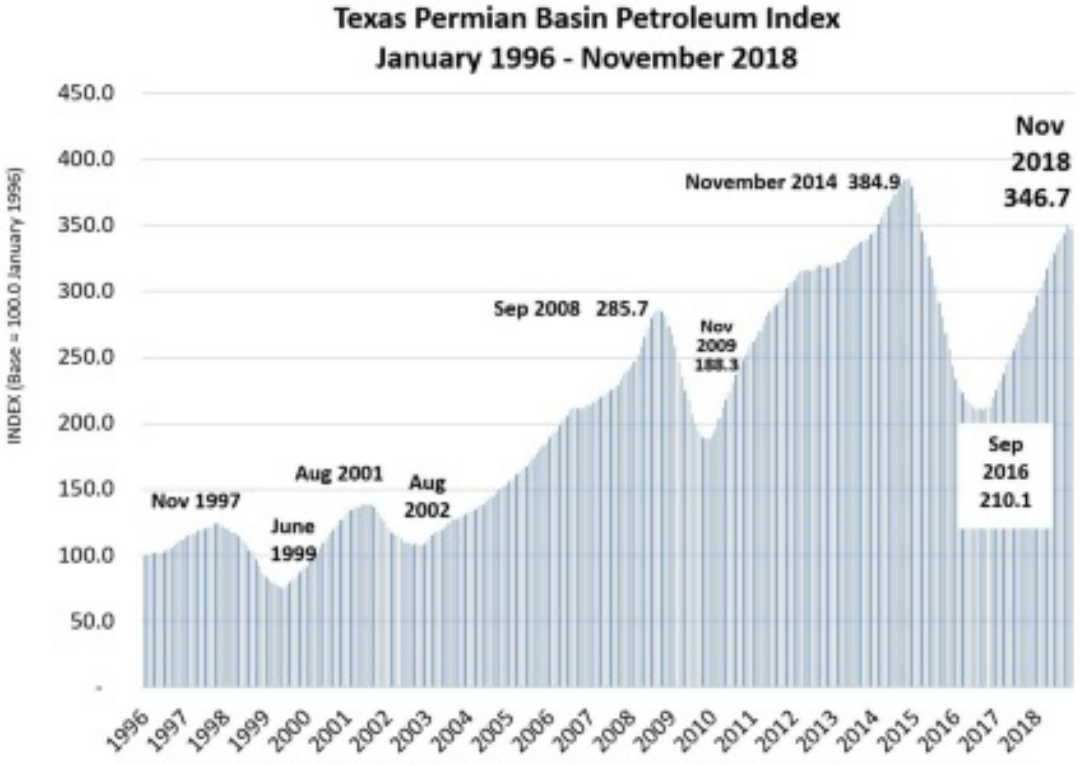
Construction Activity

Midland and Odessa have each seen a significant increase in construction activity over the past few years. The increases have been attributed to the strong economic growth in the regional oil and gas economy over the past three years. According to the Midland Development Corporation, as of March 2018, the value of all building permits YTD was $217,287,737, which is an approximate 151.6% increase from the same time period of

March 2017 of $86,366,167. Additionally, as of March 2018, there were 288 new home permits issued, which is also an increase from data of 232 new home permits a year ago.

The following charts are excerpts from the Midland Economic Development report and reflect the aforementioned economic data.





Midland-Odessa Regional Economic Index

Midland-Odessa Regional Economic Index				
Economic Indicators December 2018	Base Year 1996	Last Year 2017	This Year 2018	% Change 2017-2018
Taxable Spending - December (Per Sales Tax Rebates)	$270,979,484	$737,824,404	$962,678,704	30.5%
Taxable Spending - 4th Quarter	$814,123,096	$2,315,097,445	$2,939,375,993	27.0%
Taxable Spending - YTD	$3,268,023,875	$8,232,423,119	$11,117,129,417	35.0%
Dollars Spent on Auto Purchases - December	$31,808,978	$100,990,437	$132,444,020	31.1%
Dollars Spent on Auto Purchases - 4th Quarter	$95,150,263	$332,791,677	$427,102,184	28.3%
Dollars Spent on Auto Purchases - YTD	$389,928,065	$1,258,220,788	$1,666,049,509	32.4%
Hotel/Motel Spending - Quarter	$9,646,784	$47,840,832	$77,715,484	62.4%
Hotel/Motel Spending - YTD	$35,972,575	$151,187,497	$283,303,275	87.4%
Airline Passenger Enplanements - December	46,648	56,639	52,018	-8.2%
Airline Passenger Enplanments - 4th Quarter	136,989	150,948	159,258	5.5%
Airline Passenger Enplanements - YTD	547,024	530,322	603,540	13.8%
Value All Building Permits - December	$11,833,530	$27,244,725	$76,229,647	179.8%
Value All Building Permits - 4th Quarter	$48,542,230	$136,931,682	$193,078,244	41.0%
Value All Building Permits - YTD	$236,471,381	$699,920,628	$963,203,403	37.6%
Permits for New Homes - December	24	63	123	95.2%
Permits for New Homes - 4th Quarter	94	243	322	32.5%
Permits for New Homes - YTD	123	1,330	1,778	33.7%
Sales of Existing Homes - December	148	347	341	-1.7%
Sales of Existing Homes - 4th Quarter	456	1,024	1,104	7.8%
Sales of Existing Homes - YTD	2,470	4,100	4,521	10.3%
Average Home Sale Price - December	77,700	261,721	280,002	7.0%
Average Home Sale Price - 4th Quarter	74,433	256,196	281,435	9.9%
Average Home Sale Price - YTD	76,967	259,771	282,925	8.9%
Dollar Volume of Residential Real Estate Sales - December	$18,868,709	$93,123,590	$95,480,631	2.5%
Dollar Volume of Residential Real Estate Sales - 4th Quarter	$55,803,233	$269,646,241	$311,395,511	15.5%
Dollar Volume of Residential Real Estate Sales - YTD	$318,167,564	$1,105,399,436	$1,292,587,438	16.9%

Employment				
Wage and Salary Employment - December	102,300	173,400	180,900	4.3%
Wage and Salary Employment - 4th Quarter	102,300	172,665	180,435	4.5%
Wage and Salary Employment - YTD Average	100,175	166,600	177,835	6.7%
Unemployment Rate - December	4.7	2.6	2.3	-9.9%
Unemployment Rate - 4th Quarter	5.0	2.7	2.3	-14.9%
Unemployment Rate - YTD Average	5.7	3.5	2.5	-28.3%
TEXAS PBPI - December	**111.5**	**288.7**	**343.8**	**19.1%**
INDEX - December (Base = 100 January 1996)	**106.7**	**222.4**	**260.1**	**16.9%**

Permian Basin Petroleum Index

Texas Permian Basin Petroleum Index				
Oil and Gas Indicators November 2018	Base Year November 1996	Last Year November 2017	This Year November 2018	% Change 2017-2018
Oil Price/bbl (Mo. Avg WTI Crude)	$21.98	$53.27	$53.33	0.1%
Oil Price/bbl (YTD Avg)	$20.16	$46.70	$62.72	34.3%
Gas Price (Waha Hub Mo Avg)	$2.48	$2.59	$1.72	-33.6%
Gas Price (YTD Avg)	$1.93	$2.70	$2.06	-23.8%
Rig Count (Month)	99	321	387	20.6%
Rig Count (YTD Avg)	82	294	370	26.0%
Drilling Permits (Month)	368	781	535	-31.5%
Drilling Permits YTD	4,065	6,912	7,400	7.1%
Oil Completions (Month)	302	283	486	71.7%
Oil Completions YTD	2,273	3,053	5,195	70.2%
Gas Completions (Month)	91	16	73	356.3%
Gas Completions YTD	710	141	460	226.2%
Oil Production Volume (000's bbls/month)	27,200	68,497	86,728	26.6%
Oil Production Volume YTD	301,052	662,934	860,109	29.7%
Oil Production Value (000's Month)	$603,395	$3,648,625	$4,625,498	26.8%
Oil Production Value YTD	$6,101,911	$30,972,732	$53,974,506	74.3%
Gas Production Volume (000's MCF/month)	125,157	220,855	273,423	23.8%
Gas Production Volume YTD	1,382,972	2,171,549	2,774,546	27.8%
Gas Production Value (000's Month)	$310,390	$572,013	$470,287	-17.8%
Gas Production Value YTD	$2,665,534	$5,856,470	$5,649,012	-3.5%
Oil and Gas Employment (Month)	10,905	34,980	41,920	19.8%
Oil and Gas Employment (Avg YTD)	10,420	31,345	41,085	31.1%
Oil and Gas Regional Stock Index	**106.6**	**1,517.2**	**1,479.0**	**-2.7%**
INDEX (Base = 100 January 1996)	**109.8**	**284.4**	**346.7**	**21.9%**

Labor Force

Midland's and Odessa's labor force is drawn from a 60-mile radius. The following charts show a slow decline in the labor force over a 16 month time period for Midland and Ector Counties, which is largely due to the recent decline in the oil industry in a major oil producing area. Fluctuations in the oil and gas industries and the national and global energy sectors are not uncommon.

MIDLAND COUNTY LABOR FORCE DATA				
Date	**Civilian Labor Force**	**Employed**	**Unemployed**	**Unemployment Rate**
December 2015	94,193	90,879	3,314	3.5%
August 2016	87,715	83,681	4,034	4.6%
April 2017	84,397	81,457	2,940	3.5%
February 2018	96274	93896	2378	2.5%

ECTOR COUNTY LABOR FORCE DATA				
Date	**Civilian Labor Force**	**Employed**	**Unemployed**	**Unemployment Rate**
December 2015	86,519	82,327	4,192	4.8%
August 2016	79,218	73,842	5,376	6.8%
April 2017	74,753	71,056	3,697	4.9%
January 2018	79,706	77,087	2,619	3.3%

Major Employers

The mixture of skilled, semi-skilled, and unskilled employees is considered adequate. The following is the most recent list of the area's top employers as published by the Midland EDC website.

MAJOR PUBLIC EMPLOYERS - MIDLAND	
Employer	**Full Time**
Midland I.S.D.	3,086
Midland Memorial Hospital Medical Center	2,103
City of Midland	976
Midland College	755
Midland County	629

**Source: City of Midland, Midland Chamber of Commerce, 2017*

TOP 5 PRIVATE EMPLOYERS - MIDLAND	
Employer	**Full Time**
Pioneer Natural Resources USA	3,600
Endeavor Energy Resources	1,517
Walmart	816
Dawson Geo	710
HEB	658

**Source: City of Midland, Midland Chamber of Commerce, 2017*

MAJOR PUBLIC EMPLOYERS - ODESSA	
Employer	**Full Time**
Ector County I.S.D.	3,873
Medical Center Hospital	2,250
City of Odessa	893
Ector County	632
Texas Tech University (HSC)	536

**Source: Odessa Development Corporation, September 2017*

TOP 5 PRIVATE EMPLOYERS - ODESSA	
Employer	**Full Time**
Saulsbury Companies	2,441
Keane Group	2,200
Haliburton Services	1,700
Odessa Regional Medical Center	953
Wal-Mart	855

**Source: Odessa Development Corporation, September 2017*

Medical Industry

Midland and Odessa have each grown to be major healthcare centers for surrounding communities. The Midland Memorial Hospital employs over 2,000 persons and has undergone numerous expansions and additions since 2009. The hospital is staffed by over 200 active physicians, with approximately 46 specialties represented and contains 320 licensed beds. Healthcare in Odessa has also continued to grow. There are more than 200 physicians representing a wide variety of specialties. Services are provided by primarily by the Medical Center Hospital and Odessa Regional Hospital which employs almost 2,500 persons. The acute care hospitals have a combined total of approximately 632 licenced beds. In addition, Texas Tech University Health Sciences Center provides healthcare, medical education and research in the Permian Basin.

Agriculture/Livestock

Agriculture remains an important element in the area's economy. Beef cattle and horses are the chief commodities with pecans and hay also produced. There is some irrigation within the county. It is estimated that there are approximately 214 farms and ranches with over 500,000 acres. Farm income is in excess of $3,000,000.

Both Midland and Odessa are attempting to expand their economic base with both non-agricultural and agricultural business. It is important to note that a large portion of the area's employment has been dependent on the oil industry and the existing medical community. It is apparent that the cyclical oil and gas industry revenues have had a significant impact on the local economy, and this impact continues today.

GOVERNMENTAL FORCES

Government

The City of Midland is under a council-city manager system of government, consisting of six council members plus a mayor. The City of Odessa is also under a city council-city manager system of government, consisting of five council members plus a mayor. Council members are selected from separate districts with the mayor being elected with city-wide elections. Both cities provide police and fire protection. Oncor supplies electricity, Atmos Energy supplies natural gas service to both cities, and AT&T provides telephone services. Water and sewer services are provided by each respected city with water being supplied to both cities by the Colorado River Municipal Water District.

The real property within the area is subject to the following taxing jurisdictions (2018), tax rate per $100:

City of Midland	$0.392249	City of Odessa	$0.476601
Midland ISD	$1.120050	Ector County ISD	$1.279570
Midland College	$0.114721	Odessa College	$0.199660
Hospital District	$0.126158	Hospital District	$0.112720
Midland County	$0.140000	Ector County	$0.397000
Total	$1.893178	Utility District	$0.097920
		Total	$2.563471

The tax rates established by the various districts result in a total tax rate that is typically found in cities of similar size. These are the 2018 property tax rates.

Education

Midland has 37 public schools with at total enrollment of approximately 24,643 students (2017). In addition to the public schools, 8 private schools are available. Higher education is provided by Midland College (Spring 2017 enrollment of 5,433). Odessa also has 43 public schools which educate approximately 32,996 students. Three charter and 6 private and/or parochial schools are available. Higher education is provided by Odessa College (Spring 2017 enrollment of 5,606), University of Texas of Permian Basin (Fall 2017 enrollment of 6,673) and the Texas Tech University Health Science Center Permian Basin Campus.

Recreational and Cultural Features

Both the City of Midland and Odessa maintain numerous parks, many having tennis courts and playing fields for baseball and other sports. Other city facilities include swimming pools, tennis courts, country club 18-hole golf courses, community and senior citizen centers. The area's cultural facilities compare favorably with those of many larger cities. Support for the arts comes from metropolitan cultural events. Other recreation and educational facilities include the Permian Basin Petroleum Museum, Library and Hall of Fame, the Museum of the Southwest, Confederate Air Force and Museum, and The Midland Rockhounds Baseball Club which is a double-A farm team for the Oakland Athletics Baseball Club.

Transportation

The Midland-Odessa area offers above average transportation and communication services. Several major highway systems traverse the cities. Interstate 20 and U.S. Highway 80 provide east-west access from the other major metro areas such as Dallas-Ft. Worth and El Paso. State Highways 158, 349 and 191 provide access to other area towns to the north and south of Midland while U.S. Highway 385 and State Highways 302 and 191 provide access to other area towns to the north and south of Odessa. Additionally, several motor freight carriers provide service to the Midland-Odessa area.

Rail service is provided by the Union Pacific Railroad. This rail system operates 24 hours, seven days per week, and connects Midland-Odessa with major points throughout the West and Midwest, as well as the major metropolitan areas of Texas.

The Midland International Airport (MAF), located between Midland and Odessa, accommodates commercial, corporate and private air service into the area. The air terminal can accommodate the larger commercial airlines such as Boeing 727's and 737's and the Douglas DC-9. Major airlines providing air service include American Eagle, Southwest Airlines, and United Airlines. For cargo shipments, MAF is served by Southwest Airlines Cargo, Total Logistics Corporation, Federal Express, and UPS. Additional air transportation is provided by Midland Airpark and Schlemeyer Field, which are primarily utilized by corporate and private aircraft.

ENVIRONMENTAL FORCES

Climate and Topography

Midland and Odessa have an average temperature of 63 degrees with a January average temperature of 56 degrees and a July and August average temperature of 95 degrees. These temperatures vary on both ends of the spectrum from the low 20's to over 100 degrees during extended long periods of hot weather. The average annual precipitation ranges from is 13.5 inches to 16.3 inches. These factors produce a mild climate with adequate weather conditions for both occupational and recreational activities.

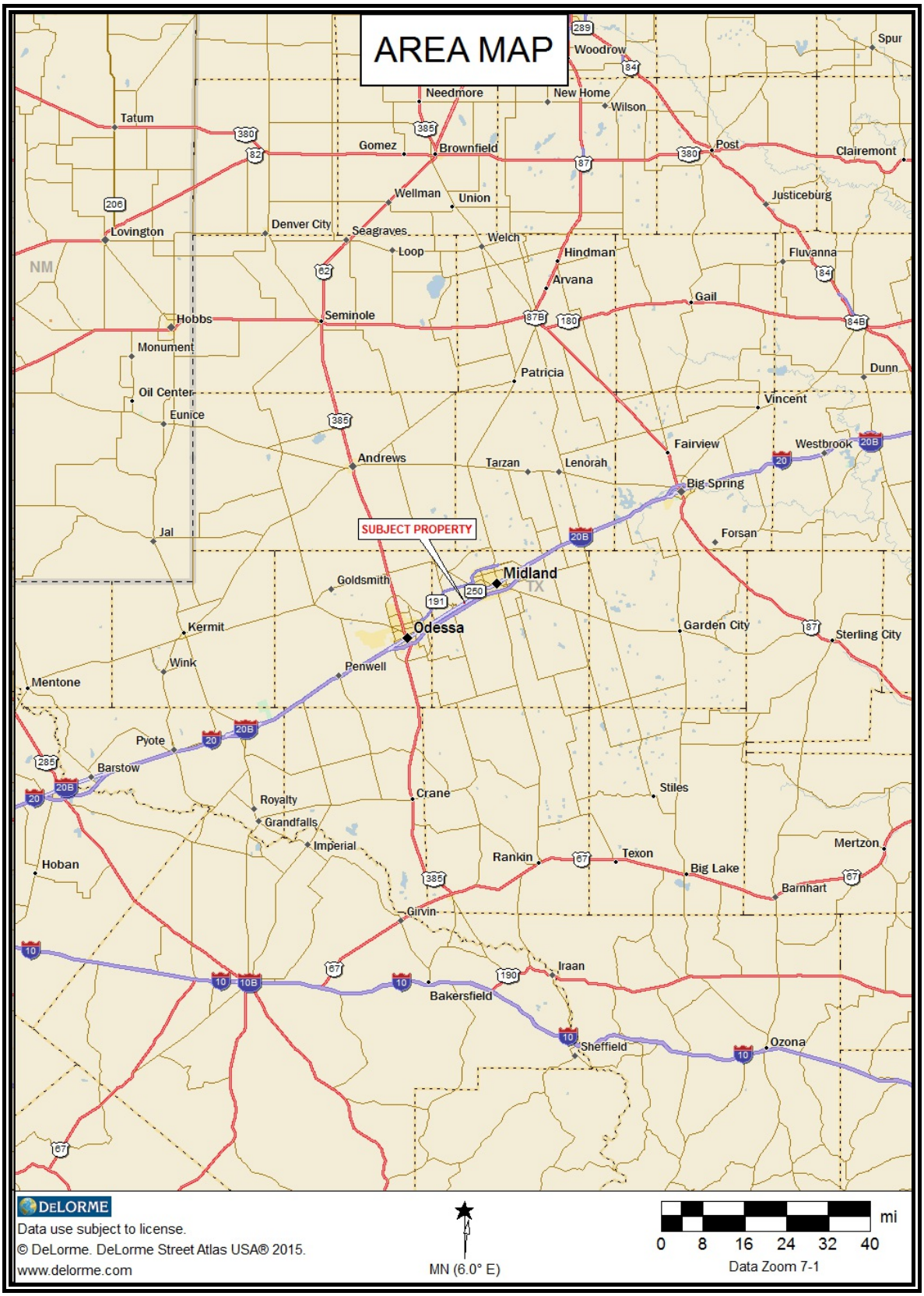
The topography is level to gently rolling mesquite plains with an elevation range of 2,613 to 2,936 feet above sea level. Midland County comprises 902 square miles or approximately 577,280 acres. Ector County comprises 903 square miles or approximately 577,920 acres.

CONCLUSIONS

The preceding pages contain basic community data, and after an analysis of this data, the following conclusions are evident:

The area's population has been increasing over the past ten years, in most part because of the oil and gas industry. Employment and the economic base are becoming diversified, but the communities are still largely dependent on the oil industry and local medical facilities. The cities' government and services provided are more than adequate for present and immediate future needs. New commercial real estate development has significantly increased over the past three years, and numerous new up-scale residential housing developments are complementing the growth.

In conclusion, the long-term outlook for the Midland-Odessa area is average to good based on long-term increases in global energy demand. In the short-run, the Permian Basin region will continue to suffer from the detrimental effects of the oil and gas industry. A continuing problem is the area's historical dependance on the oil industry and its uncertainty in oil prices. Until a significant shift is made in the economic base of the community, the outlook for the area's economy will follow the status of the oil industry and oil prices. However, commercial, retail and residential growth is predicted to increase in the long-term.


AREA MAP
SUBJECT PROPERTY
Midland
Odessa
Woodrow
Spur
Needmore
New Home
Wilson
Tatum
Gomez
Brownfield
Post
Clairemont
Wellman
Union
Justiceburg
Lovington
Denver City
Seagraves
Welch
Loop
Hindman
Fluvanna
NM
Arvana
Gail
Hobbs
Seminole
Monument
Patricia
Dunn
Oil Center
Eunice
Vincent
Fairview
Westbrook
Andrews
Tarzan
Lenorah
Big Spring
Jal
Forsan
Goldsmith
Kermit
Garden City
Sterling City
Wink
Penwell
Mentone
Pyote
Barstow
Stiles
Crane
Royalty
Grandfalls
Imperial
Mertzon
Hoban
Rankin
Texon
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Barnhart
Girvin
Iraan
Bakersfield
Sheffield
Ozona
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Neighborhood Data and Analysis

"A neighborhood is a group of complementary land uses."[5] A neighborhood is typically a segment of a community, city or town which is a homogeneous grouping of individuals, buildings or business enterprises within the larger community. A neighborhood may be characterized by such uses as residential, commercial, industrial, recreational, agricultural, civic, cultural or a combination of these uses. The areas devoted to these various uses are physical neighborhoods. Inhabitants of a neighborhood usually have more than a casual community of interest. Neighborhood boundaries may consist of well-defined natural or man-made barriers or they may be more or less well-defined by a distinct change in land use or in the character of the inhabitants.

In the vicinity of a property, there are social, economic, governmental and environmental forces that affect property value. Neighborhood boundaries are identified by determining the area affected by similar operations of the forces. Analysis of the neighborhood in which a particular property is located is important due to the fact that the various forces which affect the neighborhood also directly influence the individual properties located within it. A discussion of these various factors as they affect the value of the subject property follows.

Neighborhood Location and Boundaries

The subject property is located just west of the City of Midland, in Midland County, Texas. The subject neighborhood can be defined as the Business 20 Corridor, also known as US Highway 80, which is bounded by State Highway 250 to the east and State Highway 338 to the west. This boundary description encompasses an area which is supported by similar social, economic, government, and environmental forces that influence property values as well as similar types and groupings of land uses.

Accessibility Traits

Primary access is provided by Business 20, which runs in a northeast to southwest direction through the central portion of the defined neighborhood. Primary access is also provided by US Highway 80 and Industrial Avenue. These roads are paved roadways that provide access to all secondary streets located along the north and south side of Business 20. Secondary access is provided by interior roadways, which are predominantly two way asphalt paved roads.

[5]The Appraisal of Real Estate, Fourteenth Edition, Appraisal Institute, 2013, PG. 136.

Utility Availability

The subject neighborhood is adequately served by all the typical utilities, including water via the Cities of Midland or Odessa, or via private water well, sewer/ septic, electrical service, natural gas, and telephone. No shortage of utility service in the developed portions of this neighborhood were reported and the lack of utilities has not been detrimental in the development of the area.

Topography and Soils

Midland is located in Midland County in the High Plains region of West Texas. The neighborhood topography is primarily level to gently sloping. The neighborhood soils appear to have a load-bearing capacity that does not restrict the construction of ordinary structural improvements. No evidence to the contrary was noted during physical inspection of the site and neighborhood.

Conformity

As mentioned earlier, the defined neighborhood displays a mixture of land uses, including commercial, retail, and light industrial uses. Overall, the building improvements within the neighborhood are fairly uniform in condition, construction, design, and age. Thus, there is a high degree of compatibility within the subject neighborhood.

Planning, Zoning, and/or Restrictions

The neighborhood is located between the cities of Midland and Odessa and is located outside the city limits to each of the municipalities, thus, the neighborhood is not subject to the zoning ordinances set forth by the municipalities.

Public Transportation

The subject neighborhood is served by the EZ Rider Transit System. Transportation for the area is also provided by commercial bus service, and private taxi. The nearest airport with commercial air service is the Midland International Airport, located just north of the subject neighborhood.

Nuisances and Hazards

Nuisances and hazards such as vibration, smoke, smog and odors are limited in the subject neighborhood. These problems are not severe and are a natural part of any growth oriented community. The area does not have any uses that adversely contribute to its overall make up.

Neighborhood Trends and Land Uses

Development within the neighborhood is primarily light industrial office/ warehouse, retail, and general commercial properties, all of which are located along, or in close proximity to, Business 20.

Neighborhood/Market Area Life Cycle

Because market areas are observed, organized, constructed, and used by people, each has a dynamic quality. This quality is described as a "life cycle." According to The Appraisal of Real Estate, 13th Edition, Page 56, the complementary land uses that make up neighborhoods and the homogeneous land uses within districts typically evolve through four stages:

Growth	-	A period during which the neighborhood gains public favor and acceptance.
Stability	-	A period of equilibrium without marked gains or losses.
Decline	-	A period of diminishing demand.
Revitalization	-	A period of renewal, redevelopment, modernization and increasing demand.

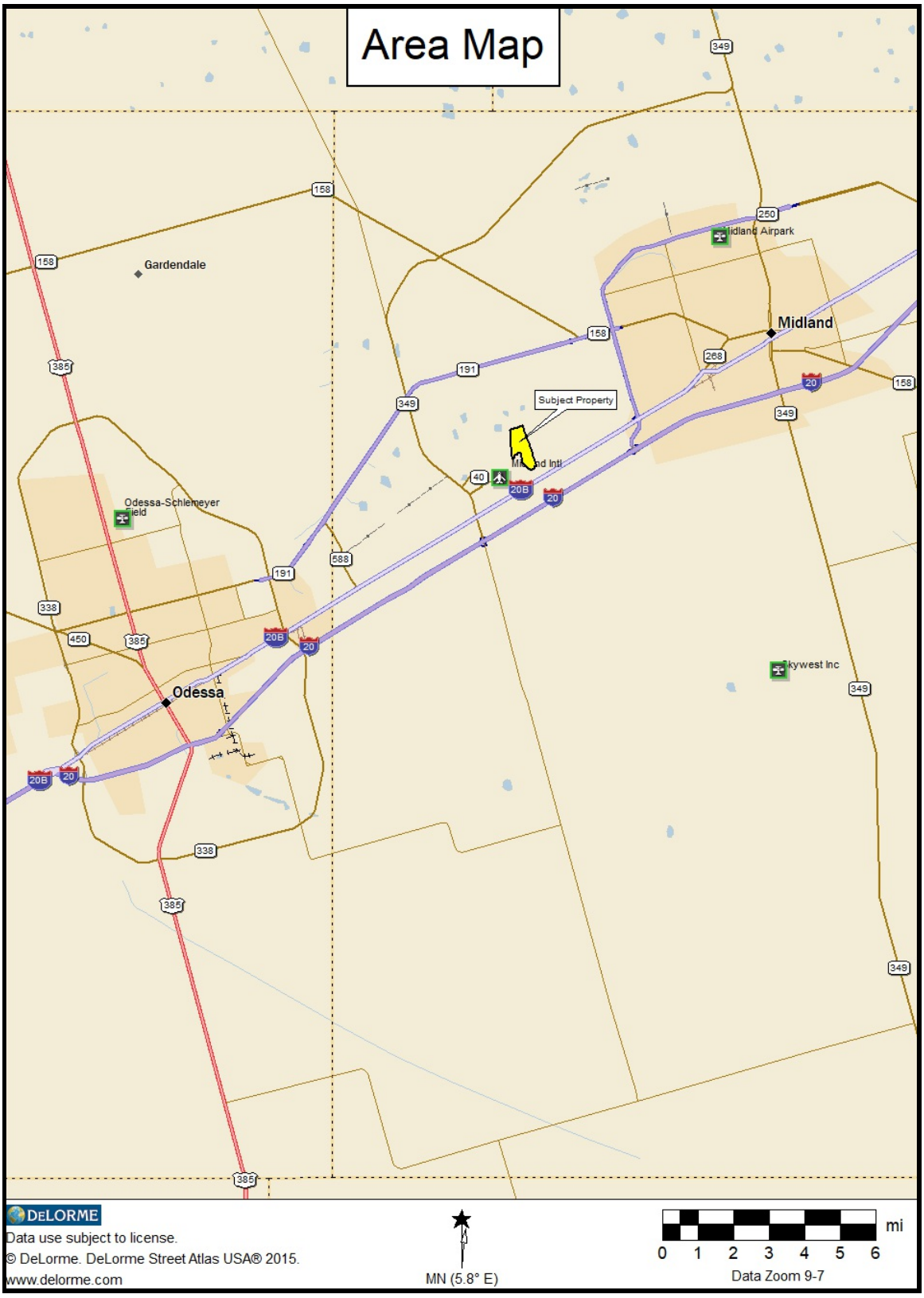
Based on physical inspection, it appears the subject neighborhood entered into a period of growth in the 1980's and 1990's, followed by a long period of stabilization. The subject neighborhood is located in the eastern portion of the neighborhood which has experienced significant growth in recent years, which primarily consist of light industrial properties. At this time, the subject neighborhood appears to be in a state of growth.

Summary and Conclusions

The subject neighborhood is considered to feature a favorable mix of commercial and residential development. Schools, churches, medical centers, parks, cultural and employment centers and shopping facilities are conveniently located in the neighborhood, or in proximity to the neighborhood.

The subject neighborhood is well served by several major thoroughfares and is conveniently located near major traffic arteries. There are no zoning ordinances in the area which would represent an adverse influence to the area as well as the subject property. Generally speaking, the overall economic outlook for the neighborhood is considered average, especially into the foreseeable and predictable future.

The future growth of the neighborhood relies heavily upon the recovery of the Midland-Odessa and Texas economy, as well as the overall recovery and strength of the real estate market, which could inspire future growth. The subject property is well located in the defined neighborhood and should benefit from any growth experienced by the immediate area.


Area Map
Gardendale
Midland
Odessa
Odessa-Schlemeyer
Midland Airpark
Subject Property
Skywest Inc
DELORME
Data use subject to license.
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www.delorme.com
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Data Zoom 9-7

Site Description

A site is land which has been improved so that it is ready to be used for a specific purpose. Land, on the other hand, can be raw or improved; raw land can be undeveloped or in agricultural use. A site description is a detailed listing of factual data, including a legal description, other title and record data, and information on pertinent physical characteristics. (From The Appraisal of Real Estate, Appraisal Institute, Fourteenth Edition, 2013.)

The subject whole property consists of an irregularly shaped tract of land, containing a total of approximately 327.642 acres of native rangeland improved with oil and gas well sites and other oil/gas production related uses.

Location

The subject tract is located at the terminus of Challenger Drive along the eastern boundary of the Midland Air and Space Port in Midland, Midland County, Texas. The subject tract consists entirely of native rangeland and is improved with oil and gas related uses. The improvements have been excluded from this analysis and this valuation is limited to a valuation of the land only.

GPS Coordinates

Latitude: 31.943892
Longitude: -102.189193

Access

The subject property has access from Challenger Drive. Overall, access is considered adequate for the highest and best use of the tract.

Size and Shape

A survey of the subject property was not provided to the appraisers. The size and dimensions of the whole property was based on public records and information provided to the appraisers by the client. Based on this information, the subject whole property consists of approximately 327.642 acres of land and is irregular in shape. The subject's size and shape are considered typical for properties in the area.

Topography / Flood Plain

The property is mostly level to slightly rolling in topography with elevations ranging from of 2,855 feet to 2,880 feet. According to FEMA Map Service Center, the subject does not appear to lie in a special flood hazard area. As of the physical inspection, drainage of the subject property appeared to be adequate. *However, it is recommended that a survey, by a registered surveyor be performed to determine exact elevations, flood status and the amount of acreage that might be affected.*

Water

The extent of the water resources was unknown to the appraisers. Therefore it is assumed that the water is adequate water for the highest and best use.

Soils

The USDA Soil Conservation Service Soil Survey of Midland County provided information concerning the soil types present on the subject property. The following soils are most predominant on the property:

Code	Soil Type	Percent
AfA	Amarillo fine sandy loam, 0-1% slopes	60.7%
AfB	Amarillo fine sandy loam, 1-3% slopes	10.2%
MmB	Amarillo loamy fine sand, 0-3% slopes	7.8%
MdA	Midessa fine sandy loam, 0-1% slopes	21.3%

Amarillo Series - The Amarillo series consists of soils that are moderately deep to a petrocalcic horizon. They are well drained soils that are moderately rapidly permeable above and below a very slowly permeable petrocalcic horizon. These soils formed in sandy and loamy eolian materials over thick beds of calcium carbonate. These soils are on nearly level to very gently sloping uplands. Slopes range from 0 to 3 percent. Mean annual precipitation ranges from 10 to 16 inches and mean annual temperature ranges from 62 to 68 degrees F. Frost-free days range from 210 to 240 and elevation ranges from 2,300 to 3,500 feet. Use is predominantly range. Black grama, mesa dropseed, little bluestem, sideoats grama and blue grama are the principal grasses. Mesquite, yucca, shinnery oak and sand sagebrush are the woody plants.

Midessa Series - The Midessa series consists of shallow and very shallow, well drained soils that formed in calcareous mixed alluvial sediments derived from sedimentary material over indurated caliche. Midessa soils are on undulating plains and low hills and have slopes of 1 to 6 percent. The average annual precipitation is about 11 inches and the annual temperature is about 62 degrees F. These soils are used for grazing. The present

vegetation is mesquite, creosote, javelina bush, broom snakeweed, black grama, three awn spp, dropseed spp., and tridens ssp.

*Source: USDA-NRCS Official Soil Series Descriptions - https://soilseries.sc.egov.usda.gov/osdname.aspx

Overall, the subject tract possesses typical soil types for the area. A Soil map is included following this section of the report.

Current Use

The subject property is currently utilized as native rangeland with native grass cover and oil field related uses. Overall, turf condition appears to be average for the subject area.

Utilities

There is currently electricity, water, sewer, and telephone available to the subject area.

Zoning

The subject site is located in an unincorporated area of Midland County. As the site is unzoned, the uses of the subject are quite broad. Based on development density of surrounding tracts, development of the site is not likely to be imminent.

Improvements

The subject tract consists entirely of native rangeland and is improved with oil/gas related uses and scattered oil and gas well sites as well as scattered ranching improvements such as working pens. The improvements have been excluded from this analysis and this valuation is limited to a valuation of the land only.

Nuisances, Hazards, and Detrimental Influences

There was oilfield activity noted on the subject property and in the subject area during our inspection. For the purpose of this report, it is assumed that no hazardous conditions affect the subject property.

Easements, Encroachments, and Restrictions

Based on the physical inspection and a review of Texas Railroad Commission information of the subject property, there are multiple existing pipelines located on the property. However, there appears to be no easements, encroachments, or restrictions that would detract from the market value of the property.

Surrounding Uses

Surrounding properties are primarily vacant land tracts utilized as native pasture and oil/gas related uses to the north and east of the subject property. The Midland International Air and Space Port is located to the east of the subject and scattered commercial and industrial uses are south and southeast of the subject property. Overall, the subject appears to conform to surrounding properties in the immediate area.

Summary

The subject property is located at the terminus of Challenger Drive, east of the Midland Air and Space Port in Midland, Midland County, Texas. The subject tract consists entirely of native rangeland and is improved with agricultural related improvements and scattered oil and gas wells and related improvements. The improvements have been excluded from this analysis and this valuation is limited to a valuation of the land only. The property is accessed via Challenger Drive. The topography of the tract is mostly level to slightly rolling and it is irregular in shape. In conclusion, the general terrain and soil composition of the subject property allows for effective utilization as oil and gas related developments with potential for future development as demand warrants.

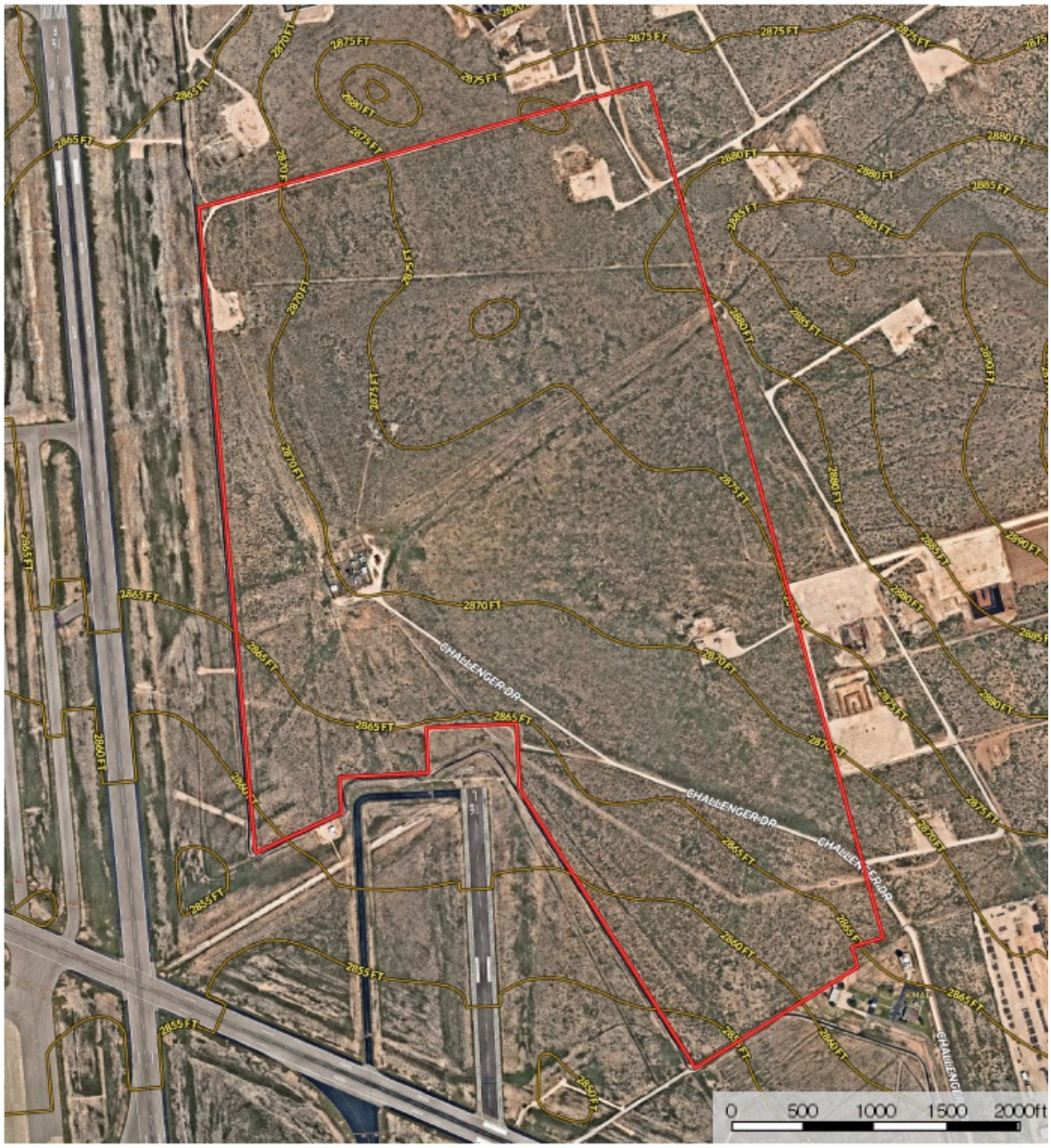
Aerial Map

2020-733 - C&W, Midland
Texas, AC +/-



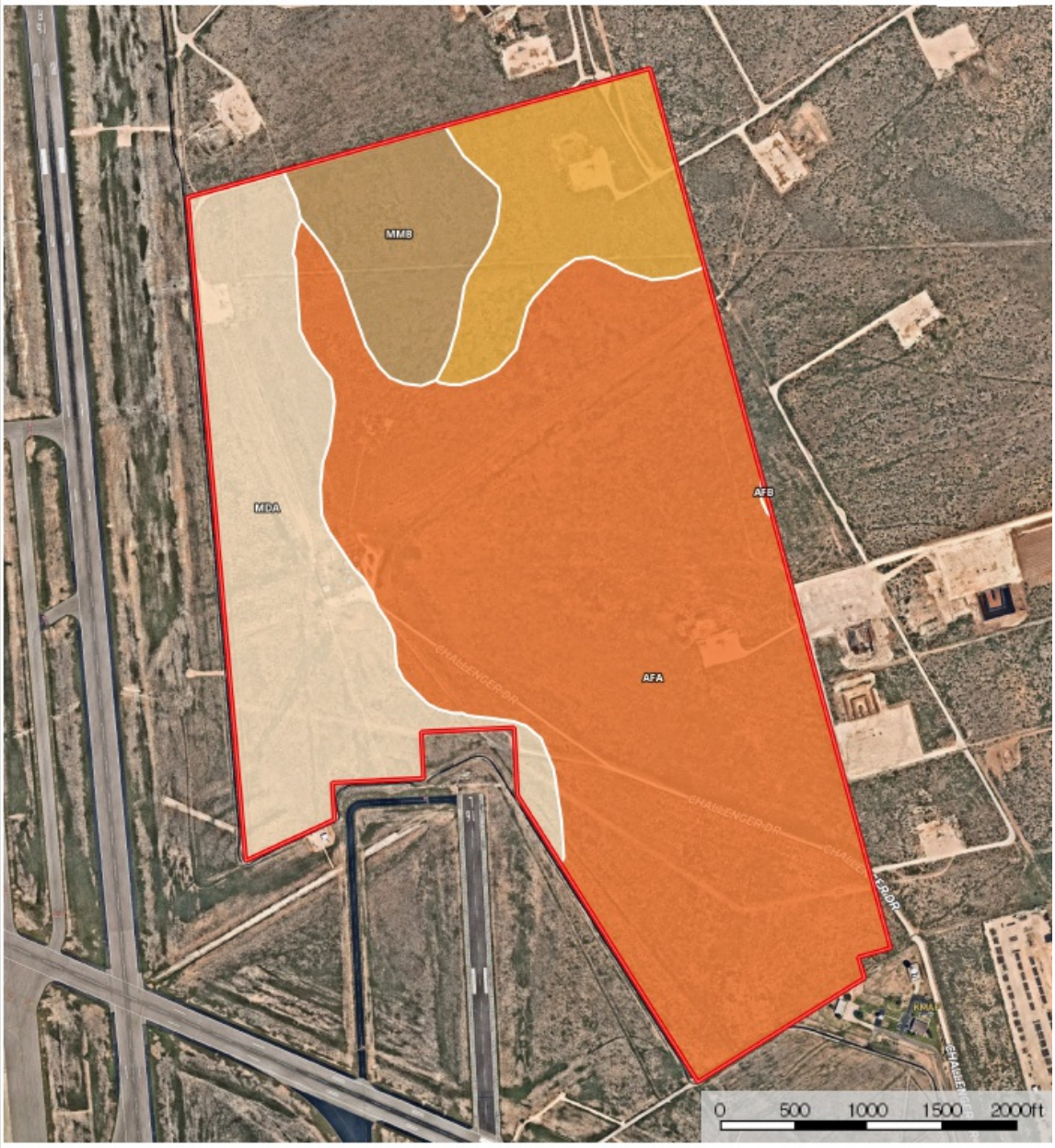
Topographic Map

2020-733 - C&W, Midland
Texas, AC +/-



Soil Map

2020-733 - C&W, Midland
Texas, AC +/-



SOIL CODE	SOIL DESCRIPTION	ACRES	%	CAP
MmB	Amarose loamy fine sand, 0 to 3 percent slopes	25.7	7.81	6e
AfA	Amarillo fine sandy loam, 0 to 1 percent slopes	200.0	60.74	3e
MdA	Midessa fine sandy loam, 0 to 1 percent slopes	70.0	21.26	3e
AfB	Amarillo fine sandy loam, 1 to 3 percent slopes	33.6	10.19	3e
TOTALS		329.2	100%	3.23

Capability Legend

Increased Limitations and Hazards

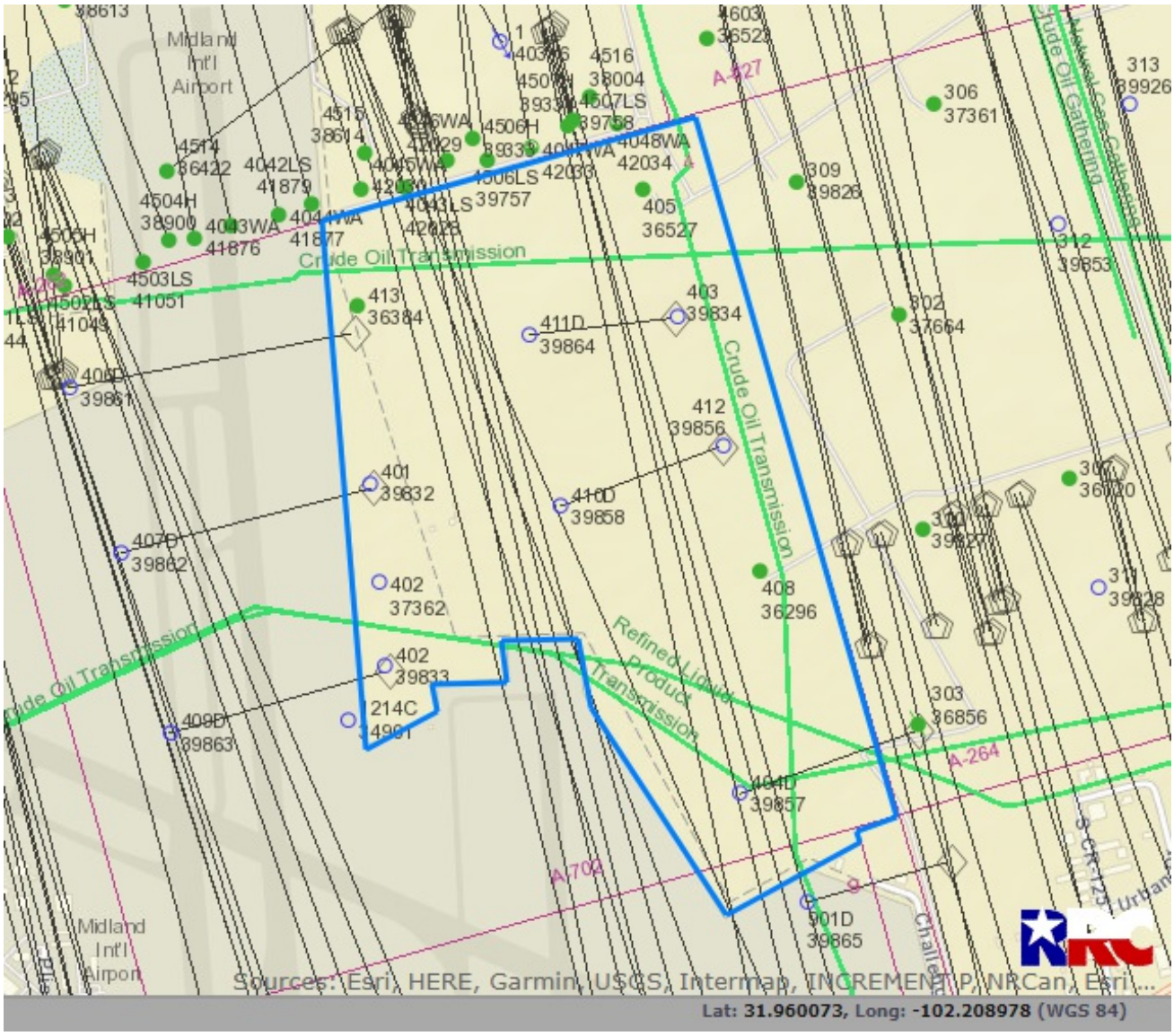
Decreased Adaptability and Freedom of Choice Users

Land, Capability	1	2	3	4	5	6	7	8
'Wild Life'	•	•	•	•	•	•	•	•
Forestry	•	•	•	•	•	•	•	
Limited	•	•	•	•	•	•	•	
Moderate	•	•	•	•	•	•		
Intense	•	•	•	•	•			
Limited	•	•	•	•				
Moderate	•	•	•					
Intense	•	•						
Very Intense	•							

Grazing **Cultivation**

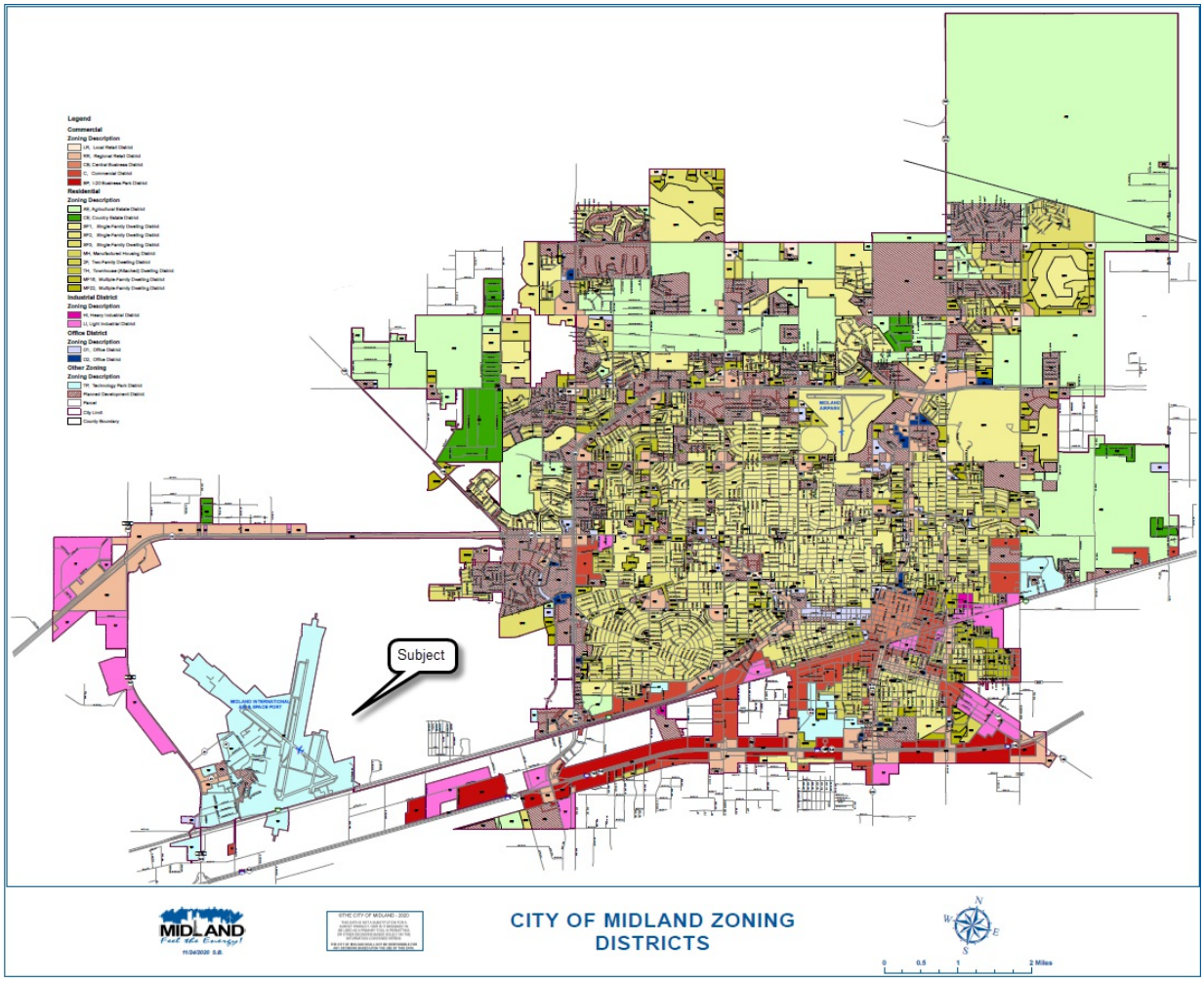
(c) climatic limitations (e) susceptibility to erosion
(s) soil limitations within the rooting zone (w) excess of water

Texas Railroad Commission Map



According to the RRC, the subject tract contains numerous wells and pipelines.

Zoning Map



Real Estate Tax and Assessment Analysis

The property is located in Midland County, Texas. The County Appraisal District estimates market values for all properties in the county. These values are utilized by all taxing authorities in the county as a basis for assessing taxes.

The 2020 appraised value summary of the Cumberland & Western Resources LLC - assigned to the property by the Appraisal District is listed in the chart below.

2020 Assessed Values					
PARCEL NO.	**ACRES**	**MARKET VALUE LAND**	**AG VALUE LAND**	**IMPROVEMENT VALUE**	**TOTAL TAXABLE VALUE**
R7629	168.736	$1,349,890	$1,690	$0	$1,690
R7551	320.326	$160,160	$3,200	$0	$3,200
TOTAL	489.062	$1,510,050	$4,890	$0	$4,890

As of the date of the appraisal, no delinquent taxes were noted. After analysis of the data within this report, *it is our opinion that the assessed value of the subject is similar to other properties in the area and is considered to be low when compared to current market sales.*

It is noted that the subject property appears to include a portion of tax account R7629.

Highest And Best Use

Highest and best use is a basic premise of value. As with value, highest and best use is not an absolute fact; it reflects an appraiser's opinion of the best use of a property based on an analysis of prevailing market conditions. The term highest and best use, as used in this appraisal report, is defined as:

> The reasonably probable and legal use of vacant land or an improved property, that is physically possible, appropriately supported, financially feasible, and that results in the highest value.[6]

Highest and best use has also been defined as that use which produces the greatest return to land over time.

Because existing improvements can limit the use of land, a determination of highest and best use for both 1) the site as if vacant and 2) the property as improved is based on the following four criteria:

1) *Legally permissible* - such use must be allowed under existing zoning, building codes, deed restrictions, and environmental regulations;

2) *Physically possible* - the size, shape, area and terrain of the property must be adequate to develop such use;

3) *Financially feasible* - the use must produce a positive return; and

4) *Maximally productive* - the use must produce a value, consistent with the rate of return indicated by the market, higher than all other uses which meet the first three criteria.[7]

Highest and Best Use

There are many legally permissible uses of the subject site for a variety of uses. Due to the development trends of the subject property and surrounding area, it is the appraisers opinion the current highest and best use of the subject property is to hold for future development.

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[6] The Appraisal of Real Estate, Fourteenth Edition, Appraisal Institute, 2013, pg. 277-278.

[7] Ibid

The Valuation Process

An appraisal is defined as "the act or process of developing an opinion of value."[8] The valuation process is a systematic procedure an appraiser follows to provide answers to a client's questions about real property value. The valuation process is applied to develop a well supported opinion of a defined value based on an analysis of pertinent general and specific data. The estimation of a real property's market value involves a systematic process. This process involves the interpretation of the economic, sociological, physical and political forces that have an effect upon a specific property.

The first step in the process is to define the appraisal problem, i.e., identify the real estate, the property rights being appraised and the type of value sought. Once this has been accomplished, the factors that affect the market value of the subject are collected and analyzed. These factors are addressed in the city and area section, the neighborhood section, the site and improvement sections and the highest and best use section. In this process, the basic approaches to value, when applicable, are utilized: the cost approach, the income approach, and the sales comparison approach.

1. In the cost approach, value is estimated as the current cost of reproducing or replacing the improvements (including an appropriate entrepreneurial incentive or profit) minus the loss in value from depreciation plus land or site value.

2. In the sales comparison approach, value is indicated by recent sales of comparable properties in the market and other supporting transactional information.

3. In the income capitalization approach, value is indicated by a property's earning power, based on the capitalization of income.

Traditionally, specific appraisal techniques are applied within the three approaches to derive indications of real property value. One or more approaches to value may be used depending on which approaches are necessary to produce credible assignment results, given the intended use.[9]

The final step in the valuation process is the reconciliation of the values indicated. In the final reconciliation, consideration is given to the relative significance, defensibility and applicability of each approach as it pertains to the type of property being appraised. The most weight is given to the approach that appears to produce the most reliable solution to the appraisal problem.

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[8] Appraisal Institute, The Appraisal of Real Estate, Fourteenth Edition, 2013.

[9] The Appraisal of Real Estate, Fourteenth Edition, The Appraisal Institute, 2013, Page 36.

The Cost Approach to Value

The cost approach to value is one of the three methods used in the valuation process. It is based on the understanding that market participants relate value to cost. The principle of substitution is basic to the cost approach. This principle affirms that a knowledgeable buyer would pay no more for a property than the cost to acquire a similar site and construct improvements of equivalent desirability and utility without undue delay.[10]

The applications of the approach to a specific property involves the following steps:

- Estimate the value of the site as though vacant and available to be developed to its highest and best use.
- Estimate the reproduction cost or replacement cost new of all the improvements
- Estimate direct, and indirect costs of improvements, and entrepreneurial profit
- Add estimated direct and indirect costs, and entrepreneurial profit to cost of improvements.
- Estimate amount of depreciation from all causes {physical deterioration, functional obsolescence and economic (external) obsolescence}.
- Deduct estimated depreciation from the total cost new of the improvements to arrive at a depreciated value of the improvements.
- Add the site (land) value (Step 1) to the depreciated value of the improvements (Step 7) to arrive at a value indicated by the cost approach.
- Adjust value conclusion if any personal property or intangible assets are included in the appraisal assignment.

The reproduction cost is the cost to reproduce the improvements with the exact or similar materials as subject property - to produce a replica. The replacement cost is the cost associated with replacement of the improvements with equivalent utility using modern materials and current standards, design, and layout. The accrued depreciation is measured by estimating the physical deterioration, functional obsolescence, and the economic obsolescence. When the reproduction cost and the accrued depreciation are accurately estimated, then the indicated value by the cost approach will be comparable to the values indicated by the sales comparison and the income approaches.

The improvements on the site have been excluded from this analysis. As such, the Cost Approach was considered to be not applicable and was omitted from the analysis.

[10] The Appraisal of Real Estate, Fourteenth Edition, Appraisal Institute, 2013, p. 47, 561-579.

The Sales Comparison Approach to Value

The Sales Comparison Approach to value is an opinion of market value developed by comparing properties similar to the subject property that have recently sold, are listed for sale, or are under contract. This approach to value is premised on the principle of *Substitution*, which holds that the value of property tends to be set by the price that would be paid to acquire a substitute property of similar utility and desirability within a reasonable amount of time.[11]

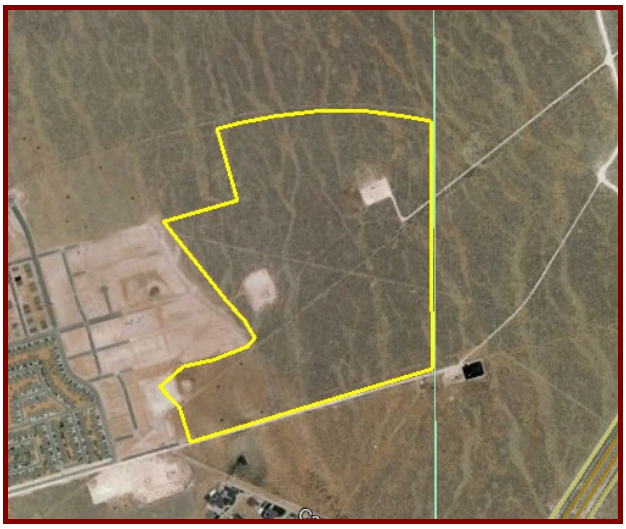
The applicability of this approach is based upon the collection of similar sales and offerings for comparison, from which market derived adjustments for relevant factors can be extracted. The sales data is compared to the subject on the basis of significant characteristics exhibited in the subject property. Considerations for such factors as time, location, size, building quality, age-condition, and amenities, as well as the terms of the transaction, are all related to the subject property. Because the adjustments are primarily market-derived, the desires and actions of typical buyers and sellers are reflected in the comparison process.

In the Sales Comparison Approach, value is estimated by comparing recent sales of similar properties to the property appraised. Preferably, all properties are located in the same area, and are of similar size, quality, and age. One premise of the Sales Comparison Approach is that the market will determine a price for the property being appraised in the same manner that it determines the prices of comparable, competitive properties.

In estimating the value of the subject property, via the Sales Comparison Approach, we utilized the Price Per Unit Method, which derives a market value by utilizing an analysis of the sales and concludes an adjusted price per unit, which is then applied to the subject property in order to derive a current estimate of value. Numerous land sales in the subject area were available for analysis and comparison. Each sale was analyzed for characteristics such as property rights conveyed, financing terms, date of sale, location, size, and amenities. Sales that were considered to be most similar to the subject were chosen for direct comparison. Each sale was adjusted for characteristics that differed from those of the subject property. Sufficient information was available from the comparable sales to derive an estimate of the subject's market value by this approach. The following section presents a location map of the comparable sales, a detailed description of each sale, and a summary chart of the sales.

[11] The Appraisal of Real Estate, Fourteenth Edition, The Appraisal Institute, Chicago, 2013, Page 337-378.

COMPARABLE LAND SALE NO. 1



PROPERTY DATA:

Location: Located along the north side of P Bar Ranch Road and east side of Aaron Parker Road, within the city of Odessa, Ector County, Texas.

Land Area: 169.63 acres

Legal Description: Being 169.63 acres out of Sections 45 & 46, Block 41, T-1-S, T&P RR Co. Survey, Ector County, Texas.

TRANSACTION DATA:

Grantor: 2012 Cross B, LLC
Grantee: Horton D R Texas, Ltd.

Date of Sale: December 19, 2017

Recording: 2017-19019

Consideration: $5,937,050 (Calculated)
Unit Price: $35,000/Acre

Terms: Cash to seller

LAND DATA:

Topography:	Mostly level to sloping; native pastureland, with a cover of mesquite.
Minerals:	Surface only; prior reservations.
Improvements:	None of contributory value.
Access:	P Bar Ranch Road and Aaron Parker Road
Zoning:	SPD - Special Dwelling District
Utilities:	All available

COMMENTS: The property was purchased by a developer and is adjacent to an existing residential subdivision development under related ownership. Verification was made on the basis of $35,000 per acre.

COMPARABLE LAND SALE NO. 2



Location: Located north of Loop 250 and south E CR 65 in northeast Midland, Midland County, Texas.
Grantor: CNG Land Partners, LLC
Grantee: Fuse Resources, Inc.
Date of Sale: March 26, 2018 **Recording:** 2018-8052
Legal Description: Being 107.971 acres in SE/4 Section 27, Block 38, T-1-S, Midland County, Texas.

Site Data:

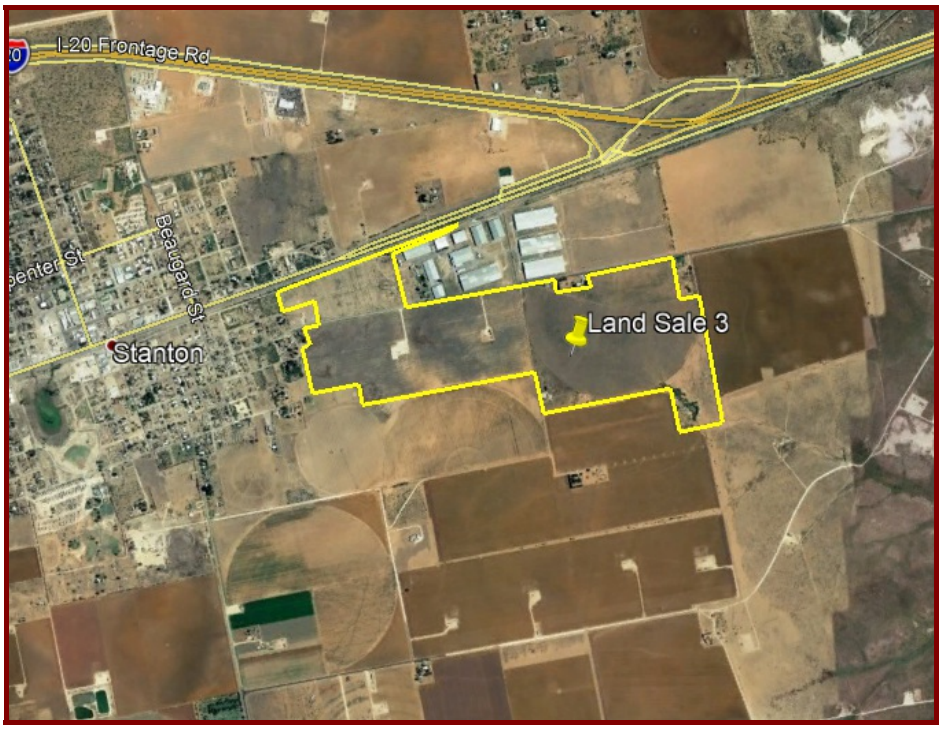
Size:	107.971 acres
Shape:	Irregular
Topography:	Level to sloping
Zoning:	None
Frontage:	CR 1135 and CR 65
Flood Hazard:	None
Utilities:	Electricity, telephone

Transaction Data:

Consideration:	$2,159,420
Terms:	Cash to seller
Unit Price:	$20,000 per acre

Remarks: This property was reportedly slated for residential subdivision use. No utilties were available to the site at time of sale.

COMPARABLE SALE NO. 3



PROPERTY DATA:

Location:	Along the south side of Business 20 on the east side of Stanton, Martin County, Texas.
Land Area:	256.47 Acres
Legal Description:	Being 256.47 acres being part of the S/2 of Section 13, Block 36, T-1-S, T&P RR Co Survey, part of the N/2 of Section 24, Block 36, and a portion of the NW/4 of Section 19, Block 35, all in T-1-S, T&P RR Co Survey, Martin County, Texas.

TRANSACTION DATA:

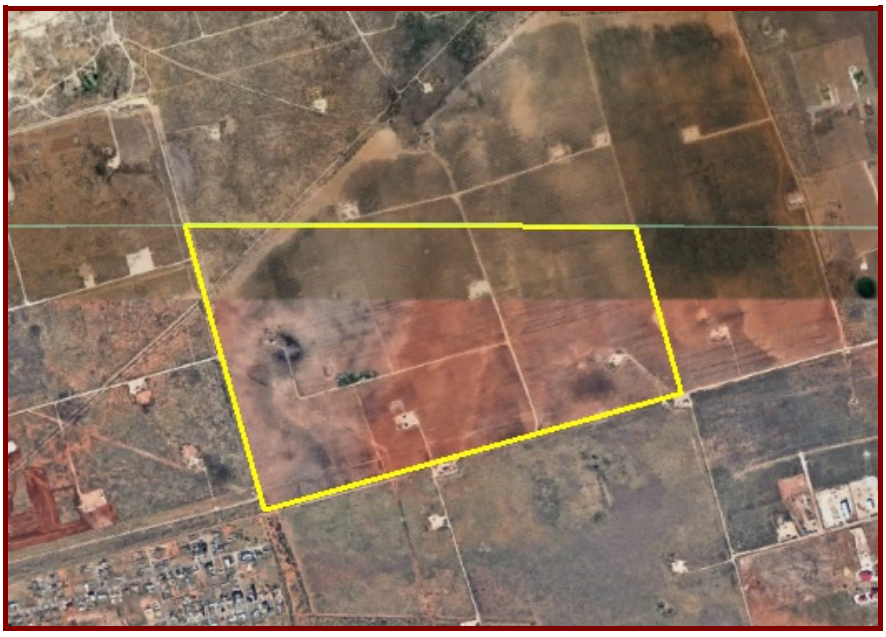
Grantor:	Kelly Joe Gaskins, et al
Grantee:	2JK Farms, LLC
Date of Sale:	October 29, 2019
Recording:	2019-6171
Consideration:	$3,500,000
Unit Price:	$13,647/Acre
Terms:	Cash to seller

LAND DATA:

Topography:	Improved pastureland
Minerals:	Surface only
Improvements:	None of value
Access:	Rail spur and Compress Road

COMMENTS: Property is unzoned. Seller's intent was unknown at time of confirmation of sale.

COMPARABLE SALE NO. 4



PROPERTY DATA:

Location:	Along the northwest side of E CR 40, Midland, Midland County, Texas.
Land Area:	354.08 Acres
Legal Description:	Being 354.08 acres of land in Section 7, Block 38, T-1-S, Midland, Midland County, Texas.

TRANSACTION DATA:

Grantor:	D.B. Fite Properties, Inc.
Grantee:	Storehouse Land Company, LLC
Date of Sale:	December 19, 2017
Recording:	2017-36824
Consideration:	$2,500,000
Unit Price:	$7,061/Acre
Terms:	Cash to seller

LAND DATA:

Topography: Sloping mixture of dry land cultivation and native pastureland.

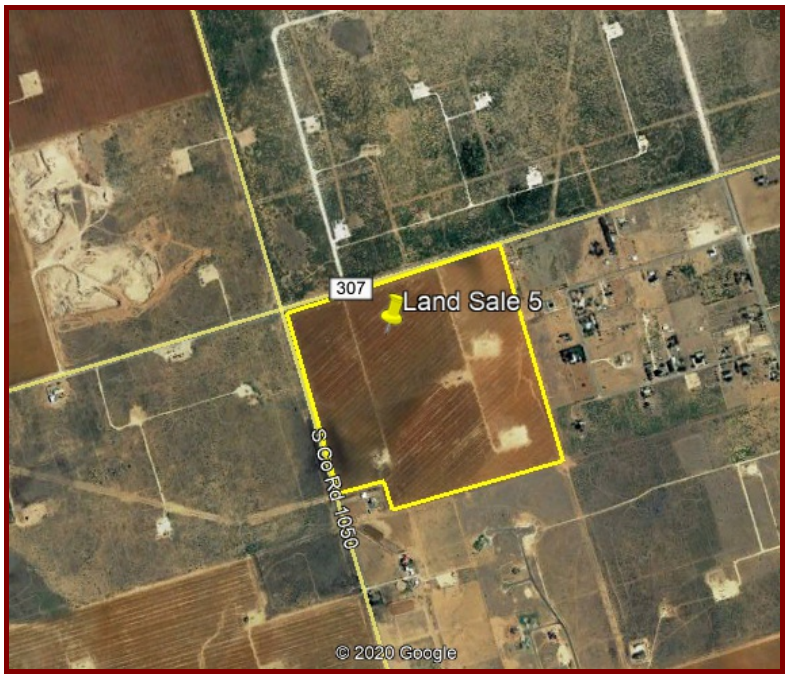
Minerals: Surface only

Improvements: None

Access: E CR 40

COMMENTS: This land was purchased by the residential developer of the property to the west, Lone Star Trails. The buyer said that a substantial life station would be required for the sewer installation, and quite a bit of land is unusable due to existing easements and well sites. Development plans include the continuation of the urban residential development to the west.

COMPARABLE SALE NO. 5



PROPERTY DATA:

Location:	Located at the southeast corner of FM 307 and CR 1050, Midland County, Texas.
Legal Description:	Being 157.22 acres out of the NW/4 of Section 6, Block 36, T-2-S, T&P RR Co. Survey, Midland County, Texas.
Land Area:	157.22 Acres

TRANSACTION DATA:

Grantor:	Wanda M. Collier
Grantee:	Somers & Watson Investments, LLC
Date of Sale:	July 25, 2019
Recording:	2019-22816
Consideration:	$1,611,505
Unit Price:	$10,250/Acre
Terms:	Cash to seller

LAND DATA:

Topography:	Entirely improved pasture
Minerals:	None
Improvements:	None
Access:	FM 307 and CR 1050

COMMENTS: Property was listed for sale at $1,725,000 ($11,000/AC) and was on the market for 122 days prior to sale.


137
Land Sale 3
Stanton
Mustang Draw
349
Land Sale 4
1800
Land Sale 2
250
349C
Land Sale 5
868
Midland
1788
191
TX-191 Frontage
268
1213
Subject Property
Land Sale 1
338
588
Land Sale 2
E Interstate 20
Midland

Comparable Sales Chart						
	Subject	**Sale 1**	**Sale 2**	**Sale 3**	**Sale 4**	**Sale 5**
Location	Terminus of Challenger Dr	E of Yukon Rd, Odessa	N of Loop 250 at CR 65	S/s of Business 20, Stanton	NW side of E CR 40, Midland	SEC of FM 307 and S CR 1050, Midland
County	Midland	Ector	Midland	Midland	Midland	Midland
Land Size (Ac)	327.64	169.630	107.971	256.47	354.08	157.22
Grantor		2012 Cross B, LLC	CNG Land Partners, LLC	Gaskins	DB Fite Properties, Inc.	Collier
Grantee		D R Horton Texas, Ltd.	Fuse Resources, Inc.	2JK Farms, LLC	Storehouse Land Company, LLC	Somers & Watson Investments, LLC
Sale Terms		Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller	Cash to Seller
Price		$5,937,050	$2,159,420	$3,500,000	$2,500,000	$1,611,505
Sale Date		12/19/17	3/26/18	10/29/19	12/19/17	7/25/19
Pasture / Cropland	Native Pasture	Native Pasture	Native Pasture	Improved Pasture	Native Pasture	Improved Pasture
Structural Improvements	Ranch/Farmstead	None	None	None of value	None	None
Access	Challenger Dr	P Bar Ranch Rd / Aaron Parker Rd	None	Railspur / Compressor Rd	E CR 40	FM 307 / CR 1050
Minerals	Surface Only	Surface Only	Surface Only	Surface Only	Surface Only	Surface Only
Price / AC		**$35,000**	**$20,000**	**$13,647**	**$7,061**	**$10,250**
Price / AC Land Only		**$35,000**	**$20,000**	**$13,647**	**$7,061**	**$10,250**
Subject Market Value by Sales Comparison Approach: 327.64 Acres, $6,500,000 (Rd.) or $20,000/Acre **Effective Date of Value: January 7, 2021**						

In addition, we have also included a table of current listings of tracts of land in the Midland / Ector County area:

Current Listings Chart				
	Subject	**Listing 1**	**Listing 2**	**Listing 3**
Location	NEC SH-349 & Occidental Pkwy, Midland	E CR 130, Mildand Co.	N CR 1150, Midland, Martin Co.	N SH 349 at 158, Midland
Land Size	327.64	156.00	185.00	293.00
Price		$2,886,000	$4,440,185	$6,600,000
Improvements	None Considered	None	Platted subdivision with streets cut	Approved mixed use plat
Minerals	Surface	Surface	Surface	Surface
Price / AC		**$18,500**	**$24,001**	**$22,526**

Listings were included to support the value estimated herein. In our experience in the market, listings typically represent the upper portion of the range indicated by a market since many properties sell below the listing price. The principle of substitution suggests a buyer would not pay more for one property than for another that is equally desirable. With the principle of substitution in mind, a reasonable market value of the subject per acre would not exceed the list price of a similar property in the presence of prudent market behavior. The listings range from 156 acres to 293 acres and from a listing price of $18,500 to $24,001 per acre, with a mean of $21,676 and a median of $22,526 per acre. Listing 2 is a subdivision with significant infrastructure and entitlements in place and Listing 3 has had some planning entitlements already underway that would convey with a sale. Both Listings 2 and 3 refer to potential industrial subdivision use.

Summary of Comparable Sales

An extensive market data investigation was conducted, including a thorough search of the region and surrounding communities. County Deed Records, County Appraisal District records were analyzed and, real estate brokers, and appraisers were contacted in search of recent comparable sales. All sales data was reviewed and the most recent and relevant sales were investigated. The basic criteria in searching for comparable sales were the date of sale, location, size, and existing use.

Numerous sales of rural properties were identified and the data obtained from these sales was considered to be accurate and reliable. Sales were chosen for comparison with the subject because of their similarity to the subject property. Each sale was analyzed to provide an indication of value for the property appraised. In addition, current listings were reviewed, compared and analyzed.

Value Indicated by Per Acre Unit of Comparison

The price per acre method was utilized to provide a value indication. The recent sales that were most similar were utilized. These sales were compared, analyzed and adjusted to the subject, reflecting any dissimilarities between each sale and the subject. In addition, current listings were reviewed, compared and analyzed.

The sales range from 107.971 acres to 354.08 acres and from an unadjusted price of $7,061 per acre to $35,000 per acre, with a mean of $17,192 per acre and a median of $13,647 per acre. The properties sold between December 2017 and October 2019. The current listings range from 156 acres to 293 acres and from a listing price of $18,500 to $24,001 per acre, with a mean of $21,676 and a median of $22,526 per acre.

Given the physical attributes of the subject, a value near the middle to upper portion of the range of indicated values of sales is considered to be reasonable and appropriate. Therefore, the indicated market value of the subject property, as of January 7, 2021 was:

327.64 Acres	X	$20,000		$6,552,840
	Rounded To:		=	**$6,500,000**

The Income Approach To Value

In the income capitalization approach, the present value of the future benefits of property ownership is measured. To develop an opinion of market value with the income capitalization approach, the appraiser must be certain that all the data and forecasts used are market-oriented and reflect the motivations of a typical investor who would be willing to purchase the property as of the effective date of the appraisal.

In the income approach, an appraiser analyzes a property's capacity to generate future benefits and capitalizes the income into an indication of present value. The steps involved in an income approach are as follows:

Research the income and expense data for the subject property and comparables,

- Estimate the potential gross income of the property by adding the rental income and any other potential income,
- Estimate the vacancy and collection loss,
- Subtract vacancy and collection loss from total potential gross income to arrive at the effective gross income of the subject property,
- Estimate the total operating expenses for the subject by adding fixed expenses, variable expenses, and a replacement allowance (where applicable),
- Subtract the estimate of total operating expenses from the estimate of effective gross income to arrive at net operating income. (Deductions for capital items may also be necessary at various points in time through the projection period to calculate the cash flow used in discounted cash flow analysis),
- Apply one of the direct ore yield capitalization techniques to this data to generate an estimate of value via the income capitalization approach.

The Income Approach does not typically represent the primary basis for purchasing agricultural land in the immediate area, therefore it was not considered applicable and was eliminated in this analysis.

Reconciliation and Final Estimate of Value

In final reconciliation, the appraiser reexamines the entire appraisal to confirm consistent application of the approaches applied (comparables used and adjustments calculated), the highest and best use conclusions upon which each approach is based, the defined value estimated in each approach, and the real property interests being appraised. The value conclusion can be expressed as a single number, as a range of numbers, or as a relationship to some benchmark amount. The nature of reconciliation depends on the appraisal problem, the approaches that have been used, and the reliability and adequacy of the data used.

These three approaches provide individual indications of value for the property in question, which are then correlated into a final opinion of value for the property by the appraiser. Whenever possible, all three approaches should be applied in making an estimate of value. One approach, however, will often be given greater consideration than the others, depending largely upon the type of property appraised and the quality of the data upon which the approach is based. The greatest consideration is normally given to the approach most commonly used by buyers and sellers to determine sale prices for properties of the subject type in the local market.

In the preceding sections of this report, the Sales Comparison Approach was utilized to provide an indication of value for the fee simple, surface only, surface only estate in the subject property. In the reconciliation of value, the three value indications were considered and evaluated based upon the significance and applicability of each approach. As a result, the following estimates of value were derived:

Indicated Real Estate Values	
Approach	**Value**
COST	N/A
SALES COMPARISON	$6,500,000
INCOME	N/A

Cost Approach

The Cost Approach is important in estimating the market value of new or relatively new construction because cost and market value are closely related when properties are new. The Cost Approach is also used to estimate the market value of proposed construction, special-purpose properties, and other properties that are not frequently exchanged in the market. The improvements on the site were excluded from this analysis. Therefore, the Cost Approach was considered inapplicable and was omitted from the analysis.

Sales Comparison Approach

The Sales Comparison Approach estimates market value by comparing the sales prices of recent transactions with similar attributes of the property being appraised. The Sales Comparison Approach was utilized to provide an indication of value for the subject property. Numerous sales of rural land properties were identified in the area and the data obtained from these sales was considered to be accurate and reliable. The most similar sales were included for review and analysis. These properties were analyzed on an overall per acre basis. When the market is dominated by purchasers who intend to occupy the property, the Sales Comparison Approach is a strong indicator of value. Because the subject is appraised as land only, and there was adequate sales data available for analysis, the Sales Comparison Approach was considered to have provided a reliable estimate of value, and was given the most weight in our final value estimate.

Income Approach

The Income Approach to value is based upon the premise that a direct relationship exists between the income producing potential of a property and its market value. Typically, the Income Approach does not represent the basis for purchasing agricultural land in the area, therefore, it was not considered applicable for this analysis.

Conclusion

By reason of our investigation and analysis of the data contained in this report, other information in our files, and our experience in the real estate appraisal profession, it is our opinion that the market value of the fee simple estate in the subject property, and the amount of Just Compensation for the acquisition of the rights in the subject property, as of January 7, 2021, was:

Whole Property

327.64 Acres	**$20,000 Per Acre**	**$6,552,840**
	Rounded To:	**$6,500,000**

Certification

I certify that, to the best of my knowledge and belief:

1. The statements of fact contained in this report are true and correct.

2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.

3. The appraisers have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.

4. The appraisers have not performed services, as appraisers regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

5. The appraisers have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

6. The appraisers engagement in this assignment was not contingent upon developing or reporting predetermined results.

7. The appraisers compensation for completing this assignment is not contingent upon the developing or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of the appraisal.

8. The appraisers analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice*.

9. Andrew B. Sherwood made a personal inspection of the property that is the subject of this report.

10. No one provided significant real property appraisal assistance to the persons signing this certification.

11. The reported analyses, opinions, and conclusion were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

12. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

13. As of the date of this report, Clint W. Bumguardner, MAI, ASA, has completed the requirements of the continuing education program of the Appraisal Institute.

By reason of our investigation and analysis of the data contained in this report, other information in our files, and our experience in the real estate appraisal profession, it is our opinion that the market value of the fee simple estate in the subject property, and the amount of Just Compensation for the acquisition of the rights in the subject property, as of January 7, 2021, was:

Whole Property

327.64 Acres	**$20,000 Per Acre**	**$6,552,840**
	Rounded To:	**$6,500,000**



Clint W. Bumguardner, MAI, ASA
State Certification No. TX-1321020-G



Andrew B. Sherwood, R/W-AC
General Certified Appraiser
Texas Certification No. TX-1338083-G

ADDENDA

Assumptions and Limiting Conditions

This appraisal report has been made with the following general assumptions:

1. As agreed upon with the client prior to the preparation of this appraisal, this is a Restricted Appraisal. As such, information pertinent to the valuation has been considered and the full valuation process has been applied.

2. This Appraisal Report is intended to comply with the reporting requirements set forth under Standards Rule 2-2(a) of the Uniform Standards of Professional Appraisal Practice for an Appraisal Report. As such, it presents a level of discussion of the data, reasoning, and analyses that were used in the appraisal process to develop the appraiser's opinion of value, that is consistent with the intended use of the appraisal. Supporting documentation concerning the data, reasoning, and analyses is retained in the appraiser's file. The depth of discussion contained in this report is specific to the needs of the client and for the intended use stated herein. The appraiser is not responsible for unauthorized use of this report.

3. No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.

4. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

5. Responsible ownership and competent property management are assumed.

6. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

7. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

8. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

9. It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined, and considered in the appraisal report.

10. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined, and considered in the appraisal report.

11. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.

12. It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in the report.

13. All information, comments and conclusions pertaining to subject and other properties described represent the opinion of the appraiser formed after a personal examination of each.

14. The appraiser has no interest, present or prospective, in the subject property.

15. Sketches in this report are included to assist the reader in visualizing the property.

16. The appraisers assume that there are no hidden or unapparent conditions of the appraised property, which would render it more or less valuable. Further, the appraisers assume that there are no potentially harmful asbestos or other materials and/or site contaminants in, on, or near soil, subsoil, or structure of the appraised property and that there has been no disposal, discharge, leakage, or spillage of pollutants or contaminant which would render it more or less valuable, whether or not these materials or contaminants are apparent or hidden and unapparent.

    No responsibility is assumed by the appraisers for these conditions. In addition, no responsibility is assumed by the appraisers for the cost of engineering and/or laboratory studies which might be required to discover such materials or contaminants. And no such engineering or laboratory studies have been ordered for the appraised property.

17. Disclosure by the appraiser of the contents of this appraisal report is subject to review in accordance with the by-laws and regulations of The Appraisal Institute and The American Society of Farm Management & Rural Appraisers.

This appraisal report has been made with the following general limiting conditions:

1. The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

2. Possession of this report, or a copy thereof, does not carry with it the right of publication, unless prior arrangements have been made.

3. The appraiser, by reason of this appraisal, is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

4. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser, or the firm with which the appraiser is connected) shall be disseminated to the public through advertising, public relations, news, sales, or other media without prior written consent and approval of the appraiser.

5. This appraisal was made in accordance with the Code of Professional Ethics and Uniform Standards of Professional Appraisal Practice as promulgated by the Appraisal Foundation and the Appraisal Institute and The American Society of Farm Management & Rural Appraiser.

6. Acceptance of and/or use of this report constitutes acceptance of all assumptions and limiting conditions stipulated.

7. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. We have not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect upon the value of the property. Since we have no direct evidence relating to this issue, we did not consider possible non-compliance with the requirements of ADA in estimating the value of the property.

Key Definitions

Appraisal

An appraisal is an unbiased estimate of the nature, quality, value, or utility of an interest in, or aspect of, identified real estate and related personalty. Appraisal involves selective research into appropriate market areas; the assemblage of pertinent data; the application of appropriate analytical techniques; and the use of knowledge, experience, and professional judgment to develop an appropriate solution of the appraisal problem.[12]

Valuation

Valuation is the process of estimating the market value, fair value, insurable value, investment value, or other properly defined value of an identified interest or interests in a specific parcel or parcels of real estate as of a given date.[13]

Real Estate

Real estate is the physical land and appurtenances affixed to the land, e.g., structures. Real estate includes land and all things that are a natural part of the land, such as trees and minerals, as well as all things that are attached to it by people, such as buildings and site improvements. All permanent building attachments like plumbing, electrical wiring, HVAC equipment, cabinets, elevators, appliances and so on, are also usually considered part of real estate. Real estate differs from personal property which is not considered real estate.[14]

Real Property

Real property includes all interests, benefits, and rights inherent in the ownership of physical real estate. A right or interest in real property is also referred to as an estate.[15]

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[12] *The Appraisal of Real Estate,* Ninth Edition, American Institute of Real Estate Appraisers, page 8.

[13] Ibid, page 8.

[14] Ibid, page 5.

[15] Ibid, page 5.

Market Value

Market value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1) Buyer and seller are typically motivated;
2) Both parties are well informed or well advised, and acting in what they consider their own best interests;
3) A reasonable time is allowed for exposure in the open market;
4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales or concessions granted by anyone associated with the sale.[16]

Fee Simple Interest

The property rights appraised are the fee simple estate. Fee simple estate is defined as absolute ownership unencumbered by any other interest or estate; subject only to the limitations of eminent domain, escheat, police power, and taxation.[17]

[16] Federal Register, Vol. 55, No. 165, Friday, August 24, 1990, Rules & Regulations, Part 34.42(f).

[17] The Dictionary of Real Estate Appraisal, The Appraisal Institute (Chicago, Illinois, 1984).

Leased Fee Estate

The leased fee estate is the lessor's, or landlord's, estate. A leased fee estate is an ownership interest held by a landlord with the right of use and occupancy conveyed by lease to others; the rights of lessor (the leased fee owner) and the leased fee are specified by contract terms contained within the lease.[18]

Leasehold Interest

The leasehold interest is the lessee's, or tenant's estate. A leasehold estate is the right to use and occupy real estate for a stated term and under certain conditions as conveyed by the lease.[19]

[18] *The Appraisal of Real Estate*, Ninth Edition, American Institute of Real Estate Appraisers, Page 111.

[19] Ibid, Pages 111 and 115.

QUALIFICATIONS OF THE APPRAISERS

QUALIFICATIONS
OF
CLINT W. BUMGUARDNER, MAI, ASA

Educational

Bachelor of Science, Texas A&M University, College Station, Texas, August, 1987.

Master of Agriculture, Land Economics and Real Estate, Texas A&M University, College Station, Texas, December, 1988.

Completed Course Work and Continuing Education:
- Capitalization Theory & Tech., Part A - Appraisal Institute
- Capitalization Theory & Tech., Part B - Appraisal Institute
- Basic Valuation Procedures - Appraisal Institute
- Real Estate Appraisal Principles - Appraisal Institute
- Standards and Professional Practice - Appraisal Institute
- Case Studies in Real Estate Valuation - Appraisal Institute
- Report Writing & Valuation Analysis - Appraisal Institute
- 3rd/4th Legal Seminar on Ad Valorem Taxation - TX A&M & State Bar Assoc.
- Condemnation in the 90's - Law Offices of Windle Turley
- Nevada Real Estate Statutes - Appraisal Institute
- Appraisers Complete Review - Appraisal Institute

Professional

Member, Appraisal Institute (MAI) No. 10161
Accredited Senior Appraiser (ASA), American Society of Appraisers
Licensed Texas Real Estate Broker, No. 0393607
Texas Certified General Real Estate Appraiser, Certification No. TX-1321020-G
New Mexico Certified General Real Estate Appraiser, Certification No. 001579-G
Certified General Appraiser, Arkansas, License No. CG2050N
Certified General Appraiser, Oklahoma, License No. 12547CGA
Certified General Appraiser, Kansas, License No. G-2075
Certified General Appraiser, Georgia, License No. 332280
Certified General Appraiser, Iowa, License No. CG03070
Certified General Appraiser, Idaho, License No. CGA-3825
Certified General Appraiser, Colorado, License No. 100032989
Certified General Appraiser, Nebraska, License No. CG211103R
Certified General Appraiser, Indiana, License No. CG40801054
Certified General Appraiser, Arizona, License No. 32066
Certified General Appraiser, Utah, License No. 6219920-CG00
Certified General Appraiser, Washington, License No. 1102340
President, Texas Plains Chapter, Appraisal Institute, 2006-07
Real Estate Committee Member, Texas A&M Foundation

Experience

Principal, W. T. Appraisal, Inc., Abilene, 1992-present
Associate, Dominion Property Advisors, Albuquerque, NM 1999-2004
Appraiser, Wayne Austin, Associates, Abilene, 1992
Staff Appraiser, J.R. Kimball, Inc., Fort Worth, 1989-92.
Testified as expert witness in State Court proceedings
Testified as expert witness before State Property Tax Board
Testified as expert witness before various Appraisal Districts Review Boards in Texas and Oklahoma

QUALIFICATIONS OF CLINT BUMGUARDNER, MAI, ASA (CONTINUED)

Scope of Appraisal Assignments

- Agricultural Industry Properties
- Poultry Facilities
- Grain Handling Facilities
- Flour & Corn Mills
- Appraisal Review
- Property Inspections
- Meat Processing
- Vegetable Processing
- Food Processing
- Feedyards
- Swine Operations
- Feed Mills
- Cotton Gins / Compress Warehouses
- Feasibility and Market Studies
- Commercial Dairies
- Hog, Beef, Chicken, Duck
- Peanut, Cheese, Apple, Potato
- Special purpose properties including orchards and plant nurseries, etc.
- Provided real estate consulting and appraisal services throughout the United States.

Recent Ranch Appraisals

Lambshead Ranch, TX	40,000+ Acres	G-F Ranch, NM	27,000+ Ac.
Nail Ranch, TX	40,000+ Acres	Staley Ranch, NM	12,480 Ac.
Hendrick Ranch, TX	46,000+ Acres	Roosevelt Co., NM	6,080 Ac.
Swenson Ranch, TX	79,000 Acres	Latir Mtn. Ranch, NM	6,097Ac.
Ford Ranch, TX	38,000+ Acres	Lee Ranch, NM	39,795 Ac.
700 Springs Ranch, TX	13,000+ Acres	Autrey Ranch, NM	5,411 Ac.
Cibola Creek Ranch, TX	20,000+ Acres	Colfax Co., NM	23,703 Ac.
Covered S Ranch, TX	23,000 Acres	Hat Bar Ranch, NM	19,919 Ac.
C Ranch, TX	165,000 Acres	Cross Y Ranch, NM	21,000+Ac.
T Diamond Ranch, TX	25,000 Acres	EZ Heart Ranch, NM	128,000+ Ac.
La Mesa, TX	72,000 Acres	San Miguel Co. , NM	4,800+ Ac.
Sears Ranch, TX	18,000+Acres	Big Springs Ranch, NM	7,600+ Ac.
Burr Ranch, TX	78,000+ Acres	Broken O Ranch, TX	4,900+ Ac.
Robinson Ranch, TX	20,000 Acres	Brushy Creek Ranch, TX	38,000+ Ac.
VNN Ranch, TX	26,000+ Acres	Park Springs Ranch, NM	36,000+ Ac.
Dewey Farms/Ranch, KS	14,500 +Acres	Maes Ranch, NM	55,000+ Ac.
Multiple Ranches between 1,000 -10,000 acres			

Recent Special Agricultural Appraisals

Feed Mills - multiple	Texas, Oklahoma, New Mexico, Arkansas, Missouri
Feed Yards - multiple	Texas, Oklahoma, Kansas, Nebraska, Idaho, South Dakota, Washington
Dairies - multiple	Texas, New Mexico, Oklahoma, Georgia, Kansas, Colorado, Nebraska, Utah, California, Washington, Iowa
Peanut Processing Plant	New Mexico, Texas, Georgia, Alabama, South Carolina
Cotton Gin/ Compress	Texas, Arizona
Cattle Sale Barns	Texas & New Mexico
Grain Elevators / Shuttle	Texas, Oklahoma, Kansas, New Mexico
Flour Mills	Texas, Nebraska, Utah
Poultry Farms	Texas, Oklahoma, Oregon, Washington, Arkansas, Mississippi, Delaware, Maryland, Virginia, West Virginia
Processing Facilities	California, Oregon, Washington, Colorado, Arkansas, Alabama, Texas, Missouri, Oklahoma, South Carolina, Idaho, Virginia, North Carolina, Utah, Indiana, Wisconsin, New Mexico

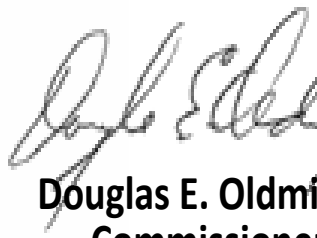
Certified General Real Estate Appraiser

Appraiser: **CLINT WARD BUMGUARDNER**

License #: **TX 1321020 G** License Expires: **06/30/2021**

Having provided satisfactory evidence of the qualifications required by the Texas Appraiser Licensing and Certification Act, Occupations Code, Chapter 1103, authorization is granted to use this title: Certified General Real Estate Appraiser

For additional information or to file a complaint please contact TALCB at www.talcb.texas.gov.



Douglas E. Oldmi
Commissioner

QUALIFICATIONS
OF
ANDREW B. SHERWOOD, R/W-AC

Educational

Bachelor of Science, Tarleton State University, Stephenville, Texas, 2004.
Completed multiple real estate valuation courses from the Appraisal Institute, International Right of Way Association, and other course providers

Professional

Right of Way - Appraisal Certified (R/W-AC) International Right of Way Association Texas Certified General Real Estate Appraiser, Certification No. TX-1338083-G Oklahoma Certified General Real Estate Appraiser, License No. 12976CGA

Experience

Appraiser, WT Appraisal, Inc., Abilene, TX, 2017-present
Senior Analyst, JLL Valuation Advisory Services, Fort Worth, TX 2016-2017
Senior Analyst, Integra Realty Resources, Fort Worth, TX, 2005-2016

Scope of Appraisal Assignments

- Office properties
- Industrial properties
- Vacant Land
- Ranches
- Dairies
- Feedlots
- Feasibility & Market Studies
- Testify as Expert Witness
- Condemnation
- Appraisal Review
- Restaurants
- Convenience Stores
- Hotels and Motels
- Apartment Complexes
- Churches
- Residential Subdivisions
- Service Stations

Personal

Past Member Fort Worth Chamber of Commerce - Vision Fort Worth
Past Member Real Estate Council of Greater Fort Worth - Young Leaders Council and Programs Committee
Member International Right of Way Association - Chapter 36
Member Fort Worth Stock Show Syndicate

ANDREW BURTON SHERWOOD
1302 PETROLEUM DR BLDG B
ABILENE, TX 79602

Certified General Real Estate Appraiser

Appraiser: **Andrew Burton Sherwood**
License #: **TX 1338083 G** License Expires: **08/31/2022**

Having provided satisfactory evidence of the qualifications required by the Texas Appraiser Licensing and Certification Act, Occupations Code, Chapter 1103, authorization is granted to use this title: Certified General Real Estate Appraiser

For additional information or to file a complaint please contact TALCB at www.talcb.texas.gov.

Chelsea Buchholtz
Commissioner

Letter of Engagement

Jessica Yearian

From: Andy Sherwood
Sent: Tuesday, November 17, 2020 11:00 AM
To: Jessica Yearian
Cc: Sharon Falkner; Clint Bumguardner
Subject: FW: Appraisals / Cumberland & Western parcels - Midland Airport area
Attachments: ProposedAirportAcquisition_060920.pdf

Please log in; $3,500 30 days.

Thanks!
A

Andrew B. Sherwood, R/W-AC
WT Appraisal, Inc.
Direct: 325-271-3027
Email: asherwood@wtappraisal.com

From: John Simmons <jsimmons@midlandtexas.gov>
Sent: Tuesday, November 17, 2020 9:27 AM
To: Andy Sherwood <asherwood@wtappraisal.com>
Subject: RE: Appraisals / Cumberland & Western parcels - Midland Airport area

Updated map

John Simmons
Right-of-Way Manager| City of Midland
O. 432-685-7470 F. 432-683-1786

MIDLAND
Feel the Energy!
300 N. Loraine | Midland, TX 79701

From: Andy Sherwood <asherwood@wtappraisal.com>
Sent: Monday, November 16, 2020 4:26 PM
To: John Simmons <jsimmons@midlandtexas.gov>
Subject: RE: Appraisals / Cumberland & Western parcels - Midland Airport area

John,

I have a couple of questions about this appraisal request before we get you timing and fee.

Do you need two appraisals? It appears this may be one whole property. Is there a survey? The smaller tract appears to be less than the acreage stated on the exhibit.

I have another set of hearings tomorrow, but should have a free minute between 11 and 12:30 for a quick call.

Thanks,
Andy

Andrew B. Sherwood, R/W-AC
WT Appraisal, Inc.
Direct: 325-271-3027
Email: asherwood@wtappraisal.com

From: John Simmons <jsimmons@midlandtexas.gov>
Sent: Monday, November 16, 2020 9:38 AM
To: Andy Sherwood <asherwood@wtappraisal.com>
Subject: RE: Appraisals / Cumberland & Western parcels - Midland Airport area

Sure thing Andy

John Simmons
Right-of-Way Manager| City of Midland
O. 432-685-7470 F. 432-683-1786

MIDLAND
Feel the Energy!
300 N. Loraine | Midland, TX 79701

From: Andy Sherwood <asherwood@wtappraisal.com>
Sent: Monday, November 16, 2020 9:37 AM
To: John Simmons <jsimmons@midlandtexas.gov>
Subject: RE: Appraisals / Cumberland & Western parcels - Midland Airport area

Will do, John.

I am about to 'walk' in to a Zoom Hearing and have been preparing for that this morning. I will get you timing and fee later today.

Thank you very much!
-Andy

Andrew B. Sherwood, R/W-AC
WT Appraisal, Inc.
Direct: 325-271-3027
Email: asherwood@wtappraisal.com

From: John Simmons <jsimmons@midlandtexas.gov>
Sent: Monday, November 16, 2020 8:48 AM
To: Andy Sherwood <asherwood@wtappraisal.com>
Subject: Appraisals / Cumberland & Western parcels - Midland Airport area

Good Morning Andy,

Hopefully those invoices got paid as I need some other reports. I believe you have contact info for Greg Betterton at C&W, he will also tell you we had these parcels and others appraised earlier this year, but as you know FAA requires reports not to be over 6 months old. Also, they have scaled back the plans they had been working off of due to the current business climate.

If you can give me a time and cost for a report on these 2 parcels I would appreciate it.

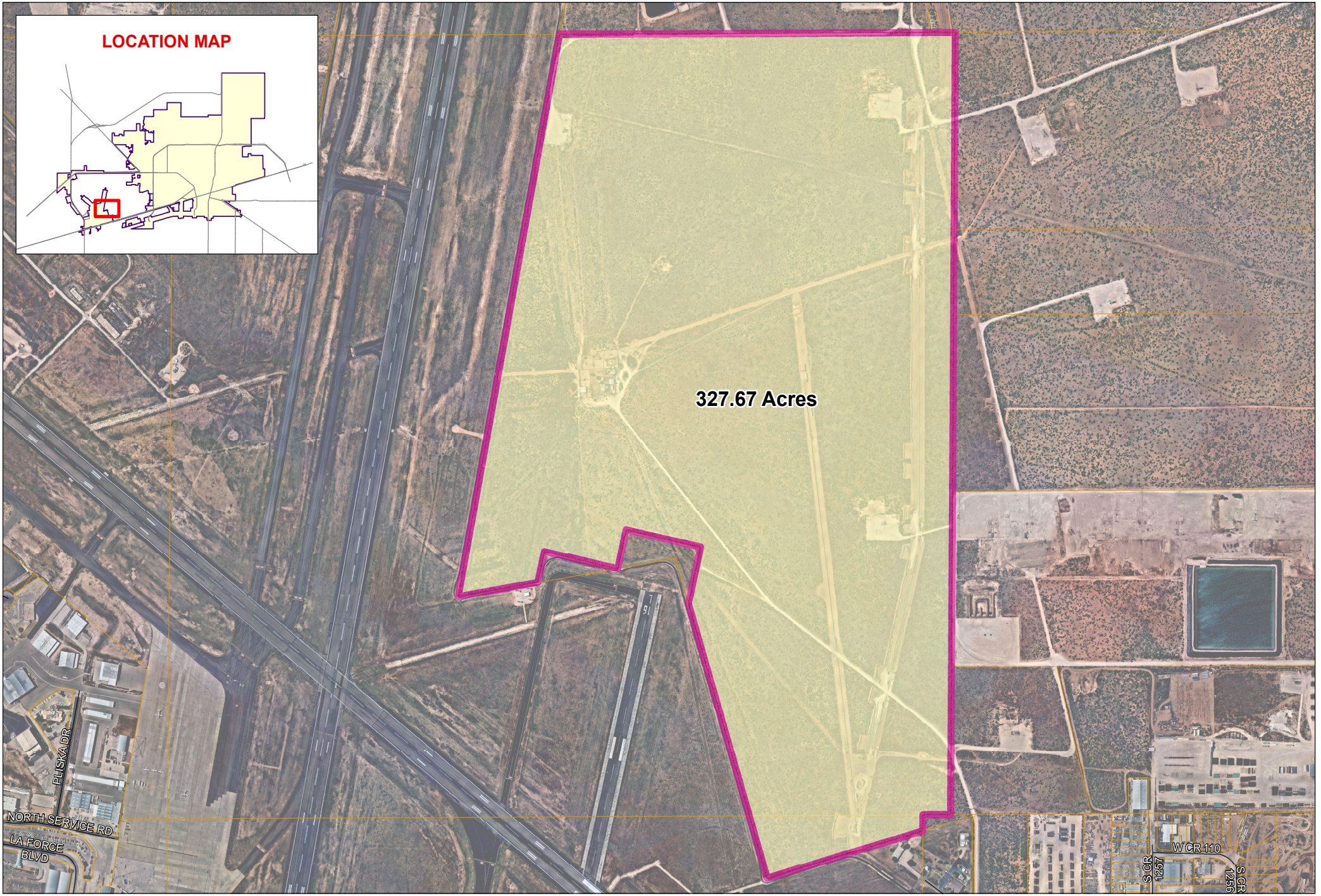
Thanks

John Simmons
Right-of-Way Manager| City of Midland
O. 432-685-7470 F. 432-683-1786

MIDLAND
Feel the Energy!
300 N. Loraine | Midland, TX 79701

CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.

CAUTION: This email originated from outside your organization — exercise caution when opening attachments or clicking links, especially from unknown senders.



Date: 1/13/2022

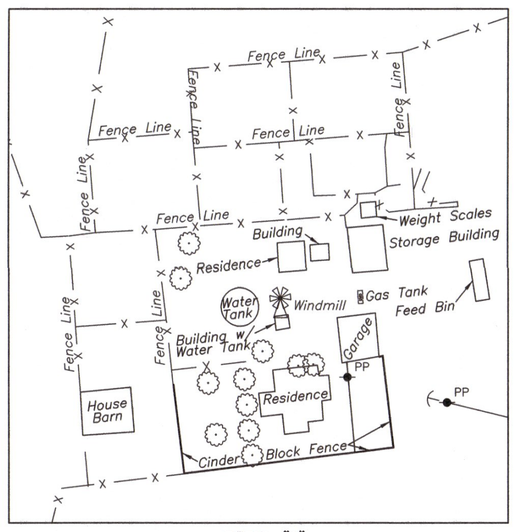
Legend

- Street
- East Side Airport Acquisition
- Parcel

Exhibit of East Side Airport Acquisition

0 500 1,000 Feet

©THE CITY OF MIDLAND - 2022
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.



DETAIL "A"
Not to Scale

489.373 Acres
Document No. 2018-34998, O.P.R.M.C.

508.20 Acres
Volume 3131, Page 210, O.P.R.M.C.

50' Wide TESCO Easement Volume 629, Page 256, D.R.M.C.

N75°12'05"E 2579.32'

Found 1" Iron Pipe

N75°09'38"E 188.84'

P.O.B.

Found 1" Iron Pipe

Wink to Webster Petroleum Pipeline

Overhead Electric Line

Lease Road

Fence Line

50' Wide TESCO R.O.W. Easement Vol. 71, Pg. 407, D.R.M.C.

RSP Permian Esmt. Agrmt. Doc. No. 2016-24629, O.P.R.M.C.

Volume 37, Page 304, Released in Volume 73, Page 610, Deed Records, Midland County, Texas

Plains Petroleum Pipeline

Spanish Trail #405
Well Pad

Well Pad
Concho St #413

Plains Petro Pipeline

TESCO Easement Volume 37, Page 304, & Released in Volume 73, Page 610, D.R.M.C.

Remainder of 327.69 Acres
Volume 3131, Page 210, O.P.R.M.C.

Wink to Webster Petroleum Pipeline-Document No. 2019-34453, O.P.R.M.C.

N03°59'41"W 3885.85'

12' Wide Asphalt Paved Perimeter Road

Chain Link Fence

50' Wide TESCO R.O.W. Easement Vol. 539, Pg. 516, D.R.M.C.

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

See Detail "A"

320.38 Acres
Section 4, Block 40, T-2-S
GLO #54106

327.67 ACRE TRACT

5' Wide Texas Utilities Electric Company R.O.W. Easement Vol. 1280, Pg. 434, O.P.R.M.C.

TESCO Easement Volume 72, Page 260, D.R.M.C.

at 2542.31' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N83°21'E 0.3'

S14°08'35"E 5317.75'

70.00 Acres
Document No. 2020-8857, O.P.R.M.C.

at 3120.19' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N54°13'E 0.3'

Spanish Trail #408
Well Pad

Operator Electric Line

Lease Road

50' Wide Fin-Tex Pipe Line Easement Volume 1578, Page 526, O.P.R.M.C.

Holley Energy Petroleum Pipeline

Centurion Pipeline

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

S88°08'10"W 534.92'

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974"

270.16'

S01°52'12"E

Tract G
2.583 Acres
Volume 1110, Page 714, O.P.R.M.C.

S88°07'49"W 525.48'

215.48'

S01°52'37"E

1.30 Acres
Volume 1845, Page 226, O.P.R.M.C.

Chain Link Fence

12' Wide Asphalt Paved Perimeter Road

S65°49'56"W 563.30'

CITY OF MIDLAND Tract 5
MIDLAND INTERNATIONAL AIR & SPACE PORT
Volume 96, Page 3, D.R.M.C.

394.14'

N01°51'50"W

Original Atlantic Pipe Line Easement Volume 35, Page 434, D.R.M.C.
Amended in 50' Fin-Tex Pipe Line Easement Volume 1578, Page 526, O.P.R.M.C.
Atlantic Pipe Line Easement Volume 70, Page 214, Partial Release in Volume 704, Page 796, D.R.M.C.

Centurion Pipeline

North Road

50' Wide Wink to Webster Petroleum Pipeline-Document No. 2019-34453, O.P.R.M.C.

at 4317.56' pass
Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" bears N74°14'E 0.3'

145.00 Acres
Document No. 2020-8858, O.P.R.M.C.

Unknown Pipeline

Holley Energy Petroleum Pipeline
50' Fin-Tex Pipe Line Easement Volume 1578, Page 526, O.P.R.M.C.

19.74 Acres Remainder
Volume 3131, Page 210, O.P.R.M.C.

1504.39'

N30°56'57"W 1946.65'

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

Section 4
Section 9

S75°09'16"W 1214.31'
N75°09'16"E 1214.31'

Found 1" Black Iron Pipe

193.76'
S75°08'01"W

Section 3
Section 10

109.81'
S14°15'38"E

7.29 Acres
Volume 3131, Page 210, O.P.R.M.C.
GLO #S-20263

442.25'

Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" Bent bears S34°28'E 0.83'

S59°02'15"W 1135.06'

12' Wide Asphalt Paved Perimeter Road

CITY OF MIDLAND
MIDLAND INTERNATIONAL AIR & SPACE PORT

15.96 Acres Remainder
Volume 3131, Page 210, O.P.R.M.C.

GRAPHIC SCALE IN FEET
0 200' 400' 600'
Scale: 1"=200'

LAND TITLE SURVEY AND LEGAL DESCRIPTION OF A 327.67 ACRE TRACT LOCATED IN SECTIONS 4 AND 9, BLOCK 40, T-2-S, T.&P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

Boundary being further described by metes and bounds as follows:

BEGINNING at (N= 10,680,676.93' X= 1,719,455.88') a 1" iron pipe found on the Northwest corner of Section 3, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of said Section 4 and this tract;

THENCE S14°08'35"E, with the common line of said Sections 3 and 4 at 2542.31, 3120.19 and 4317.56 feet pass 1/2" iron rods with plastic caps marked "PLS 1974" found 0.3' East of line continuing for a total distance of 5317.75 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set on the Southwest corner of said Section 3 and the Southeast corner of said Section 4 and this tract;

THENCE S75°08'01"W, with the common line of said Sections 4 and Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey, a distance of 193.76 feet to a 1" black iron pipe found on the Northwest corner of said Section 10, Block 40, T-2-S, T.&P. RR. Co. Survey and the Northeast corner of Section 9, Block 40, T-2-S, T.&P. RR. Co. Survey and this tract;

THENCE S14°13'38"E, with the common line of said Sections 9 and 10, a distance of 109.81 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of a 7.293 Acre Tract Remainder of Volume 3131, Page 210, Official Public Records of Midland County and this tract;

THENCE S59°02'15"W with the South line of said 7.293 Acre Tract and this tract, a distance of 1135.06 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the South corner of this tract, from whence a 1/2" iron rod with plastic cap marked "PLS 1974" bears S34°28'E, a distance of 0.83 feet;

THENCE N30°56'57"W at 442.25 feet pass a 1/2" iron rod with plastic cap marked "PLS 1974" set on the common line of said Sections 4 and 9 continuing for a total distance of 1946.65 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE N01°51'50"W with the East line of a 2.583 Acre Tract as described in Volume 1110, Page 714, Official Public Records of Midland County, a distance of 394.14 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S88°08'10"W with the North line of said 2.583 Acre Tract, a distance of 534.92 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an interior corner of this tract;

THENCE S01°52'12"E with the West line of said 2.583 Acre Tract, a distance of 270.16 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" found at an exterior corner of this tract;

THENCE S88°07'49"W with the North line of a 1.30 Acre Tract as described in Volume 1845, Page 226, Official Public Records of Midland County, a distance of 525.48 feet to "+" cut in concrete at an interior corner of this tract;

THENCE S01°52'37"E with the West line of said 1.30 Acre Tract, a distance of 215.48 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE S65°49'56"W, a distance of 563.30 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at an exterior corner of this tract;

THENCE N03°59'41"W, a distance of 3885.85 feet to a 1/2" iron rod with plastic cap marked "PLS 1974" set at the Northwest corner of this tract;

THENCE N75°12'05"E with the common line of said Section 4 and Section 45, Block 40, T-1-S, T.&P. RR. Co. Survey, a distance of 2579.32 feet to a 1" iron pipe found at the Southeast corner of said Section 45 and the Southwest corner of Section 46, Block 40, T-1-S, T.&P. RR. Co. Survey at a corner of this tract;

THENCE N75°09'38"E with the common line of said Sections 4 and Section 46, Block 40, T-1-S, a distance of 188.84 feet to the PLACE OF BEGINNING. (Tract consists of 14,273,251 square feet or 327.67 acres of land.)

Bearings, distances and coordinate are relative to the Texas State Plane Coordinate System, 1983 NAD, Central Zone.

EXCEPTIONS LISTED IN SCHEDULE B OF TITLE COMMITMENT NO. 48802117635 ISSUED BY CHICAGO TITLE INSURANCE COMPANY ON JULY 9, 2021 WITH AN EFFECTIVE DATE OF JUNE 25, 2021

1) The Right of Way to Texas Electric Service Company, recorded in Volume 37, Page 304, Released in Volume 73, Page 610, Deed Records, Midland County, Texas does affect subject property as shown. (Item 10b in said Title Commitment.)

2) The Blanket Right of Way to Atlantic Oil Producing Company, recorded in Volume 38, Page 434, Deed Records, Amended in Volume 1578, Page 526, Official Records, Midland County, Texas does affect subject property and is 50' in width based on location of pipeline as shown on survey. (Item 10c in said Title Commitment.)

3) The Blanket Right of Way to South Plains Pipe Line Co., recorded in Volume 42, Page 289, Deed Records, Midland County, Texas does not affect subject property. (Item 10d in said Title Commitment.)

4) The Blanket Right of Way to Magnolia Pipe Line Company, recorded in Volume 44, Page 130, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10e in said Title Commitment.)

5) The Easement and Right of Way to Texas Electric Service Company, recorded in Volume 62, Page 423, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10f in said Title Commitment.)

6) The Blanket Right of Way to Atlantic Pipe Line Company, recorded in Volume 70, Page 214, Amendment and Partial Release in Volume 704, Page 796, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10g in said Title Commitment.)

7) The Blanket Right of Way to Magnolia Pipe Line Company, recorded in Volume 71, Page 35, Deed Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10h in said Title Commitment.)

8) The Easement and Right of Way to Texas Electric Service Company, recorded in Volume 71, Page 407 does affect subject property as shown, Volume 71, Page 408 does not affect subject property, Volume 72, Page 259 does not affect subject property, Volume 72, Page 260 does affect subject property as shown, Volume 539, Page 516 does affect subject property as shown, Volume 629, Page 256 does affect subject property as shown, Deed Records, Midland County, Texas. (Item 10i in said Title Commitment.)

9) The Easement and Right of Way to Texas Utilities Electric Company, recorded in Volume 1280, Page 434, Official Records, Midland County, Texas does affect subject property as shown. (Item 10j in said Title Commitment.)

10) The Memorandum of Conveyance and Waiver with Respect to Surface Rights, by and between Cumberland & Western Resources, LLC, IBEX Mineral Resources, LLC, Beehive Partners, LLC, Viper Energy Partners, LLC and Diamondback E&P, LLC, dated September 19, 2013, recorded under Clerk's File No. 2013-23065, Official Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10k in said Title Commitment.)

11) The Easement Agreement with RSP Permian, LLC, recorded under Clerk's File No. 2016-24629, Official Records, Midland County, Texas does affect subject property as shown. (Item 10l in said Title Commitment.)

12) The Memorandum of Surface Use Agreement, by and between Cumberland & Western Resources, LLC and RSP Permian, LLC, dated January 1, 2014, recorded under Clerk's File No. 2017-24281, Official Records, Midland County, Texas does affect subject property in a blanket manner and is unplottable. (Item 10m in said Title Commitment.)

13) The Memorandum of Right of Way and Easement Grant, by and between Cumberland & Western Resources, LLC and Wink to Webster Pipeline, LLC, dated September 27, 2019, recorded under Clerk's File No. 2019-34453, Official Records, Midland County, Texas does affect subject property as shown. (Item 10n in said Title Commitment.)

14) The Waiver of Surface Rights, by and between Viper Energy Partners, LLC and Cumberland & Western Resources, LLC, dated December 18, 2019, recorded under Clerk's File No. 2019-38809, Official Records, Midland County, Texas does not affect subject property. (Item 10o in said Title Commitment.)

15) The Subject property is located in the City of Midland Extra Territorial Jurisdiction, and as such, may be subject to certain ordinances, codes, restrictions and regulatory powers of the City of Midland. (Item 10q in said Title Commitment.)

LEGEND

- ○ = Set 1/2" Iron Rod with Plastic Cap marked "PLS 1974"
- ⊗ = Cut "+" in Concrete
- ◎ = Found 1/2" Iron Rod with Plastic Cap marked "PLS 1974" Unless Noted Otherwise
- PP = Power Pole
- = Guy Wire
- = Pipeline Sign
- -X- = Fence Line
- SB = Soil Borings

I, J. Stan Piper, Registered Professional Land Surveyor, do hereby certify that this plat and legal description are based on an actual survey made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief as surveyed on the ground on July 24, 2021.

J. Stan Piper
Registered Professional Land Surveyor No. 1974

STATE OF TEXAS REGISTERED J. STAN PIPER 1974 PROFESSIONAL LAND SURVEYOR

Drawing File: Parkhill-327.67AcTrMIA.Dwg
Crd File: MIA 34R-16L Topo.Crd
Drawn by: Gene M. Rodriguez
Scale: 1"=100'
Date: 8/22/21
Revised: 9/8/21 by GMR

PIPER SURVEYING
P.O. Box 60432, Midland, Texas 79711
(432)550-7810, Fax (432)550-0312
Firm No. 10155200

Prepared for:
Parkhill
1700 W. Wall Street
Ste. 100
Midland, TX 79701

City Council Meeting

Item Number: 15

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: 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 2,395 FEET EAST OF RANKIN HIGHWAY AND 170 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 2) (DEVELOPMENT SERVICES)

Purpose:

Resolution approving the issuance of permit to Permian Deep Rock Oil Co., LLC for the drilling of the oil and gas well Mustang 110 MIPA Unit #H110WA; said well being generally located 2,395 feet east of Rankin Highway and 170 feet south of I-20. 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. This pad was approved for two permits on February 12, 2019 that have expired. A 16 ft. tall and 160 ft. long sound wall will be used during drilling and completion operations being located on the North perimeter of location. The tank battery will be

in the county. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory Committee, Permian Deep Rock Oil is requesting the following variances:

(1) Permian Deep Rock Oil Company requests to allow for twenty-four-hour fracing operations.
(2) Permian Deep Rock Oil Company requests variance for fence of the drill pad instead of individual well
(3) Permian Deep Rock Oil Company requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(4) Permian Deep Rock Oil Company requests variance to the Road Repair Agreement due to no city streets will be used.

Attachments: Applications; Location maps; Exhibit - Drill site maps, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

RESOLUTION NO. _____

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 2,395 FEET EAST OF RANKIN HIGHWAY AND 170 FEET SOUTH OF INTERSTATE 20); AND WAIVING THE REQUIREMENT OF A 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 an application to the City of Midland to drill an oil and gas well 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 February 8, 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 application to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit, on behalf of the City of Midland, that will allow Operator to drill the following oil and gas well:

Mustang 110 MIPA Unit #H110WA

located in Section 2, Block 39, T-2-S, T&P RR Co. Survey, City and County of Midland, Texas. Said permit is attached hereto as Exhibit "A" and incorporated herein for all legal purposes.

SECTION THREE. That the requirement of a Road Repair Agreement between Operator and the City of Midland is hereby waived in regard to said permit.

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

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated December 1, 2021, 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 Mustang 110 MIPA Unit #H110WA oil and gas well shall be 110 feet from the south line and 2,395 feet from the west line, Section 2, Block 39, T-2-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 March 22, 2022 through March 22, 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 and use of a workover rig during the completion process directly following the fracing operations.

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. No landscaping or irrigation is required because City water is not available.

4. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 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
12/01/2021	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele.
Keith E. Bucy	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):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District)**, which lists**

the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].

ATTACHED AS EXHIBIT E **is a** ***(map/p lat/satellite/aerial photo)*** **depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The** ***(map/p lat/satellite/aerial photo)*** **includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

ATTACHED AS EXHIBIT F **is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

IV. Well & Operations Information

Proposed Well Name: Mustang 110 MIPA Unit #H110WA

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: 110' FSL & 2,395' FWL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G **is the Location Site Plan [See § J(9)].**

ATTACHED AS EXHIBIT H **is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

ATTACHED AS EXHIBIT I **is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments** ***(also file copy of W-1 with City Secretary before commencement of drilling operations).*** **[See § J(16) and (20)].**

ATTACHED AS EXHIBIT J **is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

ATTACHED AS EXHIBIT K (if applicable) **is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

ATTACHED AS EXHIBIT L **is the Fencing and Irrigation Plan. [See § J(30)].**

ATTACHED AS EXHIBIT M: **No city roads will be used**

ATTACHED AS EXHIBIT N **is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company LLC
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Keith E Bucy, 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.

_____
Notary Public, State of Texas

CHRISTOPHER HALL
Notary Public, State of Texas
Comm. Expires 08-11-2019
Notary ID 128701314

[S E A L]

SCALE: 1" = 300'

0' 150' 300'

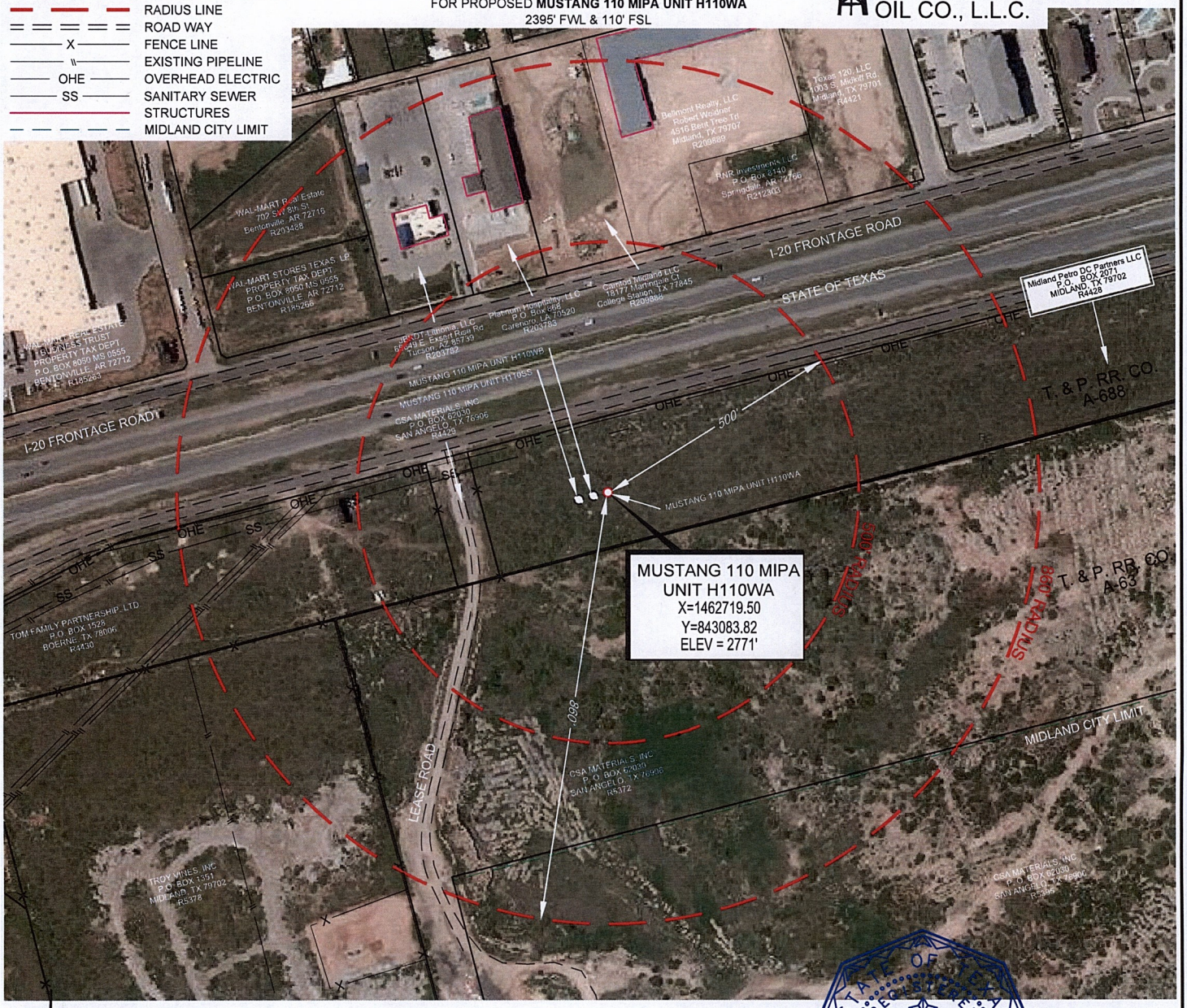
LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- SS — SANITARY SEWER
- STRUCTURES
- MIDLAND CITY LIMIT

T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **MUSTANG 110 MIPA UNIT H110WA**
2395' FWL & 110' FSL

PERMIAN DEEP ROCK OIL CO., L.L.C.



MUSTANG 110 MIPA UNIT H110WA
X=1462719.50
Y=843083.82
ELEV = 2771'

N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SEPTEMBER 20, 2021

MUSTANG 110 MIPA UNIT H110WA	REVISION:	
	INT	DATE
	DRH	12/13/2021
DATE: 11/10/2021		
FILE: CD_MUSTANG_H110WA_REV1		
DRAWN BY: EAH		
SHEET: ~~PACKET~~ 15.14		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS COORDINATE SYSTEM OF 1927, CENTRAL ZONE, U.S. SURVEY FEET.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

March 22, 2022

S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\CITY_PERMITS\NAD27\CD_MUSTANG_H110WA_REV1.DWG 12/14/2021 6:07:38 AM dharris

EXHIBIT "G"

SECTION 2, BLOCK 39, T2S, T. & P. RR. CO. SURVEY, A-688 &
SECTION 11, BLOCK 39, T2S, H. MCCLINTIC SURVEY, A-63
MIDLAND COUNTY, TEXAS

PERMIAN DEEP ROCK OIL CO., L.L.C.



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

MUSTANG
CITY PERMIT

DATE: 06/13/2018
FILE: SK_MUSTANG_CITY_PERMIT_REV9
DRAWN BY: AMD
SHEET : 3 OF 8

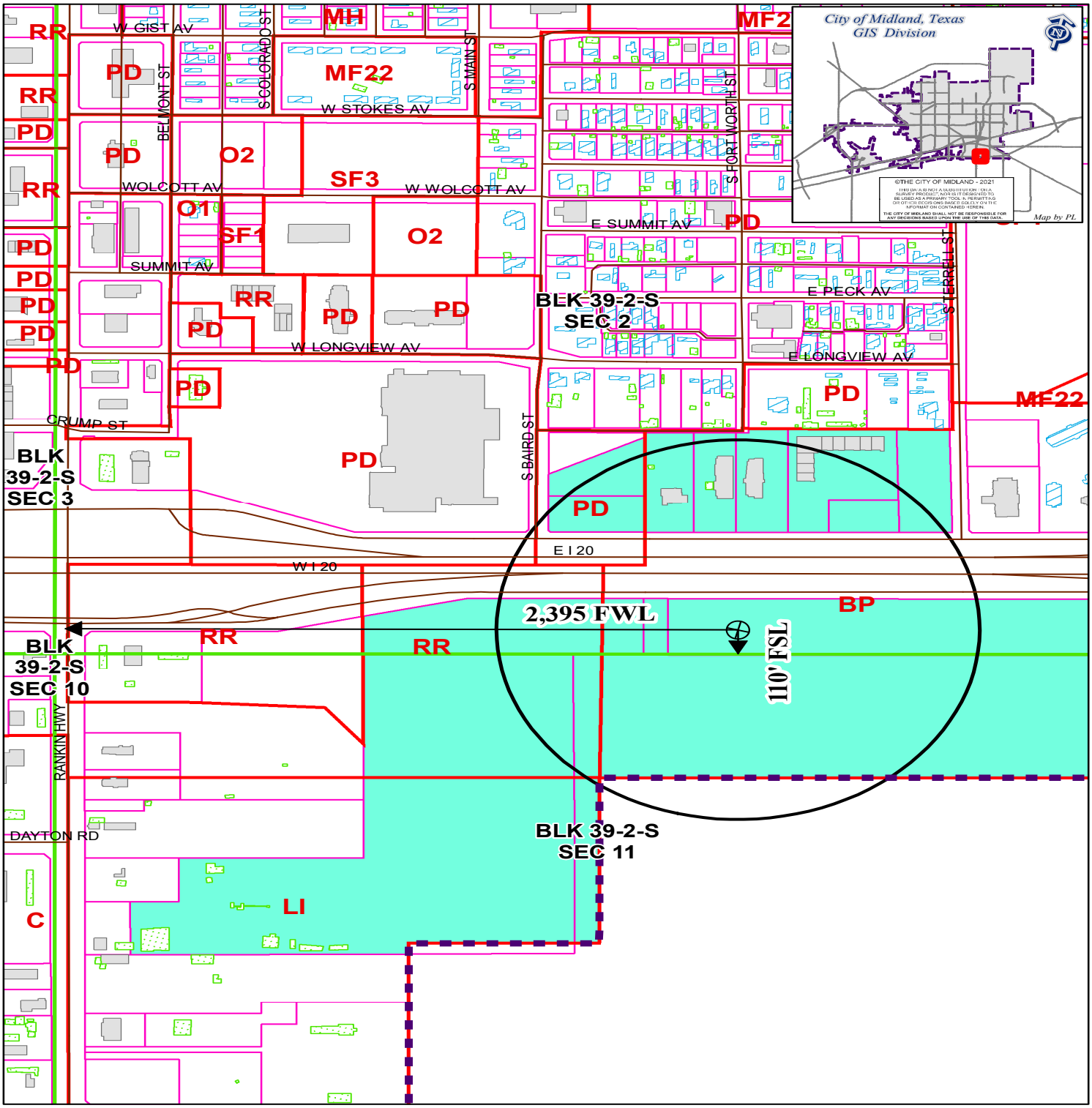
REVISION:	
JRH	10/30/18
DRH	09/23/21
DRH	09/28/21
DRH	09/29/21
DRH	10/29/21
DRH	11/30/21
DRH	12/10/21

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 8.5"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY FOR PROPOSED UTILITIES AND SITES, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PERMIAN DEEP ROCK OIL CO., L.L.C. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. ALL PROPOSED INFRASTRUCTURE SHOWN HEREON IS SOLELY FOR THE PURPOSE OF APPLYING FOR A PERMIT WITH THE CITY OF MIDLAND, TEXAS. THIS IS EXHIBIT IS NOT TO BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THESE ARE FOR PLANNING PURPOSES ONLY.
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
6. D.R.M.C.T. = DEED RECORDS MIDLAND COUNTY, TEXAS
7. C.C.O.R.M.C.T. = C. C. OFFICIAL RECORDS MIDLAND COUNTY, TEXAS

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
LICENSED
PROFESSIONAL
LAND SURVEYOR

JEFFREY N LUEDERS, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: SEPTEMBER 20, 2020

S:\SURVEY\ARRINGTON\MUSTANG_UNIT\FINAL_PRODUCTS\SKETCH\SK_MUSTANG_CITY_PERMIT_REV9.DWG 12/10/2021 10:22:09 AM dharris



LOCATION AND ZONING MAP

Oil - 039825 - 2021 **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 2,395' FWL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,395 feet east of Rankin Highway and 170 feet south of I-20.

Mustang 110 MIPA Unit #H110WA

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	RR	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 March 22, 2022, considered the application of Permian Deep Rock Oil Co., LLC ("Operator") dated December 1, 2021, 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 Mustang 110 MIPA Unit #H110WA oil and gas well shall be 110 feet from the south line and 2,395 feet from the west line, Section 2, Block 39, T-2-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 March 22, 2022 through March 22, 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 and use of a workover rig during the completion process directly following the fracing operations.

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. No landscaping or irrigation is required because City water is not available.

4. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 2022.

Permian Deep Rock Oil Co., LLC

By: _____

Kyle M. Hammond

General Manager

City Council Meeting

Item Number: 16

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 2,220 FEET NORTH OF OCCIDENTAL PARKWAY EXTENSION AND 5,945 FEET WEST OF NORTH ELKINS ROAD); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

Purpose:

Resolution approving the issuance of permit to Pioneer Natural Resources, USA, Inc. for the drilling of the oil and gas well Stimson Burley D 5; said well being generally located 2,220 feet north of Occidental Parkway extension and 5,945 feet West of North 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. No sound walls being used due to the distance of well location from residential development. This is a vertical well and not a horizontal well and operator is not requesting 24-hour fracing operations. The fracing operations will follow ordinance

guidelines of 7:00 a.m. to 7:00 p.m. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory Committee, Pioneer Natural Resources is requesting the following variances:

(1) Pioneer Natural Resources requests variance to remove drill cuttings from surface location to be taken off site.
(2) Pioneer Natural Resources requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(3) Pioneer Natural Resources requests variance to the Road Repair Agreement due to no city streets will be used.

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 A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 7, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 2,220 FEET NORTH OF OCCIDENTAL PARKWAY EXTENSION AND 5,945 FEET WEST OF NORTH ELKINS ROAD); AND WAIVING THE REQUIREMENT OF A 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 an application to the City of Midland to drill an oil and gas well 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 February 8, 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 application to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit, on behalf of the City of Midland, that will allow Operator to drill the following oil and gas well:

Stimson Burley D 5

located in Section 7, Block 38, T-1-S, T&P RR Co. Survey, City of Midland, Martin County, Texas. Said permit is attached hereto as Exhibit "A" and incorporated herein for all legal purposes.

SECTION THREE. That the requirement of a Road Repair Agreement between Operator and the City of Midland is hereby waived in regard to said permit.

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

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Burley D 5 oil and gas well shall be 713 feet from the north line and 600 feet from the east line, Section 7, Block 38, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

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
11/10/2021	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___ 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*** Lynch, Chappel & Alsup RashChapman ***, 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 7, Block 38, T1S, T&P RR Co., Abstract 294, Martin County, Texas

Surface is owned by Fite D B Properties, Inc. There are two additional owners of property within 860'
See attached Exhibit C for details.

Currently undeveloped and using partially existing oil and gas facilities.

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 Burley D 5

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 as Exhibit V

Legal Description of Proposed Well Site: 713' FNL, 600' FEL

Located in Section 7, Block 38, T1S, T&P RR Co., Abstract 294, Martin 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 2.4 miles SE of the proposed pad.

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)]:

Pits will not be used for this well.

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]

Laura E Wallace 1/4/21

By Laura Wallace
Its Regulatory Specialist

County of Dallas)

State of Texas)

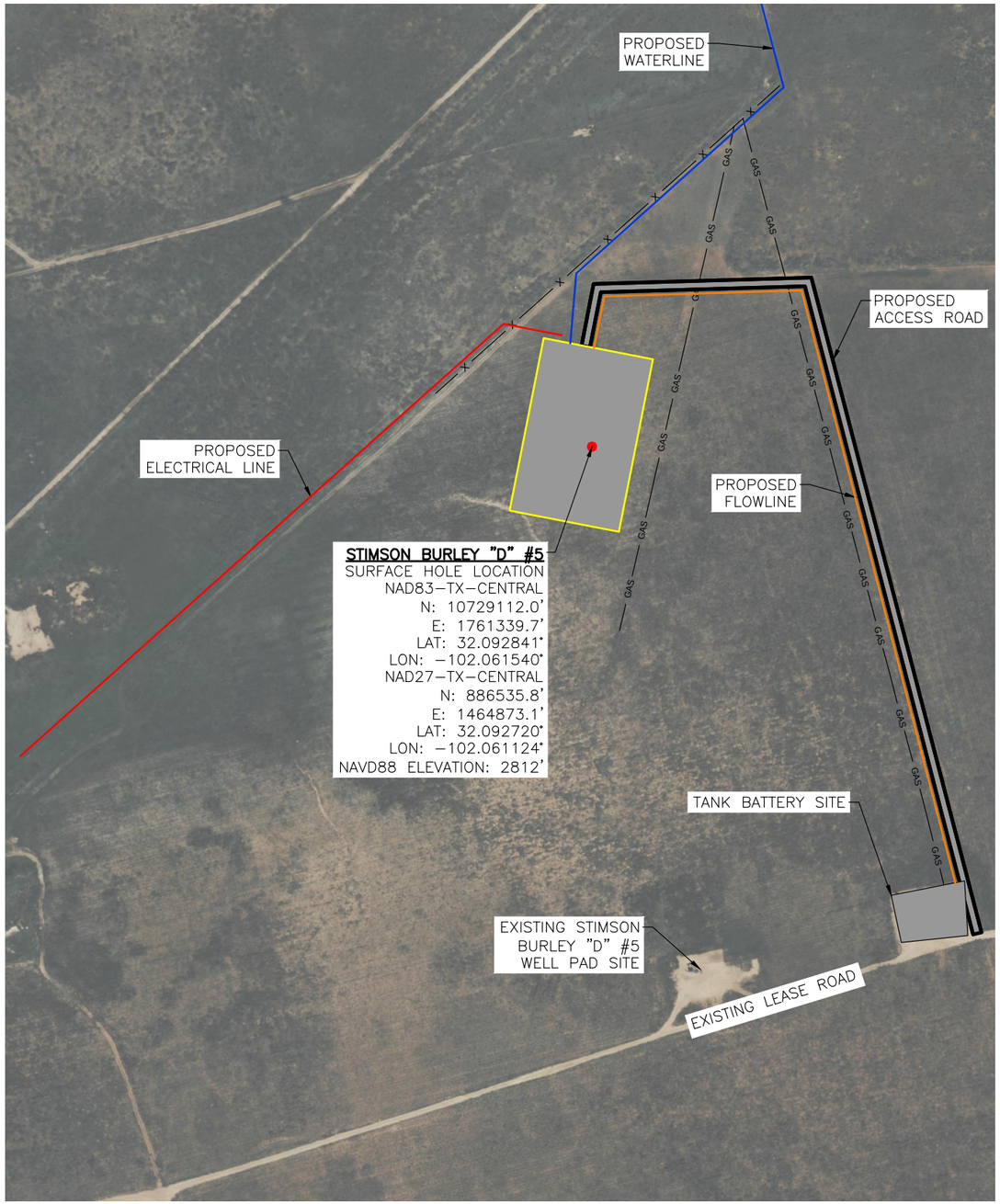
, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

HEATHER M BARCIA
NOTARY PUBLIC
ID# 11239288
State of Texas
Comm. Exp. 06-01-2022

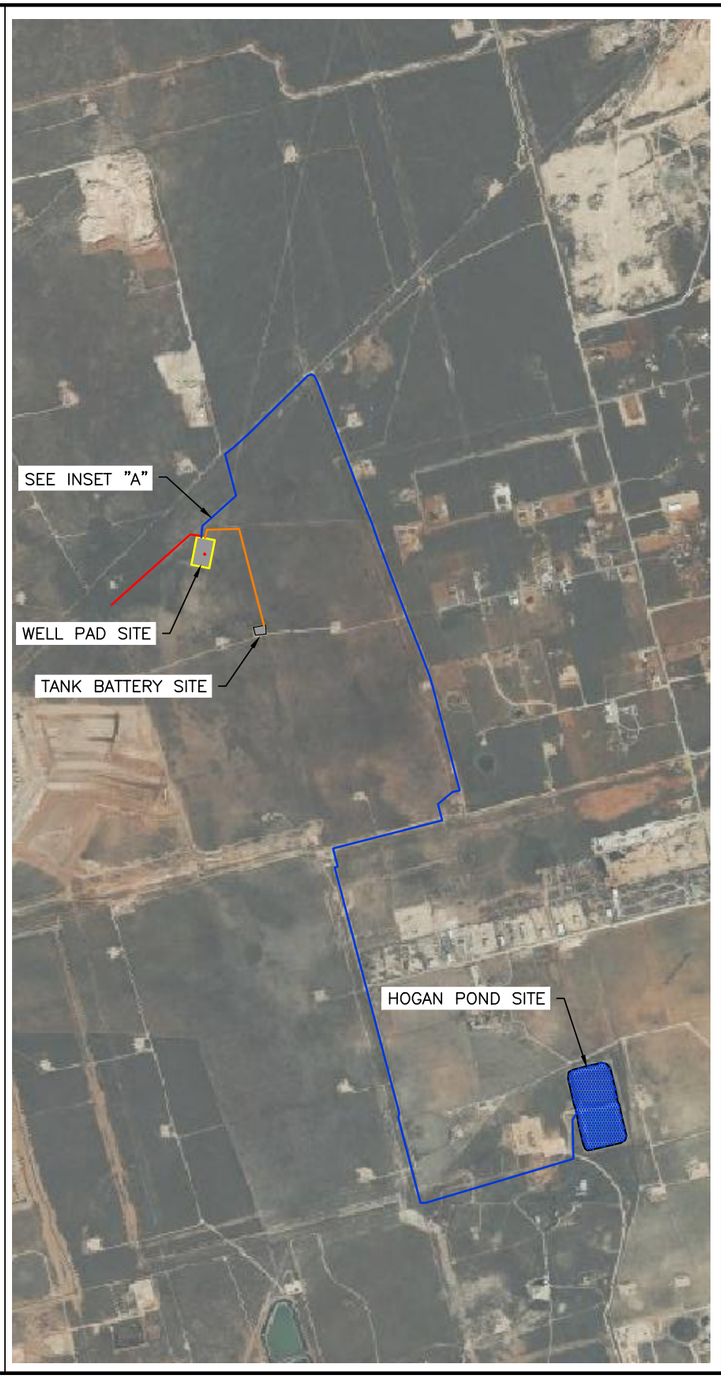
[S E A L]

Heather M Barcia

Notary Public, State of Texas



INSET "A"
SCALE: 1" = 300'



N

0' 2000' 4000'

SCALE: 1" = 2000'

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 3.0 MILES NORTH OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- PROPOSED WELL PAD SITE
- TANK BATTERY SITE
- POND SITE
- PROPOSED FLOWLINE
- PROPOSED WATERLINE
- PROPOSED ELECTRICAL
- E — E — EXISTING OVERHEAD ELECTRICAL
- X — EXISTING FENCE
- GAS — EXISTING GAS PIPELINE
- PROPOSED ACCESS ROAD

HALFF

3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 10/12/2021
BY: J. ALVAREZ
AVO: 39678.650

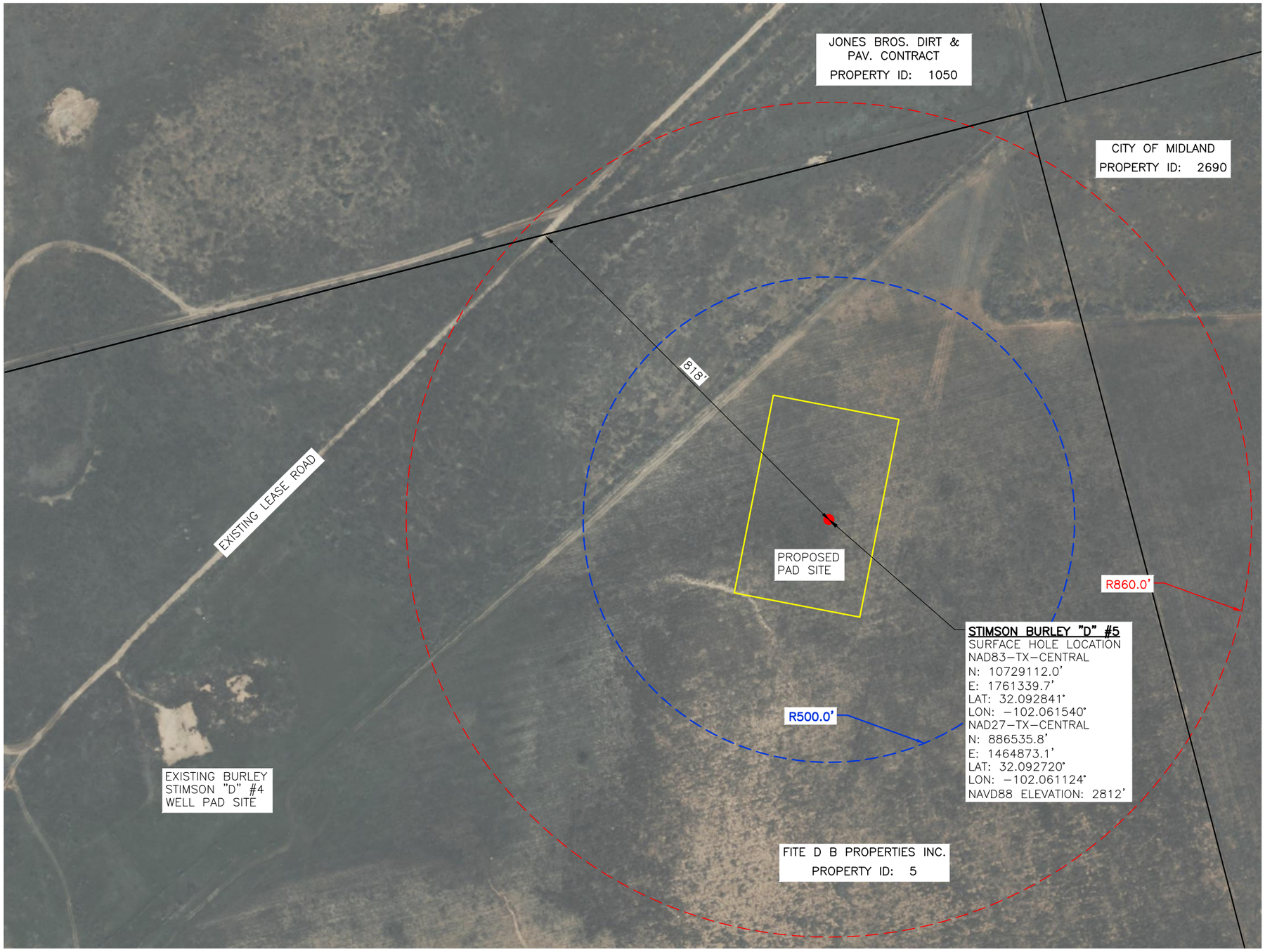
PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "N"
DRILL SITE, GATHERING LINES, ACCESS ROAD, FENCELINES

STIMSON BURLEY "D" #5

LOCATED IN
SECTION 7, BLOCK 38,
TOWNSHIP-1-SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 294,
MARTIN COUNTY, TEXAS

I:\39000s\39678\650\CADD\SheetsMLD\EXHIBIT_PLATS\039697.650_EXHIBIT_N_DRILL_SITE.dwg



N

0' 200' 400'

SCALE: 1" = 200'

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 3.0 MILES NORTH OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- 860-FOOT BUFFER/ HALO
- 500-FOOT BUFFER/ HALO
- PROPOSED WELL PAD SITE
- PROPERTY OWNERSHIP BOUNDARY

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 7/26/2021
BY: J. ALVAREZ
AVO: 39678.650

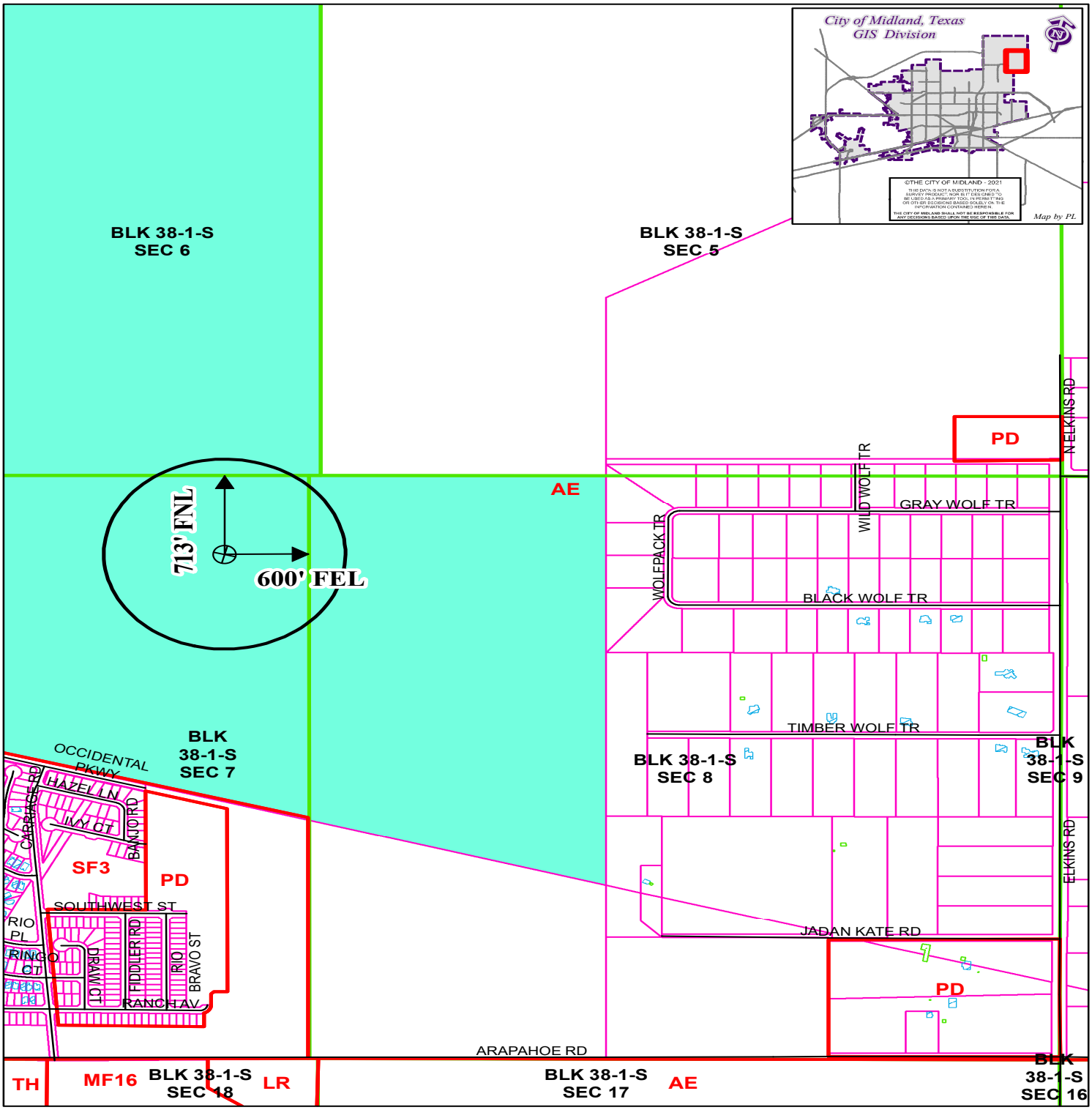
PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "E"
AERIAL SITE PLAN

STIMSON BURLEY "D" #5

LOCATED IN
SECTION 7, BLOCK 38,
TOWNSHIP-1-SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 294,
MARTIN COUNTY, TEXAS

I:\39000s\39678\650\CADD\SheetsMLD\EXHIBIT_PLATS\039697.650_EXHIBIT_E_AERIAL_SITE_PLAN.dwg



LOCATION AND ZONING MAP

Oil-039384-2021 **Scale: 1" = 1,000'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 713' FNL and 600' FEL, Section 7, Block 38-1-S, T&P RR CO Survey, Martin County, Texas.

Generally located 2,220 feet north of Occidental Parkway extended and 5945 feet west of N Elkins Road.

Stimson Burley D 5

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	O1, O2	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 1F3	ONE-FAMILY DWELLING	LR	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 March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Burley D 5 oil and gas well shall be 713 feet from the north line and 600 feet from the east line, Section 7, Block 38, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

City Council Meeting

Item Number: 17

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 1, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 3,172 FEET NORTH OF OCCIDENTAL PARKWAY AND 2,135 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

Purpose:

The proposed granting of an oil and gas well permit to Pioneer Natural Resources, USA, Inc. for the drilling of the oil and gas well Nail E 4; said well being generally located 3,172 feet north of Occidental Parkway and 2,135 feet east of N SH 349. 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. No sound walls being used due to the distance of well location from residential development. This is a vertical well and not a horizontal well and operator is not requesting 24-hour fracing operations. The fracing operations will follow ordinance guidelines of 7:00 a.m. to 7:00 p.m. The operator has a surface agreement with the surface

owner. Receiving support of the Oil & Gas Advisory Committee, Pioneer Natural Resources is requesting the following variances:

(1) Pioneer Natural Resources requests variance to remove drill cuttings from surface location to be taken off site.
(2) Pioneer Natural Resources requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(3) Pioneer Natural Resources requests variance to the Road Repair Agreement due to no city streets will be used.

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 A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 1, BLOCK 39, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 3,172 FEET NORTH OF OCCIDENTAL PARKWAY AND 2,135 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A 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 an application to the City of Midland to drill an oil and gas well 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 February 8, 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 application to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit, on behalf of the City of Midland, that will allow Operator to drill the following oil and gas well:

Nail E 4

located in Section 1, Block 39, T-1-S, T&P RR Co. Survey, City of Midland, Martin County, Texas. Said permit is attached hereto as Exhibit "A" and incorporated herein for all legal purposes.

SECTION THREE. That the requirement of a Road Repair Agreement between Operator and the City of Midland is hereby waived in regard to said permit.

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

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Nail E 4 oil and gas well shall be 675 feet from the south line and 2,135 feet from the west line, Section 1, Block 39, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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.

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If the well that is the subject of this permit is not located within the County of Midland, Texas, Operator shall notify the Midland Central Appraisal District of the following: (1) the well's location within the territorial limits of the City of Midland; and (2) that the City of

Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

This permit shall constitute a written contract for purposes of insurance requirements.

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GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ day of March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

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
11/10/2021	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___ 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

Option A: 972-969-1742 Office or 817-682-3483 Mobile

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*** Lynch, Chappel & Alsup ***, 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 1, Block 39, T1S, T&P RR Co., Abstract 314, Martin County, Texas

All property within 860' of proposed Surface Hole Location is owned by Jones Bros. Dirt & Pav. Contract
See attached Exhibit C for details.

Currently undeveloped and using partially existing oil and gas facilities.

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: Nail E 4

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 as Exhibit V

Legal Description of Proposed Well Site: 675' FSL, 2135' FWL

Located in Section 1, Block 39, T1S, T&P RR Co., Abstract 314, Martin 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 2.4 miles SE of the proposed pad.

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)]:

Pits will not be used for this well.

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]

Laura E Wallace 11/4/21

By Laura Wallace
Its Regulatory Specialist

County of Dallas)

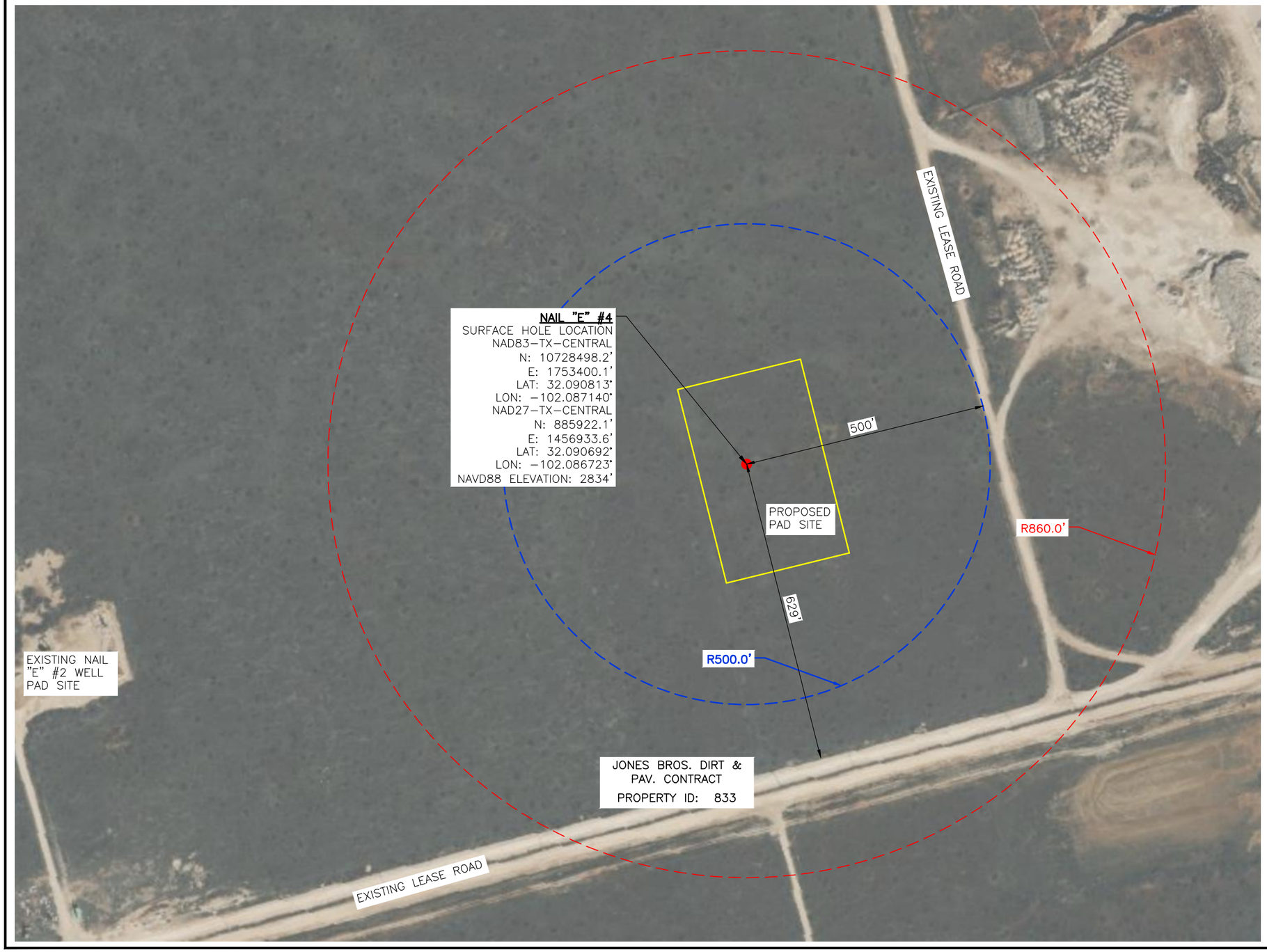
State of Texas)

, 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

[S E A L]

Notary Public, State of Texas



N

0' 200' 400'

SCALE: 1" = 200'

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 3.5 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- 860–FOOT BUFFER/ HALO
- 500–FOOT BUFFER/ HALO
- PROPOSED WELL PAD SITE

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 7/26/2021
BY: J. ALVAREZ
AVO: 39678.647

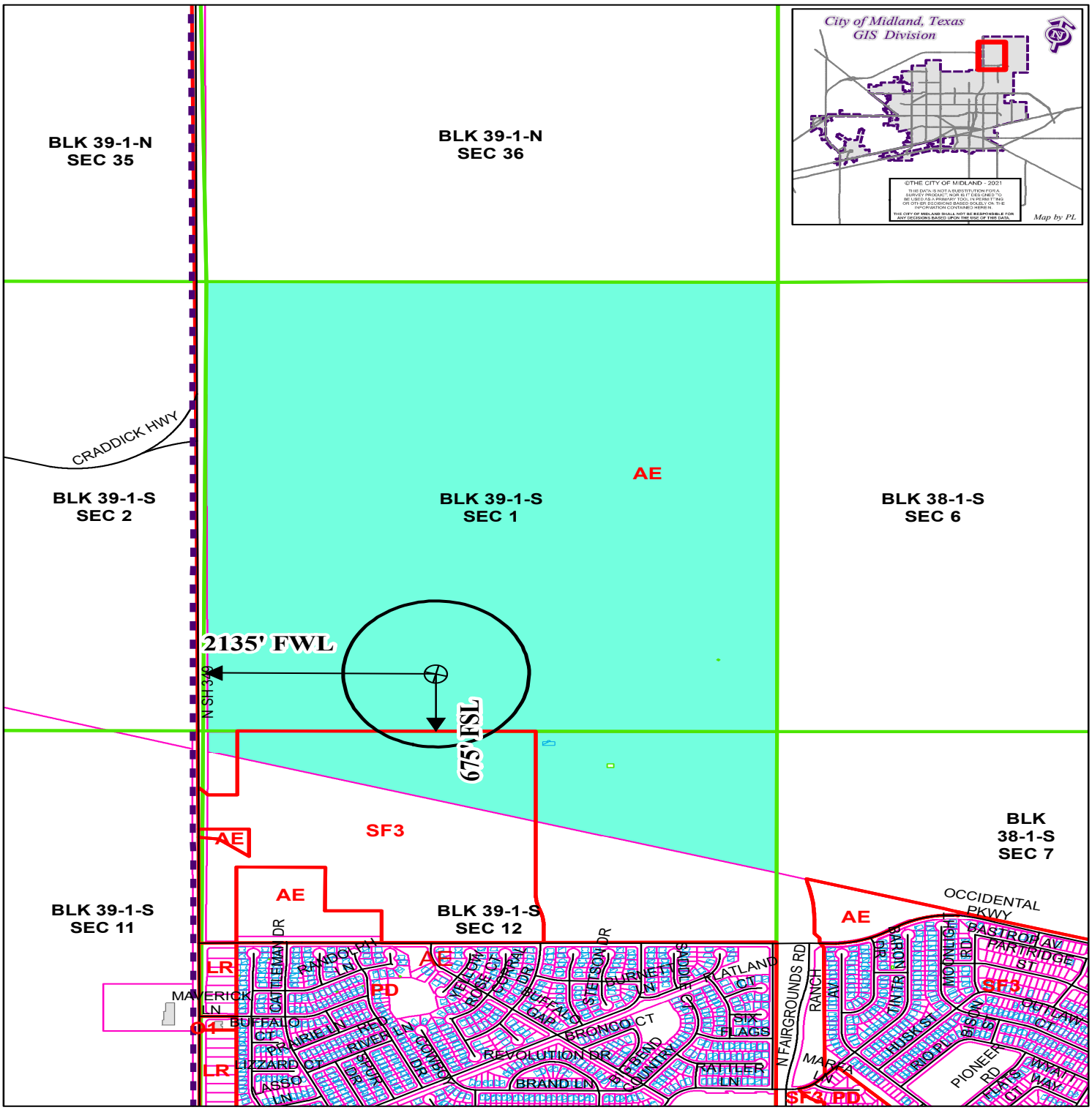
PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "E"
AERIAL SITE PLAN

NAIL "E" #4

LOCATED IN
SECTION 1, BLOCK 39,
TOWNSHIP–1–SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 314,
MARTIN COUNTY, TEXAS

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LOCATION AND ZONING MAP

Oil-039382-2021 **Scale: 1" = 1,300'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 675' FSL and 2,135' FWL, Section 1, Block 39-1-S, T&P RR CO Survey, Martin County, Texas.

Generally located 3,172 feet north of Occidental Parkway and 2,135 feet east of N SH 349.

Nail E 4

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	N1	NEIGHBORHOOD SERVICE
1F1, 1F2, 1F3	ONE-FAMILY DWELLING	LR	LOW 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



N

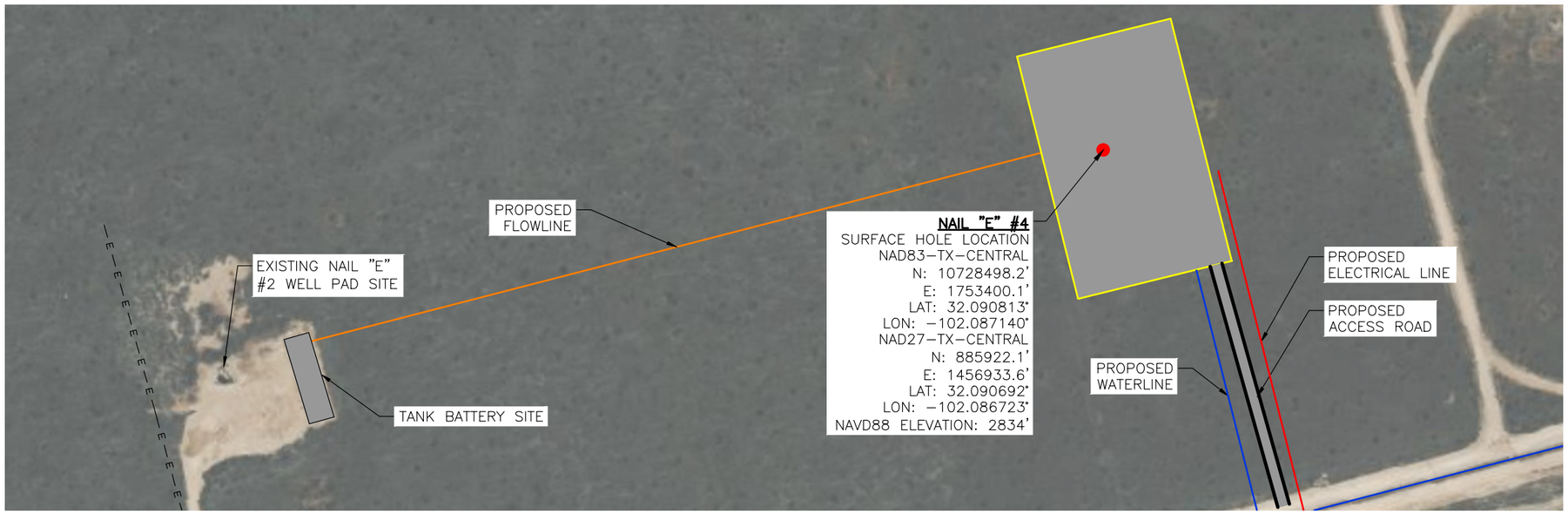
SCALE: N.T.S.

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 3.5 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- PROPOSED WELL PAD SITE
- TANK BATTERY SITE
- POND SITE
- PROPOSED FLOWLINE
- PROPOSED WATERLINE
- PROPOSED ELECTRICAL
- E — E — EXISTING OVERHEAD ELECTRICAL



INSET "A"
SCALE: 1" = 200'

HALFF
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 10/12/2021
BY: J. ALVAREZ
AVO: 39678.647

PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "N"
DRILL SITE, GATHERING LINES, ACCESS ROAD, ELECTRICAL

NAIL "E" #4

LOCATED IN
SECTION 1, BLOCK 39,
TOWNSHIP-1-SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 314,
MARTIN COUNTY, TEXAS

I:\39000s\39678\647\CADD\SheetsMLD\EXHIBIT_PLATS\039697.647_EXHIBIT_N_DRILL_SITE.dwg

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Nail E 4 oil and gas well shall be 675 feet from the south line and 2,135 feet from the west line, Section 1, Block 39, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

City Council Meeting

Item Number: 18

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: RESOLUTION APPROVING THE ISSUANCE OF A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 6, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 4,098 FEET NORTH OF OCCIDENTAL PARKWAY AND 7,385 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A ROAD REPAIR AGREEMENT (DISTRICT 1) (DEVELOPMENT SERVICES)

Purpose:

Resolution approving the issuance of permit to Pioneer Natural Resources, USA, Inc. for the drilling of the oil and gas well Nail C 3; said well being generally located 4,098 feet north of Occidental Parkway and 7,385 feet east of N SH 349. 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. No sound walls being used due to the distance of well location from residential development. This is a vertical well and not a horizontal well and operator is not requesting 24-hour fracing operations. The fracing operations will follow ordinance guidelines of 7:00 a.m. to 7:00 p.m. The operator has a surface agreement with the surface

owner. Receiving support of the Oil & Gas Advisory Committee, Pioneer Natural Resources is requesting the following variances:

(1) Pioneer Natural Resources requests variance to remove drill cuttings from surface location to be taken off site.
(2) Pioneer Natural Resources requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(3) Pioneer Natural Resources requests variance to the Road Repair Agreement due to no city streets will be used.

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 A PERMIT TO PIONEER NATURAL RESOURCES, USA, INC. ("OPERATOR") TO DRILL AN OIL AND GAS WELL WITHIN THE CITY LIMITS LOCATED IN SECTION 6, BLOCK 38, T-1-S, T&P RR CO. SURVEY, CITY OF MIDLAND, MARTIN COUNTY, TEXAS (GENERALLY LOCATED 4,098 FEET NORTH OF OCCIDENTAL PARKWAY AND 7,385 FEET EAST OF NORTH STATE HIGHWAY 349); AND WAIVING THE REQUIREMENT OF A 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 an application to the City of Midland to drill an oil and gas well 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 February 8, 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 application to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit to Operator to drill an oil and gas well 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 a permit, on behalf of the City of Midland, that will allow Operator to drill the following oil and gas well:

Nail C 3

located in Section 6, Block 38, T-1-S, T&P RR Co. Survey, City of Midland, Martin County, Texas. Said permit is attached hereto as Exhibit "A" and incorporated herein for all legal purposes.

SECTION THREE. That the requirement of a Road Repair Agreement between Operator and the City of Midland is hereby waived in regard to said permit.

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

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Nail C 3 oil and gas well shall be 1,851 feet from the south line and 2,020 feet from the west line, Section 6, Block 38, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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.

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Midland is to be included as a taxing entity. Operator shall make said notification no later than 60 days after completion of the well.

The Midland City Council, in granting this permit, also grants the following variance(s):

1. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

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
11/10/2021	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___ 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*** Lynch, Chappel & Alsup ***, 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 6, Block 38, T1S, T&P RR Co., Abstract 671, Martin County, Texas

All property within 860' of proposed Surface Hole Location is owned by Jones Bros. Dirt & Pav. Contract
See attached Exhibit C for details.

Currently undeveloped and using partially existing oil and gas facilities.

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: Nail C 3

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 as Exhibit V

Legal Description of Proposed Well Site: 1851' FSL, 2020' FWL

Located in Section 6, Block 38, T1S, T&P RR Co., Abstract 671, Martin 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 2.4 miles SE of the proposed pad.

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)]:

Pits will not be used for this well.

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]

Laura E Wallace 11/4/21

By Laura Wallace
Its Regulatory Specialist

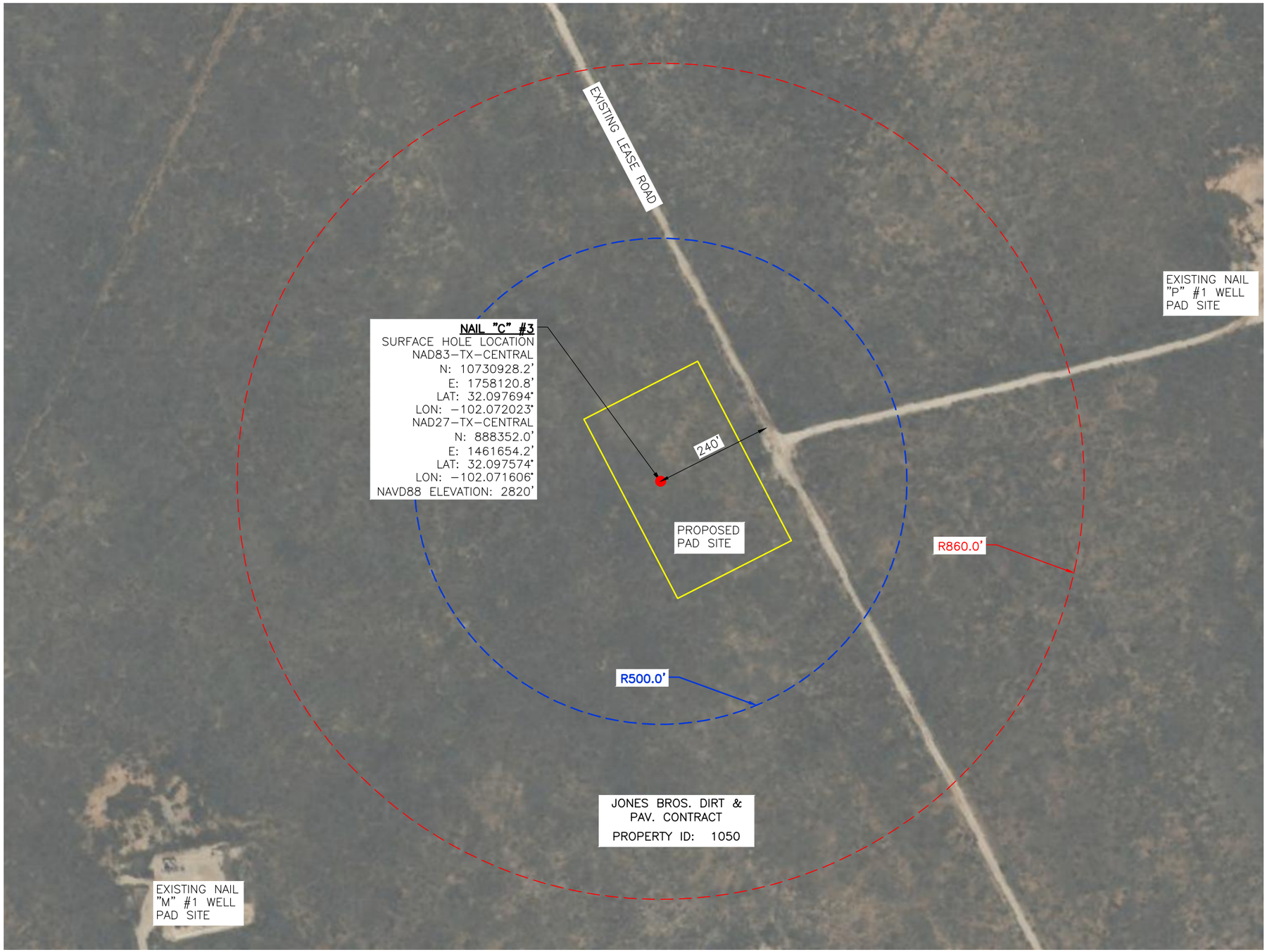
County of Dallas)

State of Texas)

, 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 Texas



N

0' 200' 400'

SCALE: 1" = 200'

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 5.0 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- 860-FOOT BUFFER/ HALO
- 500-FOOT BUFFER/ HALO
- PROPOSED WELL PAD SITE

HALFF®
3300 NORTH A STREET, BUILDING 2, SUITE 120
MIDLAND, TX 79705-5471
TEL (432) 253-3255
TBPELS SURVEYING FIRM #10193998

DATE: 7/26/2021
BY: J. ALVAREZ
AVO: 39678.610

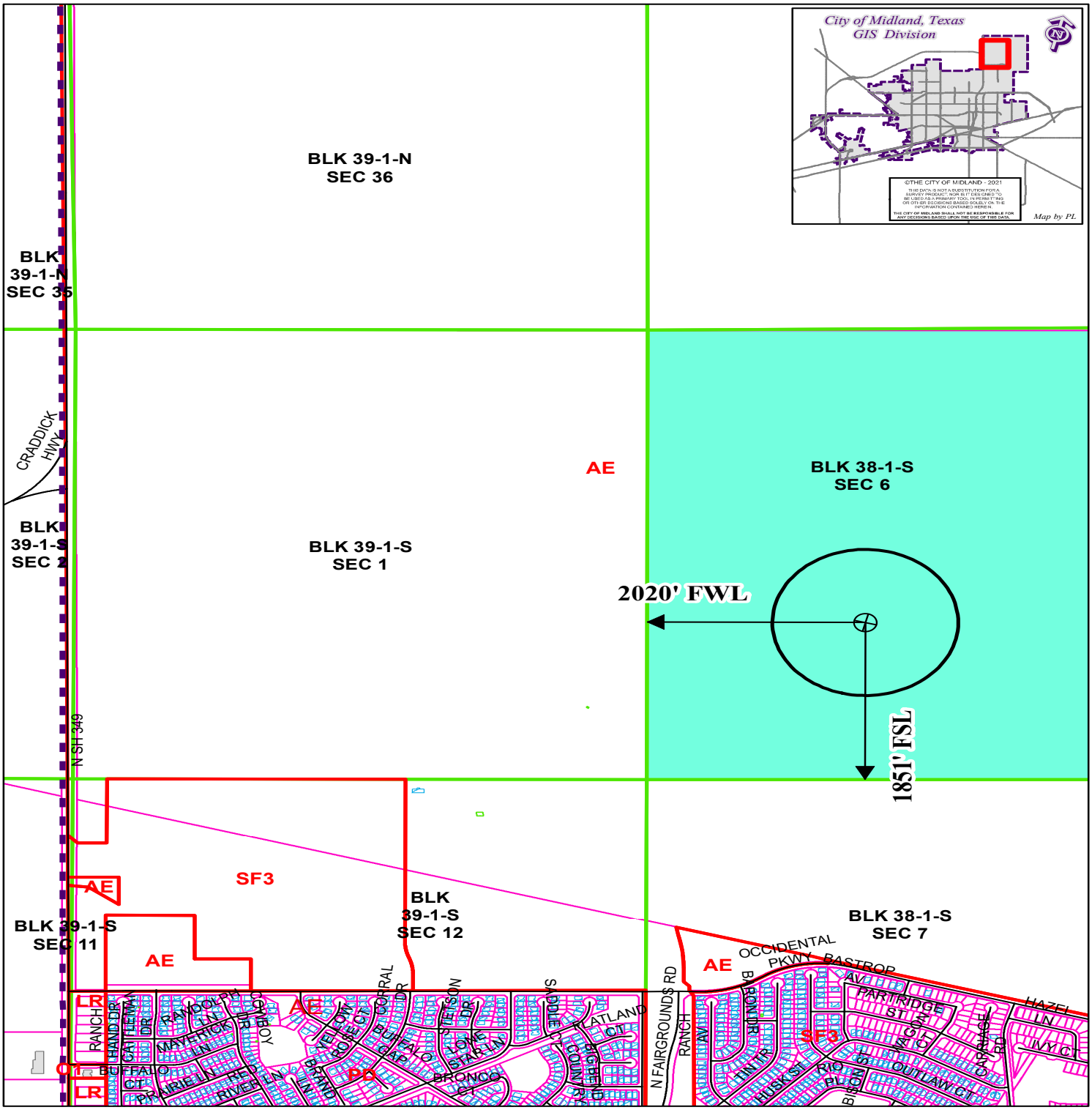
PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "E"
AERIAL SITE PLAN

NAIL "C" #3

LOCATED IN
SECTION 6, BLOCK 38,
TOWNSHIP-1-SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 671,
MARTIN COUNTY, TEXAS

I:\39000s\39678\610\CADD\SheetsMLD\EXHIBIT_PLATS\039697.610_EXHIBIT_E_AERIAL_SITE_PLAN.dwg



LOCATION AND ZONING MAP

Oil-039383-2021 **Scale: 1" = 1,300'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 1,851' FSL and 2,020' FWL, Section 6, Block 38-1-S, T&P RR CO Survey, Martin County, Texas.

Generally located 4,098 feet north of Occidental Parkway and 1,398 feet east of N SH 349.

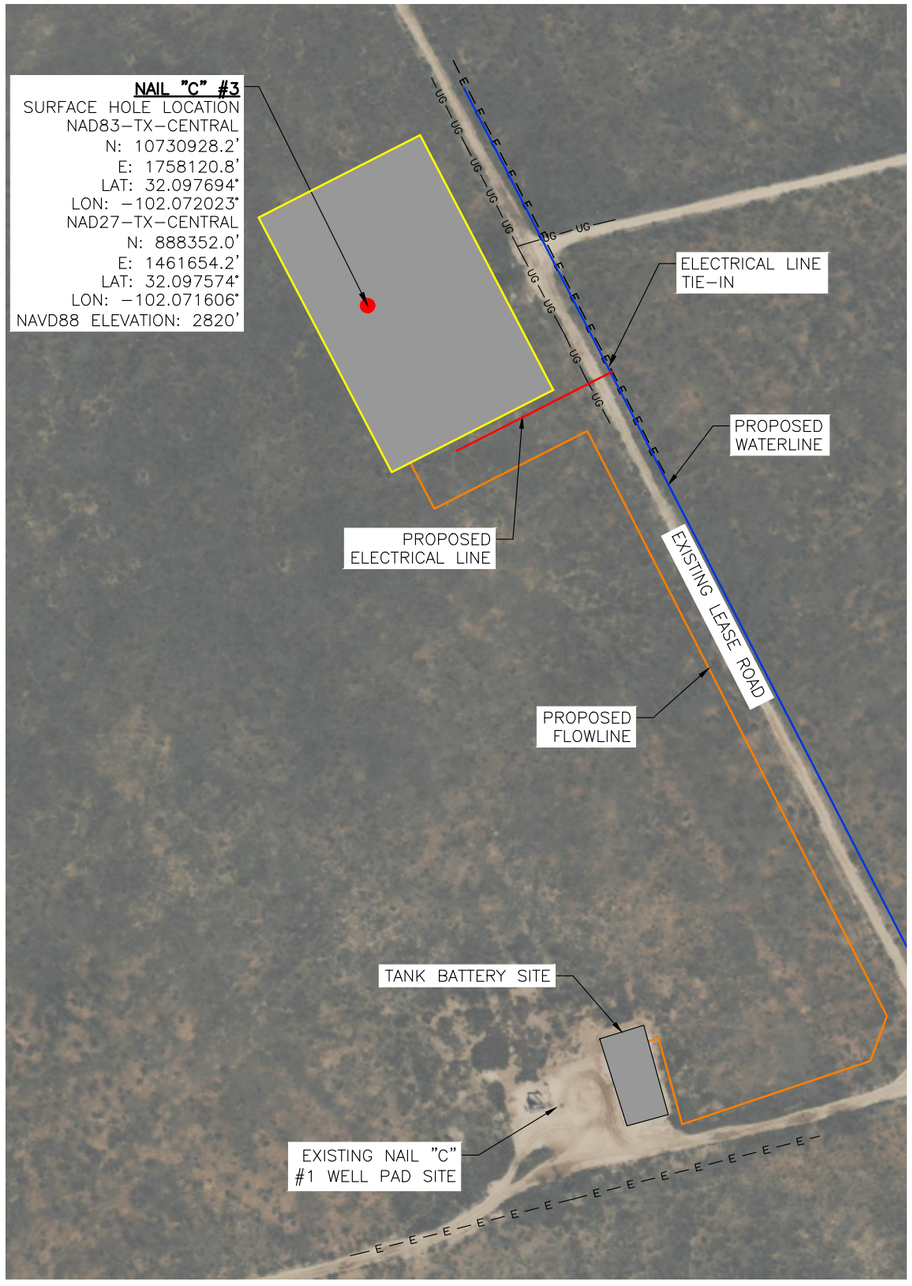
Nail C 3

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	[illegible]	[illegible] 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



INSET "A"
SCALE: 1" = 200'



N

0' 2000' 4000'

SCALE: 1" = 2000'

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 5.0 MILES NORTH/ NORTHEAST OF MIDLAND, TEXAS.

LEGEND

- WELL SURFACE LOCATION
- PROPOSED WELL PAD SITE
- TANK BATTERY SITE
- POND SITE
- PROPOSED FLOWLINE
- PROPOSED 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: 10/13/2021
BY: J. ALVAREZ
AVO: 39678.610

PIONEER NATURAL RESOURCES USA, INC.

EXHIBIT "N"
DRILL SITE, GATHERING LINES, ACCESS ROAD, ELECTRICAL

NAIL "C" #3

LOCATED IN
SECTION 6, BLOCK 38,
TOWNSHIP-1-SOUTH,
T&P RR CO SURVEY,
ABSTRACT NO. 671,
MARTIN COUNTY, TEXAS

I:\39000s\39678\610\CADD\SheetsMLD\EXHIBIT_PLATS\039678.610_EXHIBIT_N_DRILL_SITE.dwg

OIL AND GAS WELL PERMIT

The City Council of the City of Midland, Texas, at its regular meeting on March 22, 2022, considered the application of Pioneer Natural Resources, USA, Inc. ("Operator") dated November 10, 2021, 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 Nail C 3 oil and gas well shall be 1,851 feet from the south line and 2,020 feet from the west line, Section 6, Block 38, T-1-S, T&P RR Co. Survey, Martin 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 March 22, 2022 through March 22, 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. Drill cuttings shall be removed from the surface location.
2. No landscaping or irrigation is required because City water is not available.
3. No road repair agreement is required because no City streets will be used to access the well site.

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 March 2022.

CITY OF MIDLAND, TEXAS

BY: _____

Patrick N. Payton, Mayor

UNDERSTOOD AND AGREE THIS _____day of March 22, 2022.

Pioneer Natural Resources, USA, Inc.

By: _____

Laura Wallace

Regulatory Specialist

City Council Meeting

Item Number: 19

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Carl Craigo, Director

Subject: MOTION AUTHORIZING THE EXECUTION OF A 2.56-ACRE PIPELINE EASEMENT AGREEMENT LOCATED IN SECTIONS 31, BLOCK 38, T-1-S, T & P RR. CO SURVEY, MIDLAND COUNTY, TEXAS, FROM GEORGE V. ANDERSON, JR. AND DIANN H. ANDERSON; AND ORDERING THE CITY SECRETARY TO RECORD SAID INSTRUMENT IN THE OFFICIAL REAL PROPERTY RECORDS OF MIDLAND COUNTY, TEXAS (DISTRICT 2) (UTILITIES)

Purpose:

THIS MOTION ACCEPTS A PIPELINE EASMENT AGREEMENT FROM GEORGE V. ANDERSON, Jr. AND DIANN H. ANDERSON FOR A 40' WIDE EASMENT FOR THE CONSTRUCTION AND OPERATION OF THE 36" NORTHEAST SANITARY SEWER PIPELINE.

Recommended City Council Action:

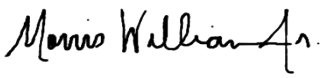
Approve

Fiscal Impact:

COMPENSATION FOR THIS EASMENT IS A ONE TIME PAYMENT OF $50,915.82 FOR THE EASMENT PAYMENT AND $152,747.45 FOR DANAGES FOR A TOTAL OF $203,663.45.

Discussion:

This section of right of way is part of the overall 8 mile sewer project being built to service for the 10,000 housing equivalents estimated in this area and relief to the existing service serving the downtown and south east areas.



City Manager's Office

CITY OF MIDLAND - PAYMENT ORDER
North East Sanitary Sewer Line Project

PAYMENT ORDER No.: 220113-18-1

DATE: 01.13.2022 COUNTY: Midland

PAYABLE TO: George V. Anderson, Jr. and Diann H. Anderson

ADDRESS: PO Box 176 SSN or TAX ID: 458-92-2762

CITY, ST, ZIP: Laneville, TX 75667 LANDOWNER #: 18

LEGAL: Being 93.085 acres in the North one-half of Section 44, Block 38, T1S, T&P Ry. Co. Survey, Midland County, Texas, as being more particularly described in that certain Warranty Deed With Vendor's Lien dated June 13, 1990, recorded in Volume 1045, Page 510 of the Deed Records of Midland County, Texas

EASEMENT PAYMENT:

RODS: 169.72 PRICE PER ROD: $300.00

OWNER INTEREST: 100.000000% PAYMENT AMOUNT: **$50,915.82**

DAMAGES PAYMENT:

RODS: 169.72 PRICE PER ROD: $900.00

OWNER INTEREST: 100.000000% PAYMENT AMOUNT: **$152,747.45**

TOTAL AMOUNT OF PAYMENT ORDER: $203,663.27

LANDOWNER INITIALS: DH DH

For City of Midland Use Only

Payment Handling: Mail payment to landowner at address provided above

Approved By: _____ Signature: _____

Received By: _____ Signature: _____

Check Number: _____ Dated: _____

Issued By: _____ Returned To: _____

NOTICE OF CONFIDENTIALITY RIGHTS. IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

STATE OF TEXAS §
§ PUBLIC INFRASTRUCTURE EASEMENT
COUNTY OF MIDLAND §

KNOW ALL MEN BY THESE PRESENTS:

FOR AND IN CONSIDERATION OF THE SUM of Ten Dollars ($10.00) in hand paid and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, GEORGE V. ANDERSON, Jr. AND WIFE, DIANN H. ANDERSON, whose mailing address is P. O. BOX 176, LANEVILLE, TEXAS 75667 (designated herein as "GRANTOR"), does hereby grant, sell and convey to the CITY OF MIDLAND, TEXAS, whose address is 300 N. Loraine, Midland, Texas, 79701, its successors or assigns (designated herein as "GRANTEE"), a Right-of-Way and Easement for the purposes of surveying, laying, constructing, installing, maintaining, operating, repairing, replacing, inspecting, altering, reconstructing, changing the size, removing and/or abandoning in place one (1) pipeline, together with all fittings, tie-overs, manholes, pipeline markers and cathodic protection equipment used or useful in connection with the transportation of refuse or waste liquids (sewage) or the products thereof (collectively the "Facilities") in, to, on, under, across and/or through the following described tract of land (the "Property") situated in MIDLAND County, TEXAS, to-wit:

Being 93.085 acres in the North one-half of Section 44, Block 38, T1S, T&P Ry. Co. Survey, Midland County, Texas, as being more particularly described in that certain Warranty Deed With Vendor's Lien dated June 13, 1990, recorded in Volume 1045, Page 510 of the Deed Records of Midland County, Texas

said Right-of-Way to be forty (40) feet in width as more particularly described in Exhibit A attached hereto and made a part hereof (the "Easement" or "Easement Area"), and GRANTEE agrees that this Easement does not include or permit the construction of an associated pump station. The Easement Area shall temporarily be expanded during any period of construction by sixty (60) feet, for a total width of one hundred (100) feet. The temporary workspace area shall be along and parallel to the Easement Area and may be in varying widths on either side of the Easement Area, but the total width shall never be more than one hundred (100) feet and shall expire one-year after completion of construction of said pipeline, at which time the Easement Area will revert back to forty (40) feet.

GRANTEE shall have all privileges necessary or convenient for the full use of the rights herein granted, together with ingress and egress along said Easement Area. GRANTEE shall bury and maintain the top of its pipeline at least thirty-six (36) inches below the surface of the ground except in areas of consolidated rock where the minimum depth initially buried and maintained will be eighteen (18) inches. GRANTEE shall have the right hereafter to cut and keep clear all trees, shrubs, brush and other obstructions that GRANTEE determines may injure, endanger or interfere with the Facilities or the exercise by GRANTEE of its rights, privileges and Easement granted herein. GRANTOR agrees not to build, create or construct or allow to be built, created or constructed, any obstructions, including without limitation impounded water, buildings, barns, workshops, engineering works, or other structures or improvements within the Easement Area nor shall GRANTOR change, or permit the change of, the grade of the surface of the ground, or remove drift from, within the Easement Area. The consideration paid herein by GRANTEE includes payment for actual damages to the surface as well as to crops, pasture, fences and timber, which

arise from initially surveying, laying, installing and/or constructing said Facilities, except the alteration of water flow including irrigation and water wells.

1.1 GRANTEE agrees to comply at all times and at its sole cost with all federal, state, and local laws, rules, and regulations and safety standards applicable to the exercise of GRANTEE'S rights under this Agreement including, without limitation, the construction, use, operation, maintenance, repair, and service of GRANTEE'S pipeline.

1.2 GRANTEE is solely responsible for all safety, legal, and other considerations posed by the presence of other pre-existing petroleum pipelines, electric lines, and other utilities in the area including locating the Right-of-Way and pipeline at an appropriate distance from such other preexisting pipelines and utilities.

1.3 During construction GRANTEE (and GRANTEE'S contractors and subcontractors) shall prevent the spread of toxic, invader, and other harmful plants. If such plants should appear on or adjacent to the Right-of-Way, it is reasonably evident that such intrusion was caused by GRANTEE'S operations, GRANTEE shall eradicate these plants in accordance with the reasonable specifications of GRANTOR.

1.4 During initial construction, GRANTEE shall clear, in a good and workmanlike manner, all trees, brush and woody plants within the Right-of-Way and (where necessary) the temporary workspace. Mesquite, tarbrush, prickly pear, and other woody plants shall be cleared by grubbing or excavating such that the root crowns of the plants are removed (versus blading the plants). Any trees, brush, woody plants and debris so removed shall be removed from the Property. In no event will hydro-axe or like method be used.

GRANTEE shall insofar as is reasonably practicable, but consistent with the exercise of its rights hereunder, restore the surface of the land to substantially the condition as it existed prior to GRANTEE's installation of the Facilities, such restoration to include the repair of any cut fences, leveling of the ground, and cleaning up all debris, and removing all rocks three (3) inches in diameter or larger unearthed, in each case, as a result of its Facilities installation. Notwithstanding the foregoing, GRANTEE shall be entitled to install, maintain, and use gates in all fences that now or hereafter cross the Easement Area, including any such fences at the boundaries of the Property. GRANTEE, at its election, shall further be entitled to install its own lock on any such gates.

1.5 GRANTEE shall use a high degree of care and take all precautions to prevent livestock from escaping from individual pastures and from escaping onto any public road. GRANTEE shall use temporary wire gaps and otherwise conduct its construction and other operations in a manner to prevent livestock from passing through a cut fence, gate, or other opening resulting from GRANTEE'S operations on the Property. Before any fence on the Property is cut, GRANTEE shall brace the fence on both sides of the cut by constructing H-braces on each side of the cut and reattaching the existing fence firmly and tautly so as to prevent any sagging or loosening. The H-braces shall be constructed to the specifications as described and illustrated in Exhibit B, attached hereto and made a part hereof.

Where the Right-of-Way intersects any fence, GRANTEE shall -- at GRANTOR'S option -- replace the fence or construct a new sixteen (16) foot gate in accordance with the following specifications: Any gate must be of heavy tubing or pipe and full paneled. H-braces for gates shall meet the H-brace specifications per Exhibit B. GRANTEE shall use new wire -- 12-1/2 gauge, 6-inch, 1047 -- to replace any fencing needed in building or rebuilding fence gaps or gates on the Right-of-Way. GRANTOR reserves the right to require that any gate be locked; GRANTOR may determine the method of locking the gate so long as it is reasonable, and GRANTEE has the ability to unlock and open such gate. If any gates are left in any fence by GRANTEE, then GRANTEE shall cause the same to be locked, if requested by GRANTOR, and a duplicate key/combination to the lock will be furnished to GRANTOR. Said gate or gates shall at all times be kept in a good state of repair by GRANTEE, at GRANTEE'S sole cost and expense.

In the event a gate, temporary fence, gap or other opening is improperly left open by GRANTEE, then GRANTEE shall pay to GRANTOR the following liquidated damages (in addition to all other available remedies): (1) for the first violation--$1,000.00; (2) for the second violation--$2,500.00; and (3) for the third and all subsequent violations--$3.000.00. GRANTEE will provide 2 locks at each gate (1) being the GRANTEE'S lock of choosing and (2) being the GRANTOR'S lock which will be, at minimum, a resettable combination padlock designed for commercial/industrial applications. The locks will be positioned in a manner that allows any violations to be identified if GRANTEE or anyone on GRANTEE'S behalf violates this provision. The payment shall be paid within 30 days of written request by GRANTOR. The damages above are in addition to any actual damages caused to GRANTOR or his assigns by such failure. Additionally, GRANTEE hereby fully indemnifies GRANTOR for any damages arising from failures on the part of GRANTEE or its assigns, employees, or licensees to fulfill any covenants under this agreement, including attorney fees and costs.

1.6 As to ditching, the topsoil will be placed on one side of the ditch and the subsoil on the opposite side. In backfilling the ditch, the subsoil will be replaced first and the topsoil last and then in pasture areas, the land reseeded. If there is excess topsoil remaining. after the ditch has been backfilled, GRANTEE shall stockpile the topsoil on or near the Right-of-Way.

The digging of the ditch or trench for the pipeline shall be done by what is known as the double ditching method, that is, placing up to twelve inches (12") of the topsoil removed on one side of the line and placing the sub-soil on the other side of the line, and when the line is refilled, first placing the sub-soil in the trench and then placing the topsoil in the trench. GRANTEE shall pack the fill of its excavation or backfill and crown the trench sufficiently in such a manner as to make the fill substantially firm upon the filling of the excavation, and further, again fill and pack any portion of the fill which has settled to any appreciable extent.

1.7 During construction of the pipeline, GRANTEE shall construct soft plugs and crossovers at reasonable locations including livestock trails and road crossings to allow vehicles. livestock and wildlife to cross all open ditches and pipe laid on top of the surface. In livestock pasture(s). GRANTEE shall taper the ends of open ditches to allow for the escape of livestock and the tapered ends shall not be obstructed by pipe or other obstruction. No portion of any ditch shall be left open more than 30 days and no pipe will be left on top of the surface more than 60 days. If a ditch is open more than 30 days or if pipe is on the surface more than 60 days, GRANTEE shall pay GRANTOR the sum of $$2000.00 for such open ditch and/or pipe on the surface per week or portion of any week during which the same is open or the pipe is on the surface past such permitted period. GRANTEE shall regularly patrol uncovered areas for any livestock or wildlife, which may become entrapped, and, if so, remove the same and pay damages for injuries to or loss of same.

1.8 Promptly (in no event later than 60 days weather permitting) upon completion of initial construction of the pipeline. GRANTEE shall restore the surface of the Easement Area, temporary workspace and additional workspace. as near as reasonably practicable, to their natural grade and prior condition including leveling and reseeding. GRANTOR reserves the right to reasonably control and designate the areas and manner of disposal of all rock and other material displaced by construction. All rock greater than 3" in diameter will be removed from the Property. GRANTOR may direct GRANTEE to spread the rock, pile (or stockpile) the rock, place the rock in sloped areas selected by GRANTOR so as to construct water diversion berms and spreader dams to divert the flow of water to minimize soil erosion on and near the Right-of-Way area, or utilize any other reasonable manner of disposal.

1.9 Where, in this Agreement, reseeding is required, the seed mixture shall be as follows: Grass Species (Pounds Pure Live Seed [PLS]): Sideoats Grama (4.5 PLS), Plains Bristlegrass (3.0 PLS), Green Sprangletop (1.5 PLS), Sand Dropseed (1.0 PLS), WW Spar Bluestem (1.7 PLS), Sorghum Alum (0.5 PLS).

The seeding rate shall be at 12.2 PLS pounds per acre. The obligation to reseed the affected portion of the Property will continue until successful growth has been established.

1.10 Throughout the term of this Agreement, if subsidence of the pipeline ditch (or part thereof) occurs, GRANTEE must add additional clean. locally sourced and GRANTOR approved topsoil similar to that originally removed until the surface of the ditch area has settled uniformly with the surface of adjacent land.

1.11 Throughout this Agreement, GRANTEE shall be obligated for the reasonable maintenance of the Right-of-Way. All gates and H-braces must be painted with rust-resistant paint in a color approved by GRANTOR and be maintained in good repair and in a neat, clean, and well-painted condition.

1.12 During initial construction of the pipeline and throughout the term of this Agreement, GRANTEE shall be obligated for the reasonable cleanliness of the Right-of-Way and adjacent areas. GRANTEE must use reasonable diligence to keep such areas free and clear of litter, trash, debris, discarded materials and the like. Due to the risk of injury to livestock, GRANTEE must pay particular attention to and immediately remove all thread protectors and all discarded pieces of plastic or poly (including pipeline shavings. other shavings, packing materials, and the like).

1.13 GRANTEE shall have an obligation to construct or implement reasonable erosion treatments (such as berms, diversion terraces and the like) so that erosion of the Right-of-Way area and immediately adjacent areas is prevented, or halted, or reasonably minimized if it is evident that such erosion is caused by the placement of the pipeline on the Property or otherwise caused by GRANTEE'S operations on the Property. GRANTEE understands the Easement location is in close proximity to a draw and subject to high levels of erosion and grade change. GRANTEE understands special attention to ongoing terrain change will be needed to maintain the proper depth of the pipeline and fill any subsidence of the ditch.

1.14 After the initial construction of the pipeline, GRANTEE shall notify GRANTOR at least 48 hours prior to construction or repair activities that require portions of the Right-of-Way to be excavated. This shall not apply to any situation that GRANTEE deems to be an emergency. GRANTOR shall be notified as soon as practical in an emergency.

1.15 No employee, contractor. or other person entering the Property under the authority of GRANTEE shall be permitted to engage in any recreational activities on the Property, including but not limited to hunting, fishing. swimming, camping, picnicking, searching for Indian relics, or sightseeing. No dogs (other than contraband search dogs or trained leak detection dogs) or other animals, guns, firearms, or fishing equipment or other type of sport paraphernalia will be permitted on the Property. Nothing will be brought on or removed from the Property nor any activity engaged in on the Property nor will anyone go anywhere on the Property except as directly and necessarily required in carrying on GRANTEE'S operations. Anyone found on the Property in violation of this clause may be immediately ejected and thereafter excluded from the Property. No employee, contractor, or other person entering the Property under the authority of GRANTEE shall bring alcohol, illegal drugs, illegal controlled substances, weapons of any kind including firearms, air guns, bows, crossbows, spear guns, and blow guns (but excluding pocketknives and belt-carried sheath knives). Anyone found on the Property in possession of these items may be immediately ejected and thereafter excluded from the Property and (if applicable) prosecuted.

1.16 GRANTEE shall take reasonable safeguards to prevent the occurrence and spread of range fires. During all times when a county burn ban is in effect or when the risk of range fire is likely, GRANTEE shall provide water trucks and other prudent fire-prevention equipment for welding, dozing, ditching or other higher risk-of-fire operations. GRANTEE shall comply with all requirements of a county burn ban applicable to Grantee's operations. Should GRANTEE's operations cause a fire, GRANTEE shall pay all reasonable damages, in addition to any liquidated damages herein.

1.17 GRANTEE has no right to dispose of any water generated or produced in connection with hydrostatic testing of the pipeline upon the Right-of-Way or GRANTOR'S adjoining lands unless GRANTOR consents in advance and in writing.

1.18 The provisions of this paragraph 1 applicable to the initial construction of the pipeline also apply to repair and removal of said pipelines.

GRANTEE shall have the right to reasonably adjust the location of the Easement Area within the Property as a result of various engineering factors or to correct the legal description of the Easement Area to conform to the actual location of the Easement Area based on the actual location of the Facilities. In the event such a modification is required by GRANTEE, GRANTEE may adjust the location of the Easement Area by recording a "Revised Exhibit A" referring to this instrument and setting forth the modified legal description of the Easement Area, which description may be set forth as a map on the Revised Exhibit A. A copy of said Revised Exhibit A shall be delivered to the GRANTOR. Without limiting GRANTEE'S right to modify the location of the Easement Area by recording a "Revised Exhibit A" as aforesaid, GRANTOR agrees to execute and deliver to GRANTEE any additional documents GRANTEE may request to modify or correct the legal description of the Easement Area to conform with the actual location of the Easement Area based on the actual location of the Facilities. If such documents are required, they will be prepared by GRANTEE at its expense. GRANTOR shall receive additional reasonable compensation only if the area within the Easement Area increases as a result of the changed location. Adjustment of the Easement Area beyond that set out in Exhibit A shall be upon GRANTOR approval.

GRANTEE and GRANTOR agree that this Agreement, together with the Payment Agreement for the North East Sanitary Sewer Line Project entered into concurrent herewith, constitute the entire agreement between the parties and that no other agreements have been made modifying, adding to or changing the terms of the same. Except as provided in the immediately preceding paragraph, this Agreement shall not be abrogated, modified, rescinded or amended in whole or in part without the consent of GRANTEE and GRANTOR, in writing and executed by each of them, and duly recorded in the appropriate real property records.

GRANTEE shall reasonably compensate GRANTOR or its tenants on the Property (if any), as applicable, for any actual loss or damage to their respective property, or injury or death to them, caused by GRANTEE, or any of its employees, agents, contractors, subcontractors or invitees, in connection with the exercise of GRANTEE's rights hereunder, except for any losses or damages to their property which are included within the initial consideration paid GRANTEE hereunder. In addition, GRANTEE does hereby covenant and agree to defend, indemnify and hold GRANTOR harmless from and against any and all claims, suits and causes of action of persons or entities for loss of or injury to the property of, and injuries to or death of any such persons or entities caused by GRANTEE, its employees, contractors, subcontractors or invitees in connection with the exercise of GRANTEE's rights hereunder. In no event, however, will GRANTEE be responsible for any of the foregoing to the extent caused by the negligence or willful acts or omissions of GRANTOR or its tenants (if any), or its or their employees, agents, contractors, subcontractors or invitees.

At GRANTEE'S sole cost, risk and expense, GRANTEE shall observe, comply with and conform to all present and future municipal, parish, state and federal laws, ordinances, regulations, rules, orders and directives applicable to (1) the construction, maintenance, operation, use, repair, replacement and removal of the pipeline, (ii) corrective actions required to address the release of hazardous substances arising from GRANTEE'S operations ("corrective actions"), and/or (iii) the commodities or products transported in the pipeline (collectively, "applicable laws"). GRANTEE shall indemnify and hold harmless GRANTOR against third-party claims and related losses, including reasonable attorneys' fees, caused by (a) the violation of applicable laws by GRANTEE, its contractors, subcontractors, agents or employees occurring after GRANTEE'S acquisition of the Easement, (b) the release of hazardous substances on the property to the extent caused by GRANTEE or arising from GRANTEE'S operations or GRANTEE'S use of the

Easement property (an "environmental release"), or (c) GRANTEE'S corrective actions applicable to the property in response to an environmental release.

GRANTEE shall defend with counsel of GRANTEE'S choice, indemnify, protect and hold harmless GRANTOR, GRANTOR'S heirs, successors and assigns (the "indemnified parties"), from any and all liens, claims, demands, costs (including but not limited to reasonable attorneys' fees), expenses, damages, losses and causes of action for damages asserted by persons or entities unaffiliated with the indemnified parties because of injury to persons (including death) and injury or damage to or loss of any property or improvements to the extent caused by GRANTEE'S negligence, gross negligence, willful misconduct or strict liability.

GRANTOR hereby warrants the title to the Property, subject only to outstanding mortgages and rights of way, if any, now of record in the land records of the above specified county, and in the event of default by GRANTOR, GRANTEE shall have the right to discharge or redeem for GRANTOR, in whole or in part, any mortgage, tax or other lien on the Property and thereupon be subrogated to such lien and rights incident thereto. This Right-of-Way and Easement shall create a covenant and burden on the Property and running therewith.

GRANTOR shall, subject to the other provisions hereof, have the use of the Property except for any use which hinders, conflicts or interferes with the purposes for which this Right-of-Way and Easement is granted, or which disturbs or otherwise creates any actual or potential hazard to the Facilities.

TO HAVE AND TO HOLD said Right-of-Way and Easement unto said GRANTEE, its successors and assigns (with such assignment permitted in whole or in part), until such Facilities are constructed and so long thereafter as any of the Facilities are maintained thereon or thereunder. In the event none of the Facilities are maintained as set forth in the preceding sentence, GRANTEE may abandon the Facilities in place in accordance with applicable laws.

Term: The Right-of-Way and Easement granted hereby shall continue in effect unless and at any time after five (5) years from the date hereof, GRANTEE should abandon all of the rights and permitted uses granted herein for said pipeline constructed upon said land and if such abandonment should continue for a continuous twenty-four (24) month period, this Right-of-Way and Easement shall terminate and revert to GRANTOR, his heirs, legal representatives, and assigns, provided, however, that any period of time that GRANTEE is unable to exercise its rights granted hereunder because of Force Majeure shall not be considered part of the period of abandonment. Force Majeure shall be any event beyond the reasonable control of GRANTEE. GRANTEE shall have the right for two (2) years following a final determination of the termination of this Agreement to remove its pipe, valves and all other property or to abandon same in place. Following the expiration of such period, any such property remaining on said land shall be and become the property of GRANTOR in its "AS-IS" "WHERE-IS" condition. GRANTEE shall ensure that the pipeline is abandoned in an environmentally safe manner in accordance with applicable laws, rules and regulations.
The undersigned hereby bind themselves, their heirs, executors, administrators, successors and assigns, against every person whomsoever lawfully claiming or to claim the same, or any part thereof. The undersigned hereby covenant and agree to account to any other persons legally due any portion of the monies hereto paid for damages.

It is hereby understood that the party(ies) securing this Right-of-Way and Easement on behalf of the GRANTEE are without authority to make any covenant or agreement not herein expressed.

This Right-of-Way and Easement may be executed in multiple counterparts, each of which shall be considered an original for all purposes and all of which taken together shall constitute one and the same

agreement and be binding upon the parties who executed any counterpart, regardless of whether it is executed by all parties named herein.

IN WITNESS WHEREOF, GRANTOR has caused these premises to be signed, executed and delivered this 25 day of February, 2022.

[the rest of this page intentionally left blank]

GRANTOR:

George V. Anderson, Jr.

George V. Anderson, Jr.

Diann H. Anderson

Diann H. Anderson

Grantor's Address:
PO Box 176
Laneville, TX 75667

STATE OF TEXAS §
§
COUNTY OF Ector §

The foregoing instrument was acknowledged before me on the 25th day of February, 2022, by George V. Anderson, Jr.

Notary Public, State of Texas

Printed Name: Annette Moore

My Commission Expires: 6-8-22

ANNETTE MOORE
Notary Public, State of Texas
Comm. Expires 06-08-2022
Notary ID 12422464-1

STATE OF TEXAS §
§
COUNTY OF Ector §

The foregoing instrument was acknowledged before me on the 25th day of February, 2022, by Diann H. Anderson.

Notary Public, State of Texas

Printed Name: Annette More

My Commission Expires: 6-8-22

ANNETTE MOORE
Notary Public, State of Texas
Comm. Expires 06-08-2022
Notary ID 12422464-1

GRANTEE:

The City of Midland, Texas

By: _____

Name: Robert Patrick

Title: City Manager

ATTEST:

_____

Amy M. Turner, City Secretary

EXHIBIT A

Parkhill

A 40-FOOT WIDE SANITARY SEWER EASEMENT IN SECTION 44, BLOCK 38, T-1-S, MIDLAND COUNTY, TEXAS

A 40-foot wide sanitary sewer easement in Section 44, Block 38, Township 1-South, T. & P. RR. Company Survey, Midland County, Texas, situated in that certain tract of land conveyed to George V. Anderson, Jr. and wife, Diann H. Anderson, described in a deed recorded in Volume 1045, Page 510 of the Official Public Records of Midland County, Texas, said easement contains 2.516 acres (109,607 square feet) being further described by metes and bounds as follows:

BEGINNING at a point in the south right-of-way line of Industrial Avenue (no dedication found) for the northwest corner of this easement, said beginning point having coordinates of NORTHING: 10,699,146.14 and EASTING: 1,769,812.70, Texas Coordinate System, Central Zone 4203, North American Datum of 1983, whence a nail found at the northwest corner of said Section 44 bears *North 14 degrees 26 minutes 40 seconds West* a distance of 30.00 feet and *South 75 degrees 33 minutes 20 seconds West* a distance of 104.96 feet;

(1) THENCE *North 75 degrees 33 minutes 20 seconds East*, along the south right-of-way line of said Industrial Avenue, a distance of 56.12 feet to a point for the northeast corner of this easement;

(2) THENCE *South 58 degrees 58 minutes 50 seconds East* a distance of 36.46 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(3) THENCE *South 27 degrees 21 minutes 11 seconds East* a distance of 662.17 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(4) THENCE *South 01 degrees 30 minutes 47 seconds West* a distance of 937.97 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(5) THENCE *South 39 degrees 41 minutes 22 seconds East* a distance of 1100.26 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set in the previously recognized south line of said parent tract for the southeast corner of this easement, said point having coordinates of NORTHING: 10,696,768.91 and EASTING: 1,770,880.42, Texas Coordinate System, Central Zone 4203, North American Datum of 1983, whence a 1/2-inch iron rod with a yellow plastic cap found in the south line of said parent tract bears *North 75 degrees 38 minutes 18 seconds East* a distance of 2102.78 feet;

(6) THENCE *South 75 degrees 38 minutes 18 seconds West*, along the previously recognized south line of said parent tract, a distance of 44.25 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set for the southwest corner of this easement;

(7) THENCE *North 39 degrees 41 minutes 22 seconds West* a distance of 1096.36 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(8) THENCE *North 01 degrees 30 minutes 47 seconds East* a distance of 942.71 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(9) THENCE *North 27 degrees 21 minutes 11 seconds West* a distance of 640.54 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(10) THENCE *North 58 degrees 58 minutes 50 seconds West* a distance of 64.49 feet to the **POINT OF BEGINNING**. Bearings, coordinates, distance and areas called in this description are based on the Texas Coordinate System, Central Zone 4203, North American Datum of 1983. This survey is subject to any facts which may be disclosed by a full and accurate title search. Record documents other than those shown may affect these tracts. A plat of this survey is included on page 2 of this document.

This description was prepared from an actual survey of the property and the information hereon represents the findings of this survey to the best of my knowledge and belief.
Surveyed: January 03, 2022

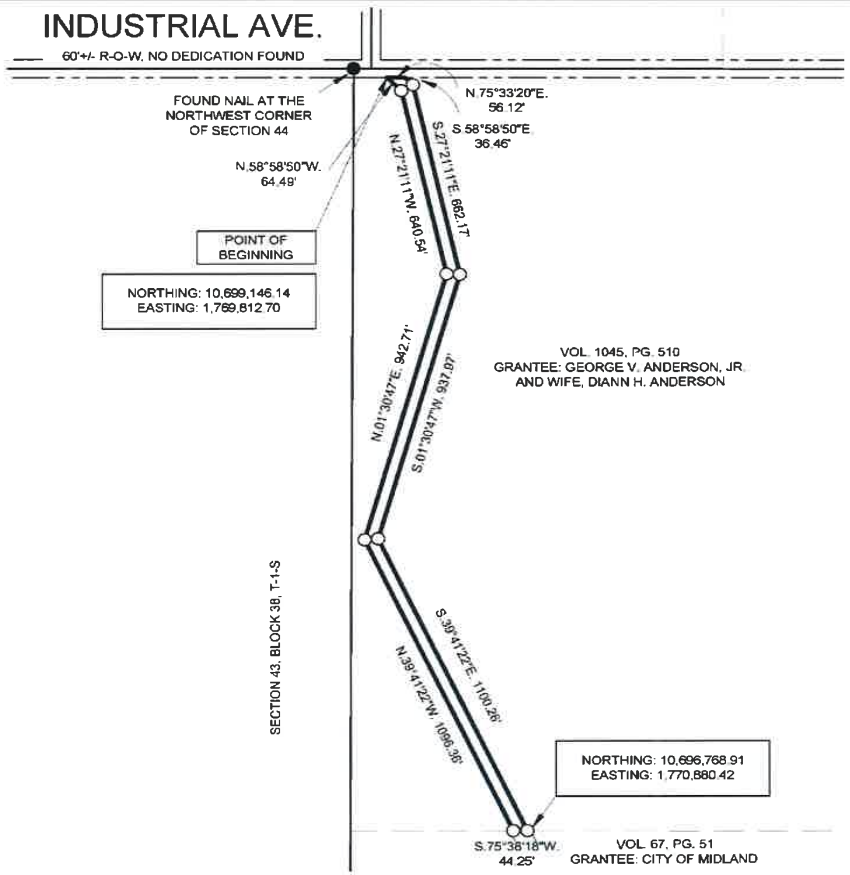


Samuel Wyatt, R.P.L.S. 6453

Texas Registered Surveying Firm # 10194091

Parkhill.com

PACKET
19.13
March 22, 2022



A 40' WIDE SANITARY SEWER EASEMENT IN SECTION 44, BLOCK 38, T-1-S, T. & P. RR. CO. SURVEY, MIDLAND COUNTY, TEXAS

PARENT TRACT: VOLUME 1045, PAGE 510,
OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS

0 500' 1000'

SCALE: 1" = 500'

NORTH

○ = SET 1/2" IRON ROD WITH CAP "PSC RPLS 6453"

SURVEYOR'S REPORT:

BEARINGS, COORDINATES, DISTANCES AND AREAS SHOWN ON THIS SURVEY ARE BASED ON THE TEXAS COORDINATE SYSTEM, TXC ZONE 4203, NAD'83.

THIS SURVEY IS SUBJECT TO ANY FACTS WHICH MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH. RECORD DOCUMENTS OTHER THAN THOSE SHOWN MAY AFFECT THIS TRACT.

MONUMENTS INDICATED AS FOUND BY THIS SURVEY ARE NOT "PHYSICAL MONUMENTS OF RECORD DIGNITY" UNLESS SO NOTED.

FOUND MONUMENTS ARE ACCEPTED BY THIS SURVEYOR AS CONTROLLING EVIDENCE DUE TO SUBSTANTIAL AGREEMENT WITH RECORD DOCUMENTS.

THIS PLAT IS INVALID UNLESS IT BEARS THE SURVEYOR'S ORIGINAL SEAL AND SIGNATURE.

THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY AND THE INFORMATION HEREON REPRESENTS THE FINDINGS OF THIS SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

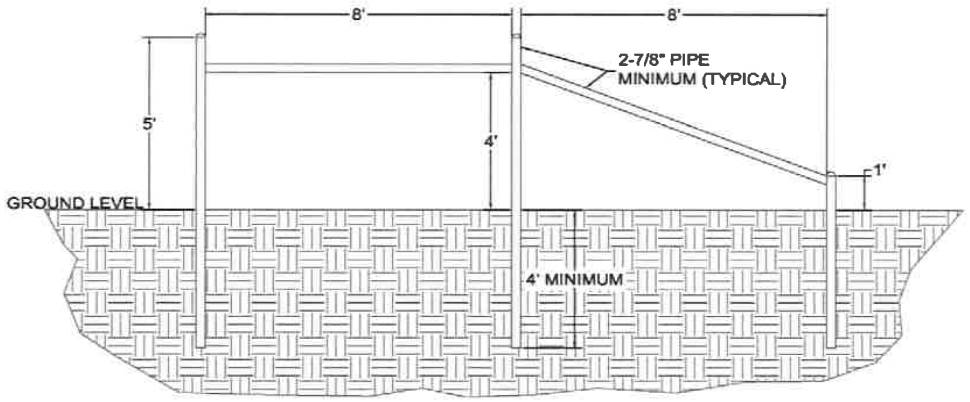
SURVEYED:
JANUARY 03, 2022

STATE OF TEXAS
REGISTERED
SAMUEL WYATT
6453
PROFESSIONAL
LAND SURVEYOR

SAMUEL WYATT
R.P.L.S. 6453

PAGE 2 OF 2 (SEE PAGE 1 FOR A FULL METES AND BOUNDS DESCRIPTION)

Parkhill
Parkhill.com
TBPELS FIRM REGISTRATION NO. 10194091



H-Brace Detail

H-Brace Specifications

H-Braces shall be constructed and installed according to the following specifications and photos.

Dimensions, Materials, Construction, and Installation:

1. All pipe used for verticals, horizontals, and diagonals shall be a minimum of 2 7/8 inch pipe and all joints shall be welded.
2. Three holes shall be dug with a minimum hole diameter of 12 inches and 4 feet deep. The center of the holes shall be 8 feet apart in line with the existing fence or new fence to be built.
3. All vertical pipe shall be buried **with concrete** a minimum of 4 feet below ground level and capped at the top.
4. The vertical pipe shall be 9 feet in total length (4 feet buried with 5 feet sticking above ground level) with a 5 foot pipe for the stob/kicker (4 feet buried with 1 foot sticking above ground level).
5. One horizontal brace shall be welded, parallel to the ground, between the two 9 foot vertical pipes at a distance of 4 feet (48 inches) from ground level.
6. The diagonal brace shall be welded at this height angling down to the top of the stob/kicker.
7. Painting of the pipe is not required although it is recommended.

EXHIBIT B

H-Brace Specifications and Detail

March 4, 2021

City Council Meeting

Item Number: 20

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Carl Craigo, Director

Subject: MOTION AUTHORIZING THE EXECUTION OF A 3.588-ACRE PIPELINE EASEMENT AGREEMENT LOCATED IN SECTIONS 31, BLOCK 38, T-1-S, T & P RR. CO SURVEY, MIDLAND COUNTY, TEXAS, FROM CURTIS SCHMID; AND ORDERING THE CITY SECRETARY TO RECORD SAID INSTRUMENT IN THE OFFICIAL REAL PROPERTY RECORDS OF MIDLAND COUNTY, TEXAS (DISTRICT: ALL) (UTILITIES)

Purpose:

THIS MOTION ACCEPTS A PIPELINE EASMENT AGREEMENT FROM CURTIS SCHMID FOR A 40' WIDE EASMENT FOR THE CONSTRUCTION AND OPERATION OF THE 36" NORTHEAST SANITARY SEWER PIPELINE.

Recommended City Council Action:

Approve

Fiscal Impact:

COMPENSATION FOR THIS EASMENT IS A ONE-TIME PAYMENT OF $191,376.48.

Discussion:

This section of right of way is part of the overall 8 mile sewer project being built to service for the 10,000 housing equivalents estimated in this area and relief to the existing service serving the downtown and south east areas.

Morris Williams Jr.

City Manager's Office

CITY OF MIDLAND - PAYMENT ORDER
North East Sanitary Sewer Line Project

PAYMENT ORDER No.: 220117-07-1

DATE: 01.17.2022 COUNTY: Midland

PAYABLE TO: Curtis Schmid

ADDRESS: PO Box 52538 SSN or TAX ID: 449-67-7489

CITY, ST, ZIP: Midland, TX 79710 LANDOWNER #: 07

LEGAL: Being a 45.00 acre tract of land, and a 5.00 acre tract of land, all in the northeast quarter of Section 31, Block 38, T1S, T&P Ry. Co. Survey, Midland County, Texas, as being more particularly described in that certain Warranty Assumption Deed dated August 22, 2008, recorded as Instrument 2008-18791, in the Official Public Records of Midland County, Texas

EASEMENT PAYMENT:

RODS: 239.22 PRICE PER ROD: $800.00

OWNER INTEREST: 100.000000% PAYMENT AMOUNT: **$191,376.48**

TOTAL AMOUNT OF PAYMENT ORDER: $191,376.48

LANDOWNER INITIALS: CS

For City of Midland Use Only

Payment Handling: Mail payment to landowner at address provided above

Approved By: _____ Signature: _____

Received By: _____ Signature: _____

Check Number: _____ Dated: _____

Issued By: _____ Returned To: _____

NOTICE OF CONFIDENTIALITY RIGHTS. IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

STATE OF TEXAS)
) PIPELINE EASEMENT AGREEMENT
COUNTY OF MIDLAND)

KNOW ALL MEN BY THESE PRESENTS:

FOR AND IN CONSIDERATION OF THE SUM of Ten Dollars ($10.00) in hand paid and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CURTIS SCHMID, whose address is P.O. BOX 52538, MIDLAND, TX 79710, (designated herein as "GRANTOR") does hereby grant, sell and convey to the CITY OF MIDLAND, TEXAS, whose address is 300 N. Loraine, Midland, Texas, 79701, its successors or assigns (designated herein as "GRANTEE"), a utility line easement being forty (40) feet in width and approximately 232 rods in length as reflected on the plat attached hereto as Exhibit A (the "Easement" or "Easement Area")for the purposes of surveying, laying, constructing, installing, maintaining, operating, repairing, replacing, inspecting, reconstructing, removing and/or abandoning in place one (1) pipeline for the transportation of refuse or waste liquids ("Sewage"), together with all necessary manholes, below ground equipment, and below ground appurtenances used or useful in connection with the transportation of Sewage or the products thereof (collectively the "Facilities"), to be located on the following described tract of land (the "Property") situated in MIDLAND County, TEXAS, to-wit:

Being a 45.00 acre tract of land, and a 5.00 acre tract of land, all in the northeast quarter of Section 31, Block 38, T1S, T&P Ry. Co. Survey, Midland County, Texas, as being more particularly described in that certain Warranty Assumption Deed dated August 22, 2008, recorded as Instrument 2008-18791, in the Official Public Records of Midland County, Texas

Where applicable (as limited below), the Easement Area shall be expanded temporarily during any period of construction by forty (40) feet, for a total width of eighty (80) feet. This temporary workspace shall expire on the one-year anniversary of the commencement of construction of said pipeline on the Easement Area. In no event will the temporary easement impede upon GRANTOR'S improvements on the Property, including, buildings or water impoundments (including the embankment of any water impoundment) located thereon, and GRANTEE agrees that the temporary easement granted herein shall not include any portion of the Property where GRANTEE'S operations would encroach upon such improvements. For avoidance of doubt, the temporary easement provided above does not include any portion of the Property lying within twenty (20) feet of any such improvements (including the exterior perimeter of any embankment) located on the Property. This Pipeline Easement Agreement (this "Agreement") is subject to the following terms and conditions:

TERMS AND CONDITIONS

1. GRANTEE shall have all privileges necessary or convenient for the full use of the rights herein granted, together with ingress and egress along said Easement Area. GRANTEE shall bury the top of its pipeline at least thirty-six (36) inches below the surface of the ground, and GRANTEE shall have the right hereafter to cut and keep clear all trees, shrubs, brush and other obstructions that GRANTEE determines will injure, endanger or interfere with the Facilities or the exercise by

GRANTEE of its rights, privileges and Easement granted herein. However, GRANTOR retains the right to fully use and enjoy for GRANTOR's own purpose the land covered by the Easement; provided, however, GRANTOR may not use any part of the Easement Area if such use is reasonably calculated to damage, destroy, injure, and/or substantially interfere with the rights granted to GRANTEE under this Agreement. GRANTOR agrees not to build, create or construct or allow to be built, created or constructed, any permanent obstructions, including without limitation impounded water, buildings, barns, workshops, engineering works, or other structures, except fences, roads, and moveable structures, within the Easement Area. As such, GRANTOR specifically reserves the right to build, use, and repair roadways or driveways that intersect the Easement and to use the Easement Area for growing and harvesting crops, sod and other agricultural related products, and such uses shall not be considered to damage, destroy or interfere with rights granted to GRANTEE under this Agreement, so long as such uses are not conducted unreasonably. The consideration paid herein by GRANTEE includes payment for actual damages to the surface as well as to crops, pasture, fences and timber within the Easement Area, which arise from surveying, laying, installing and/or constructing said Facilities.

2. GRANTEE agrees to comply at all times and at its sole cost with all federal, state, and local laws, rules, and regulations and safety standards applicable to the exercise of GRANTEE'S rights under this Agreement including, without limitation, the construction, use, operation, maintenance, repair, and service of GRANTEE'S pipelines and appurtenances.

3. GRANTEE is solely responsible for all safety, legal, and other considerations posed by the presence of other pre-existing petroleum pipelines, electric lines, and other utilities in the area including locating the Easement and pipeline at an appropriate distance from such other preexisting pipelines and utilities.

4. During construction GRANTEE (and GRANTEE'S contractors and subcontractors) shall prevent the spread of toxic, invader, and other harmful plants. If such plants should appear on or adjacent to the Easement Area and it is reasonably evident that such intrusion was caused by GRANTEE'S operations, GRANTEE shall eradicate these plants in accordance with the reasonable specifications of GRANTOR.

5. During initial construction, GRANTEE shall clear, in a good and workmanlike manner, all trees, brush and woody plants within the Easement Area and (where necessary) the temporary workspace. Mesquite, tarbrush, prickly pear, and other woody plants shall be cleared by grubbing or excavating such that the root crowns of the plants are removed (versus blading the plants). Any trees, brush, woody plants and debris so removed shall be removed from the Property. In no event will hydro-axe or like method be used.

6. GRANTEE shall restore the surface of the land to substantially the condition as it existed prior to GRANTEE's installation of the Facilities, such restoration to include the repair of any cut fences, leveling of the ground, and cleaning up all debris, and removing all rocks three (3) inches in diameter or larger unearthed, in each case, as a result of its Facilities installation. Notwithstanding the foregoing, GRANTEE shall be entitled to install, maintain, and use gates in all fences that now or hereafter cross the Easement Area, including any such fences at the boundaries of the Property. GRANTEE, at its election, shall further be entitled to install its own lock on any such gates.

7. GRANTEE shall use a high degree of care and take all precautions to prevent livestock from escaping from individual pastures and from escaping onto any public road. GRANTEE shall use

temporary wire gaps and otherwise conduct its construction and other operations in a manner to prevent livestock from passing through a cut fence, gate, or other opening resulting from GRANTEE'S operations on the Property. Before any fence on the Property is cut, GRANTEE shall brace the fence on both sides of the cut by constructing H-braces on each side of the cut and reattaching the existing fence firmly and tautly so as to prevent any sagging or loosening. The H-braces shall be constructed to the specifications as described and illustrated in Exhibit B, attached hereto and made a part hereof.

8. Where the Easement intersects any fence, GRANTEE shall -- at GRANTOR'S option -- replace the fence or construct a new sixteen (16) foot gate in accordance with the following specifications: Any gate must be of heavy tubing or pipe and full paneled. H-braces for gates shall meet the H-brace specifications per Exhibit B attached hereto. GRANTEE shall use new wire -- 12-1/2 gauge, 6-inch, 1047 -- to replace any fencing needed in building or rebuilding fence gaps or gates on the Easement. GRANTOR reserves the right to require that any gate be locked; GRANTOR may determine the method of locking the gate so long as it is reasonable, and GRANTEE has the ability to unlock and open such gate. If any gates are left in any fence by GRANTEE, then GRANTEE shall cause the same to be locked, if requested by GRANTOR, and a duplicate key/combination to the lock will be furnished to GRANTOR. Said gate or gates shall at all times be kept in a good state of repair by GRANTEE, at GRANTEE'S sole cost and expense.

9. In the event a gate, temporary fence gap. or other opening is improperly left open by GRANTEE, then GRANTEE shall pay to GRANTOR the following liquidated damages (in addition to all other available remedies): (1) for the first violation--$1,000.00; (2) for the second violation--$2,500.00; and (3) for the third and all subsequent violations--$3.000.00. GRANTEE will provide 2 locks at each gate (1) being the GRANTEE'S lock of choosing and (2) being the GRANTOR'S lock which will be, at minimum, a resettable combination padlock designed for commercia/industria1 applications. The locks will be positioned in a manner that allows any violations to be identified if GRANTEE or anyone on GRANTEE'S behalf violates this provision. The payment shall be paid within 30 days of written request by GRANTOR.

10. As to ditching, the topsoil will be placed on one side of the ditch and the subsoil on the opposite side. In backfilling the ditch, the subsoil will be replaced first and the topsoil last and then in pasture areas, the land reseeded with a seed mixture requested by GRANTOR. If there is excess topsoil remaining. after the ditch has been backfilled, GRANTEE shall stockpile the topsoil on the Easement or other location suitable to GRANTOR.

11. The digging of the ditch or trench for the pipeline shall be done by what is known as the double ditching method, that is, placing up to twelve inches (12") of the topsoil removed on one side of the line and placing the sub-soil on the other side of the line, and when the line is refilled, first placing the sub-soil in the trench and then placing the topsoil in the trench. GRANTEE shall pack the fill of its excavation, or backfill and crown the trench sufficiently in such a manner as to make the fill substantially firm upon the filling of the excavation, and further, again fill and pack any portion of the fill which has settled to any appreciable extent.

12. During construction of the pipeline, GRANTEE shall construct soft plugs and cross-overs at reasonable locations including livestock trails and road crossings to allow vehicles. livestock and wildlife to cross all open ditches and pipe laid on top of the surface. In livestock pasture(s). GRANTEE shall taper the ends of open ditches to allow for the escape of livestock and the tapered ends shall not be obstructed by pipe or other obstruction. No portion of any ditch shall be left open

more than 60 days and no pipe will be left on top of the surface more than 90 days. If a ditch is open more than 60 days or if pipe is on the surface more than 90 days, GRANTEE shall pay GRANTOR the sum of $1000.00 for such open ditch and/or pipe on the surface per week or portion of any week during which the same is open or the pipe is on the surface past such permitted period. GRANTEE shall regularly patrol uncovered areas for any livestock or wildlife, which may become entrapped, and, if so, remove the same and pay damages for injuries to or loss of same.

13. During construction of the sewer line, Grantee agrees to install two (2) taps on the installed sewer line for Grantor's use, with one (1) tap to be installed generally at the location of the GPS coordinates of 32.035258°, -102.042206°, and one (1) tap to be installed generally at the location of the GPS coordinates of 32.035757°, -102.049979°.

14. Promptly (in no event later than 60 days weather permitting) upon completion of initial construction of the pipeline, GRANTEE shall restore the surface of the Easement Area and temporary workspace to their natural grade and prior condition including leveling and reseeding. GRANTOR reserves the right to reasonably control and designate the areas and manner of disposal of all rock and other material displaced by construction. All rock greater than 3" in diameter will be removed from the Easement Area. GRANTOR may direct GRANTEE to spread the rock, pile (or stockpile) the rock, place the rock in sloped areas selected by GRANTOR so as to construct water diversion berms and spreader dams to divert the flow of water to minimize soil erosion on and near the Easement Area, or utilize any other reasonable manner of disposal.

15. Where, in this Agreement, reseeding is required, the obligation to reseed the affected portion of the Property will continue until successful growth has been established.

16. Throughout the term of this Agreement, if subsidence of the pipeline ditch (or part thereof) occurs, GRANTEE must add additional clean, locally sourced, and GRANTOR approved topsoil similar to that originally removed until the surface of the ditch area has settled uniformly with the surface of adjacent land.

17. Throughout this Agreement, GRANTEE shall be obligated for the reasonable maintenance of the Easement Area. All gates and H-braces must be painted with rust-resistant paint in a color approved by GRANTOR and be maintained in good repair and in a neat, clean, and well-painted condition.

18. During initial construction of the pipeline and throughout the term of this Agreement, GRANTEE shall be obligated for the reasonable cleanliness of the Easement Area and adjacent areas. GRANTEE must use reasonable diligence to keep such areas free and clear of litter, trash, debris, discarded materials and the like. Due to the risk of injury to livestock, GRANTEE must pay particular attention to and immediately remove all thread protectors and all discarded pieces of plastic or poly (including pipeline shavings. other shavings, packing materials, and the like).

19. GRANTEE shall have an obligation to construct or implement reasonable erosion treatments (such as berms, diversion terraces and the like) so that erosion of the Easement Area and immediately adjacent areas is prevented, or halted, or reasonably minimized if it is evident that such erosion is caused by the placement of the pipeline on the Property or otherwise caused by GRANTEE'S operations on the Property. GRANTEE understands the Easement location is in close proximity to a draw and subject to high levels of erosion and grade change. GRANTEE understands special attention to ongoing terrain change will be needed to maintain the proper depth of the pipeline and

fill any subsidence of the ditch. Prior to commencing construction, and at all times until the surface of the Easement Area is restored, GRANTEE shall construct and maintain a wire backed silt fence along the west and south boundary lines of the Easement Area that is located east of Cynthia Drive to aid in soil erosion control and the spread of toxic, invasive or harmful plants onto the Property. Such silt fence must be, at a minimum, 36 inches in height, backed by 4" x 4", 14 gauge wire, and buried approximately 6 inches. Said fence must be reinforced by post spaced no greater than 5 feet apart and set to a depth sufficient to maintain such fence, but in no event less than 18 inches deep.

20. After the initial construction of the pipeline, GRANTEE shall notify GRANTOR at least 48 hours prior to construction or repair activities that require portions of the Easement Area to be excavated. This shall not apply to any situation that GRANTEE deems to be an emergency. GRANTOR shall be notified as soon as practical in an emergency.

21. No employee, contractor, or other person entering the Easement Area under the authority of GRANTEE shall be permitted to engage in any recreational activities on the Easement Area or the Property, including but not limited to hunting, fishing. swimming, camping, picnicking, searching for Indian relics, or sightseeing. No dogs (other than contraband search dogs or trained leak detection dogs) or other animals, guns, firearms, or fishing equipment or other type of sport paraphernalia will be permitted on the Property. Nothing shall be brought on or removed from the Property nor shall any activity be engaged in on the Property nor will anyone go anywhere on the Property, except for within the Easement Area and except as directly and necessarily required in carrying on GRANTEE'S operations. Anyone found on the Property in violation of this clause may be immediately ejected and thereafter excluded from the Property and the Easement Area. No employee, contractor, or other person entering the Property under the authority of GRANTEE shall bring alcohol, illegal drugs, illegal controlled substances, weapons of any kind including firearms, air guns, bows, crossbows, spear guns, and blow guns (but excluding pocketknives and belt-carried sheath knives). Anyone found on the Property in possession of these items may be immediately ejected and thereafter excluded from the Property and Easement Area and (if applicable) prosecuted.

22. GRANTEE shall take reasonable safeguards to prevent the occurrence and spread of range fires. During all times when a county burn ban is in effect or when the risk of range fire is likely, GRANTEE shall provide water trucks and other prudent fire-prevention equipment for welding, dozing, ditching or other higher risk-of-fire operations. GRANTEE shall comply with all requirements of a county burn ban applicable to Grantee's operations.

23. GRANTEE has no right to dispose of any water generated or produced in connection with hydrostatic testing of the pipeline upon the Easement or GRANTOR'S adjoining lands unless GRANTOR consents in advance and in writing.

24. GRANTEE may request to modify or correct the legal description of the Easement Area to conform with the actual location of the Easement Area based on the actual location of the Facilities. If such documents are required, they will be prepared by GRANTEE at its expense. GRANTOR shall receive additional reasonable compensation only if the area within the Easement Area increases as a result of the changed location. Adjustment of the Easement Area beyond that set out in Exhibit A shall be made only with the written consent of GRANTOR, which consent may be withheld for any reason.

25. GRANTEE and GRANTOR agree that this Agreement, together with the Payment Agreement for the North East Sanitary Sewer Line Project entered into concurrent herewith, constitute the entire agreement between the parties and that no other agreements have been made modifying, adding to or changing the terms of the same. Except as provided in the immediately preceding paragraph, this Agreement shall not be abrogated, modified, rescinded or amended in whole or in part without the consent of GRANTEE and GRANTOR, in writing and executed by each of them, and duly recorded in the appropriate real property records.

26. GRANTEE shall reasonably compensate GRANTOR or its tenants on the Property (if any), as applicable, for any actual loss or damage to their respective property, or injury or death to them, caused by GRANTEE, or any of its employees, agents, contractors, subcontractors or invitees, in connection with the exercise of GRANTEE's rights hereunder, except for any losses or damages to their property which are included within the initial consideration paid GRANTEE hereunder. IN ADDITION, GRANTEE DOES HEREBY COVENANT AND AGREE TO DEFEND, INDEMNIFY AND HOLD GRANTOR AND ITS TENANTS, OR ITS OR THEIR EMPLOYEES, AGENTS, CONTRACTORS, SUBCONTRACTORS OR INVITEES, ON THE PROPERTY (IF ANY) HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, SUITS AND CAUSES OF ACTION OF PERSONS OR ENTITIES FOR LOSS OF OR INJURY TO THE PROPERTY OF, AND INJURIES TO OR DEATH OF ANY SUCH PERSONS OR ENTITIES ARISING FROM OR CAUSED BY GRANTEE, ITS EMPLOYEES, CONTRACTORS, SUBCONTRACTORS OR INVITEES IN CONNECTION WITH THE EXERCISE OF GRANTEE'S RIGHTS HEREUNDER. IN NO EVENT, HOWEVER, WILL GRANTEE BE RESPONSIBLE FOR ANY OF THE FOREGOING TO THE EXTENT CAUSED BY THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF GRANTOR OR ITS TENANTS (IF ANY), OR ITS OR THEIR EMPLOYEES, AGENTS, CONTRACTORS, SUBCONTRACTORS OR INVITEES.

27. At GRANTEE'S sole cost, risk and expense, GRANTEE shall observe, comply with and conform to all present and future municipal, parish, state and federal laws, ordinances, regulations, rules, orders and directives applicable to (1) the construction, maintenance, operation, use, repair, replacement and removal of the pipeline and associated appurtenances, (ii) corrective actions required to address the release of hazardous substances arising from GRANTEE'S operations ("corrective actions"), and/or (iii) the commodities or products transported in the pipeline (collectively, "applicable laws"). GRANTEE SHALL INDEMNIFY AND HOLD HARMLESS GRANTOR AGAINST THIRD-PARTY CLAIMS AND RELATED LOSSES, INCLUDING REASONABLE ATTORNEYS' FEES, CAUSED BY (A) THE VIOLATION OF APPLICABLE LAWS BY GRANTEE, ITS CONTRACTORS, SUBCONTRACTORS, AGENTS OR EMPLOYEES OCCURRING AFTER GRANTEE'S ACQUISITION OF THE EASEMENT, (B) THE RELEASE OF HAZARDOUS SUBSTANCES ON THE PROPERTY TO THE EXTENT CAUSED BY GRANTEE OR ARISING FROM GRANTEE'S OPERATIONS OR GRANTEE'S USE OF THE EASEMENT PROPERTY (AN "ENVIRONMENTAL RELEASE"), OR (C) GRANTEE'S CORRECTIVE ACTIONS APPLICABLE TO THE PROPERTY IN RESPONSE TO AN ENVIRONMENTAL RELEASE.

28. GRANTEE shall defend with counsel of GRANTEE'S choice, indemnify, protect and hold harmless GRANTOR, GRANTOR'S heirs, successors, assigns and related or affiliated entities (the "indemnified parties"), from any and all liens, claims, demands, costs (including but not limited to reasonable attorneys' fees), expenses, damages, losses and causes of action for damages asserted by persons or entities unaffiliated with the indemnified parties because of injury to persons

(including death) and injury or damage to or loss of any property or improvements to the extent caused by GRANTEE'S negligence, gross negligence, willful misconduct or strict liability.

29. GRANTOR hereby warrants the title to the Property, subject only to outstanding mortgages and rights of way, if any, now of record in the land records of the above specified county, and in the event of default by GRANTOR, GRANTEE shall have the right to discharge or redeem for GRANTOR, in whole or in part, any mortgage, tax ox other lien on the Property and thereupon be subrogated to such lien and rights incident thereto. This Easement shall create a covenant and burden on the Property and running therewith.

30. Notwithstanding anything contained herein to the contrary, GRANTOR expressly reserves and excepts all of GRANTOR'S right, title, and interest in and to the oil, gas and other minerals lying beneath the Easement, as well as all rights appurtenant thereto; provided, however, that GRANTOR agrees that neither it nor any of its lessees, successors, or assigns shall have the right to conduct surface drilling operations within the boundaries of the Easement, so long as GRANTEE retains rights under this Agreement. GRANTOR and its lessees, successors, and assigns shall have the unlimited right to recover oil, gas, and other minerals underlying the Easement by directional drilling or any other method that does not require access to the surface of the Easement, and, so long as such exercise of rights does not pose a possible hazard to the safety/integrity of the Pipeline, GRANTEE agrees not to obstruct or otherwise prevent GRANTOR from conducting such off-site operations in any way, including the obstruction or protest of any application that GRANTOR or its lessees, successors, or assigns may file before the Railroad Commission of the State of Texas, or any successor agency having jurisdiction.

31. Term: The Easement granted hereby shall continue in effect unless and at any time after five (5) years from the date hereof, GRANTEE should abandon all of the rights and permitted uses granted herein for said pipeline and appurtenances constructed upon said land and if such abandonment should continue for a continuous twenty-four (24) month period, this Easement shall terminate and revert to GRANTOR, his heirs, legal representatives, and assigns, provided, however, that any period of time that GRANTEE is unable to exercise its rights granted hereunder because of Force Majeure shall not be considered part of the period of abandonment. "Force Majeure" shall be any event beyond the reasonable control of GRANTEE, so long as GRANTEE uses its best efforts to overcome such event. GRANTEE shall have the right for two (2) years following termination of this Agreement to remove its pipe, valves and all other property or to abandon same in place. Following the expiration of such period, any such property remaining on said land shall, at the election of GRANTOR, be and become the property of GRANTOR, subject to the indemnities provided above.. GRANTEE shall ensure that the pipeline is abandoned in an environmentally safe manner in accordance with applicable laws, rules and regulations.

TO HAVE AND TO HOLD said Easement unto said GRANTEE, its successors and assigns (with such assignment permitted in whole or in part), for the above-described term. In the event that this Agreement terminates as provided above, GRANTEE may abandon the Facilities in place in accordance with applicable laws and subject to the other provisions and indemnities provided herein

.

The undersigned hereby bind themselves, their heirs, executors, administrators, successors and assigns, against every person whomsoever lawfully claiming or to claim the same, or any part thereof. The undersigned hereby covenant and agree to account to any other persons legally due any portion of the monies hereto paid for damages.

It is hereby understood that the party(ies) securing this Agreement on behalf of the GRANTEE are without authority to make any covenant or agreement not herein expressed.

This Agreement may be executed in multiple counterparts, each of which shall be considered an original for all purposes and all of which taken together shall constitute one and the same agreement and be binding upon the parties who executed any counterpart, regardless of whether it is executed by all parties named herein.

IN WITNESS WHEREOF, GRANTOR has caused these premises to be signed, executed and delivered this 14 day of February, 2022.

GRANTOR:

By: _____
Curtis Schmid

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me on the 14 day of February 2022, by Curtis Schmid.

My Commission Expires: 05.11.2022 _____
Notary Public

RUSTY EADS
Notary Public, State of Texas
Comm. Expires 05-11-2022
Notary ID 125490994

GRANTEE:

The City of Midland, Texas

By: _____

Name: Robert Patrick

Title: City Manager

ATTEST:

_____

Amy M. Turner, City Secretary

EXHIBIT A

Parkhill

40 FOOT SANITARY SEWER EASEMENT IN
SECTION 31, BLOCK 38, T-1-S,
MIDLAND COUNTY, TEXAS

A sanitary sewer easement in Section 31, Block 38, Township 1-South, T. & P. RR. Company Survey, Midland County, Texas, situated in that certain tract of land conveyed to Curtis Schmid, described in a warranty assumption deed recorded in Volume 3088, Page 3 of the Official Public Records of Midland County, Texas, said sanitary sewer easement contains 3.588 acres (156,289 square feet) being further described by metes and bounds as follows:

BEGINNING at a point in the occupied west right-of-way line of Todd Road, for the most easterly northeast corner of this easement, said beginning point having coordinates of NORTHING: 10,708,177.67 and EASTING: 1,767,335.41, Texas Coordinate System, North Central Zone 4202, North American Datum of 1983, whence a 1/2-inch iron rod found at the northeast corner of said Section 31 bears *North 75 degrees 36 minutes 55 seconds East* a distance of 30.00 feet and *North 14 degrees 23 minutes 05 seconds West* a distance of 1299.29 feet;

(1) THENCE *South 14 degrees 23 minutes 05 seconds East*, along the occupied west right-of-way line of said Todd road, a distance of 40.00 feet to a point in the south line of said parent tract, for the southeast corner of this easement;

(2) THENCE *South 75 degrees 35 minutes 23 seconds West*, along the south line of said parent tract, at a distance of 643.29 feet pass a found 1/2-inch iron rod, continuing for a total distance of 2443.62 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set for the most southerly southwest corner of this easement, whence a found 1/2-inch iron rod bears *South 75 degrees 35 minutes 23 seconds West* a distance of 222.36 feet;

(3) THENCE *North 15 degrees 29 minutes 09 seconds West* a distance of 89.20 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for an ell corner of this easement;

(4) THENCE South 76 degrees 26 minutes 03 seconds West a distance of 166.02 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set for the most westerly southwest corner of this easement;

(5) THENCE *North 16 degrees 27 minutes 28 seconds West* a distance of 661.57 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at point of intersection for a corner of this easement;

(6) THENCE *North 14 degrees 24 minutes 41 seconds West*, a distance of 586.08 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set in the north line of said Section 31 for the northwest corner of this easement;

(7) THENCE *North 75 degrees 34 minutes 50 seconds East*, along the north line of said Section 31, a distance of 40.00 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set for the most northerly northeast corner of this easement, whence said 1/2-inch iron rod found at the northeast corner of Section 31 bears *North 75 degrees 34 minutes 50 seconds East* a distance of 2625.54 feet;

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(8) THENCE *South 14 degrees 24 minutes 41 seconds East* a distance of 585.37 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at point of intersection for a corner of this easement;

(9) THENCE *South 16 degrees 27 minutes 28 seconds East* a distance of 622.83 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at point of intersection for a corner of this easement;

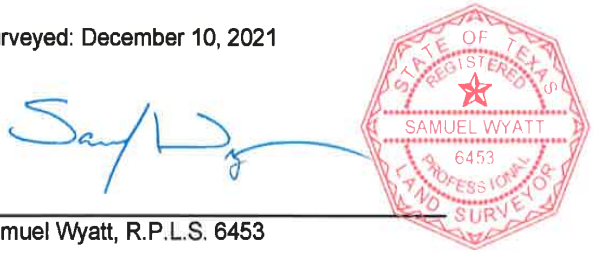
(10) THENCE *North 76 degrees 26 minutes 03 seconds East* a distance of 166.67 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(11) THENCE *South 15 degrees 29 minutes 09 seconds East* a distance of 88.62 feet to a 1/2-inch iron rod with a plastic cap marked "PSC RPLS 6453" set at a point of intersection for a corner of this easement;

(12) THENCE *North 75 degrees 35 minutes 23 seconds East* a distance of 2404.39 feet to the **POINT OF BEGINNING.** Bearings, coordinates, distance and areas called in this description are based on the Texas Coordinate System, Central Zone 4203, North American Datum of 1983. This survey is subject to any facts which may be disclosed by a full and accurate title search. Record documents other than those shown may affect these tracts. A plat of this survey is included on page 3 of this document.

This description was prepared from an actual survey of the property and the information hereon represents the findings of this survey to the best of my knowledge and belief.

Surveyed: December 10, 2021



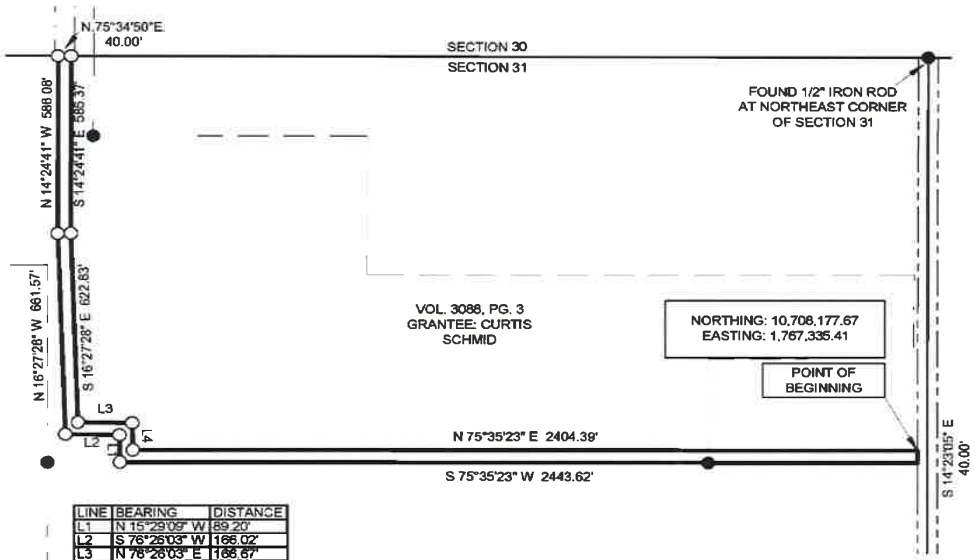
Samuel Wyatt, R.P.L.S. 6453

Texas Registered Surveying Firm # 10194091

Parkhill.com

40 FOOT WIDE SANITARY SEWER EASEMENT IN SECTION 31, BLOCK 38,T-1-S, MIDLAND COUNTY, TEXAS

PARENT TRACT: VOLUME 3088, PAGE 3,
OFFICIAL PUBLIC RECORDS OF MIDLAND COUNTY, TEXAS



LINE	BEARING	DISTANCE
L1	N 15°29'09" W	89.20'
L2	S 76°28'03" W	166.02'
L3	N 76°28'03" E	166.67'
L4	S 15°29'09" E	88.62'

0 500' 1000'

SCALE: 1" = 500'

NORTH

○ = SET 1/2" IRON ROD WITH CAP "PSC RPLS 6453".

SURVEYOR'S REPORT:

BEARINGS, COORDINATES, DISTANCES AND AREAS SHOWN ON THIS SURVEY ARE BASED ON THE TEXAS COORDINATE SYSTEM, TXC ZONE 4203, NAD'83.

THIS SURVEY IS SUBJECT TO ANY FACTS WHICH MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH. RECORD DOCUMENTS OTHER THAN THOSE SHOWN MAY AFFECT THIS TRACT.

MONUMENTS INDICATED AS FOUND BY THIS SURVEY ARE NOT "PHYSICAL MONUMENTS OF RECORD DIGNITY" UNLESS SO NOTED.

FOUND MONUMENTS ARE ACCEPTED BY THIS SURVEYOR AS CONTROLLING EVIDENCE DUE TO SUBSTANTIAL AGREEMENT WITH RECORD DOCUMENTS.

THIS PLAT IS INVALID UNLESS IT BEARS THE SURVEYOR'S ORIGINAL SEAL AND SIGNATURE.

THIS PLAT WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY AND THE INFORMATION HEREON REPRESENTS THE FINDINGS OF THIS SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

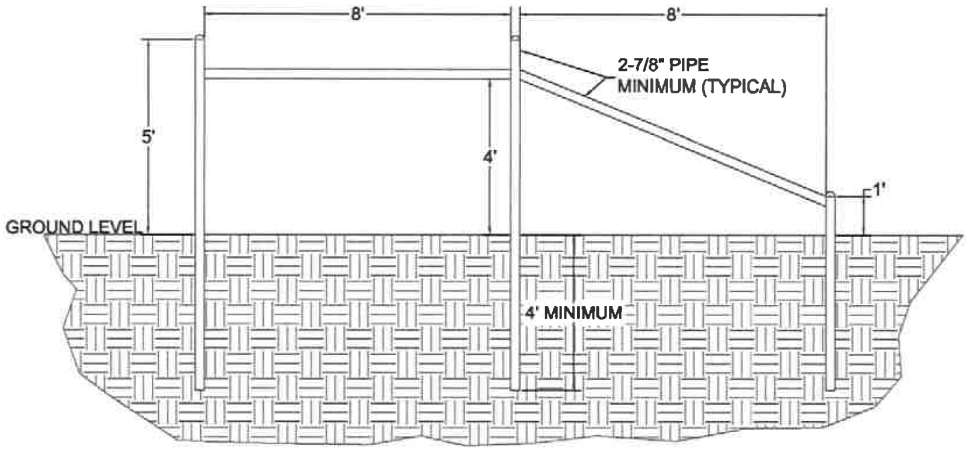
SURVEYED:
DECEMBER 10, 2021



SAMUEL WYATT
R.P.L.S. 6453

PAGE 3 OF 3 (SEE PAGES 1 & 2 FOR A FULL METES AND BOUNDS DESCRIPTIONS)

Parkhill
Parkhill.com
TBPELS FIRM REGISTRATION NO. 10194091



H-Brace Detail

H-Brace Specifications

H-Braces shall be constructed and installed according to the following specifications and photos.

Dimensions, Materials, Construction, and Installation:

1. All pipe used for verticals, horizontals, and diagonals shall be a minimum of 2 7/8 inch pipe and all joints shall be welded.
2. Three holes shall be dug with a minimum hole diameter of 12 inches and 4 feet deep. The center of the holes shall be 8 feet apart in line with the existing fence or new fence to be built.
3. All vertical pipe shall be buried with concrete a minimum of 4 feet below ground level and capped at the top.
4. The vertical pipe shall be 9 feet in total length (4 feet buried with 5 feet sticking above ground level) with a 5 foot pipe for the stob/kicker (4 feet buried with 1 foot sticking above ground level).
5. One horizontal brace shall be welded, parallel to the ground, between the two 9 foot vertical pipes at a distance of 4 feet (48 inches) from ground level.
6. The diagonal brace shall be welded at this height angling down to the top of the stob/kicker.
7. Painting of the pipe is not required although it is recommended.

H-Brace Specifications and Detail

March 4, 2021

City Council Meeting

Item Number: 21

Meeting Date: February 22, 2022 (March 22, 2022)

To: City Council / City Manager

From: Paul Rodriguez, Planner

Subject: AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 3, BLOCK 6, EASTOVER ADDITION, THIRD EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH CALHOUN STREET, APPROXIMATELY 112 FEET SOUTH OF EAST ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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)

Purpose:

The applicant, Louis Clay, 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 311 N Calhoun Street and the location of vacant land. The applicant is requesting a special exception to the minimum lot width for the proposed SF-3, Single Family Dwelling District to be able to proceed with the application of rezoning the property to build a single-family home.

The property is currently zoned MF-22, Multi-Family 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:*

MF-22, Multiple-Family Dwelling District
Lot dimensions
Minimum Lot Depth:
Interior Lot: 150 Feet
Minimum Lot Width:
Interior Lot: 100 Feet

As shown on Eastover Second Addition plat, this property is currently 40 feet wide and 80 feet deep.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

Engineering: (Approved)

No objections to zone change.

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.

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.

No objection to zone change.

Fire: (Approved)

No objections

GIS: (Approved)

No objections.

Code Compliance: (Approved)

No Oil and Gas issues. Informational: No Oil or Gas wells identified within 500 ft. permitted well radius or in the 135 ft. non-permitted well radius of location on plat. Please note if oil & gas wells are not identified or left off of plat, this could prevent receiving city permits for structures. Any plugged and abandoned well would need to be identified.

Building: (Approved)

No issues. No Objections. Building shall still adhere to the required building and zoning setbacks

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 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 through C:

Conditions:

A. **That approval of a zone change to SF-3, Single Family Dwelling District shall be required prior to any development on the property.**

A. That the minimum lot width of the property shall be forty (40) feet.

B. That the minimum lot depth of the property shall be eighty (80) feet.

Letters of Objection:

As of February 17, 2022, staff has not received any letters of objection.

Attachments:

Eastover Addition Third Extension Plat
Proposed Site Plan (Exhibit A)
Application
Maps

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 3, BLOCK 6, EASTOVER ADDITION, THIRD EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE WEST SIDE OF NORTH CALHOUN STREET, APPROXIMATELY 112 FEET SOUTH OF EAST ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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 Code, 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 3, Block 6, Eastover Addition, Third Extension, City and County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum lot area, a reduced minimum lot width, and a reduced minimum lot depth in the event that the Zoning District Map of the City of Midland, Texas, is amended to rezone the Property from MF-22, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District.

SECTION TWO. That said special exception is subject to the following special conditions:

A. That the Property's minimum lot area shall be 3,200 square feet.

B. That the Property's minimum lot width shall be 40 feet.

C. That the Property's minimum lot depth shall be 80 feet.

D. 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-22-00068

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Louis Clay		Phone (434) 631-2909 Email tallcityboss@yahoo.com	
Address 1215 Lynn	City Midland	State Tx	Zip 79705

Property Owner Printed Name: Louis Clay		Phone ( ) Email	
Address 1215 Lynn	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: 311 W. Calhoun

Legal Description
Lot: 3 Block: 6 Subdivision: Eastover Third Ext

Current Zoning:

This property qualifies as an exception to the City Code because:

- ☐ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☐ The addition of architectural or other projections of a minor extent.

Reason for Request: Lot smaller than regulation

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): Louis Clay	Date: 1-22-2022
Applicant (printed): Louis Clay	
Property Owner (signature): Louis Clay	Date: 1-22-2022
Property Owner (printed) : Louis Clay	

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

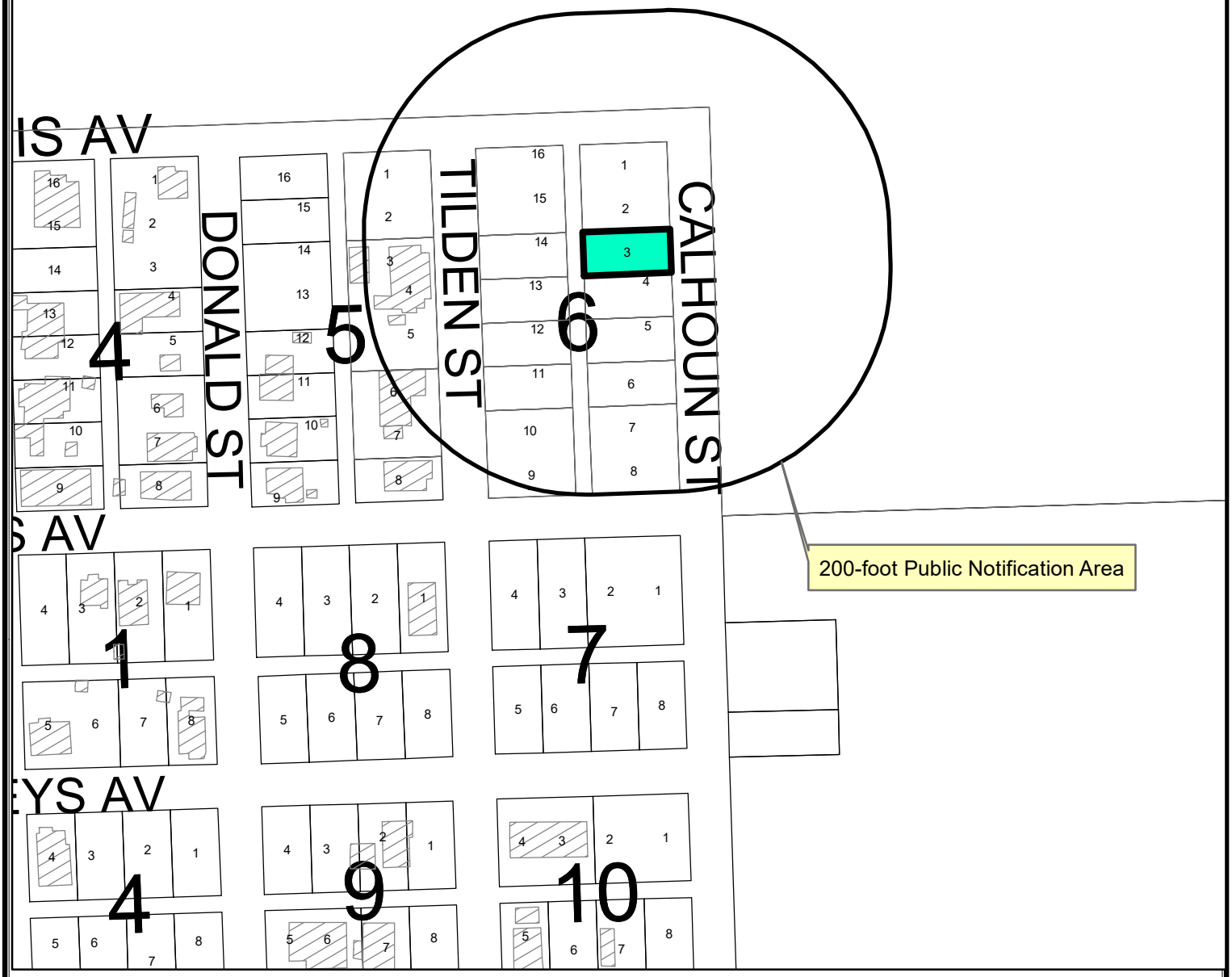
FOR OFFICE USE ONLY

☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date: JAN 21 2022

****Application will not be considered for scheduling until reviewed by a planner.****


311 North CALHOUN Street
Show search results for 311 North CA...
313
80'
40'
11
310
309
208
206
305
Parcel: CALHOUN
SubTypeField COM Vacant
LandUse Vacant
SITENUM 311
PIN 328300060030
ADDRESS 311 N CALHOUN ST
MOPIN_PLUSFOUR
DATE_MOD
created_user SDE
created_date 2/5/2018, 3:14 AM
last_edited_user SDE
last_edited_date 6/25/2021, 10:14 AM
SW_Area
SW_Tier Drainage No Charge
Zoom to
20ft

JAN 2 1 2022



LOCATION MAP

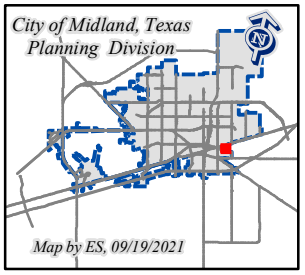
E-22-0068 **Scale: 1" = 200'**

A proposed Special Exception from the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, concerning the minimum lot dimension on Lot 3, Block 6, Eastover Addition Third Extension Midland, City and County of Midland, Texas.

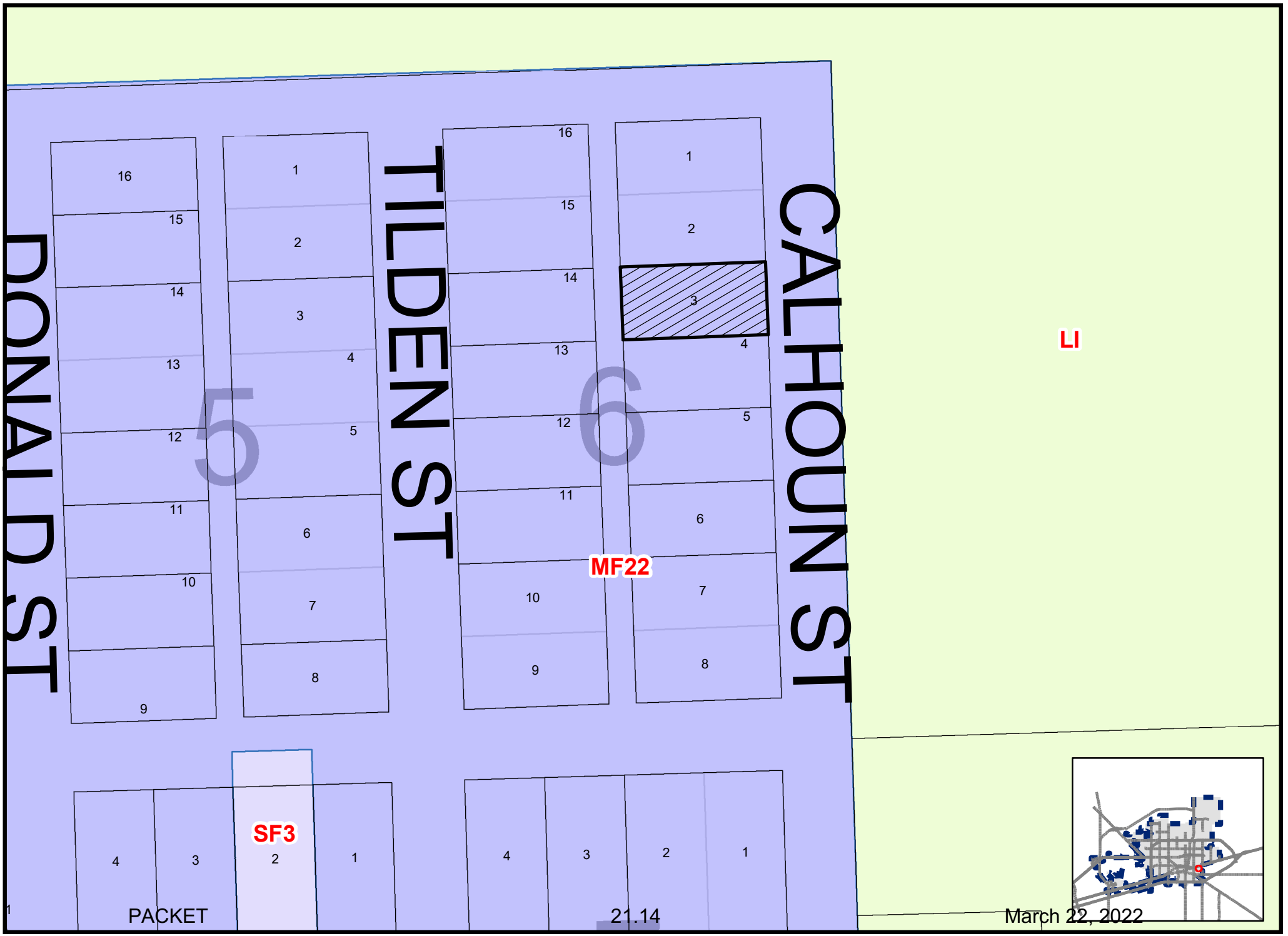
Generally located on the west side of N. Calhoun Street and 112 feet south of E. Illinois Ave. Council District 2)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS 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 PR, 01/25/2022

E-22-0068

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.









City Council Meeting

Item Number: 22

Meeting Date: February 22, 2022 (March 22, 2022)

To: City Council / City Manager

From: Justin Smith, Planner

Subject: **AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 1, EASTOVER ADDITION, SECOND EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF JESSE STREET AND ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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)**

Purpose:

The applicants, Louis Clay, 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 213 Jesse Street and the location of vacant land. The applicant is requesting a special exception to the minimum lot width for the proposed SF-3, Single Family Dwelling District to be able to proceed with the application of rezoning the property to build a single-family home.

The property is currently zoned MF-22, Multiple-Family Dwelling 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:*
>
> *MF-22, Multiple-Family Dwelling District*
> *Lot dimensions*
> *Minimum Lot Width:*
> *Corner Lot: 150 Feet*
> *Minimum Lot Depth:*
> *Corner Lot: 100 Feet*

As shown on Eastover Second Addition plat, this property is currently 40 feet wide and 80 feet deep.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

Engineering: (Approved)

No comments

Transportation: (Approved)

no comments

Fire: (Approved)

No comments

Code Compliance: (Approved)

No oil or gas issues.

Building: (Approved)

No objections. New structure will still have to abide by setback rules from the property lines and neighboring structures.

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 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 through C:

Conditions:

A. That approval of a zone change to SF-3, Single Family Dwelling District shall be required prior to any development on the property.

B. That the minimum lot width of the property shall be forty (40) feet.

C. That the minimum lot depth of the property shall be eighty (80) feet.

Letters of Objection:

As of February 17, 2021, staff has not received any letters of objection.

Attachments:

Eastover Second Addition, Third Extension Plat
Aerial Map (Exhibit A)
Application
Maps

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 1, BLOCK 1, EASTOVER ADDITION, SECOND EXTENSION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHWEST CORNER OF THE INTERSECTION OF JESSE STREET AND ILLINOIS AVENUE), BY PERMITTING A REDUCED MINIMUM LOT AREA, A REDUCED MINIMUM LOT WIDTH, AND A REDUCED MINIMUM LOT DEPTH IN THE EVENT THAT THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND IS AMENDED TO REZONE THE PROPERTY FROM MF-22, MULTIPLE-FAMILY DWELLING 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 Code, 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 1, Block 1, Eastover Addition, Second Extension, City and County of Midland, Texas (the "Property"). Said special exception shall allow a reduced minimum lot area, a reduced minimum lot width, and a reduced minimum lot depth in the event that the Zoning District Map of the City of Midland, Texas, is amended to rezone the Property from MF-22, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District.

SECTION TWO. That said special exception is subject to the following special conditions:

A. That the Property's minimum lot area shall be 3,200 square feet.

B. That the Property's minimum lot width shall be 40 feet.

C. That the Property's minimum lot depth shall be 80 feet.

D. 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: _____

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: Louis Clay		Phone (432) 631-2909 Email tallcityboss@yahoo.com	
Address ~~215 Lynn~~ 211 Jesse	City Midland	State Tx	Zip ~~79705~~ 79701

Property Owner Printed Name: Louis Clay		Phone ( ) Email	
Address 1215 Lynn	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: 213 Jesse

Legal Description
Lot: 1 Block: 1 Subdivision: Eastover Second

Current Zoning:

This property qualifies as an exception to the City Code because:

- ☐ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☐ The addition of architectural or other projections of a minor extent.

Reason for Request: Lot too small

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)

JAN 21 2022

Signatures	
Applicant (signature): Louis Clay	Date: 1-22-2021
Applicant (printed): Louis Clay	
Property Owner (signature): Louis Clay	Date: 1-22-2021
Property Owner (printed) : Louis Clay	

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

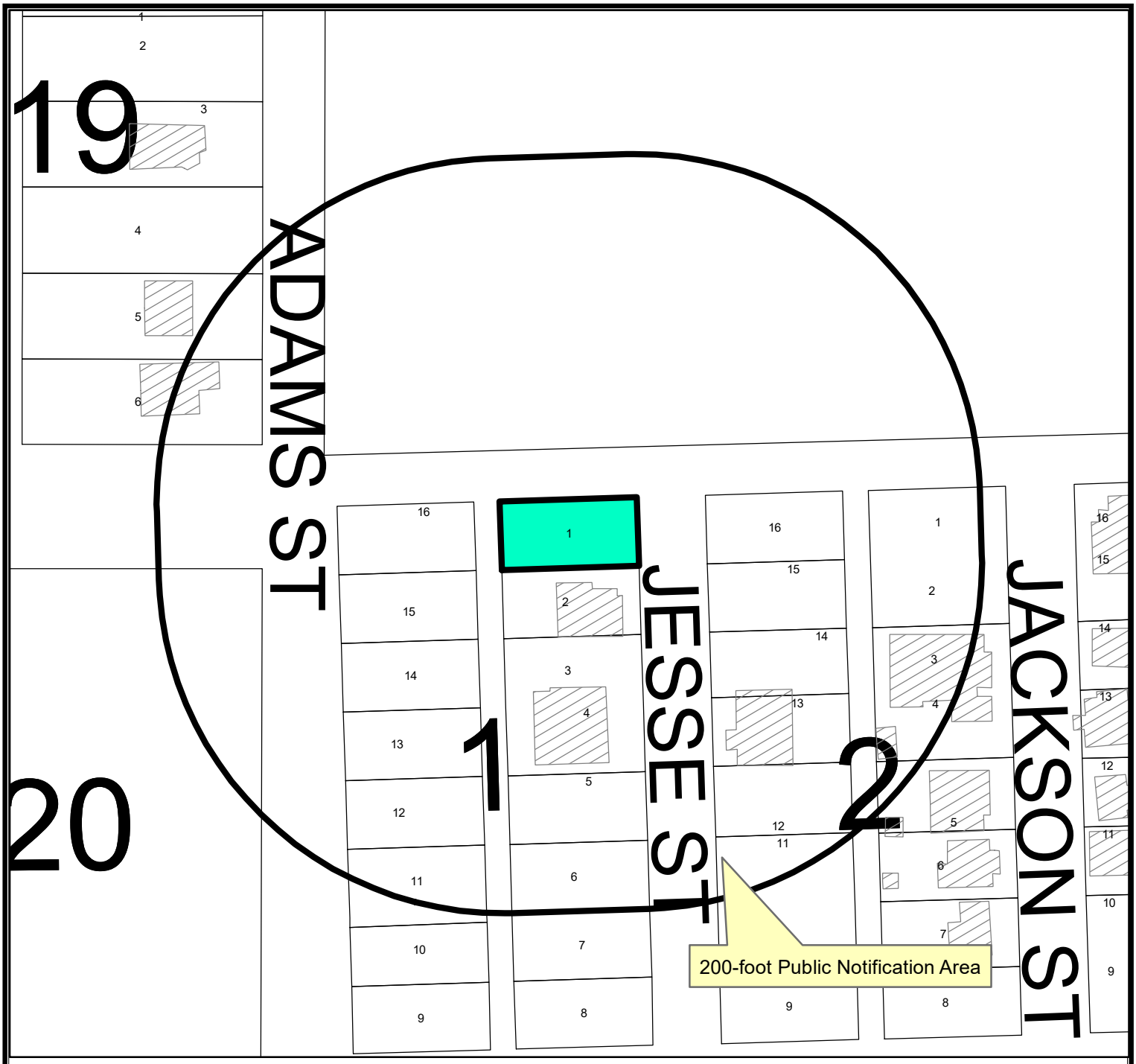
☑ Property Owner Authorization	☑ Dimensioned Site Plan
☑ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check # 1565	
Received By: JS	Date: JAN 21 2022

****Application will not be considered for scheduling until reviewed by a planner.****

Aerial Map (Exhibit A)



RECEIVED
JAN 2 1 2022
BY: .....



LOCATION MAP

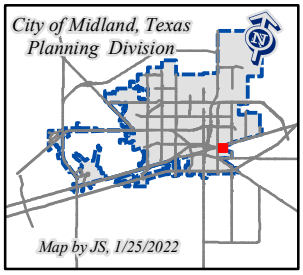
E-22-0069 **Scale: 1" = 1000'**

Consider a request by Louis Clay for a Special Exception from the City of Midland Zoning Ordnance, Section 5.04 - Residential Zoning District Dimensional Regulations Chart, concerning the minimum corner lot dimension on Lot 1, Block 1, Eastover Second Addition, City and County of Midland, Texas.

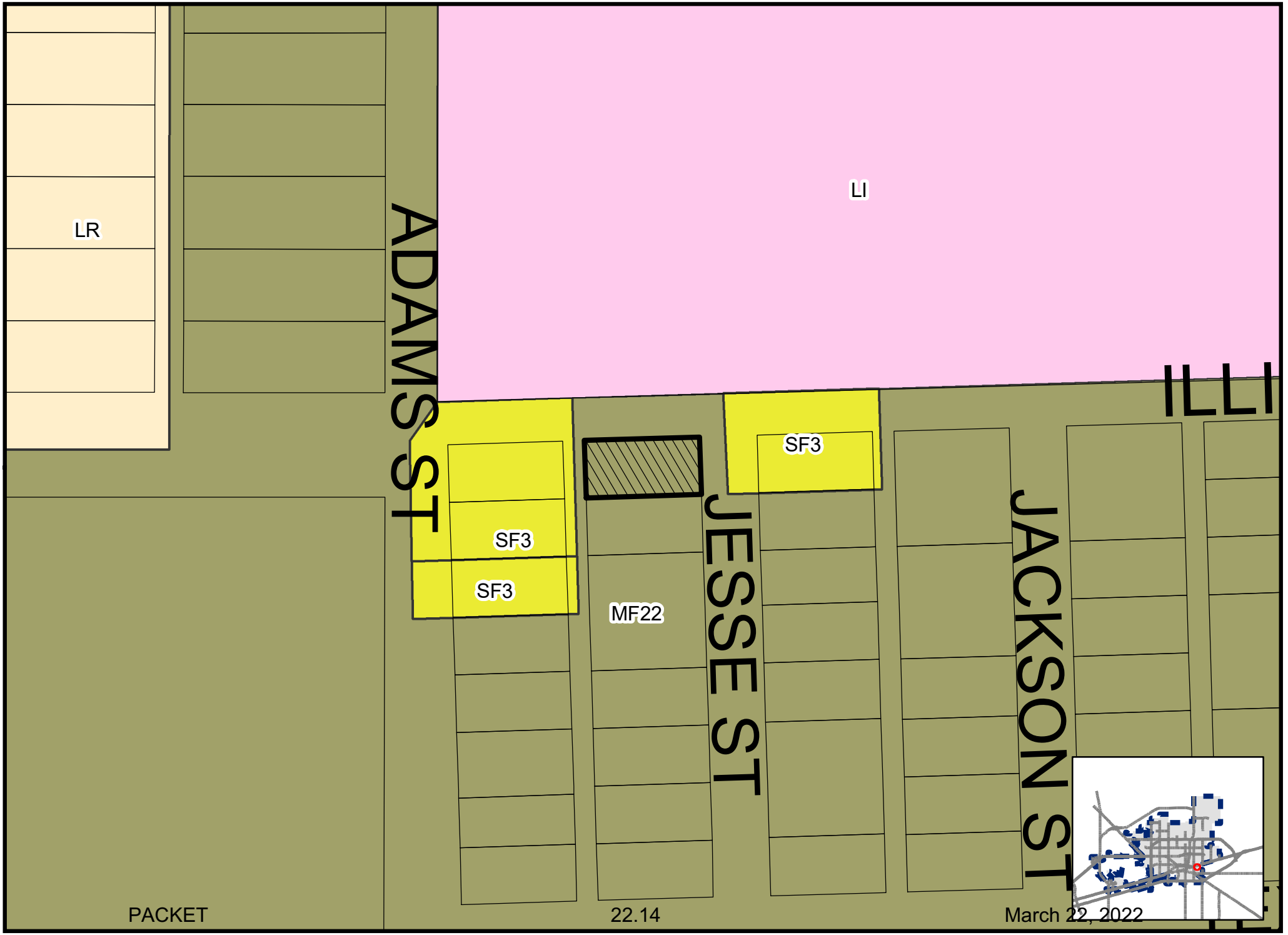
Generally located on the southwest corner of the intersection of Jesse Street and Illinois Avenue. (Council District 2)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



Map By JS, 1/25/2022

E-22-0069

Scale: 1" = 1000'

ZONING MAP

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Jesse





City Council Meeting

Item Number: 23

Meeting Date: February 22, 2022 (March 22, 2022)

To: City Council / City Manager

From: Paul Rodriguez, Planner

Subject: AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 16, BLOCK 64, PARK AVENUE HEIGHTS, SECOND SECTION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-22, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF BUNCHE STREET, APPROXIMATELY 250 FEET SOUTH OF CALIFORNIA AVENUE); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); AND ORDERING PUBLICATION (DISTRICT 2) (DEVELOPMENT SERVICES)

Purpose:

The applicant, Oscar Medrano, is requesting a Zone Change from MF-22, Multiple Family Dwelling District to SF-3 Single Family Dwelling District at 809 Bunche Street, for construction of a single-family home.

Recommended City Council Action:

Approve

Fiscal Impact:

This request does not require any City funds.

Discussion:

Current Zoning:

MF-22, Multiple Family District

Surrounding Zoning and Land Use:

The properties to the north, south, east, and west are primarily zoned MF-22, Multiple Family Dwelling District, and are the locations of single-family residences and vacant land, respectively.

Analysis:

The applicant is requesting this zone change for the purposes of constructing a single-family home. The lot dimensions satisfy the minimum requirements for the SF-3, Single Family Dwelling District zoning.

Under the previous zoning ordinance, the current zoning district would have allowed for construction of single-family homes, which allowed for the proliferation of their construction in this area. Under the new zoning ordinance adopted in 2019, the construction of single-family detached dwellings were restricted to single family dwelling districts.

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 objection to zone change. [For the Applicant's information only.] Site drainage, utilities, driveway access, and traffic circulation may be adjusted during construction drawing review as necessary to receive building permit approval from Engineering and Traffic Operations. [For the Applicant's information only.]

Code: (Approved)

No Oil or Gas issues.

Transportation: (Approved)

No objection to zone change. [For the Applicant's information only.]

Planning:

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, a classification which calls for single family detached housing. This property also supports the existing neighborhood characteristics and uses of the area.

This request was approved at the February 1, 2022, Planning & Zoning Commission meeting.

Staff recommends approval of this zone change from MF-22, Multiple Family Dwelling 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 February 17, 2022.

Attachments:

Application
Maps
Plat

.

Morris Williams Jr.

City Manager’s Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO REZONE LOT 16, BLOCK 64, PARK AVENUE HEIGHTS, SECOND SECTION, CITY AND COUNTY OF MIDLAND, TEXAS, FROM MF-22, MULTIPLE-FAMILY DWELLING DISTRICT TO SF-3, SINGLE-FAMILY DWELLING DISTRICT (GENERALLY LOCATED ON THE EAST SIDE OF BUNCHE STREET, APPROXIMATELY 250 FEET SOUTH OF CALIFORNIA 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 16, Block 64, Park Avenue Heights, Second Section, City and County of Midland, Texas (the "Property") to SF-3, Single-Family Dwelling District, as set out hereinafter;

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

SECTION ONE. That the Zoning District Map of the City of Midland, Texas, is hereby amended to rezone the Property from MF-22, Multiple-Family Dwelling District to SF-3, Single-Family Dwelling District.

SECTION TWO. That the definitions given in the zoning regulations contained in the City Code of the City of Midland, Texas, shall be applicable to such of those terms as are used herein.

SECTION THREE. The provisions of this ordinance are to be cumulative of all other ordinances or parts of ordinances governing or regulating the same subject matter as

that covered herein; provided, however, that all prior ordinances or parts of ordinances inconsistent with or in conflict with any of the provisions of this ordinance are hereby expressly repealed to the extent of any such inconsistency or conflict.

SECTION FOUR. If any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional or invalid, such holding shall not affect the validity of the remaining portions of this ordinance. The Council of the City of Midland hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared unconstitutional or invalid.

SECTION FIVE. The penalty for violation of this ordinance shall be in accordance with the general penalty provisions contained in Section 1-3-1 of the City Code of Midland, Texas, which provides for a fine not exceeding two thousand dollars ($2,000.00).

SECTION SIX. The City Secretary is hereby authorized and directed to publish the descriptive caption of this ordinance in the manner and for the length of time prescribed by the law as an alternative method of publication.

The above and foregoing ordinance was duly proposed, read in full and adopted on first reading, the _____ day of _____, A.D., 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: 2-22-0280

Case Number:

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name:		Phone (432)557-8673 Email hilite_99@yahoo.com	
Address 710 Atlanta	City Midland	State Texas	Zip 79701
Property Owner Printed Name: Oscar Medrano		Phone (432) 557-8673 Email 432 557-8673	
Address 710 Atlanta	City Midland	State Texas	Zip 79701
Representative *(if different from Applicant or Property Owner)* Firm: Printed Name:		Phone (432) 557-8673 Email	
Address	City	State	Zip

Street Address: 809 Bunche

Legal Description
Lot: 16 Block: 64 Subdivision: Park Avenue Heights (Second Section)

Current Zoning:
MF-22

Proposed Zone: SF-3
(List by tracts if more than one district is requested)

Reason for Zone Change Request: Proposing to build single family home. Lot is small.

Present Use of Property: Empty lot.

Proposed Use of Property: Proposing to build single family home.

How would this zone change affect the public health, safety and welfare? None.

Describe how conditions affecting the property have changed since present zoning designation: None.

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: 1-4-2022
Applicant (printed): Oscar Medrano	
Property Owner (signature):	Date: 1-4-2022
Property Owner (printed) : Oscar Medrano	

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.

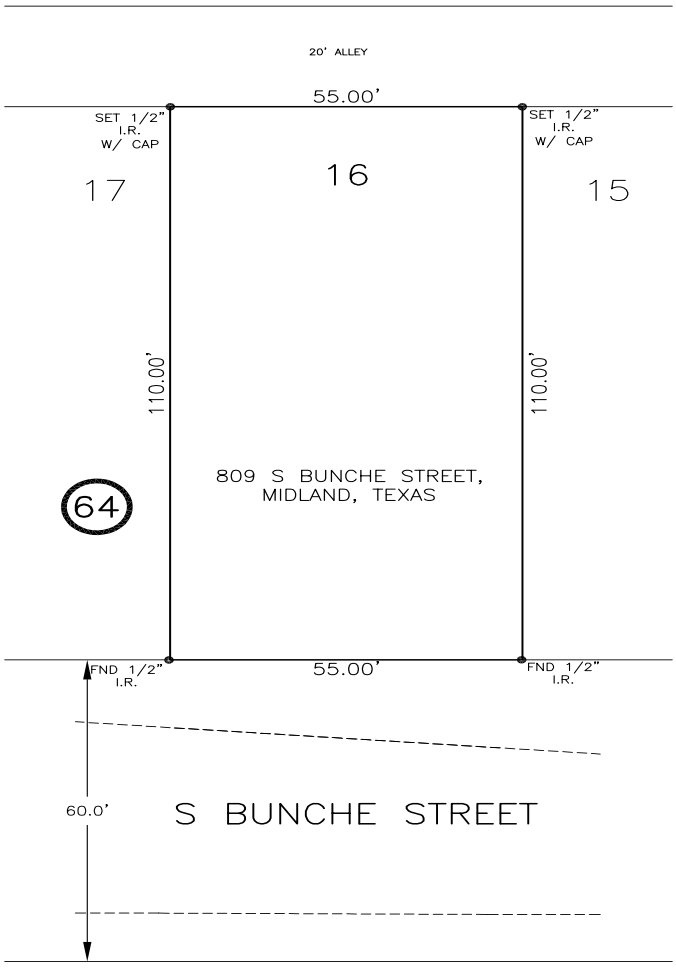
_____

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY

☐ Property Owner Authorization	☐ 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 planner.



PLAT

OF

LOT 16, BLOCK 64, PARK AVENUE HEIGHTS SECOND SECTION, AN ADDITION TO THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

30 0 30 60 90 Feet

TO LIEN HOLDER ISSUING THE INSURANCE UNDERWRITER

THIS SURVEY PLAT IS PROVIDED SOLELY FOR THIS TRANSACTION

PLAT IS COPYRIGHTED AND SHALL NOT BE USED FOR ANY OTHER TRANSACTION.

THE UNDERSIGNED HEREBY CERTIFIES THAT THIS SURVEY WAS MADE ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON AND IS CORRECT, AND THAT THERE ARE NO VISIBLE DISCREPANCIES, CONFLICTS, SHORTAGES IN AREA BOUNDARY LINE CONFLICTS, ENCROACHMENTS, OVERLAPPING OF IMPROVEMENTS, VISIBLE EASEMENTS OR RIGHTS OF WAY, EXCEPT AS SHOWN HEREON, AND THIS SAID PROPERTY HAS ACCESS TO AND FROM A DEDICATED ROADWAY AS SHOWN.

PACKET 23/9

REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS REGISTERED MICHAEL L. McBRAYER 4161 PROFESSIONAL LAND SURVEYOR

FILED IN CABINET B, PAGE 114, PLAT RECORDS, MIDLAND COUNTY, TEXAS.

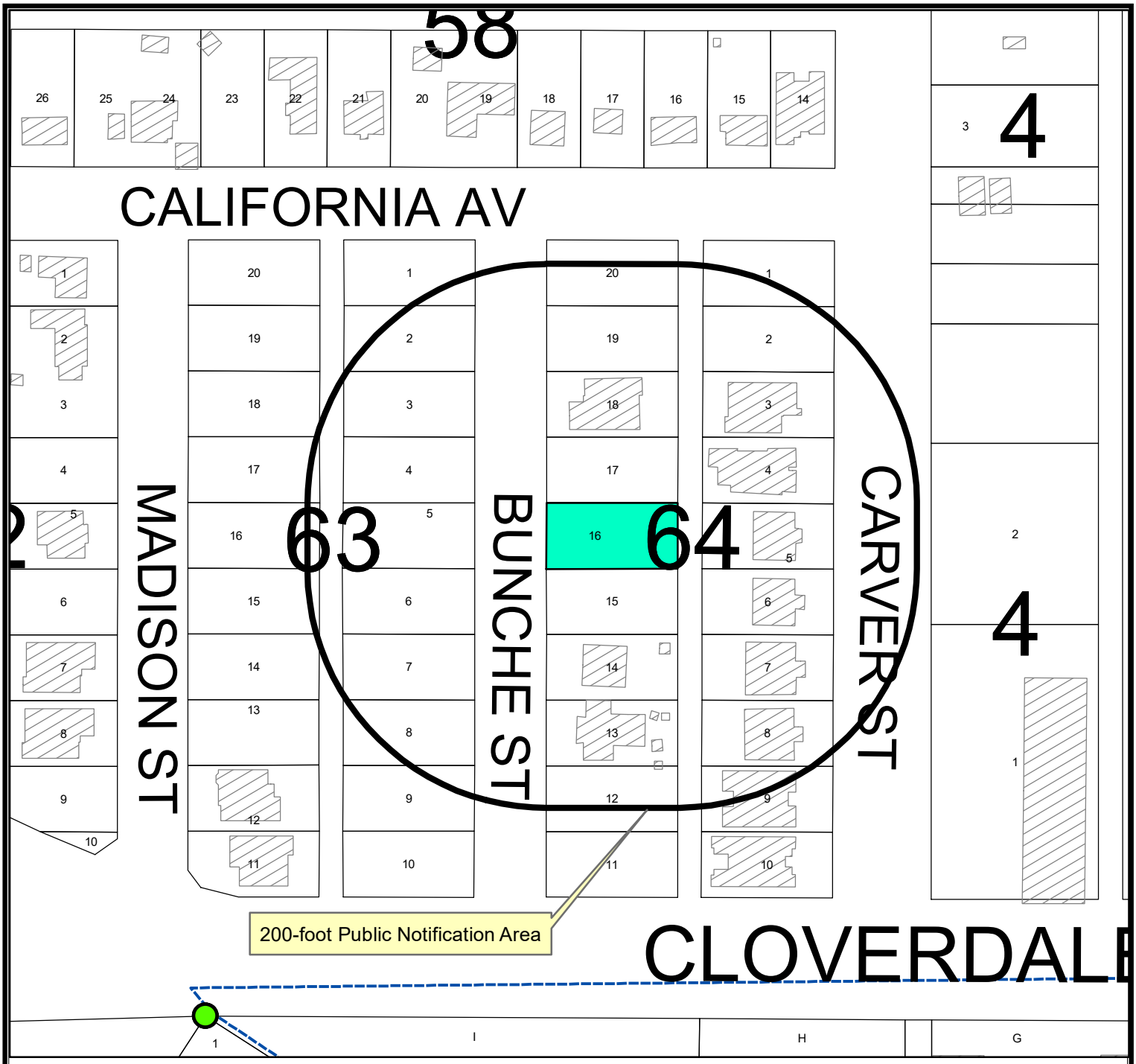
THIS PROPERTY LIES WITHIN ZONE "X" AS SHOWN BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FEDERAL INSURANCE ADMINISTRATION MAP COMMUNITY PANEL 48329C0206 F. DATED SEPTEMBER 16, 2005.

Stored: 19092247

BRADSHAW AND ASSOCIATES, INC.
CONSULTING ENGINEERS
REGISTERED PROFESSIONAL LAND SURVEYORS
FIRM # 10122900/10122901
4400 N. BIG SPRING SUITE A-8
MIDLAND, TEXAS 79705
(432) 682-4400 FAX (432) 682-4401

March 22, 2022

	Drawn	Chkd	Surveyed
By	VR	MLM	GB/CH
Date	10-7-2019	10-8-2019	10-7-2019



LOCATION MAP

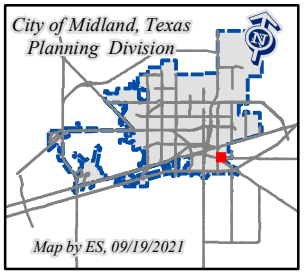
Z-22-0280 **Scale: 1" = 200'**

Request by Oscar Medrano for a zone change from MF-22, Multi-Family Dwelling District to SF-3, Single-Family Dwelling District on Lot 16, Block 64, Park Avenue Heights, Second Section, City and County of Midland, Texas.

Generally located on the east side of Bunche Street, approximately 250 feet south of E. California Avenue (Council District 2)

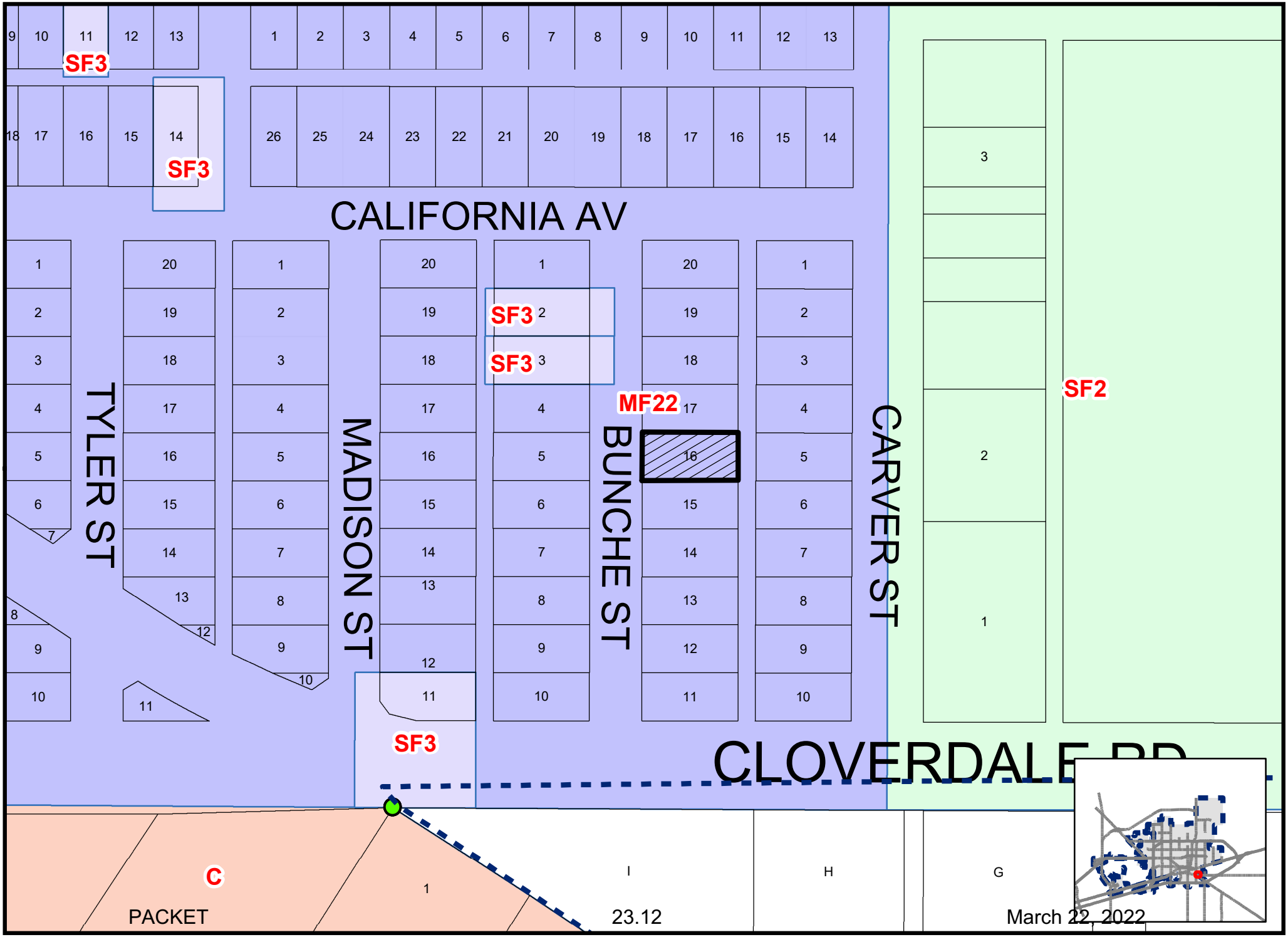
LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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March 22, 2022



Map By PR, 1/6/2022

Z-22-0280

Scale: 1" = 200'

ZONING MAP

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Royal Homes

City Council Meeting

Item Number: 24

Meeting Date: February 22, 2022 (March 22, 2022)

To: City Council / City Manager

From: Cole Furqueron,

Subject: AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 11, BLOCK 5, AVALON ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF HUMBLE AVENUE, APPROXIMATELY 145 FEET EAST OF NORTH L STREET), BY PERMITTING A REDUCED MINIMUM SIDE YARD SETBACK ON THE WEST SIDE OF THE LOT; 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, Kristina Leigh, is requesting a Special Exception to the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, concerning the minimum side yard setback at 1612 Humble Avenue.

Recommended City Council Action:

Deny

Fiscal Impact:

No City funds are required to process this request.

Current Zoning:

SF-1, Single-Family Dwelling District

Discussion:

The property is located at 1612 Humble Avenue. The applicant is requesting a Special Exception to Section 5.04 – Residential Zoning District Dimensional Regulations Chart, concerning the minimum side yard setback of the SF-1, Single-Family Dwelling District, in order to be able to build a new two-story house on the property. The new house will be situated where the west side of the house will sit on the property line. Because of this, it is not in compliance with the City of Midland Zoning Ordinance concerning of minimum side yard setbacks.

Per our City of Midland Zoning Ordinance, *Section 5.04 – Residential Zoning District Dimensional Regulations Chart:*

SF-1, Single-Family Dwelling District
Lot dimensions
Minimum Side Yard Setback:
Interior Lot: 5 Feet.

.

This request has been circulated and reviewed by all pertinent City departments and their comments, conditions, and requests are as follows:

Engineering: (Approved)

No objections.

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.

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.

No objection to zone change.

Fire: (Approved)

No objections.

Code Administration: (Approved)

No issues. All future structures must adhere to the 2018 International Building Codes, the 2017 NEC requirements, the 2015 International Fire Codes, local city ordinances, zoning requirements, and floodplain requirements if necessary. According to the site plan and floor plan the building in question will have separations less than 10 foot to the house and possibly to a neighboring structure. 10 ft is the fire separation requirement according to the International Building Code, if the owner is looking to reduce that separation then the structures located within that 10 foot must have rated fire barriers which is also a requirement of the International Building Code.

Planning: (Denied)

As this request represents a deviation from the existing Zoning Ordinance and no hardships have been shown, staff would recommend denial of this request for a Special Exception to the City of Midland Zoning Ordinance Section .09, Accessory Buildings and Uses, concerning the minimum side yard and rear yard setbacks, and the minimum separation from the principal building.

If this request is approved, the property shall be subject to the following conditions A and B.

Condition:

A. **That the location of all structures shall significantly conform to conditions as shown on the site plan attached hereto as Exhibit "A " and incorporated herein for all purposes.**

B. **That they shall be no minimum side yard setback for this property the west side of the lot, adjacent to the alley.**

Letters of Objection:

As of February 18, 2022, staff has not received any letters of objection to this request.

Attachments:

Floor Plans and Elevations (Exhibit A)
Applications
Maps

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR LOT 11, BLOCK 5, AVALON ADDITION, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE NORTH SIDE OF HUMBLE AVENUE, APPROXIMATELY 145 FEET EAST OF NORTH L STREET), BY PERMITTING A REDUCED MINIMUM SIDE YARD SETBACK ON THE WEST SIDE OF THE LOT; 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 Code, 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 11, Block 5, Avalon Addition, City and County of Midland, Texas. Said special exception shall allow a reduced minimum side yard setback on the west side of the lot.

SECTION TWO. Said special exception is subject to the following special conditions:

A. That the minimum side yard setback on the west side of the lot shall be zero feet (0').

B. That the locations of all structures shall significantly conform to the conditions shown on Exhibit "A", which is attached hereto and incorporated 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 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

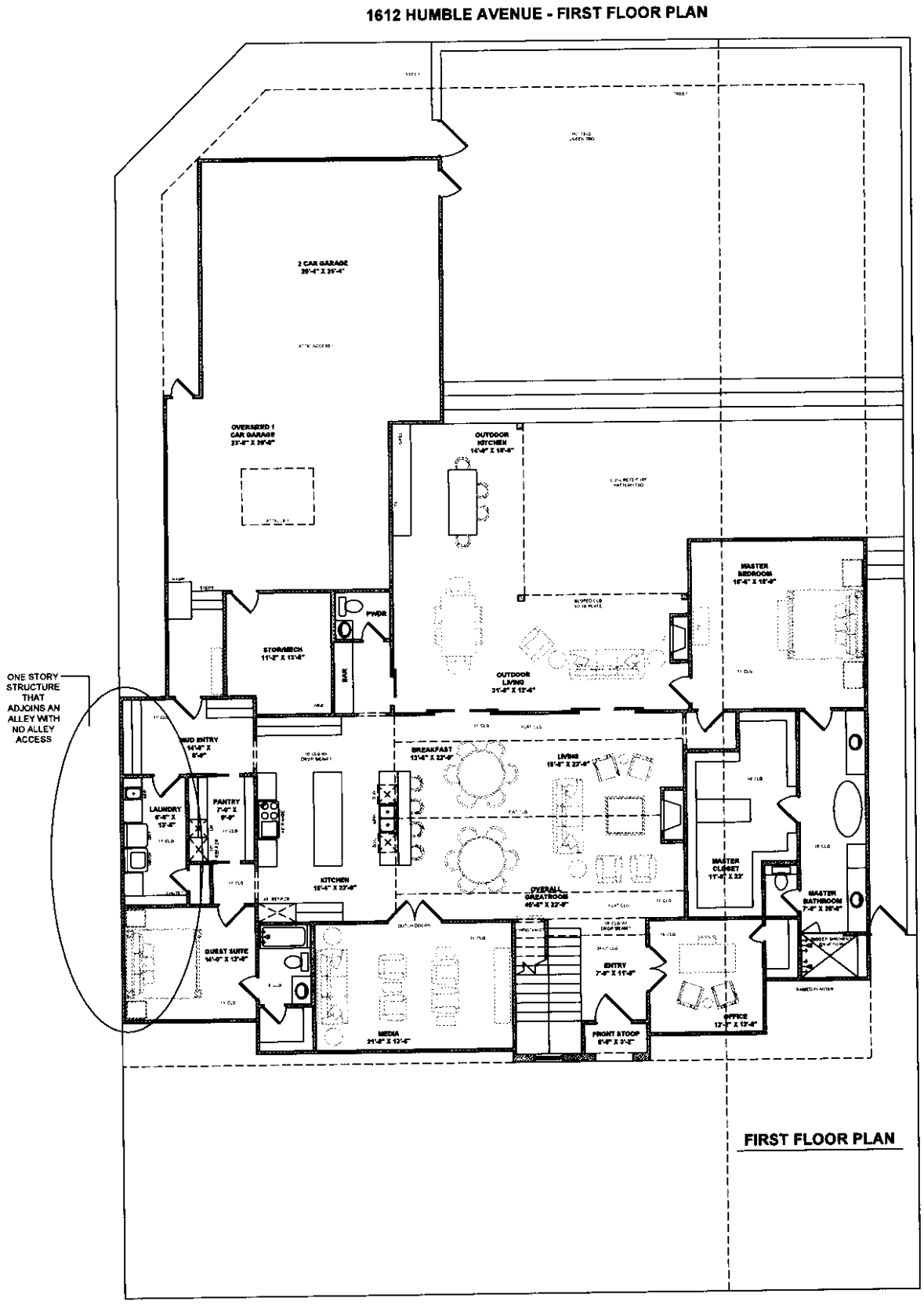
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

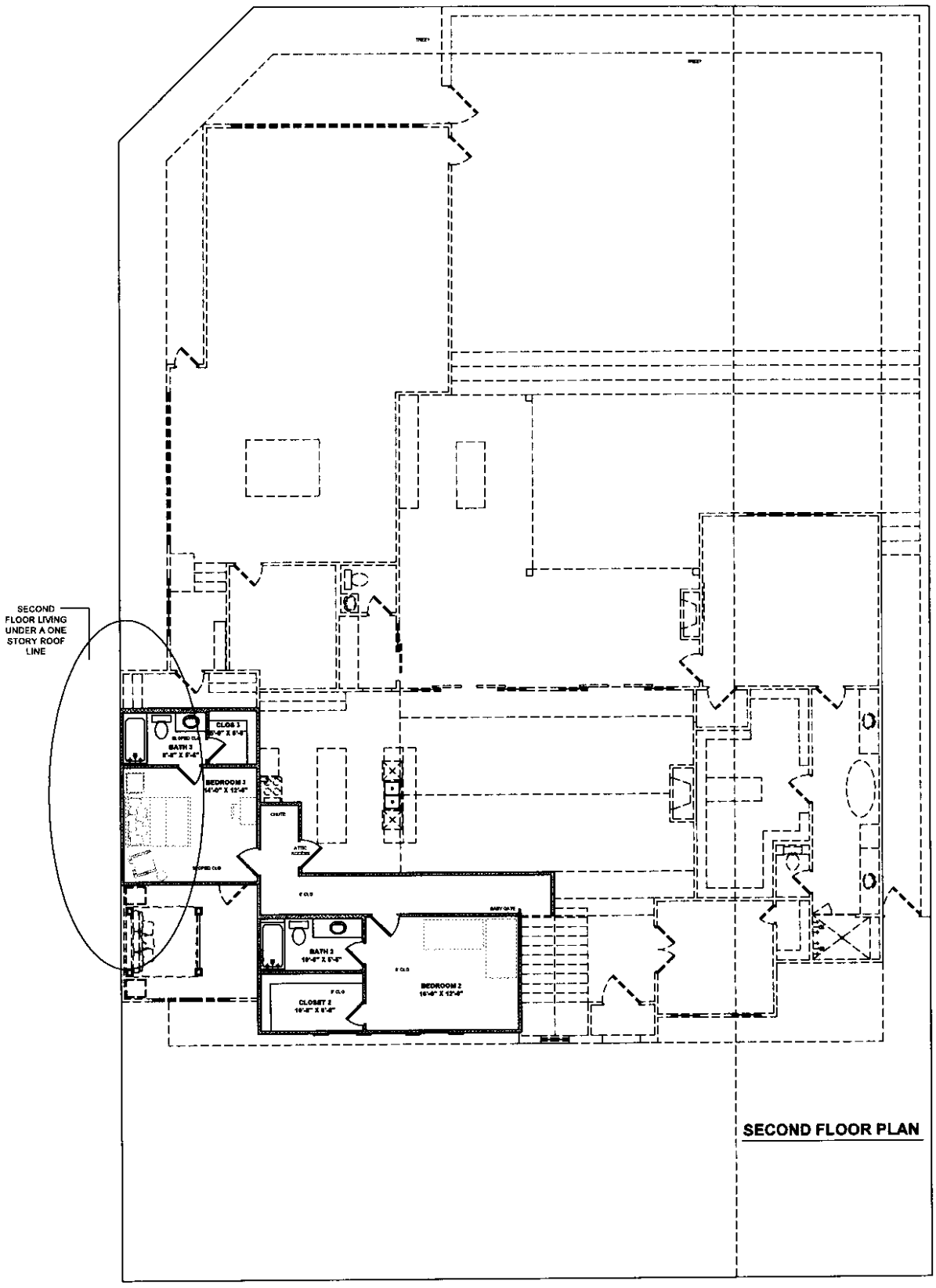
APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

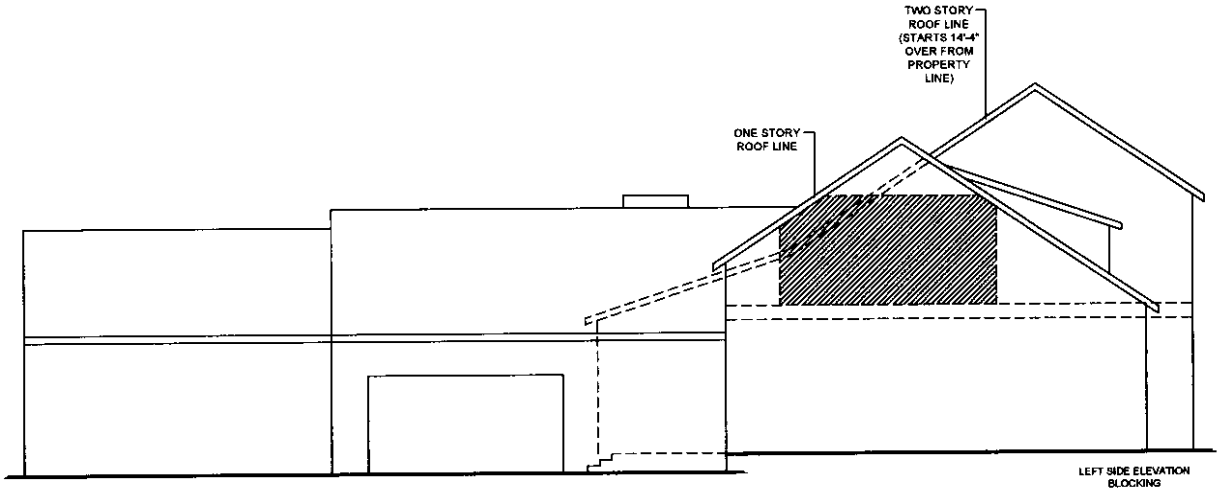

1612 HUMBLE AVENUE - FIRST FLOOR PLAN
2 CAR GARAGE
20'-4" X 20'-4"
OVERSIZED 1 CAR GARAGE
23'-8" X 20'-8"
OUTDOOR KITCHEN
14'-8" X 18'-8"
STOR/MECH
11'-2" X 13'-8"
PWDR
BAR
OUTDOOR LIVING
31'-4" X 12'-4"
MASTER BEDROOM
16'-4" X 18'-4"
ONE STORY STRUCTURE THAT ADJOINS AN ALLEY WITH NO ALLEY ACCESS
MUD ENTRY
14'-8" X 6'-4"
LAUNDRY
6'-8" X 13'-8"
PANTRY
7'-8" X 8'-4"
KITCHEN
16'-4" X 22'-8"
BREAKFAST
13'-4" X 22'-8"
LIVING
16'-4" X 22'-8"
OVERALL GREATROOM
49'-4" X 22'-8"
MASTER CLOSET
11'-4" X 22'
MASTER BATHROOM
7'-4" X 20'-4"
GUEST SUITE
14'-8" X 13'-8"
MEDIA
21'-8" X 13'-8"
ENTRY
7'-8" X 11'-8"
FRONT STOOP
6'-8" X 3'-8"
OFFICE
12'-7" X 13'-4"
FIRST FLOOR PLAN

1612 HUMBLE AVENUE - SECOND FLOOR PLAN



1612 HUMBLE AVENUE - ELEVATIONS





MIDLAND Planning Division

Special Exception Application

Project Number: E-22-0070

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name: John Morris		Phone (432) 559-8996 Email john@morris-gc.com	
Address 9 Hanover	City Midland	State TX	Zip 79701
Property Owner Printed Name: Moriah Land & Cattle, LLC		Phone (432) 553-3598 Email kgkenergy@gmail.com	
Address P.O. Box 50465	City Midland	State TX	Zip 79710
Representative *(if different from Applicant or Property Owner)* Firm: Simply Kristina Leigh, LLC Printed Name: Kristina Leigh		Phone (432) 770-8337 Email kristina@kristinaleigh.net	
Address 4706 N. Midkiff, Ste. 22-229	City Midland	State TX	Zip 79705

Street Address: 1612 Humble Ave, Midland TX 79705

Legal Description
Lot: 11 Block: 5 Subdivision: Avalon Addition

Current Zoning:

This property qualifies as an exception to the City Code because:

- ☐ It is an expansion of a nonconforming use.
- ☐ There are existing nonconforming structures in the area.
- ☑ The addition of architectural or other projections of a minor extent.

Reason for Request: To secure on the West side of the property a 0' setback for a span of 35' & a second floor living under a one story roof line within that same span, as was interpreted in July 2020 by city officials as being within the section 5: Zoning Dimensional Regulations of page 114 for a SF-1 Single Family Dwelling that adjoins alley on two sides.

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: 2-4-22
Applicant (printed): John Morris	
Property Owner (signature): Kirsten Kelley	Date: 2-4-22
Property Owner (printed): Kirsten Kelley	

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 John Morris who, being by me duly sworn, upon oath says: That (s)he is authorized by Kirsten Kelley, 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 4th day of February, 20 22, to certify which witness my hand and seal of office.

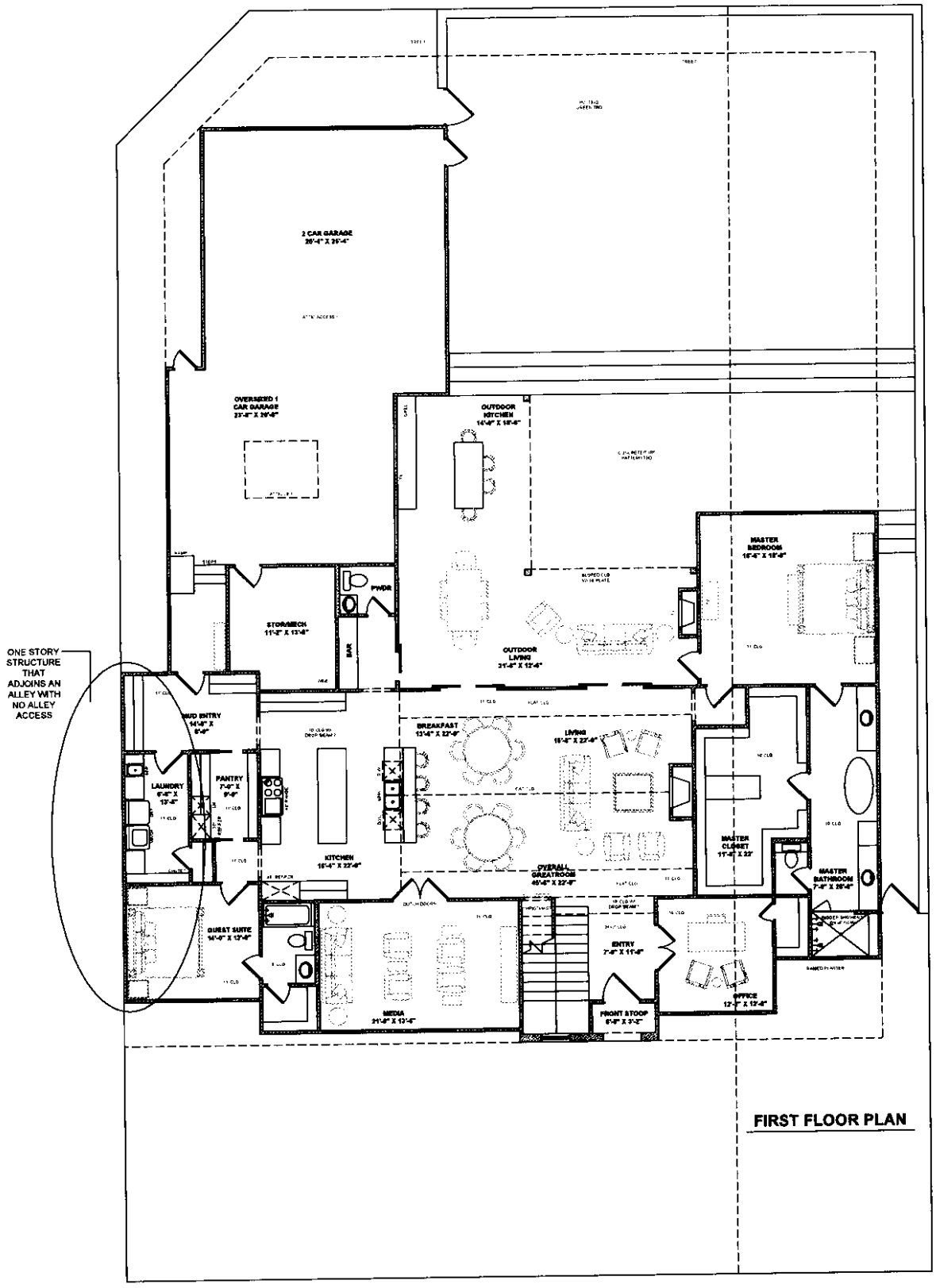
MARK ANDREW HOHENBERGER
Notary Public, State of Texas
Comm. Expires 10-27-2024
Notary ID 126705519

NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

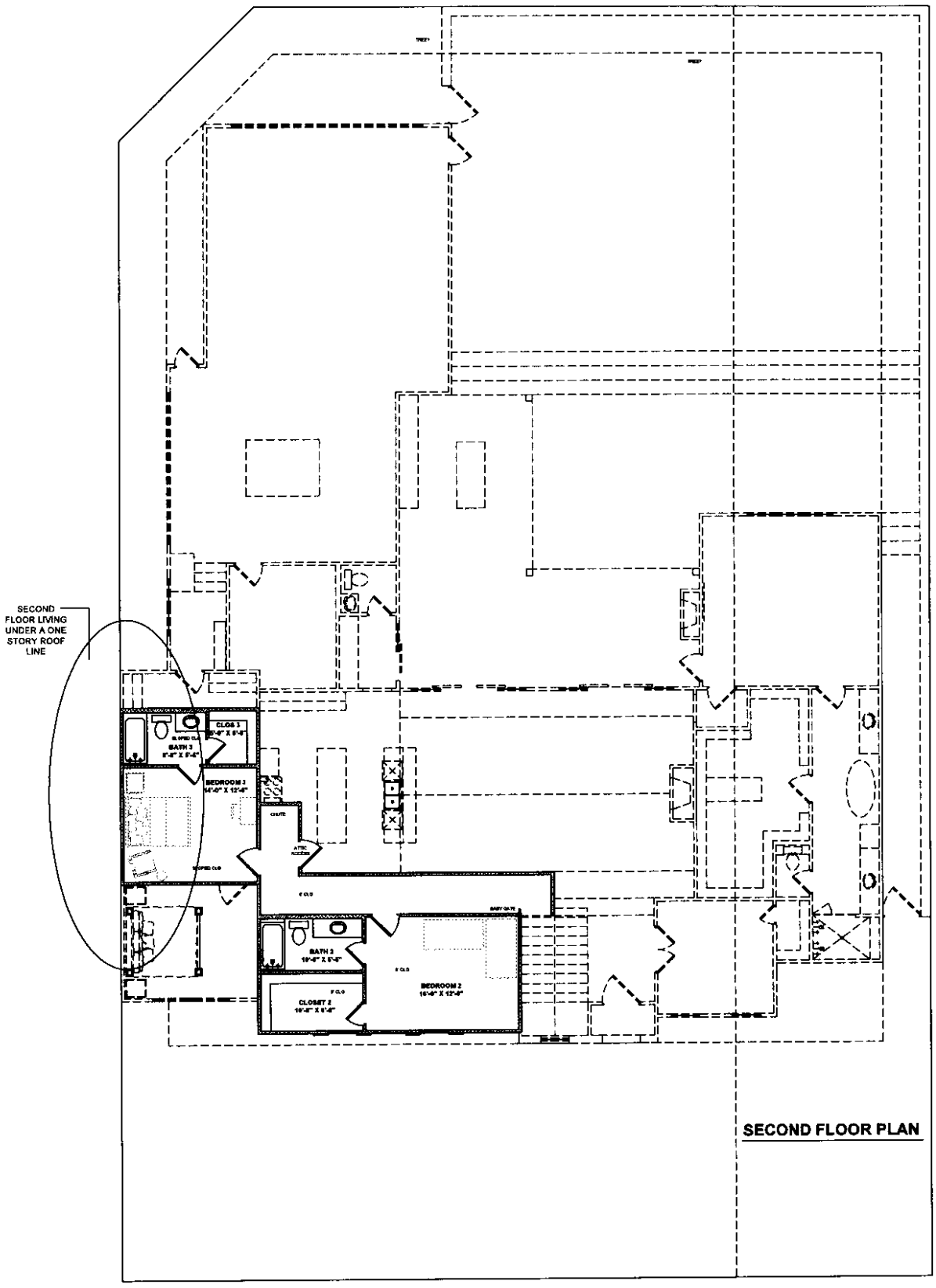
FOR OFFICE USE ONLY	
☐ Property Owner Authorization	☐ Dimensioned Site Plan
☐ Application Fee	☐ Plans in Digital Format (PDF/JPEG)
Check #_____	
Received By:	Date:

****Application will not be considered for scheduling until reviewed by a planner.****

1612 HUMBLE AVENUE - FIRST FLOOR PLAN

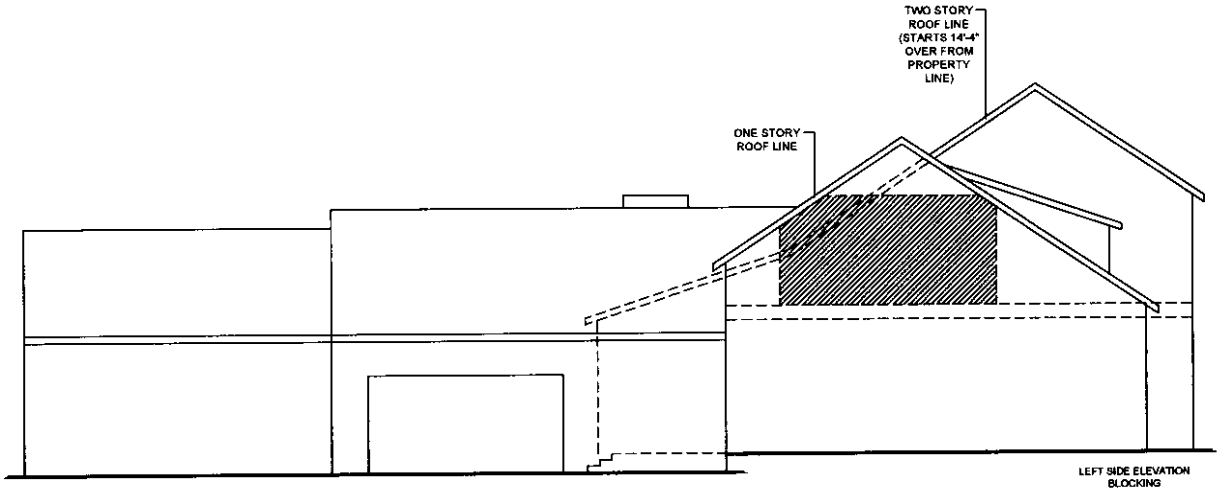


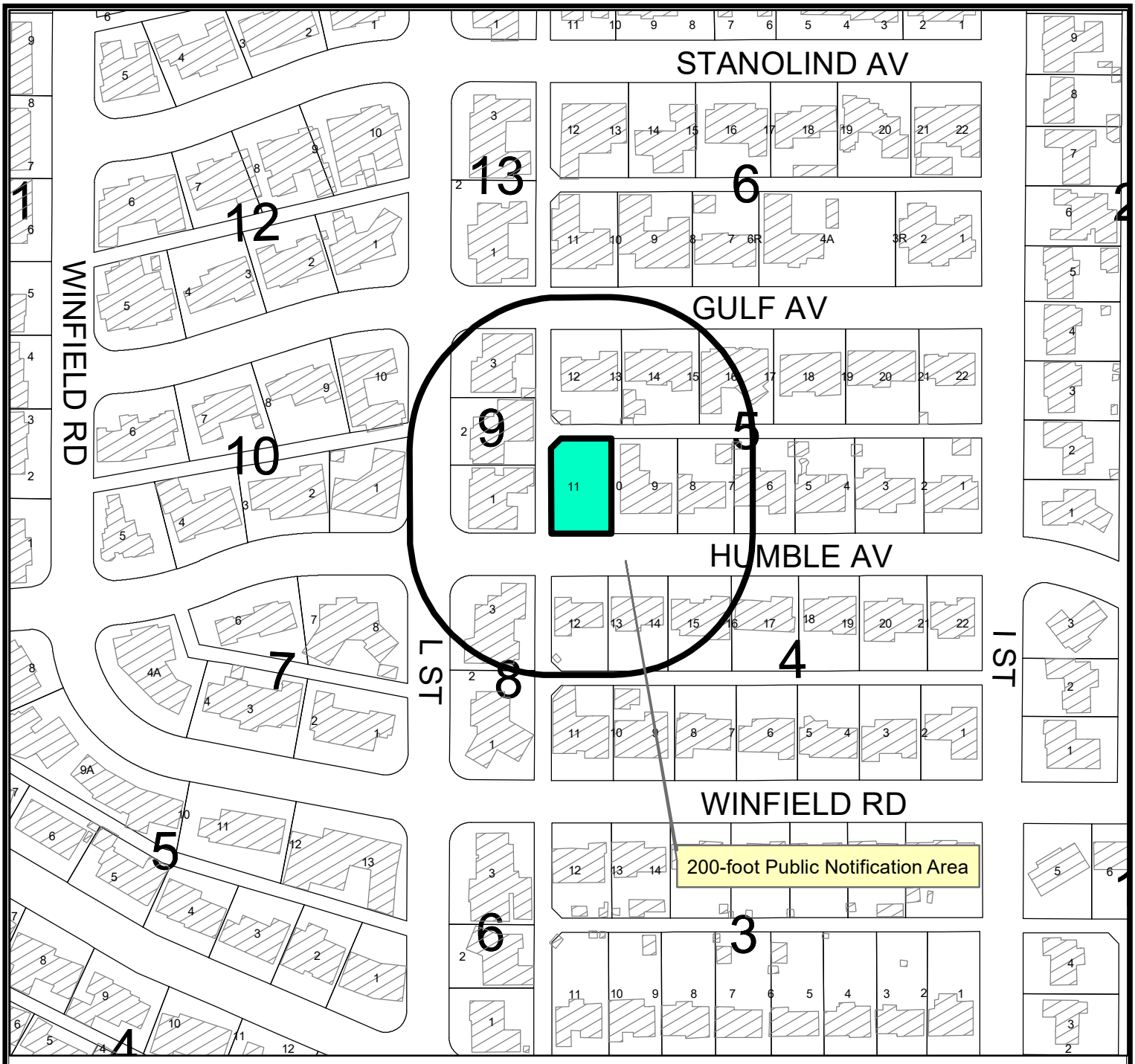
1612 HUMBLE AVENUE - SECOND FLOOR PLAN



1612 HUMBLE AVENUE - ELEVATIONS







LOCATION MAP

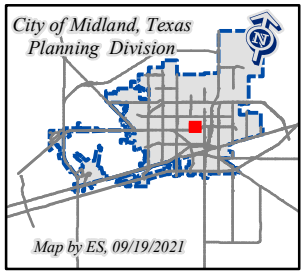
SUB-21-0458 **Scale: 1" = 200'**

Consider a request by Kristina Leigh for a Special Exception from the City of Midland Zoning Ordinance, Section 5.04 – Residential Zoning District Dimensional Regulations Chart, concerning the minimum side yard setbacks on Lot 11, Block 5, Avalon Addition, City and County of Midland, Texas.

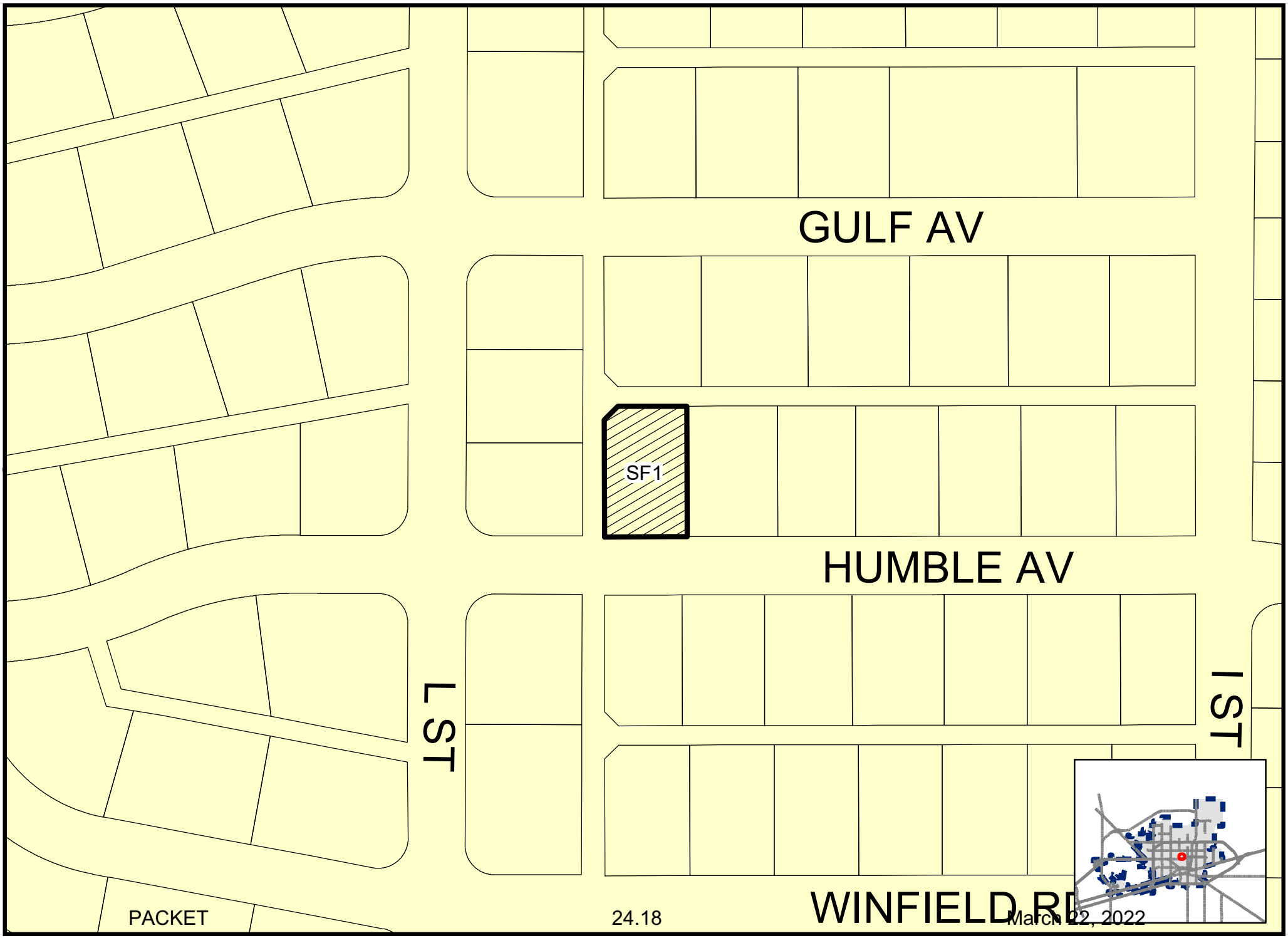
Generally located on the north side of Humble Avenue, approximately 145-feet east of north "L" Street - (Council District 3)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



PACKET 24.18 March 22, 2022

Map By ES, 2/2/2022

E-22-XXXX

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.








STOP



City Council Meeting

Item Number: 25

Meeting Date: February 22, 2022 (March 22, 2022)

To: City Council / City Manager

From: Gabe McClelland,

Subject: AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER 3, "FLOOD DAMAGE PREVENTION CODE", SO AS TO REVISE CERTAIN STANDARDS FOR CONSTRUCTION IN FLOOD HAZARD AREAS WITHIN THE CITY OF MIDLAND; SETTING FORTH VARIANCE AND APPEAL PROCEDURES; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; AND ORDERING PUBLICATION (DISTRICT: NONE) (ENGINEERING SERVICES)

Purpose:

Consider an ordinance amending Title XI, "Planning and Development", Chapter 3, "Flood Damage Prevention Code", so as to revise certain standards for construction in flood hazard areas within the City of Midland; setting forth variance and appeal procedures; providing for a maximum penalty or fine of two thousand dollars ($2,000.00); containing a cumulative clause; containing a savings and severability clause; and ordering publication.

Recommended City Council Action:

Approve

Fiscal Impact:

None

Discussion:

In 1990, the Federal Emergency Management Agency (FEMA) launched the Community Rating System (CRS). CRS is a part of the National Flood Insurance Program (NFIP) and

awards discounts on flood insurance premiums based on communities' efforts to mitigate flood damage. The CRS program is administered by the Insurance Services Office (ISO).

While meeting with the ISO's regional CRS Specialist, the City of Midland's Engineering staff learned that the City's Flood Damage Prevention Code should be amended to better address the placement of manufactured homes. The NFIP's State Coordinator provided a model ordinance for our possible use.

The proposed amendment has been approved by the Texas Water Development Board and the City of Midland's Development Services Department. In addition, this proposed amendment will help the City of Midland achieve a better CRS score and improve our chances of maximizing the possibility of flood insurance discounts. Therefore, for the reasons listed above, City of Midland Engineering Department recommends approval of the proposed amendment to Title XI, "Planning and Development", Chapter 3, Flood Damage Prevention Code".

Morris Williams Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE AMENDING TITLE XI, "PLANNING AND DEVELOPMENT", CHAPTER 3, "FLOOD DAMAGE PREVENTION CODE", SO AS TO REVISE CERTAIN STANDARDS FOR CONSTRUCTION IN FLOOD HAZARD AREAS WITHIN THE CITY OF MIDLAND; SETTING FORTH VARIANCE AND APPEAL PROCEDURES; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; AND ORDERING PUBLICATION

WHEREAS, the City Council finds it to be in the public interest to make certain amendments to the Midland City Code regarding the regulation of flood hazard areas; and

WHEREAS, in Section 16.315 of the Texas Water Code, the Legislature of the State of Texas has authorized all political subdivisions to take all necessary and reasonable actions that are not less stringent than the requirements and criteria of the National Flood Insurance Program in order to minimize flood losses; and

WHEREAS, the City Council finds that flood hazard areas within the City of Midland are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare; and

WHEREAS, the City Council finds that flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed, or otherwise protected from flood damage; and

WHEREAS, the City Council finds that the public health, safety, and general welfare will be best served by such amendments;

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

SECTION ONE. That the recitals stated above are hereby adopted, approved, and incorporated herein for all purposes.

SECTION TWO. That the Midland City Code Title XI, "Planning and Development", Chapter 3, "Flood Damage Prevention Code", shall hereby be amended to read in its entirety as follows:

11-3-1. DEFINITIONS.

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

Alluvial fan flooding: Flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Apex: A point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

Appurtenant structure: A structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

Area of future conditions flood hazard: The land area that would be inundated by the 1-percent-annual chance (100 year) flood based on future conditions hydrology.

Area of shallow flooding: A designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood hazard: The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate-making has been completed in preparation for publication of the Flood Insurance Rate Map (FIRM), Zone A usually is refined into Zones A, AE, AH, AO, A1-30, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V.

Base flood: The flood having a one percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE): The elevation shown on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a 1% chance of equaling or exceeding that level in any given year; also called the "*base flood*."

Basement: Any area of the building having its floor subgrade (below ground level) on all sides.

Breakaway wall: A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Critical feature: An integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

Development: Any manmade change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Elevated building: For insurance purposes, a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Existing construction: For the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the Flood Insurance Rate Map (FIRM). "Existing construction" may also be referred to as "*existing structures*."

Existing manufactured home park or subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Expansion to an existing manufactured home park or subdivision: The preparation of additional sites by the construction of facilities for serving the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from:

(A) the overflow of inland or tidal waters; or

(B) the unusual and rapid accumulation or runoff of surface water from any source.

Flood elevation study: An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Flood Insurance Rate Map (FIRM): An official map of a community, on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

Flood Insurance Study (FIS): See *flood elevation study*.

Flood protection system: Those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the areas within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood-modifying works are those constructed in conformance with sound engineering standards.

Floodplain or floodprone area: Any land area susceptible to being inundated by water from any source; see *flooding*.

Floodplain management: The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Floodplain management regulations: Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway: See *regulatory floodway*.

Functionally dependent use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and shipbuilding and ship repair facilities, but does not include longterm storage or related manufacturing facilities.

Highest adjacent grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure: Any structure that is:

(A) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(B) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(C) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(D) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior; or

(2) Directly by the Secretary of the Interior in states without approved programs.

Levee: A manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee system: A flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Lowest floor: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of Section 60.3 of the National Flood Insurance Program regulations.

Manufactured home: A structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

Manufactured home park or subdivision: A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean sea level: For purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

New construction: For the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

Recreational vehicle: A vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizonal projections; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Riverine: Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Special flood hazard area: See *area of special flood hazard*.

Start of construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)): Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, or any work beyond the state of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

Substantial damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

(2) Any alteration of a "historic structure", provided that the alterations will not preclude the structure's continued designation as a "historic structure."

Variance: A grant of relief by a community from the terms of a floodplain management regulation. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)

Violation: The failure of a structure or other development to be fully compliant with the City's floodplain management regulations. A structure or other development without the elevation certificate, other certification, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Water surface elevation: The height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

11-3-2. PURPOSE.

It is the purpose of this Chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(A) Protect human life and health;

(B) Minimize expenditure of public money for costly flood control projects;

(C) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(D) Minimize prolonged business interruptions;

(E) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

(F) Help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize future flood blight areas; and

(G) Insure that potential buyers are notified that property is in a flood area.

11-3-3. ABROGATION AND GREATER RESTRICTIONS.

These regulations are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where these regulations and another code, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

11-3-4. ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT.

A Floodplain Development Permit shall be required to ensure conformance with the provisions of this Chapter.

11-3-5. ADMINISTRATION.

(A) *Designation of the Floodplain Administrator*. The City Engineer is hereby appointed the Floodplain Administrator to administer and implement the provisions of this Chapter and other appropriate sections of 44 CFR (the National Flood Insurance Program Regulations) pertaining to floodplain management. The term "Floodplain Administrator" also includes the City Engineer's designee or designees to whom any of the herein-described duties and responsibilities are delegated.

(B) *Duties and responsibilities of the Floodplain Administrator*. Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

1. Maintain and hold open for public inspection all records pertaining to the provisions of this Chapter.

2. Review permit applications to ensure that the proposed building site or project, including the placement of manufactured homes, will be reasonably safe from flooding.

3. Review, approve or deny all applications for Floodplain Development Permits required by adoption of this Chapter.

4. Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 USC 1334) from which prior approval is required.

5. Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual

field conditions) the Floodplain Administrator shall make the necessary interpretation.

6. Notify, in riverine situations, adjacent communities and the State coordinating agencies, which are the Texas Water Development Board (TWDB) and the Texas Commission on Environmental Quality (TCEQ), prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

7. Assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.

8. When Base Flood Elevation data has not been provided in accordance with Section 11-3-10 of this Code, the Floodplain Administrator shall obtain, review and reasonably utilize any Base Flood Elevation data and floodway data available from a Federal, State, or other source, for administration of the provisions of Sections 11-2-5(A), 11-2-5(D), and 11-3-12 of this Code. The Floodplain Administrator shall determine or require determination of a Base Flood Elevation acceptable for rating flood insurance for every proposed structure in Zone A on the community's FIRM, and maintain a record of such determinations for use on nearby properties, as applicable.

9. When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than 0.1 foot at any point within the community. All proposed development must be in compliance with other City-adopted standards, which may impose stricter conditions.

10. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program regulations, a community may approve certain development in Zones A1-30, AE, and AH on the community's FIRM which increases the water surface elevation of the base flood by more than one foot provided that the community first completes all of the provisions required by Section 65.12.

(C) *Permit procedures*.

1. Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but is not limited to, plans in duplicate drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

(a) Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new or substantially improved structures.

(b) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed.

(c) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Section 11-3-12(B)2 of this Code.

(d) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

(e) Maintain a record of all such information in accordance with Section 11-3-5(B)1 of this Code.

2. Approval or denial of a Floodplain Development Permit by the Flooplain Administrator shall be based on all of the provisions of this Chapter and the following relevant factors:

(a) The danger to life and property due to flooding or erosion damage.

(b) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(c) The danger that materials may be swept onto other lands to the injury of others.

(d) The compatibility of the proposed use with existing and anticipated development.

(e) The safety of access to the property in times of flood for ordinary and emergency vehicles.

(f) The costs of providing governmental services during and after flood conditions, including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems.

(g) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site.

(h) The necessity to the facility of a waterfront location, where applicable.

(i) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

(j) The relationship of the proposed use to the Comprehensive Plan for that area.

11-3-6. METHODS OF REDUCING FLOOD LOSSES.

In order to accomplish its purpose, this Chapter uses the following methods:

(A) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities.

(B) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(C) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters.

(D) Control filling, grading, dredging and other development which may increase flood damage.

(E) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

11-3-7. INTERPRETATION GENERALLY.

In the interpretation and application of this Chapter, all provisions shall be:

(A) considered as minimum requirements;

(B) liberally construed in favor of the governing body; and

(C) deemed neither to limit nor repeal any other powers granted under State statutes.

11-3-8. COMPLIANCE.

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this Chapter and other applicable regulations.

11-3-9. LANDS TO WHICH THIS CHAPTER APPLIES.

This Chapter shall apply to all areas of special flood hazard within the jurisdiction of the City of Midland, Texas.

11-3-10. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled "Flood Insurance Study for Midland County, Texas, and Incorporated Areas," dated September 16,

2005, with accompanying Flood Insurance Rate Maps (FIRM) dated September 16, 2005, and any revisions thereto, are hereby adopted by reference and declared to be a part of this Chapter.

11-3-11. WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions, greater floods can and will occur, and flood heights may be increased by manmade or natural causes. This Chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of the City of Midland, Texas, or any official or employee thereof, for any flood damages that result from reliance on this Code or any administrative decision lawfully made thereunder.

11-3-12. PROVISIONS FOR FLOOD HAZARD REDUCTION.

(A) *General standards*. In all areas of special flood hazards, the following provisions are required for all new construction and substantial improvements:

1. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

2. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.

3. All new construction or substantial improvements shall be constructed with material resistant to flood damage.

4. All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, air conditioning equipment, and other mechanical service facilities at least one foot above the base flood elevation.

5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into flood waters.

7. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(B) *Specific standards*. In all areas of special flood hazards where Base Flood Elevation data has been provided as set forth in Section 11-2-5(D), 11-3-5(B)8, 11-3-10, or 11-3-12(C)3, the following provisions are required. Where no Base Flood Elevation data has been provided, the Floodplain Administrator shall establish or require the builder to establish a Base Flood

Elevation for the site, using methods that will be acceptable for rating of flood insurance, and the following provisions are required:

1. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to at least one foot above Base Flood Elevation. The Floodplain Administrator can approve a reduction of up to one foot in the lowest floor elevation, as specified in Section 11-3-12(B)7. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection, as specified in Section 11-3-5(C)1(a), is satisfied, prior to the foundation inspection approval by the building official.

2. Nonresidential Construction. New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to at least one foot above the base flood level or, together with attendant utility and sanitary facilities, be designed so that below an elevation of one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. The Floodplain Administrator can approve a reduction of up to one foot in the lowest floor elevation and floodproofing elevation, as specified in Section 11-3-12(B)7. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection prior to final approval of the utilities inspection of the utilities department. A record of such certification, which shall include the specific elevation (in relation to mean sea level) to which such structures are floodproofed, shall be maintained by the Floodplain Administrator.

3. Enclosures. New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding, such as crawlspaces and garages with floors below the BFE, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

   (a) A minimum of two openings on separate walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

   (b) The bottom of all openings shall be no higher than one foot above grade.

(c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

4. Manufactured Homes.

(a) Require that all manufactured homes to be placed within Zone A of a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purpose of this requirement, manufactured homes must be elevated with the bottom of the steel frame one foot above an estimated BFE determined as described in 11-3-5(B)8 and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the bottom of the steel frame of the manufactured home is elevated to at least one foot above the Base Flood Elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement. The Floodplain Administrator can approve a reduction of up to one foot in the lowest steel frame elevation, as specified in Section 11-3-12(B)7.

(c) Require that manufactured homes being placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4)(b) of this section be elevated so that the bottom of the steel frame of the manufactured home is at least one foot above the Base Flood Elevation.

5. Recreational Vehicles. Require that recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM either (i) be on the site for fewer than 180 consecutive days, (ii) be fully licensed and ready for highway use, or (iii) meet the permit requirements of Section 11-3-5(C)1, and the elevation and anchoring requirements for "manufactured homes" in paragraph (4) of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

6. Electrical and Mechanical Service Facilities. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other mechanical service facilities must be designed and located at least one foot above the base flood elevation to prevent water from entering or accumulating in the components during flooding.

7. The Floodplain Administrator is authorized to approve a reduction of up to one foot in the lowest floor elevation, steel frame elevation for manufactured homes or floodproofing elevation required by the sections above. This approval shall not be granted for reasons of cost savings alone, but must be justified by other factors which, in the opinion of the Floodplain Administrator, offset the reduction in flood protection for the structure. Any request for a lowest floor elevation, steel frame elevation or floodproofing elevation below the Base Flood Elevation shall be considered as a variance as described in Section 11-3-13.

(C) *Standards for subdivision proposals*.

1. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall be consistent with Sections 11-3-2 and 11-3-6 of this code.

2. All proposals for the development of subdivisions, including the placement of manufactured home parks and subdivisions, shall meet Floodplain Development Permit requirements of Sections 11-3-5(C) and 11-3-12 of this code.

3. Base Flood Elevation data shall be generated by hydrologic and hydraulic analyses performed by a registered professional engineer for subdivision proposals and other proposed developments, including the placement of manufactured home parks and subdivisions, if not otherwise provided pursuant to Sections 11-3-10 and 11-3-5(B)8 of this code.

   For all new subdivision proposals and other proposed developments, including proposals for manufactured home parks and subdivisions, that are equal to or greater than 6 lots or 2 acres, whichever is the lesser, the registered professional engineer shall determine the regulatory floodway based on a one foot rise in BFE using standard engineering methods and practices, if not otherwise provided pursuant to Sections 11-3-10 and 11-3-5(B)9 of this Code.

4. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.

5. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

(D) *Standards for areas of shallow flooding (AO / AH Zones)*. Located within areas of special flood hazard established in Section 11-3-10 are areas designated as areas of shallow flooding. These areas have special flood hazards associated with flood depths of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

1. All new construction and substantial improvements of residential structures shall have the lowest floor (including basement) elevated to at least one foot above the Base Flood Elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified).

2. All new construction and substantial improvements of non-residential structures shall:

   (a) have the lowest floor (including basement) elevated to at least one foot above the Base Food Elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified); or

   (b) together with attendant utility and sanitary facilities be designed so that below the base specified flood depth in an AO Zone, or below at least one foot above the Base Flood Elevation in an AH Zone, the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.

3. A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this Section, as proposed in Section 11-3-5(C) are satisfied.

4. Require within Zones AH or AO adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

(E) *Floodways*. Located within areas of special flood hazard established in Section 11-3-10 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

1. Encroachments are prohibited, including fill, new construction, substantial improvements and other development, within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

2. If Section 11-3-12(E)1 above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 11-3-12.

3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Program Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first completes all of the provisions required by Section 65.12.

11-3-13. VARIANCE AND APPEAL PROCEDURES.

(A) The City Council shall hear and render judgment on requests for variances from the requirements of this Chapter.

(B) The City Council shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this Chapter.

(C) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

(D) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this Chapter.

(E) Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section 11-3-5(C)2 of this Code have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

(F) Upon consideration of the factors noted above and the intent of this Chapter, the City Council may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this Chapter.

(G) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(H) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(I) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria outlined in this Section are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

11-3-14. PREREQUISITES FOR GRANTING VARIANCES.

(A) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(B) Variances shall only be issued upon: (i) showing a good and sufficient cause; (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(C) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

11-3-15. PENALTY.

A violation of a provision of this Chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor punishable by a fine in an amount not to exceed two thousand dollars ($2,000.00). Each day on which the violation shall exist shall constitute a separate and distinct offense. Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation.

SECTION THREE. The provisions of any ordinance which are 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) pursuant to State law.

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:

_____
Morris Williams, Jr., Deputy City Manager

_____
Jose Ortiz, Engineering Services Director

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

City Council Meeting

Item Number: 26

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Justin Smith, Planner

Subject: **AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 6,924-SQUARE FOOT PORTION OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF TREMONT AVENUE AND NORTH LOOP 250 WEST), 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 1) (DEVELOPMENT SERVICES)**

Purpose:

The applicant, Tkilaz, is requesting a Specific Use Designation with term for the sale of alcoholic beverages for on-premises consumption in a restaurant located at 3322 N Loop 250, City and County of Midland, Texas, 79707.

Recommended City Council Action:

☒ Approve ☐ Deny ☐ Direction/Informational

Current Zoning:

RR, Regional Retail District.

Fiscal Impact:

This proposal does not have a significant financial impact to the City.

Surrounding Zoning and Land Use:

The property is located at 3322 N Loop 250 W Frontage Road and is zoned, RR, Regional Retail District. The location is currently vacant but has been the location of a few restaurants in the past. The property to north is zoned PD, Planned Development District for a hotel and shopping center. The property to the East is zoned RR and is the location of Academy. The property to the South is zoned RR and is the location of a car wash. The property in the West, on the opposite side of Loop 250, is zoned PD, Planned Development District, for a shopping center and is the location of retail stores.

Analysis:

Gomca Family Restaurants LLC, the company that operates Tkilaz, is requesting a Specific Use Designation to be able to sell alcoholic beverages for on premises consumption, within a restaurant. The property is zoned RR, Regional Retail District, which allows for the sale and on-premises consumption of alcoholic beverages with the approval of a Specific Use Designation.

The building currently was broken up into three separate suites but will be one suite for Tkilaz. This property currently has two Specific Use Designations with Term, the first is Ordinance Number 8902 for Tavistock Freebirds, who has now closed. The establishment had alcohol serviceable hours of 11:00 a.m. to 10:00 p.m. from Sunday through Thursday; and 11:00 a.m. to 10:30 p.m., Friday and Saturday. The second is Ordinance Number 10105 for La Jaiba, which has recently closed. The establishment had alcohol serviceable hours of 12:00 p.m. (noon) to 10:00 p.m. on Sunday; and 11:00 a.m. to 10:00 p.m., Monday through Saturday.

Tkilaz currently has another location in operation and has a Specific Use Designation for that location 4610 N Garfield St C1 (Ordinance Number 9835). This will be a second Tkilaz location in Midland. The floor plan attached hereto as “Exhibit A” illustrates that the establishment will have a total square footage of 6,924 square feet, with an alcohol serviceable area of 3,935 square feet. The site currently has adequate parking and restroom facilities.

The restaurant will have the following hours of operation:

Monday through Sunday: 8:00 a.m. to 12:00 a.m. (Midnight)

The restaurant will have the following hours of alcohol service:

Monday through Sunday: 8:00 a.m. to 12:00 a.m. (Midnight)

Per Midland City Code 5.4.4. –Prohibited place of business

The sale of any alcoholic beverage is hereby prohibited by any person, where the place of

business of any such dealer is within 300 feet of any church, public-school, public-school ground, athletic stadium used by any public school or public hospital, the measurements to be along the property lines of the street fronts and from front door to front door and in a direct line across intersections where they occur.

There are no churches or schools within 300 feet of the property.

This project has been circulated to all City departments for review. Below are the department comments.

Building Code: (Approved)

The SUD for Tkilaz is acceptable. The property must adhere to the maximum occupant load of 271. Occupancy loads must be posted in accordance with section 1004.3 of the 2015 International Fire Code.

Oil and Gas: (Approved)

No objections.

Engineering: (Approved)

No objection.

Fire: (Approved)

No objections.

Transportation: (Approved with Conditions)

No objections.

Planning:

The request is in compliance with 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) Tkilaz's will create a sophisticated atmosphere where Midland Residents can relax and enjoy drinks with their meal.

This request was recommended for approval at the March 7, 2022, Planning and Zoning Commission meeting.

This request meets all requirements; therefore, staff recommends approval of a Specific Use Designation with Term for the sale of all alcoholic beverages, for on-premises consumption, in a restaurant, subject to Conditions A through G.

Conditions:

A. **That the alcoholic serviceable area of the restaurant shall be limited to approximately 3,935 square feet as shown in Exhibit "B", 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 Sunday: 8:00 a.m. to 12:00 a.m. (Midnight)

C. **That 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 restaurant shall be in operation within 120 days from the final adoption date of this ordinance.**

Letters of Objection:

As of March 16, 2022, staff has not received any letters of objections.

Attachments:

Application
Site Plan (Exhibit A)
Floor Plan (Exhibit B)
Maps
Ordinance 8902
Ordinance 10105

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 A 6,924-SQUARE FOOT PORTION OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF TREMONT AVENUE AND NORTH LOOP 250 WEST), 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 a 6,924-square foot portion of Lot 23B, Block 40, Fairmont Park Addition, Section 39, 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 3,935 square feet as shown in Exhibit "A", which is attached hereto and incorporated herein for all purposes.

B. That the sale and on-premises consumption of alcoholic beverages shall conform to all applicable state and local laws.

C. That the days and hours of alcoholic beverage sales and consumption shall be limited to Monday through Sunday from 8:00 a.m. to 12:00 a.m. (midnight).

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:

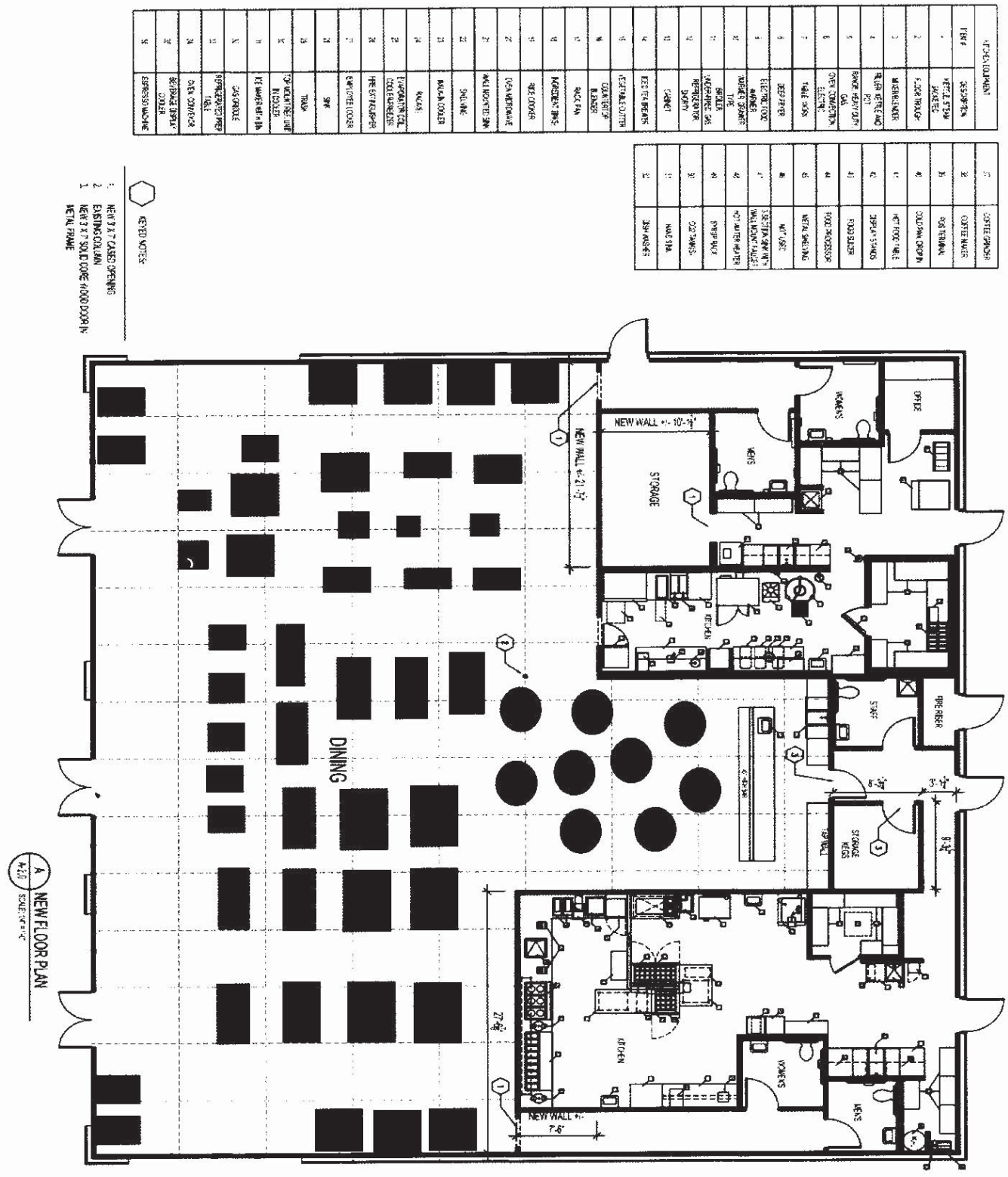
_____
Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney



1	PRELIMINARY PLANS	01/07/22

TKILAZ RESTAURANT
3322 NORTH LOOP 250 WEST
MIDLAND, TEXAS

A-2.0

DCI

MIDLAND Planning Division

Specific Use Designation Application (Non-Alcohol)

Case Number SUD-22-0124

Ord. Number _____

Applicant *(if acting as Agent, see affidavit on page 2)* Printed Name Green Family Restaurants, LLC		Phone ( ) Email	
Address 4612 N Garfield St, Ste C2	City Midland	State TX	Zip 79705

Property Owner Printed Name: RAAS Texas Ventures, LLC		Phone (972) 465-8400 Email info@realspacetexas.com	
Address c/o RealSpace, 3990 East Side Avenue	City Dallas	State TX	Zip 76065

Representative *(if different from Applicant or Property Owner)* Firm: _____ Printed Name:		Phone ( ) Email	
Address	City	State	Zip

Type of Permit: *For Office Use Only* ☐ with Term ☐ without Term

Is there any Code Enforcement action pending on property? ☐ Yes ☐ No

Street Address: 3322 N Loop 250 W Midland, Tx 79707

Legal Description
Lot: 23B Block: 040 Subdivision: Fairmont Park

Current Zoning: RR

Maximum Floor Area: 6,924 sq ft **Maximum Occupancy:** 271

Proposed hours and days of use or operation: Monday - Sunday 8:00am - 12:00pm

Reason for request: _____

Applicant's opinion as to why the request will not adversely affect the public safety, health, morals, general welfare, and convenience: _____

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)

RECEIVED
JAN 13 2022
CF

Signatures

Applicant (signature) _____ Date _____

Applicant (printed) Francisco Gomez Castellanos

Property Owner (signature) _____ Date 1-12-22

Property Owner (printed) Jason Morahan, authorized agent

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 Jason Morahan who, being by me duly sworn, upon oath says That (s)he is authorized by RAAS Texas Ventures, LLC 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 12th day of January 2022, to certify which witness my hand and seal of office.

BEATRICE ALVAREZ
Notary ID #133161111
My Commission Expires
June 16, 2025

Beatrice Alvarez

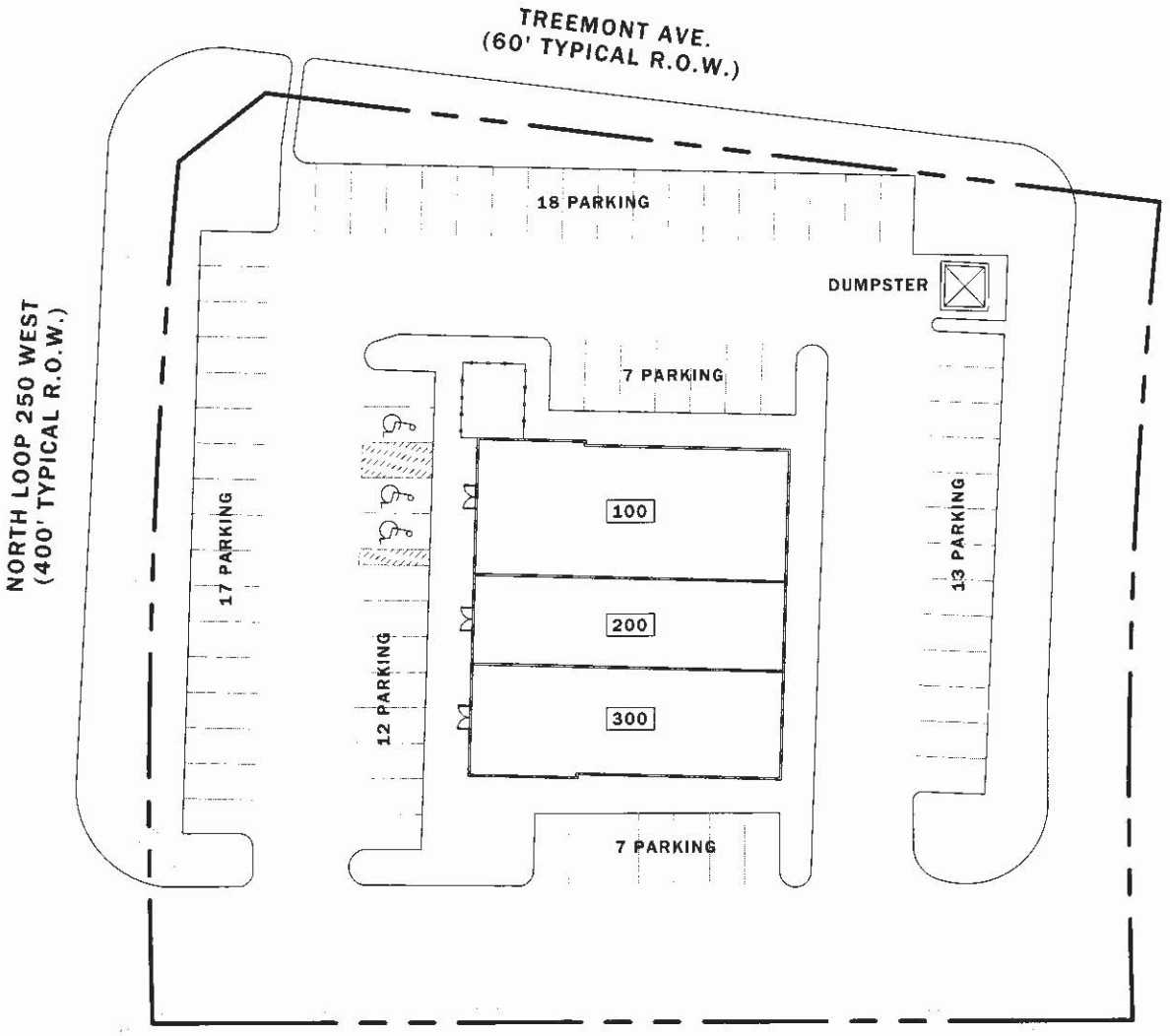
NOTARY PUBLIC, ~~MIDLAND~~ DALLAS COUNTY, TEXAS

FOR OFFICE USE ONLY

- ☑ Property Owner Authorization
- ☑ Application Fee 1335 Check # _____
- ☑ Dimensioned Site Plan
- ☑ Site Plan in Digital Format (PDF/JPEG)

Received By _____ Date 1-13-21

"Application will not be considered for scheduling until reviewed by a planner."



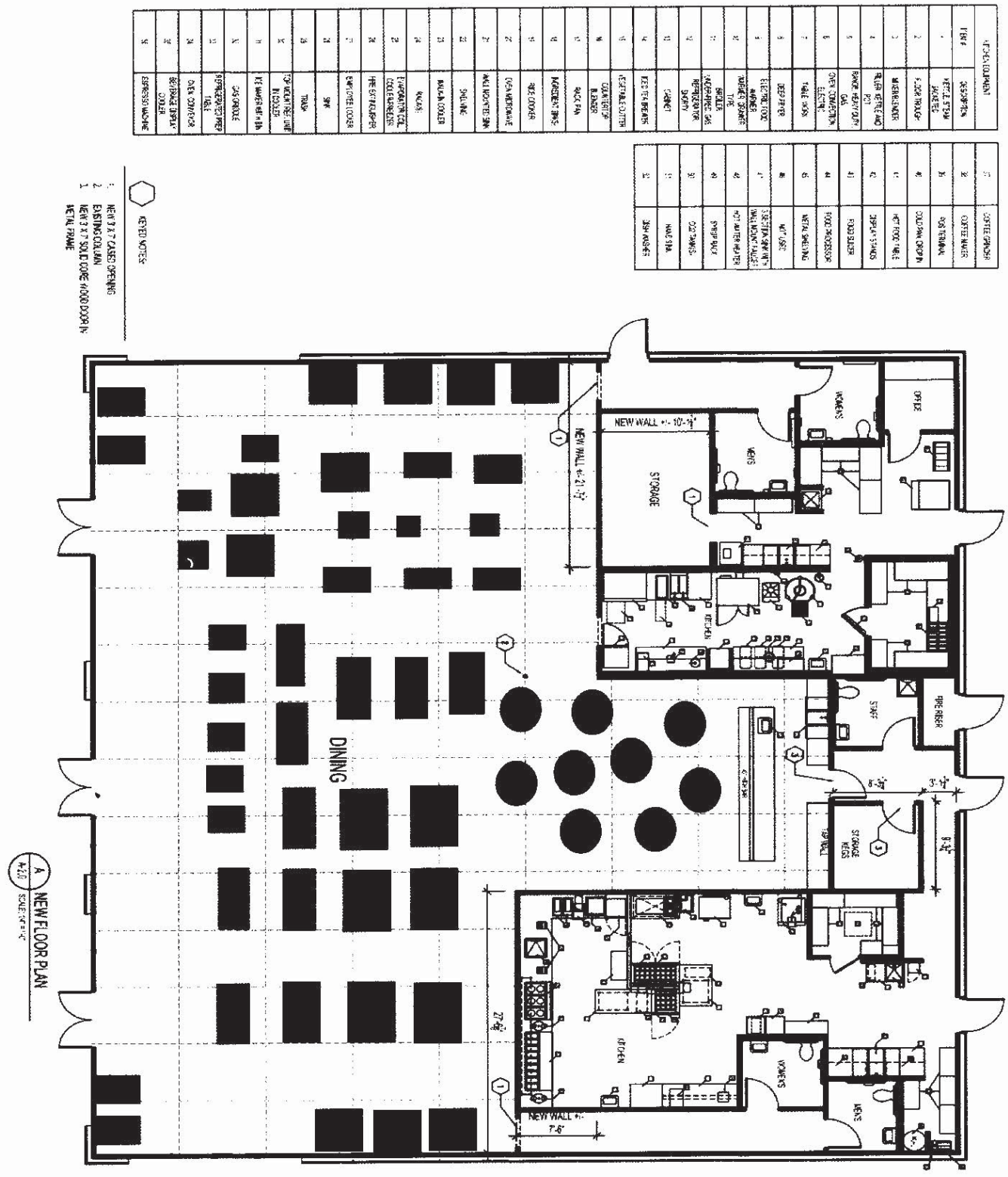
SITE PLAN

N

MIDLAND MARKET PLACE
3322 NORTH LOOP 250 WEST | MIDLAND, TX 79707

SCALE: 1" = 30'-0"
SHEET SIZE: 11" x 17"

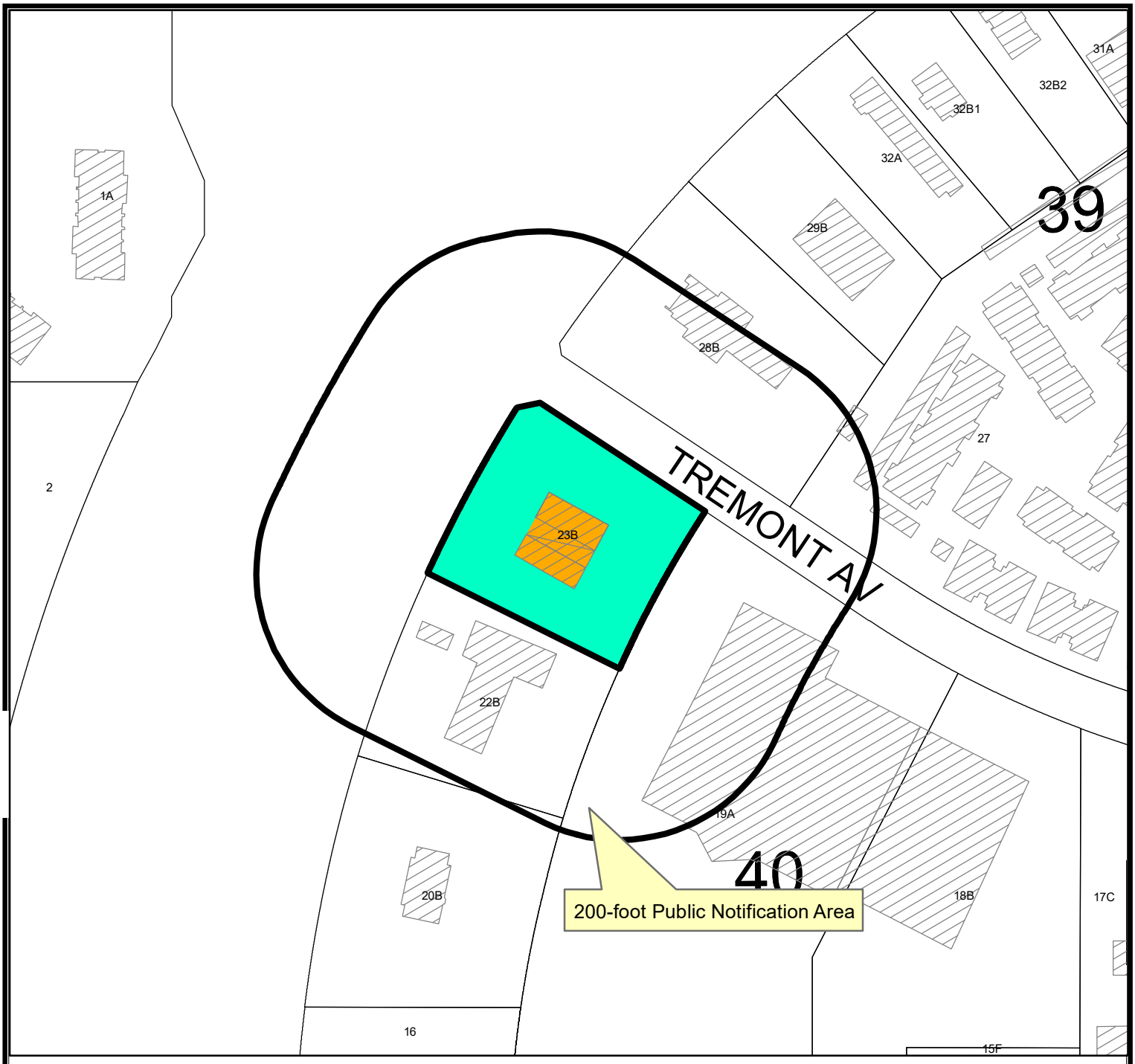
REALSPACE
3990 EAST SIDE AVENUE | DALLAS, TX 75226
(972) 465-8400 MAIN | (972) 767-5122 FAX



	PRELIMINARY PLANS	01/07/22

TKILAZ RESTAURANT
3322 NORTH LOOP 250 WEST
MIDLAND, TEXAS

A-2.0



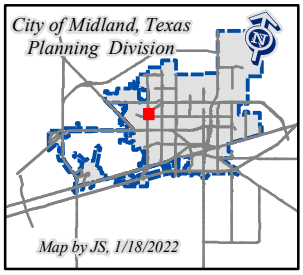
LOCATION MAP

SUD-22-0124 **Scale: 1" = 2000'**

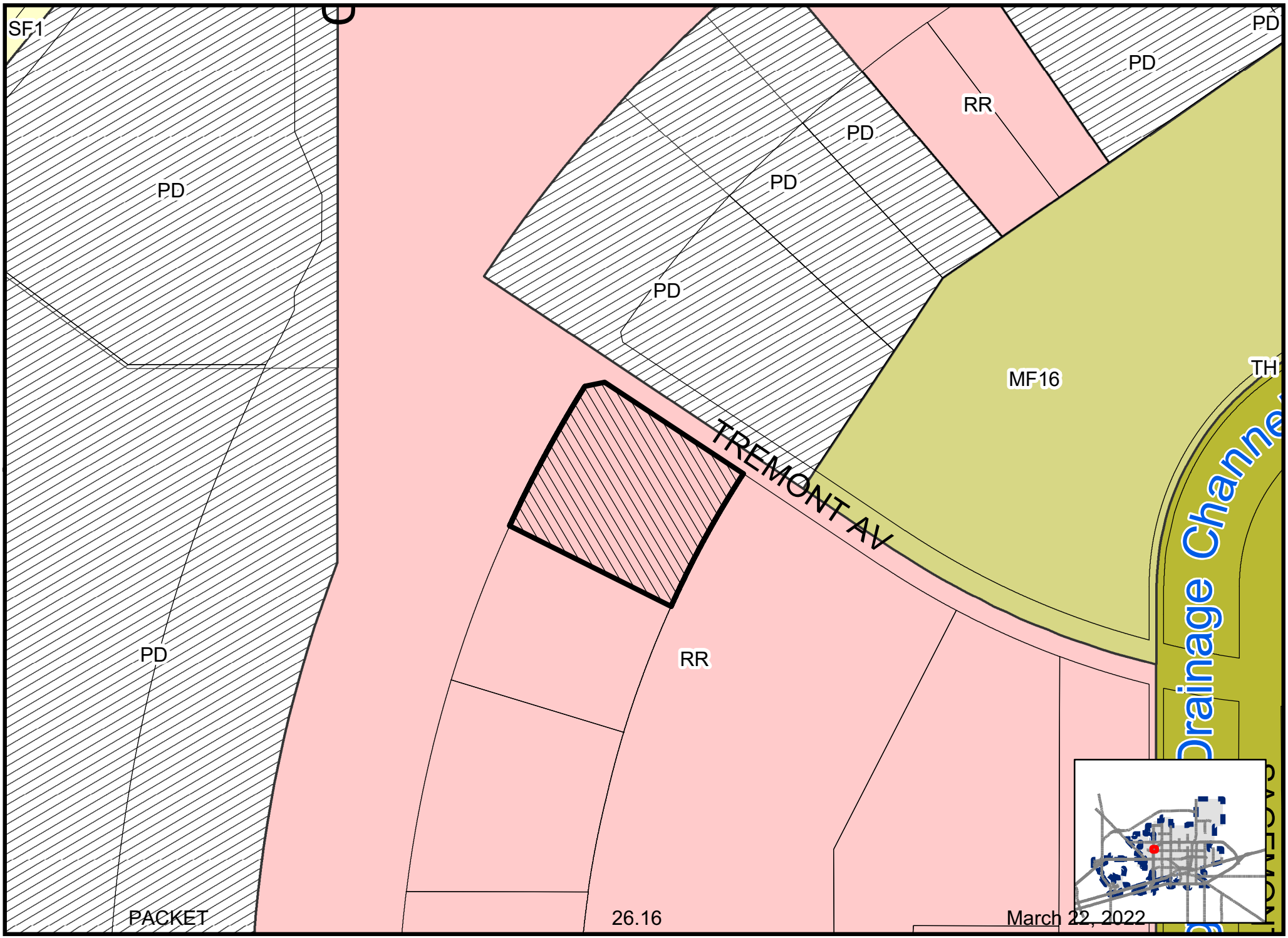
Consider a request by Tkilaz, for a Specific Use Designation with Term for the sale of all alcoholic beverages for on-premises consumption, in a restaurant, on a 6,924 square foot portion of Lot 23B, Block 40, Fairmont Park, Section 39, City and County of Midland, Texas.
Generally located on the Southeast corner of the intersection of Tremont Avenue and N Loop 250 W Frontage road. (Council District 1)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



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THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



Map By ES, 1/18/2022

SUD-22-0124

Scale: 1" = 2000'

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.


La Jalisa
MEXICAN GRILL & SEAFOOD
RESTAURANT
completenutrition
verizon
Mortgage Center
ONLY


La Jalba
RESTAURANT
MEXICAN GRILL & SEAFOOD
MEXICAN RESTAURANT


WRONG
WAY



ORDINANCE NO. 10105

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF MIDLAND TO GRANT A SPECIFIC USE DESIGNATION WITH TERM FOR A 2,233-SQUARE FOOT PORTION OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE SOUTHEAST CORNER OF THE INTERSECTION OF NORTH LOOP 250 WEST AND TREMONT AVENUE), 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 a 2,233-square foot portion of Lot 23B, Block 40, Fairmont Park Addition, Section 39, 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 for on-premises consumption in a restaurant (the "Establishment"), 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 1,303 contiguous square feet as shown in Exhibits "A" and "B", which are 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 Saturday from 11:00 a.m. to 10:00 p.m.; and
Sunday from 12:00 p.m. (noon) to 10:00 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 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 11th day of August, A.D., 2020; and passed to second reading on motion of Council member Ladd, seconded by Council member Trost, by the following vote:

Council members voting "AYE": Blong, Trost, Robnett, Dufford, Ladd, Norman

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Blong, seconded by Council member Robnett, on the 25th day of August, A.D., 2020, at a regular meeting of the City Council:

Council members voting "AYE": Blong, Trost, Robnett, Payton, Dufford, Ladd, Norman

Council members voting "NAY": None

PASSED AND APPROVED THIS 25th day of August, A.D., 2020.

Patrick N. Payton, Mayor

ATTEST:

Amy M. Turner, City Secretary

APPROVED AS TO CONTENT
AND COMPLETENESS:

Robert Patrick, Assistant City Manager

Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

John Ohlemiller, City Attorney

ORDINANCE NO. 8902

AN ORDINANCE CHANGING THE ZONING USE CLASSIFICATION OF THE PROPERTY DESCRIBED AS 3,040 SQUARE FEET OUT OF LOT 23B, BLOCK 40, FAIRMONT PARK ADDITION, SECTION 39, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTHEAST CORNER OF THE INTERSECTION OF WEST LOOP 250 AND TREMONT AVENUE), WHICH IS PRESENTLY ZONED LR-2, LOCAL RETAIL DISTRICT, BY PERMITTING SAID PROPERTY TO BE USED UNDER A SPECIFIC USE PERMIT WITH TERM FOR THE SALE OF ALL ALCOHOLIC BEVERAGES IN A RESTAURANT FOR ON-PREMISES CONSUMPTION; MAKING SAID PERMIT 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 and the State law with reference to the granting of specific use permits under the zoning ordinance regulations and zoning map, 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 the granting of a Specific Use Permit With Term, set out hereinafter, on the property described in Section One hereof;

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

SECTION ONE. That the zoning use classification of the following described property, which is presently zoned LR-2, Local Retail District, to-wit:

> 3,040 square feet out of Lot 23B, Block 40, Fairmont Park Addition, Section 39, City and County of Midland, Texas;

is hereby changed to permit said property to be used under a Specific Use Permit With Term for the sale of all alcoholic beverages for on-premises consumption in a restaurant, together

with the uses permitted in the present LR-2, Local Retail District.

SECTION TWO. That said property shall be subject to the following conditions and restrictions:

1. That the use and development of this property shall conform in all respects to the site plans attached hereto as Exhibits "A" and "B" and incorporated herein for all purposes.

2. That the maximum seating capacity shall not exceed the lesser of 84 persons or the maximum seating established by the City of Midland Fire Code and/or Building Code.

3. That the maximum floor area of the restaurant shall not exceed 2,700 contiguous square feet indoors and 350 contiguous square feet outdoors.

4. That the sale of alcoholic beverages for on-premises consumption shall comply with Section 11-1-10(C)(1)(a) of the Midland City Code.

5. That alcoholic beverages may be sold only during the hours of 11:00 a.m. to 10:00 p.m., Sunday through Thursday, and 11:00 a.m. to 10:30 p.m., Friday and Saturday, unless otherwise prohibited by state law.

6. That necessary permits, inspections and approvals shall be obtained from the Building Official and Fire Marshal prior to occupancy under the terms 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 14th day of June, A.D., 2011; and passed to second reading on motion of Council member Morales, seconded by Council member Trost, by the following vote:

Council members voting "AYE": Morales, Trost, Hailey, Perry, James and Sparks

Council members voting "NAY": None

The above and foregoing ordinance was read in full and finally adopted by the following vote upon motion of Council member Morales, seconded by Council member James, on the 12th day of July, A.D., 2011, at a regular meeting of the City Council:

Council members voting "AYE": Morales, Trost, Hailey and James

Council members voting "NAY": None

PASSED AND APPROVED THIS 12th day of July, A.D., 2011.

W. Wesley Perry, Mayor

Mayor pro tem for

ATTEST:

Amy M. Turner, City Secretary

APPROVED AS TO FORM:

Keith Stretcher, City Attorney

City Council Meeting

Item Number: 27

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Ron Jenkins, Oil and Gas Coordinator

Subject: **The proposed granting of oil and gas well permits to Permian Deep Rock Oil Co., LLC for the drilling of the following oil and gas wells: Rebel #H130LS; Rebel #H130WB; Rebel #H135WA; Rebel #H140WB; Rebel #H145LS; Rebel #H145UH; Rebel #H145WA; Rebel #H150WB; Rebel #H155WA; Rebel #H160LS; and Rebel #160WB; said wells being generally located between 231 feet and 2,392 feet west of South Lamesa Road and between 150 feet and 170 feet south of I-20. (DISTRICT 2) (DEVELOPMENT SERVICES)**

Purpose:

The proposed granting of an oil and gas well permit to Permian Deep Rock Oil Co., LLC for the drilling of the following oil and gas wells: Rebel #H130LS; Rebel #H130WB; Rebel #H135WA; Rebel #H140WB; Rebel #H145LS; Rebel #H145UH; Rebel #H145WA; Rebel #H150WB; Rebel #H155WA; Rebel #H160LS; and Rebel #160WB; said wells being generally located between 231 feet and 2,392 feet west of South Lamesa Road and between 150 feet and 170 feet south of I-20. Council may consider this permit following a 30-day public comment period and at a regularly scheduled meeting. No notices of objection received

Recommended City Council Action:

Directional / Informational

Fiscal Impact:

There is no cost to the City to process this application.

Discussion:

The Oil and Gas Advisory Committee has reviewed the well site in detail and recommends approval with updated exhibits. A 16 ft. tall and 160 ft. long sound wall will be used during

drilling and completion operations being located on the North perimeter of location. The tank battery will be in the county. The operator has a surface agreement with the surface owner. Receiving support of the Oil & Gas Advisory Committee, Permian Deep Rock Oil is requesting the following variances:

(1) Permian Deep Rock Oil Company requests a variance to the requirement of landscaping and irrigation due to no city water is available.
(2) Permian Deep Rock Oil Company requests variance for fence of the drill pad instead of individual well.
(3) Permian Deep Rock Oil Company requests variance to the Road Repair Agreement due to no city streets will be used.
(4) Permian Deep Rock Oil Company requests to allow for twenty-four-hour fracing operations.

Attachments: Applications; Location maps; Exhibit - Drill site maps, Exhibit – Flow Line Location.

Morris William Jr.

City Manager's Office

MIDLAND
Planning Division

APPLICATION FOR OIL AND GAS PERMIT

(Pursuant to Midland City Ordinance No. 8769)

I. General Information

Date	Operator Name (must match W-1)	Operator Address
01/03/2022	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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #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: 90' FSL & 231' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

ATTACHED AS EXHIBIT I is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].

ATTACHED AS EXHIBIT J is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].

ATTACHED AS EXHIBIT K (if applicable) is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].

ATTACHED AS EXHIBIT L is the Fencing and Irrigation Plan. [See § J(30)].

ATTACHED AS EXHIBIT M: No city roads will be used

ATTACHED AS EXHIBIT N is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].

Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

ATTACHED AS EXHIBIT P **is the** ***Letter of Credit/Certificate of Deposit*** **in accordance with Subsection (K)(2). [See § J(18)].**

ATTACHED AS EXHIBIT Q **: Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

ATTACHED AS EXHIBIT R **is the required Insurance Certificate. [See § J(19) and § K(3)].**

ATTACHED AS EXHIBIT S (if applicable) **is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

ATTACHED AS EXHIBIT T **is Applicant's Emergency Action Response Plan. [See § J(22)].**

ATTACHED AS EXHIBIT U **is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Kyle Hammond, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

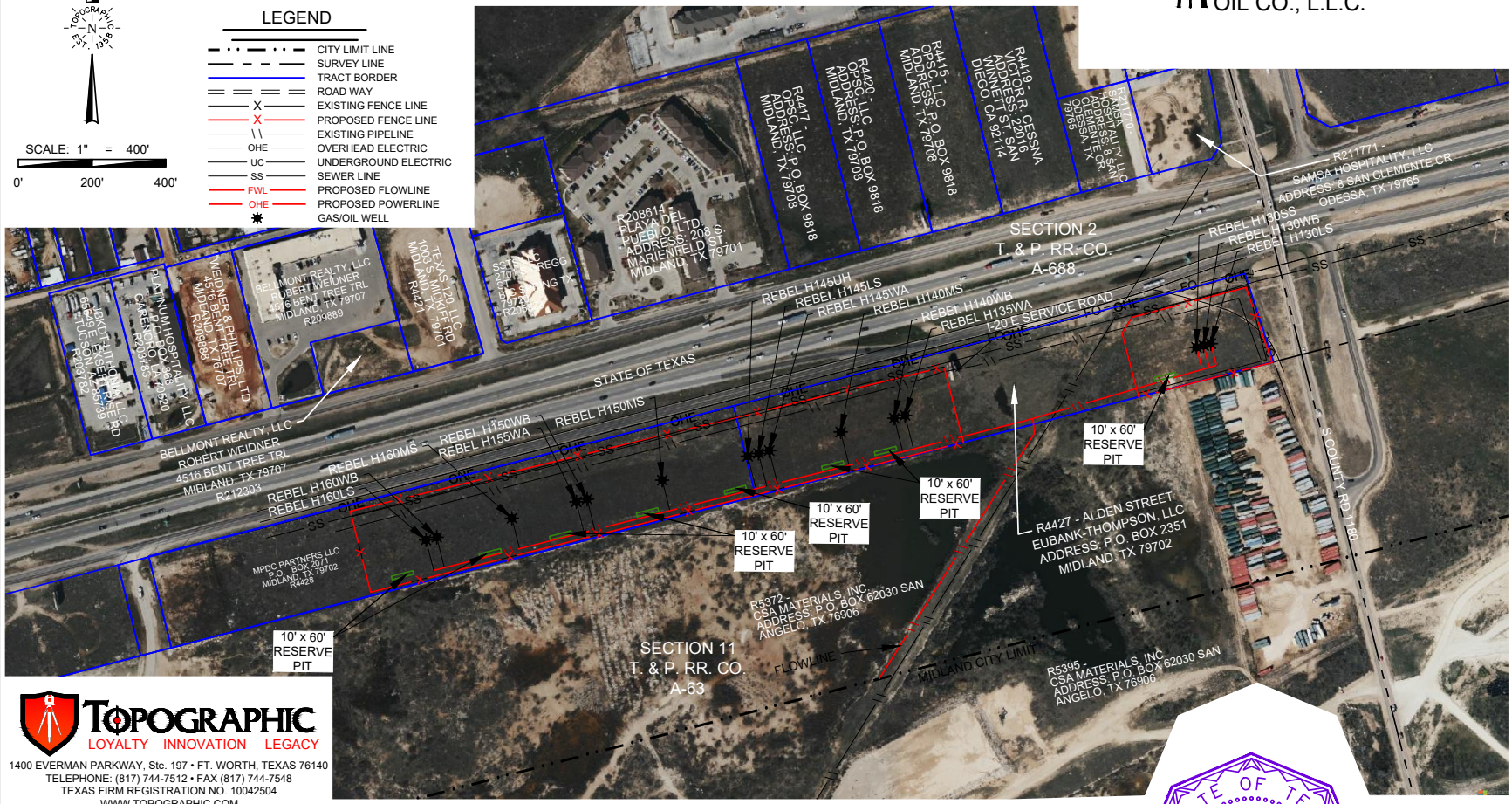
[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

EXHIBIT "G"

SECTION 1, BLOCK 39, T2S, T. & P. RR. CO. SURVEY, A-180
MIDLAND COUNTY, TEXAS

PERMIAN DEEP ROCK OIL CO., L.L.C.



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 197 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

REBEL UNIT CITY PERMIT	REVISION: INT	DATE
	DRH	12/17/2021
	DRH	01/14/2022
DATE: 12/07/2021		
FILE: SK_REBEL_UNIT_PERMIT_REV2		
DRAWN BY: DRH		
SHEET : 3 OF 8		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 11" X 8.5"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. CERTIFICATION IS MADE ONLY FOR PROPOSED UTILITIES AND SITES, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PERMIAN DEEP ROCK OIL CO., L.L.C. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
4. ALL PROPOSED INFRASTRUCTURE SHOWN HEREON IS SOLELY FOR THE PURPOSE OF APPLYING FOR A PERMIT WITH THE CITY OF MIDLAND, TEXAS. THIS IS EXHIBIT IS NOT TO BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH THE T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THESE ARE FOR PLANNING PURPOSES ONLY.
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

JEFFREY N LUEDERS, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: November 23, 2021

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\SKETCH\SK_REBEL_UNIT_PERMIT_REV2.DWG 1/14/2022 11:15:23 AM dharris

SCALE: 1" = 300'

0' 150' 300'

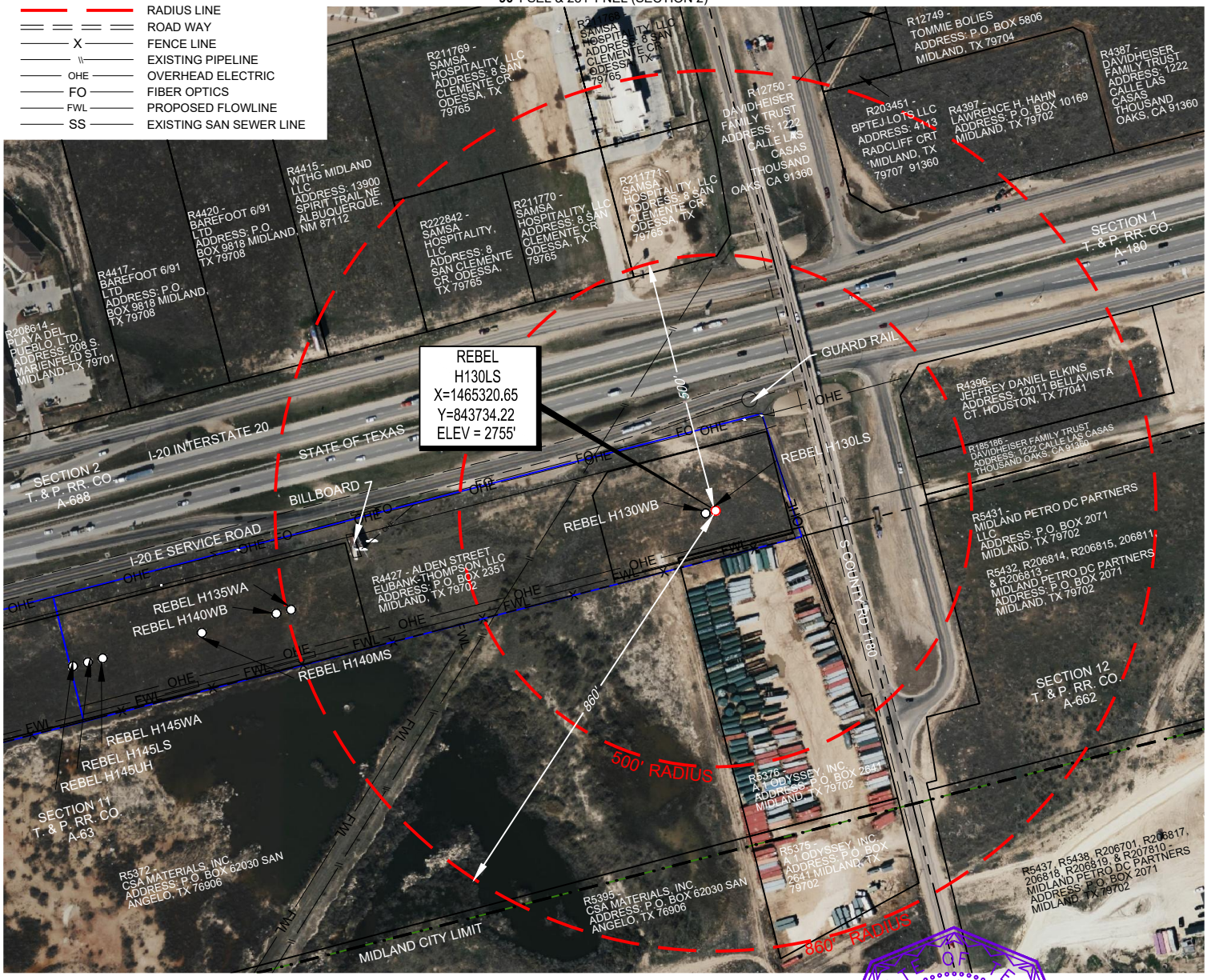
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- FIBER OPTICS
- PROPOSED FLOWLINE
- EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H130LS**
90' FSEL & 231' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

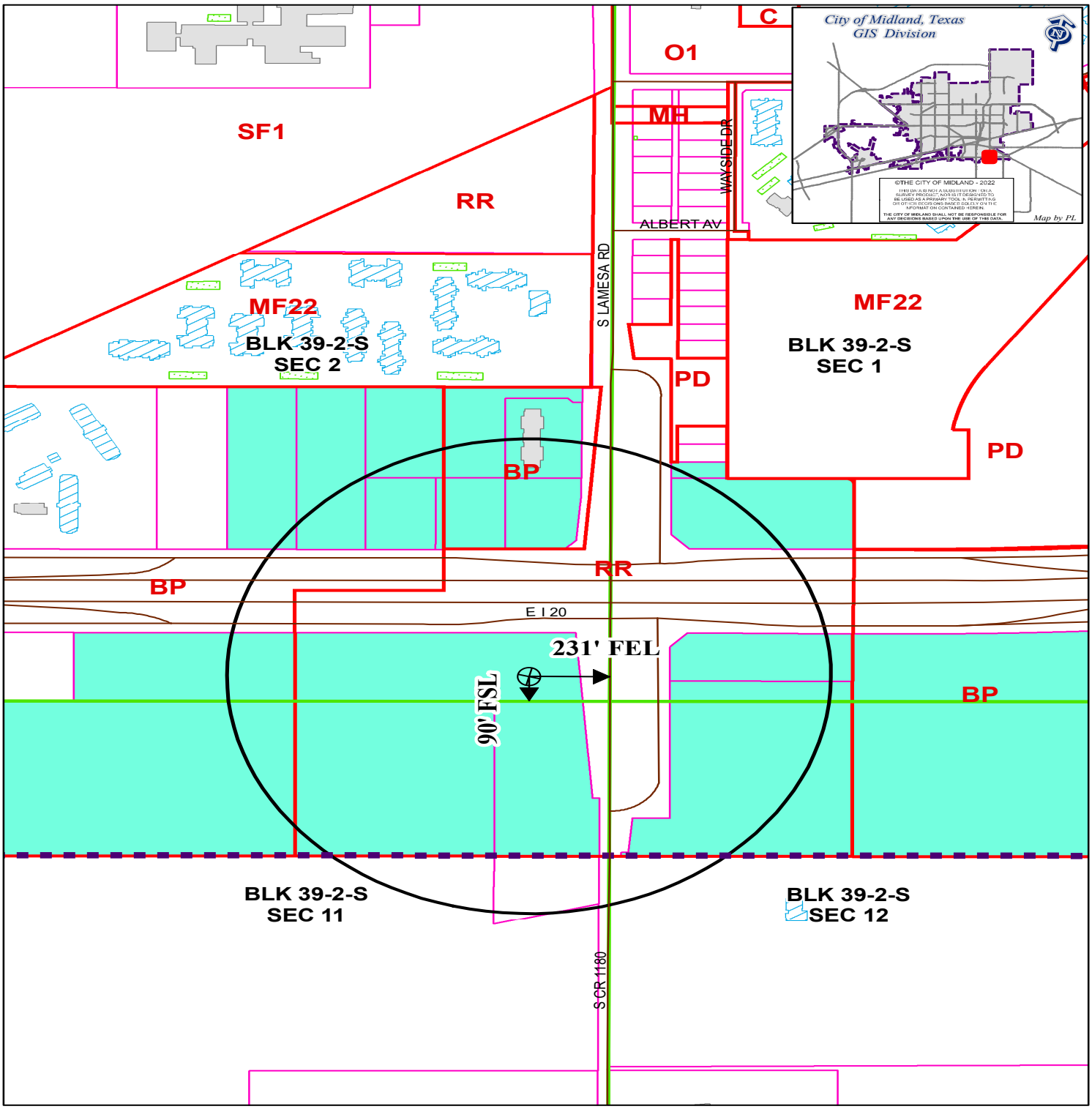
STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
LICENSED
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: OCTOBER 15, 2021

REBEL H130LS	REVISION: INT	DATE
	MJM	11/24/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H130LS_REV5	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\CITY_PERMITS\CD_REBEL_H130LS_REV5.DWG 1/17/2022 1:10:50 PM dharris



LOCATION AND ZONING MAP

Oil - 040645 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 90' FSL and 231' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 231 feet west of South Lamesa Road and 150 feet south of I-20.

Rebel #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
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F1, 1F2, 1F3	ONE-FAMILY DWELLING	RR	REGIONAL 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
01/03/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele. / Rep. Fax
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	Rep. Tele. 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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District), **which lists**

the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].

ATTACHED AS EXHIBIT E **is a** ***(map/p lat/satellite/aerial photo)*** **depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The** ***(map/p lat/satellite/aerial photo)*** **includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

ATTACHED AS EXHIBIT F **is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

IV. Well & Operations Information

Proposed Well Name: Rebel #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: 90' FSL & 251' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G **is the Location Site Plan [See § J(9)].**

ATTACHED AS EXHIBIT H **is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

ATTACHED AS EXHIBIT I **is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments** ***(also file copy of W-1 with City Secretary before commencement of drilling operations).*** **[See § J(16) and (20)].**

ATTACHED AS EXHIBIT J **is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

ATTACHED AS EXHIBIT K (if applicable) **is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

ATTACHED AS EXHIBIT L **is the Fencing and Irrigation Plan. [See § J(30)].**

ATTACHED AS EXHIBIT M: **No city roads will be used**

ATTACHED AS EXHIBIT N **is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

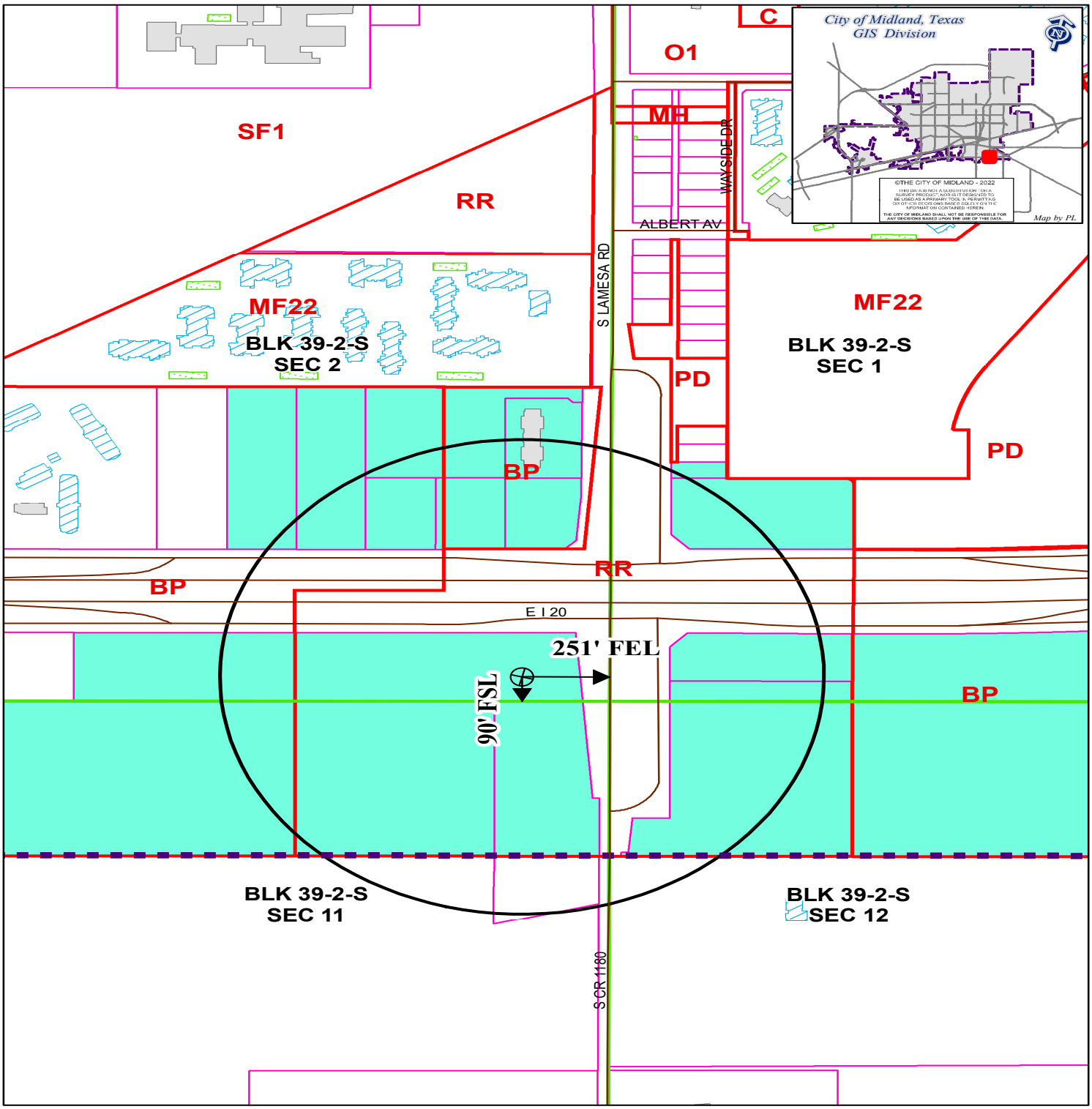
County of Midland)

Kyle Hammond, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Peña
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 - 040647 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 90' FSL and 251' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 251 feet west of South Lamesa Road and 150 feet south of I-20.

Rebel #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, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	GR	GENERAL 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

SCALE: 1" = 300'

0' 150' 300'

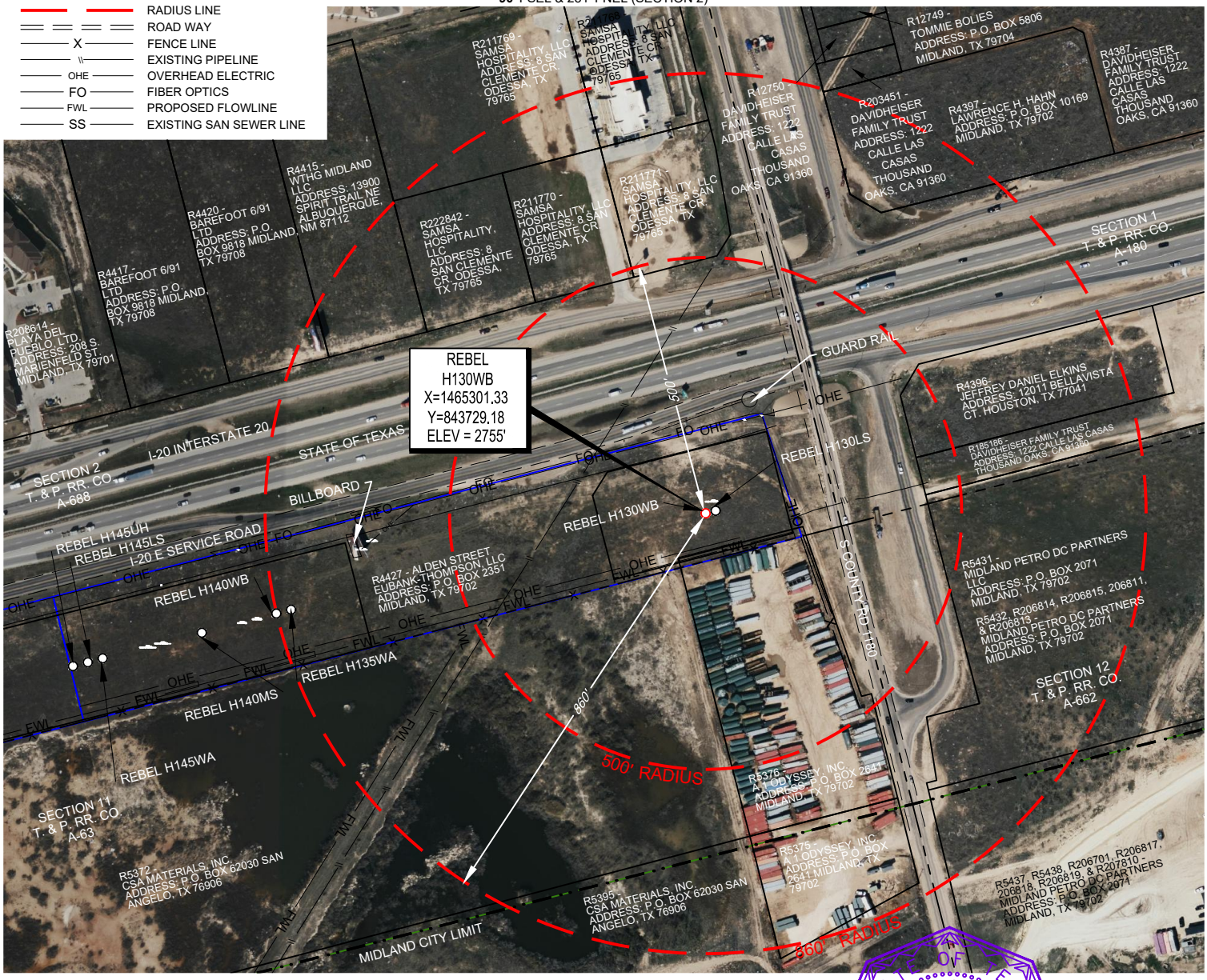
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
- X — FENCE LINE
- \\ — EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- FO — FIBER OPTICS
- FWL — PROPOSED FLOWLINE
- SS — EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H130WB**
90' FSEL & 251' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: OCTOBER 15, 2021

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

REBEL H130WB	REVISION: INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H130WB_REV5	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.15 March 22, 2022

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
01/03/2022	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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is** ,
Current Tax Roll from Midland Central Appraisal District), **which lists**
the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].

ATTACHED AS EXHIBIT E **is a** ***(map/p lat/satellite/aerial photo)*** **depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The** ***(map/p lat/satellite/aerial photo)*** **includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

ATTACHED AS EXHIBIT F **is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

IV. Well & Operations Information

Proposed Well Name: Rebel #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: 110' FSL & 1082' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G **is the Location Site Plan [See § J(9)].**

ATTACHED AS EXHIBIT H **is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].**

ATTACHED AS EXHIBIT I **is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments** ***(also file copy of W-1 with City Secretary before commencement of drilling operations).*** **[See § J(16) and (20)].**

ATTACHED AS EXHIBIT J **is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].**

ATTACHED AS EXHIBIT K (if applicable) **is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].**

ATTACHED AS EXHIBIT L **is the Fencing and Irrigation Plan. [See § J(30)].**

ATTACHED AS EXHIBIT M: **No city roads will be used**

ATTACHED AS EXHIBIT N **is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

***ATTACHED AS EXHIBIT P* is the *Letter of Credit/Certificate of Deposit* in accordance with Subsection (K)(2). [See § J(18)].**

***ATTACHED AS EXHIBIT Q* : Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

***ATTACHED AS EXHIBIT R* is the required Insurance Certificate. [See § J(19) and § K(3)].**

***ATTACHED AS EXHIBIT S (if applicable)* is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

***ATTACHED AS EXHIBIT T* is Applicant's Emergency Action Response Plan. [See § J(22)].**

***ATTACHED AS EXHIBIT U* is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

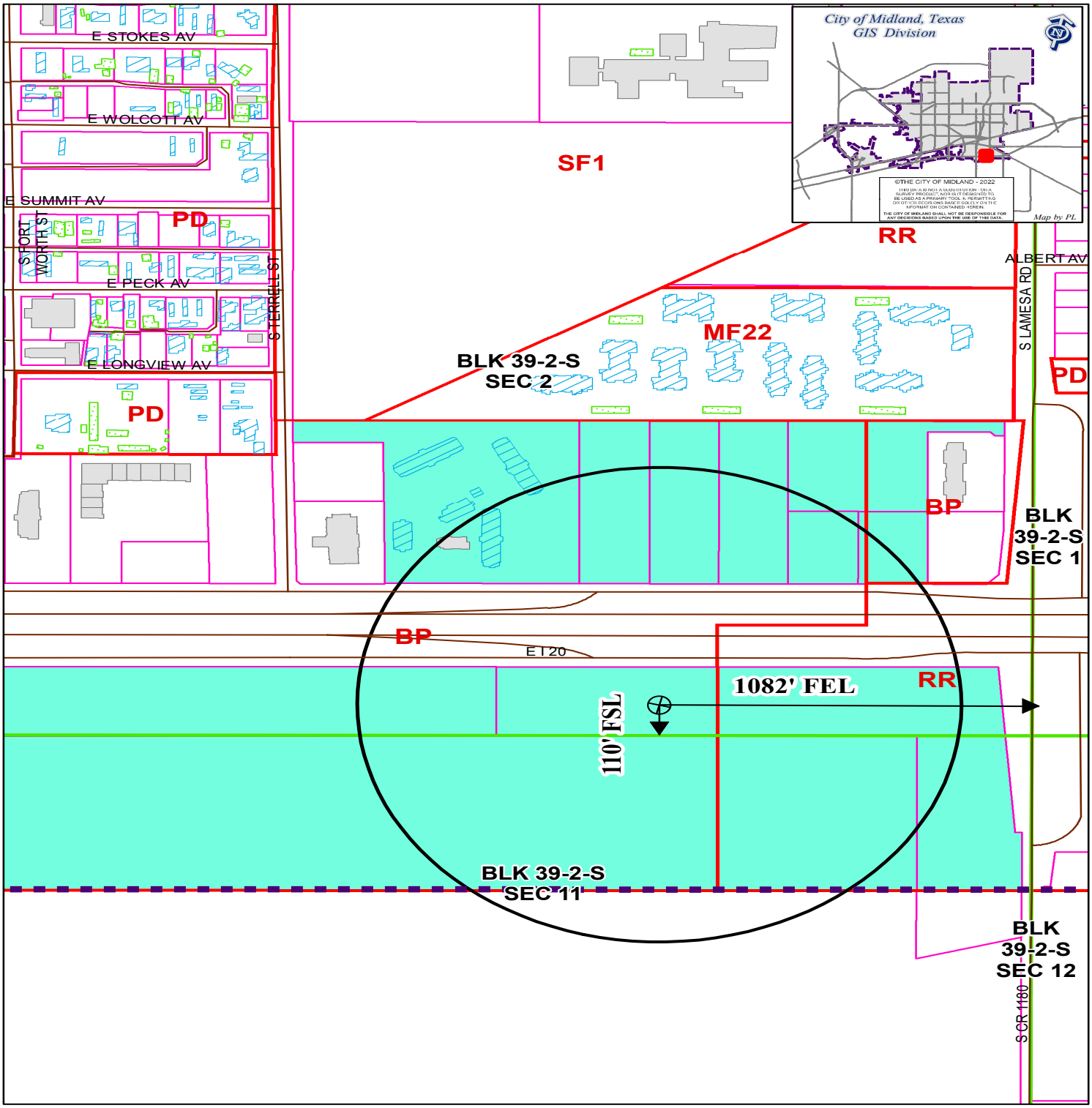
County of Midland)

Kyle Hammond, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Peña
Notary Public, State of Texas

[SEAL]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8



LOCATION AND ZONING MAP

Oil - 040650 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 1,082' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,082 feet west of South Lamesa Road and 170 feet south of I-20.

Rebel #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	O1, O2	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
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MF1, MF2	MULTIPLE FAMILY DWELLING	HI	HEAVY INDUSTRY

SCALE: 1" = 300'

0' 150' 300'

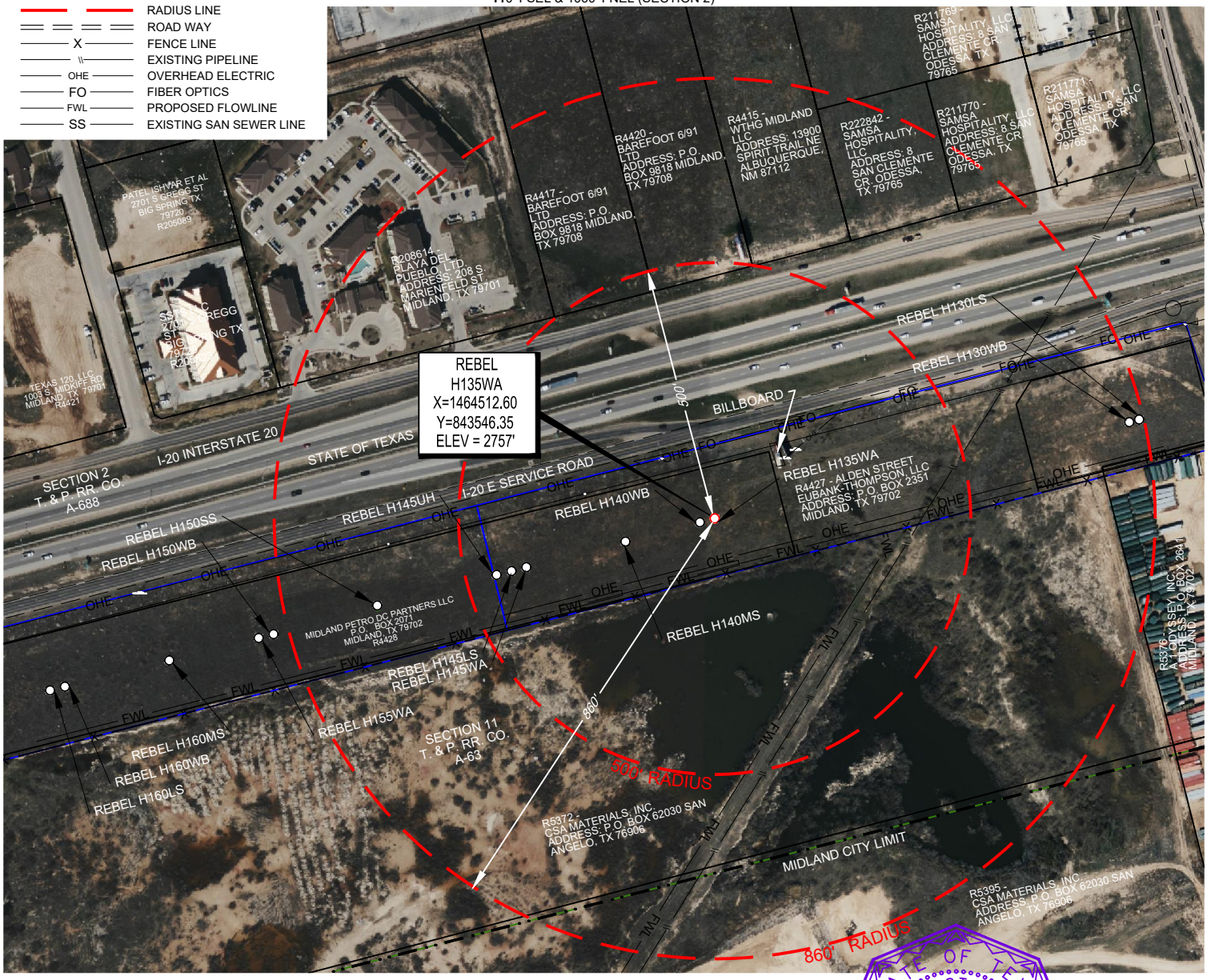
LEGEND

- SURVEY/SECTION LINE
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- ROAD WAY
- FENCE LINE
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- OHE — OVERHEAD ELECTRIC
- FO — FIBER OPTICS
- FWL — PROPOSED FLOWLINE
- SS — EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H135WA**
110' FSEL & 1060' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 11, 2021

REBEL H135WA	REVISION: INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H135WA_REV4	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
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5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.21 March 22, 2022

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
01/03/2022	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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #H140WB

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 110' FSL & 1112' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

ATTACHED AS EXHIBIT I is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].

ATTACHED AS EXHIBIT J is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].

ATTACHED AS EXHIBIT K (if applicable) is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].

ATTACHED AS EXHIBIT L is the Fencing and Irrigation Plan. [See § J(30)].

ATTACHED AS EXHIBIT M: No city roads will be used

ATTACHED AS EXHIBIT N is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].

Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

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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)].

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ATTACHED AS EXHIBIT R is the required Insurance Certificate. [See § J(19) and § K(3)].

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ATTACHED AS EXHIBIT 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)

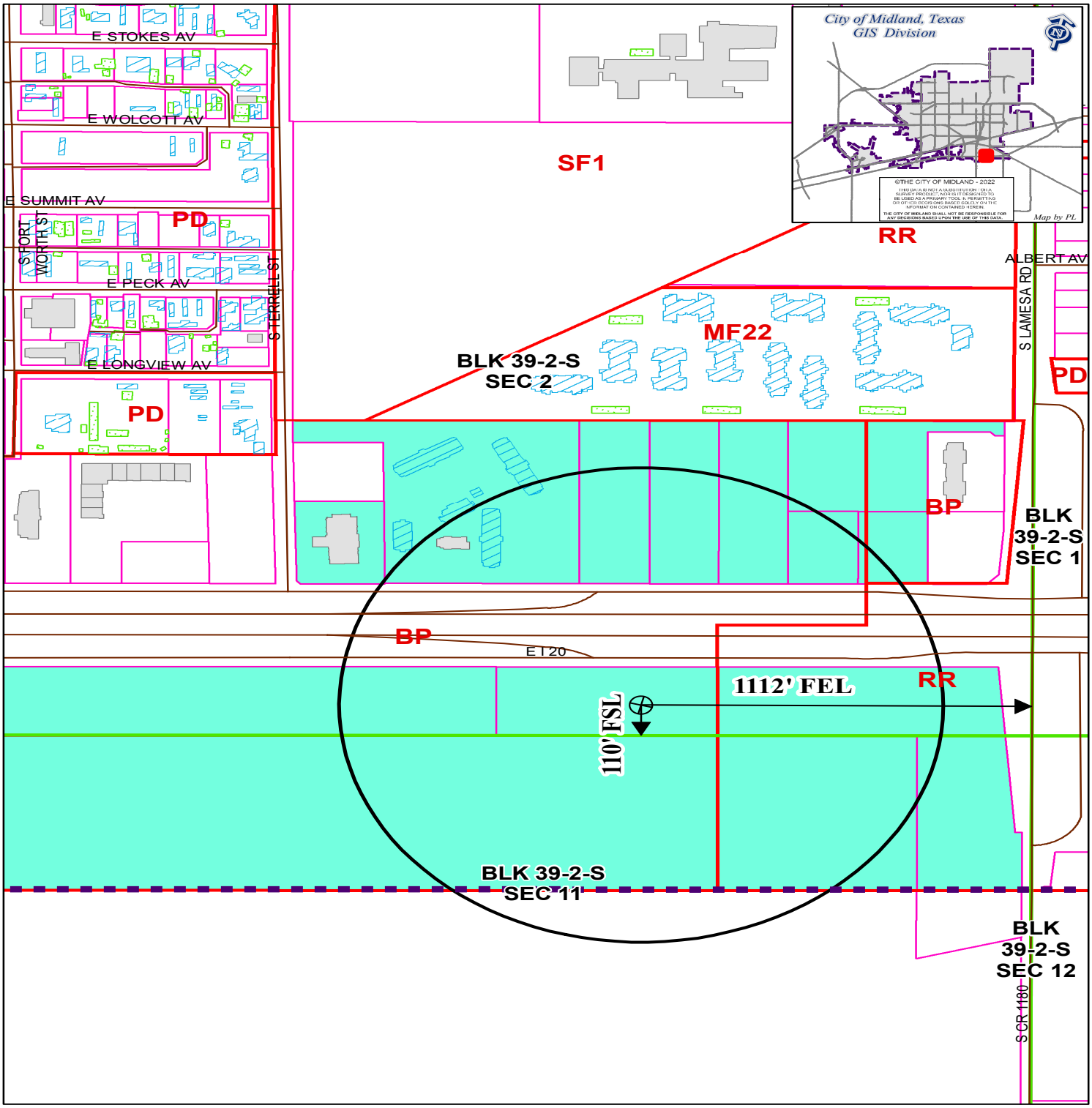
County of Midland)

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 - 040651 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 1,112' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,112 feet west of South Lamesa Road and 170 feet south of I-20.

Rebel #H140WB

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	O1, O2	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	GR	GENERAL 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

SCALE: 1" = 300'

0' 150' 300'

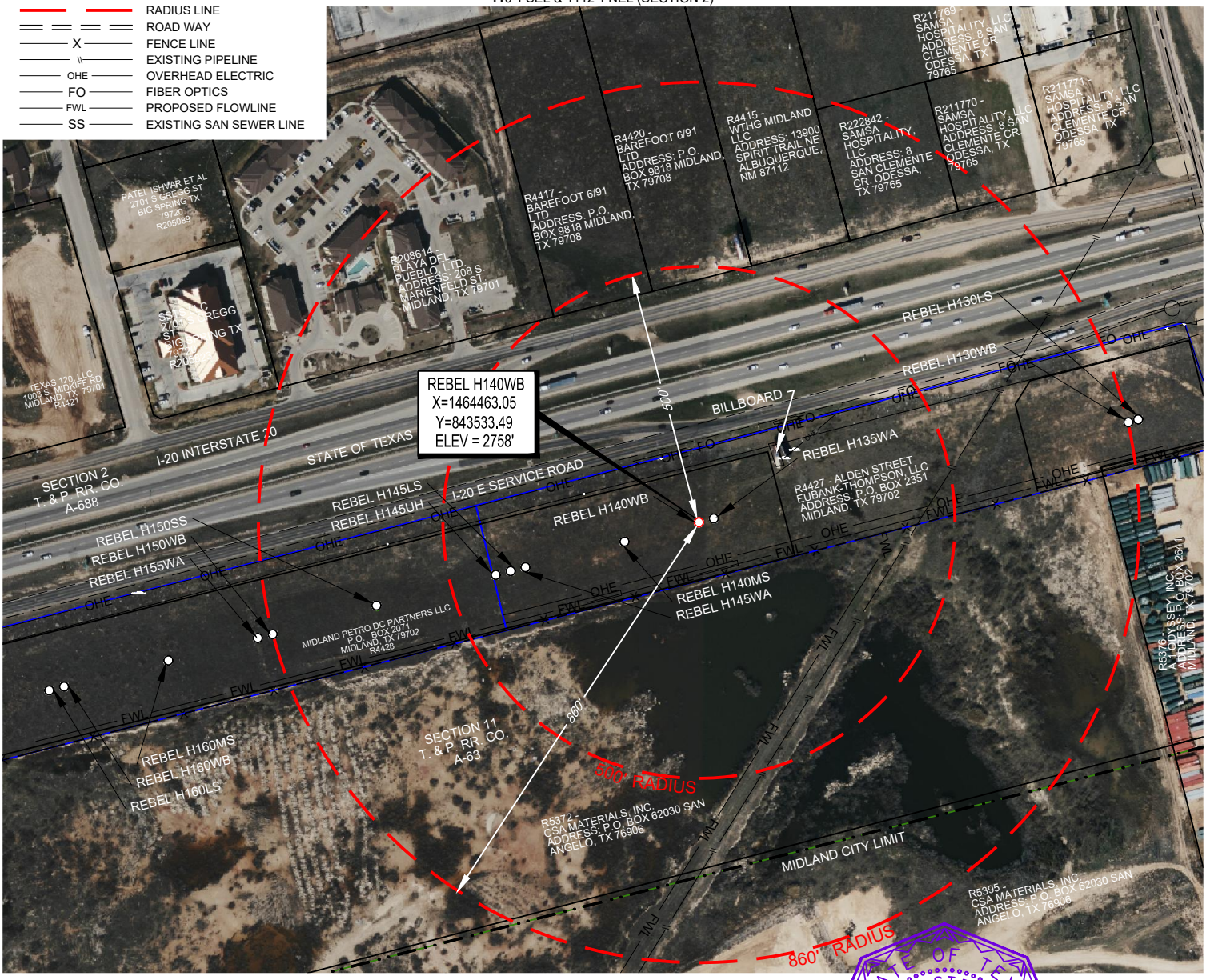
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- FIBER OPTICS
- PROPOSED FLOWLINE
- EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H140WB**
110' FSEL & 1112' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

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LOYALTY INNOVATION LEGACY
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STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 11, 2021

REBEL H140WB	REVISION: INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H140WB_REV4	DRH	01/14/22
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PACKET 27.27 March 22, 2022

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\CITY_PERMITS\CD_REBEL_H140WB_REV4.DWG 1/17/2022 1:07:03 PM dharris

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
01/03/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele. / Rep. Fax
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	Rep. Tele. 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):

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2.

3.

ATTACHED AS EXHIBIT C is List of subdivisions within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D is ,
Current Tax Roll from Midland Central Appraisal District), which lists
the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].

ATTACHED AS EXHIBIT E **is a** ***(map/p lat/satellite/aerial photo)*** **depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The** ***(map/p lat/satellite/aerial photo)*** **includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

ATTACHED AS EXHIBIT F **is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

IV. Well & Operations Information

Proposed Well Name: Rebel #H145LS

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: 110' FSL & 1492' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G **is the Location Site Plan [See § J(9)].**

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ATTACHED AS EXHIBIT N **is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

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Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

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ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

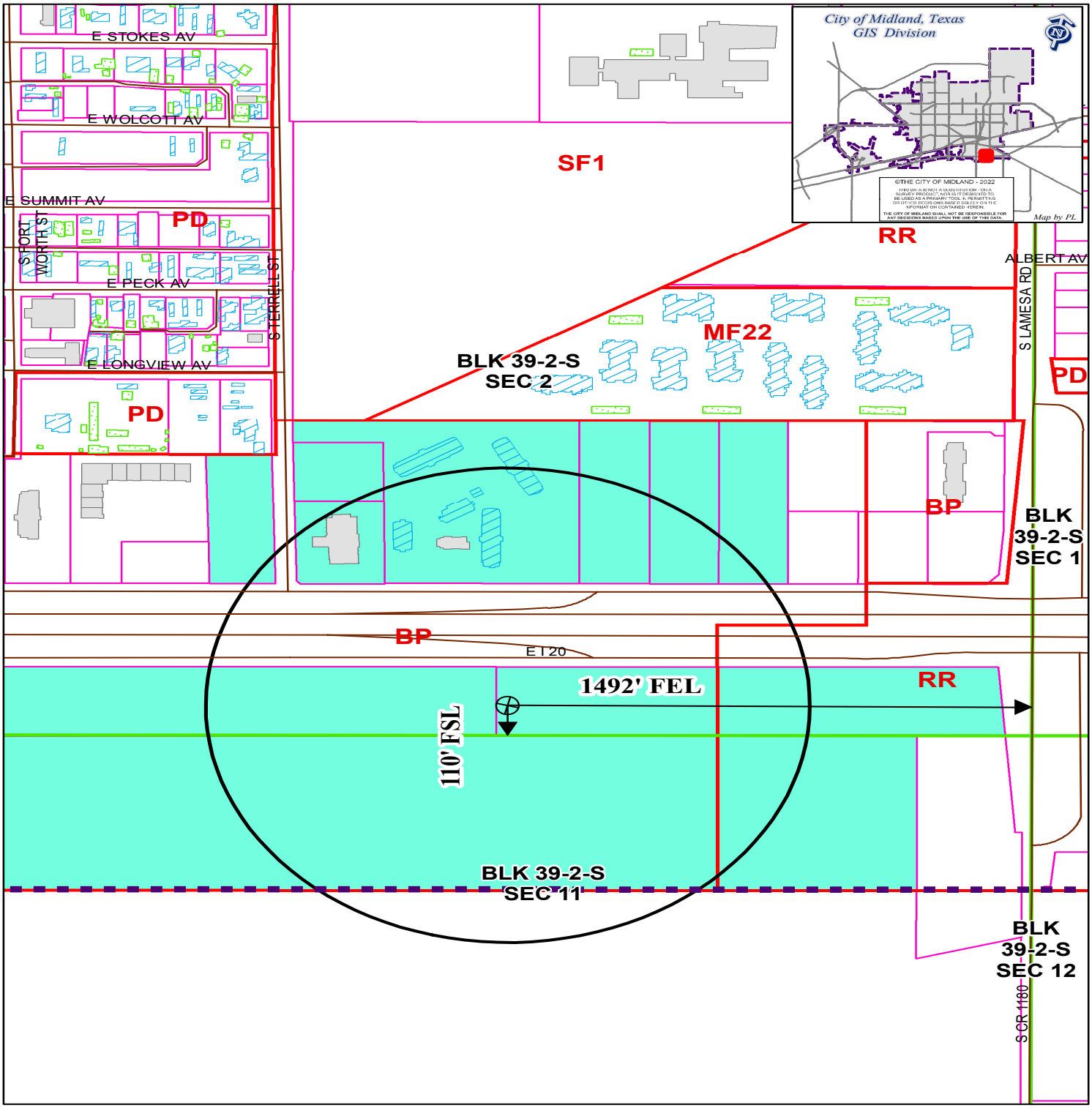
County of Midland)

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

[SEAL]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8



LOCATION AND ZONING MAP

Oil - 040655 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 1,492' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,492 feet west of South Lamesa Road and 170 feet south of I-20.

Rebel #H145LS

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	N1	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	R1, R2, R3	RETAIL
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SCALE: 1" = 300'

0' 150' 300'

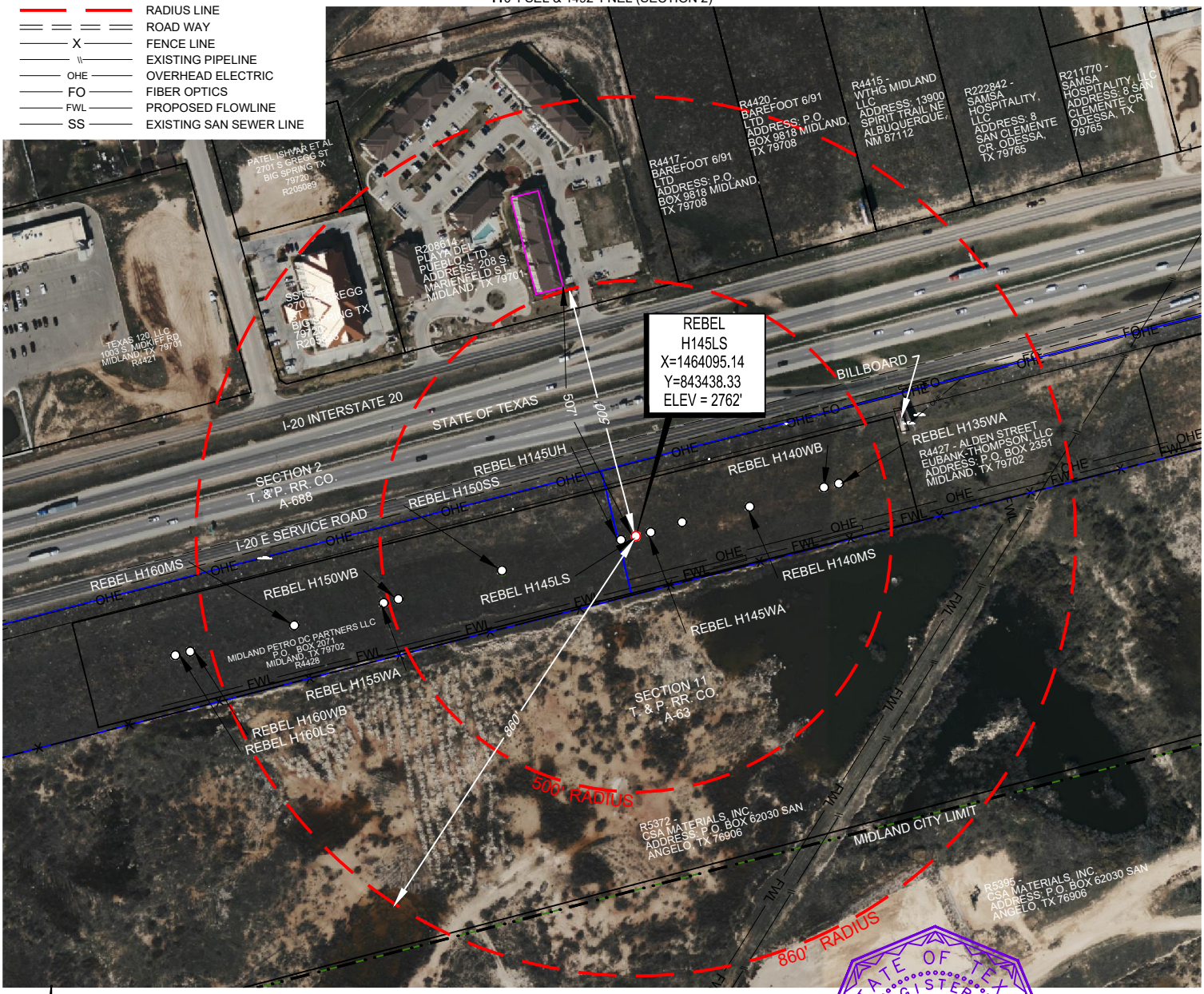
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
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- EXISTING PIPELINE
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SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H145LS**
110' FSEL & 1492' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

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TEXAS FIRM REGISTRATION NO. 10042504
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STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 11, 2021

REBEL H145LS	REVISION: INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H145LS_REV4	DRH	01/14/22
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SHEET : 1 OF 2		

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PACKET 27.33 March 22, 2022

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
01/03/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele. / Rep. Fax
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	Rep. Tele. 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

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IV. Well & Operations Information

Proposed Well Name: Rebel #H145UH

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

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ATTACHED AS EXHIBIT M: **No city roads will be used**

ATTACHED AS EXHIBIT N **is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].**

Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

ATTACHED AS EXHIBIT P **is the** ***Letter of Credit/Certificate of Deposit*** **in accordance with Subsection (K)(2). [See § J(18)].**

ATTACHED AS EXHIBIT Q **: Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

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ATTACHED AS EXHIBIT S (if applicable) **is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

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ATTACHED AS EXHIBIT U **is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Kyle Hammond, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

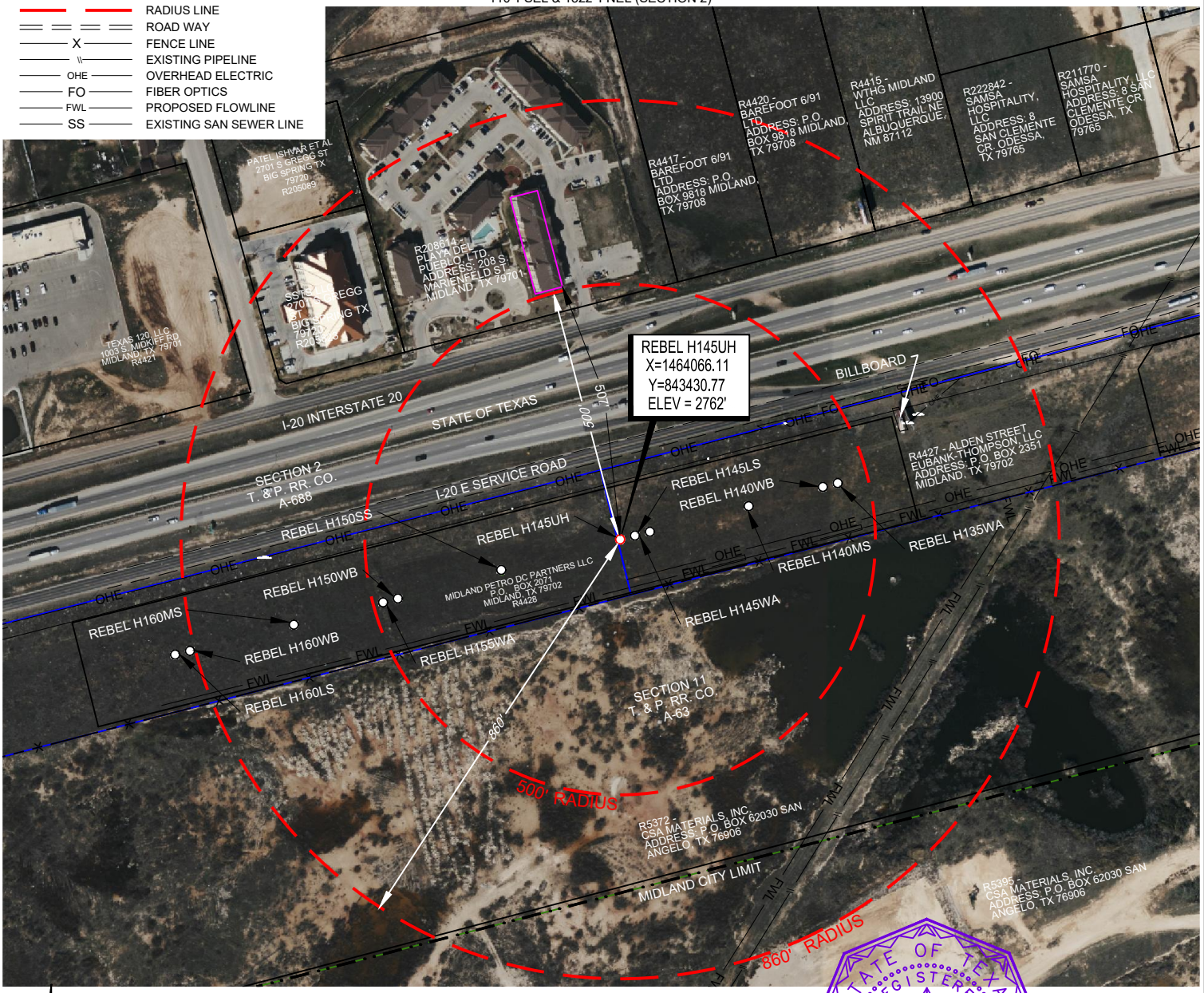
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
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- OVERHEAD ELECTRIC
- FIBER OPTICS
- PROPOSED FLOWLINE
- EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H145UH**
110' FSEL & 1522' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

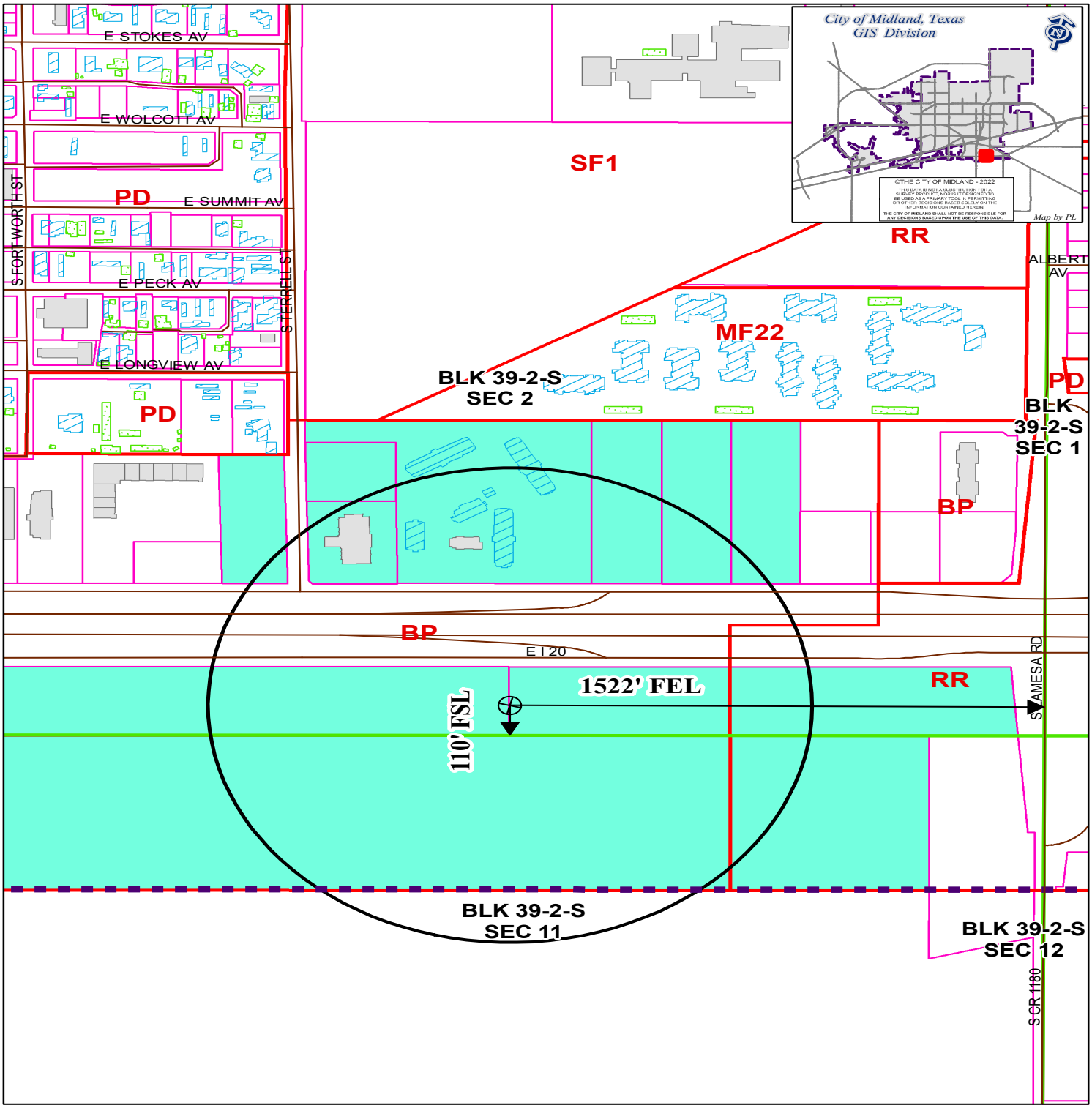
Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 11, 2021

REBEL H145UH	REVISION:	
	INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H145UH_REV3	SDH	01/17/22
DRAWN BY: RAC		
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.38 March 22, 2022

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\CITY_PERMITS\CD_REBEL_H145UH_REV3.DWG 1/17/2022 1:00:55 PM dharris



LOCATION AND ZONING MAP

Oil - 040661 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 1,522' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,522 feet west of South Lamesa Road and 170 feet south of I-20.

Rebel #H145UH

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
1F, 1F2, 1F3	ONE-FAMILY DWELLING	GR	GENERAL 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
01/03/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702

Representative Name	Representative Address (within Midland City Limits)	Rep. Tele. / Rep. Fax
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	Rep. Tele. 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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is** ,
Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E **is a** ***(map/p lat/satellite/aerial photo)*** **depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The** ***(map/p lat/satellite/aerial photo)*** **includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].**

ATTACHED AS EXHIBIT F **is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].**

IV. Well & Operations Information

Proposed Well Name: Rebel #H145WA

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 110' FSL & 1462' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G **is the Location Site Plan [See § J(9)].**

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ATTACHED AS EXHIBIT M: **No city roads will be used**

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Description of Public Utilities required during (1) drilling and (2) operations:

(1) Drilling: None

(2) Operations: Oncor

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

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)].**

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ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

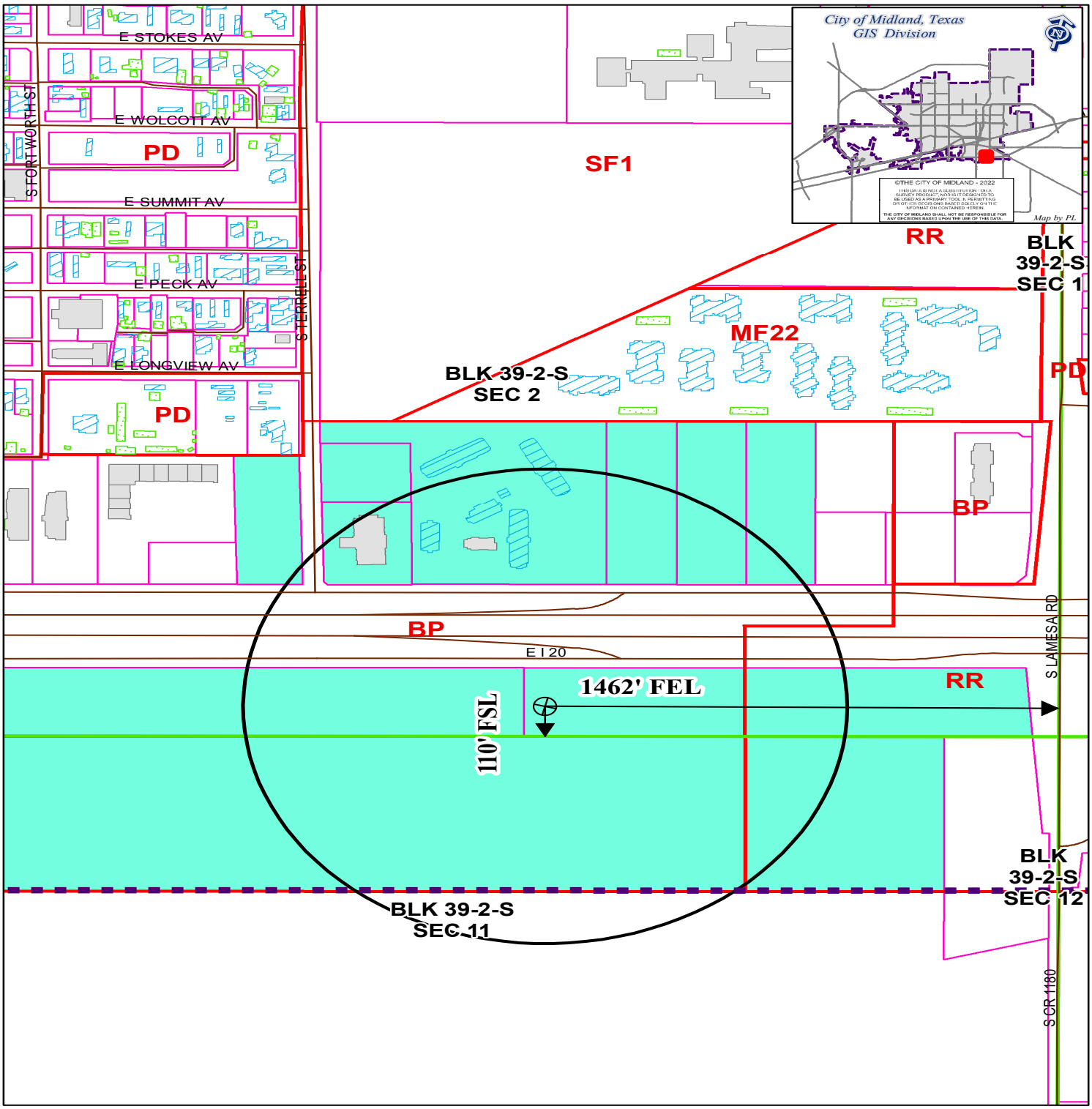
County of Midland)

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 Peña
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 - 040662 - 2022 **Scale: 1" = 400'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 110' FSL and 1,462' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,462 feet west of South Lamesa Road and 170 feet south of I-20.

Rebel #H145WA

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	01, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
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TH	TOWNHOUSE DWELLING	IP ,IP1, IP2, IP3	INDUSTRIAL PARK
2F	TWO-FAMILY DWELLING	LI	LIGHT INDUSTRY
MF1, MF2	MULTIPLE FAMILY DWELLING	HI	HEAVY INDUSTRY

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0' 150' 300'

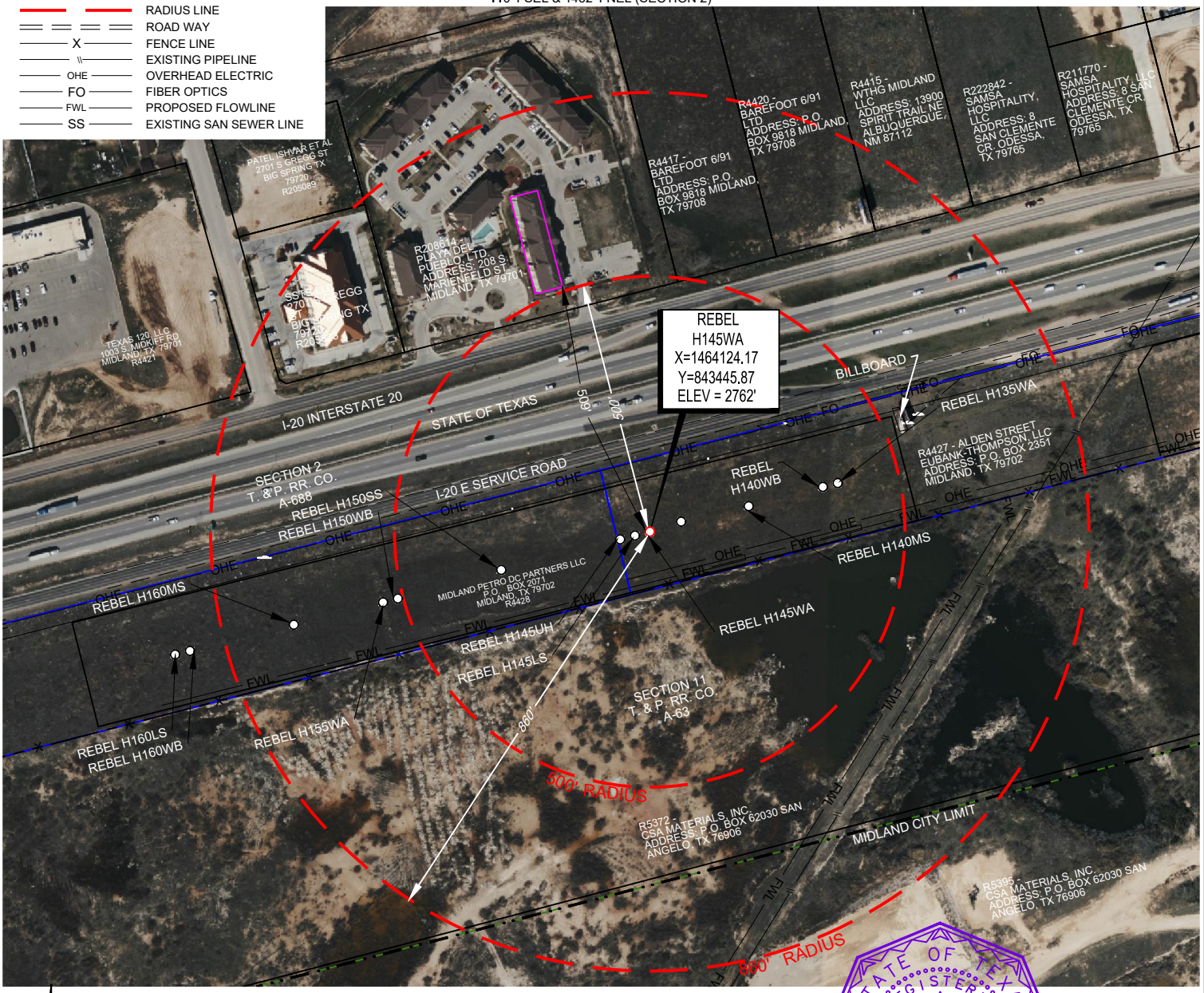
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- FO — FIBER OPTICS
- FWL — PROPOSED FLOWLINE
- SS — EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H145WA**
110' FSEL & 1462' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

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LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
LICENSED PROFESSIONAL LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 11, 2021

REBEL H145WA	REVISION: INT	DATE
	DRH	11/30/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H145WA_REV4	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

NOTES:
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5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.45 March 22, 2022

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
01/03/2022	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"

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Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1.

2.

3.

ATTACHED AS EXHIBIT C **is** List of subdivisions within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is** ,
Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #H150WB

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 106' FSL & 1972' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

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ATTACHED AS EXHIBIT M: No city roads will be used

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Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

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Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

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ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

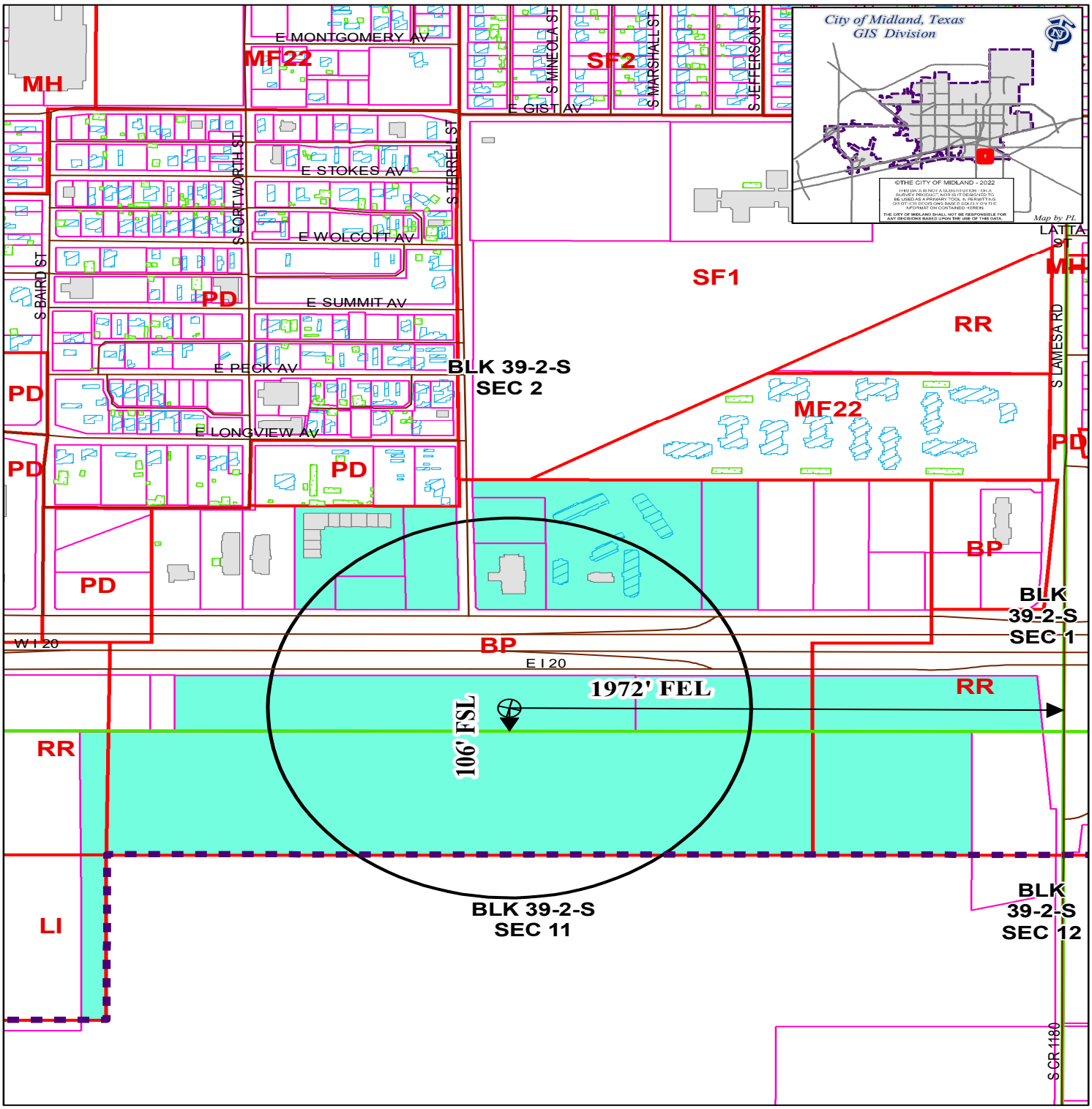
County of Midland)

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 - 040663 - 2022 **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 106' FSL and 1,972' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 1,972 feet west of South Lamesa Road and 166 feet south of I-20.

Rebel #H150WB

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	01, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
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SCALE: 1" = 300'

0' 150' 300'

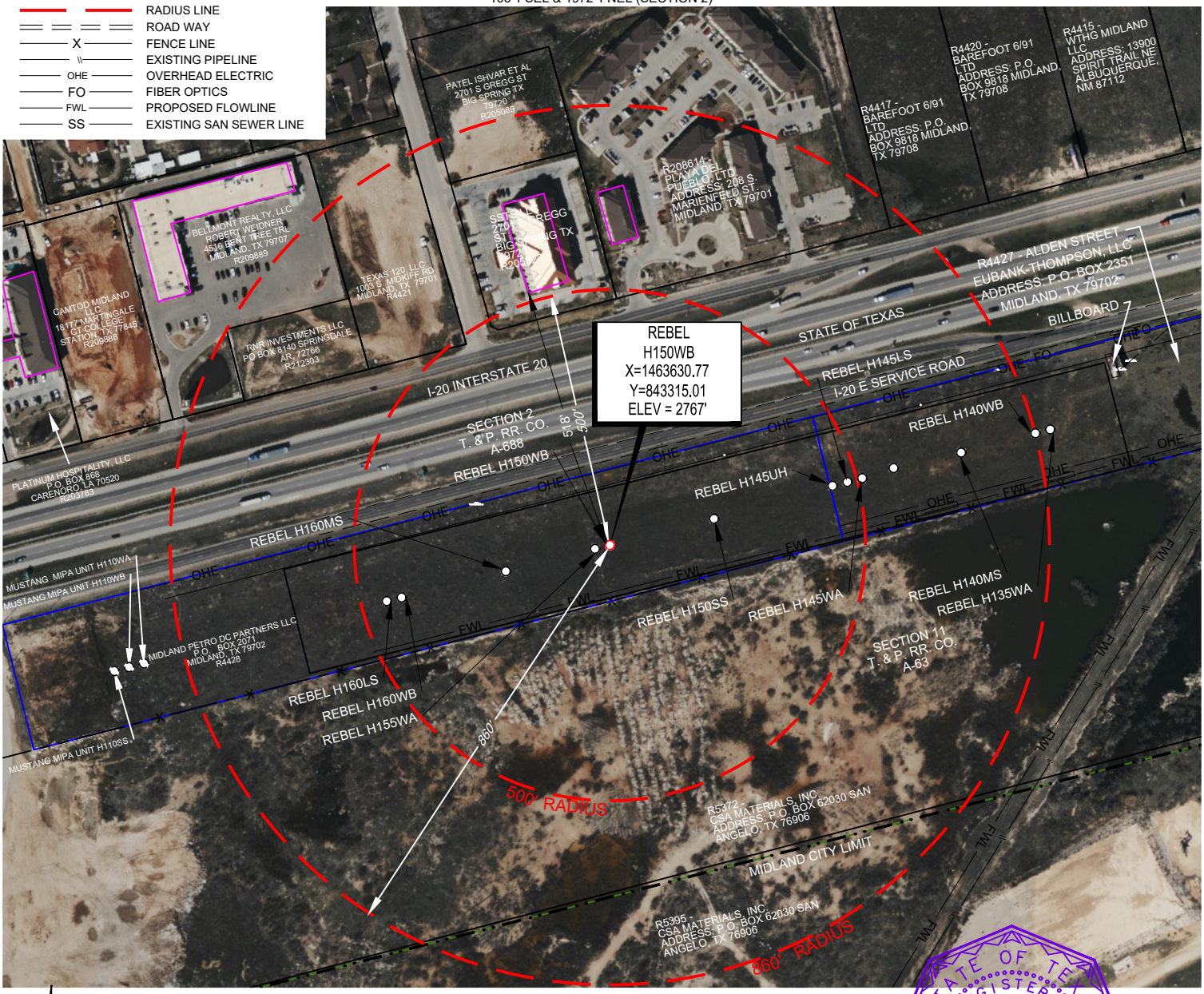
LEGEND

- SURVEY/SECTION LINE
- TRACT BORDER
- RADIUS LINE
- ROAD WAY
- X — FENCE LINE
- \\ — EXISTING PIPELINE
- OHE — OVERHEAD ELECTRIC
- FO — FIBER OPTICS
- FWL — PROPOSED FLOWLINE
- SS — EXISTING SAN SEWER LINE

SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H150WB**
106' FSEL & 1972' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 23, 2021

REBEL H150WB	REVISION: INT	DATE
	DRH	12/01/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H150WB_REV4	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, U.S. SURVEY FEET, NORTH AMERICAN DATUM 1927.
3. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
4. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.51 March 22, 2022

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\CITY_PERMITS\CD_REBEL_H150WB_REV4.DWG 1/17/2022 1:02:38 PM dharris

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
01/03/2022	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 within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #H155WA

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 106' FSL & 2002' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

ATTACHED AS EXHIBIT I is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].

ATTACHED AS EXHIBIT J is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].

ATTACHED AS EXHIBIT K (if applicable) is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].

ATTACHED AS EXHIBIT L is the Fencing and Irrigation Plan. [See § J(30)].

ATTACHED AS EXHIBIT M: No city roads will be used

ATTACHED AS EXHIBIT N is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].

Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

ATTACHED AS EXHIBIT P **is the** ***Letter of Credit/Certificate of Deposit*** **in accordance with Subsection (K)(2). [See § J(18)].**

ATTACHED AS EXHIBIT Q **: Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

ATTACHED AS EXHIBIT R **is the required Insurance Certificate. [See § J(19) and § K(3)].**

ATTACHED AS EXHIBIT S (if applicable) **is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

ATTACHED AS EXHIBIT T **is Applicant's Emergency Action Response Plan. [See § J(22)].**

ATTACHED AS EXHIBIT U **is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Kyle Hammond, personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

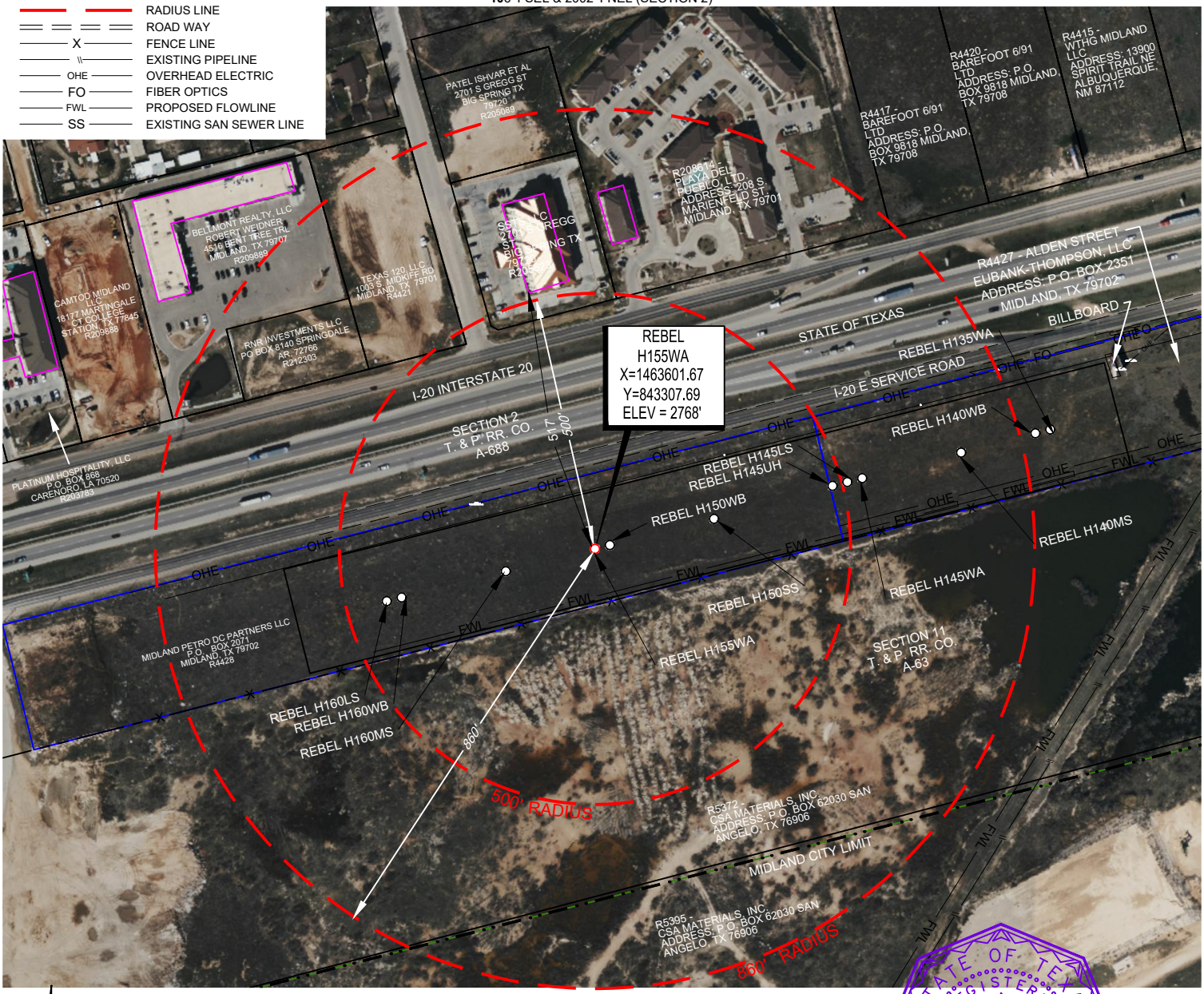
LEGEND

- SURVEY/SECTION LINE
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SECTION 2, T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H155WA**
106' FSEL & 2002' FNEL (SECTION 2)

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

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STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
LICENSED LAND SURVEYOR

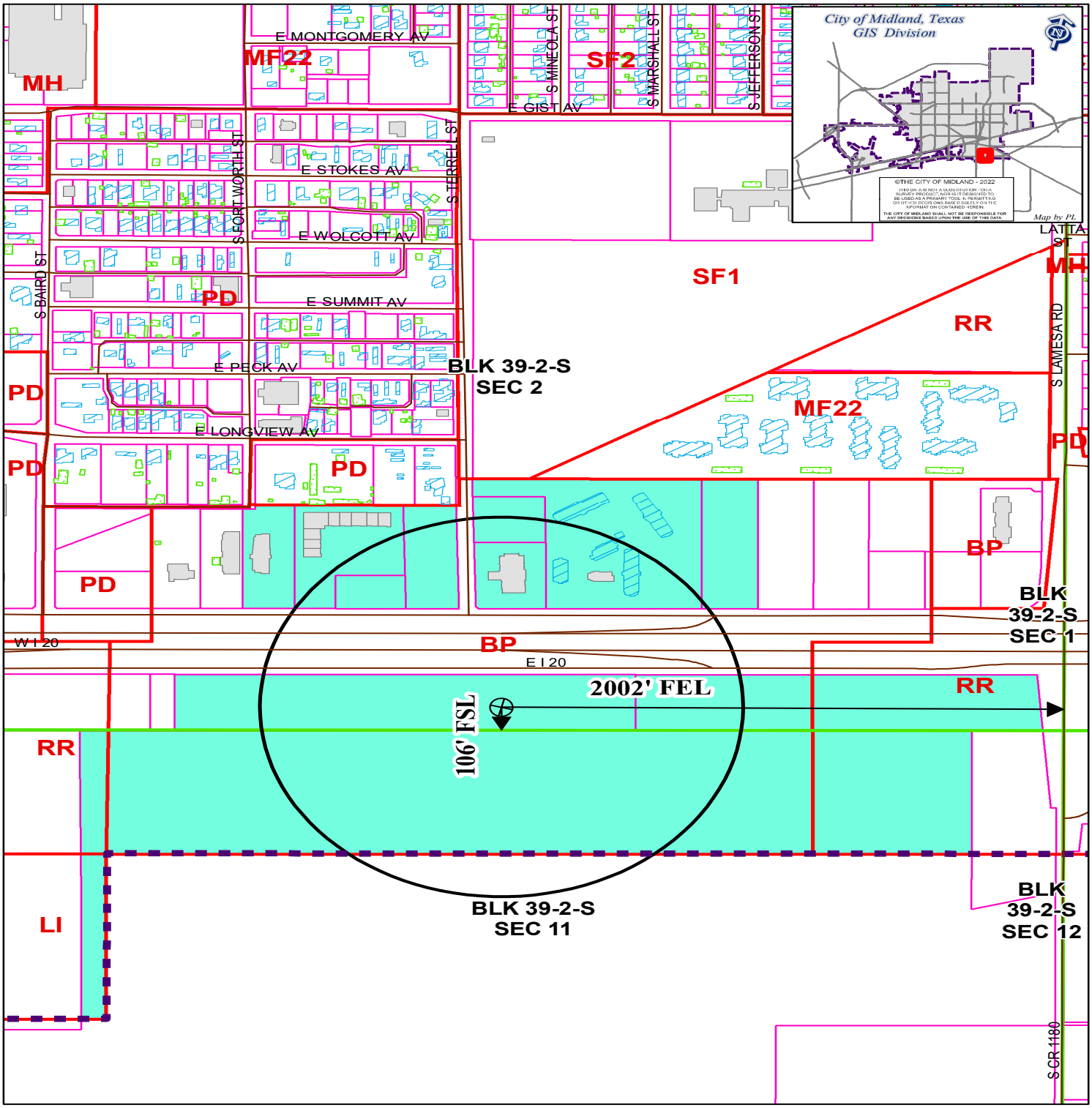
Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NOVEMBER 23, 2021

REBEL H155WA	REVISION: INT	DATE
	DRH	12/01/21
DATE: 08/27/2018	DRH	12/09/21
FILE: CD_REBEL_H155WA_REV4	DRH	01/14/22
DRAWN BY: RAC	SDH	01/17/22
SHEET : 1 OF 2		

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5. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.56 March 22, 2022

S:\SURVEY\ARRINGTON\DP_7B_UNIT\FINAL_PRODUCTS\CITY_PERMITS\CD_REBEL_H155WA_REV4.DWG 1/17/2022 2:03:56 PM dharris



LOCATION AND ZONING MAP

Oil - 040664 - 2022 **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 106' FSL and 2,002' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,002 feet west of South Lamesa Road and 166 feet south of I-20.

Rebel #H155WA

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	01, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	RR	REGIONAL 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
01/03/2022	Permian Deep Rock Oil Co., LLC	P.O. Box 11405 Midland, TX 79702
Representative Name	**Representative Address (within Midland City Limits)**	**Rep. Tele.** 432-682-6685
Kyle M. Hammond	500 W. Wall St. Ste 300 Midland, TX 79701	**Rep. Fax** 432-684-4519
Fee: $4,000.00 Rec'd Yes ✓ **No** ___	**NOTE: All attachments need to bound and put in a binder before submitting.**	**Pages 1-4**

Permit Compliance Contact (Choose 1):

Option A:

24/7 Answering Services - No. 1 (Tele.): **No. 2 (Tele.):**

Option B:

Company Compliance Representative (Name, Address, Local Telephone) ***(ATTACH STATEMENT AS EXHIBIT A):*** See Exhibit "A"

Emergency Contact Representative (Name, Address, 24-Hour Tele. No.):

See Exhibit "A"

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

II. Mineral Ownership

Name(s) and Address(es) of Mineral Estate Lessors (under applicable lease):

1.

2.

3.

ATTACHED AS EXHIBIT C **is** List of subdivisions within Rebel Unit

See Exhibit "C"

III. Surface Ownership & Use

General Description of Current Surface Use (within 860 feet of proposed surface location):
Surface use: Undeveloped Rangeland, service company yards and apartment complex
Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District), **which lists the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].**

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #H160LS

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 109' FSL & 2422' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

ATTACHED AS EXHIBIT I is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations)*. [See § J(16) and (20)].

ATTACHED AS EXHIBIT J is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].

ATTACHED AS EXHIBIT K (if applicable) is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].

ATTACHED AS EXHIBIT L is the Fencing and Irrigation Plan. [See § J(30)].

ATTACHED AS EXHIBIT M: No city roads will be used

ATTACHED AS EXHIBIT N is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].

Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

ATTACHED AS EXHIBIT P **is the** *Letter of Credit/Certificate of Deposit* **in accordance with Subsection (K)(2). [See § J(18)].**

ATTACHED AS EXHIBIT Q **: Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

ATTACHED AS EXHIBIT R **is the required Insurance Certificate. [See § J(19) and § K(3)].**

ATTACHED AS EXHIBIT S (if applicable) **is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

ATTACHED AS EXHIBIT T **is Applicant's Emergency Action Response Plan. [See § J(22)].**

ATTACHED AS EXHIBIT U **is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

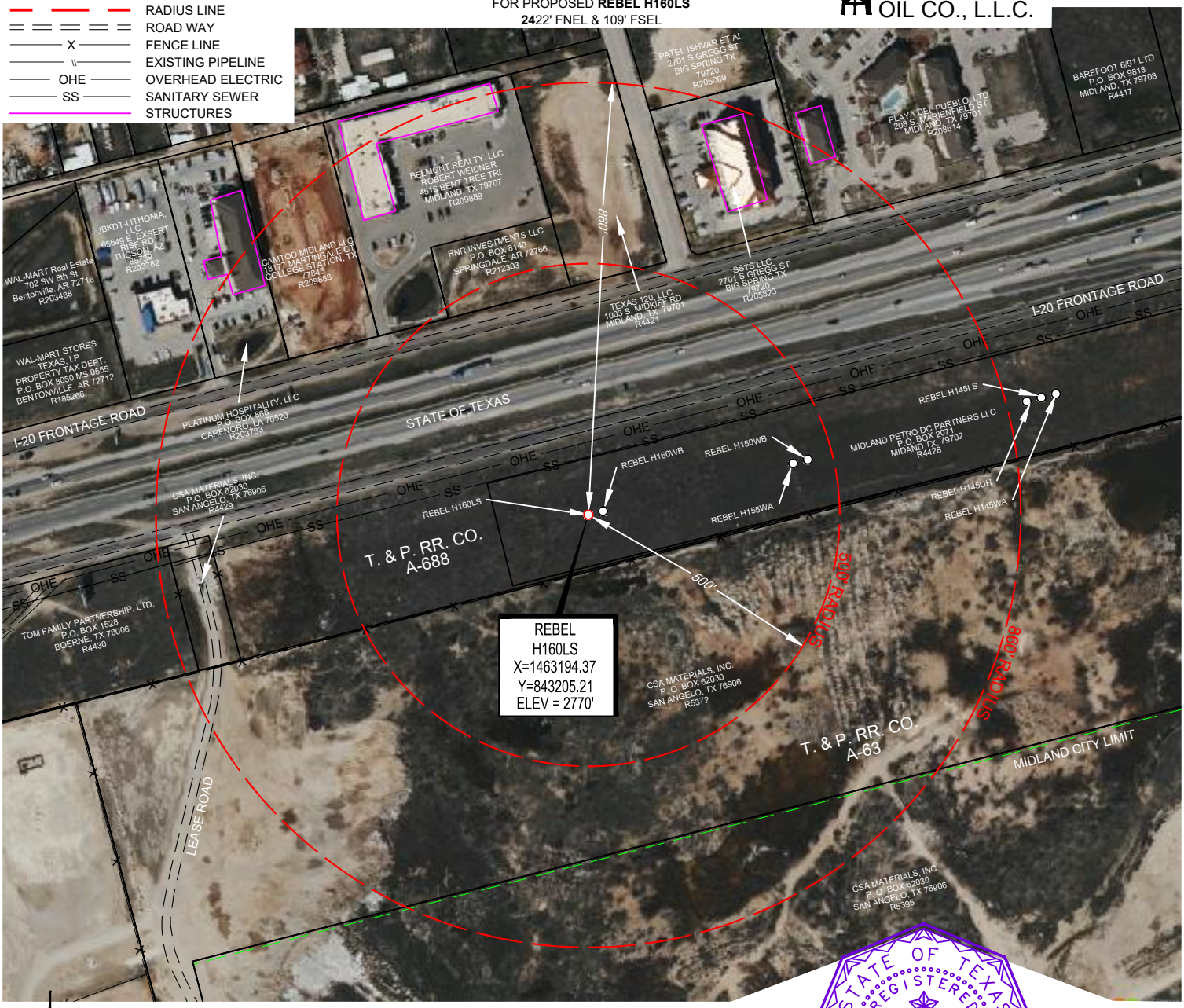
LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- SANITARY SEWER
- STRUCTURES

T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H160LS**
2422' FNEL & 109' FSEL

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
PROFESSIONAL
LAND SURVEYOR

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

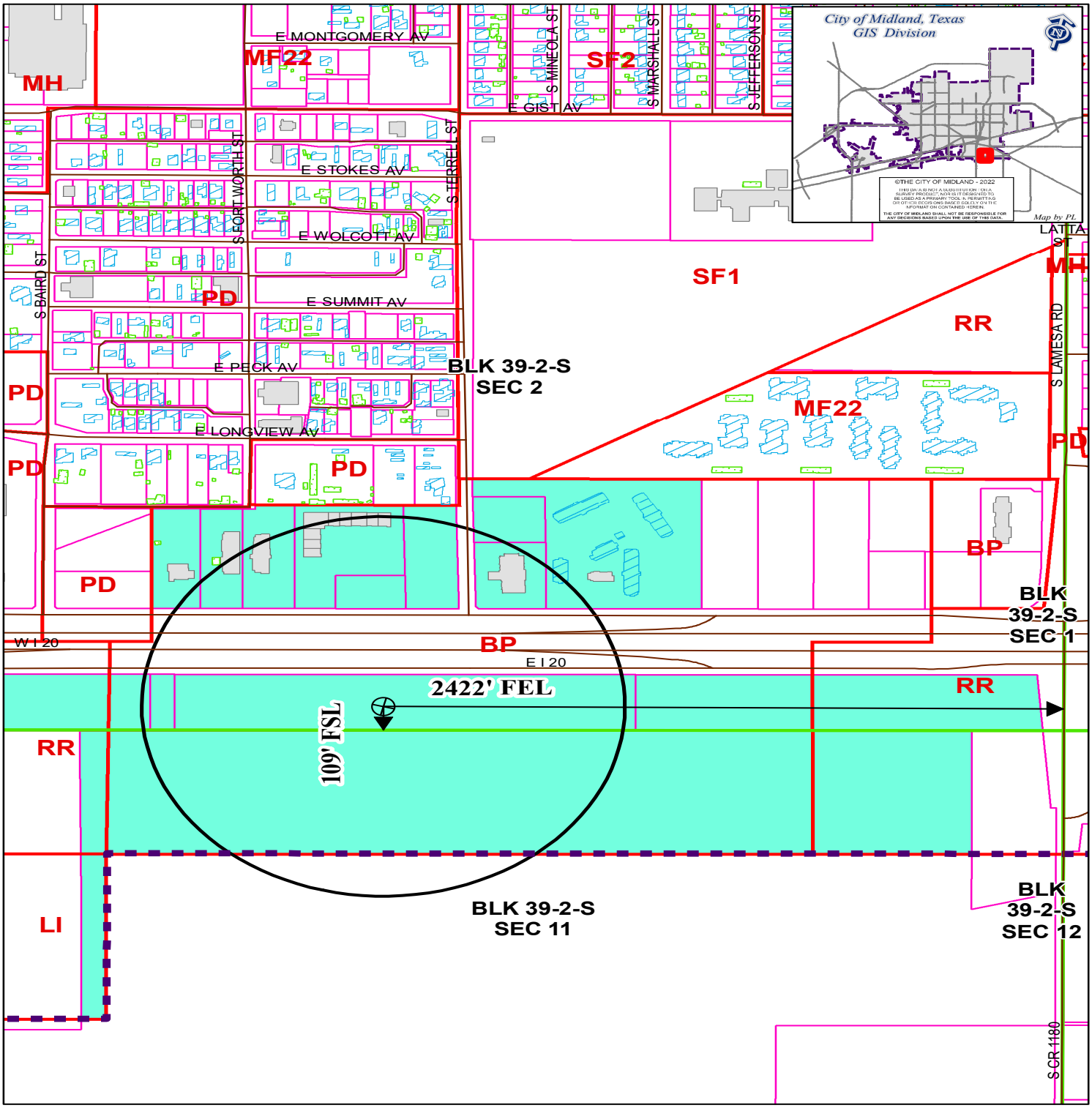
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: OCTOBER 15, 2021

REBEL H160LS	REVISION:	
	INT	DATE
	MJM	11/24/21
DATE: 10/10/18	DRH	12/09/21
FILE: CD_REBEL_H160LS_REV4	DRH	01/14/22
DRAWN BY: PAT	SDH	01/17/22
SHEET : 1 OF 4		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS COORDINATE
3. SYSTEM OF 1927 SOUTH CENTRAL ZONE, U.S. SURVEY FEET.
4. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
5. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
6. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.62 March 22, 2022



LOCATION AND ZONING MAP

Oil - 040666 - 2022 **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 109' FSL and 2,422' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,422 feet west of South Lamesa Road and 169 feet south of I-20.

Rebel #H160LS

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	01, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	RR	REGIONAL 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
01/03/2022	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"

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See Exhibit "A"

Other Permitted Wells in City ***(ATTACH EXHIBIT B*** **[see § J(26)]).** See Exhibit "B"

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Surface ownership: Two residences, apartment complex and service company yards:

See Exhibit "D"

ATTACHED AS EXHIBIT D **is**

Current Tax Roll from Midland Central Appraisal District)**, which lists**

the name(s) and address(es) of all surface owners within 860 feet of the surface well location. [See § J(7)].

ATTACHED AS EXHIBIT E is a *(map/p lat/satellite/aerial photo)* depicting all Residences, commercial structures, public buildings, all publicly dedicated Streets and alleys, Rights of Way, and permanent accessory structures surrounding the proposed Drill Site. The *(map/p lat/satellite/aerial photo)* includes two circles, as required by the Ordinance—one depicting a 500 foot radius and one depicting an 860 foot radius from the proposed well's surface location. [See § J(10)].

ATTACHED AS EXHIBIT F is a copy of the notification letter(s) sent to 100 percent of the surface owners, Certified Mail, Return Receipt Requested. [See § J(36)].

IV. Well & Operations Information

Proposed Well Name: Rebel #H160WB

Proposed Hole Size, Casing Program and Cementing Program (attach Exhibit as Necessary)[See § J(11) and § L(4)]:

See Exhibit "G"

Legal Description of Proposed Well Site: SHL: 109' FSL & 2392' FEL, Section 2
Block 39, T-2-S, T&PRR Co. Survey, Midland County, Texas

ATTACHED AS EXHIBIT G is the Location Site Plan [See § J(9)].

ATTACHED AS EXHIBIT H is the Map with the proposed transportation route(s) and road(s) for equipment, chemicals, or refuse products used or produced in the proposed oil and gas operations. [See § J(12)].

ATTACHED AS EXHIBIT I is a copy of the approved Texas Railroad Commission permit to drill (Form W-1), together with all attachments *(also file copy of W-1 with City Secretary before commencement of drilling operations).* [See § J(16) and (20)].

ATTACHED AS EXHIBIT J is a copy of the required TCEQ report as to depth of usable quality ground water. [See § J(17)].

ATTACHED AS EXHIBIT K (if applicable) is the list of alternative locations developed in consultation with the Oil & Gas Advisory Committee. [See § J(27)].

ATTACHED AS EXHIBIT L is the Fencing and Irrigation Plan. [See § J(30)].

ATTACHED AS EXHIBIT M: No city roads will be used

ATTACHED AS EXHIBIT N is the Concept Plan depicting the proposed Operations Site (which includes tanks, roads, power lines, and pipeline routes). [See § J(32)].

Description of Public Utilities required during (1) drilling and (2) operations:

(1) **Drilling: None**

(2) **Operations: Oncor**

Description of water source to be used during Drilling: Water is to be piped in from our water wells, drill additional water wells or truck fresh water in. All brine water will be trucked in.

Description of all electric lines to production facilities (reference exhibits as necessary) [See § L(10)]:

See Exhibit "N"

Plan detailing construction, location, and closure of pits used for Drilling and Completion operations (attach exhibit if necessary) [See § J(35)]: Trench and encapsulate per TXRRC Rule 27(c)(10)(v)

See Exhibit "O"

V. Additional Required Exhibits

ATTACHED AS EXHIBIT P **is the** ***Letter of Credit/Certificate of Deposit*** **in accordance with Subsection (K)(2). [See § J(18)].**

ATTACHED AS EXHIBIT Q **: Tax certificates from Midland Central Appraisal District to be submitted indicating that all taxes on personal and real property, including minerals, owned by applicant are current. (See § J(29)**

ATTACHED AS EXHIBIT R **is the required Insurance Certificate. [See § J(19) and § K(3)].**

ATTACHED AS EXHIBIT S (if applicable) **is the Drainage Plan relating to Applicant's proposed operations. [See § J(21)].**

ATTACHED AS EXHIBIT T **is Applicant's Emergency Action Response Plan. [See § J(22)].**

ATTACHED AS EXHIBIT U **is Applicant's Hazardous Materials Management Plan, a copy of which has been submitted and is on file with the Midland Fire Department. [See § J(23)].**

ATTACHED AS EXHIBIT V: Applicants variances

Permian Deep Rock Oil Company
[NAME OF COMPANY]

By _____
Its General Manager

State of Texas)

County of Midland)

Kyle Hammond , personally appeared before me, and being first duly sworn declared he/she signed the application in the capacity designated, if any, and further states that he/she has read the above application and attached exhibits and the statements therein are true and correct to the best of their knowledge.

Estella Pena
Notary Public, State of Texas

[S E A L]

ESTELLA PENA
Notary Public, State of Texas
My Commission Expires
August 03, 2025
NOTARY ID 13123361-8

SCALE: 1" = 300'

0' 150' 300'

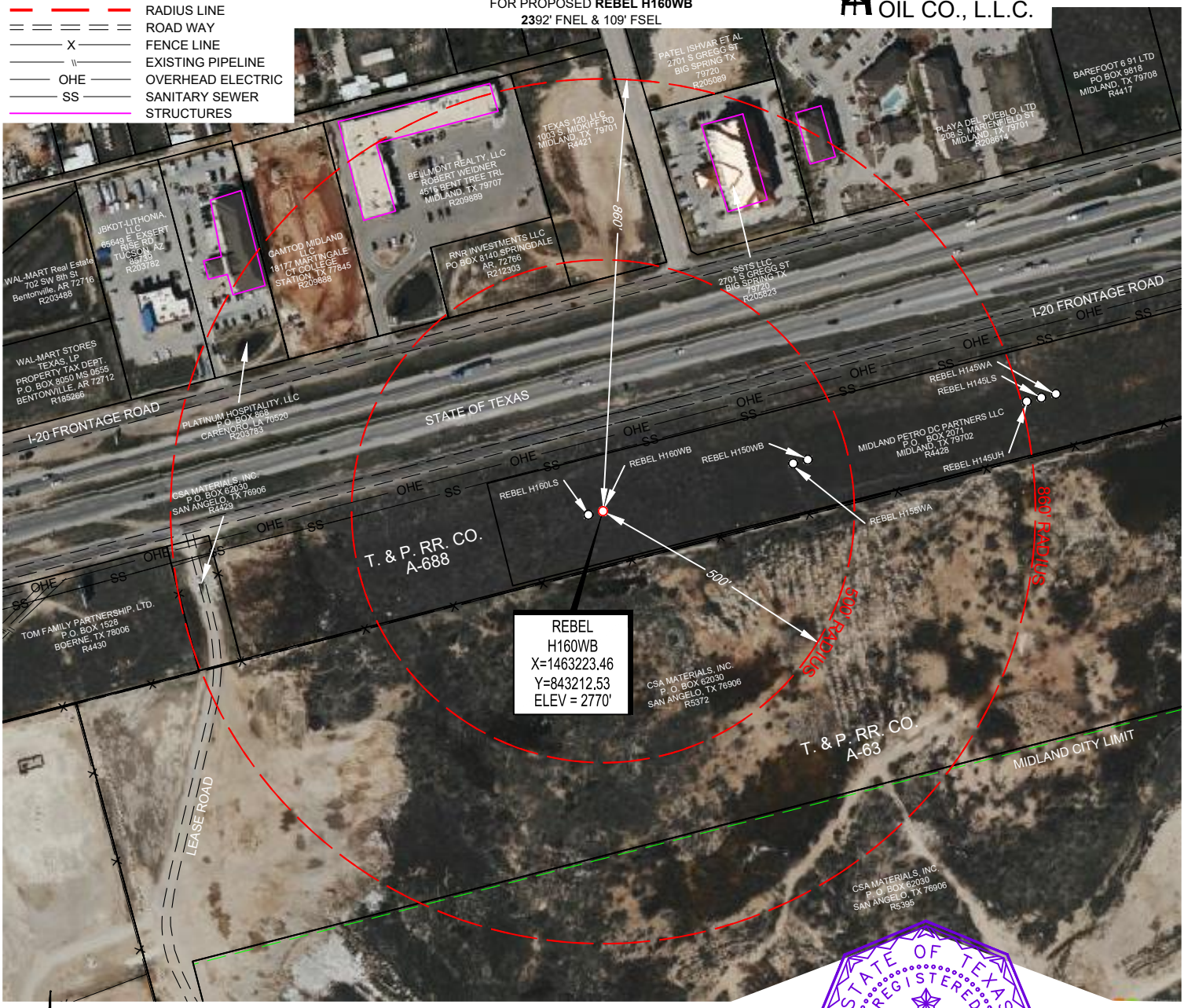
LEGEND

- SURVEY/SECTION LINE
- RADIUS LINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- SANITARY SEWER
- STRUCTURES

T. & P. RR. CO. SURVEY, A-688
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

SHOWING STRUCTURES WITHIN 500' RADIUS
AND PROPERTY OWNERS WITHIN 860' RADIUS
FOR PROPOSED **REBEL H160WB**
2392' FNEL & 109' FSEL

PERMIAN DEEP ROCK OIL CO., L.L.C.



N

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7548
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

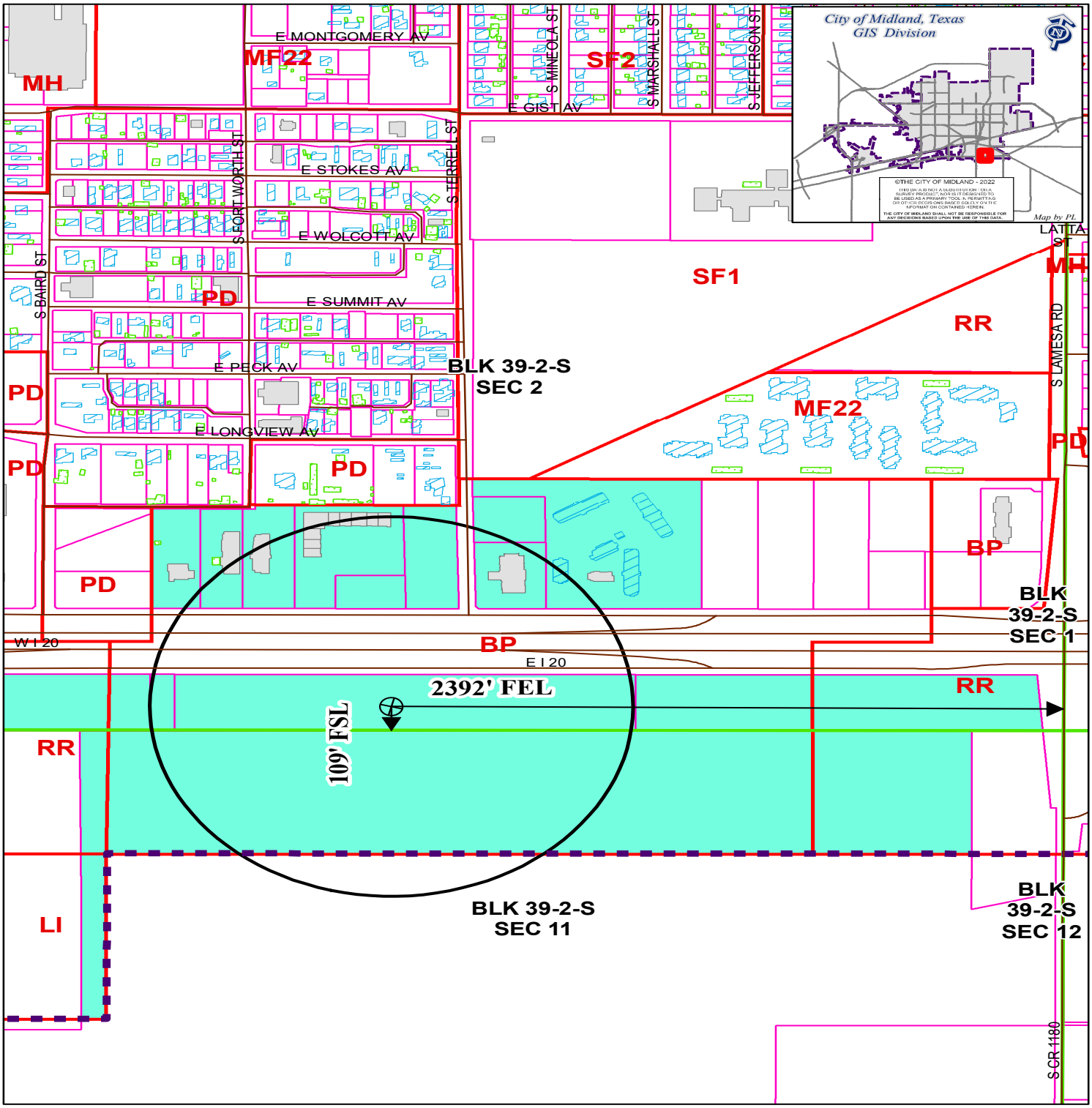
STATE OF TEXAS
REGISTERED
JEFFREY N. LUEDERS
6512
LAND SURVEYOR
PROFESSIONAL

Jeffrey N. Lueders, R.P.L.S. No. 6512
SURVEYED ON THE GROUND: NEVEMBER 23, 2021

REBEL H160WB	REVISION: INT	DATE
	DRH	12/01/21
DATE: 10/10/18	DRH	12/09/21
FILE: CD_REBEL_H160WB_REV4	DRH	01/14/22
DRAWN BY: PA	SDH	01/17/22
SHEET : 1 OF 4		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE TEXAS COORDINATE
3. SYSTEM OF 1927 SOUTH CENTRAL ZONE, U.S. SURVEY FEET.
4. THIS PROPOSED LOCATION HAS BEEN CAREFULLY SURVEYED ON THE GROUND UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE ACCORDING TO THE EVIDENCE, OFFICIAL SURVEY RECORDS, MAPS, AND OTHER DATA PROVIDED PERMIAN DEEP ROCK OIL CO., LLC. THIS PLAT WAS CREATED FOR THE SOLE PURPOSE OF FILING A PERMIT WITH THE CITY OF MIDLAND, MIDLAND COUNTY, TEXAS AND SHOULD NOT BE CONSTRUED AS A "BOUNDARY SURVEY" IN COMPLIANCE WITH T.B.P.L.S. MINIMUM STANDARDS OF PROCEDURES FOR BOUNDARY SURVEYS. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
5. OWNERSHIP INFORMATION SHOWN HEREON WAS TAKEN FROM THE CITY OF MIDLAND, TEXAS GIS SITE.
6. DISTANCES SHOWN HEREON TO EXISTING STRUCTURES ARE SCALED PER AERIAL MAP.

PACKET 27.68 March 22, 2022



LOCATION AND ZONING MAP

Oil - 040667 - 2022 **Scale: 1" = 500'**

Consider a request for a Permit to drill an Oil and Gas Well within the City Limits located 109' FSL and 2,392' FEL, Section 2, Block 39, T-2-S, T&P RR CO Survey, Midland County, Texas.

Generally located 2,392 feet west of South Lamesa Road and 169 feet south of I-20.

Rebel #H160WB

LEGEND

CITY PARCELS	PUBLIC BLDGS	CITY LIMITS
COUNTY PARCELS	PRIVATE BLDGS	860 FT. BUFFER
ZONING	ACCESSORY BLDGS	SURVEY SEC.

ZONING DISTRICTS:

FD	FUTURE DEVELOPMENT	BP	BUSINESS PARK
PD	PLANNED DISTRICT	P	PARKING
AE	AGRICULTURE ESTATE	01, 02	OFFICE
CE	COUNTRY ESTATE	NS	NEIGHBORHOOD SERVICE
1F, 1F2, 1F3	ONE-FAMILY DWELLING	RR	REGIONAL 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: 28

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Kelly Martinez, Senior Planner

Subject: AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.41-ACRE TRACT OF LAND OUT OF LOT 3, ASHLIN PLACE, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTHEAST SIDE OF LIVE OAK DRIVE, APPROXIMATELY 233 FEET SOUTH OF WEST SCHARBAUER DRIVE), BY PERMITTING (1) AN INCREASED MAXIMUM LIVING AREA OF AN ACCESSORY DWELLING UNIT AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION (DISTRICT 3) (DEVELOPMENT SERVICES)

Purpose:

The applicant, Garner Gonzales, is requesting a Special Exception from the City of Midland Zoning Ordinance, *Section 4.09 C. Accessory Dwelling Units and Use Limitations,* for an increase to the maximum square footage of an Accessory Dwelling Unit and *Section 5.04 Residential Zoning District Dimensional Regulations Chart*, for a reduction to the minimum rear yard setback for the property located at 2 Live Oak Drive.

Recommended City Council Action:

Deny

Fiscal Impact:

No City funds are required to process this request.

Discussion:

The applicant's property is located at 2 Live Oak Drive and the location of a single-family residence. The applicant is requesting a special exception to the maximum square footage of an accessory dwelling unit and the minimum rear yard setback.

Per our City of Midland Zoning Ordinance, *Section 4.09 – Accessory Buildings and Uses*
C. Accessory Dwelling Units and Use Limitations
1b. The living area of an Accessory Dwelling Unit shall not exceed 1,000 sq feet or 30 percent of the area of the principal residence, whichever is less.

Also, per *Section 5.04 – Residential Zoning District Dimensional Regulations Chart:*
SF-1, Single Family Dwelling District
Yard Setback Dimensions
Minimum Rear Yard Setback: Where an alley adjoins the rear lot line:
10 Feet = 2 story structure

The main structure is currently overlapping Lot 2 and Lot 3. This is considered a legal nonconforming structure. The property currently has two accessory structures including a pool house and a pool. This property is allowed to have 3 (three) accessory structures. The applicant is proposing to build a two-story accessory dwelling unit that will be used as a guesthouse and gym. The floor plan as shown in Exhibit C indicates that the accessory dwelling unit has 1,137 square feet of livable space. This exceeds the maximum square footage allowed by 137 square feet. Additionally, the applicant is proposing to build the accessory dwelling unit with a zero-rear setback. Per our zoning ordinance, an accessory dwelling unit cannot encroach in the setbacks for the property. Furthermore, there is no hardship indicating that the dwelling unit cannot maintain the 10-foot setback. There is enough distance between the primary residence and the rear property line to build the detached dwelling unit 10-feet from the property line.

This request has been circulated to all pertinent City departments for review. Below are the departments' comments.

Engineering: (Approved with Conditions)

No objections.

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.

Our staff has examined the FEMA flood map and it appears that this property lies entirely within Zone AE, which is a Special Flood Hazard Area subject to inundation by the 1% annual chance flood. An elevation certificate based off of construction drawings will be required to get a building permit to show compliance to the free board requirements and special floodproofing depending on the structure's designation. An elevation certificate based off of finish construction will be required for the Certificate of Occupancy.

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.]

Fire: (Approved)

No objections.

Code Compliance: (Approved)

No Oil or 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.

GIS: (Approved)

N/A

Planning Analysis:

As this request represents a deviation from the existing Zoning Ordinance, staff would recommend denial of this application for a Special Exception to the City of Midland Zoning Ordinance, *4.09 C. Accessory Dwelling Units and Use Limitations, and Section 5.04 – Residential Zoning District Dimensional Regulations Chart.*

Should the City Council approve this request, the property shall be subject to conditions A through C:

Conditions:

A. That the minimum rear yard setback for the accessory dwelling unit shall be zero feet.

B. That Property shall significantly conform to the conditions shown in Exhibit "B", which is attached hereto and incorporated herein; provided,

however, that the accessory dwelling unit, which is identified as "NEW ADDITION" in Exhibit "B", shall not be located on the Property unless the Property has been granted a Specific Use Designation that allows the accessory dwelling unit to be located thereon.

C. **That the living area of the accessory dwelling unit shall not exceed 1,137 square feet as shown in exhibit "C", which is attached hereto and incorporated herein.**

Letters of Objection:

As of March 9, 2022, staff has not received any letters of objection

Attachments:

Application
Property Survey (Exhibit A)
Site Plan (Exhibit B)
Floor Plan (Exhibit C)
Elevations
Maps

Morris William Jr.

City Manager's Office

ORDINANCE NO. _____

AN ORDINANCE GRANTING A SPECIAL EXCEPTION FOR A 0.41-ACRE TRACT OF LAND OUT OF LOT 3, ASHLIN PLACE, SECTION 2, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED ON THE SOUTHEAST SIDE OF LIVE OAK DRIVE, APPROXIMATELY 233 FEET SOUTH OF WEST SCHARBAUER DRIVE), BY PERMITTING (1) AN INCREASED MAXIMUM LIVING AREA OF AN ACCESSORY DWELLING UNIT AND (2) A REDUCED MINIMUM REAR YARD SETBACK; CONTAINING A CUMULATIVE CLAUSE; CONTAINING A SAVINGS AND SEVERABILITY CLAUSE; PROVIDING FOR A MAXIMUM PENALTY OR FINE OF TWO THOUSAND DOLLARS ($2,000.00); ORDERING RECORDATION BY THE CITY SECRETARY IN THE DEED RECORDS OF MIDLAND COUNTY, TEXAS; AND ORDERING PUBLICATION

WHEREAS, the City Council modified the authority of the Board of Adjustment in Title XI, Chapter 1, Section 7 ("Section 11-1-7") of the Midland City Code; and

WHEREAS, Section 11-1-7 provides for the consideration of requests for special exceptions to the Midland Zoning Ordinance; and

WHEREAS, the Council finds that satisfactory evidence has been presented that the use to be authorized by the granting of the special exception will not be detrimental to the health, safety, comfort and welfare of the occupants of the land area near the tract on which the use to be allowed by special exception will be located; and

WHEREAS, the Council finds that it is clearly and specifically authorized by the terms of Section 11-1-7 to grant such a special exception, and said exception will be in harmony with the general purposes and intent of the zoning provisions of the Midland City Code; and

WHEREAS, after a full and fair public hearing at which all parties in interest were offered an opportunity to be heard, all pursuant to law, the Council finds it to be in the public interest to grant a special exception to the Zoning Code, pursuant to Section 11-1-7, for the purposes herein stated, subject to special conditions;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE

CITY OF MIDLAND, TEXAS:

SECTION ONE. That a special exception is hereby granted for the property described as a 0.41-acre tract of land out of Lot 3, Ashlin Place, Section 2, City and County of Midland, Texas, said tract being more fully described in Exhibit "A", which is attached hereto and incorporated herein (the "Property"). Said special exception shall allow (1) an increased maximum living area of an accessory dwelling unit and (2) a reduced minimum rear yard setback.

SECTION TWO. Said special exception is subject to the following special conditions:

A. That the minimum rear yard setback shall be zero feet (0').

B. That the Property shall significantly conform to the conditions shown in Exhibit "B", which is attached hereto and incorporated herein; provided, however, that the accessory dwelling unit, which is identified as "NEW ADDITION" in Exhibit "B", shall not be located on the Property unless the Property has been granted a Specific Use Designation that allows the accessory dwelling unit to be located thereon.

C. That the living area of the accessory dwelling unit shall not exceed 1,137 square feet as shown in Exhibit "C", which is attached hereto and incorporated 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 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

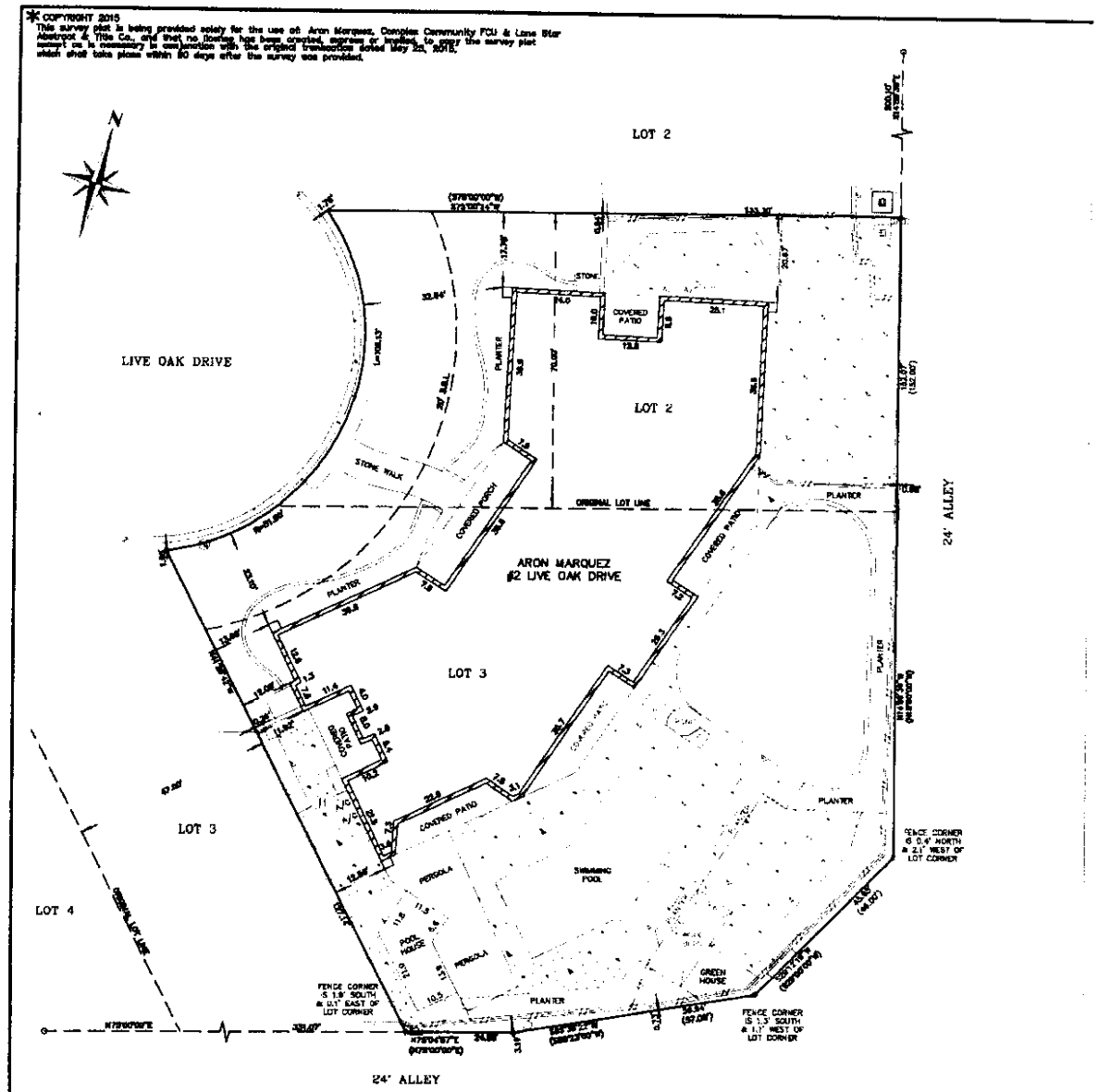
APPROVED AS TO CONTENT
AND COMPLETENESS:

_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

COPYRIGHT 2015
This survey plat is being provided solely for the use of: Aron Marquez, Complex Community FCU & Lone Star Abstract & Title Co., and that no likeness has been created, express or implied, to copy the survey plat except as is necessary in conjunction with the original transaction dated May 22, 2015, which shall take place within 90 days after the survey was provided.



PLAT OF THAT PORTION OF
LOT TWO (2) LYING SOUTH OF A LINE BEGINNING AT
A POINT IN THE EAST BOUNDARY LINE OF SAID LOT 2 WHICH
IS 50' SOUTH OF THE NORTHEAST CORNER OF SAID
LOT 2 AND DRAWN WESTERLY AND PERPENDICULAR
TO THE EASTERN BOUNDARY LINE OF SAID LOT 2;
AND ALL OF LOT THREE (3), SAVE AND EXCEPT
THAT PORTION OF SAID LOT 3 LYING TO THE WEST OF
A LINE EXTENDING FROM THE NORTH BOUNDARY LINE TO
THE SOUTH BOUNDARY LINE AND PARALLEL TO AND 47'
FROM THE WESTERLY BOUNDARY LINE OF SAID LOT 3,
ASHLIN PLACE, (2ND SECTION),
AN ADDITION TO THE CITY OF MIDLAND
MIDLAND COUNTY, TEXAS
ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN CABINET A, PAGE 167, PLAT RECORDS, MIDLAND COUNTY, TEXAS

The following Easements, Rights-of-way, and Restrictive covenants as listed on this title commitment furnished by:
Lone Star Abstract and Title Co., Inc.,
G.F. No.: 204920

Restrictive Covenants:
Vol. 303, Pg. 187 & 189,
Deed Records,
Midland Co., Texas

Census Tract: 6

This tract is in Flood Zone "AE" as shown on the Flood Insurance Rate Map, Dated September 18, 2009 provided by the Federal Emergency Management Agency Flood Map Number: 48329C0089 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 25th day of May 2015.

Bruce R. Pennell
Registered Professional Land Surveyor No. 4170
Date: 05/25/15
(IF SURVEYORS SIGNATURE IS NOT SIGNED IN RED INK, THIS IS NOT AN ORIGINAL DOCUMENT)

PENNELL LAND SURVEYING
PROFESSIONAL LAND SURVEYING
P.O. BOX 51682, MIDLAND, TEXAS 79710
VOICE:(432)570-0256 FAX: (432)682-3292 MOBILE: (432)528-1027

ABSTRACT OFFICE: LONE STAR | G.F. #: 204920 | COMMITMENT EFFECTIVE DATE: 04/23/15
CAD FILE: BRF18054 | DATA FILE: ZLIVEOAK | DRAWN BY: MARCY M. | BOOK/PAGE: 1/

STATE OF TEXAS REGISTERED BRUCE R. PENNELL 4170 PROFESSIONAL LAND SURVEYOR

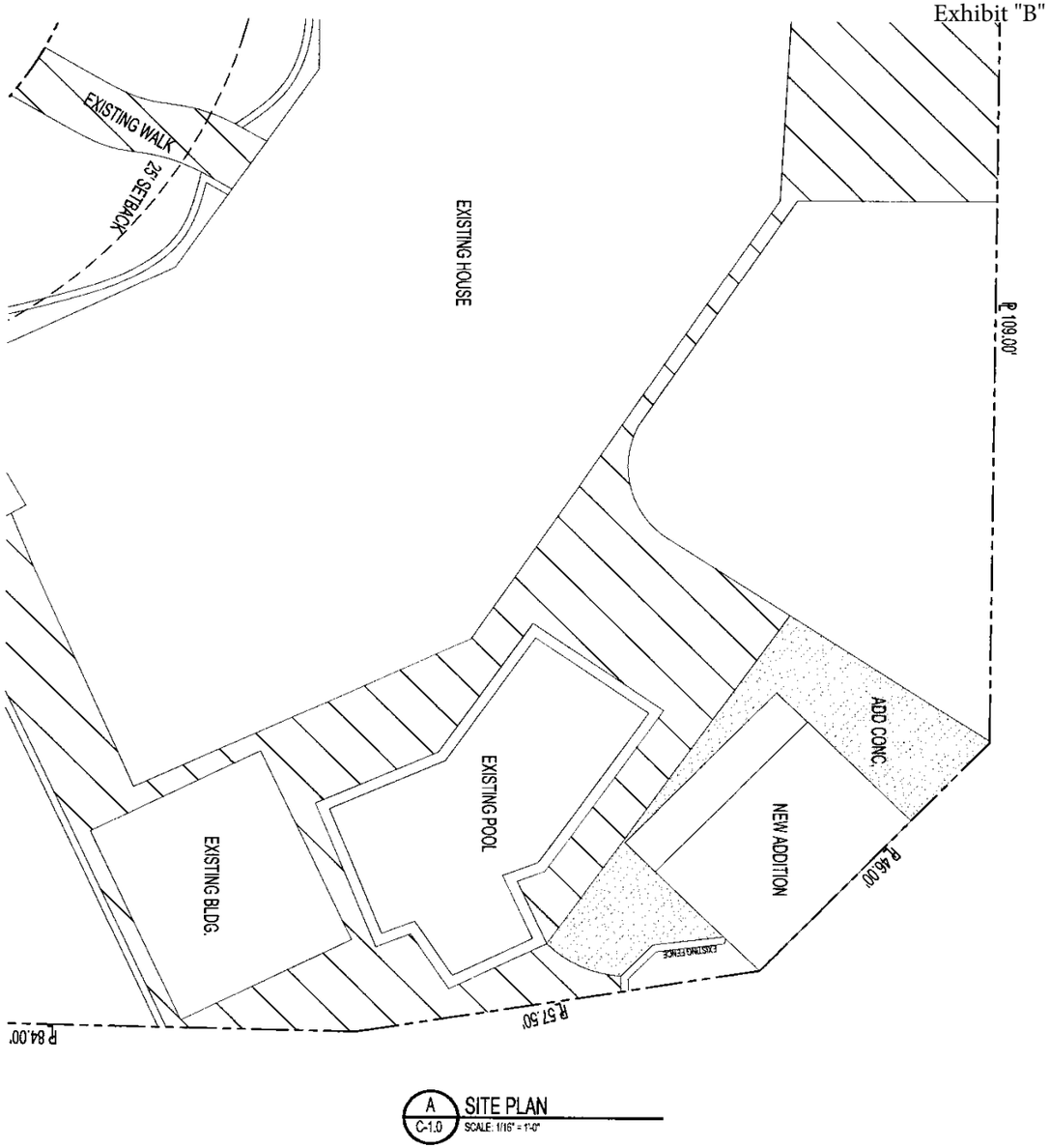
Basis of Bearings:
SOUTH Line of this Block

Bearings and Distances Shown
Inside ( ) Indicate Record Information

20 10 0 20
SCALE: 1" = 20'

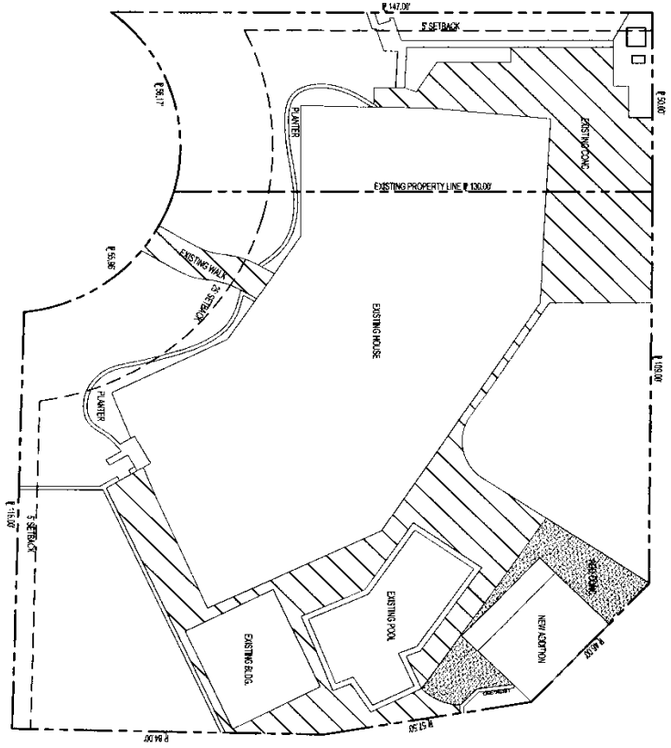
LEGEND
- Set 1/2" I.R. W/Cap "RPLS 4170"
- Fnd. 1/2" I.R.
- Gas Meter
- Water Meter
- Light Pole
- Power Pole
- Fire Hydrant
- OVERHEAD ELECTRIC
- Guy Wire
- Telephone Junct. Box
- Cable TV Junct. Box
- Buried Pipeline Marker
- Sewer Cleanout
- Underground Electric Box
- Utility Box
- Misc. Sign
- Sanitary Sewer Manhole
- Water Valve
- Gas Valve
- Satellite Dish
- Propane Tank
- Water Well

Exhibit "B"



A C-1.0 SITE PLAN
SCALE: 1/16" = 1'-0"

1. DRIVEWAY DETAILS ON SHEET D-1.0



B C-1.0 SITE PLAN
SCALE: 1/32" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

THESE DOCUMENTS ARE INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION AND/OR PERMIT PURPOSES.

2 LIVE OAK DR.
MIDLAND, TEXAS
LOT 0021, BLOCK 000
ASHLIN PLACE ADDN.

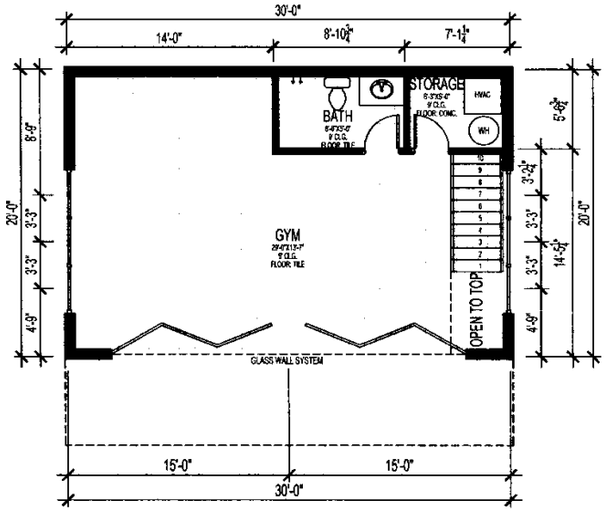
1	PRELIMINARY PLANS	01/20/22

Chad Walters
432-352-0788
chad@midland-dci.com
www.midland-dci.com

PROJECT NUMBER: 202209
DRAWN BY: CCW
CHECKED BY: CCW

C-1.0

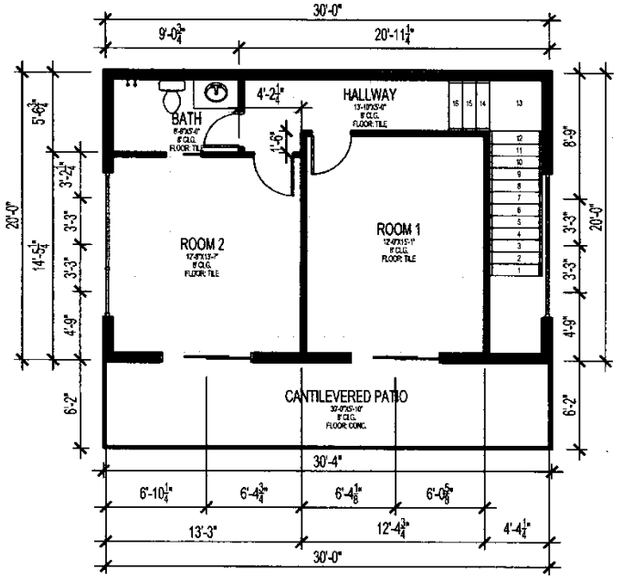
Exhibit "C"



A A-2.0 1ST FLOOR PLAN
SCALE: 1/8" = 1'-0"

SQUARE FOOTAGE'S OVER BRICK
SQUARE FOOTAGE'S ARE CALCULATED WITH 5.5" BRICK POCKET AND MAY VARY DEPENDING ON EXTERIOR MATERIAL

1ST FLOOR LIVABLE	617	SQ. FT.
2ND FLOOR LIVABLE	520	SQ. FT.
TOTAL LIVABLE	1,137	SQ. FT.
CANTILEVERED PATIO	182	SQ. FT.
TOTAL	1,319	SQ. FT.



B B-2.0 2ND FLOOR PLAN
SCALE: 1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

THESE DOCUMENTS ARE IN FOR REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION AND/OR PERMIT PURPOSES.

2 LIVE OAK DR.
MIDLAND, TEXAS
LOT 0021, BLOCK 000
ASHLIN PLACE ADDN.

1	PRELIMINARY PLANS	(01/20/22)

DCI
Chad Walters
432-352-0788
chad@midland-dci.com
www.midland-dci.com

PROJECT NUMBER: 2020-09	
DRAWN BY	CDW
CHECKED BY	CDW

A-2.0

© 2022 MIDLAND DCI, INC.

MIDLAND
Planning Division

Special Exception Application

Project Number: E-22-0071

Case Number: _____

Applicant *(if acting as Agent, see affidavit on page 2)*		Phone ( )	
Printed Name: GARNER Gonzales		Email 432 967 0699	
Address PO Box 125	City MIDLAND	State TX	Zip 79702

Property Owner		Phone ( )	
Printed Name: Aron MARquez		Email 432 770 8624	
Address 2 Live OAK DR.	City MIDLAND	State TX	Zip 79705

Representative *(if different from Applicant or Property Owner)*		Phone ( )	
Firm: GONZALES CONTRACTORS, LLC		Email 432 967 0059	
Printed Name: HENRY GONZALES			
Address PO Box 125	City MIDLAND	State TX	Zip 79702

Street Address: 2 Live OAK DR. MIDLAND TX 79705

Legal Description
Lot: Block: Subdivision:

Current Zoning:

This property qualifies as an exception to the City Code because:

- ☐ It is an expansion of a nonconforming use.
- ☑ There are existing nonconforming structures in the area.
- ☑ The addition of architectural or other projections of a minor extent.

Reason for Request: Pool House Project. Request for Special Exception ADD Accessory Building

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: 02/02/22
Applicant (printed):	GARNER GONZALES	
Property Owner (signature):		Date: 2/4/2022
Property Owner (printed):	ARAN MARQUEZ	

The Special Exception shall be considered officially received by 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 Garner Daniel Gonzales who, being by me duly sworn, upon oath says: That (s)he is authorized by Aran Marquez, 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 8 day of Feb, 2022, to certify which witness my hand and seal of office.

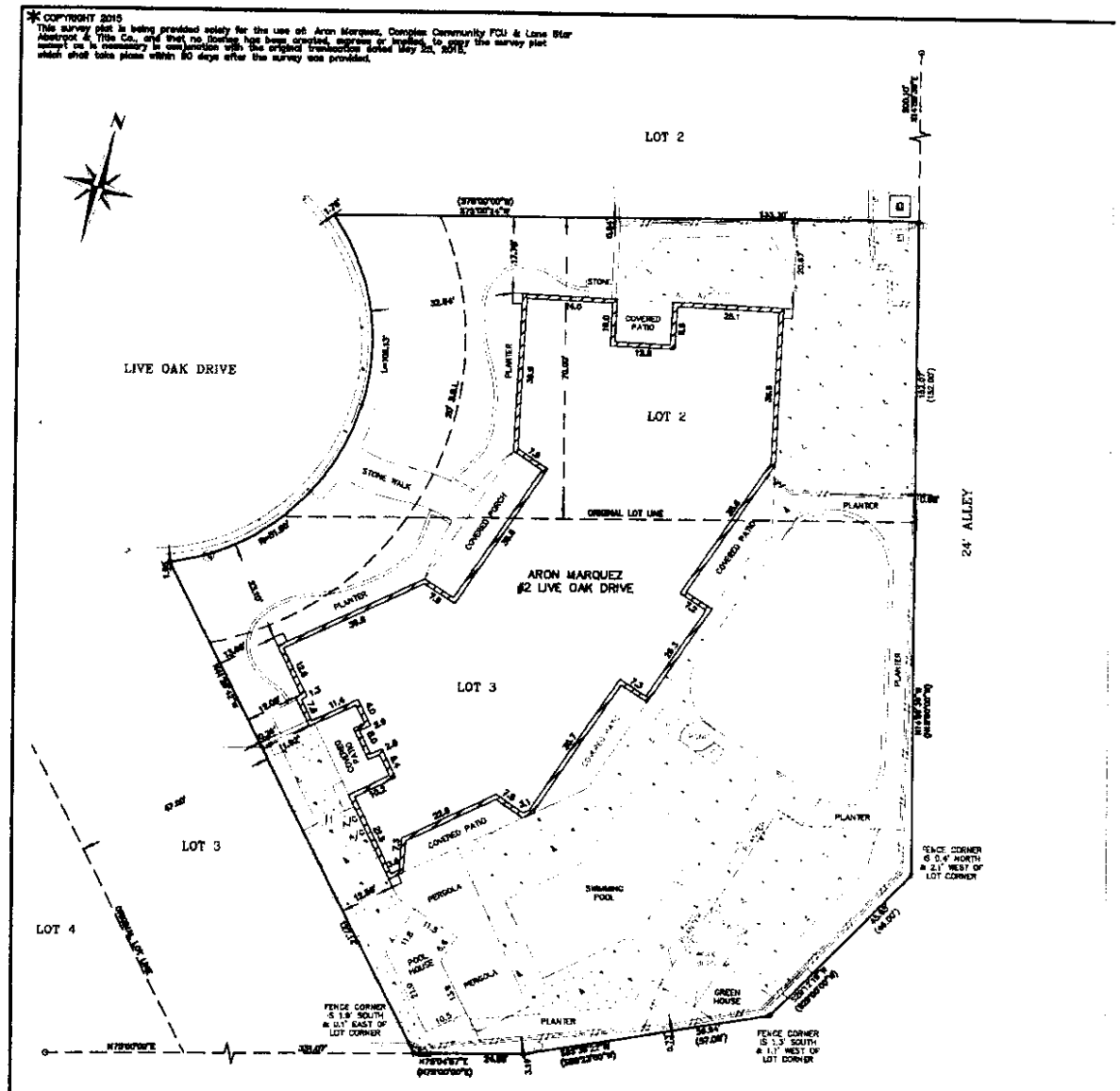
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

NOTARY PUBLIC STATE OF TEXAS #131773484 Comm. Exp. Oct. 25, 2022

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 2015
This survey plat is being provided solely for the use of: Aron Marquez, Compass Community FCU & Lone Star Abstract & Title Co., and that no liability has been accepted, expressed or implied, to any the survey plat except as is necessary in conjunction with the original transaction dated May 22, 2015, which shall take place within 90 days after the survey was provided.



PLAT OF THAT PORTION OF
LOT TWO (2) LYING SOUTH OF A LINE BEGINNING AT
A POINT IN THE EAST BOUNDARY LINE OF SAID LOT 2 WHICH
IS 50' SOUTH OF THE NORTHEAST CORNER OF SAID
LOT 2 AND DRAWN WESTERLY AND PERPENDICULAR
TO THE EASTERN BOUNDARY LINE OF SAID LOT 2;
AND ALL OF LOT THREE (3), SAVE AND EXCEPT
THAT PORTION OF SAID LOT 3 LYING TO THE WEST OF
A LINE EXTENDING FROM THE NORTH BOUNDARY LINE TO
THE SOUTH BOUNDARY LINE AND PARALLEL TO AND 47'
FROM THE WESTERLY BOUNDARY LINE OF SAID LOT 3,
ASHLIN PLACE, (2ND SECTION),
AN ADDITION TO THE CITY OF MIDLAND
MIDLAND COUNTY, TEXAS
ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN CABINET A, PAGE 167, PLAT RECORDS, MIDLAND COUNTY, TEXAS

The following Easements, Rights-of-way, and Restrictive covenants as listed on this title commitment furnished by:
Lone Star Abstract and Title Co., Inc.,
G.F. No.: 204920

Restrictive Covenants:
Vol. 303, Pg. 187 & 189,
Deed Records,
Midland Co., Texas

Census Tract: 6

This tract is in Flood Zone "AE" as shown on the Flood Insurance Rate Map, Dated September 18, 2009 provided by the Federal Emergency Management Agency Flood Map Number: 48329C0089 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 25th day of May 2015.

Bruce R. Pennell
Registered Professional Land Surveyor No. 4170
Date: 05/25/15

(IF SURVEYORS SIGNATURE IS NOT SIGNED IN RED INK, THIS IS NOT AN ORIGINAL DOCUMENT)

PENNELL LAND SURVEYING
PROFESSIONAL LAND SURVEYING
P.O. BOX 51682, MIDLAND, TEXAS 79710
VOICE:(432)570-0256 FAX: (432)682-3292 MOBILE: (432)528-1027

ABSTRACT OFFICE: LONE STAR | G.F. #: 204920 | COMMITMENT EFFECTIVE DATE: 04/23/15
CAD FILE: BRF18054 | DATA FILE: ZLIVEOAK | DRAWN BY: MARCY M. | BOOK/PAGE: 1/

STATE OF TEXAS REGISTERED BRUCE R. PENNELL 4170 PROFESSIONAL LAND SURVEYOR

Basis of Bearings:
SOUTH Line of this Block

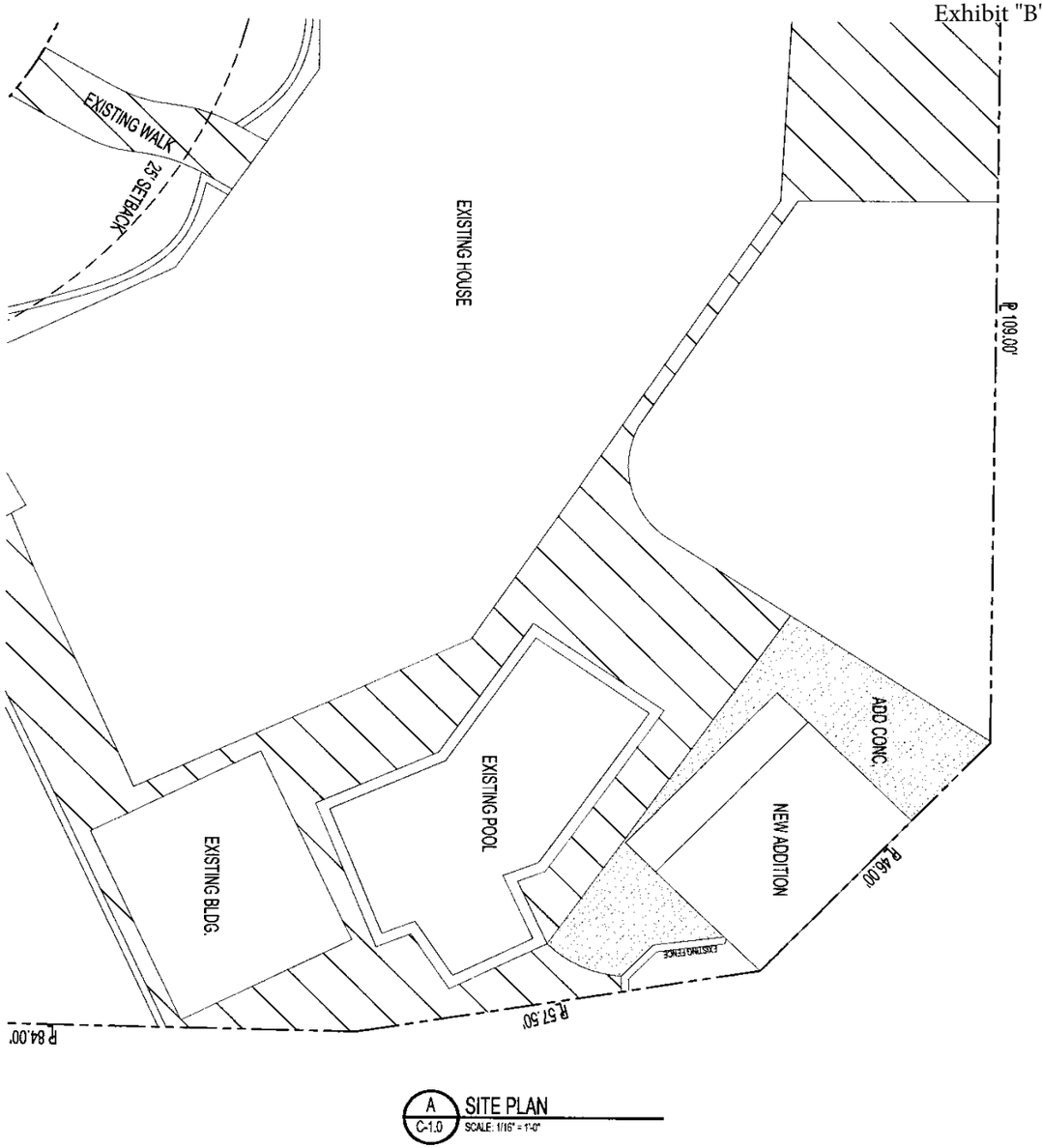
Bearings and Distances Shown Inside ( ) Indicate Record Information

20 10 0 20

SCALE: 1" = 20'

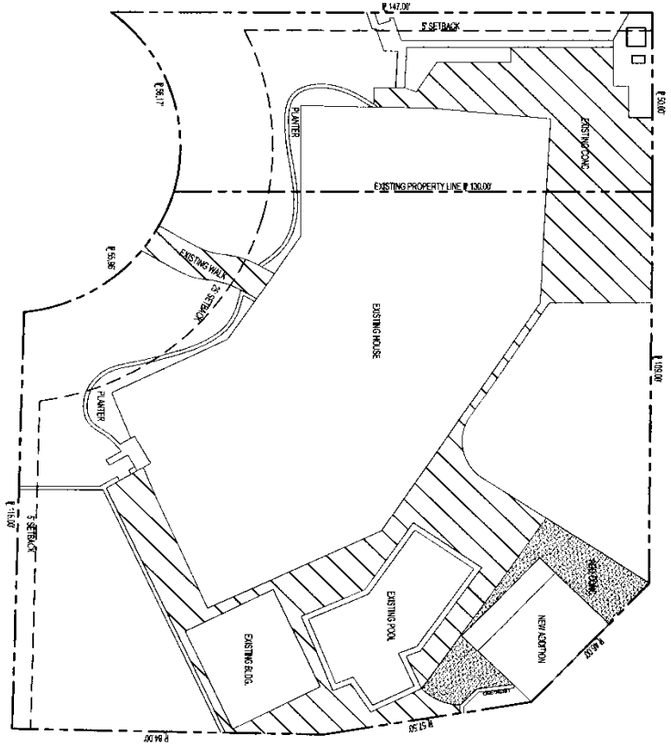
LEGEND
- Set 1/2" I.R. W/Cap "RPLS 4170"
- Fnd. 1/2" I.R.
- Gas Meter
- Water Meter
- Light Pole
- Power Pole
- Fire Hydrant
- OVERHEAD ELECTRIC
- Guy Wire
- Telephone Junct. Box
- Cable TV Junct. Box
- Buried Pipeline Marker
- Sewer Cleanout
- Underground Electric Box
- Utility Box
- Misc. Sign
- Sanitary Sewer Manhole
- Water Valve
- Gas Valve
- Satellite Dish
- Propane Tank
- Water Well

Exhibit "B"



A C-1.0 SITE PLAN
SCALE: 1/16" = 1'-0"

1. DRIVEWAY DETAILS ON SHEET D-1.0



B C-1.0 SITE PLAN
SCALE: 1/32" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

THESE DOCUMENTS ARE INTERIM REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION AND/OR PERMIT PURPOSES.

2 LIVE OAK DR.
MIDLAND, TEXAS
LOT 0021, BLOCK 000
ASHLIN PLACE ADDN.

1	PRELIMINARY PLANS	01/20/22	

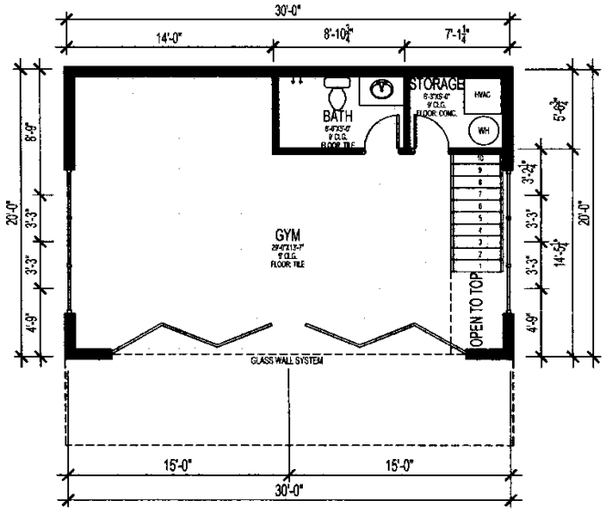
Chad Walters
432-352-0788
chad@midland-dci.com
www.midland-dci.com

PROJECT NUMBER: 202209	
DRAWN BY:	CW
CHECKED BY:	CW

C-1.0

© 2022 MIDLAND DCI, LLC
The design, concepts, and plans contained herein are the property of Midland DCI, LLC and shall not be used in whole or in part without the written permission of Midland DCI, LLC. Visual contact with these plans shall constitute prima facie evidence of the acceptance of these restrictions.

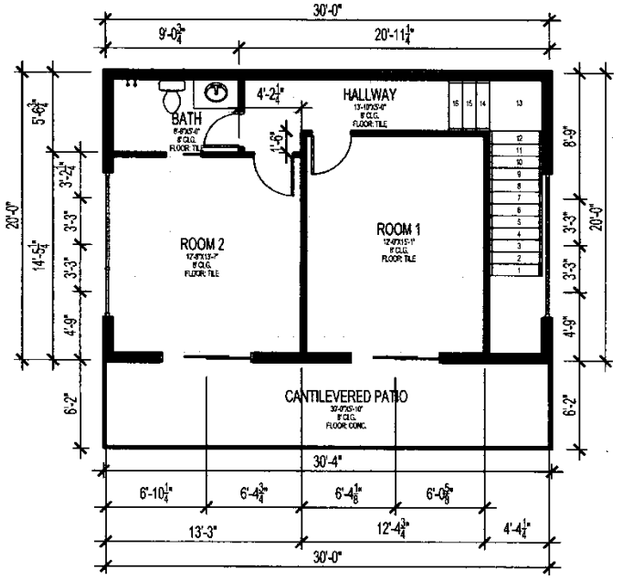
Exhibit "C"



A / A-2.0 1ST FLOOR PLAN
SCALE: 1/8" = 1'-0"

SQUARE FOOTAGE'S OVER BRICK
SQUARE FOOTAGE'S ARE CALCULATED WITH 5.5" BRICK POCKET AND MAY VARY DEPENDING ON EXTERIOR MATERIAL

1ST FLOOR LIVABLE	617	SQ. FT.
2ND FLOOR LIVABLE	520	SQ. FT.
TOTAL LIVABLE	1,137	SQ. FT.
CANTILEVERED PATIO	182	SQ. FT.
TOTAL	1,319	SQ. FT.



B / B-2.0 2ND FLOOR PLAN
SCALE: 1/8" = 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

THESE DOCUMENTS ARE IN FOR REVIEW AND ARE NOT INTENDED FOR CONSTRUCTION AND/OR PERMIT PURPOSES.

2 LIVE OAK DR.
MIDLAND, TEXAS
LOT 0021, BLOCK 000
ASHLIN PLACE ADDN.

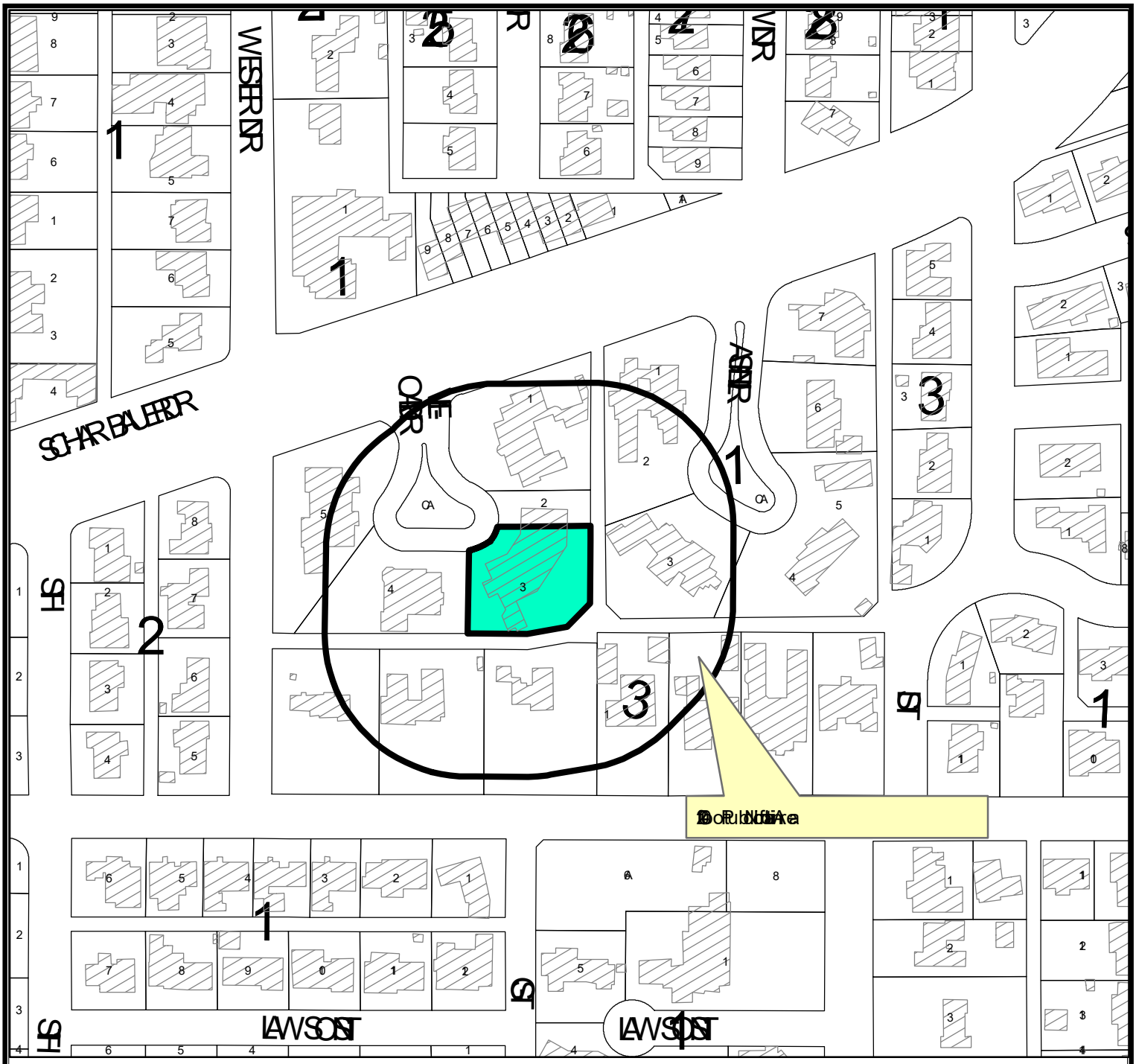
1	PRELIMINARY PLANS	(01/20/22)

DCI
Chad Walters
432-352-0788
chad@midland-dci.com
www.midland-dci.com

PROJECT NUMBER: 2020109	
DRAWN BY	CDW
CHECKED BY	CDW

SHEET 2 OF 8
A-2.0

© MIDLAND DCI, INC.



LOCATION MAP

E-22-0071 **Scale: 1" = 200'**

Consider a request by Garner Gonzales for a Special Exception from the City of Midland Zoning Ordinance, Section 4.09 C. Accessory Dwelling Units and Use Limitations, for an increase to the maximum square footage of an Accessory Dwelling Unit and Section 5.04 Residential Zoning District Dimensional Regulations Chart, for a reduction to the minimum rear yard setback on a 0.41-acre portion of Lot 3, Ashlin Place, Section 2, City and County of Midland, Texas.

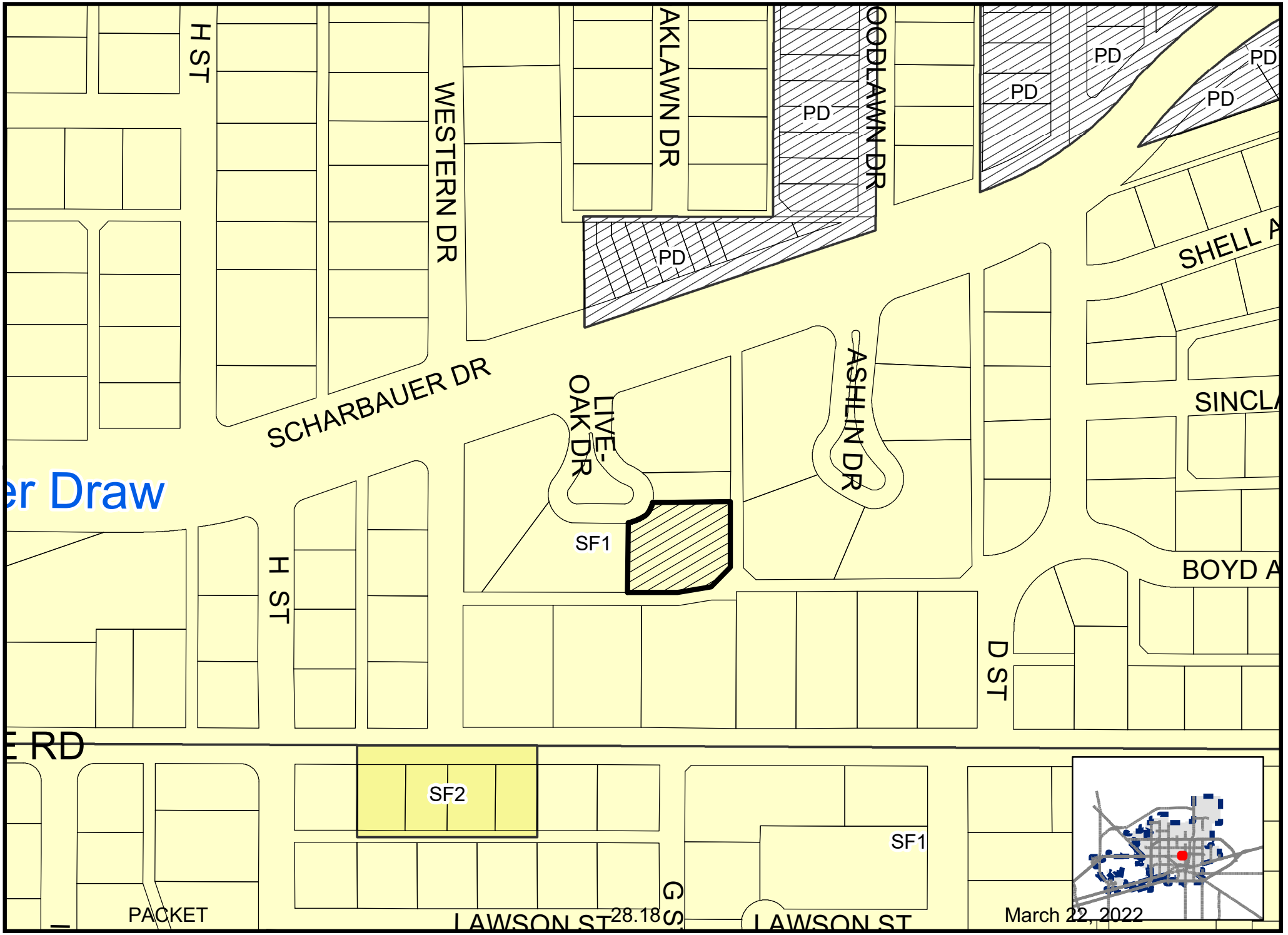
(Generally located at the south side of Live Oak Drive, approximately 225 feet south of W. Scharbauer Drive. Council District 3)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS



©THE CITY OF MIDLAND - 2021
THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY OR OPINION NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.
THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.



Map By KM, 2/16/2022

E-22-0071

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.









City Council Meeting

Item Number: 29

Meeting Date: March 22, 2022

To: City Council / City Manager

From: Kelly Martinez, Senior Planner

Subject: RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A CONCERT ON LOT 2, BLOCK 11, WESTRIDGE PARK ADDITION, SECTION 27, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF TRADEWINDS BOULEVARD AND WINDHAVEN DRIVE) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS (DISTRICT 4) (DEVELOPMENT SERVICES)

Purpose:

Consider a resolution on a request by Fair to Midland for approval of a Temporary Land Use Permit for a Live Concert.

Recommended City Council Action:

Approve

Fiscal Impact:

No City funds are required to process this request.

Discussion:

Fair to Midland is requesting a Temporary Land Use Permit for a Live Concert on their property located at 1115 Tradewinds Boulevard, as shown on the site plan (Exhibit A). The proposed date and time of the event is Saturday, April 2, 2022 from 11:00 a.m. to 2:00 a.m. In addition they are requesting the increase of occupant load from 382 to 500 for this event only.

This event is a grand opening party featuring a live concert by Paul Cauthen. The applicant is proposing to have a 24 ft. x 20 ft. stage on the south end of their building with a viewing area.

Alcohol will be sold and cosumed on the premises. The event will have (6) six peace officers. The site currently shows 87 parking spaces, and there will be 55 additional parking spaces provided across the street at the TRU Hotel. Per our city ordiance, Section 6. Zoning Development Regulation (E), one parking space per every four seats are required, totaling 158 parking spaces. Therefore, 16 parking spaces are missing. Furthermore, six (6) portable restrooms will be located on the west side of the building.

This request has been circulated to all pertinent City departments for review. Below are the departments's comments:

Engineering: (Approved)

No objections.

Transportation: (Approved)

No objection.

Fire: (Approved with Conditions)

Dead bolt on patio gates must be removed. The hardware must be capable of being opened from the inside without the use of a key of special knowledge or effort.

Building Code: (Approved with Conditions)

The Building Department does not object to the increase occupant load of 629 for this one time event, as long as 3 femle and 3 male additional portable toilets are provide for this event.

Code Compliance:

No oil and Gas issues.

Planning:

This temporary land use permit for the Live Concert is in compliance with Goal #2 of Chapter 7 of the Tall City Tomorrow Comprehensive Plan, which is to "create a cultural core' in Midland that is a living, working, and entertainment destination," as it provides an event that the residents of Midland can attend.

Staff recommends approval of this temporary land use permit, subject to conditions A through J:

A. **That the operation of the Live Concert shall conform to the attached Site Plan (Exhibit A).**

B. **That the day and hours of the Live Concert shall be limited to Saturday, April 2, 2022, from 11:00 a.m. to 2:00 a.m. (the following day)**

C. That the following uses are specifically permitted:

1. **Live music shall be allowed during operating hours of the event.**

2. **That the sale and on-premises consumption of alcoholic beverages shall be allowed during all operating hours and shall follow state and local laws.**

3. **That the occupant load shall be no more than 629 as shown in Exhibit B.**

D. That the Live Concert shall comply with all the requirements of the Fire Code; the applicant shall call for an inspection by the Fire Marshal prior to commencing the event.

1. **That the dead bolt on the patio gate shall be removed.**

2. **That any egress hardware doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.**

E. That a minimum of 158 parking spaces shall be provided per this event.

F. That the applicant shall obtain approval from the Solid Waste Department for a refuse collection and clean-up plan prior to the Event.

G. That a minimum of six (6) certified peace officers shall be provided as security guards during all operating hours.

H. That a minimum of six (6) portable restrooms shall be provided.

I. That the Code Administration Division and the Planning Division shall be notified no later than 48 hours preceding the event.

J. That, Benjamin Cantu, a representative of Fair to Midland, shall be responsible for ensuring that the conditions of this permit are observed.

Letters of Objection:

As of March 16, 2022, Staff has not received any letters of objection.

Attachments:

Site Plan (Exhibit A)
Occupant Load (Exhibit B)
Safety Plan

Additional Parking Plan
Application
Maps

Morris William Jr.

City Manager's Office

RESOLUTION NO. _____

RESOLUTION AUTHORIZING THE TEMPORARY USE OF LAND FOR A CONCERT ON LOT 2, BLOCK 11, WESTRIDGE PARK ADDITION, SECTION 27, CITY AND COUNTY OF MIDLAND, TEXAS (GENERALLY LOCATED AT THE NORTHWEST CORNER OF THE INTERSECTION OF TRADEWINDS BOULEVARD AND WINDHAVEN DRIVE) SUBJECT TO CERTAIN SPECIAL CONDITIONS AND RESTRICTIONS

WHEREAS, pursuant to Section 11-1-4.05 of the City Code of Midland, Texas, Fair to Midland, LLC (the "Applicant") has applied for authorization to temporarily use Lot 2, Block 11, Westridge Park Addition, Section 27, City and County of Midland, Texas (the "Property") for a concert (the "Event"); and

WHEREAS, the Council finds and determines that such temporary use shall be allowed;

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

SECTION ONE. That the Applicant is hereby authorized by the City Council to temporarily use the Property for the Event subject to the following conditions and restrictions:

A. That the day and hours of operation of the Event shall be limited to Saturday, April 2, 2022, from 11:00 a.m. to 2:00 a.m. of the following day.

B. That the operation of the Event shall conform to the site plan, which is attached hereto as Exhibit "A" and incorporated herein for all purposes.

C. That the occupant load shall not exceed 629 as shown in the safety plan, which is attached hereto as Exhibit "B" and incorporated herein for all purposes.

D. That the Applicant shall provide a minimum of 158 parking spaces to be used during the Event.

E. That the dead bolt on the patio gate shall be removed.

F. That all egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

G. That the following uses are specifically permitted:

1. Live music shall be allowed during all operating hours of the Event.

2. The sale and on-premises consumption of alcoholic beverages shall be allowed during all operating hours of the Event in compliance with state and local laws.

H. That the Applicant shall provide a minimum of six (6) portable restrooms that shall be made available for use during all operating hours of the Event.

I. That the Applicant shall provide a minimum of six (6) certified peace officers as security guards during all operating hours of the Event and during the hour immediately following the conclusion of the Event.

J. That the Event shall be operated in compliance with all requirements of the Fire Code. The Applicant shall call for an inspection by the Fire Marshal prior to commencing operation of the Event.

K. That the Applicant shall obtain approval from the Solid Waste Department for a refuse collection and clean-up plan prior to operation of the Event.

L. That the Code Administration Division and the Planning Division shall be notified no later than 48 hours preceding operation of the Markets.

M. That Benjamin Cantu, a representative of the Applicant, shall be responsible for ensuring that the conditions of this permit are observed and satisfied.

SECTION TWO. That the City Council reserves at all times the full right and power to revoke said temporary use for violation of any of its terms or any misrepresentations contained in the application, after a hearing of which the holder of said temporary use has been given at least one (1) day notice.

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

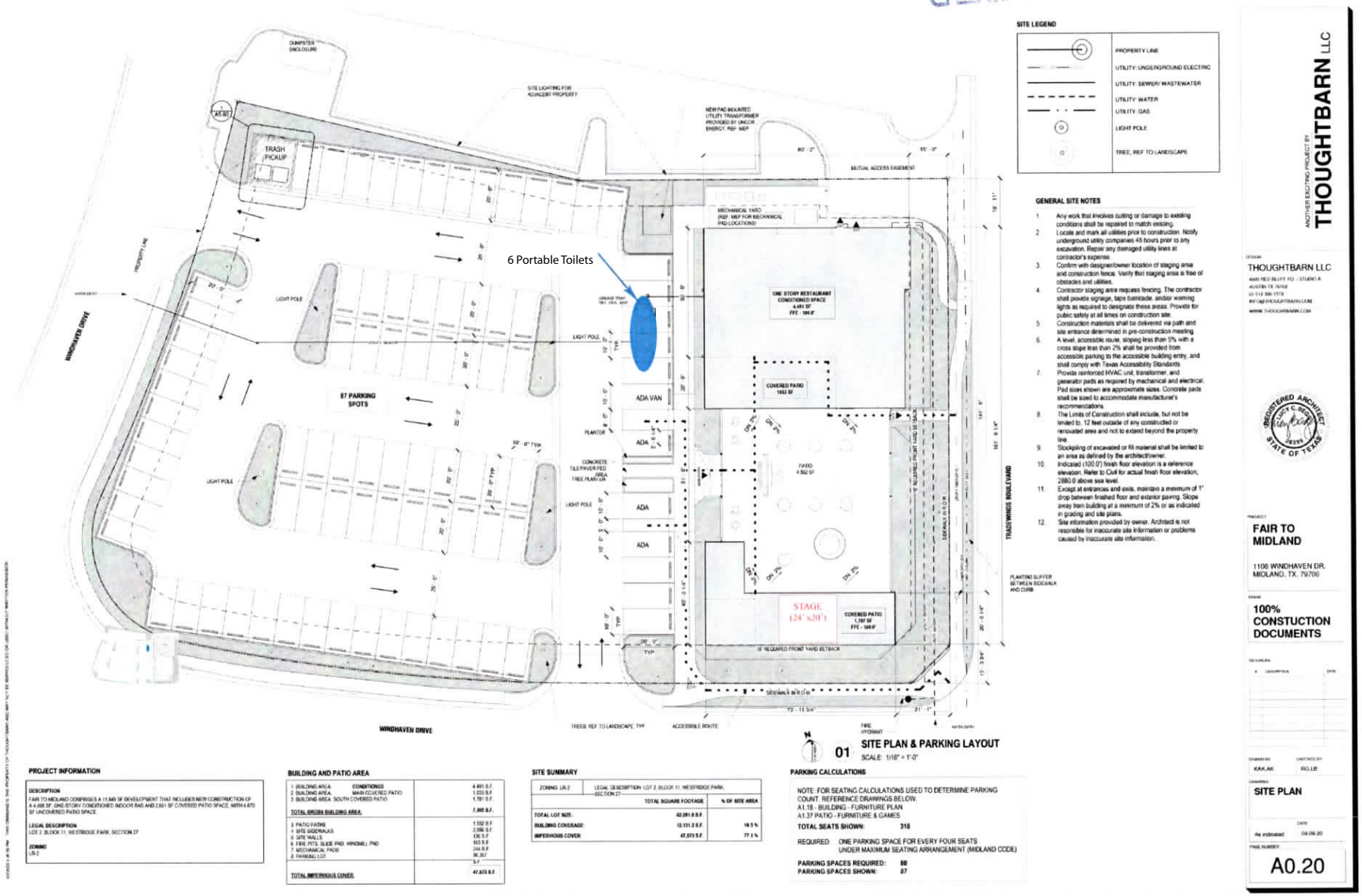
_____
Charles Harrington, Director of Development Services

APPROVED ONLY AS TO FORM:

_____
John Ohnemiller, City Attorney

EXHIBIT "A"

MAR 08 2022



01 SITE PLAN & PARKING LAYOUT
SCALE: 1/16" = 1'-0"

SITE LEGEND

	PROPERTY LINE
	UTILITY: UNDERGROUND ELECTRIC
	UTILITY: SEWER/ WASTEWATER
	UTILITY: WATER
	UTILITY: GAS
	LIGHT POLE
	TREE, REF TO LANDSCAPE

GENERAL SITE NOTES

1. Any work that involves cutting or damage to existing conditions shall be repaired to match existing.
2. Locate and mark all utilities prior to construction. Notify underground utility companies 48 hours prior to any excavation. Repair any damaged utility lines at contractor's expense.
3. Confirm with designer/owner location of staging area and construction fence. Verify that staging area is free of obstacles and utilities.
4. Contractor staging area requires fencing. The contractor shall provide signage, tape barricade, and/or warning lights as required to designate these areas. Provide for public safety at all times on construction site.
5. Construction materials shall be delivered via path and site entrance determined in pre-construction meeting.
6. A level, accessible route, sloped less than 5% with a cross slope less than 2% shall be provided from accessible parking to the accessible building entry, and shall comply with Texas Accessibility Standards
7. Provide reinforced HVAC unit, transformer, and generator pads as required by mechanical and electrical. Pad sizes shown are approximate sizes. Concrete pads shall be sized to accommodate manufacturer's recommendations.
8. The Limits of Construction shall include, but not be limited to, 12 feet outside of any constructed or renovated area and not to extend beyond the property line.
9. Stockpiling of excavated or fill material shall be limited to an area as defined by the architect/owner.
10. Indicated (100.0') finish floor elevation is a reference elevation. Refer to Civil for actual finish floor elevation, 2880.0 above sea level.
11. Except at entrances and exits, maintain a minimum of 1" drop between finished floor and exterior paving. Slope away from building at a minimum of 2% or as indicated in grading and site plans.
12. Site information provided by owner. Architect is not responsible for inaccurate site information or problems caused by inaccurate site information.

PROJECT INFORMATION

DESCRIPTION
FAIR TO MIDLAND COMPRISES A 11,940 SF DEVELOPMENT THAT INCLUDES NEW CONSTRUCTION OF A 4,498 SF, ONE-STORY CONDITIONED INDOOR BAR AND 2,561 SF COVERED PATIO SPACE, WITH 4,870 SF UNCOVERED PATIO SPACE.

LEGAL DESCRIPTION
LOT 2, BLOCK 11, WESTRIDGE PARK, SECTION 27

ZONING
LR-2

BUILDING AND PATIO AREA

1 BUILDING AREA	CONDITIONED	4,491 S.F.
2 BUILDING AREA	MAIN COVERED PATIO	1,033 S.F.
3 BUILDING AREA	SOUTH COVERED PATIO	1,781 S.F.
TOTAL GROSS BUILDING AREA:		7,305 S.F.
3 PATIO PATHS		1,552 S.F.
4 SITE GOODWALKS		2,086 S.F.
5 SITE WALLS		130 S.F.
6 FIRE PITS, SLIDE PAD, WINDMILL PAD		163 S.F.
7 MECHANICAL PADS		244 S.F.
8 PARKING LOT		36,357 S.F.
TOTAL IMPERVIOUS COVER:		47,573 S.F.

SITE SUMMARY

ZONING: LR-2	LEGAL DESCRIPTION: LOT 2, BLOCK 11, WESTRIDGE PARK, SECTION 27	
	TOTAL SQUARE FOOTAGE	% OF SITE AREA
TOTAL LOT SIZE:	62,091.0 S.F.	
BUILDING COVERAGE:	12,131.2 S.F.	19.5 %
IMPERVIOUS COVER	47,573 S.F.	77.1 %

PARKING CALCULATIONS

NOTE: FOR SEATING CALCULATIONS USED TO DETERMINE PARKING COUNT, REFERENCE DRAWINGS BELOW.
A1.18 - BUILDING - FURNITURE PLAN
A1.37 PATIO - FURNITURE & GAMES

TOTAL SEATS SHOWN: 318

REQUIRED: ONE PARKING SPACE FOR EVERY FOUR SEATS UNDER MAXIMUM SEATING ARRANGEMENT (MIDLAND CODE)

PARKING SPACES REQUIRED: 80
PARKING SPACES SHOWN: 87

ANOTHER EXCITING PROJECT BY THOUGHTBARN LLC

THOUGHTBARN LLC
4005 RED BLUFF RD. | STUDIO A
AUSTIN, TX 78702
O 512 366 1578
INFO@THOUGHTBARN.COM
WWW.THOUGHTBARN.COM

REGISTERED ARCHITECT LUCY C. BEDFORD 28239 STATE OF TEXAS

PROJECT
FAIR TO MIDLAND

1108 WINDHAVEN DR.
MIDLAND, TX. 79706

ISSUE
100% CONSTUCTION DOCUMENTS

#	DESCRIPTION	DATE

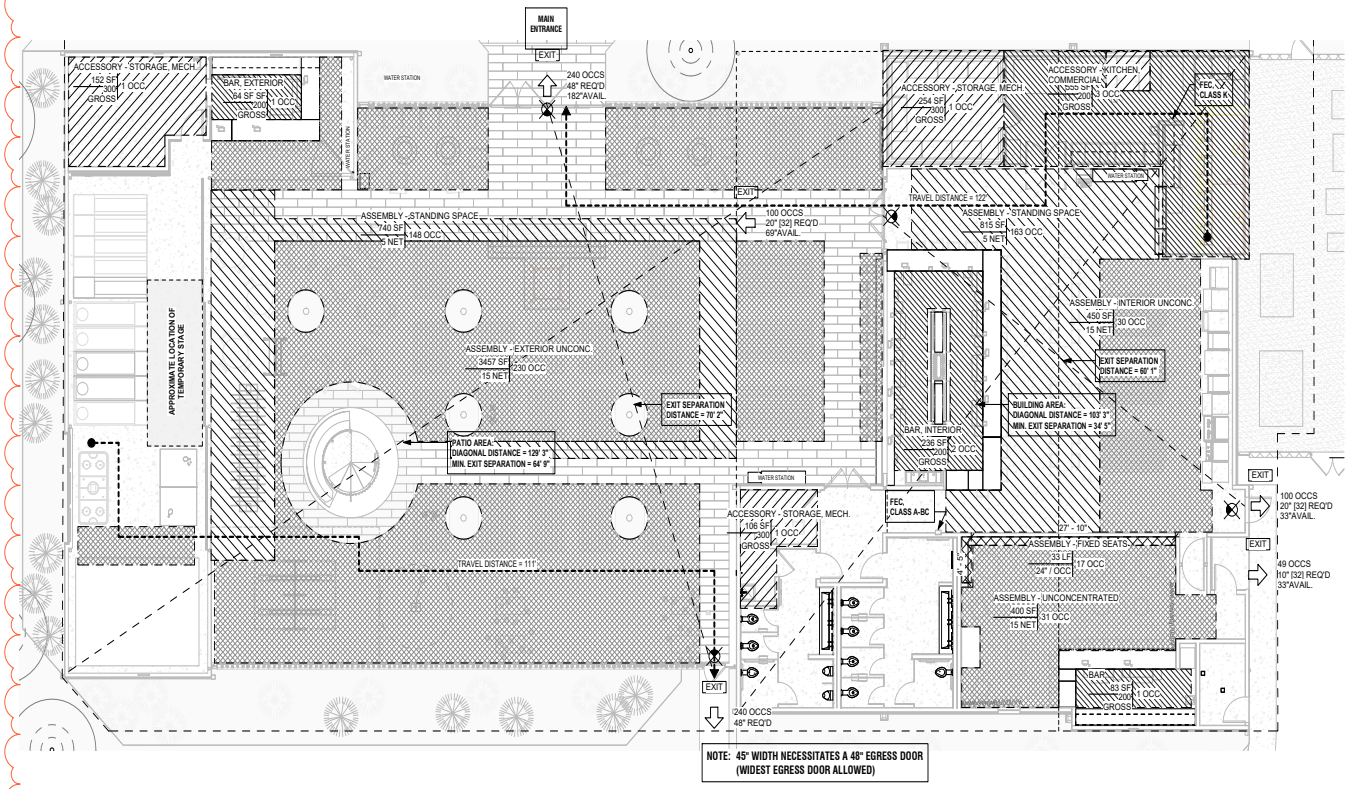
DRAWN BY: KAK,AK
CHECKED BY: RG,LB

DRAWING
SITE PLAN

DATE
As indicated 09.09.20

PAGE NUMBER
A0.20

EXHIBIT "B"



LIFE SAFETY PLAN - ALTERNATE 2

SCALE: 1/8" = 1'-0"

LIFE SAFETY OCCUPANCY LOAD

HATCH	OCCUPANCY CLASSIFICATION	TOTAL
	PRIMARY OCCUPANCY: ASSEMBLY	**619 OCC.**
	ASSEMBLY - UNCONCENTRATED (MAIN BAR + SPEAKEASY) SPRINKLERED **TOTAL : 61 OCCUPANTS**	
	ASSEMBLY - UNCONCENTRATED - PATIO AREAS UNSPRINKLERED **TOTAL : 230 OCCUPANTS**	
	ASSEMBLY - FIXED SEATS - INTERIOR SPRINKLERED **TOTAL : 17 OCCUPANTS**	
	ASSEMBLY - STANDING SPACE - OUTDOOR UNSPRINKLERED **TOTAL : 148 OCCUPANTS**	
	ASSEMBLY - STANDING SPACE - INDOOR SPRINKLERED **TOTAL : 163 OCCUPANTS**	
	ACCESSORY OCCUPANCY: KITCHEN, COMMERCIAL	**3 OCC.**
	KITCHEN, COMMERCIAL SPRINKLERED **TOTAL : 3 OCCUPANTS**	
	ACCESSORY OCCUPANCY: BAR	**4 OCC.**
	MAIN BAR + SPEAKEASY BAR SPRINKLERED **TOTAL : 3 OCCUPANTS**	
	OUTDOOR BAR UNSPRINKLERED **TOTAL : 1 OCCUPANTS**	
	ACCESSORY OCCUPANCY: STORAGE, MECHANICAL	**3 OCC.**
	KITCHEN STORAGE + OFFICE STORAGE SPRINKLERED **TOTAL : 2 OCCUPANTS**	
	OUTDOOR STORAGE UNSPRINKLERED **TOTAL : 1 OCCUPANTS**	
	TOTAL OCCUPANCY:	**629 OCC.**

EXITING FROM SPEAKEASY: 49
EXITING FROM MAIN BAR AREA: 200
EXITING FROM PATIO: 480
[380 FROM PATIO +100 FROM INTERIOR]

3/17/2022 5:40:07 PM - THIS DRAWING IS THE PROPERTY OF THOUGHTBARN AND MAY NOT BE REPRODUCED OR USED WITHOUT WRITTEN PERMISSION

ANOTHER EXCITING PROJECT BY
THOUGHTBARN LLC

DESIGN
THOUGHTBARN LLC
4805 RED BLUFF RD / STUDIO A
AUSTIN TX 78702
O: 512.386.1579
INFO@THOUGHTBARN.COM
WWW.THOUGHTBARN.COM

REGISTERED ARCHITECT
LUCY C. BEGG
26395
STATE OF TEXAS

PROJECT
FAIR TO MIDLAND
1108 WINDHAVEN DR,
MIDLAND, TX, 79706

STAGE
100% CONSTRUCTION DOCUMENTS

REVISIONS

#	DESCRIPTION	DATE
7	OCCUPANCY	03/11/22

DRAWN BY: Author
CHECKED BY: Checker

DRAWING
LIFE SAFETY PLAN - OPT.2

As indicated
DATE: 05.31.21

PAGE NUMBER
A0.24

MIDLAND Planning Division

Temporary Land Use Application

Project Number: TLU-22-0105

Case Number: _____

Event Name: Fair To Midland Grand Opening featuring Paul Cauthen

Applicant *(if acting as Agent, see affidavit on page 2)*		Phone (512) 699-6188	
Printed Name: Fair To Midland LLC/ Benjamin Cantu		Email Benjamincantu99@gmail.com	
Address 1115 Tradewinds	City Midland	State Texas	Zip 79706

Property Owner		Phone (512) 699-6188	
Printed Name: 1115 Tradewinds LLC /Benjamin Cantu		Email Benjamincantu99@gmail.com	
Address 1115 Tradewinds	City Midland	State Texas	Zip 79706

Representative *(if different from Applicant or Property Owner)*		Phone ( )	
Firm: _____		Email	
Printed Name:			
Address	City	State	Zip

Street Address: 1115 Tradewinds

Legal Description
Lot: 002 Block: 011 Subdivision: Westridge Park SEC 27

Current Zoning: RR

Type of Temporary Use Requested:

Description of Event: The event is a Grand opening party feauting a live concert by Paul Cauthen

Duration of Temporary Use: _____
If event lasts for more than (1) day and is located within any residential district or is located within 1,000 feet of any residential district, then a public hearing is required.

Proposed Days and Hours: 4/2/22 11am to 2am

Will alcoholic beverages be sold? ☑ Yes ☐ No
If yes, you must comply with all Texas Alcoholic Beverage Commission (TABC) regulations for the event.

Are you requesting the temporary closure of any streets? ☐ Yes ☑ No
If yes, you must:

A. Complete the "**Special Event and Street Closure Application**", available from the Planning Division (4th Floor, City Hall), as well as submit a "**Traffic Control Plan**" to the Transportation Division (5th Floor, City Hall).
B. Provide the City with a **general liability insurance certificate**, naming the **City** as an **Additional Insured**, in the amount of one million dollars ($1,000,000) for the term of the closure.

RECEIVED
MAR 08 2022
BY: ES

Number of Peace Offices Provided: 6 *Contact the Midland Police Department to schedule off-duty police officers.*			
Type of Music (*carnival, live, etc.*)**:** Live Country Music			
Showmobile (*portable stage*) **Requested:** ☑ Yes ☐ No		Days & Hours 4/2/22 11am - 2am	
Number of Restroom Fixtures Provided:	*Men*	**Toilets/Urinals:** TBD/	**Bathroom Sinks:**
	Women	**Toilets:** TBD	**Bathroom Sinks:**
	Unisex	**Toilets:** TBD	**Bathroom Sinks:**

Submittal and Fees

Items to be submitted with this application form:

- Application Fee – Payable to the 'City of Midland'
- Damage Deposit
- Clean-Up Deposit
- 1 FOLDED Copy of Site Plan*
- Digital Copies of Site Plan (PDF/JPEG)

**Should show existing buildings, parking, access arrangements, surrounding streets, activity areas, areas of alcoholic beverage sales, proposed street closures, etc.*

Signatures	
Applicant (signature):	**Date:** 2/7/22
Applicant (printed): Fair To Midland LLC / Benjamin Cantu	
Property Owner (signature):	**Date:** 2/7/22
Property Owner (printed): 1115 Tradwinds LLC / Benjamin Cantu	
Representative (signature):	**Date:**
Representative (printed) :	

The Temporary Land Use Permit shall be considered officially received in the Planning office only when it has been submitted in full compliance with the provisions of Section 212 of the Texas Local Government Code and the Zoning Code of Ordinances of the City of Midland and when such required items for the application are also received.

All materials, including exhibits, submitted in support of an application, or displayed during a public hearing, shall remain the property of the City of Midland.

****Application will not be considered for scheduling until reviewed by a planner.****

If an agent is authorized by the property owner to file and execute the application on behalf of the property owner, the agent must complete the affidavit below.

STATE OF TEXAS
COUNTY OF MIDLAND

Before me, the undersigned authority, on this day personally appeared _____ 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.

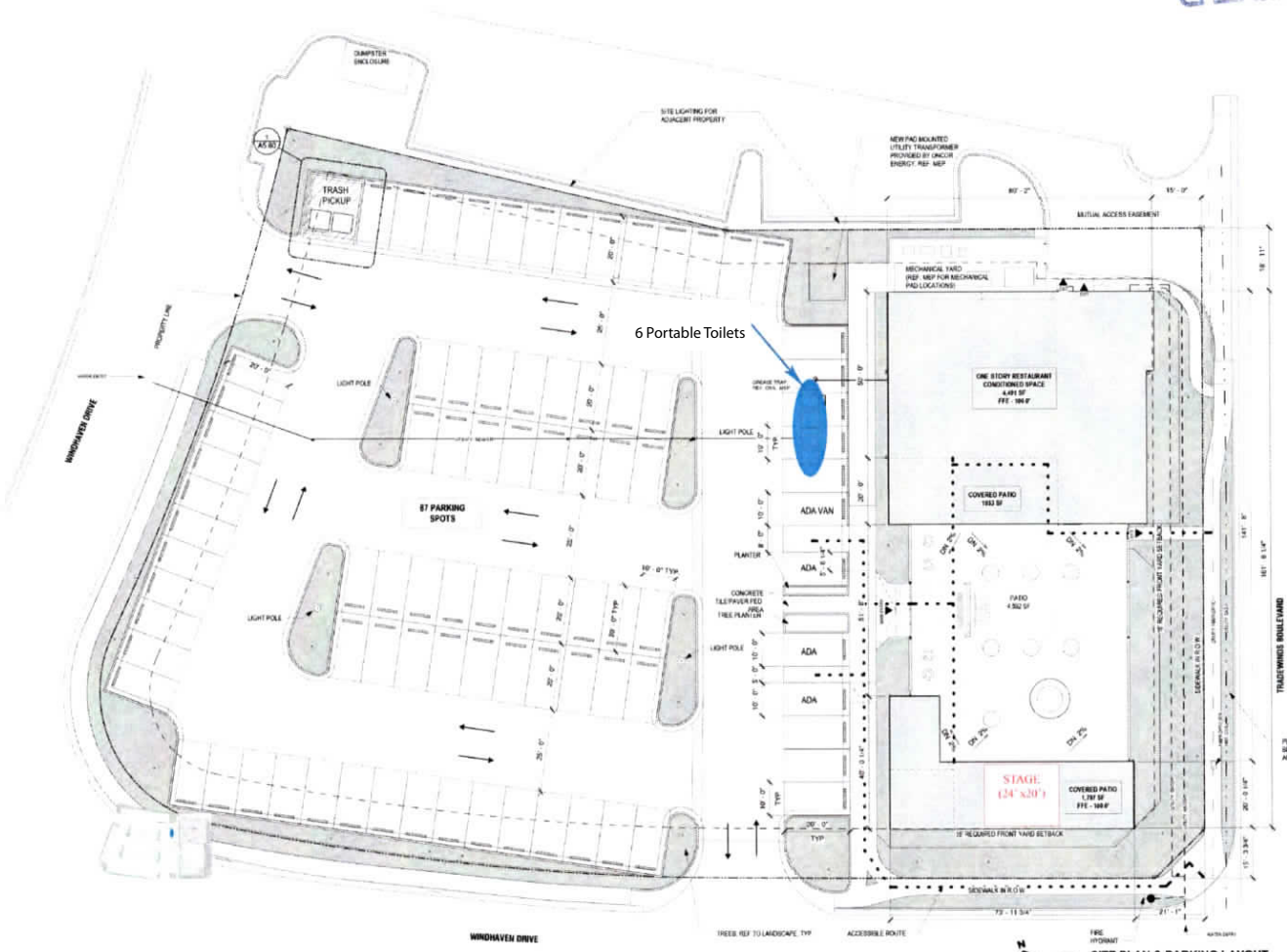
_____
NOTARY PUBLIC, MIDLAND COUNTY, TEXAS

FOR OFFICE USE ONLY

☑ Property Owner Authorization	☑ Liability Insurance (Street Closure) (Missing parking agreement)
☑ Dimensioned Site Plan will need updated	☐ Traffic Control Plan (Street Closure)
☑ Plans in Digital Format (PDF/JPEG)	☐ Clean-Up Deposit
☑ Application Fee	Check # 1663
Check # 1663	☐ Damage Deposit
☐ Administrative Approval	Check # 1663
Received By: ES	Date: RECEIVED MAR 08 2021 BY: ES

****Application will not be considered for scheduling until reviewed by a planner.****

MAR 08 2022



01 SITE PLAN & PARKING LAYOUT

SCALE: 1/16" = 1'-0"

SITE LEGEND

	PROPERTY LINE
	UTILITY: UNDERGROUND ELECTRIC
	UTILITY: SEWER/ WASTEWATER
	UTILITY: WATER
	UTILITY: GAS
	LIGHT POLE
	TREE, REF TO LANDSCAPE

GENERAL SITE NOTES

1. Any work that involves cutting or damage to existing conditions shall be repaired to match existing.
2. Locate and mark all utilities prior to construction. Notify underground utility companies 48 hours prior to any excavation. Repair any damaged utility lines at contractor's expense.
3. Confirm with designer/owner location of staging area and construction fence. Verify that staging area is free of obstacles and utilities.
4. Contractor staging area requires fencing. The contractor shall provide signage, tape barricade, and/or warning lights as required to designate these areas. Provide for public safety at all times on construction site.
5. Construction materials shall be delivered via path and site entrance determined in pre-construction meeting.
6. A level, accessible route, sloping less than 5% with a cross slope less than 2% shall be provided from accessible parking to the accessible building entry, and shall comply with Texas Accessibility Standards
7. Provide reinforced HVAC unit, transformer, and generator pads as required by mechanical and electrical. Pad sizes shown are approximate sizes. Concrete pads shall be sized to accommodate manufacturer's recommendations.
8. The Limits of Construction shall include, but not be limited to, 12 feet outside of any constructed or renovated area and not to extend beyond the property line.
9. Stockpiling of excavated or fill material shall be limited to an area as defined by the architect/owner.
10. Indicated (100.0') finish floor elevation is a reference elevation. Refer to Civil for actual finish floor elevation, 2880.0 above sea level.
11. Except at entrances and exits, maintain a minimum of 1" drop between finished floor and exterior paving. Slope away from building at a minimum of 2% or as indicated in grading and site plans.
12. Site information provided by owner. Architect is not responsible for inaccurate site information or problems caused by inaccurate site information.

PROJECT INFORMATION

DESCRIPTION
FAIR TO MIDLAND COMPRISES A 11,940 SF DEVELOPMENT THAT INCLUDES NEW CONSTRUCTION OF A 4,498 SF, ONE-STORY CONDITIONED INDOOR BAR AND 2,561 SF COVERED PATIO SPACE, WITH 4,675 SF UNCOVERED PATIO SPACE.

LEGAL DESCRIPTION
LOT 2, BLOCK 11, WESTRIDGE PARK, SECTION 27

ZONING
LR-2

BUILDING AND PATIO AREA

1 BUILDING AREA	CONDITIONED	4,491 S.F.
2 BUILDING AREA	MAIN COVERED PATIO	1,033 S.F.
3 BUILDING AREA	SOUTH COVERED PATIO	1,781 S.F.
TOTAL GROSS BUILDING AREA:		7,305 S.F.
3 PATIO PATHS		1,552 S.F.
4 SITE GOODWALKS		2,086 S.F.
5 SITE WALLS		130 S.F.
6 FIRE PITS, SLIDE PAD, WINDMILL PAD		163 S.F.
7 MECHANICAL PADS		244 S.F.
8 PARKING LOT		36,357 S.F.
TOTAL IMPERVIOUS COVER:		47,573 S.F.

SITE SUMMARY

ZONING: LR-2	LEGAL DESCRIPTION: LOT 2, BLOCK 11, WESTRIDGE PARK, SECTION 27 -	
	TOTAL SQUARE FOOTAGE	% OF SITE AREA
TOTAL LOT SIZE:	62,091.0 S.F.	
BUILDING COVERAGE:	12,131.2 S.F.	19.5 %
IMPERVIOUS COVER	47,573 S.F.	77.1 %

PARKING CALCULATIONS

NOTE: FOR SEATING CALCULATIONS USED TO DETERMINE PARKING COUNT, REFERENCE DRAWINGS BELOW.
A1.18 - BUILDING - FURNITURE PLAN
A1.37 PATIO - FURNITURE & GAMES

TOTAL SEATS SHOWN: 318

REQUIRED: ONE PARKING SPACE FOR EVERY FOUR SEATS UNDER MAXIMUM SEATING ARRANGEMENT (MIDLAND CODE)

PARKING SPACES REQUIRED: 80
PARKING SPACES SHOWN: 87

ANOTHER EXCITING PROJECT BY THOUGHTBARN LLC

THOUGHTBARN LLC
4005 RED BLUFF RD. | STUDIO A
AUSTIN, TX. 78702
O: 512.366.1578
INFO@THOUGHTBARN.COM
WWW.THOUGHTBARN.COM

REGISTERED ARCHITECT LUCY C. BEDFORD 28239 STATE OF TEXAS

PROJECT
FAIR TO MIDLAND

1108 WINDHAVEN DR.
MIDLAND, TX. 79706

ISSUE
100% CONSTUCTION DOCUMENTS

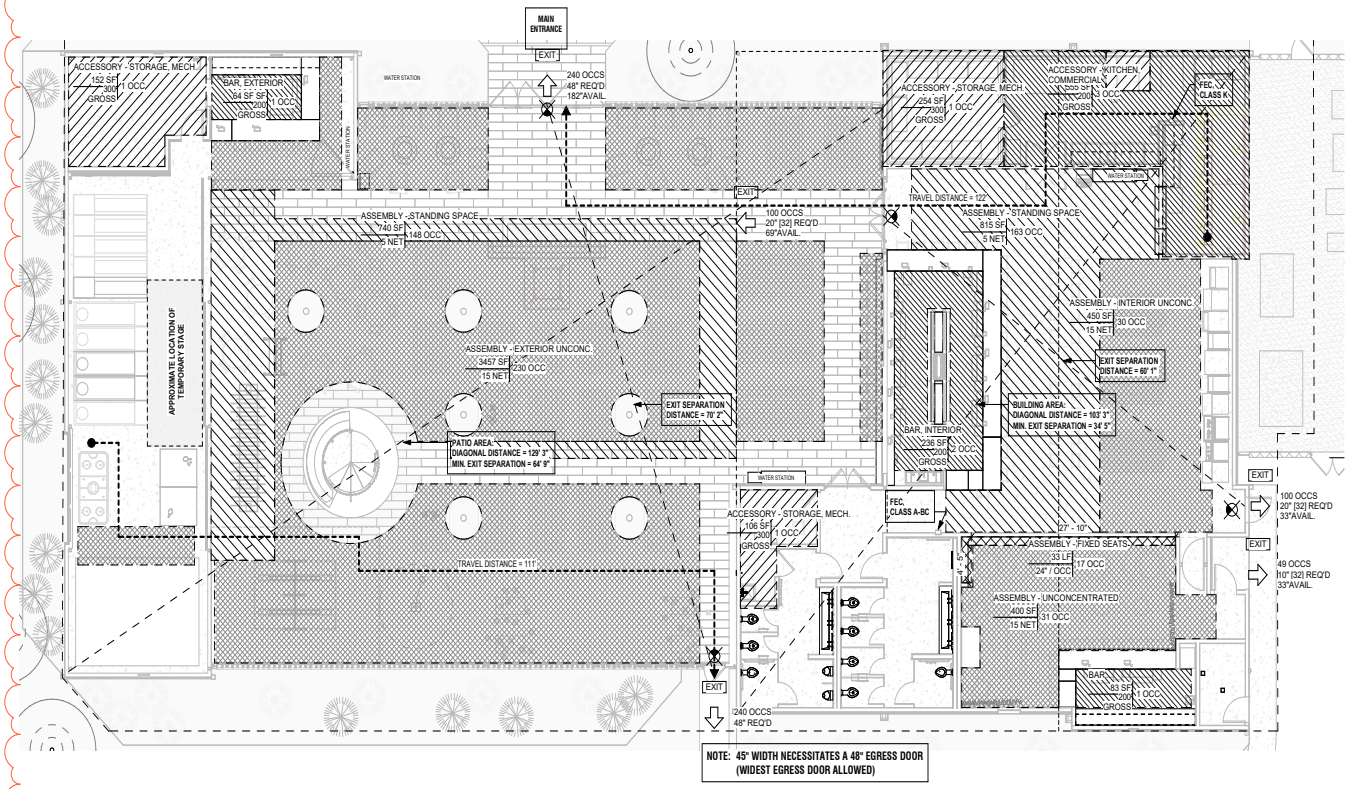
#	DESCRIPTION	DATE

DRAWN BY: KAK,AK
CHECKED BY: RG,LB

DRAWING
SITE PLAN

DATE
As indicated 09.09.20

PAGE NUMBER
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NOTE: 45" WIDTH NECESSITATES A 48" EGRESS DOOR (WIDEST EGRESS DOOR ALLOWED)

LIFE SAFETY PLAN - ALTERNATE 2

SCALE: 1/8" = 1'-0"

LIFE SAFETY OCCUPANCY LOAD

HATCH	OCCUPANCY CLASSIFICATION	TOTAL
	PRIMARY OCCUPANCY: ASSEMBLY	**619 OCC.**
	ASSEMBLY - UNCONCENTRATED (MAIN BAR + SPEAKEASY) SPRINKLERED **TOTAL : 61 OCCUPANTS**	
	ASSEMBLY - UNCONCENTRATED - PATIO AREAS UNSPRINKLERED **TOTAL : 230 OCCUPANTS**	
	ASSEMBLY - FIXED SEATS - INTERIOR SPRINKLERED **TOTAL : 17 OCCUPANTS**	
	ASSEMBLY - STANDING SPACE - OUTDOOR UNSPRINKLERED **TOTAL : 148 OCCUPANTS**	
	ASSEMBLY - STANDING SPACE - INDOOR SPRINKLERED **TOTAL : 163 OCCUPANTS**	
	ACCESSORY OCCUPANCY: KITCHEN, COMMERCIAL	**3 OCC.**
	KITCHEN, COMMERCIAL SPRINKLERED **TOTAL : 3 OCCUPANTS**	
	ACCESSORY OCCUPANCY: BAR	**4 OCC.**
	MAIN BAR + SPEAKEASY BAR SPRINKLERED **TOTAL : 3 OCCUPANTS**	
	OUTDOOR BAR UNSPRINKLERED **TOTAL : 1 OCCUPANTS**	
	ACCESSORY OCCUPANCY: STORAGE, MECHANICAL	**3 OCC.**
	KITCHEN STORAGE + OFFICE STORAGE SPRINKLERED **TOTAL : 2 OCCUPANTS**	
	OUTDOOR STORAGE UNSPRINKLERED **TOTAL : 1 OCCUPANTS**	
	TOTAL OCCUPANCY:	**629 OCC.**

EXITING FROM SPEAKEASY: 49
EXITING FROM MAIN BAR AREA: 200
EXITING FROM PATIO: 480
[380 FROM PATIO +100 FROM INTERIOR]

3/17/2022 5:44:07 PM - THIS DRAWING IS THE PROPERTY OF THOUGHTBARN AND MAY NOT BE REPRODUCED OR USED WITHOUT WRITTEN PERMISSION

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REGISTERED ARCHITECT
LUCY C. BEGG
26395
STATE OF TEXAS

PROJECT
FAIR TO MIDLAND

1108 WINDHAVEN DR,
MIDLAND, TX, 79706

STAGE
100% CONSTRUCTION DOCUMENTS

REVISIONS

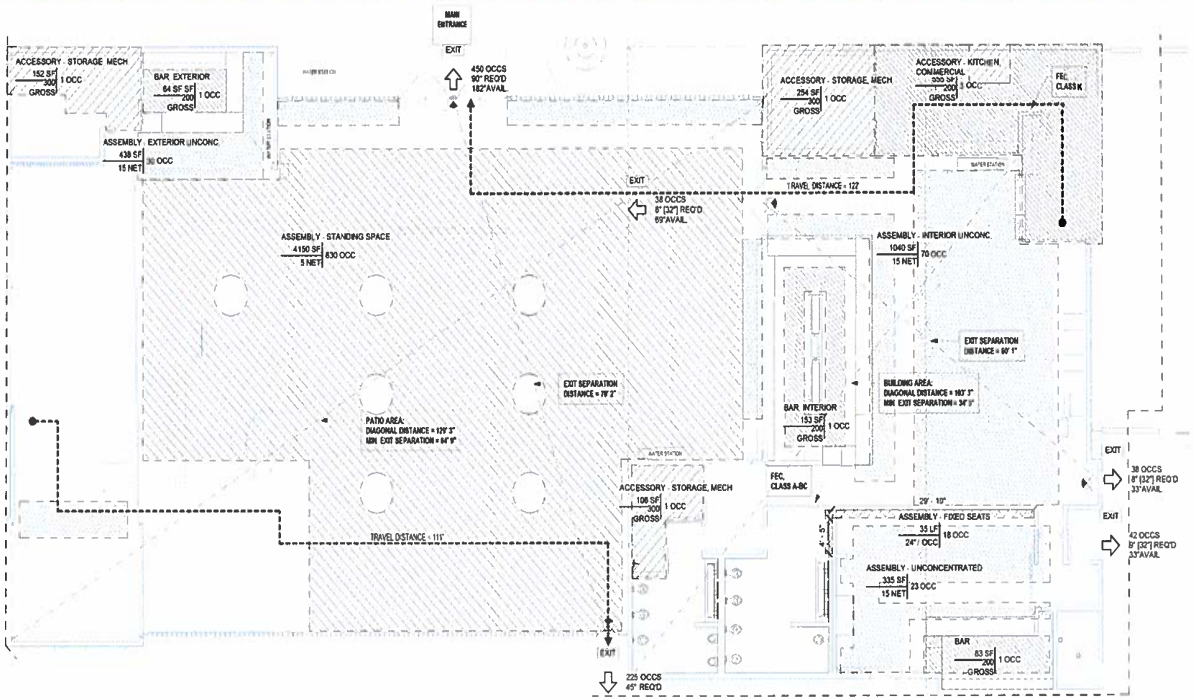
#	DESCRIPTION	DATE
7	OCCUPANCY	03/11/22

DRAWN BY: Author
CHECKED BY: Checker

DRAWING
LIFE SAFETY PLAN - OPT.2

As indicated
DATE: 05.31.21

PAGE NUMBER
A0.24



LIFE SAFETY PLAN - ALTERNATE

SCALE: 1/8" = 1'-0"

LIFE SAFETY OCCUPANCY LOAD

HATCH	OCCUPANCY CLASSIFICATION		TOTAL
	PRIMARY OCCUPANCY: ASSEMBLY		971 OCC
	ASSEMBLY : UNCONCENTRATED (MAIN BAR + SPEAKEASY) SPRINKLERED		
	TOTAL :	93 OCCUPANTS	
	ASSEMBLY : UNCONCENTRATED : PATIO AREAS UNSPRINKLERED		
	TOTAL :	38 OCCUPANTS	
	ASSEMBLY : FIXED SEATS : INTERIOR SPRINKLERED		
	TOTAL :	18 OCCUPANTS	
	ASSEMBLY : STANDING SPACE : OUTDOOR UNSPRINKLERED		
	TOTAL :	830 OCCUPANTS	
	ACCESSORY OCCUPANCY: KITCHEN, COMMERCIAL		3 OCC.
	KITCHEN, COMMERCIAL SPRINKLERED		
	TOTAL :	3 OCCUPANTS	
	ACCESSORY OCCUPANCY: BAR		3 OCC.
	MAIN BAR + SPEAKEASY BAR SPRINKLERED		
	TOTAL :	2 OCCUPANTS	
	OUTDOOR BAR UNSPRINKLERED		
	TOTAL :	1 OCCUPANTS	
	ACCESSORY OCCUPANCY: STORAGE, MECHANICAL		3 OCC.
	KITCHEN STORAGE + OFFICE STORAGE SPRINKLERED		
	TOTAL :	2 OCCUPANTS	
	OUTDOOR STORAGE UNSPRINKLERED		
	TOTAL :	1 OCCUPANTS	
	TOTAL OCCUPANCY:		980 OCC.

EXITING FROM SPEAKEASY 42
EXITING FROM MAIN BAR AREA 76
EXITING FROM PATIO 900

ANOTHER EXCITING PROJECT BY
THOUGHTBARN LLC

DESIGN
THOUGHTBARN LLC
4605 RED BLUFF RD · STUDIO A
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O 512 388 1570
INFO@THOUGHTBARN.COM
WWW.THOUGHTBARN.COM

REGISTERED ARCHITECT
LUCY C. BEGG
29398
STATE OF TEXAS

PROJECT
FAIR TO MIDLAND

1108 WINDHAVEN DR,
MIDLAND, TX, 79706

STAGE
100% CONSTRUCTION DOCUMENTS

REVISIONS

#	DESCRIPTION	DATE
1	OCCUPANCY	03/13/22

DRAWN BY: Author
CHECKED BY: Checker

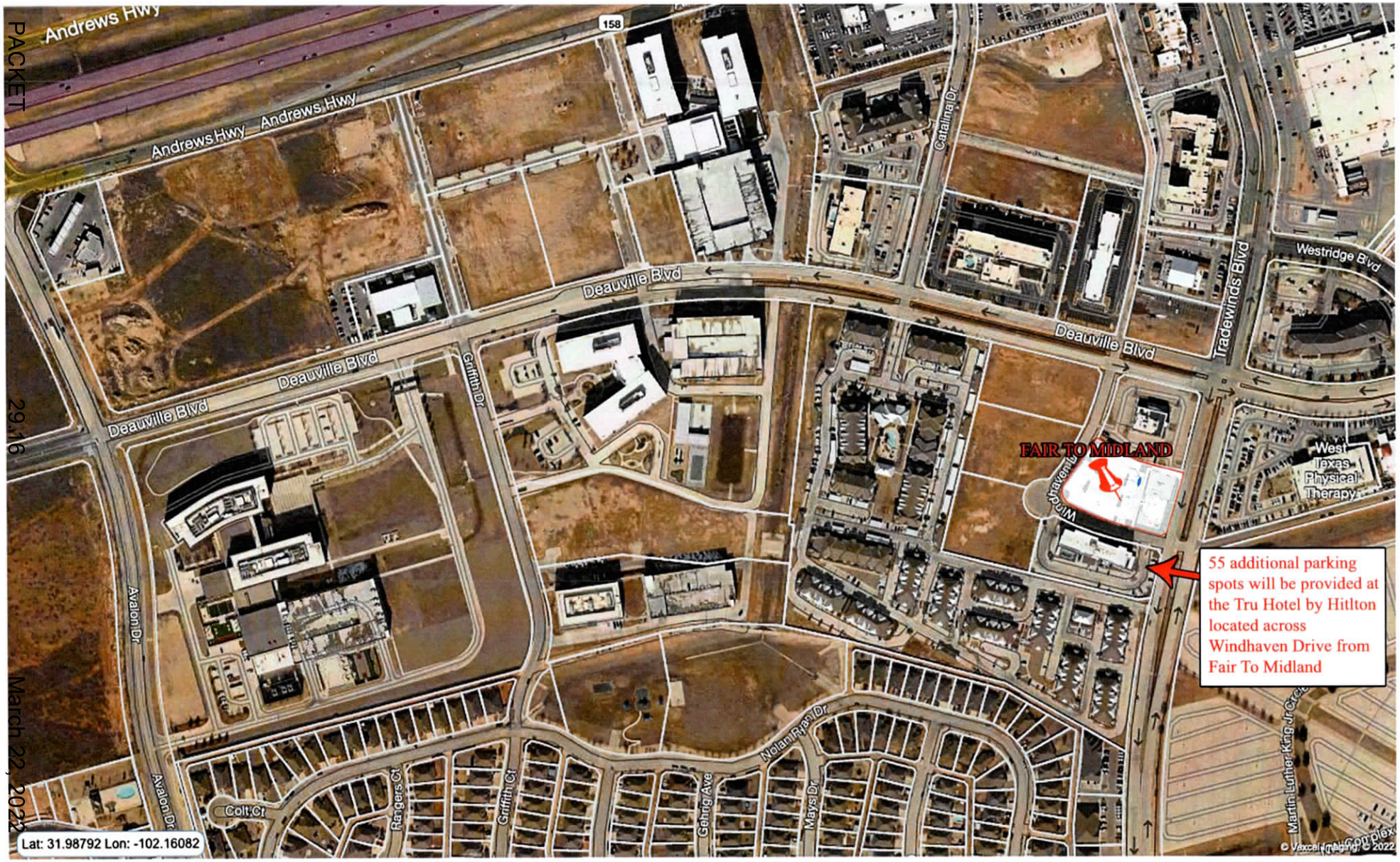
DRAWING
LIFE SAFETY PLAN - OPT.3

SCALE: As indicated
DATE: 05.31.21

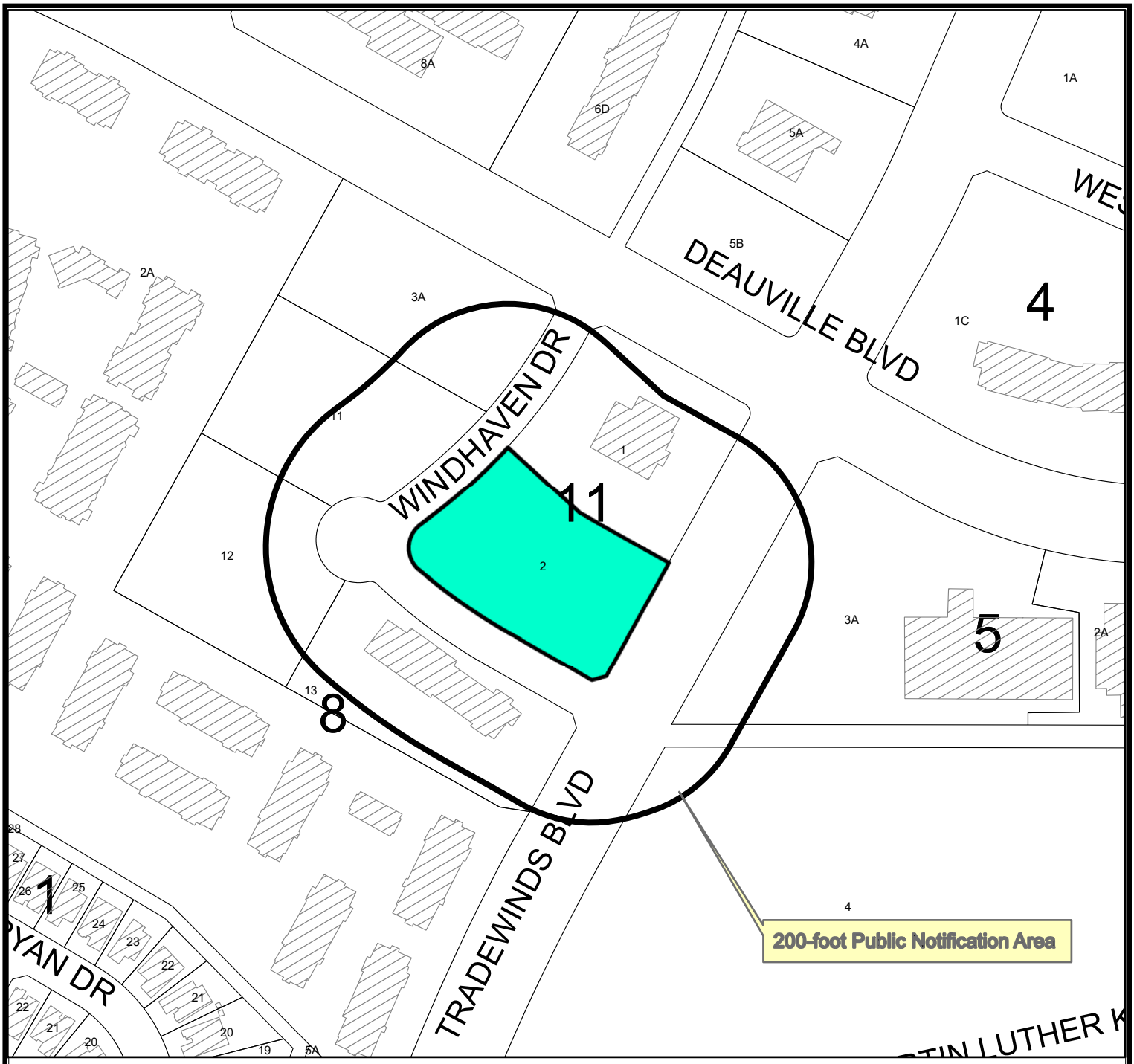
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March 22, 2022
29.15
PACKET

PACKET 29.16 March 22, 2022



MAR 0 8 2022



LOCATION MAP

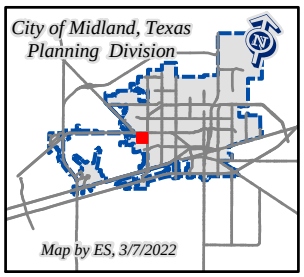
TLU-22-0105 **Scale: 1" = 200'**

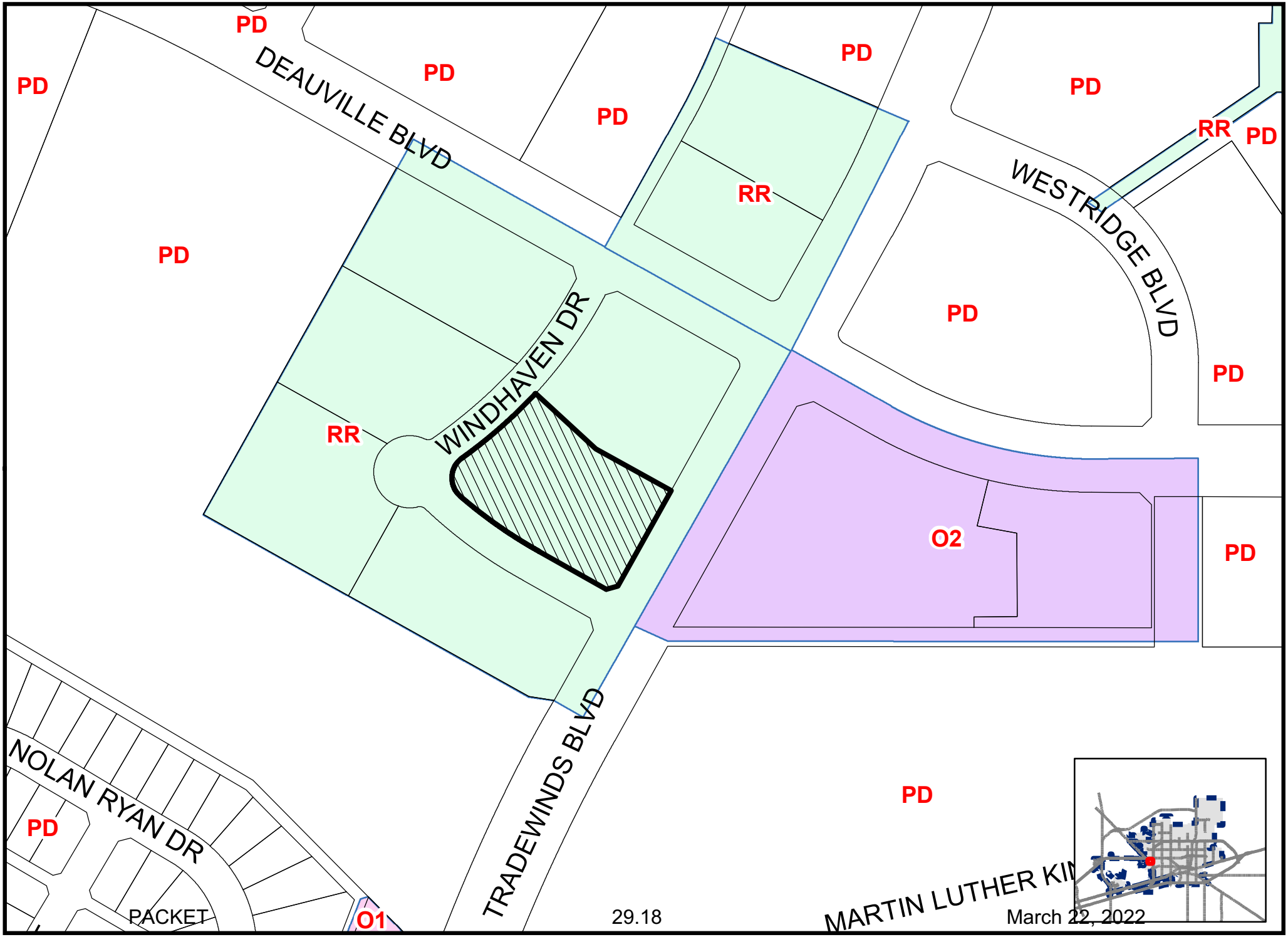
Consider a request by Fair to Midland, LLC for a Temporary Land Use Permit for a Concert, on Lot 2, Block 11, Westridge Park, Section 27, City and County of Midland, Texas.

Generally located on the northwest corner of the intersection of Tradewinds Boulevard and Windhaven Drive. (Council District 4)

LEGEND

- CITY LIMITS
- PARCEL
- PRIVATE BLDGS





Map By VAS, 12/14/2020

SUD-20-0091

Scale: 1" = 200'

ZONING MAP

© **THE CITY OF MIDLAND - 2020:** THIS DATA IS NOT A SUBSTITUTION FOR A SURVEY PRODUCT, NOR IS IT DESIGNED TO BE USED AS A PRIMARY TOOL IN PERMITTING OR OTHER DECISIONS BASED SOLELY ON THE INFORMATION CONTAINED HEREIN.THE CITY OF MIDLAND SHALL NOT BE RESPONSIBLE FOR ANY DECISIONS BASED UPON THE USE OF THIS DATA.









City Council Meeting

Item Number: **30**

Meeting Date: **March 22, 2022**

To: **City Council / City Manager**

From: **Christy Weakland, Director**

Subject: Discussion and consideration of all matters incident and related to the issuance and sale of the "City of Midland, Texas General Obligation Refunding Bonds, Series 2022," including the adoption of an ordinance authorizing the issuance of such bonds, establishing parameters for the sale and issuance of such bonds and delegating certain matters to an authorized official of the City**. (DISTRICT: NONE) (FINANCE)**

Purpose:

Adoption of an ordinance to issue the City of Midland, Texas Refunding Bonds, Series 2022.

Recommended City Council Action:

Approve

Fiscal Impact:

Total issuance size for the City of Midland, Texas Refunding Bonds, Series 2022 is a maximum amount of $290 million. Fees incidental to the sale of the bonds will be paid from bond proceeds.

Discussion:

This bond issuance will refund and defease the MCFWSD #1 debt in order for the City to have management and ownership of the pipeline and assets for delivery of water from the T-Bar wellfield. This ordinance provides for the Delegation of Authority to the Pricing Officer, the City Manager or the Finance Director, allowing for the City to be in position to complete the transaction once all legal arrangements are in order, and the flexibility to market and price the refunding bonds when market conditions are favorable. The term of the delegation authority under the ordinance is one year to issue the bonds.



City Manager's Office

City of Midland

Consideration of Refunding
Midland FWSD # 1 Debt
for Acquisition of Assets

March 22, 2022

HilltopSecurities
A Hilltop Holdings Company

PACKET
30.3
March 22, 2022

City of Midland
Midland Co. FWSD #1

Section 8.6 of Second Amendment and Restatement of Wholesale Water Delivery Agreement

- Purchase Option for City to acquire infrastructure and terminate agreement
- requires Defeasance of all District debt

Outstanding Debt:

Issue	Principal Balance 9/15/2022		Optional Call Date
Series 2012A (Capital Appreciation Bonds)	$ 108,240,145	*	9/15/2027
Series 2014	$ 16,710,000		9/15/2024
Series 2019	$ 95,645,000		9/15/2029
Series 2021	$ 30,725,000		9/15/2029
	$ 251,320,145		

* Value of CAB's 9/15/2022

Notes on Existing Debt Structure and Refunding/Restructure

Existing Debt Structure (*Schedule 1*)

- Total annual MCFWSD #1 debt service increases by $13 million in 2030
  - City total annual water related debt service increases to $30.3 million

- Total annual MCFWSD #1 debt service increases by another $6 million, to $36.6 million per year in 2031
  - City total annual water related debt service increases to $36.6 million per year, and remains above $36 million per year through 2037

- $19 million overall increase in annual debt service
  - 205% increase in MCFWSD #1 annual debt service
  - 111% increase above existing City total water related annual debt service

Notes on Existing Debt Structure and Refunding/Restructure (cont.)

Prospective Refunding/Restructuring of MCFWSD #1 Debt

- Extend overall repayment term by 10 years

- Based upon approximate current interest rates for 2022 taxable advance refunding (*Schedule 2*):

- Total annual debt service increase by $7 million in 2030, to $24.3million
- No further increase in annual debt service
- Repayment term extended to 2050

- If Restructure postponed until 2027, the call date for Series 2012A Capital Appreciation Bonds

- At existing market interest rates (*if interest rates did not increase*) - projected annual debt service would increase to $21.4 million, beginning 2030

- However, if interest rates increase 1.58% above existing market rates by 2027 (***Schedule3***) - projected annual debt service beginning in 2030 would increase to $24.4 million
  - Same or higher annual and overall cost than refunding at the present time

Schedule 1

City of Midland

Combined Existing Debt

1	2	3	4	5
FYE	Existing City Waterworks & Sewer System Debt Service	Existing Midland Co FWSD #1 Total Debt Service [1]	Aggregate Waterworks & Sewer System Debt Service	FYE
2022	$ 7,714,347	$ 9,458,569	$ 17,172,916	2022
2023	7,717,030	10,082,477	17,799,507	2023
2024	7,717,513	9,932,699	17,650,212	2024
2025	7,718,178	9,833,212	17,551,390	2025
2026	7,718,174	10,584,874	18,303,048	2026
2027	7,726,886	10,434,955	18,161,840	2027
2028	7,710,362	10,287,131	17,997,493	2028
2029	7,708,751	9,589,068	17,297,819	2029
2030	7,720,126	22,565,419	30,285,545	2030
2031	7,715,580	28,949,046	36,664,626	2031
2032	7,715,210	28,768,975	36,484,185	2032
2033	6,706,458	29,295,511	36,001,968	2033
2034	6,704,611	29,298,631	36,003,242	2034
2035	6,713,171	29,295,901	36,009,072	2035
2036	6,703,117	29,293,036	35,996,153	2036
2037	6,707,866	29,300,036	36,007,902	2037
2038	4,003,525	29,046,601	33,050,126	2038
2039	4,003,025	29,044,780	33,047,805	2039
2040	4,002,725	29,046,386	33,049,111	2040
2041	1,821,925	6,815,000	8,636,925	2041
	$ 132,248,581	$ 400,922,303	$ 533,170,884	

(1) After Series 2021 refunding issue.

* Does not include CRMWD contract payments.

Schedule 2

City of Midland

Midland Co FWSD #1 Refunding/Restructuring

Refund Series 2012A, 2014, 2019 and 2021

Closing 6.7.2022

Based on approximate current taxable interest rates

Preliminary

1	2	3	4	5	6	7	8
FYE	Existing City Waterworks & Sewer System Debt Service	Existing Midland Co FWSD #1 Total Debt Service [1]	Aggregate Waterworks & Sewer System Debt Service	Taxable Series 2022 Midland Co FWSD #1 Refunding Impact [2]	Debt Service [3] after Series 2022 Refunding	Aggregate After Series 2022 Total Waterworks & Sewer System Debt Service	FYE
2022	$ 7,714,347	$ 9,458,569	$ 17,172,916	$ 88	$ 9,458,657	$ 17,173,005	2022
2023	7,717,030	10,082,477	17,799,507	1,111,461	11,193,938	18,910,968	2023
2024	7,717,513	9,932,699	17,650,212	1,261,239	11,193,938	18,911,451	2024
2025	7,718,178	9,833,212	17,551,390	1,360,726	11,193,938	18,912,116	2025
2026	7,718,174	10,584,874	18,303,048	609,064	11,193,938	18,912,112	2026
2027	7,726,886	10,434,955	18,161,840	758,984	11,193,938	18,920,824	2027
2028	7,710,362	10,287,131	17,997,493	906,808	11,193,938	18,904,300	2028
2029	7,708,751	9,589,068	17,297,819	1,604,871	11,193,938	18,902,689	2029
2030	7,720,126	22,565,419	30,285,545	(5,986,481)	16,578,938	24,299,064	2030
2031	7,715,580	28,949,046	36,664,626	(12,370,042)	16,579,004	24,294,584	2031
2032	7,715,210	28,768,975	36,484,185	(12,190,203)	16,578,772	24,293,982	2032
2033	6,706,458	29,295,511	36,001,968	(11,707,904)	17,587,607	24,294,064	2033
2034	6,704,611	29,298,631	36,003,242	(11,705,271)	17,593,361	24,297,972	2034
2035	6,713,171	29,295,901	36,009,072	(11,715,299)	17,580,603	24,293,774	2035
2036	6,703,117	29,293,036	35,996,153	(11,700,721)	17,592,315	24,295,432	2036
2037	6,707,866	29,300,036	36,007,902	(11,713,476)	17,586,560	24,294,426	2037
2038	4,003,525	29,046,601	33,050,126	(8,758,813)	20,287,788	24,291,313	2038
2039	4,003,025	29,044,780	33,047,805	(8,753,993)	20,290,788	24,293,813	2039
2040	4,002,725	29,046,386	33,049,111	(8,755,198)	20,291,188	24,293,913	2040
2041	1,821,925	6,815,000	8,636,925	15,653,388	22,468,388	24,290,313	2041
2042				24,289,588	24,289,588	24,289,588	2042
2043				24,289,788	24,289,788	24,289,788	2043
2044				24,286,670	24,286,670	24,286,670	2044
2045				24,288,465	24,288,465	24,288,465	2045
2046				24,288,720	24,288,720	24,288,720	2046
2047				24,291,190	24,291,190	24,291,190	2047
2048				24,289,423	24,289,423	24,289,423	2048
2049				24,287,173	24,287,173	24,287,173	2049
2050				24,292,988	24,292,988	24,292,988	2050
	$ 132,248,581	$ 400,922,303	$ 533,170,884	$ 126,513,231	$ 527,435,534	$ 659,684,115	

(1) After Series 2021 refunding issue.

(2) Refunding of Series 2012A, 2014, 2019 and 2021.

(3) After Refunding of Series 2012A, 2014, 2019 and 2021 bonds.

* Does not include CRMWD contract payments.

Schedule 3

City of Midland

Midland Co FWSD #1 Refunding/Restructuring

Series 2012A and 2014 Tax-Exempt; Series 2019 and 2021 Taxable

Closing 6.15.2027

Breakeven - Based on an additional 1.58% above approximate current interest rates

Preliminary

1	2	3	4	5	6	7	8
FYE	Existing City Waterworks & Sewer System Debt Service	Existing Midland Co FWSD #1 Total Debt Service [1]	Aggregate Waterworks & Sewer System Debt Service	Series 2027 Midland Co FWSD #1 Refunding Impact [2]	Debt Service [3] after Series 2022 Refunding	Aggregate After Series 2022 Total Waterworks & Sewer System Debt Service	FYE
2022	$ 7,714,347	$ 9,458,569	$ 17,172,916	$ -	$ 9,458,569	$ 17,172,916	2022
2023	7,717,030	10,082,477	17,799,507	-	10,082,477	17,799,507	2023
2024	7,717,513	9,932,699	17,650,212	-	9,932,699	17,650,212	2024
2025	7,718,178	9,833,212	17,551,390	-	9,833,212	17,551,390	2025
2026	7,718,174	10,584,874	18,303,048	-	10,584,874	18,303,048	2026
2027	7,726,886	10,434,955	18,161,840	(4,006)	10,430,949	18,157,835	2027
2028	7,710,362	10,287,131	17,997,493	2,042,835	12,329,965	20,040,327	2028
2029	7,708,751	9,589,068	17,297,819	2,740,898	12,329,965	20,038,716	2029
2030	7,720,126	22,565,419	30,285,545	(5,875,454)	16,689,965	24,410,091	2030
2031	7,715,580	28,949,046	36,664,626	(12,255,803)	16,693,243	24,408,823	2031
2032	7,715,210	28,768,975	36,484,185	(12,074,373)	16,694,603	24,409,812	2032
2033	6,706,458	29,295,511	36,001,968	(11,587,083)	17,708,428	24,414,885	2033
2034	6,704,611	29,298,631	36,003,242	(11,585,644)	17,712,988	24,417,599	2034
2035	6,713,171	29,295,901	36,009,072	(11,591,746)	17,704,155	24,417,326	2035
2036	6,703,117	29,293,036	35,996,153	(11,581,586)	17,711,450	24,414,567	2036
2037	6,707,866	29,300,036	36,007,902	(11,597,061)	17,702,975	24,410,841	2037
2038	4,003,525	29,046,601	33,050,126	(8,627,934)	20,418,667	24,422,192	2038
2039	4,003,025	29,044,780	33,047,805	(8,630,677)	20,414,104	24,417,129	2039
2040	4,002,725	29,046,386	33,049,111	(8,629,530)	20,416,855	24,419,580	2040
2041	1,821,925	6,815,000	8,636,925	15,791,465	22,606,465	24,428,390	2041
2042				24,428,441	24,428,441	24,428,441	2042
2043				24,431,120	24,431,120	24,431,120	2043
2044				24,433,036	24,433,036	24,433,036	2044
2045				24,430,546	24,430,546	24,430,546	2045
2046				24,431,816	24,431,816	24,431,816	2046
2047				24,434,615	24,434,615	24,434,615	2047
2048				24,431,710	24,431,710	24,431,710	2048
2049				24,428,469	24,428,469	24,428,469	2049
2050				24,428,622	24,428,622	24,428,622	2050
	$ 132,248,581	$ 400,922,303	$ 533,170,884	$ 126,412,675	$ 527,334,978	$ 659,583,560	

(1) After Series 2021 refunding issue.

(2) Refunding of Series 2012A, 2014, 2019 and 2021.

(3) After Refunding of Series 2012A, 2014, 2019 and 2021 bonds.

* Does not include CRMWD contract payments.

March 2022						
S	M	T	W	T	F	S
		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	31		

April 2022						
S	M	T	W	T	F	S
					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

May 2022						
S	M	T	W	T	F	S
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	31				

June 2022						
S	M	T	W	T	F	S
			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		

City of Midland

PRELIMINARY TIMETABLE OF EVENTS

Refunding Bonds, Series 2022
(Defeasance of MCFWSD #1 Debt)

Date	Event
Tuesday, March 22, 2022	**Council to consider Ordinance authorizing issuance, establishing parameters, delegating pricing authority**
Tuesday, March 29, 2022	Circulate draft Preliminary Official Statement
Wednesday, March 30, 2022	Circulate draft rating presentation
Friday, April 1, 2022	Determine underwriting syndicate
Wednesday, April 6, 2022	Submit information to rating agencies
Week of April 11, 2022	Rating meetings/calls
Friday, April 22, 2022	Ratings released
Monday, April 25, 2022	Preliminary Official Statement posted
May 3 - 5, 2022	**Marketing and pricing of bond issue* by underwriters, overseen by HilltopSecurities as financial advisor**
Tuesday, June 7, 2022	Closing, receipt of proceeds and escrow of funds to defease
Wednesday, June 8, 2022	Conveyance of infrastructure and easements to City

** Subject to market conditions and meeting established parameters*

HilltopSecurities
Investment Banking Solutions

ORDINANCE NO. _____

AN ORDINANCE authorizing the issuance of "CITY OF MIDLAND, TEXAS, GENERAL OBLIGATION REFUNDING BONDS, SERIES 2022"; levying a continuing direct annual ad valorem tax for the payment of said Bonds; resolving other matters incident and related to the issuance, sale, payment and delivery of said Bonds; establishing procedures for the sale and delivery of said Bonds; and delegating matters relating to the sale and issuance of said Bonds to an authorized City official.

WHEREAS, the City of Midland, Texas (the "City") currently has entered into and currently has outstanding a Wholesale Water Delivery Agreement with the Midland County Fresh Water Supply District No. 1 (the "District") initially entered into on May 30, 2012 and as amended through the Fifth Amendment to Wholesale Water Delivery Agreement effective July 20, 2015 (hereinafter called the "Agreement");

WHEREAS, the Agreement is an obligation within the meaning of the Texas Government Code, Chapter 1207, as amended ("Chapter 1207");

WHEREAS, pursuant to the provisions of Chapter 1207, the City Council of the City (the "Council") is authorized to issue refunding bonds to refund all or any part of the City's outstanding bonds, notes or other general or special obligations and deposit the proceeds of sale with a paying agent (the "District Escrow Agent") for the District's outstanding debt consisting of its Revenue Notes (City of Midland Project) Series 2012A, its Revenue Notes (City of Midland Project) Series 2014, Revenue Refunding Bonds (City of Midland Project) Taxable Series 2019 and its Revenue Refunding Bonds (City of Midland Project) Taxable Series 2021 (the "Refunded District Obligations") related to the Agreement, for the refunding, payment or redemption of the Refunded District Obligations, and such deposit which will result in the City refunding and fully paying the obligations of the City to the District under the Agreement, shall constitute the making of firm banking and financial arrangements for the discharge and final payment of the Refunded District Obligations and the Agreement; and

WHEREAS, the City shall by this Ordinance, in accordance with the provisions of Texas Government Code, Section 1207.007, as amended, and Texas Government Code, Chapter 1371, as amended ("Chapter 1371") delegate to a Pricing Officer (hereinafter designated) the authority to determine the principal amount and certain other specified terms of the Bonds to be issued to refund the Agreement and to negotiate the terms of sale thereof in one or more pricing certificates (each a "Pricing Certificate") to be executed by the Pricing Officer; and

WHEREAS, the Council hereby finds and determines that it is a public purpose and in the best interests of the City to refund the Agreement in order to allow the City to acquire the Infrastructure (as defined in the Agreement) which was initially financed with proceeds of the Refunded District Obligations, which Infrastructure will become part of the City's water and sewer system concurrently with the funding of a defeasance escrow related to the Refunded District Obligations, notwithstanding that the aggregate payments to be made on the refunding bonds herein authorized exceed the aggregate payments that would have been made on the Agreement had the refunding not occurred; and

WHEREAS, the City Council hereby determines and finds that the manner of refunding the contractual commitments of the City to the District contained in the Agreement, which contains future increasing adjustments to the amounts to be paid by the City to the District, does not make

it practicable to make the determination required by Section 1207.008(a)(2) in the current market conditions; now, therefore

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF MIDLAND, TEXAS:

SECTION 1. Authorization - Series Designation - Principal Amount - Purpose - Bond Date. General obligation refunding bonds of the City shall be and are hereby authorized to be issued in the maximum aggregate principal amount hereinafter set forth to be designated and bear the title "CITY OF MIDLAND, TEXAS, GENERAL OBLIGATION REFUNDING BONDS, SERIES 2022", or such other designation as specified in the Pricing Certificate (herein referred to as the "Bonds"), for the purpose of providing funds for the discharge and final payment of the Agreement and to pay the costs and expenses of issuance, in accordance with the authority conferred by and in conformity with the Constitution and laws of the State of Texas, including Chapter 1207 and Chapter 1371. The Bonds shall be dated (the "Bond Date") as provided in the Pricing Certificate.

SECTION 2. Fully Registered Obligations - Terms. The Bonds shall be issued as fully registered obligations, without coupons, and (other than the Initial Bonds referenced in Section 8 hereof) shall be in denominations of $5,000 or any integral multiple (within a Stated Maturity) thereof, shall be lettered "R" and numbered consecutively from one (1) upward and principal shall become due and payable on a date certain in each of the years (the "Stated Maturities") and in amounts and bear interest at the rate(s) per annum in accordance with the details of the Bonds as set forth in the Pricing Certificate.

The Bonds shall bear interest on the unpaid principal amounts from the date specified in the Pricing Certificate at the rate(s) per annum shown in the Pricing Certificate (calculated on the basis of a 360-day year consisting of twelve 30-day months). Interest on the Bonds shall be payable in each year, on the dates, and commencing on the date, set forth in the Pricing Certificate.

SECTION 3. Delegation of Authority to Pricing Officer. (a) As authorized by Texas Government Code, Section 1207.007, as amended, and Texas Government Code, Section 1371.052, as amended, the City Manager or Director of Finance of the City (either, the "Pricing Officer") is hereby authorized to act on behalf of the City in selling and delivering the Bonds in one or more series and carrying out the other procedures specified in this Ordinance, including refunding, in whole or in part, the Agreement, determining the aggregate principal amount of the Bonds, the date of the Bonds, any additional or different designation or title by which the Bonds shall be known, the price at which the Bonds will be sold, the manner of sale (negotiated, privately placed or competitively bid), the years in which the Bonds will mature, the principal amount to mature in each of such years, the rate of interest to be borne by each such maturity, the date from which interest on the Bonds will accrue, the interest payment dates, the record date, the price and terms upon and at which the Bonds shall be subject to redemption prior to maturity at the option of the City, as well as any mandatory sinking fund redemption provisions, determination of the use of a book-entry-only securities clearance, settlement and transfer system, the designation of a paying agent/registrar, the designation of an escrow agent, if applicable, satisfying the requirements of Chapter 1207 and Chapter 1371, the terms of any bond insurance applicable to the Bonds, including any modification of the continuing disclosure undertaking contained in Section 30 hereof as may be required by the purchasers of the Bonds in connection with any amendments to Rule 15c2-12, and all other matters relating to the issuance, sale and delivery of the Bonds, all of which shall be specified in the Pricing Certificate, provided that:

(i) the aggregate original principal amount of the Bonds shall not exceed $290,0000,000;

(ii) the maximum true interest cost for the Bonds shall not exceed 5.75%;

(iii) the maximum maturity date of the Bonds shall not exceed September 15, 2052; and

(iv) the annual debt service from 2030 through the final maturity of the Bonds will not exceed $30,000,000.

The execution of the Pricing Certificate shall evidence the sale date of the Bonds by the City to the Purchasers (hereinafter defined).

If the Pricing Officer determines that bond insurance results in a net reduction of the City's interest costs associated with the Bonds, then the Pricing Officer is authorized, in connection with effecting the sale of such series of the Bonds, to make the selection of the municipal bond insurance company for such series of the Bonds (the "Insurer") and to obtain from the Insurer a municipal bond insurance policy or policies in support of the Bonds. The Pricing Officer shall have the authority to determine the provisions of the commitment for any such policy and to execute any documents to effect the issuance of said policy by the Insurer.

(b) In establishing the aggregate principal amount of the Bonds, the Pricing Officer shall establish an amount for the Bonds not exceeding the amount authorized in subsection (a)(i) above, which shall be sufficient in amount to provide for the purposes for which the Bonds are authorized and to pay costs of issuing the Bonds. The delegation made hereby shall expire if not exercised by the Pricing Officer within one (1) year of the date of the adoption of this Ordinance. The Bonds shall be sold to the purchaser(s)/underwriter(s) named in the Pricing Certificate (the "Purchasers"), at such price and with and subject to such terms as set forth in the Pricing Certificate and the Purchase Contract (hereinafter defined), and may be sold by negotiated or competitive sale or by private placement. The Pricing Officer is hereby delegated the authority to designate the Purchasers, which delegation shall be evidenced by the execution of the Pricing Certificate.

SECTION 4. Terms of Payment - Paying Agent/Registrar. The principal of, premium, if any, and the interest on the Bonds, due and payable by reason of maturity, redemption or otherwise, shall be payable only to the registered owners or holders of the Bonds (hereinafter called the "Holders") appearing on the registration and transfer books maintained by the Paying Agent/Registrar (as defined below), and the payment thereof shall be in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts, and shall be without exchange or collection charges to the Holders.

The selection and appointment of the paying agent/registrar for the Bonds (the "Paying Agent/Registrar") shall be as provided in the Pricing Certificate. Books and records relating to the registration, payment, exchange and transfer of the Bonds (the "Security Register") shall at all times be kept and maintained on behalf of the City by the Paying Agent/Registrar, all as provided herein, in accordance with the terms and provisions of a "Paying Agent/Registrar Agreement," substantially in the form attached hereto as **Exhibit A** and such reasonable rules and regulations as the Paying Agent/Registrar and the City may prescribe. The Pricing Officer is hereby authorized to execute and deliver such Paying Agent/Registrar Agreement in connection

with the delivery of the Bonds. The City covenants to maintain and provide a Paying Agent/Registrar at all times until the Bonds are paid and discharged, and any successor Paying Agent/Registrar shall be a commercial bank, trust company, financial institution, or other entity qualified and authorized to serve in such capacity and perform the duties and services of Paying Agent/Registrar. Upon any change in the Paying Agent/Registrar for the Bonds, the City agrees to promptly cause a written notice thereof to be sent to each Holder by United States Mail, first class postage prepaid, which notice shall also give the address of the new Paying Agent/Registrar.

The Bonds shall be payable at their Stated Maturities or upon their earlier redemption, only upon the presentation and surrender of the Bonds to the Paying Agent/Registrar at its designated offices provided in the Pricing Certificate (the "Designated Payment/Transfer Office"); provided, however, while a Bond is registered to Cede & Co., the payment thereof upon a partial redemption of the principal amount thereof may be accomplished without presentation and surrender of such Bond. Interest on a Bond shall be paid by the Paying Agent/Registrar to the Holders whose names appears in the Security Register at the close of business on the Record Date (which shall be set forth in the Pricing Certificate) and such interest payments shall be made (i) by check sent United States Mail, first class postage prepaid, to the address of the Holder recorded in the Security Register or (ii) by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the Holder. If the date for the payment of the principal of or interest on the Bonds shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Designated Payment/Transfer Office of the Paying Agent/Registrar is located are authorized by law or executive order to be closed, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to be closed; and payment on such date shall have the same force and effect as if made on the original date payment was due.

In the event of a non-payment of interest on maturities of the Bonds on a scheduled payment date, and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such past due interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be fifteen (15) days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States Mail, first class postage prepaid, to the address of each Holder of the Bonds appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

SECTION 5. Registration - Transfer - Exchange of Bonds - Predecessor Bonds. The Paying Agent/Registrar shall obtain, record, and maintain in the Security Register the name and address of each and every Holder of the Bonds issued under and pursuant to the provisions of this Ordinance, or if appropriate, the nominee thereof. Any Bond may be transferred or exchanged for Bonds of like maturity and amount and in authorized denominations upon the Security Register by the Holder, in person or by his duly authorized agent, upon surrender of such Bond to the Paying Agent/Registrar at its Designated Payment/Transfer Office for cancellation, accompanied by a written instrument of transfer or request for exchange duly executed by the Holder or by his duly authorized agent, in form satisfactory to the Paying Agent/Registrar.

Upon surrender for assignment or transfer of any Bond (other than the Initial Bonds authorized in Section 8 hereof) for transfer at the Designated Payment/Transfer Office of the Paying Agent/Registrar, new Bonds, executed on behalf of and furnished by the City, shall be

registered and issued to the assignee or transferee of the previous Holder; such Bonds to be of authorized denominations, of like Stated Maturity, and of a like aggregate principal amount as the Bond or Bonds surrendered for transfer.

At the option of the Holder, Bonds (other than the Initial Bonds authorized in Section 8 hereof) may be exchanged for other Bonds of authorized denominations and having the same Stated Maturity, bearing the same rate of interest and of like aggregate principal amount as the Bonds surrendered for exchange, upon surrender of the Bonds to be exchanged at the Designated Payment/Transfer Office of the Paying Agent/Registrar. Whenever any Bonds are surrendered for exchange, the Paying Agent/Registrar shall register and deliver new Bonds, executed on behalf of and furnished by the City, to the Holder requesting the exchange.

All Bonds issued upon any such transfer or exchange of Bonds shall be delivered to the Holders at the Designated Payment/Transfer Office of the Paying Agent/Registrar or sent by United States Mail, first class postage prepaid, to the Holders, and, upon the registration and delivery thereof, the same shall be the valid obligations of the City, evidencing the same obligation to pay and entitled to the same benefits under this Ordinance, as the Bonds surrendered in such transfer or exchange.

All transfers or exchanges of Bonds pursuant to this Section shall be made without expense or service charge to the Holder, except as otherwise herein provided, and except that the Paying Agent/Registrar shall require payment by the Holder requesting such transfer or exchange of any tax or other governmental charges required to be paid with respect to such transfer or exchange.

Bonds canceled by reason of an exchange or transfer pursuant to the provisions hereof are hereby defined to be "Predecessor Bonds," evidencing all or a portion, as the case may be, of the same obligation to pay evidenced by the new Bond or Bonds registered and delivered in the exchange or transfer therefor. Additionally, the term "Predecessor Bonds" shall include any mutilated, lost, destroyed, or stolen Bond for which a replacement Bond has been issued, registered, and delivered in lieu thereof pursuant to the provisions of Section 11 hereof, and such new replacement Bond shall be deemed to evidence the same obligation as the mutilated, lost, destroyed, or stolen Bond.

Neither the City nor the Paying Agent/Registrar shall be required to transfer or exchange any Bond called for redemption, in whole or in part, within forty-five (45) days of the date fixed for the redemption of such Bond; provided, however, such limitation on transferability shall not be applicable to an exchange by the Holder of the unredeemed balance of a Bond called for redemption in part.

SECTION 6. Book-Entry-Only Transfers and Transactions. Notwithstanding the provisions contained in the applicable sections hereof relating to the payment and transfer/exchange of the Bonds, the City hereby approves and authorizes the use of "Book-Entry-Only" securities clearance, settlement, and transfer system provided by The Depository Trust Company, a limited purpose trust company organized under the laws of the State of New York ("DTC"), in accordance with the requirements and procedures identified in the current DTC Operational Arrangements memorandum, as amended, the Blanket Issuer Letter of Representations, by and between the City and DTC, and the Letter of Representations from the Paying Agent/Registrar to DTC (collectively, the "Depository Agreement") relating to the Bonds.

In the event the Pricing Officer elects to utilize DTC's "Book-Entry-Only" System, which election shall be made by the Pricing Officer in the Pricing Certificate, pursuant to the Depository Agreement and the rules of DTC, the Bonds shall be deposited with DTC and who shall hold said Bonds for its participants (the "DTC Participants"). While the Bonds are held by DTC under the Depository Agreement, the Holder of the Bonds on the Security Register for all purposes, including payment and notices, shall be Cede & Co., as nominee of DTC, notwithstanding the ownership of each actual purchaser or owner of each Bond (the "Beneficial Owners") being recorded in the records of DTC and DTC Participants.

In the event DTC determines to discontinue serving as securities depository for the Bonds or otherwise ceases to provide book-entry clearance and settlement of securities transactions in general or the City determines that DTC is incapable of properly discharging its duties as securities depository for the Bonds, the City covenants and agrees with the Holders of the Bonds to cause Bonds to be printed in definitive form and provide for the Bond certificates to be issued and delivered to DTC Participants and Beneficial Owners, as the case may be. Thereafter, the Bonds in definitive form shall be assigned, transferred and exchanged on the Security Register maintained by the Paying Agent/Registrar and payment of such Bonds shall be made in accordance with the provisions of Sections 4 and 5 hereof.

SECTION 7. Execution - Registration. The Bonds shall be executed on behalf of the City by the Mayor or the Mayor Pro Tem under the City's seal reproduced or impressed thereon and attested by the City Secretary. The signature of said officials on the Bonds may be manual or facsimile. Bonds bearing the manual or facsimile signatures of individuals who are or were the proper officials of the City on the date of the adoption of this Ordinance shall be deemed to be duly executed on behalf of the City, notwithstanding that such individuals or either of them shall cease to hold such offices at the time of delivery of the Bonds to the initial purchaser(s) and with respect to Bonds delivered in subsequent exchanges and transfers, all as authorized and provided in Texas Government Code, Chapter 1201, as amended.

No Bond shall be entitled to any right or benefit under this Ordinance, or be valid or obligatory for any purpose, unless there appears on such Bond either a certificate of registration substantially in the form provided in Section 9(c), manually executed by the Comptroller of Public Accounts of the State of Texas, or his or her duly authorized agent, or a certificate of registration substantially in the form provided in Section 9(d), manually executed by an authorized officer, employee or representative of the Paying Agent/Registrar, and either such certificate duly signed upon any Bond shall be conclusive evidence, and the only evidence, that such Bond has been duly certified, registered, and delivered.

SECTION 8. Initial Bonds. The Bonds herein authorized shall be initially issued as fully registered Bonds as specified in the Pricing Certificate, being a single, fully registered Bond in the aggregate principal amount noted and principal installments to become due and payable as provided in the Pricing Certificate and numbered T-1 (hereinafter called the "Initial Bond") and the Initial Bond shall be registered in the name of the initial purchaser(s) or the designee thereof. The Initial Bond shall be the Bond submitted to the Office of the Attorney General of the State of Texas for approval, certified and registered by the Office of the Comptroller of Public Accounts of the State of Texas and delivered to the initial purchaser(s). Any time after the delivery of the Initial Bond, the Paying Agent/Registrar, pursuant to written instructions from the initial purchaser(s), or the designee thereof, shall cancel the Initial Bond delivered hereunder and exchange therefor definitive Bonds of authorized denominations, Stated Maturities, principal amounts and bearing applicable interest rates for transfer and delivery to the Holders named at the addresses identified therefor; all pursuant to and in accordance with such written instructions from the initial

purchaser(s), or the designee thereof, and such other information and documentation as the Paying Agent/Registrar may reasonably require.

SECTION 9. Forms.

(a) Forms Generally. The Bonds, the Registration Certificate of the Comptroller of Public Accounts of the State of Texas, the Registration Certificate of Paying Agent/Registrar, and the form of Assignment to be printed on each of the Bonds, shall be substantially in the forms set forth in this Section with such appropriate insertions, omissions, substitutions, and other variations as are permitted or required by this Ordinance and, with the Bonds to be completed and modified with the information set forth in the Pricing Certificate, may have such letters, numbers, or other marks of identification (including identifying numbers and letters of the Committee on Uniform Securities Identification Procedures of the American Bankers Association) and such legends and endorsements (including insurance legends on insured Bonds and any reproduction of an opinion of counsel) thereon as may, consistently herewith, be established by the City or determined by the Pricing Officer. The Pricing Certificate shall set forth the final and controlling forms and terms of the Bonds. Any portion of the text of any Bonds may be set forth on the reverse thereof, with an appropriate reference thereto on the face of the Bond.

The definitive Bonds and the Initial Bond shall be printed, lithographed, engraved, typewritten, photocopied or otherwise reproduced in any other similar manner, all as determined by the officers executing such Bonds as evidenced by their execution thereof.

(b) Form of Definitive Bonds.

REGISTERED NO. R-_____ PRINCIPAL AMOUNT $_____

UNITED STATES OF AMERICA
STATE OF TEXAS
CITY OF MIDLAND, TEXAS
GENERAL OBLIGATION REFUNDING BOND
SERIES 2022

Bond Date:	Interest Rate:	Stated Maturity:	CUSIP No.:
_____, 2022	_____%	_____, 20__	_____

Registered Owner:

Principal Amount: DOLLARS

The City of Midland (hereinafter referred to as the "City"), a body corporate and political subdivision in the Counties of Midland and Martin, State of Texas, for value received, acknowledges itself indebted to and hereby promises to pay to the Registered Owner named above, or the registered assigns thereof, on the Stated Maturity date specified above the Principal Amount hereinabove stated [(or so much thereof as shall not have been paid upon prior redemption)], and to pay interest on the unpaid principal amount hereof from the interest payment date next preceding the "Registration Date" of this Bond appearing below (unless this Bond bears a "Registration Date" as of an interest payment date, in which case it shall bear interest from such date, or unless the "Registration Date" of this Bond is prior to the initial interest payment date in which case it shall bear interest from the _____) at the per annum rate of interest specified

above computed on the basis of a 360 day year of twelve 30 day months; such interest being payable on _____ and _____ in each year, commencing _____, 20__, until maturity [or prior redemption]. Principal of this Bond is payable at its Stated Maturity [or upon its prior redemption] to the registered owner hereof, upon presentation and surrender, at the designated offices of the Paying Agent/Registrar executing the registration certificate appearing hereon, initially in _____, _____, or, with respect to a successor Paying Agent/Registrar, at the designated offices of such successor (the "Designated Payment/Transfer Office")[; provided, however, while this Bond is registered to Cede & Co., the payment of principal upon a partial redemption of the principal amount hereof may be accomplished without presentation and surrender of this Bond]. Interest is payable to the registered owner of this Bond (or Predecessor Bonds, as defined in the Ordinance hereinafter referenced) whose name appears on the "Security Register" maintained by the Paying Agent/Registrar at the close of business on the "Record Date", which is the _____ day of the month next preceding each interest payment date, and interest shall be paid by the Paying Agent/Registrar by check sent United States Mail, first class postage prepaid, to the address of the registered owner recorded in the Security Register or by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the registered owner. If the date for the payment of the principal of or interest on the Bonds shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Designated Payment/Transfer Office of the Paying Agent/Registrar is located are authorized by law or executive order to close, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to close; and payment on such date shall have the same force and effect as if made on the original date payment was due. All payments of principal of, premium, if any, and interest on this Bond shall be without exchange or collection charges to the owner hereof and in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts.

This Bond is one of the series specified in its title issued in the aggregate principal amount of $_____ (herein referred to as the "Bonds") for the purpose of providing funds for the discharge and final payment of a certain outstanding obligation of the City and to pay the costs and expenses of issuance, under and in strict conformity with the Constitution and laws of the State of Texas, including Texas Government Code, Chapters 1207 and 1371, as amended, and pursuant to an Ordinance adopted by the City Council of the City (herein referred to as the "Ordinance").

[The Bonds shall not be subject to redemption prior to maturity]

[The Bonds maturing on the dates hereinafter identified (the "Term Bonds") are subject to mandatory redemption prior to maturity with funds on deposit in the Interest and Sinking Fund established and maintained for the payment thereof in the Ordinance, and shall be redeemed in part prior to maturity at the price of par and accrued interest thereon to the date of redemption, and without premium, on the dates and in the principal amounts as follows:

Term Bonds due _____, 20__	
Redemption Date	Principal Amount
_____, 20__	
_____, 20__*	

Term Bonds due _____, 20__	
Redemption Date	Principal Amount
_____, 20__	
_____, 20__*	

* Stated maturity.

The particular Term Bonds of a Stated Maturity to be redeemed on each redemption date shall be chosen by lot by the Paying Agent/Registrar; provided, however, that the principal amount of Term Bonds for a Stated Maturity required to be redeemed on a mandatory redemption date may be reduced, at the option of the City, by the principal amount of Term Bonds of like Stated Maturity which, at least fifty (50) days prior to a mandatory redemption date, (1) shall have been acquired by the City at a price not exceeding the principal amount of such Term Bonds plus accrued interest to the date of purchase thereof, and delivered to the Paying Agent/Registrar for cancellation or (2) shall have been redeemed pursuant to the optional redemption provisions appearing below and not theretofore credited against a mandatory redemption requirement.]

[The Bonds maturing on and after _____, 20__, may be redeemed prior to their Stated Maturities, at the option of the City, in whole or in part in principal amounts of $5,000 or any integral multiple thereof (and if within a Stated Maturity by lot by the Paying Agent/Registrar), on _____, 20__, or on any date thereafter, at the redemption price of par, together with accrued interest to the date of redemption.

At least thirty (30) days prior to the date fixed for any redemption of Bonds, the City shall cause a written notice of such redemption to be sent by United States Mail, first class postage prepaid, to the registered owners of each Bond to be redeemed, in whole or in part, at the address shown on the Security Register and subject to the terms and provisions relating thereto contained in the Ordinance. If a Bond (or any portion of its principal sum) shall have been duly called for redemption and notice of such redemption duly given, then upon such redemption date such Bond (or the portion of its principal sum to be redeemed) shall become due and payable, and interest thereon shall cease to accrue from and after the redemption date therefor; provided moneys for the payment of the redemption price and the interest on the principal amount to be redeemed to the date of redemption are held for the purpose of such payment by the Paying Agent/Registrar.

In the event a portion of the principal amount of a Bond is to be redeemed and the registered owner is someone other than Cede & Co., payment of the redemption price of such principal amount shall be made to the registered owner only upon presentation and surrender of such Bond to the Designated Payment/Transfer Office of the Paying Agent/Registrar, and a new Bond or Bonds of like maturity and interest rate in any authorized denominations provided by the Ordinance for the then unredeemed balance of the principal sum thereof will be issued to the registered owner, without charge. If a Bond is selected for redemption, in whole or in part, the City and the Paying Agent/Registrar shall not be required to transfer such Bond to an assignee of the registered owner within forty-five (45) days of the redemption date therefor; provided, however, such limitation on transferability shall not be applicable to an exchange by the registered owner of the unredeemed balance of a Bond redeemed in part.

With respect to any optional redemption of the Bonds, unless moneys sufficient to pay the principal of and premium, if any, and interest on the Bonds to be redeemed shall have been received by the Paying Agent/Registrar prior to the giving of such notice of redemption, such notice may state that said redemption is conditional upon the receipt of such moneys by the Paying Agent/Registrar on or prior to the date fixed for such redemption, or upon the satisfaction of any prerequisites set forth in such notice of redemption; and, if sufficient moneys are not received, such notice shall be of no force and effect, the City shall not redeem such Bonds and the Paying Agent/Registrar shall give notice, in the manner in which the notice of redemption was given, to the effect that the Bonds have not been redeemed.]

The Bonds are payable from the proceeds of an ad valorem tax levied, within the limitations prescribed by law, upon all taxable property in the City. Reference is hereby made to the Ordinance, a copy of which is on file in the Designated Payment/Transfer Office of the Paying

Agent/Registrar, and to all of the provisions of which the owner or holder of this Bond by the acceptance hereof hereby assents, for definitions of terms; the description of and the nature and extent of the tax levied for the payment of the Bonds; the terms and conditions relating to the transfer or exchange of this Bond; the conditions upon which the Ordinance may be amended or supplemented with or without the consent of the Holders; the rights, duties, and obligations of the City and the Paying Agent/Registrar; the terms and provisions upon which this Bond may be discharged at or prior to its maturity [or redemption], and deemed to be no longer Outstanding thereunder; and for other terms and provisions contained therein. Capitalized terms used herein and not otherwise defined have the meanings assigned in the Ordinance.

This Bond, subject to certain limitations contained in the Ordinance, may be transferred on the Security Register only upon its presentation and surrender at the Designated Payment/Transfer Office of the Paying Agent/Registrar, with the Assignment hereon duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Paying Agent/Registrar duly executed by, the registered owner hereof, or his duly authorized agent. When a transfer on the Security Register occurs, one or more new fully registered Bonds of the same Stated Maturity, of authorized denominations, bearing the same rate of interest, and of the same aggregate principal amount will be issued by the Paying Agent/Registrar to the designated transferee or transferees.

The City and the Paying Agent/Registrar, and any agent of either, shall treat the registered owner whose name appears on the Security Register (i) on the Record Date as the owner entitled to payment of interest hereon, (ii) on the date of surrender of this Bond as the owner entitled to payment of principal at the Stated Maturity[, or its redemption, in whole or in part], and (iii) on any other date as the owner for all other purposes, and neither the City nor the Paying Agent/Registrar, or any agent of either, shall be affected by notice to the contrary. In the event of nonpayment of interest on a Bond on a scheduled payment date and for thirty (30) days thereafter, a new record date for such interest payment (a "Special Record Date") will be established by the Paying Agent/Registrar, if and when funds for the payment of such interest have been received from the City. Notice of the Special Record Date and of the scheduled payment date of the past due interest (which shall be fifteen (15) days after the Special Record Date) shall be sent at least five (5) business days prior to the Special Record Date by United States Mail, first class postage prepaid, to the address of each registered owner of a Bond appearing on the Security Register at the close of business on the last business day next preceding the date of mailing of such notice.

It is hereby certified, recited, represented, and declared that the City is a body corporate and political subdivision duly organized and legally existing under and by virtue of the Constitution and laws of the State of Texas; that the issuance of the Bonds is duly authorized by law; that all acts, conditions, and things required to exist and be done precedent to and in the issuance of the Bonds to render the same lawful and valid obligations of the City have been properly done, have happened, and have been performed in regular and due time, form, and manner as required by the Constitution and laws of the State of Texas, and the Ordinance; that the Bonds do not exceed any Constitutional or statutory limitation; and that due provision has been made for the payment of the principal of and interest on the Bonds by the levy of a tax as aforestated. In case any provision in this Bond shall be invalid, illegal, or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby. The terms and provisions of this Bond and the Ordinance shall be construed in accordance with and shall be governed by the laws of the State of Texas.

IN WITNESS WHEREOF, the City Council of the City has caused this Bond to be duly executed under the official seal of the City.

CITY OF MIDLAND, TEXAS

ATTEST: _____
[Mayor][Mayor Pro Tem]

_____
City Secretary

(City Seal)

(c) Form of Registration Certificate of Comptroller of Public Accounts to appear on Initial Bond only.

REGISTRATION CERTIFICATE OF
COMPTROLLER OF PUBLIC ACCOUNTS

OFFICE OF THE COMPTROLLER	(	
OF PUBLIC ACCOUNTS	(	REGISTER NO. _____
THE STATE OF TEXAS	(	

I HEREBY CERTIFY that this Bond has been examined, certified as to validity and approved by the Attorney General of the State of Texas, and duly registered by the Comptroller of Public Accounts of the State of Texas.

WITNESS my signature and seal of office this _____.

_____
Comptroller of Public Accounts
of the State of Texas

(Seal)

(d) Form of Certificate of Paying Agent/Registrar to appear on Definitive Bonds only.

REGISTRATION CERTIFICATE OF PAYING AGENT/REGISTRAR

This Bond has been duly issued and registered in the name of the Registered Owner shown above under the provisions of the within-mentioned Ordinance; the bond or bonds of the above entitled and designated series originally delivered having been approved by the Attorney General of the State of Texas and registered by the Comptroller of Public Accounts of the State of Texas, as shown by the records of the Paying Agent/Registrar.

The designated office of the Paying Agent/Registrar in _____, is the Designated Payment/Transfer Office for this Bond.

_____
_____
as Paying Agent/Registrar

Registration Date:

_____

By: _____
Authorized Signature

(e) Form of Assignment.

ASSIGNMENT

FOR VALUE RECEIVED the undersigned hereby sells, assigns, and transfers unto (Print or typewrite name, address, and zip code of transferee): _____
_____
(Social Security or other identifying number: _____
_____) the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____ attorney to transfer the within Bond on the books kept for registration thereof, with full power of substitution in the premises.

DATED: _____

Signature guaranteed:

_____

_____
NOTICE: The signature on this assignment must correspond with the name of the registered owner as it appears on the face of the within Bond in every particular.

(f) The Initial Bond shall be in the form set forth therefor in subsection (b) of this Section, except the heading and paragraph one shall be amended to read as follows:

NO. T-1 $_____

UNITED STATES OF AMERICA
STATE OF TEXAS
CITY OF MIDLAND, TEXAS
GENERAL OBLIGATION REFUNDING BOND
SERIES 2022

Bond Date: _____, 2022

Registered Owner:

Principal Amount: DOLLARS

The City of Midland (hereinafter referred to as the "City"), a body corporate and political subdivision in the Counties of Midland and Martin, State of Texas, for value received,

acknowledges itself indebted to and hereby promises to pay to the registered owner named above, or the registered assigns thereof, the Principal Amount hereinabove stated on _____ in the years and in principal amounts in accordance with the following schedule:

STATED MATURITY	PRINCIPAL AMOUNT	INTEREST RATE(S)

(Information to be inserted from Pricing Certificate)

[(without right of prior redemption)][(or so much principal thereof as shall not have been redeemed prior to maturity)] and to pay interest on the unpaid principal installments hereof from the _____ at the per annum rates of interest specified above computed on the basis of a 360-day year of twelve 30-day months; such interest being payable on _____, 20__, and each _____ and _____ thereafter, until maturity [or prior redemption]. Principal installments of this Bond are payable in the year of maturity [or on a redemption date] to the registered owner hereof by _____ (the "Paying Agent/Registrar"), upon presentation and surrender at its designated offices, initially in _____, _____, or, with respect to a successor paying agent/registrar, at the designated office of such successor (the "Designated Payment/Transfer Office"). Interest is payable to the registered owner of this Bond whose name appears on the "Security Register" maintained by the Paying Agent/Registrar at the close of business on the "Record Date," which is the _____ day of the month next preceding each interest payment date, and interest shall be paid by the Paying Agent/Registrar by check sent United States Mail, first class postage prepaid, to the address of the registered owner recorded in the Security Register or by such other method, acceptable to the Paying Agent/Registrar, requested by, and at the risk and expense of, the registered owner. All payments of principal of, premium, if any, and interest on this Bond shall be without exchange or collection charges to the registered owner hereof and in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public and private debts. If the date for the payment of the principal of or interest on the Bonds shall be a Saturday, Sunday, a legal holiday, or a day on which banking institutions in the city where the Designated Payment/Transfer Office of the Paying Agent/Registrar is located are authorized by law or executive order to be closed, then the date for such payment shall be the next succeeding day which is not such a Saturday, Sunday, legal holiday, or day on which banking institutions are authorized to be closed; and payment on such date shall have the same force and effect as if made on the original date payment was due.

SECTION 10. Levy of Taxes. To provide for the payment of the "Debt Service Requirements" of the Bonds, being (i) the interest on the Bonds and (ii) a sinking fund for their redemption at maturity or a sinking fund of 2% (whichever amount is the greater) there is hereby levied, and there shall be annually assessed and collected in due time, form, and manner, a tax on all taxable property in the City, within the limitations by law prescribed, sufficient to pay such Debt Service Requirements on the Bonds as the same becomes due and payable; and such tax hereby levied on each one hundred dollars' valuation of taxable property in the City for the payment of the Debt Service Requirements of the Bonds shall be at a rate from year to year as will be ample and sufficient to provide funds each year to pay the principal of and interest on said Bonds while Outstanding; full allowance being made for delinquencies and costs of collection; the taxes levied, assessed, and collected for and on account of the Bonds shall be accounted for separate and apart from all other funds of the City and shall be deposited in the "SPECIAL SERIES 2022 GENERAL OBLIGATION REFUNDING BOND FUND", or such other fund designation as specified in the Pricing Certificate (the "Interest and Sinking Fund") to be

maintained at an official depository of the City's funds; and such tax hereby levied, and to be assessed and collected annually, is hereby pledged to the payment of the Bonds.

PROVIDED, however, with regard to any payment to become due on the Bonds prior to the tax delinquency date next following the annual assessment of taxes levied which next follows the Bond Date, if any, sufficient current funds will be available and are hereby appropriated to make such payments; and the Mayor, Mayor Pro Tem, City Manager, Director of Finance and City Secretary of the City, individually or jointly, are hereby authorized and directed to transfer and deposit in the Interest and Sinking Fund such current funds which, together with the accrued interest received from the initial purchasers, will be sufficient to pay the payments due on the Bonds prior to the tax delinquency date next following the annual assessment of taxes levied which next follows the Bond Date.

The Mayor, Mayor Pro Tem, City Manager, Director of Finance and City Secretary of the City, individually or jointly, are hereby authorized and directed to cause to be transferred to the Paying Agent/Registrar for the Bonds, from funds on deposit in the Interest and Sinking Fund, amounts sufficient to fully pay and discharge promptly each installment of interest and principal of the Bonds as the same accrues or matures or comes due by reason of redemption prior to maturity; such transfers of funds to be made in such manner as will cause collected funds to be deposited with the Paying Agent/Registrar on or before each principal and interest payment date for the Bonds.

SECTION 11. Mutilated - Destroyed - Lost and Stolen Bonds. In case any Bond shall be mutilated, or destroyed, lost, or stolen, the Paying Agent/Registrar may execute and deliver a replacement Bond of like form and tenor, and in the same denomination and bearing a number not contemporaneously outstanding, in exchange and substitution for such mutilated Bond; and with respect to a lost, destroyed, or stolen Bond, a replacement Bond may be issued only upon the approval of the City and after (i) the filing by the Holder with the Paying Agent/Registrar of evidence satisfactory to the Paying Agent/Registrar of the destruction, loss, or theft of such Bond, and of the authenticity of the ownership thereof and (ii) the furnishing to the Paying Agent/Registrar of indemnification in an amount satisfactory to hold the City and the Paying Agent/Registrar harmless. All expenses and charges associated with such indemnity and with the preparation, execution and delivery of a replacement Bond shall be borne by the Holder of the Bond mutilated, or destroyed, lost, or stolen.

Every replacement Bond issued pursuant to this Section shall be a valid and binding obligation of the City, and shall be entitled to all the benefits of this Ordinance equally and ratably with all other Outstanding Bonds; notwithstanding the enforceability of payment by anyone of the destroyed, lost, or stolen Bonds.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement and payment of mutilated, destroyed, lost, or stolen Bonds.

SECTION 12. Satisfaction of Obligation of City. If the City shall pay or cause to be paid, or there shall otherwise be paid to the Holders, the principal of, premium, if any, and interest on the Bonds, at the times and in the manner stipulated in this Ordinance and the Pricing Certificate, then the pledge of taxes levied under this Ordinance and all covenants, agreements, and other obligations of the City to the Holders shall thereupon cease, terminate, and be discharged and satisfied.

Bonds or any principal amount(s) thereof shall be deemed to have been paid within the meaning and with the effect expressed above in this Section when (i) money sufficient to pay in full such Bonds or the principal amount(s) thereof at maturity or to the redemption date therefor, together with all interest due thereon, shall have been irrevocably deposited with and held in trust by the Paying Agent/Registrar, or an authorized escrow agent, or (ii) Government Securities shall have been irrevocably deposited in trust with the Paying Agent/Registrar, or an authorized escrow agent, which Government Securities have been certified by an independent accounting or consulting firm to mature as to principal and interest in such amounts and at such times as will insure the availability, without reinvestment, of sufficient money, together with any moneys deposited therewith, if any, to pay when due the principal of and interest on such Bonds, or the principal amount(s) thereof, on and prior to the Stated Maturity thereof or (if notice of redemption has been duly given or waived or if irrevocable arrangements therefor acceptable to the Paying Agent/Registrar have been made) the redemption date thereof. The City covenants that no deposit of moneys or Government Securities will be made under this Section and no use made of any such deposit which would cause the Bonds to be treated as "arbitrage bonds" within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, or regulations adopted pursuant thereto.

Any moneys so deposited with the Paying Agent/Registrar, or an authorized escrow agent, and all income from Government Securities held in trust by the Paying Agent/Registrar, or an authorized escrow agent, pursuant to this Section which is not required for the payment of the Bonds, or any principal amount(s) thereof, or interest thereon with respect to which such moneys have been so deposited shall be remitted to the City or deposited as directed by the City. Furthermore, any money held by the Paying Agent/Registrar for the payment of the principal of and interest on the Bonds and remaining unclaimed for a period of three (3) years after the Stated Maturity, or applicable redemption date, of the Bonds such moneys were deposited and are held in trust to pay shall upon the request of the City be remitted to the City against a written receipt therefor. Notwithstanding the above and foregoing, any remittance of funds from the Paying Agent/Registrar to the City shall be subject to any applicable unclaimed property laws of the State of Texas.

Unless otherwise provided in the Pricing Certificate, the term "Government Securities" shall mean (i) direct noncallable obligations of the United States of America, including obligations the principal of and interest on which are unconditionally guaranteed by the United States of America, (ii) noncallable obligations of an agency or instrumentality of the United States of America, including obligations unconditionally guaranteed or insured by the agency or instrumentality and, on the date of their acquisition or purchase by the City, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent, (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date of their acquisition or purchase by the City, are rated as to investment quality by a nationally recognized investment rating firm not less than AAA or its equivalent and (iv) any other then authorized securities or obligations that may be used to defease obligations such as the Bonds under the then applicable laws of the State of Texas.

The City reserves the right, subject to satisfying the requirements of (i) and (ii) above, to substitute other Government Securities for the Government Securities originally deposited, to reinvest the uninvested moneys on deposit for such defeasance and to withdraw for the benefit of the City moneys in excess of the amount required for such defeasance.

Upon such deposit as described above, such Bonds shall no longer be regarded to be outstanding or unpaid. Provided, however, the City has reserved the option, to be exercised at the time of the defeasance of the Bonds, to call for redemption, at an earlier date, those Bonds which have been defeased to their maturity date, if the City: (i) in the proceedings providing for the firm banking and financial arrangements, expressly reserves the right to call the Bonds for redemption; (ii) gives notice of the reservation of that right to the Holders of the Bonds immediately following the making of the firm banking and financial arrangements; and (iii) directs that notice of the reservation be included in any redemption notices that it authorizes.

SECTION 13. Ordinance a Contract - Amendments - Outstanding Bonds. This Ordinance, together with the Pricing Certificate, shall constitute a contract with the respective Holders of each such series from time to time, be binding on the City, and shall not be amended or repealed by the City so long as any Bond remains Outstanding except as permitted in this Section and in Section 30 hereof. The City may, without the consent of or notice to any Holders, from time to time and at any time, amend this Ordinance or any provision in the Pricing Certificate in any manner not detrimental to the interests of the Holders, including the curing of any ambiguity, inconsistency, or formal defect or omission herein. In addition, the City may, with the consent of Holders who own a majority of the aggregate of the principal amount of any affected Bonds then Outstanding, amend, add to, or rescind any of the provisions of this Ordinance or any provision in the Pricing Certificate; provided that, without the consent of all Holders of Outstanding Bonds, no such amendment, addition, or rescission shall (1) extend the time or times of payment of the principal of and interest on the Bonds, reduce the principal amount thereof, the redemption price, or the rate of interest thereon, or in any other way modify the terms of payment of the principal of or interest on the Bonds, (2) give any preference to any Bond over any other Bond, or (3) reduce the aggregate principal amount of Bonds required to be held by Holders for consent to any such amendment, addition, or rescission.

The term “Outstanding” when used in this Ordinance with respect to Bonds means, as of the date of determination, all Bonds within such series theretofore issued and delivered under this Ordinance, except:

(1) those Bonds within such series cancelled by the Paying Agent/Registrar or delivered to the Paying Agent/Registrar for cancellation;

(2) those Bonds within such series deemed to be duly paid by the City in accordance with the provisions of Section 12 hereof; and

(3) those mutilated, destroyed, lost, or stolen Bonds within such series which have been replaced with Bonds registered and delivered in lieu thereof as provided in Section 11 hereof.

SECTION 14. Covenants to Maintain Tax-Exempt Status. If any of the Bonds are issued as obligations the interest on which is excluded from federal income taxation under Section 103 of the Code, the following provisions will apply solely to those Bonds:

(a) Definitions. When used in this Section, the following terms have the following meanings:

“Closing Date” means the date on which the Bonds are first authenticated and delivered to the initial purchasers against payment therefor.

"Code" means the Internal Revenue Code of 1986, as amended by all legislation, if any, effective on or before the Closing Date.

"Computation Date" has the meaning set forth in Section 1.148-1(b) of the Regulations.

"Gross Proceeds" means any proceeds as defined in Section 1.148-1(b) of the Regulations, and any replacement proceeds as defined in Section 1.148-1(c) of the Regulations, of the Bonds.

"Investment" has the meaning set forth in Section 1.148-1(b) of the Regulations.

"Nonpurpose Investment" means any investment property, as defined in Section 148(b) of the Code, in which Gross Proceeds of the Bonds are invested and which is not acquired to carry out the governmental purposes of the Bonds.

"Rebate Amount" has the meaning set forth in Section 1.148-1(b) of the Regulations.

"Regulations" means any proposed, temporary, or final Income Tax Regulations issued pursuant to Sections 103 and 141 through 150 of the Code, and 103 of the Internal Revenue Code of 1954, which are applicable to the Bonds. Any reference to any specific Regulation shall also mean, as appropriate, any proposed, temporary or final Income Tax Regulation designed to supplement, amend or replace the specific Regulation referenced.

"Yield" of (1) any Investment has the meaning set forth in Section 1.148-5 of the Regulations and (2) the Bonds has the meaning set forth in Section 1.148-4 of the Regulations.

(b) Not to Cause Interest to Become Taxable. The City shall not use, permit the use of, or omit to use Gross Proceeds or any other amounts (or any property the acquisition, construction, or improvement of which is to be financed (or refinanced) directly or indirectly with Gross Proceeds) in a manner which if made or omitted, respectively, would cause the interest on any Bond to become includable in the gross income, as defined in Section 61 of the Code, of the owner thereof for federal income tax purposes. Without limiting the generality of the foregoing, unless and until the City receives a written opinion of counsel nationally recognized in the field of municipal bond law to the effect that failure to comply with such covenant will not adversely affect the exemption from federal income tax of the interest on any Bond, the City shall comply with each of the specific covenants in this Section.

(c) No Private Use or Private Payments. Except as permitted by Section 141 of the Code and the Regulations and rulings thereunder, the City shall at all times prior to the last Stated Maturity of Bonds:

(i) exclusively own, operate, and possess all property the acquisition, construction, or improvement of which is to be financed or refinanced directly or indirectly with Gross Proceeds of the Bonds (including property financed or refinanced with Gross Proceeds), and not use or permit the use of such Gross Proceeds (including all contractual arrangements with terms different than those

applicable to the general public) or any property acquired, constructed, or improved with such Gross Proceeds in any activity carried on by any person or entity (including the United States or any agency, department, and instrumentality thereof) other than a state or local government, unless such use is solely as a member of the general public; and

(ii) not directly or indirectly impose or accept any charge or other payment by any person or entity who is treated as using Gross Proceeds of the Bonds or any property the acquisition, construction, or improvement of which is to be financed or refinanced directly or indirectly with such Gross Proceeds (including property financed or refinanced with Gross Proceeds), other than taxes of general application within the City or interest earned on investments acquired with such Gross Proceeds pending application for their intended purposes.

(d) No Private Loan. Except to the extent permitted by Section 141 of the Code and the Regulations and rulings thereunder, the City shall not use Gross Proceeds of the Bonds to make or finance loans to any person or entity other than a state or local government. For purposes of the foregoing covenant, such Gross Proceeds are considered to be "loaned" to a person or entity if: (1) property acquired, constructed, or improved with such Gross Proceeds is sold or leased to such person or entity in a transaction which creates a debt for federal income tax purposes; (2) capacity in or service from such property is committed to such person or entity under a take-or-pay, output, or similar contract or arrangement; or (3) indirect benefits, or burdens and benefits of ownership, of such Gross Proceeds or any property acquired, constructed, or improved with such Gross Proceeds are otherwise transferred in a transaction which is the economic equivalent of a loan.

(e) Not to Invest at Higher Yield. Except to the extent permitted by Section 148 of the Code and the Regulations and rulings thereunder, the City shall not at any time prior to the final Stated Maturity of the Bonds directly or indirectly invest Gross Proceeds in any Investment (or use Gross Proceeds to replace money so invested), if as a result of such investment the Yield from the Closing Date of all Investments acquired with Gross Proceeds (or with money replaced thereby), whether then held or previously disposed of, exceeds the Yield of the Bonds.

(f) Not Federally Guaranteed. Except to the extent permitted by Section 149(b) of the Code and the Regulations and rulings thereunder, the City shall not take or omit to take any action which would cause the Bonds to be federally guaranteed within the meaning of Section 149(b) of the Code and the Regulations and rulings thereunder.

(g) Information Report. The City shall timely file the information required by Section 149(e) of the Code with the Secretary of the Treasury on Form 8038-G or such other form and in such place as the Secretary may prescribe.

(h) Rebate of Arbitrage Profits. Except to the extent otherwise provided in Section 148(f) of the Code and the Regulations and rulings thereunder:

(i) The City shall account for all Gross Proceeds (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and shall retain all records of accounting for at least six (6) years after the day on which the last outstanding Bond is discharged. However, to the extent permitted by law, the City may commingle Gross Proceeds of the Bonds with other money of the

City, provided that the City separately accounts for each receipt and expenditure of Gross Proceeds and the obligations acquired therewith.

(ii) Not less frequently than each Computation Date, the City shall calculate the Rebate Amount in accordance with rules set forth in Section 148(f) of the Code and the Regulations and rulings thereunder. The City shall maintain such calculations with its official transcript of proceedings relating to the issuance of the Bonds until six years after the final Computation Date.

(iii) As additional consideration for the purchase of the Bonds by the Purchasers and the loan of the money represented thereby and in order to induce such purchase by measures designed to insure the excludability of the interest thereon from the gross income of the Holders thereof for federal income tax purposes, the City shall pay to the United States out of the Interest and Sinking Fund or its general fund, as permitted by applicable Texas statute, regulation, or opinion of the Attorney General of the State of Texas, the amount that when added to the future value of previous rebate payments made for the Bonds equals (i) in the case of a Final Computation Date as defined in Section 1.148-3(e)(2) of the Regulations, one hundred percent (100%) of the Rebate Amount on such date; and (ii) in the case of any other Computation Date, ninety percent (90%) of the Rebate Amount on such date. In all cases, the rebate payments shall be made at the times, in the installments, to the place, and in the manner as is or may be required by Section 148(f) of the Code and the Regulations and rulings thereunder, and shall be accompanied by Form 8038-T or such other forms and information as is or may be required by Section 148(f) of the Code and the Regulations and rulings thereunder.

(iv) The City shall exercise reasonable diligence to assure that no errors are made in the calculations and payments required by paragraphs (2) and (3), and if an error is made, to discover and promptly correct such error within a reasonable amount of time thereafter (and in all events within one hundred eighty (180) days after discovery of the error), including payment to the United States of any additional Rebate Amount owed to it, interest thereon, and any penalty imposed under Section 1.148-3(h) of the Regulations.

(i) Not to Divert Arbitrage Profits. Except to the extent permitted by Section 148 of the Code and the Regulations and rulings thereunder, the City shall not, at any time prior to the earlier of the Stated Maturity or final payment of the Bonds, enter into any transaction that reduces the amount required to be paid to the United States pursuant to subsection (h) of this Section because such transaction results in a smaller profit or a larger loss than would have resulted if the transaction had been at arm's length and had the Yield of the Bonds not been relevant to either party.

(j) Elections. The City hereby directs and authorizes the Mayor, Mayor Pro Tem, City Manager, or Director of Finance of the City, individually or jointly, to make elections permitted or required pursuant to the provisions of the Code or the Regulations, as such persons deems necessary or appropriate in connection with the Bonds, in the Certificate as to Tax Exemption, or similar or other appropriate certificate, form, or document.

(k) Bonds Not Hedge Bonds. At the time the original obligations refunded by the Bonds were issued, the City reasonably expected to spend at least 85% of the spendable

proceeds of such obligations within three years after such obligations were issued and (2) not more than 50% of the proceeds of the original obligations refunded by the Bonds were invested in Nonpurpose Investments having a substantially guaranteed Yield for a period of 4 years or more.

(l) Current Refunding. The Bonds being issued as obligations the interest on which is intended to be excluded from federal income taxation, if any, are being issued to pay and discharge in full the Agreement and the Refunded District Obligations, and such payment of the Agreement and the Refunded District Obligations will occur within ninety (90) days after the issuance of the Bonds.

SECTION 15. Sale of Bonds - Official Statement. The Bonds authorized by this Ordinance are to be sold by the City to the Purchasers in accordance with one or more, as applicable, bond purchase agreements in the event of a negotiated sale, letter agreements to purchase in the event of a private placement, or the successful bid form in the event of a competitive sale, as applicable (each a "Purchase Contract"), the terms and provisions of which Purchase Contract are to be determined by the Pricing Officer in accordance with Section 3 hereof. The Pricing Officer is hereby authorized and directed to execute the Purchase Contract for and on behalf of the City, as the act and deed of this Council, and to make a determination as to whether the terms are in the City's best interests, which determination shall be final.

With regard to such terms and provisions of the Purchase Contract, the Pricing Officer is hereby authorized to come to an agreement with the Purchasers on the following, among other matters:

1. The details of the purchase and sale of the Bonds;
2. The details of any public offering of the Bonds by the Purchasers, if any;
3. The details of any Official Statement or similar disclosure document (and, if appropriate, any Preliminary Official Statement) relating to the Bonds and the City's Rule 15c2-12 compliance, if applicable;
4. A security deposit for the Bonds, if any;
5. The representations and warranties of the City to the Purchasers;
6. The details of the delivery of, and payment for, the Bonds;
7. The Purchasers' obligations under the Purchase Contract;
8. The certain conditions to the obligations of the City under the Purchase Contract;
9. Termination of the Purchase Contract;
10. Particular covenants of the City;
11. The survival of representations made in the Purchase Contract;
12. The payment of any expenses relating to the Purchase Contract;
13. Notices; and
14. Any and all such other details that are found by the Pricing Officer to be necessary and advisable for the purchase and sale of the Bonds.

The Mayor or Mayor Pro Tem and City Secretary of the City are further authorized and directed to deliver for and on behalf of the City copies of a Preliminary Official Statement and

Official Statement prepared in connection with the offering of the Bonds by the Purchasers, in final form as may be required by the Purchasers, and such final Official Statement as delivered by said officials shall constitute the Official Statement authorized for distribution and use by the Purchasers.

SECTION 16. Discharge of Refunded District Obligations and the Agreement. In order to provide for the refunding, discharge, and retirement of the Agreement, the City shall exercise its purchase option right under Section 8.6 of the Agreement and, with a portion of the proceeds received from the sale of the Bonds, shall provide the District with funds sufficient to fund a defeasance escrow for all then outstanding Refunded District Obligations. Concurrently with such deposit, the District shall transfer and convey all right, title and ownership of the Infrastructure to the City, including any Easements (as defined in the Agreement), wells, pipes, other equipment, data, reports and records and the Agreement shall be terminated.

SECTION 17. Control and Custody of Bonds. The Mayor or Mayor Pro Tem of the City shall be and is hereby authorized to take and have charge of all necessary ordinances, resolutions, orders and records, including the definitive Bonds and the Initial Bonds, pending the investigation and approval of the Initial Bonds by the Attorney General of the State of Texas, and the registration of the Initial Bonds to the Comptroller of Public Accounts and the delivery thereof to the Purchasers.

SECTION 18. Proceeds of Sale. Immediately following the delivery of the Bonds, the proceeds of sale (less those proceeds of sale designated to pay costs of issuance and any accrued interest received from the Purchasers of the Bonds or additional proceeds being deposited to the Interest and Sinking Fund) shall be deposited with the District Escrow Agent for the payment and defeasance of the Refunded District Obligations, which will allow the City to fully exercise its purchase option under Section 8.6 of the Agreement which will result in the refunding and discharge of the City's obligations under the Agreement and the termination of the Agreement. The proceeds of sale of the Bonds not so deposited with the District Escrow Agent shall be disbursed for payment of costs of issuance, or deposited in the Interest and Sinking Fund for the Bonds, all in accordance with written instructions from the City or its financial advisor. Such proceeds of sale may be invested in authorized investments and any investment earnings realized may be (with respect to the accrued interest received from the Purchasers) deposited in the Interest and Sinking Fund as shall be determined by this Council.

SECTION 19. Notices to Holders - Waiver. Wherever this Ordinance or the Pricing Certificate provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and sent by United States Mail, first class postage prepaid, to the address of each Holder appearing in the Security Register at the close of business on the business day next preceding the mailing of such notice.

In any case in which notice to Holders is given by mail, neither the failure to mail such notice to any particular Holders, nor any defect in any notice so mailed, shall affect the sufficiency of such notice with respect to all other Bonds. Where this Ordinance or the Pricing Certificate provides for notice in any manner, such notice may be waived in writing by the Holder entitled to receive such notice, either before or after the event with respect to which such notice is given, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Paying Agent/Registrar, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

SECTION 20. Cancellation. All Bonds surrendered for payment, redemption, transfer, exchange, or replacement, if surrendered to the Paying Agent/Registrar, shall be promptly cancelled by it and, if surrendered to the City, shall be delivered to the Paying Agent/Registrar and, if not already cancelled, shall be promptly cancelled by the Paying Agent/Registrar. The City may at any time deliver to the Paying Agent/Registrar for cancellation any Bonds previously certified or registered and delivered which the City may have acquired in any manner whatsoever, and all Bonds so delivered shall be promptly cancelled by the Paying Agent/Registrar. All cancelled Bonds held by the Paying Agent/Registrar shall be returned to the City.

SECTION 21. Bond Counsel Opinion. The obligation of the Purchasers to accept delivery of the Bonds is subject to being furnished a final opinion of Norton Rose Fulbright US LLP, Attorneys, Dallas, Texas, approving the Bonds as to their validity, said opinion to be dated and delivered as of the date of delivery and payment for the Bonds. A true and correct reproduction of said opinion is hereby authorized to be printed on the Bonds, or an executed counterpart thereof is hereby authorized to be either printed on definitive printed obligations or deposited with DTC along with the global certificates for the implementation and use of the Book-Entry-Only System used in the settlement and transfer of the Bonds. The City Council confirms the continuation of the engagement of Norton Rose Fulbright US LLP as the City's bond counsel.

SECTION 22. CUSIP Numbers. CUSIP numbers may be printed or typed on the definitive Bonds. It is expressly provided, however, that the presence or absence of CUSIP numbers on the definitive Bonds shall be of no significance or effect as regards the legality thereof, and neither the City nor attorneys approving the Bonds as to legality are to be held responsible for CUSIP numbers incorrectly printed or typed on the definitive Bonds.

SECTION 23. Benefits of Ordinance. Nothing in this Ordinance or the Pricing Certificate, expressed or implied, is intended or shall be construed to confer upon any person other than the City, the Paying Agent/Registrar and the Holders, any right, remedy, or claim, legal or equitable, under or by reason of this Ordinance or any provision hereof or the Pricing Certificate, this Ordinance and all of its provisions and the Pricing Certificate being intended to be and being for the sole and exclusive benefit of the City, the Paying Agent/Registrar, and the Holders.

SECTION 24. Inconsistent Provisions. All ordinances or resolutions, or parts thereof, which are in conflict or inconsistent with any provision of this Ordinance or the Pricing Certificate are hereby repealed to the extent of such conflict, and the provisions of this Ordinance shall be and remain controlling as to the matters contained herein.

SECTION 25. Governing Law. This Ordinance shall be construed and enforced in accordance with the laws of the State of Texas and the United States of America.

SECTION 26. Effect of Headings. The Section headings herein are for convenience of reference only and shall not affect the construction hereof.

SECTION 27. Construction of Terms. If appropriate in the context of this Ordinance, words of the singular number shall be considered to include the plural, words of the plural number shall be considered to include the singular, and words of the masculine, feminine, or neuter gender shall be considered to include the other genders.

SECTION 28. Severability. If any provision of this Ordinance or the Pricing Certificate or the application thereof to any circumstance shall be held to be invalid, the remainder of this Ordinance and the Pricing Certificate and the application thereof to other circumstances shall

nevertheless be valid, and this Council hereby declares that this Ordinance would have been enacted without such invalid provision.

SECTION 29. Incorporation of Findings and Determinations. The findings and determinations of this Council contained in the preamble hereof are hereby incorporated by reference and made a part of this Ordinance for all purposes as if the same were restated in full in this Section.

SECTION 30. Continuing Disclosure Undertaking. This Section shall apply unless the Pricing Officer determines in the Pricing Certificate that an undertaking is not required pursuant to the Rule (defined below).

(a) Definitions. As used in this Section, the following terms have the meanings ascribed to such terms below:

"*Financial Obligation*" means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of a debt obligation or any such derivative instrument; provided that "financial obligation" shall not include municipal securities as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

"*MSRB*" means the Municipal Securities Rulemaking Board.

"*Rule*" means SEC Rule 15c2-12, as amended from time to time or officially interpreted by the SEC.

"*SEC*" means the United States Securities and Exchange Commission.

(b) Annual Reports. The City shall provide annually to the MSRB (1) within 270 days after the end of each fiscal year, beginning with the year stated in the Pricing Certificate, financial information and operating data with respect to the City of the general type included in the final Official Statement approved by the Pricing Officer and described in the Pricing Certificate and (2) within twelve months after the end of each fiscal year, beginning with the year stated in the Pricing Certificate, if not provided as part of such financial information and operating data, audited financial statements of the City. If audited financial statements are not available by the required time, the City will provide unaudited financial statements by the required time, and audited financial statements when and if such audited statements become available. Any financial statements so provided shall be prepared in accordance with the accounting principles described in the Pricing Certificate, or such other accounting principles as the City may be required to employ from time to time pursuant to state law or regulation, and audited, if the City commissions an audit of such statements and the audit is completed within the period during which they must be provided.

If the City changes its fiscal year, it will notify the MSRB of the change (and of the date of the new fiscal year end) prior to the next date by which the City otherwise would be required to provide financial information and operating data pursuant to this Section.

The financial information and operating data to be provided pursuant to this Section may be set forth in full in one or more documents or may be included by specific reference to any document available to the public on the MSRB's Internet Web site or filed with the SEC.

(c) Notice of Certain Events. The City shall provide notice of any of the following events with respect to the Bonds to the MSRB in a timely manner and not more than 10 business days after occurrence of the event:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults, if material;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB), or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
7. Modifications to rights of holders of the Bonds, if material;
8. Bond calls, if material, and tender offers;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Bonds, if material;
11. Rating changes;
12. Bankruptcy, insolvency, receivership, or similar event of the City, which shall occur as described below;
13. The consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of its assets, other than in the ordinary course of business, the entry into of a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material;
15. Incurrence of a Financial Obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the City, any of which affect security holders, if material; and
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the City, any of which reflect financial difficulties.

For these purposes, (a) any event described in the immediately preceding item 12 is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the City in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement, or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City and (b) the City intends the words used in the immediately preceding items 15 and 16 in this Section to have the meanings ascribed to them in SEC Release No. 34-83885, dated August 20, 2018.

The City shall notify the MSRB, in a timely manner, of any failure by the City to provide financial information or operating data in accordance with subsection (b) of this Section by the time required by such Section.

(d) Filings with the MSRB. All financial information, operating data, financial statements, notices and other documents provided to the MSRB in accordance with this Section shall be provided in an electronic format prescribed by the MSRB and shall be accompanied by identifying information as prescribed by the MSRB.

(e) Limitations, Disclaimers and Amendments. The City shall be obligated to observe and perform the covenants specified in this Section while, but only while, the City remains an "obligated person" with respect to the Bonds within the meaning of the Rule, except that the City in any event will give the notice required by subsection (c) hereof of any Bond calls and defeasance that cause the City to be no longer such an "obligated person."

The provisions of this Section are for the sole benefit of the Holders and beneficial owners of the Bonds, and nothing in this Section, express or implied, shall give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. The City undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to this Section and does not hereby undertake to provide any other information that may be relevant or material to a complete presentation of the City's financial results, condition, or prospects or hereby undertake to update any information provided in accordance with this Section or otherwise, except as expressly provided herein. The City does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell Bonds at any future date.

UNDER NO CIRCUMSTANCES SHALL THE CITY BE LIABLE TO THE HOLDER OR BENEFICIAL OWNER OF ANY BOND OR ANY OTHER PERSON, IN CONTRACT OR TORT, FOR DAMAGES RESULTING IN WHOLE OR IN PART FROM ANY BREACH BY THE CITY, WHETHER NEGLIGENT OR WITHOUT FAULT ON ITS PART, OF ANY COVENANT SPECIFIED IN THIS SECTION, BUT EVERY RIGHT AND REMEDY OF ANY SUCH PERSON, IN CONTRACT OR TORT, FOR OR ON ACCOUNT OF ANY SUCH BREACH SHALL BE LIMITED TO AN ACTION FOR MANDAMUS OR SPECIFIC PERFORMANCE.

No default by the City in observing or performing its obligations under this Section shall constitute a breach of or default under this Ordinance for purposes of any other provision of this Ordinance.

Nothing in this Section is intended or shall act to disclaim, waive, or otherwise limit the duties of the City under federal and state securities laws.

Notwithstanding anything to the contrary in this Ordinance, the provisions of this Section may be amended by the City from time to time to adapt to changed circumstances resulting from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the City, but only if (1) the provisions of this Section, as so amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering of the Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances, and (2) either (a) the Holders of a majority in aggregate principal amount (or any greater amount required by any other provision of this Ordinance that authorizes such an amendment) of the Outstanding Bonds consent to such amendment or (b) a person that is unaffiliated with the City (such as nationally

recognized bond counsel) determines that such amendment will not materially impair the interests of the Holders and beneficial owners of the Bonds. The provisions of this Section may also be amended from time to time or repealed by the City if the SEC amends or repeals the applicable provisions of the Rule or a court of final jurisdiction determines that such provisions are invalid, but only if and to the extent that reservation of the City's right to do so would not prevent an underwriter of the initial public offering of the Bonds from lawfully purchasing or selling Bonds in such offering. If the City so amends the provisions of this Section, it shall include with any amended financial information or operating data next provided pursuant to subsection (b) of this Section an explanation, in narrative form, of the reasons for the amendment and of the impact of any change in the type of financial information or operating data so provided.

SECTION 31. Municipal Bond Insurance. The Bonds may be sold with the principal of and interest thereon being insured by a municipal bond insurance provider authorized to transact business in the State of Texas. The Pricing Officer is hereby authorized to make the selection of municipal bond insurance (if any) for the Bonds and make the determination of the provisions of any commitment therefor.

SECTION 32. Further Procedures. Any one or more of the Mayor, Mayor Pro Tem, City Manager, Director of Finance and City Secretary are hereby expressly authorized, empowered and directed from time to time and at any time to do and perform all such acts and things and to execute, acknowledge and deliver in the name and on behalf of the City all agreements, instruments, certificates or other documents, whether mentioned herein or not, as may be necessary or desirable in order to carry out the terms and provisions of this Ordinance and the issuance of the Bonds. In addition, prior to the initial delivery of the Bonds, the Mayor, Mayor Pro Tem, City Manager, Director of Finance or Bond Counsel to the City are each hereby authorized and directed to approve any changes or corrections to this Ordinance or to any of the documents authorized and approved by this Ordinance, including the Pricing Certificate: (i) in order to cure any ambiguity, formal defect or omission in this Ordinance or such other document; or (ii) as requested by the Attorney General of the State of Texas or his representative to obtain the approval of the Bonds by the Attorney General and if such officer or counsel determines that such changes are consistent with the intent and purpose of this Ordinance, which determination shall be final. In the event that any officer of the City whose signature shall appear on any document shall cease to be such officer before the delivery of such document, such signature nevertheless shall be valid and sufficient for all purposes the same as if such officer had remained in office until such delivery.

SECTION 33. Public Meeting. It is officially found, determined, and declared that the meeting at which this Ordinance is adopted was open to the public and public notice of the time, place, and subject matter of the public business to be considered at such meeting, including this Ordinance, was given, all as required by Texas Government Code, Chapter 551, as amended.

SECTION 34. Effective Date. In accordance with the provisions of Texas Government Code, Section 1201.028, as amended, this Ordinance shall be in force and effect from and after its passage on the date shown below and it is so ordained.

[*remainder of page intentionally left blank*]

PASSED AND ADOPTED, this March 22, 2022.

CITY OF MIDLAND, TEXAS

_____
Mayor

ATTEST:

_____
City Secretary

(City Seal)

APPROVED AS TO FORM:

_____
City Attorney

EXHIBIT A

PAYING AGENT/REGISTRAR AGREEMENT

PAYING AGENT/REGISTRAR AGREEMENT

THIS AGREEMENT is entered into as of _____, 2022 (this "Agreement"), by and between _____, a banking association duly organized and existing under the laws of the United States of America (the "Bank") and the City of Midland, Texas (the "Issuer"),

RECITALS

WHEREAS, the Issuer has duly authorized and provided for the issuance of its "City of Midland, Texas General Obligation Refunding Bonds, Series 2022" (the "Securities"), dated _____, 2022, such Securities scheduled to be delivered to the initial purchasers thereof on or about _____, 2022; and

WHEREAS, the Issuer has selected the Bank to serve as Paying Agent/Registrar in connection with the payment of the principal of, premium, if any, and interest on said Securities and with respect to the registration, transfer and exchange thereof by the registered owners thereof; and

WHEREAS, the Bank has agreed to serve in such capacities for and on behalf of the Issuer and has full power and authority to perform and serve as Paying Agent/Registrar for the Securities;

NOW, THEREFORE, it is mutually agreed as follows:

ARTICLE ONE
APPOINTMENT OF BANK AS PAYING AGENT AND REGISTRAR

Section 1.01 Appointment. The Issuer hereby appoints the Bank to serve as Paying Agent with respect to the Securities, and, as Paying Agent for the Securities, the Bank shall be responsible for paying on behalf of the Issuer the principal, premium (if any), and interest on the Securities as the same become due and payable to the registered owners thereof; all in accordance with this Agreement and the "Authorizing Document" (hereinafter defined). The Issuer hereby appoints the Bank as Registrar with respect to the Securities and, as Registrar for the Securities, the Bank shall keep and maintain for and on behalf of the Issuer books and records as to the ownership of said Securities and with respect to the transfer and exchange thereof as provided herein and in the Authorizing Document.

The Bank hereby accepts its appointment, and agrees to serve as the Paying Agent and Registrar for the Securities.

Section 1.02 Compensation. As compensation for the Bank's services as Paying Agent/Registrar, the Issuer hereby agrees to pay the Bank the fees and amounts set forth in **Annex A** attached hereto; provided however, notwithstanding anything herein or in Annex A to the contrary, the aggregate value of this agreement shall be less than the dollar limitation set forth in Section 2271.002(a)(2) or Section 2274.002(a)(2) of the Texas Government Code, as amended.

In addition, the Issuer agrees to reimburse the Bank upon its request for all reasonable expenses, disbursements and advances incurred or made by the Bank in accordance with any of the provisions hereof (including the reasonable compensation and the expenses and disbursements of its agents and counsel).

ARTICLE TWO
DEFINITIONS

Section 2.01 Definitions. For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires:

"Acceleration Date" on any Security means the date, if any, on and after which the principal or any or all installments of interest, or both, are due and payable on any Security which has become accelerated pursuant to the terms of the Security.

"Authorizing Document" means the resolution, order, or ordinance of the governing body of the Issuer pursuant to which the Securities are issued, as the same may be amended or modified, including any pricing certificate related thereto, certified by the secretary or any other officer of the Issuer and delivered to the Bank.

"Bank Office" means the designated office of the Bank at the address shown in Section 3.01 hereof. The Bank will notify the Issuer in writing of any change in location of the Bank Office.

"Financial Advisor" means Hilltop Securities Inc.

"Holder" and "Security Holder" each means the Person in whose name a Security is registered in the Security Register.

"Person" means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision of a government.

"Predecessor Securities" of any particular Security means every previous Security evidencing all or a portion of the same obligation as that evidenced by such particular Security (and, for the purposes of this definition, any mutilated, lost, destroyed, or stolen Security for which a replacement Security has been registered and delivered in lieu thereof pursuant to Section 4.06 hereof and the Authorizing Document).

"Redemption Date", when used with respect to any Security to be redeemed, means the date fixed for such redemption pursuant to the terms of the Authorizing Document.

"Responsible Officer", when used with respect to the Bank, means the Chairman or Vice-Chairman of the Board of Directors, the Chairman or Vice-Chairman of the Executive Committee of the Board of Directors, the President, any Vice President, the Secretary, any Assistant Secretary, the Treasurer, any Assistant Treasurer, the Cashier, any Assistant Cashier, any Trust Officer or Assistant Trust Officer, or any other officer of the Bank customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

"Security Register" means a register maintained by the Bank on behalf of the Issuer providing for the registration and transfers of Securities.

"Stated Maturity" means the date specified in the Authorizing Document the principal of a Security is scheduled to be due and payable.

Section 2.02 Other Definitions. The terms "Bank," "Issuer," and "Securities (Security)" have the meanings assigned to them in the recital paragraphs of this Agreement.

The term "Paying Agent/Registrar" refers to the Bank in the performance of the duties and functions of this Agreement.

ARTICLE THREE
PAYING AGENT

Section 3.01 Duties of Paying Agent. As Paying Agent, the Bank shall pay, provided adequate collected funds have been provided to it for such purpose by or on behalf of the Issuer, on behalf of the Issuer the principal of each Security at its Stated Maturity, Redemption Date or Acceleration Date, to the Holder upon surrender of the Security to the Bank at the following address:

_____
_____
_____

As Paying Agent, the Bank shall, provided adequate collected funds have been provided to it for such purpose by or on behalf of the Issuer, pay on behalf of the Issuer the interest on each Security when due, by computing the amount of interest to be paid each Holder and making payment thereof to the Holders of the Securities (or their Predecessor Securities) on the Record Date (as defined in the Authorizing Document). All payments of principal and/or interest on the Securities to the registered owners shall be accomplished (1) by the issuance of checks, payable to the registered owners, drawn on the paying agent account provided in Section 5.05 hereof, sent by United States mail, first class postage prepaid, to the address appearing on the Security Register or (2) by such other method, acceptable to the Bank, requested in writing by the Holder at the Holder's risk and expense.

Section 3.02 Payment Dates. The Issuer hereby instructs the Bank to pay the principal of and interest on the Securities on the dates specified in the Authorizing Document.

ARTICLE FOUR
REGISTRAR

Section 4.01 Security Register - Transfers and Exchanges. The Bank agrees to keep and maintain for and on behalf of the Issuer at the Bank Office books and records (herein sometimes referred to as the "Security Register") for recording the names and addresses of the Holders of the Securities, the transfer, exchange and replacement of the Securities and the payment of the principal of and interest on the Securities to the Holders and containing such other information as may be reasonably required by the Issuer and subject to such reasonable regulations as the Issuer and the Bank may prescribe. All transfers, exchanges and replacements of Securities shall be noted in the Security Register.

Every Security surrendered for transfer or exchange shall be duly endorsed or be accompanied by a written instrument of transfer, the signature on which has been guaranteed by an officer of a federal or state bank or a member of the Financial Industry Regulatory Authority, such written instrument to be in a form satisfactory to the Bank and duly executed by the Holder thereof or his agent duly authorized in writing.

The Bank may request any supporting documentation it feels necessary to effect a re-registration, transfer or exchange of the Securities.

To the extent possible and under reasonable circumstances, the Bank agrees that, in relation to an exchange or transfer of Securities, the exchange or transfer by the Holders thereof will be completed and new Securities delivered to the Holder or the assignee of the Holder in not more than three (3) business days after the receipt of the Securities to be cancelled in an exchange or transfer and the written instrument of transfer or request for exchange duly executed by the Holder, or his duly authorized agent, in form and manner satisfactory to the Paying Agent/Registrar.

Section 4.02 Securities. The Issuer shall provide additional Securities when needed to facilitate transfers or exchanges thereof. The Bank covenants that such additional Securities, if and when provided, will be kept in safekeeping pending their use and reasonable care will be exercised by the Bank in maintaining such Securities in safekeeping, which shall be not less than the care maintained by the Bank for debt securities of other governments or corporations for which it serves as registrar, or that is maintained for its own securities.

Section 4.03 Form of Security Register. The Bank, as Registrar, will maintain the Security Register relating to the registration, payment, transfer and exchange of the Securities in accordance with the Bank's general practices and procedures in effect from time to time. The Bank shall not be obligated to maintain such Security Register in any form other than those which the Bank has currently available and currently utilizes at the time.

The Security Register may be maintained in written form or in any other form capable of being converted into written form within a reasonable time.

Section 4.04 List of Security Holders. The Bank will provide the Issuer at any time requested by the Issuer, upon payment of the required fee, a copy of the information contained in the Security Register. The Issuer may also inspect the information contained in the Security Register at any time the Bank is customarily open for business, provided that reasonable time is allowed the Bank to provide an up-to-date listing or to convert the information into written form.

The Bank will not release or disclose the contents of the Security Register to any person other than to, or at the written request of, an authorized officer or employee of the Issuer, except upon receipt of a court order or as otherwise required by law. Upon receipt of a court order and prior to the release or disclosure of the contents of the Security Register, the Bank will notify the Issuer so that the Issuer may contest the court order or such release or disclosure of the contents of the Security Register.

Section 4.05 Return of Cancelled Securities. The Bank will, at such reasonable intervals as it determines, surrender to the Issuer, all Securities in lieu of which or in exchange for which other Securities have been issued, or which have been paid.

Section 4.06 Mutilated, Destroyed, Lost or Stolen Securities. The Issuer hereby instructs the Bank, subject to the provisions of the Authorizing Document, to deliver and issue Securities in exchange for or in lieu of mutilated, destroyed, lost, or stolen Securities as long as the same does not result in an overissuance.

In case any Security shall be mutilated, destroyed, lost or stolen, the Bank may execute and deliver a replacement Security of like form and tenor, and in the same denomination and bearing a number not contemporaneously outstanding, in exchange and substitution for such mutilated Security, or in lieu of and in substitution for such mutilated, destroyed, lost or stolen Security, only upon the approval of the Issuer and after (i) the filing by the Holder thereof with the Bank of evidence satisfactory to the Bank of the destruction, loss or theft of such Security, and of the authenticity of the ownership thereof and (ii) the furnishing to the Bank of indemnification in an amount satisfactory to hold the Issuer and the Bank harmless. All expenses and charges associated with such indemnity and with the preparation, execution and delivery of a replacement Security shall be borne by the Holder of the Security mutilated, destroyed, lost or stolen.

Section 4.07 Transaction Information to Issuer. The Bank will, within a reasonable time after receipt of written request from the Issuer, furnish the Issuer information as to the Securities it has paid pursuant to Section 3.01, Securities it has delivered upon the transfer or exchange of any Securities pursuant to Section 4.01, and Securities it has delivered in exchange for or in lieu of mutilated, destroyed, lost, or stolen Securities pursuant to Section 4.06.

ARTICLE FIVE
THE BANK

Section 5.01 Duties of Bank. The Bank undertakes to perform the duties set forth herein and agrees to use reasonable care in the performance thereof.

Section 5.02 Reliance on Documents, Etc.

(a) The Bank may conclusively rely, as to the truth of the statements and correctness of the opinions expressed therein, on certificates or opinions furnished to the Bank.

(b) The Bank shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Bank was negligent in ascertaining the pertinent facts.

(c) No provisions of this Agreement shall require the Bank to expend or risk its own funds or otherwise incur any financial liability for performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity satisfactory to it against such risks or liability is not assured to it.

(d) The Bank may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, note, security or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties. Without limiting the generality of the foregoing statement, the Bank need not examine the ownership of any Securities, but is protected in acting upon receipt of Securities containing an endorsement or instruction of transfer or power of transfer which appears on its face to be signed by the Holder or an agent of the Holder. The Bank shall not be bound to make any investigation into the facts or matters stated in

a resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, note, security or other paper or document supplied by the Issuer.

(e) The Bank may consult with counsel, and the written advice of such counsel or any opinion of counsel shall be full and complete authorization and protection with respect to any action taken, suffered, or omitted by it hereunder in good faith and in reliance thereon.

(f) The Bank may exercise any of the powers hereunder and perform any duties hereunder either directly or by or through agents or attorneys of the Bank.

(g) The Bank is also authorized to transfer funds relating to the closing and initial delivery of the Securities in the manner disclosed in the closing memorandum or letter as prepared by the Issuer, the Financial Advisor or other agent. The Bank may act on a facsimile or e-mail transmission of the closing memorandum or letter acknowledged by the Issuer, the Issuer's financial advisor or other agent as the final closing memorandum or letter. The Bank shall not be liable for any losses, costs or expenses arising directly or indirectly from the Bank's reliance upon and compliance with such instructions.

Section 5.03 Recitals of Issuer. The recitals contained herein with respect to the Issuer and in the Securities shall be taken as the statements of the Issuer, and the Bank assumes no responsibility for their correctness.

The Bank shall in no event be liable to the Issuer, any Holder or Holders of any Security, or any other Person for any amount due on any Security from its own funds.

Section 5.04 May Hold Securities. The Bank, in its individual or any other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Issuer with the same rights it would have if it were not the Paying Agent/Registrar, or any other agent.

Section 5.05 Moneys Held by Bank - Paying Agent Account/Collateralization. A paying agent account shall at all times be kept and maintained by the Bank for the receipt, safekeeping, and disbursement of moneys received from the Issuer under this Agreement for the payment of the Securities, and money deposited to the credit of such account until paid to the Holders of the Securities shall be continuously collateralized by securities or obligations which qualify and are eligible under both the laws of the State of Texas and the laws of the United States of America to secure and be pledged as collateral for paying agent accounts to the extent such money is not insured by the Federal Deposit Insurance Corporation. Payments made from such paying agent account shall be made by check drawn on such account unless the owner of the Securities shall, at its own expense and risk, request an alternative method of payment.

Subject to the applicable unclaimed property laws of the State of Texas, any money deposited with the Bank for the payment of the principal of, premium (if any), or interest on any Security and remaining unclaimed for three years after final maturity of the Security has become due and payable will be held by the Bank and disposed of only in accordance with Title 6 of the Texas Property Code, as amended. The Bank shall have no liability by virtue of actions taken in compliance with this provision.

The Bank is not obligated to pay interest on any money received by it under this Agreement.

This Agreement relates solely to money deposited for the purposes described herein, and the parties agree that the Bank may serve as depository for other funds of the Issuer, act as trustee under indentures authorizing other bond transactions of the Issuer, or act in any other capacity not in conflict with its duties hereunder.

Section 5.06 Indemnification. To the extent permitted by law, the Issuer agrees to indemnify the Bank for, and hold it harmless against, any loss, liability, or expense incurred without negligence or willful misconduct on its part, arising out of or in connection with its acceptance or administration of its duties hereunder, including the cost and expense against any claim or liability in connection with the exercise or performance of any of its powers or duties under this Agreement.

Section 5.07 Interpleader. The Issuer and the Bank agree that the Bank may seek adjudication of any adverse claim, demand, or controversy over its person as well as funds on deposit, in either a Federal or State District Court located in the state and county where the administrative office of the Issuer is located, and agree that service of process by certified or registered mail, return receipt requested, to the address referred to in Section 6.03 of this Agreement shall constitute adequate service. The Issuer and the Bank further agree that the Bank has the right to file a Bill of Interpleader in any court of competent jurisdiction in the State of Texas to determine the rights of any Person claiming any interest herein.

In the event the Bank becomes involved in litigation in connection with this Section, the Issuer, to the extent permitted by law, agrees to indemnify and save the Bank harmless from all loss, cost, damages, expenses, and attorney fees suffered or incurred by the Bank as a result. The obligations of the Bank under this Agreement shall be performable at the principal corporate office of the Bank in the City of _____, Texas.

Section 5.08 DTC Services. It is hereby represented and warranted that, in the event the Securities are otherwise qualified and accepted for "Depository Trust Company" services or equivalent depository trust services by other organizations, the Bank has the capability and, to the extent within its control, will comply with the "Operational Arrangements", which establishes requirements for securities to be eligible for such type depository trust services, including, but not limited to, requirements for the timeliness of payments and funds availability, transfer turnaround time, and notification of redemptions and calls.

Section 5.09 [Tax Reporting. The Bank shall timely obtain and retain all documents it is required to obtain and retain in connection with the requirements of the Internal Revenue Code of 1986, as amended, and the performance of its duties hereunder, including, without limitation, the obtaining and retaining, to the extent applicable, Forms W-8, W-9, furnished to the Holders. The Bank agrees that it will comply with withholding and information reporting requirements imposed on the Issuer and the Paying Agent in connection with payments on the Securities, including withholding and backup withholding requirements of the Internal Revenue Code of 1986, as amended, and the issuance of Form 1042-S and 1099 requirements. The Bank agrees to furnish the Issuer within a timely manner following written request therefore, a statement or statements showing amounts withheld, the dates of remittance to the Internal Revenue Service, the reasons for withholding and such other information or documents as the Issuer may reasonably request concerning such withholding. The Bank shall also, within a timely manner following receipt of a written request from the Issuer, furnish the Issuer with originals or copies (as specified by the Issuer in such written request) of all Internal Revenue Service forms or other documents, including, but not limited to Forms W-8, W-9, 1099, and 1042S in the possession of the Bank which relate to the Securities.**]**

ARTICLE SIX
MISCELLANEOUS PROVISIONS

Section 6.01 Amendment. This Agreement may be amended only by an agreement in writing signed by both of the parties hereto.

Section 6.02 Assignment. This Agreement may not be assigned by either party without the prior written consent of the other.

Section 6.03 Notices. Any request, demand, authorization, direction, notice, consent, waiver, or other document provided or permitted hereby to be given or furnished to the Issuer or the Bank shall be mailed or delivered to the Issuer or the Bank, respectively, at the addresses shown on the signature page(s) hereof.

Section 6.04 Effect of Headings. The Article and Section headings herein are for convenience of reference only and shall not affect the construction hereof.

Section 6.05 Successors and Assigns. All covenants and agreements herein by the Issuer shall bind its successors and assigns, whether so expressed or not.

Section 6.06 Severability. In case any provision herein shall be invalid, illegal, or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 6.07 Merger, Conversion, Consolidation, or Succession. Any corporation or association into which the Bank may be merged or converted or with which it may be consolidated, or any corporation or association resulting from any merger, conversion, or consolidation to which the Bank shall be a party, or any corporation or association succeeding to all or substantially all of the corporate trust business of the Bank shall be the successor of the Bank as Paying Agent under this Agreement without the execution or filing of any paper or any further act on the part of either parties hereto.

Section 6.08 Benefits of Agreement. Nothing herein, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder, any benefit or any legal or equitable right, remedy, or claim hereunder.

Section 6.09 Entire Agreement. This Agreement and the Authorizing Document constitute the entire agreement between the parties hereto relative to the Bank acting as Paying Agent/Registrar and if any conflict exists between this Agreement and the Authorizing Document, the Authorizing Document shall govern.

Section 6.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute one and the same Agreement.

Section 6.11 Termination. This Agreement will terminate (i) on the date of final payment of the principal of and interest on the Securities to the Holders thereof or (ii) may be earlier terminated by either party upon sixty (60) days written notice; provided, however, an early termination of this Agreement by either party shall not be effective until (a) a successor Paying Agent/Registrar has been appointed by the Issuer and such appointment accepted and (b) notice has been given to the Holders of the Securities of the appointment of a successor Paying

Agent/Registrar. However, if the Issuer fails to appoint a successor Paying Agent/Registrar within a reasonable time, the Bank may petition a court of competent jurisdiction within the State of Texas to appoint a successor. Furthermore, the Bank and the Issuer mutually agree that the effective date of an early termination of this Agreement shall not occur at any time which would disrupt, delay or otherwise adversely affect the payment of the Securities.

Upon an early termination of this Agreement, the Bank agrees to promptly transfer and deliver the Security Register (or a copy thereof), together with the other pertinent books and records relating to the Securities, to the successor Paying Agent/Registrar designated and appointed by the Issuer.

The provisions of Section 1.02 and of Article Five shall survive and remain in full force and effect following the termination of this Agreement.

Section 6.12 Iran, Sudan or Foreign Terrorist Organizations. The Bank represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website:

https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf,
https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or
https://comptroller.texas.gov/purchasing/docs/fto-list.pdf.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the Bank and each of its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Bank understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the Bank and exists to make a profit.

Section 6.13 Governing Law. This Agreement shall be construed in accordance with and governed by the laws of the State of Texas.

[Remainder of page left blank intentionally.]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

_____ BANK

By:_____

Title:_____

Address: _____
_____

CITY OF MIDLAND, TEXAS

By: _____
_____ and Pricing Officer

Address: 300 N. Loraine
Midland, Texas 79701

BOARDS AND COMMISSIONS OF THE CITY OF MIDLAND
March 22, 2022

AIRPORT PLANNING AND DEVELOPMENT BOARD

(Advisory)
(Membership-10; Terms - 3 Years expiring 3-3-4.)

	Appt Date	Term Expires	Eligibility Expires
Scooter Brown	09/16	Sept 30 2022	Sept 30 2022
Wes Reeves	08/15*	Sept 30 2023	Sept 30 2023
Justin Kuethe	09/19	Sept 30 2022	Sept 30 2025
Nick McClure	09/19	Sept 30 2022	Sept 30 2025
Gena Linebarger	09/20	Sept 30 2023	Sept 30 2026
Butch Morgan	09/20	Sept 30 2023	Sept 30 2026
Benjamin Fietz	09/20	Sept 30 2023	Sept 30 2026
Beverly Dillow	10/21	Sept 30 2024	Sept 30 2027
Dave Joyner	10/21	Sept 30 2024	Sept 30 2027
Robert Richards	10/21	Sept 30 2024	Sept 30 2027

Justine Ruff (Liaison)
Lori Blong (Council Liaison)

Ex-Officio members are Earl Erdman and Harry Spannaus, the City Manager and the City Attorney. The Secretary is the Director of Aviation.

Eligibility Requirements: Resident of Midland County

ANIMAL SERVICES ADVISORY COMMISSION

(Advisory)
(Membership - 7; Terms - 4 Years)

	Appt Date	Term Expires	Eligibility Expires
Leah Lewis (daily operations)	09/17	Sept 30 2025	Does not expire??
Dr. (Erickson) Lee (Veterinarian)	05/14	Sept 30 2022	Sept 30 2022
Alyson Dial	09/18	Sept 30 2022	Sept 30 2026
Dr. J. Annette Jensen (Veterinarian)	04/20	Sept 30 2024	Sept 30 2028
Tasha Sport	04/20	Sept 30 2024	Sept 30 2028
Sharla Hotchkiss	04/20	Sept 30 2024	Sept 30 2028
Robert “Robin” Donnelly (County)	11/13	Sept 30 2025	Sept 30 2025

Leah Lewis (Liasion)
Dan Corrales (Council Liaison)

Eligibility Requirements: 1 License Veterinarian, 1 Animal Shelter Employee, 1 Animal Welfare Organization Representative, 1 County or Municipal Official, 2 Citizens

BUILDING AND FIRE CODE REVIEW COMMITTEE/CONSTRUCTION BOARD OF ADJUSTMENTS & APPEALS

(Membership – 9; Terms – 6 Years)

Shall consist of two architects, a fire protection contractor or specialist, a general contractor, an electrical contractor, a homebuilder, a plumbing and mechanical contractor, a structural engineer, a City Council Liaison

	Appt Date	Term Expires	Eligibility Expires
Ryan Almand (Electrical Contractor)	12/18	Sept 30 2024	Sept 30 2030
Jay Bradford (Architect)	12/18	Sept 30 2024	Sept 30 2030
Ron Ainsworth (Plumbing & Mechanical Contractor)	12/18	Sept 30 2024	Sept 30 2030
T.J. McClure (Architect)	12/18	Sept 30 2024	Sept 30 2030
Laurence Oeth (Structural Engineer)	12/18	Sept 30 2024	Sept 30 2030
(Vacant) (Fire Protection)	12/18	Sept 30 2024	Sept 30 2030
Gary Glasscock (General Contractor)	12/18	Sept 30 2024	Sept 30 2030
Robert Anderson (Homebuilder)	12/18	Sept 30 2024	Sept 30 2030
Jeff Pinkstaff (Liaison)	12/18	Sept 30 2024	Sept 30 2030
Dan Corrales (Council Liaison)			

Eligibility Requirements: Members shall reside within the City.

CAPITAL IMPROVEMENT ADVISORY COMMITTEE

(Advisory)

(Membership – 7)

A minimum of 40% must be representative of real estate, development, or building industries who are not employees or officials of a political subdivision or governmental entity.)

	Appt Date
Carl Craigo	10/19
Walter Pate	06/18
Mark Payne	06/18
Courtney Black	06/18
Brian Sales	06/18
Chuck Harrington	06/18
Jose Ortiz (Liaison)	06/18
Lori Blong (Council Liaison)	

CITIZENS DEVELOPMENT AND HOTEL/MOTEL ADVISORY BOARD

(Advisory)
(Membership - 7; Terms - 2 Years Staggered)

	Appt Date	Term Expires	Eligibility Expires
Joey Hopkins	10/18	Sept 30 2022	Sept 30 2022
Alex Singh	10/18	Sept 30 2022	Sept 30 2022
Becky Wisdom	10/18	Sept 30 2022	Sept 30 2022
Brandon Ofield	09/20	Sept 30 2022	Sept 30 2024
Clint Williamson	04/21	Sept 30 2023	Sept 30 2025
Ellen K. Ramsey	10/18	Sept 30 2023	Sept 30 2023
Vicky Hailey	09/21	Sept 30 2023	Sept 30 2025
Amy Turner (Liaison)			
Lori Blong (Council Liaison)			

Eligibility Requirements: Members shall be thoroughly familiar with Chapter 351, “Municipal Hotel Occupancy Taxes”, 1 Member Representative of Hotel/Motel Association.

MIDLAND CENTRAL APPRAISAL DISTRICT BOARD OF DIRECTORS

Five Directors, Elected by Local Taxing Entities.
City Nominates/Cast Vote for one Director
(Terms - 2 Years)

	Appt Date	Term Expires
Robert McNaughton	11/15	Dec 31 2024

MIDLAND DEVELOPMENT CORPORATION

(Membership - 7; Terms -3 Years - Staggered)

	Appt Date	Term Expires	Eligibility Expires
Chase Gardaphe	01/22	Jan 14 2025	Jan 14 2025
Barry Simpson	01/22	Jan 14 2025	Jan 14 2025
Stephen Lowery	01/17	Jan 14 2023	Jan 14 2023
P Lourcey Sams	04/20	Jan 14 2023	Jan 14 2026
Jill Pennington	04/20	Jan 14 2023	Jan 14 2026
Brad Bullock	04/21	Jan 14 2024	Jan 14 2027
Lucy Sisniega	02/22	Jan 14 2025	Jan 14 2028

Amy Turner (Liaison)
Lori Blong (Council Liaison)

Eligibility Requirements: No director or employee shall be related to a current City Council member.

MIDLAND DOWNTOWN PARK CONSERVANCY BOARD

(Membership - 7; City Appoints 3 Seats; Terms -3 Years - Staggered)
(Resolution of appointment is made each February and each appointment must be ratified by the Conservancy Board in March at their annual meeting)

	Appt Date	Term Expires	Eligibility Expires
Barry Beal Jr.	08/18	Sep 30 2024	Sep 30 2024
David Byrd	08/18	Sep 30 2023	Sep 30 2023
Sharla Hotchkiss	07/20*	Sep 30 2025	Sep 30 2025

MIDLAND HIGHER EDUCATION FACILITIES CORPORATION

(Membership - 7; Terms - 2 Years Staggered)

	Appt Date	Term Expires	Eligibility Expires
Steve Jones	**09/08***	**Jan 1 2010**	**Jan 1 2012**
Cathy Oestmann	**11/05***	**Jan 1 2010**	**Jan 1 2010**
Vacancy		**Jan 1 2007**	
Vacancy		**Jan 1 2007**	
Vacancy		**Jan 1 2007**	
Vacancy		**Jan 1 2009**	
Curt Kamradt	**11/05***	**Jan 1 2014**	**Jan 1 2014**

Sharla Hotchkiss (Liaison)

MIDLAND HOUSING AUTHORITY COMMISSION

(Membership - 5; Terms - 2 Years expiring 3 even & 2 odd.)
Appointments Made by Mayor (LGC 392.031)

	Appt Date	Term Expires
Wes Gotcher	09/20	Oct 2022
Robert Lehrer	09/20	Oct 2022
Latoya Mayberry	06/21	Oct 2023
Sylvestor Cantu	09/18*	Oct 2023
Cheryl Wadley (Resident Commissioner)	11/19	Oct 2023

Isaac Garnett (Staff Liasion)

Eligibility Requirements: No member may be an officer or employee of the City of Midland.

MIDLAND-ODESSA URBAN TRANSIT DISTRICT BOARD

(Decision Making)
(Membership – 12 with 6 appointed by Midland; Terms - 2 Years Staggered; Can serve 3 terms)

	Appt Date	Term Expires	Eligibility Expires
E. J. Baldridge	10/18	Sept 30 2022	Sept 30 2024
Iris Foster	06/18*	Sept 30 2022	Sept 30 2024
Joseph Sanchez	12/19	Sept 30 2023	Sept 30 2025
Jack Ladd	07/20	Sept 30 2022	Sept 30 2026
Daniel Norwood	04/21	Sept 30 2023	Sept 30 2027
Elizabeth Haigler	04/21	Sept 30 2023	Sept 30 2027

Charles Harrington (Liaison)

OIL AND GAS ADVISORY COMMITTEE

(Advisory)
(Membership – 5; Terms – 3 Years expiring 2-2-1)
2 real property developer, real estate sales, or developer; 3 Lic. petroleum engineer, engineer w/ bachelor, or geologist

	Appt Date	Term Expires	Eligibility Expires
Scott Bowden (Real Estate)	10/19	Sept 30 2022	Sept 30 2025
Ross Klabon (Petroleum Eng.)	10/19	Sept 30 2022	Sept 30 2025
Court Adkins (Petroleum Eng.)	09/17	Sept 30 2023	Sept 30 2023
Rhett Bullock (Petroleum Eng.)	09/21	Sept 30 2024	Sept 30 2026
Cameron Willmann (Real Estate)	10/21	Sept 30 2024	Sept 30 2026

Ron Jenkins (Liaison)

Eligibility Requirements: 3 Petroleum Engineers or Geologists and 2 with Property Development or Real Estate Experience.

PARKS AND RECREATION COMMISSION

(Advisory)
(Membership - 9; Terms - 3 Years expiring 3-3-3.)

	Appt Date	Term Expires	Eligibility Expires
Connie Ferguson	09/16	Sept 30 2022	Sept 30 2022
Stephanie Martin	10/16	Sept 30 2022	Sept 30 2022
Laura Smith	10/19	Sept 30 2022	Sept 30 2025
Francis Schammel	10/19	Sept 30 2022	Sept 30 2025
Susannah Prucka	04/20	Sept 30 2023	Sept 30 2026
Lynn Rogers	04/20	Sept 30 2023	Sept 30 2026
Dal Watson	09/20	Sept 30 2023	Sept 30 2026
Ron Stroman	09/20	Sept 30 2023	Sept 30 2026
Shirley Howard	02/16*	Sept 30 2024	Sept 30 2024

Cristina Odenburg-Burns (Liaison)
John Norman (Council Liaison)

Eligibility Requirements: Resident Citizen, Taxpayer and Qualified Voter.

PERMIAN BASIN COMMUNITY CENTER FOR MH/MR (PermiaCare)

(Decision Making)
(Membership - 2 (City); Terms - 2 Years)

	Appt Date	Term Expires
Ryan Peckham (City)	08/20	June 2022
Derek Cook (City)	06/21	June 2023

PERSONNEL BOARD OF APPEALS

(Decision Making)
(Membership - 3; No designated terms. Mayor appoints.)

	Appt. Date
Scott Dufford	01/14
Hugh A. “Andy” Shaffer	09/05
Patrick Payton	01/20

Mark Widman (Liaison)

Eligibility Requirements: Board consists of two City Council members and one other member who is not a City employee.

PLANNING AND ZONING COMMISSION

(Advisory & Decision Making)

(Membership - 7; Terms - 3 Years)

	Appt Date	Term Expires	Eligibility Expires
Chase Gardaphe	01/14*	Sept 30 2022	Sept 30 2022
Karmen Bryant	02/19*	Sept 30 2022	Sept 30 2025
Diane Williams	09/17	Sept 30 2023	Sept 30 2023
Lucy Sisniega	09/20	Sept 30 2023	Sept 30 2026
Stacey Jo Grosse	09/20	Sept 30 2023	Sept 30 2026
Zachary Deck	09/20	Sept 30 2023	Sept 30 2026
Adrian Carrasco	09/21	Sept 30 2024	Sept 30 2027
ALTERNATES:			
Emily Holeva	09/20	Sept 30 2023	Sept 30 2026
Beverly Dillow	09/21	Sept 30 2024	Sept 30 2027

Elizabeth Shaughnessy (Liaison)

Eligibility Requirements: Resident citizen of City of Midland, owner of real property within the City Limits and qualified Voter.

ZONING BOARD OF ADJUSTMENT AND AIRPORT ZONING BOARD OF ADJUSTMENT

(Decision Making)

(Membership - 5; Terms - 2 Years expiring 3 odd & 2 even.)

	Appt Date	Term Expires	Eligibility Expires
Reed Claybrook	03/19*	Sept 30 2022	Sept 30 2024
Derek Whiting	01/18*	Sept 30 2023	Sept 30 2023
E.J. Baldridge	02/18	Sept 30 2023	Sept 30 2023
Robert Gray	01/21	Sept 30 2024	Sept 30 2026
James Gerety	04/21	Sept 30 2024	Sept 30 2026
ALTERNATES: (not applicable to Airport Zoning)			
James Robert Franklin		Sept 30 2021	
VACANCY		**Sept 30 2020**	
VACANCY		**Sept 30 2020**	
VACANCY		**Sept 30 2020**	

Jeff Pinkstaff (Staff Liaison)

BUILDING CODES REVIEW COMMITTEE/CONSTRUCTION BOARD OF ADJUSTMENTS & APPEALS

(Membership - 9; Terms - 6 Years)

September 2020 - March 2022

MEMBER	TERM EXPIRES	ATTENDANCE	MEETINGS ATTENDED	TOTAL MEETINGS	ELIGIBLE FOR ANOTHER TERM	NOTES
Ryan Almand (Electrical Contractor)	Sept 30 2024		0	0	Yes	
Jay Bradford (Architect)	Sept 30 2024		0	0	Yes	
Ron Ainsworth (Plumbing & Mechanical Contactor)	Sept 30 2024		0	0	Yes	
T. J McClure (Architect)	Sept 30 2024		0	0	Yes	
Laurence Oeth (Structural Engineer)	Sept 30 2024		0	0	Yes	
VACANT (Fire Protection)	Sept 30 2024		0	0	Yes	
Gary Glasscock (General Contractor)	Sept 30 2024		0	0	Yes	
Robert Anderson (Homebuilder)	Sept 30 2024		0	0	Yes	
Spencer Robnett (Liaison)	Sept 30 2024		0	0	Yes	

APPLICANTS NAME	Additional Boards Applying to	NOTES
Drew Peters (County)		

MIDLAND
Feel the Energy!

APPLICATION FOR CITY OF MIDLAND BOARDS/COMMISSIONS/COMMITTEES

As an applicant for a City board, commission, or committee, please be advised that all information on this application is subject to the Texas Open Records Act and will be available to the public.

Date: 3-11-22

PLEASE TYPE OR PRINT CLEARLY:

Name: Drew Peters

Phone: (432) 967-2201 (Home)

Address: 3315 West CoRd 165

(Business)

Email: drewp667@aol.com

Midland Tx 79706

(City) (State) (Zip)

I am ☑ I am not ☐ a U.S. Citizen

Please tell us about yourself:

Are you a graduate of Midland 101? ☐ yes ☐ no

I have lived in Midland 39 years.

Occupation: Plumber, HVAC Business owner Retired Midland Fire fighter

Professional and/or Community Activities:

Numerous Fund raisers while employed by the Fire Dept.

What is your personal vision for the City?

Safer, City Get Back to a more West Texas feel, But progressive

Please specify any time constraints you may have.

Please list below the Board(s) or Commission(s) on which you are interested in serving:

(You can find a complete and current list on the City's website at www.midlandtexas.gov)

(1) Name of Board/Commission:

Building Code Review / Board of Appeals

Please tell us why you are interested in serving on this board or commission.

Varied Experience in Construction and Fire give Back to the Community that I served for 33yrs on F.D.

Additional pertinent information or references:
Master Structural + Assoc Ft Fire Fighter (Texas)
Texas Paramedic
Master Plumber (Texas) Texas Air Conditioner Contractor (Texas)

(2) Name of Board/Commission:

What contribution would you most like to make?
Every Code was created Because of a Death or Injury
its the least we can do to consider adoption
seriously. I Think I can add Knowledge and Experience to the Board

Additional pertinent information or references:

Applications are maintained on file in the City Secretary's office for a period of one year. Should you need additional information, please call us at 432-685-7430.

Signature of Applicant

Applications may be submitted online via email or print in order to send by mail or fax:

City of Midland
City Secretary's Office
PO Box 1152
Midland, TX 79702
FAX: (432) 685-7433

Submit Via Email

Print Application