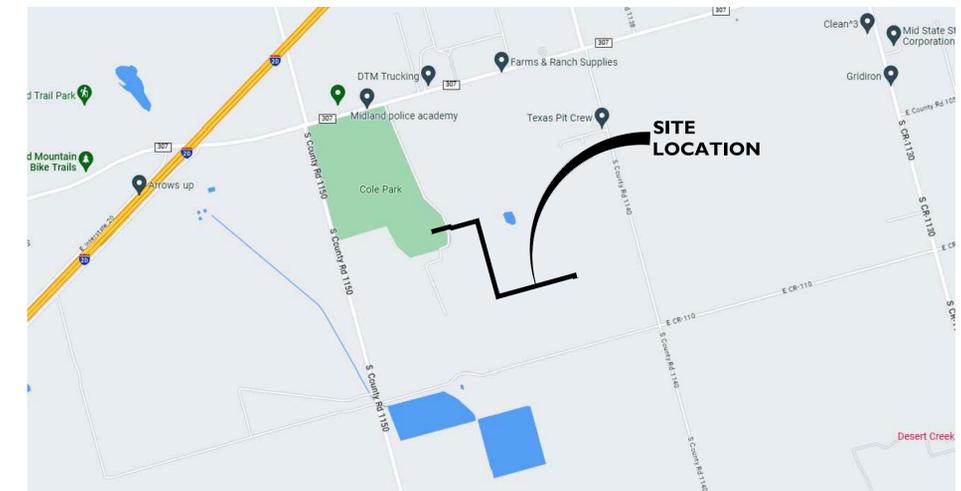


# TEMPORARY REGIONAL SOUTHEAST WASTE WATER LIFT STATION AND POTABLE WATER CONNECTION

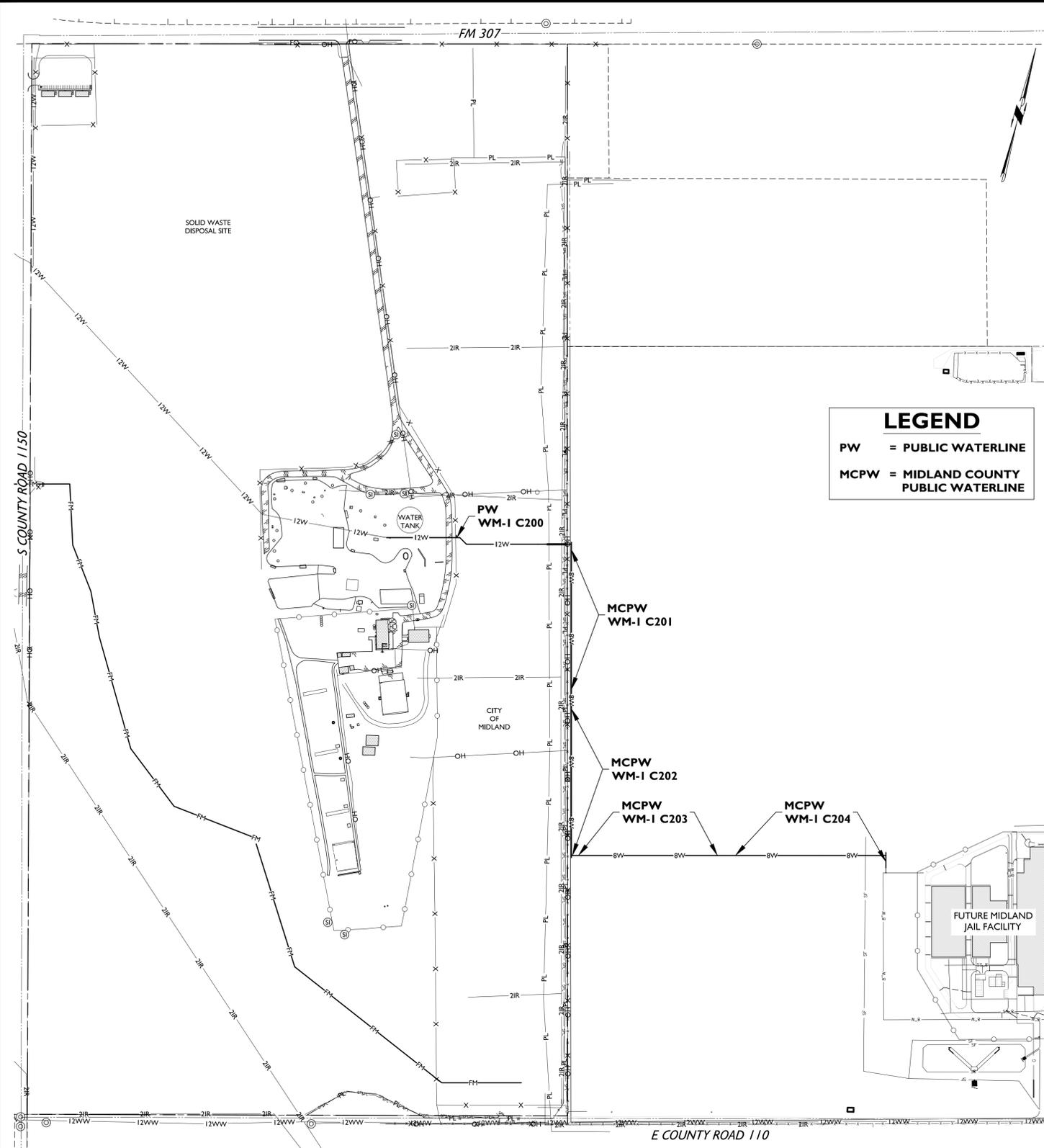
BEING 324.97 ACRE TRACT OF LAND OUT AND AND PART OF SECTION 4, BLOCK 38, T-2-S  
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

## UTILITY CONSTRUCTION PLANS



VICINITY MAP  
N.T.S.

**LEGEND**  
PW = PUBLIC WATERLINE  
MCPW = MIDLAND COUNTY PUBLIC WATERLINE



### ENGINEER'S NOTES

- CONTRACTOR TO VERIFY ALL EXISTING UTILITY TIE-IN CONNECTIONS AND VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION OR EQUIPMENT MOBILIZATION.
- CONTRACTOR TO BUILD SEWER FROM TIE-IN POINT (A.K.A. DOWNHILL) AND PROCEED UPHILL.
- CITY OF MIDLAND TO BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS.
- PIPE DEFLECTION IS TO BE PER MANUFACTURER'S RECOMMENDATIONS OR PER CITY REQUIREMENTS, WHICHEVER ALLOWS THE LESSER AMOUNT OF DEFLECTION.
- ALL UTILITIES TO BE INSTALLED PER TEXAS ADMINISTRATIVE CODE (TAC) STANDARD SEPARATION SPECIFICATIONS.
- A TWO (2) FOOT MINIMUM VERTICAL SEPARATION IS TO BE PROVIDED BETWEEN ANY SEWER MAIN/LINE CROSSING A WATER MAIN/LINE.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND SEWER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- ALL CONSTRUCTION IN THE RIGHT OF WAY IS TO CONFORM TO THE CITY OF MIDLAND STANDARDS.
- ALL CONSTRUCTION ON SITE IS TO CONFORM TO MAVERICK ENGINEERING NOTES AND DETAIL SHEETS.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION IS TO BE REMOVED AND REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE ENGINEER OR THE CITY OF MIDLAND PRIOR TO FINAL INSPECTION.
- SANITARY SEWER IS TO BE PVC-SDR-35 UNLESS NOTED OTHERWISE.
- WATER IS TO BE C-900 PVC PIPE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS TO PROVIDE ALL THRUST BLOCKING AT ALL FITTINGS AND BENDS AS REQUIRED. COMPLY WITH DETAILS IN THE CITY OF MIDLAND'S DESIGN & CONSTRUCTION STANDARDS.
- THE CONTRACTOR IS TO KEEP ALL EXISTING WATER AND SEWER MAINS IN SERVICE DURING CONSTRUCTION.
- ANY PROPOSED GAS LINES SHOWN ARE FOR SCHEMATIC PLANNING PURPOSES ONLY. ACTUAL GAS LINE ROUTES ARE TO BE NEGOTIATED BETWEEN THE CONTRACTOR AND THE GAS UTILITY PROVIDER. MAVERICK ENGINEERING DOES NOT ENGAGE IN GAS LINE DESIGN. PLEASE CONSULT WITH YOUR M.E.P. PLAN PROVIDER AND GAS UTILITY PROVIDER FOR GAS LINE DESIGN.
- CONTRACTORS PERFORMING ANY WORK ON, EXTENSIONS OF, OR CONNECTIONS TO ANY PUBLIC WATER, WASTEWATER, OR UNDERGROUND STORM DRAIN SYSTEM MUST FIRST PROVIDE DOCUMENTATION TO THE CITY OF MIDLAND SHOWING THAT THE CONTRACTOR POSSESSES ACTIVE LICENSES THAT ARE EQUIVALENT TO, OR HIGHER THAN:
  - A "WATER OPERATOR D" LICENSE AND
  - EITHER A "WASTEWATER D" LICENSE OR A "CLASS I COLLECTIONS" LICENSE

### SHEET INDEX

|  |      |
|--|------|
| COVER SHEET.....                             | C100 |
| BOUNDARY SURVEY.....                         | C110 |
| EXISTING SITE TOPOGRAPHY.....                | C120 |
| EROSION CONTROL PLAN, DETAILS AND NOTES..... | C130 |
| PWL WM-I P&P.....                            | C140 |
| MCPW WM-I P&P.....                           | C200 |
| MCPW WM-I P&P.....                           | C201 |
| MCPW WM-I P&P.....                           | C202 |
| MCPW WM-I P&P.....                           | C203 |
| MCPW WM-I P&P.....                           | C204 |
| UTILITY DETAILS.....                         | C300 |
| UTILITY DETAILS.....                         | C301 |

### BENCHMARK:

SURVEY PERFORMED BY MAVERICK ENGINEERING. CONTACT MAVERICK ENGINEERING, PRIOR TO CONSTRUCTION TO SET UP A PROJECT BENCHMARK OR CONTROL STAKING 432-262-0999

### ENGINEER

ANDREW L. MELLEEN P.E.  
MAVERICK ENGINEERING  
1909 WEST WALL STREET, STE. K  
MIDLAND, TX 79701  
TELEPHONE: (432) 262-0999

### DEVELOPER / OWNER



**MAVERICK**  
ENGINEERING / SURVEY / WATER RESOURCES  
1909 W Wall St. Ste. "K", Midland, TX 79701  
Tel: (432) 262-0999 Fax: (432) 262-0999  
ENGINEER FIRM #: E-15089  
SURVEY FIRM #: 10194452  
www.Maverick-Eng.com



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| REVISIONS        |                  |
| DRAWN BY: GJA    | CHECKED BY: CLB  |
| APPROVED BY: ALM | DATE: 04/24/2024 |
|                  | JOB: 240024      |



**COVER SHEET**  
UTILITY CONSTRUCTION PLANS  
TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND PORTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

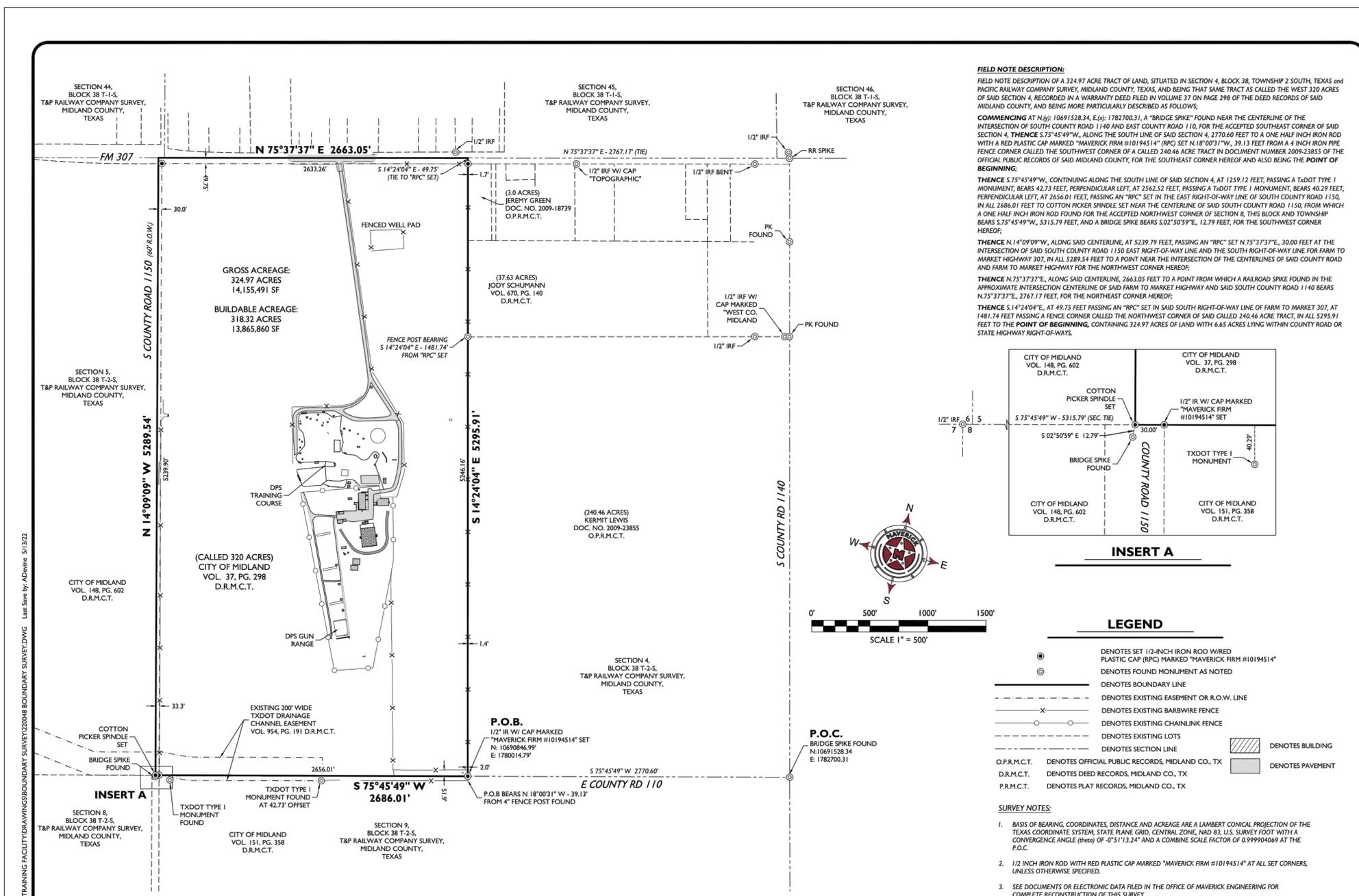


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SHEET **C100** OF 11

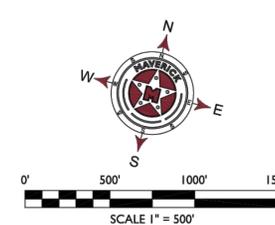
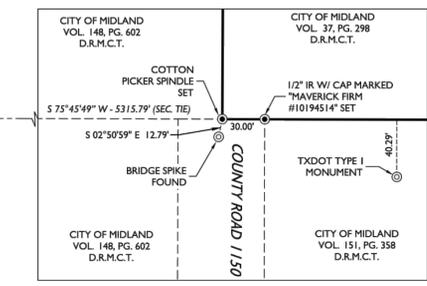
F:\2024\140024-BURNS ARCHITECTURE\REGIONAL SE WASTE WATER LIFT STATION & POTABLE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION PLANS\240024 C100 COVER.DWG © COPYRIGHT 2024 ALL RIGHTS RESERVED

F:\2024\40024-BURNS ARCHITECTURE\REGIONAL SE WASTEWATER LIFT STATION & POTABLE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION\PLANS\BOUNDARY SURVEY.DWG

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**FIELD NOTE DESCRIPTION:**  
 FIELD NOTE DESCRIPTION OF A 324.97 ACRE TRACT OF LAND, SITUATED IN SECTION 4, BLOCK 38, TOWNSHIP 2 SOUTH, TEXAS and PACIFIC RAILWAY COMPANY SURVEY, MIDLAND COUNTY, TEXAS, AND BEING THAT SAME TRACT AS CALLED THE WEST 320 ACRES OF SAID SECTION 4, RECORDED IN A WARRANTY DEED FILED IN VOLUME 37 ON PAGE 298 OF THE DEED RECORDS OF SAID MIDLAND COUNTY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
**COMMENCING** AT N(10): 10691528.24, E(10): 1782700.31, A "BRIDGE SPIKE" FOUND NEAR THE CENTERLINE OF THE INTERSECTION OF SOUTH COUNTY ROAD 1140 AND EAST COUNTY ROAD 110, FOR THE ACCEPTED SOUTHEAST CORNER OF SAID SECTION 4, **THENCE** S.75°45'49"W, ALONG THE SOUTH LINE OF SAID SECTION 4, 2770.60 FEET TO A ONE HALF INCH IRON ROD WITH A RED PLASTIC CAP MARKED "MAVERICK FIRM #10194514" (RPC) SET N.18°00'31"W, 39.13 FEET FROM A 4 INCH IRON PIPE FENCE CORNER CALLED THE SOUTHWEST CORNER OF A CALLED 240.46 ACRE TRACT IN DOCUMENT NUMBER 2009-23853 OF THE OFFICIAL PUBLIC RECORDS OF SAID MIDLAND COUNTY, FOR THE SOUTHEAST CORNER HEREOF AND ALSO BEING THE POINT OF BEGINNING;  
**THENCE** S.75°45'49"W, CONTINUING ALONG THE SOUTH LINE OF SAID SECTION 4, AT 1259.12 FEET, PASSING A TxDOT TYPE 1 MONUMENT, BEARS 42.73 FEET, PERPENDICULAR LEFT, AT 2562.52 FEET, PASSING AN "RPC" SET N.75°37'37"E, 30.00 FEET AT THE INTERSECTION OF SAID SOUTH COUNTY ROAD 1150 EAST RIGHT-OF-WAY LINE AND THE SOUTH RIGHT-OF-WAY LINE FOR FARM TO MARKET HIGHWAY 307, IN ALL 5299.54 FEET TO A POINT NEAR THE INTERSECTION OF THE CENTERLINES OF SAID COUNTY ROAD AND FARM TO MARKET HIGHWAY FOR THE NORTHWEST CORNER HEREOF;  
**THENCE** N.75°37'37"E, ALONG SAID CENTERLINE, 2663.05 FEET TO A POINT FROM WHICH A RAILROAD SPIKE FOUND IN THE APPROXIMATE INTERSECTION CENTERLINE OF SAID FARM TO MARKET HIGHWAY AND SAID SOUTH COUNTY ROAD 1140 BEARS N.75°37'37"E, 2767.17 FEET, FOR THE NORTHEAST CORNER HEREOF;  
**THENCE** S.14°24'04"E, AT 49.75 FEET PASSING AN "RPC" SET IN SAID SOUTH RIGHT-OF-WAY LINE OF FARM TO MARKET 307, AT 1481.74 FEET PASSING A FENCE CORNER CALLED THE NORTHWEST CORNER OF SAID CALLED 240.46 ACRE TRACT, IN ALL 5295.91 FEET TO THE POINT OF BEGINNING, CONTAINING 324.97 ACRES OF LAND WITH 6.65 ACRES LYING WITHIN COUNTY ROAD OR STATE HIGHWAY RIGHT-OF-WAYS.



**LEGEND**

- DENOTES SET 1/2-INCH IRON ROD WIRED PLASTIC CAP (RPC) MARKED "MAVERICK FIRM #10194514"
- ⊙ DENOTES FOUND MONUMENT AS NOTED
- DENOTES BOUNDARY LINE
- - - DENOTES EXISTING EASEMENT OR R.O.W. LINE
- x - DENOTES EXISTING BARB WIRE FENCE
- o - DENOTES EXISTING CHAINLINK FENCE
- - - DENOTES EXISTING LOTS
- - - DENOTES SECTION LINE
- ▨ DENOTES BUILDING
- ▭ DENOTES PAVEMENT
- O.P.R.M.C.T. DENOTES OFFICIAL PUBLIC RECORDS, MIDLAND CO., TX
- D.R.M.C.T. DENOTES DEED RECORDS, MIDLAND CO., TX
- P.R.M.C.T. DENOTES PLAT RECORDS, MIDLAND CO., TX

**SURVEY NOTES:**

1. BASIS OF BEARING, COORDINATES, DISTANCE AND ACREAGE ARE A LAMBERT CONICAL PROJECTION OF THE TEXAS COORDINATE SYSTEM, STATE PLANE GRID, CENTRAL ZONE, NAD 83, U.S. SURVEY FOOT WITH A CONVERGENCE ANGLE (theta) OF -0°51'13.24" AND A COMBINE SCALE FACTOR OF 0.999994069 AT THE P.O.C.
2. 1/2 INCH IRON ROD WITH RED PLASTIC CAP MARKED "MAVERICK FIRM #10194514" AT ALL SET CORNERS, UNLESS OTHERWISE SPECIFIED.
3. SEE DOCUMENTS OR ELECTRONIC DATA FILED IN THE OFFICE OF MAVERICK ENGINEERING FOR COMPLETE RECONSTRUCTION OF THIS SURVEY.

|                             |                 |                                      |
|-----------------------------|-----------------|--------------------------------------|
| APPROVAL DATE:<br>5.13.2022 | SURVEYOR:<br>GS | SCALE:<br>1" = 500'                  |
| REV 1:                      | DRAWN BY:<br>AD | JOB NO:<br>220048                    |
| REV 2:                      | APPROVED:       | FIELD WORK DATE:<br>4.21.22 - 5.3.22 |

I, GREGORY W. SHOULTS, DO HEREBY CERTIFY THAT THE SURVEY INFORMATION FOUND ON THIS PLAT WAS DERIVED FROM FIELD NOTES AND/OR ELECTRONIC DATA OF AN ACTUAL ON-THE-GROUND SURVEY MADE BY ME OR UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND NO WARRANTY IS MADE OR INTENDED FOR THE LOCATION OF ANY OR ALL EASEMENTS THAT MAY EXIST WITHIN THE BOUNDS OF THIS SURVEY.

*Gregory W. Shoults*  
 GREGORY W. SHOULTS  
 5356  
 SURVEYOR  
 STATE OF TEXAS  
 MAY 13, 2022

**MAVERICK**  
 CIVIL ENGINEERING / LAND SURVEYING  
 ENGINEER FIRM #: F-15089 | SURVEY FIRM #: 10194514  
 1909 West Wall Street, Suite "K" - Midland, Texas 79701  
 Tel: (432) 262-0999 Fax: (432) 262-0989  
 www.Maverick-Eng.com

**CITY OF MIDLAND**  
 BOUNDARY SURVEY  
 OF A 324.97 ACRE TRACT OF LAND, SITUATED IN SECTION 4, BLOCK 38, TOWNSHIP 2 SOUTH, TEXAS and PACIFIC RAILWAY COMPANY SURVEY, MIDLAND COUNTY, TEXAS, AND BEING THAT SAME TRACT AS CALLED THE WEST 320 ACRES OF SAID SECTION 4, RECORDED IN A WARRANTY DEED FILED IN VOLUME 37 ON PAGE 298 OF THE DEED RECORDS OF SAID MIDLAND COUNTY, TEXAS.

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| DATE: 04/24/2024 |  |
| JOB: 240024      |  |

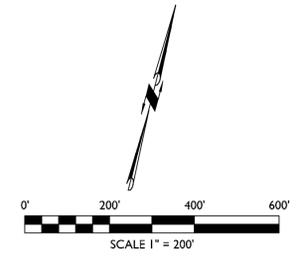
**811**  
 Know what's below.  
 Call before you dig.

**BOUNDARY SURVEY**  
 UTILITY CONSTRUCTION PLANS  
 TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND POTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

**SURVEY NOTE:**  
 THE SURVEY INFORMATION ON THIS PLAT IS INCLUDED FOR INFORMATION ONLY. THIS INFORMATION IS NOT TO BE USED FOR CONSTRUCTION OR ANY OTHER PURPOSES WITHOUT THE EXPRESS WRITTEN CONSENT OF MAVERICK ENGINEERING. MAVERICK ENGINEERING DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR OBTAINING NECESSARY PERMITS AND FOR THE ACCURACY OF ANY INFORMATION OBTAINED FROM THIS PLAT.  
 04/24/2024

SHEET **CI10** of 11

F:\2024\40024-BURNS ARCHITECTURE\REGIONAL SE WASTEWATER LIFT STATION & PORTABLE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION\PLANS\40024\_C120\_EXISTING SITE TOPOGRAPHY.DWG  
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**LEGEND**

- ⊙ DENOTES FOUND MONUMENT AS NOTED
- ⊕ DENOTES EXISTING FIBER OPTIC PEDISTAL
- ⊖ DENOTES EXISTING KEY PAD
- ⊗ DENOTES EXISTING LIGHT POLE
- ⊘ DENOTES EXISTING FLAG POLE
- ⊙ DENOTES EXISTING A/C PAD
- ⊕ DENOTES EXISTING ELECTRICAL BOX
- ⊖ DENOTES EXISTING CLEAN OUT
- ⊗ DENOTES EXISTING WATER METER
- ⊘ DENOTES EXISTING WATER VALVE
- ⊙ DENOTES EXISTING UTILITY MARKER
- ⊕ DENOTES EXISTING SPRINKLER CONNECTION
- ⊖ DENOTES EXISTING PIPELINE MARKER
- ⊗ DENOTES EXISTING TESTING STATION
- ⊘ DENOTES EXISTING POWER POLE
- ⊙ DENOTES EXISTING GUY WIRE
- ⊕ DENOTES EXISTING SIGN
- ⊖ DENOTES EXISTING CONTOUR
- ⊗ DENOTES BOUNDARY LINE
- ⊘ DENOTES EXISTING LOT LINE
- ⊙ DENOTES EXISTING EASEMENT LINE
- ⊕ DENOTES EDGE OF ASPHALT
- ⊖ DENOTES EXISTING FENCE
- ⊗ DENOTES EXISTING FIBER OPTIC LINE
- ⊘ DENOTES EXISTING SURFACE PIPELINE
- ⊙ DENOTES EXISTING PIPELINE
- ⊕ DENOTES EXISTING OVERHEAD ELECTRIC LINE
- ⊖ DENOTES EXISTING 12" WATER MAIN

**BENCHMARK:**

BEARINGS, DISTANCES AND COORDINATES SHOWN ARE RELATIVE TO THE TEXAS STATE PLANE COORDINATE SYSTEM, TEXAS CENTRAL ZONE, NAD 1983. ELEVATIONS ARE BASED ON GPS OBSERVATIONS CONFORMING TO NAVD 1988.

BENCHMARK #1:  
 ELEV: 2891.46  
 N: 10,621,015.38  
 E: 1,662,630.75

SURVEY PERFORMED BY MAVERICK ENGINEERING. CONTACT MAVERICK ENGINEERING FOR CONSTRUCTION BENCHMARKS OR CONTROL STAKING 432-262-0999

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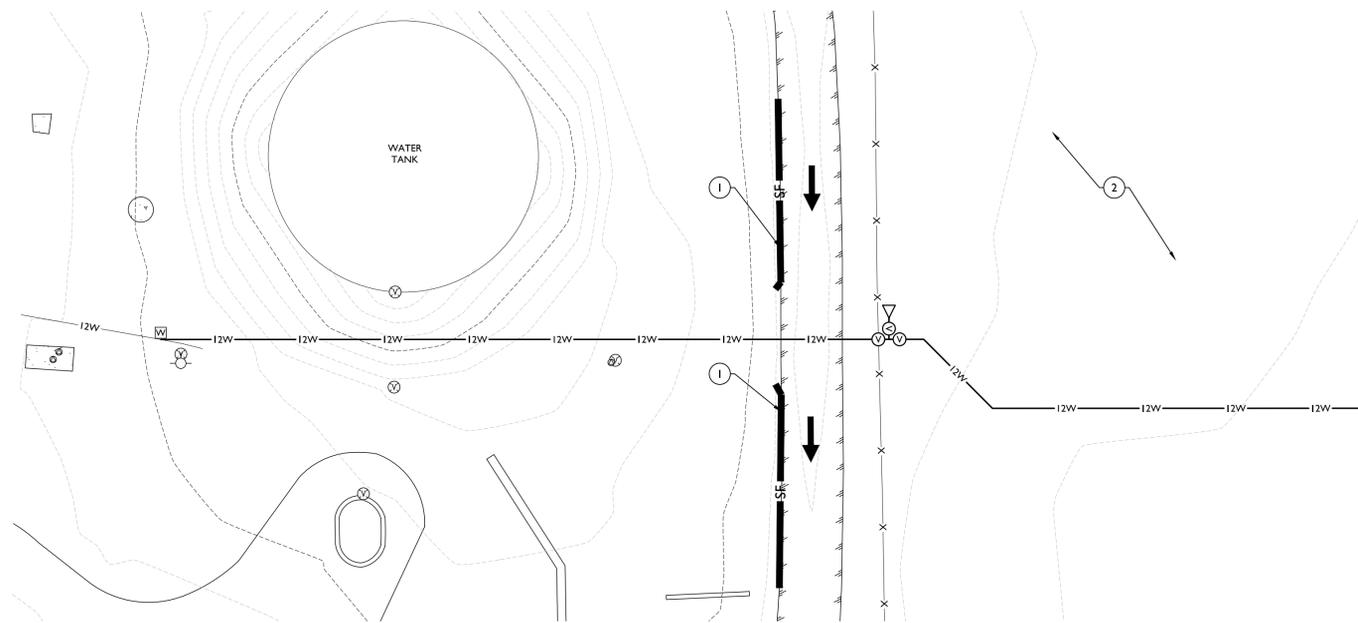


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**811**  
 Know what's below.  
 Call before you dig.

**EXISTING SITE TOPOGRAPHY**  
 UTILITY CONSTRUCTION PLANS  
 TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND PORTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

**SURVEY NOTE:**  
 THE SURVEY INFORMATION SHOWN ON THIS DRAWING IS INCLUDED FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY ALL INFORMATION SHOWN ON THIS DRAWING SET BACKS AND INFORMATION SHOWN ON THIS DRAWING SET BACKS BUT DOES NOT WARRANT THE ACCURACY OF THIS INFORMATION.  
 04/24/2024



**NOTE:**  
 CARE SHOULD BE TAKEN TO AVOID PLACING LARGE QUANTITIES OF SPOILS ON THE ROAD AND OTHER EXCAVATED AREAS. THE AREAS BEING EXCAVATED SHOULD REMAIN CLEAN TO THE MAXIMUM EXTENT PRACTICABLE.

**PERMANENT BMP CONSTRUCTION NOTES:**

1. PROPOSED SILT FENCE PER CITY OF MIDLAND DETAIL No. 706, SEE SHEET C130
2. GENERAL PROJECT WORK ZONE AREA SHOWN FOR REFERENCE. ACTUAL PROJECT WORK ZONE AREA LIMITS TO BE DETERMINED PRIOR TO STARTING CONSTRUCTION ACTIVITY.



**LEGEND**

- DENOTES EXISTING WATER METER
- DENOTES EXISTING WATER VALVE
- DENOTES EXISTING FIRE HYDRANT
- DENOTES EXISTING UTILITY MARKER
- DENOTES EXISTING SPRINKLER CONNECTION
- DENOTES EXISTING CONTOUR
- DENOTES EDGE OF ASPHALT
- DENOTES EXISTING FENCE
- DENOTES EXISTING 12" WATER MAIN
- DENOTES PROPOSED WATER CAP
- DENOTES PROPOSED WATER VALVE
- DENOTES PROPOSED 6" WATER MAIN
- DENOTES PROPOSED 12" WATER MAIN
- DENOTES PROPOSED SANDBAG
- DENOTES PROPOSED FLOW DIRECTION

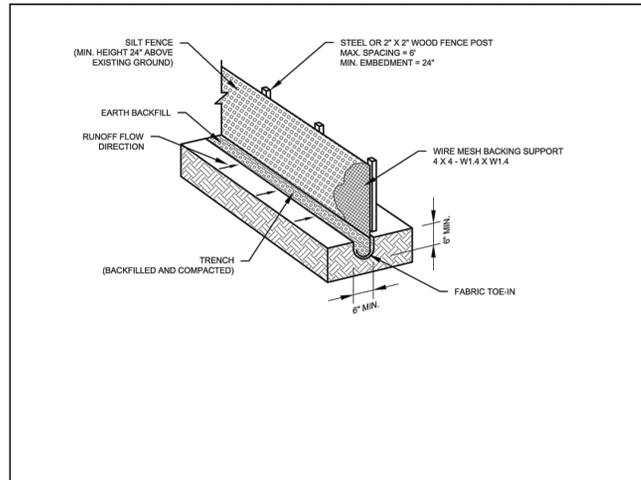
**GENERAL NOTES:**

1. IT IS THE INTENT OF THE INFORMATION PROVIDED ON THIS SHEET AND WITHIN THE SPECIFICATIONS TO BE USED AS THE GENERAL GUIDELINES OF THE STORM WATER POLLUTION PREVENTION PLAN FOR THIS PROJECT TO ESTABLISH A MINIMUM BASIS OF THE COMPLIANCE WITH TPDES REGULATIONS. THE CONTRACTOR SHALL FILE NOTICE OF INTENT (NOI) TO BE COVERED BY TPDES CONSTRUCTION GENERAL PERMIT, TXR 150000.
2. THE STORM WATER POLLUTION PREVENTION PLAN SHOULD ADDRESS THREE GOALS: TO DIVERT WATER FROM UPSLOPE AREAS AROUND DISTURBED AREAS OF THE SITE, TO LIMIT EXPOSURE OF DISTURBED AREAS TO THE SHORTEST DURATION POSSIBLE, AND TO REMOVE SEDIMENT FROM STORM WATER BEFORE IT LEAVES THE SITE.
3. THE CONTRACTOR SHALL MAKE THE STORM WATER POLLUTION PREVENTION PLAN AVAILABLE, UPON REQUEST, TO THE TCEQ.
4. THE CONTRACTOR MUST AMEND THE STORM WATER POLLUTION PREVENTION PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE PLAN, OR WHEN THE EXISTING PLAN PROVES INEFFECTIVE. MODIFICATIONS INCLUDING DESIGN AND ALL ADDITIONAL MATERIALS AND WORK SHALL BE ACCOMPLISHED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. NO CHANGE TO EROSION CONTROL MEASURES SHOWN ON THESE PLANS AND SPECIFICATIONS SHALL BE MADE WITHOUT CONSENT OF OWNER AND ENGINEER.
5. STABILIZATION MEASURES ARE TO BE INSPECTED AT A MINIMUM OF ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES. REPAIRS OF INADEQUACIES REVEALED BY THE INSPECTIONS MUST BE IMPLEMENTED WITHIN SEVEN CALENDAR DAYS FOLLOWING THE INSPECTION.
6. AN INSPECTION REPORT THAT SUMMARIZES INSPECTION ACTIVITIES AND IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE MAINTAINED AND MADE PART OF THE PLAN.
7. ALL CONTRACTORS AND SUBCONTRACTORS IDENTIFIED IN THE PLAN MUST CERTIFY AS TO AN UNDERSTANDING OF THE NPDES CONSTRUCTION GENERAL PERMIT BEFORE CONDUCTING ANY ACTIVITY IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN.
8. THE CONTRACTOR SHALL ADOPT APPROPRIATE CONSTRUCTION SITE MANAGEMENT PRACTICES TO PREVENT THE DISCHARGE OF OILS, GREASE, PAINTS, GASOLINE, AND OTHER POLLUTANTS TO STORM WATER. APPROPRIATE PRACTICES CAN INCLUDE: DESIGNATING AREAS FOR EQUIPMENT MAINTENANCE AND REPAIR, REGULAR COLLECTION OF WASTES, CONVENIENTLY LOCATED WASTE RECEPTACLES, AND DESIGNATING AND CONTROL EQUIPMENT WASHING.
9. THE CONTRACTOR SHALL AMEND OR MODIFY THIS PLAN AS REQUIRED BY CONSTRUCTION MEANS, METHODS, AND SEQUENCE. MODIFICATIONS SHALL NOT COMPROMISE THE INTENT OF THE REQUIREMENTS OF THE LAW AND THIS PLAN. MODIFICATIONS SHALL NOT BE BASIS FOR ADDITIONAL COST TO THE OWNER.
10. AREAS OF CONSTRUCTION ELSEWHERE ON THE JOB SITE SHALL CONFORM TO THE DETAILS SHOWN ON THE PLANS.

**SOIL STABILIZATION NOTES:**

- AFTER DESIGNATED AREAS HAVE BEEN COMPLETED TO THE GRADES SHOWN ON THE PLANS, AREAS TO BE SEEDED ARE TO BE CULTIVATED TO A DEPTH OF 4 INCHES, EXCEPT WHERE SEEDING IS TO BE DONE USING A SEED DRILL SUITABLE FOR SEEDING INTO UNTILLED SOIL. THE SEEDBEDS ARE TO BE CULTIVATED SUFFICIENTLY TO REDUCE THE SOIL TO A STATE OF GOOD TILTH WHEN THE SOIL PARTICLES ON THE SURFACE ARE SMALL ENOUGH TO LIE CLOSELY ENOUGH TOGETHER TO PREVENT THE SEED FROM BEING COVERED TOO DEEPLY FOR OPTIMUM GERMINATION. CULTIVATION OF THE SEEDBED WILL NOT BE REQUIRED IN LOOSE SAND WHERE DEPTH OF SAND IS 4 INCHES OR MORE.
- ALL DISTURBED AREAS ARE TO BE SEEDED OR OTHERWISE STABILIZED. IF THE SPECIFIED SEED MIX IS NOT AVAILABLE, SUBMIT A SUBSTITUTION TO THE ENGINEER. NO SUBSTITUTIONS WILL BE ENTERTAINED UNTIL IT HAS BEEN DEMONSTRATED TO THE ENGINEER'S SATISFACTION THAT THE SPECIFIED MATERIALS ARE NOT AVAILABLE. SEED WITH THE FOLLOWING MIX DURING THE SPECIFIED SEASON:
 

| VARIETY            | OCTOBER - FEBRUARY<br>LBS. P.L.S./ACRE | MARCH - SEPTEMBER<br>LBS. P.L.S./ACRE |
|--------------------|--|---------------------------------------|
| RYEGRASS (ANNUAL)  | 8.0                                    | -                                     |
| WESTERN WHEATGRASS | 2.0                                    | -                                     |
| MILLET             | 2.0                                    | 4.0                                   |
| SIDEOTS GRAMA      | 1.5                                    | 3.0                                   |
| KLEINGRASS         | 1.5                                    | 3.0                                   |
| BRISTLEGRASS       | 1.5                                    | 3.0                                   |
| BLUE GRAMA         | 0.5                                    | 1.0                                   |
| BUFFALO GRASS      | 2.0                                    | 4.0                                   |
| GREEN SPRANGLETOP  | 1.0                                    | 2.0                                   |
- PRIOR TO PLANTING OPERATIONS, SUBMIT SUPPLIER SEED TAGS TO THE ENGINEER STATING:
  - PERCENT PURITY
  - PERCENT GERMINATION
  - DATE SEED WAS HARVESTED.
- SEEDED AREAS ARE TO BE EVENLY IRRIGATED TO A MINIMUM UNIFORM DEPTH OF 0.2 INCHES FOR ENTIRE SEEDED AREA AT A RATE OF NO LESS THAN ONCE PER DAY FOR 10 CONSECUTIVE DAYS AFTER SEEDING.
- AFTER SEEDING, CHANNEL EMBANKMENTS ARE TO BE LINED WITH A STRAW OR STRAW/COCONUT SOIL RETENTION BLANKET. THE FOLLOWING PRODUCTS, OR AN EQUAL APPROVED BY THE CITY ENGINEER MAY BE USED:
  - ECS S-1 STANDARD STRAW
  - ECS HIGH VELOCITY STRAW
  - LANDLOK BON-TERRA S2, EN52 OR ENCS2
  - NORTH AMERICAN GREEN S75, S75BN, S150, S150BN, OR SC150
  - ALTERNATELY, SOILGUARD BONDED FIBER MATRIX MAY BE USED.
- BLANKETS ARE TO BE PLACED PARALLEL TO THE DIRECTION OF WATER FLOW TO STABILIZE THE CHANNEL SIDES WHERE SHOWN. BLANKETS ARE TO BE SPREAD EVENLY WITHOUT STRETCHING SO FIBERS ARE IN DIRECT CONTACT WITH THE SOIL.
  - THE UPSLOPE END OF EACH BLANKET IS TO BE BURIED AT LEAST 6 INCHES IN A VERTICAL TRENCH WITH THE SOIL PRESSED FIRMLY AGAINST THE EMBEDDED MAT. ADDITIONAL CHECK TRENCHES AT 50 FEET INTERVALS MAY BE DESIRABLE ON STEEP GRADES OR LONG FLOW AREAS.
  - STRIP ENDS AND END OVERLAPS ARE TO BE STAPLED WITH NOT MORE THAN 20 INCHES BETWEEN STAPLES. ALL OTHER JOINTS AND EDGES ARE TO BE STAPLED AT 40 INCH INTERVALS.
  - STAPLES USED TO ANCHOR BLANKETS ARE TO BE U SHAPED, 11 GAUGE OR HEAVIER STEEL WIRE HAVING A SPAN WIDTH OF 1 INCH AND A LENGTH OF 6 INCHES OR MORE FROM TOP TO BOTTOM AFTER BENDING.



- NOTES:**
1. THIS DETAIL IS TO BE USED FOR SHEET FLOW CONDITIONS ONLY. DO NOT USE SILT FENCE FOR POINT FLOW OR CONCENTRATED FLOW CONDITIONS.
  2. INSTALL STEEL OR WOOD POSTS, WHICH SUPPORT THE SILT FENCE, WITH A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MINIMUM OF ONE (1) FOOT.
  3. TRENCH THE TOE OF THE SILT FENCE IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE THE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT DOWN FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
  4. THE TRENCH MUST BE A MINIMUM OF SIX (6) INCHES DEEP AND SIX (6) INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
  5. SECURELY FASTEN SILT FENCE TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS TO BE ATTACHED TO THE STEEL OR WOOD FENCE POST. INCLUDE A SIX (6) INCH DOUBLE OVERLAP, SECURELY FASTENED, WHERE ENDS OF FABRIC MEET.
  6. REMOVE SILT FENCE WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
  7. REMOVE ACCUMULATED SILT WHEN IT REACHES A DEPTH OF SIX (6) INCHES. DISPOSE OF THE SILT ONSITE IN AN APPROVED LOCATION AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.
  8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
  9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

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| DRAWN: DPM                          | CHECKED: JCF | APPROVED: MCC |                   |
| EFFECTIVE DATE: 10/01/2018          | SCALE: NTS   | DETAIL:       |                   |
| <b>MIDLAND Engineering Services</b> |              |               | <b>SILT FENCE</b> |
|                                     |              |               | <b>706</b>        |

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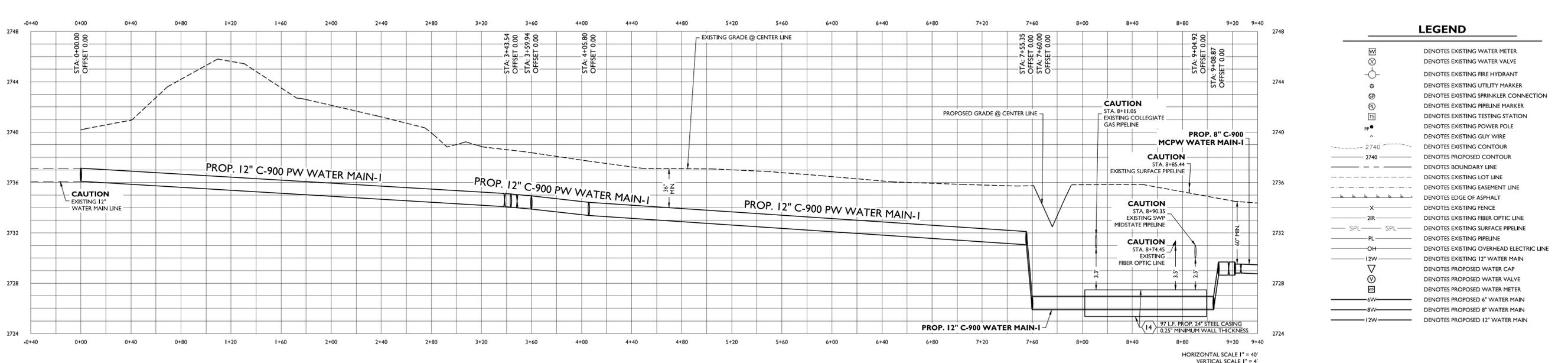
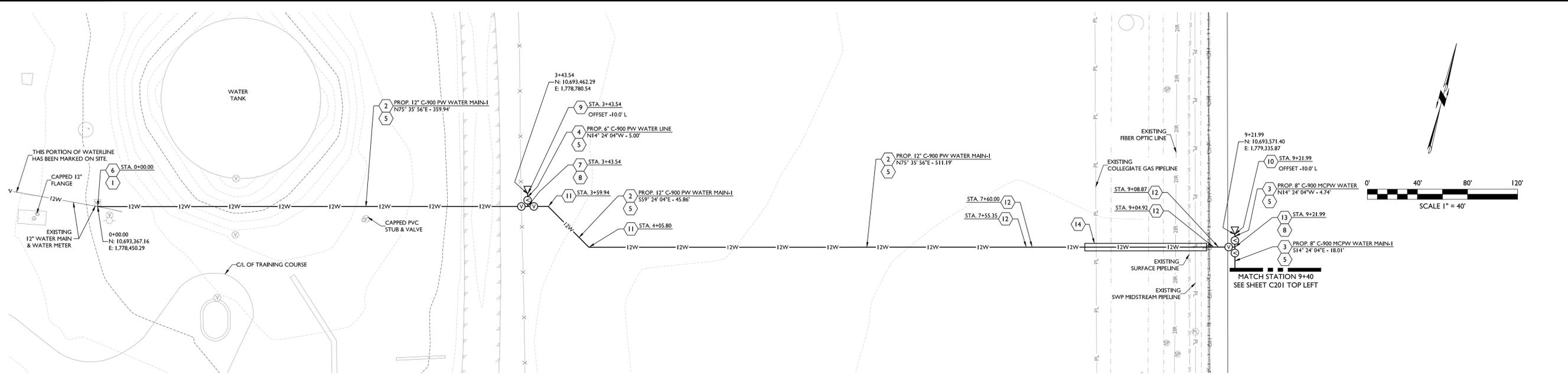


**EROSION CONTROL PLAN, DETAILS AND NOTES**  
 UTILITY CONSTRUCTION PLANS  
 TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND PORTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS



04/24/2024  
**C130** of 11

F:\2024\140024-BURNS ARCHITECTURE-REGIONAL IE WASTE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION\PLANS\240024 C200 WM-1 P&P.DWG



| LEGEND |                                       |
|--------|---------------------------------------|
|        | NOTES EXISTING WATER METER            |
|        | NOTES EXISTING WATER VALVE            |
|        | NOTES EXISTING FIRE HYDRANT           |
|        | NOTES EXISTING UTILITY MARKER         |
|        | NOTES EXISTING SPRINKLER CONNECTION   |
|        | NOTES EXISTING PIPELINE MARKER        |
|        | NOTES EXISTING TESTING STATION        |
|        | NOTES EXISTING POWER POLE             |
|        | NOTES EXISTING GUY WIRE               |
|        | NOTES EXISTING CONTOUR                |
|        | NOTES EXISTING BOUNDARY LINE          |
|        | NOTES EXISTING LOT LINE               |
|        | NOTES EXISTING EASEMENT LINE          |
|        | NOTES EDGE OF ASPHALT                 |
|        | NOTES EXISTING FENCE                  |
|        | NOTES EXISTING FIBER OPTIC LINE       |
|        | NOTES EXISTING SURFACE PIPELINE       |
|        | NOTES EXISTING OVERHEAD ELECTRIC LINE |
|        | NOTES EXISTING 12" WATER MAIN         |
|        | NOTES PROPOSED WATER CAP              |
|        | NOTES PROPOSED WATER METER            |
|        | NOTES PROPOSED 6" WATER MAIN          |
|        | NOTES PROPOSED 8" WATER MAIN          |
|        | NOTES PROPOSED 12" WATER MAIN         |

**ENGINEER'S UTILITY NOTES:**

- CONTRACTOR TO VERIFY ALL EXISTING UTILITY TIE-IN CONNECTIONS AND VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
- CONTRACTOR TO BUILD SEWER FROM TIE-IN POINT (A.K.A. DOWNHILL) AND PROCEED UPHILL.
- CITY OF MIDLAND TO BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS.
- PIPE DEFLECTION IS TO BE PER MANUFACTURER'S RECOMMENDATIONS OR PER CITY REQUIREMENTS, WHICHEVER ALLOWS THE LESSER AMOUNT OF DEFLECTION.
- ALL UTILITIES TO BE INSTALLED PER TEXAS ADMINISTRATIVE CODE (TAC) STANDARD SEPARATION SPECIFICATIONS.
- IF THE WASTEWATER IS SDR36 D2241 WITH A MINIMUM SEPARATION OF 2' THAN ENCASEMENT IS NOT REQUIRED. IF THERE IS LESS THAN 2' VERTICAL SEPARATION THEN THE WASTEWATER LINE NEEDS TO BE SDR36 D3034 AND ENCASED.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND WASTEWATER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- ALL CONSTRUCTION IN THE RIGHT OF WAY IS TO CONFORM TO THE CITY OF MIDLAND STANDARDS.
- ALL CONSTRUCTION ON SITE IS TO CONFORM TO MAVERICK ENGINEERING NOTES AND DETAIL SHEETS.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION IS TO BE REMOVED AND REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE ENGINEER OR THE CITY OF MIDLAND PRIOR TO FINAL INSPECTION.
- WASTEWATER IS TO BE PVC-SDR-35 UNLESS NOTED OTHERWISE.
- WATER MAIN IS TO BE C-900 PVC PIPE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS TO PROVIDE ALL THRUST BLOCKING AT ALL FITTINGS AND BENDS AS REQUIRED. COMPLY WITH DETAILS IN THE CITY OF MIDLAND'S DESIGN & CONSTRUCTION STANDARDS.
- THE CONTRACTOR IS TO KEEP ALL EXISTING WATER AND WASTEWATER MAINS IN SERVICE DURING CONSTRUCTION.
- ANY PROPOSED GAS LINES SHOWN ARE FOR SCHEMATIC PLANNING PURPOSES ONLY. ACTUAL GAS LINE ROUTES ARE TO BE NEGOTIATED BETWEEN THE CONTRACTOR AND THE GAS UTILITY PROVIDER. MAVERICK ENGINEERING DOES NOT ENGAGE IN GAS LINE DESIGN. PLEASE CONSULT WITH YOUR M.E.P. PLAN PROVIDER AND GAS UTILITY PROVIDER FOR GAS LINE DESIGN.
- CONTRACTORS PERFORMING ANY WORK ON, EXTENSIONS OF, OR CONNECTIONS TO ANY PUBLIC WATER, WASTEWATER, OR UNDERGROUND STORM DRAIN SYSTEM MUST FIRST PROVIDE DOCUMENTATION TO THE CITY OF MIDLAND SHOWING THAT THE CONTRACTOR POSSESSES ACTIVE LICENSES THAT ARE EQUIVALENT TO, OR HIGHER THAN:
  - A "WATER OPERATOR D" LICENSE AND
  - EITHER A "WASTEWATER D" LICENSE OR A "CLASS 1 COLLECTIONS" LICENSE

BOTH OF THESE LICENSES MUST BE ACTIVE AND MAINTAINED WHILE THE CONTRACTOR PERFORMS ANY WORK RELATED TO PUBLIC UTILITY CONNECTIONS. IF A CONTRACTOR ALLOWS EITHER OR BOTH OF THE REQUIRED LICENSES TO Lapse AT ANY TIME DURING THE COURSE OF THE PROJECT WORK DESCRIBED IN THIS NOTE, THEN ALL WORK UNDER THE PROJECT IS TO BE HALTED. WORK IS NOT TO RESUME UNTIL ADEQUATE DOCUMENTATION OF THE RENEWED LICENSES (OR NEW, PROPERLY LICENSED CONTRACTOR) ARE PROVIDED TO THE CITY OF MIDLAND.

**WATER MAIN CONSTRUCTION NOTES:**

- CAUTION: CONTRACTOR TO VERIFY UTILITY SIZE, LOCATION, ELEVATION AND TYPE PRIOR TO CONSTRUCTION AND INFORM ENGINEER OF CONFLICTS.
- INSTALL 12" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL 8" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL 6" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL METALLIC TRACER TAPE. CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATION.
- INSTALL 6x12" TAPPING SLEEVE AND VALVE PER CITY OF MIDLAND DETAIL 602 ON SHEET C300.
- INSTALL 1 EA. 12"x12" TEE, MjxFl PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 2 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 1 EA. 6" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- CONTRACTOR TO ADJUST VALVE BOX AND COVER TO FINAL GRADE.
- INSTALL 1 EA. 6" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 8" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 12" 45° BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 616 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12" 45° VERTICAL BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 612 AND 613 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12"x8" TEE, MjxFl PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 1 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 8"x8" TEE, MjxFl PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 3 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.

- INSTALL 1 EA. 8"x8" TEE, MjxFl PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 WITH 2" WATER METER SERVICE CONNECTION PER CITY OF MIDLAND DETAIL No. 604(A) AND 604(B) SEE SHEET C301.
- INSTALL 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- TIE INTO PROPOSED STUB OUT.
- BEGIN / END WATER MAIN PIPE DEFLECTION. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 2" WATER METER PER CITY OF MIDLAND DETAILS 604(A) & 604(B) ON SHEET C301.

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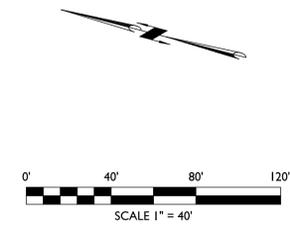
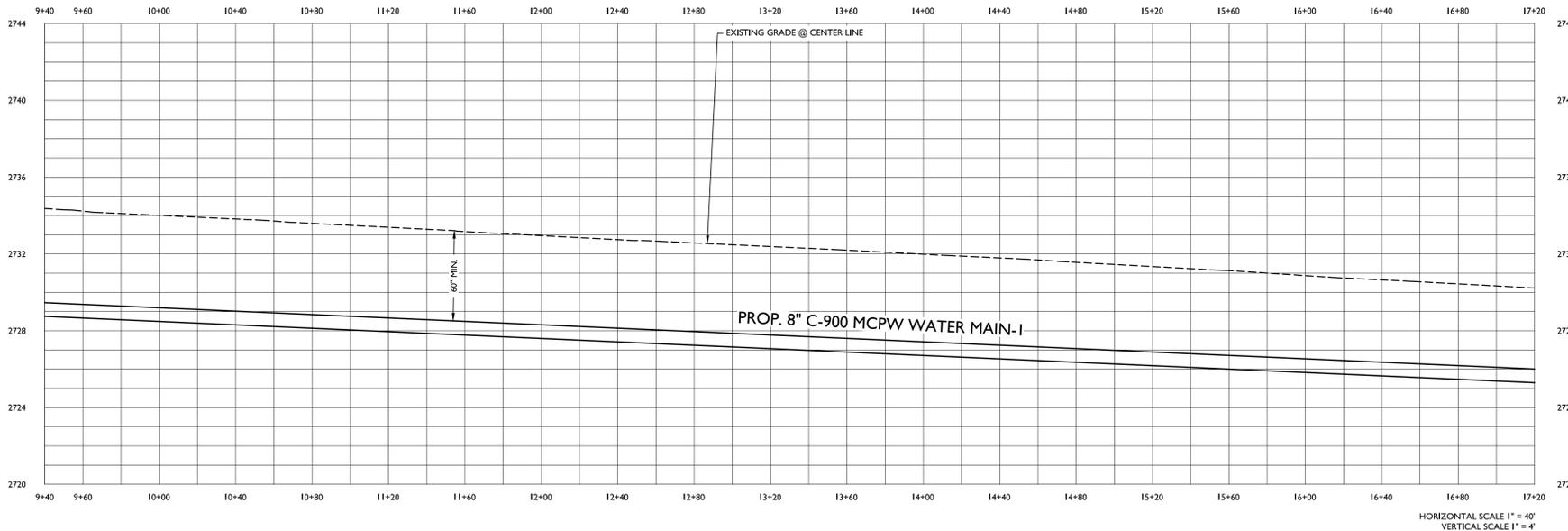
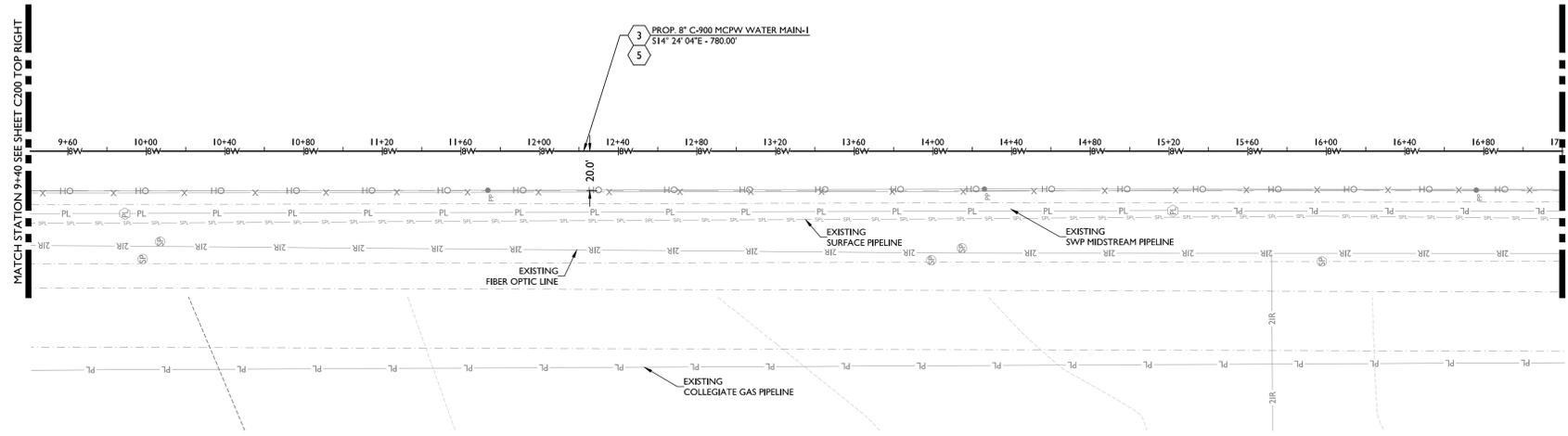
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Call before you dig.

**PWL WM-1 AND MCPW MW-1 P&P**  
UTILITY CONSTRUCTION PLANS  
TEMPORARY REGIONAL SE WASTE WATER LIFT  
STATION AND PORTABLE WATER CONNECTION  
BEING 324.97 ACRE TRACT OF LAND OUT  
OF AND PART OF SECTION 4, BLOCK 38, T-2-S  
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS



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**LEGEND**

|  |   |
|--|---|
|  | DENOTES EXISTING WATER METER            |
|  | DENOTES EXISTING WATER VALVE            |
|  | DENOTES EXISTING FIRE HYDRANT           |
|  | DENOTES EXISTING UTILITY MARKER         |
|  | DENOTES EXISTING SPRINKLER CONNECTION   |
|  | DENOTES EXISTING PIPELINE MARKER        |
|  | DENOTES EXISTING TESTING STATION        |
|  | DENOTES EXISTING POWER POLE             |
|  | DENOTES EXISTING GULLY WIRE             |
|  | DENOTES EXISTING CONTOUR                |
|  | DENOTES PROPOSED CONTOUR                |
|  | DENOTES BOUNDARY LINE                   |
|  | DENOTES EXISTING LOT LINE               |
|  | DENOTES EXISTING EASEMENT LINE          |
|  | DENOTES EDGE OF ASPHALT                 |
|  | DENOTES EXISTING FENCE                  |
|  | DENOTES EXISTING FIBER OPTIC LINE       |
|  | DENOTES EXISTING SURFACE PIPELINE       |
|  | DENOTES EXISTING PIPELINE               |
|  | DENOTES EXISTING OVERHEAD ELECTRIC LINE |
|  | DENOTES EXISTING 12" WATER MAIN         |
|  | DENOTES PROPOSED WATER CAP              |
|  | DENOTES PROPOSED WATER VALVE            |
|  | DENOTES PROPOSED WATER METER            |
|  | DENOTES PROPOSED 6" WATER MAIN          |
|  | DENOTES PROPOSED 8" WATER MAIN          |
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- INSTALL 6" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
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- INSTALL 1 EA. 12"x12" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 2 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 1 EA. 6" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- CONTRACTOR TO ADJUST VALVE BOX AND COVER TO FINAL GRADE.
- INSTALL 1 EA. 6" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 8" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 12" 45° BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 616 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12" 45° VERTICAL BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 612 AND 613 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 1 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 24" STEEL CASING, 0.25" MINIMUM WALL THICKNESS PER CITY OF MIDLAND DETAIL 805 ON SHEET C300, AND DETAIL C308 ON SHEET C300.
- INSTALL 1 EA. 8"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 3 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.

- INSTALL 1 EA. 8"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 WITH 2" WATER METER SERVICE CONNECTION PER CITY OF MIDLAND DETAIL No. 604(A) AND 604(B) SEE SHEET C301.
- INSTALL 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- TIE INTO PROPOSED STUB OUT.
- BEGIN / END WATER MAIN PIPE DEFLECTION. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 2" WATER METER PER CITY OF MIDLAND DETAILS 604(A) & 604(B) ON SHEET C301.

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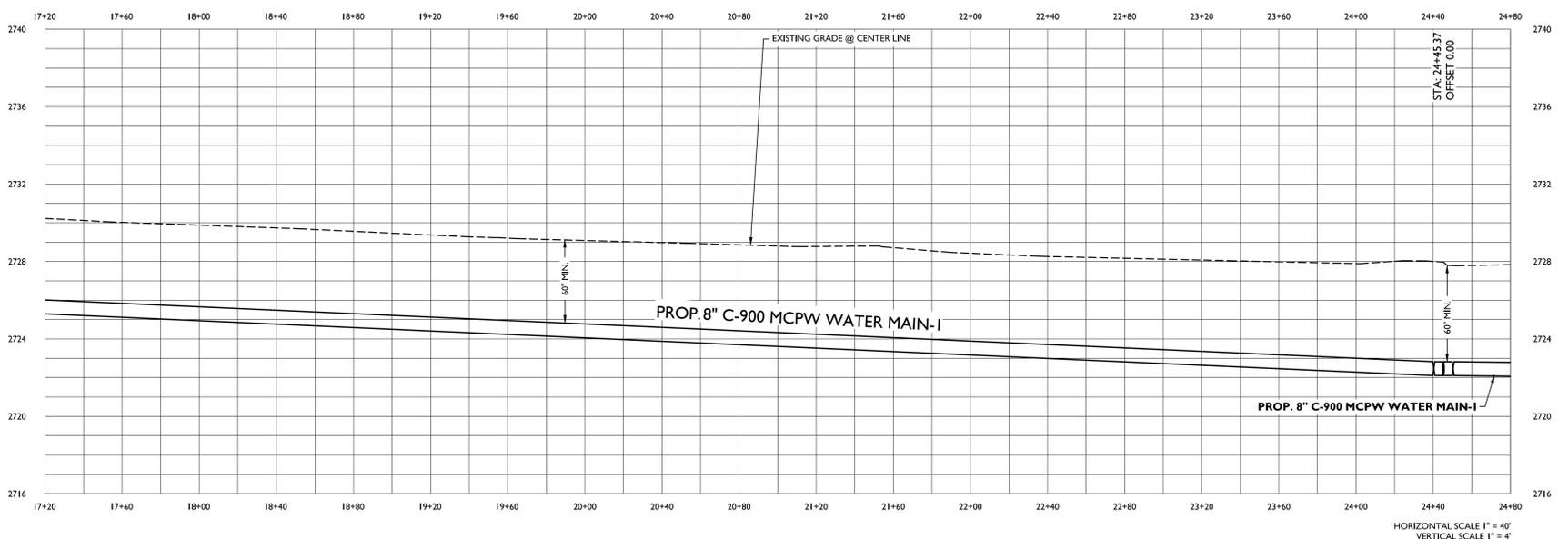
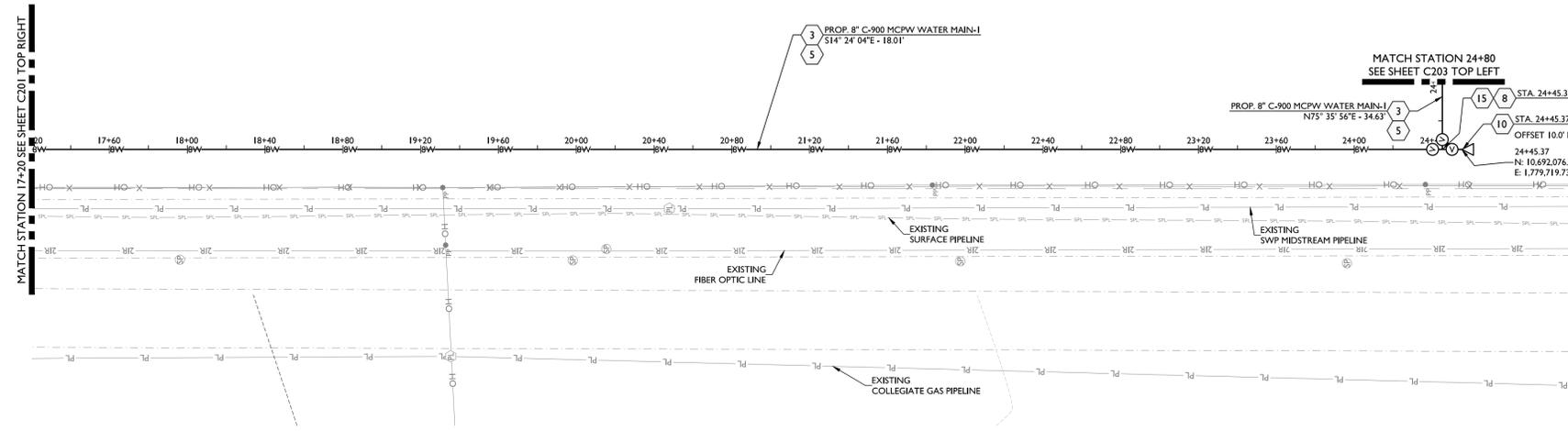


**MCPW WM-1 P&P**  
 UTILITY CONSTRUCTION PLANS  
 TEMPORARY REGIONAL SE WASTE WATER LIFT  
 STATION AND PORTABLE WATER CONNECTION  
 BEING 324.97 ACRE TRACT OF LAND OUT  
 OF AND PART OF SECTION 4, BLOCK 38, T-2-S  
 CITY OF MIDLAND, MIDLAND COUNTY, TEXAS



04/24/2024

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### LEGEND

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|  | DENOTES EXISTING WATER METER            |
|  | DENOTES EXISTING WATER VALVE            |
|  | DENOTES EXISTING FIRE HYDRANT           |
|  | DENOTES EXISTING UTILITY MARKER         |
|  | DENOTES EXISTING SPRINKLER CONNECTION   |
|  | DENOTES EXISTING PIPELINE MARKER        |
|  | DENOTES EXISTING TESTING STATION        |
|  | DENOTES EXISTING POWER POLE             |
|  | DENOTES EXISTING GUY WIRE               |
|  | DENOTES EXISTING CONTOUR                |
|  | DENOTES PROPOSED CONTOUR                |
|  | DENOTES BOUNDARY LINE                   |
|  | DENOTES EXISTING LOT LINE               |
|  | DENOTES EXISTING EASEMENT LINE          |
|  | DENOTES EDGE OF ASPHALT                 |
|  | DENOTES EXISTING FENCE                  |
|  | DENOTES EXISTING FIBER OPTIC LINE       |
|  | DENOTES EXISTING SURFACE PIPELINE       |
|  | DENOTES EXISTING PIPELINE               |
|  | DENOTES EXISTING OVERHEAD ELECTRIC LINE |
|  | DENOTES EXISTING 12" WATER MAIN         |
|  | DENOTES PROPOSED WATER CAP              |
|  | DENOTES PROPOSED WATER VALVE            |
|  | DENOTES PROPOSED WATER METER            |
|  | DENOTES PROPOSED 6" WATER MAIN          |
|  | DENOTES PROPOSED 8" WATER MAIN          |
|  | DENOTES PROPOSED 12" WATER MAIN         |

**ENGINEER'S UTILITY NOTES:**

- CONTRACTOR TO VERIFY ALL EXISTING UTILITY TIE-IN CONNECTIONS AND VERIFY LOCATION AND ELEVATION PRIOR TO CONSTRUCTION.
- CONTRACTOR TO BUILD SEWER FROM TIE-IN POINT (A.K.A. DOWNHILL) AND PROCEED UPHILL.
- CITY OF MIDLAND TO BE NOTIFIED 48 HOURS BEFORE ANY CONSTRUCTION BEGINS.
- PIPE DEFLECTION IS TO BE PER MANUFACTURER'S RECOMMENDATIONS OR PER CITY REQUIREMENTS, WHICHEVER ALLOWS THE LESSER AMOUNT OF DEFLECTION.
- ALL UTILITIES TO BE INSTALLED PER TEXAS ADMINISTRATIVE CODE (TAC) STANDARD SEPARATION SPECIFICATIONS.
- IF THE WASTEWATER IS SDR35 D214 WITH A MINIMUM SEPARATION OF 2' THAN ENCASEMENT IS NOT REQUIRED. IF THERE IS LESS THAN 2' VERTICAL SEPARATION THAN THE WASTEWATER LINE NEEDS TO BE SDR35 D214 AND ENCASED.
- EXCEPTIONS OR DEVIATIONS FROM THE ABOVE MINIMUM CLEARANCES MUST BE APPROVED AND SHOWN ON THE APPROVED WATER AND WASTEWATER PLANS. WHEN UTILITY CONFLICTS ARE FOUND DURING CONSTRUCTION, ALL CHANGES AND REVISIONS MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- ANY AND ALL MORE STRINGENT REQUIREMENTS REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- ALL CONSTRUCTION IN THE RIGHT OF WAY IS TO CONFORM TO THE CITY OF MIDLAND STANDARDS.
- ALL CONSTRUCTION ON SITE IS TO CONFORM TO MAVERICK ENGINEERING NOTES AND DETAIL SHEETS.
- CONCRETE OR ASPHALT DAMAGED DURING THE COURSE OF CONSTRUCTION IS TO BE REMOVED AND REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE ENGINEER OR THE CITY OF MIDLAND PRIOR TO FINAL INSPECTION.
- WASTEWATER IS TO BE PVC-SDR-35 UNLESS NOTED OTHERWISE.
- WATER MAIN IS TO BE C-900 PVC PIPE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS TO PROVIDE ALL THRUST BLOCKING AT ALL FITTINGS AND BENDS AS REQUIRED. COMPLY WITH DETAILS IN THE CITY OF MIDLAND'S DESIGN & CONSTRUCTION STANDARDS.
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- ANY PROPOSED GAS LINES SHOWN ARE FOR SCHEMATIC PLANNING PURPOSES ONLY. ACTUAL GAS LINE ROUTES ARE TO BE NEGOTIATED BETWEEN THE CONTRACTOR AND THE GAS UTILITY PROVIDER. MAVERICK ENGINEERING DOES NOT ENGAGE IN GAS LINE DESIGN. PLEASE CONSULT WITH YOUR M.E.P. PLAN PROVIDER AND GAS UTILITY PROVIDER FOR GAS LINE DESIGN.
- CONTRACTORS PERFORMING ANY WORK ON, EXTENSIONS OF, OR CONNECTIONS TO ANY PUBLIC WATER, WASTEWATER, OR UNDERGROUND STORM DRAIN SYSTEM MUST FIRST PROVIDE DOCUMENTATION TO THE CITY OF MIDLAND SHOWING THAT THE CONTRACTOR POSSESSES ACTIVE LICENSES THAT ARE EQUIVALENT TO, OR HIGHER THAN:
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- INSTALL 8" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL 6" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL METALLIC TRACER TAPE. CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATION.
- INSTALL 6x12" TAPPING SLEEVE AND VALVE PER CITY OF MIDLAND DETAIL 602 ON SHEET C300.
- INSTALL 1 EA. 12"x12" TEE, MxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 2 EA. 12" GATE VALVE WITH VALVE BOX MxM AND 1 EA. 6" GATE VALVE WITH VALVE BOX MxM AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- CONTRACTOR TO ADJUST VALVE BOX AND COVER TO FINAL GRADE.
- INSTALL 1 EA. 6" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 8" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 12" 45° BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 616 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12" 45° VERTICAL BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 612 AND 613 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
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- INSTALL 24" STEEL CASING, 0.25" MINIMUM WALL THICKNESS PER CITY OF MIDLAND DETAIL 805 ON SHEET C300, AND DETAIL C308 ON SHEET C300.
- INSTALL 1 EA. 8"x8" TEE, MxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
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- INSTALL 1 EA. 8"x8" TEE, MxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 WITH 2" WATER METER SERVICE CONNECTION PER CITY OF MIDLAND DETAIL No. 604(A) AND 604(B) SEE SHEET C301.
- INSTALL 2 EA. 8" GATE VALVE WITH VALVE BOX MxM PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- TIE INTO PROPOSED STUB OUT.
- BEGIN / END WATER MAIN PIPE DEFLECTION. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 2" WATER METER PER CITY OF MIDLAND DETAILS 604(A) & 604(B) ON SHEET C301.

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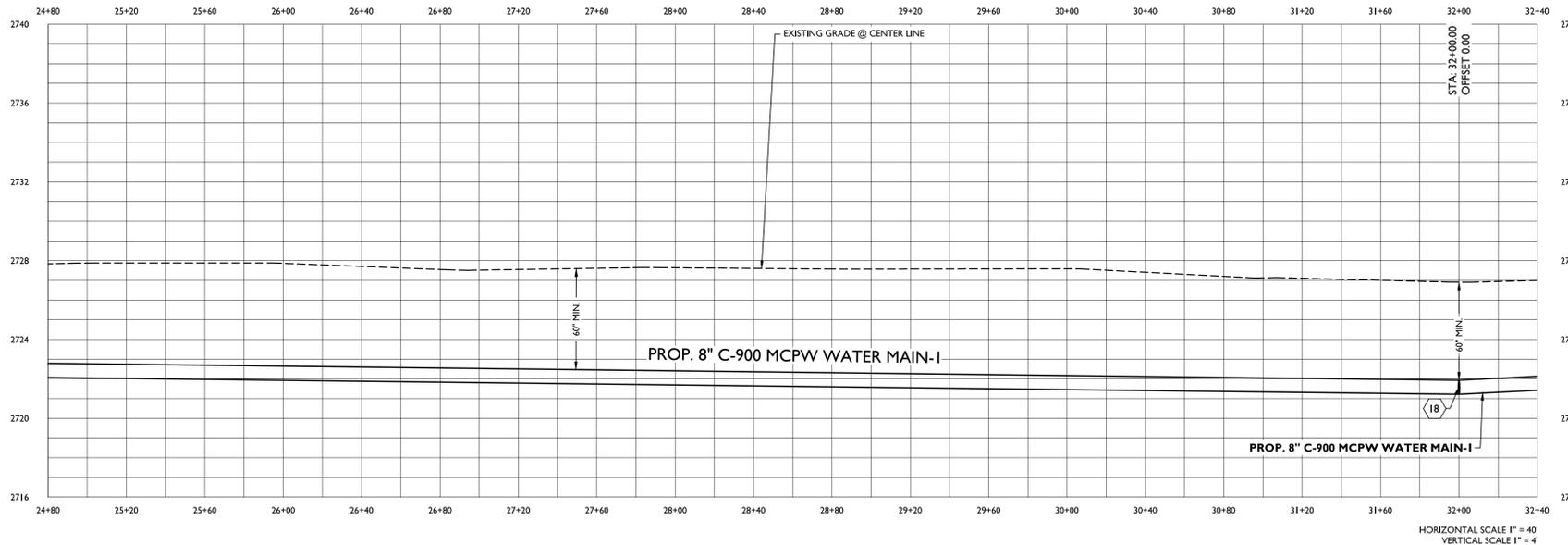
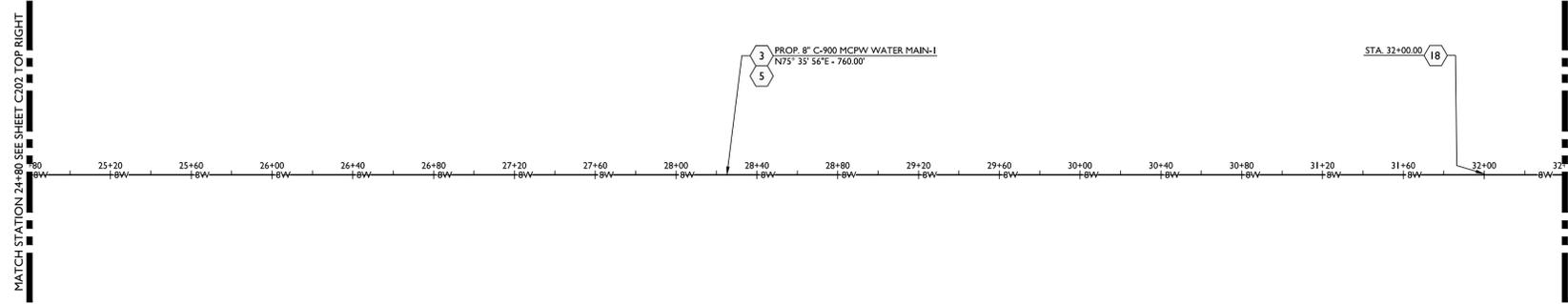


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TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND PORTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS





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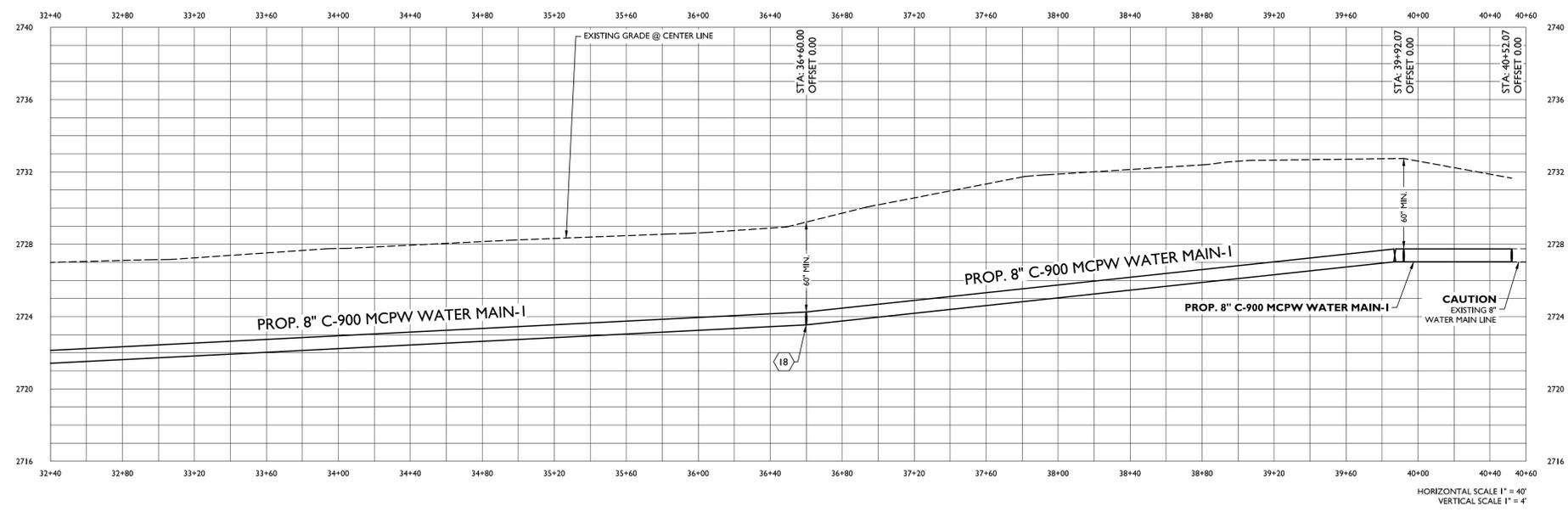
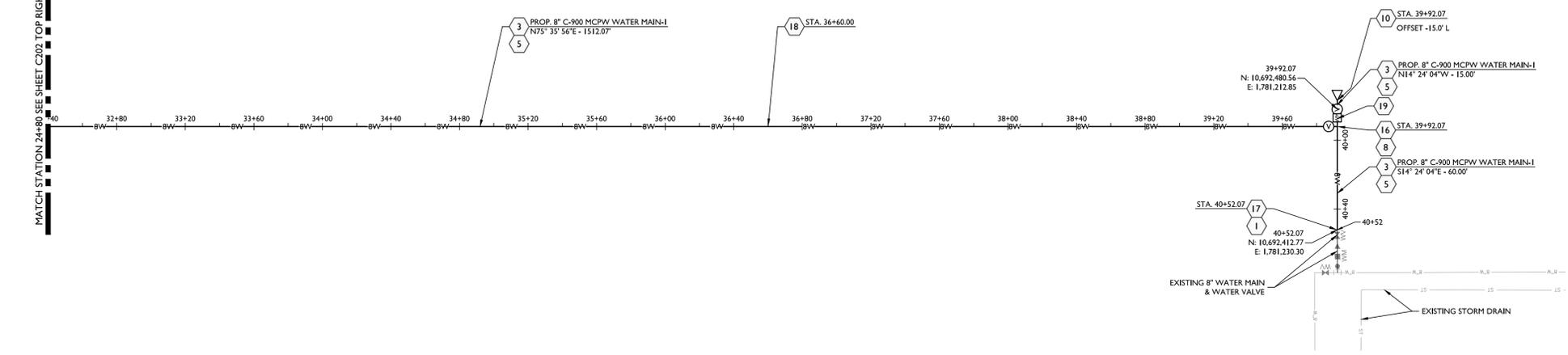


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F:\2024\140024-BURNS ARCHITECTURE-REGIONAL SE WASTE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION\PLANS\240024 C203 WM-1 P&P.DWG © COPYRIGHT 2024, ALL RIGHTS RESERVED

MATCH STATION 24+80 SEE SHEET C202 TOP RIGHT



**LEGEND**

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- THE CONTRACTOR IS TO KEEP ALL EXISTING WATER AND WASTEWATER MAINS IN SERVICE DURING CONSTRUCTION.
- ANY PROPOSED GAS LINES SHOWN ARE FOR SCHEMATIC PLANNING PURPOSES ONLY. ACTUAL GAS LINE ROUTES ARE TO BE NEGOTIATED BETWEEN THE CONTRACTOR AND THE GAS UTILITY PROVIDER. MAVERICK ENGINEERING DOES NOT ENGAGE IN GAS LINE DESIGN. PLEASE CONSULT WITH YOUR M.E.P. PLAN PROVIDER AND GAS UTILITY PROVIDER FOR GAS LINE DESIGN.
- CONTRACTORS PERFORMING ANY WORK ON, EXTENSIONS OF, OR CONNECTIONS TO ANY PUBLIC WATER, WASTEWATER, OR UNDERGROUND STORM DRAIN SYSTEM MUST FIRST PROVIDE DOCUMENTATION TO THE CITY OF MIDLAND SHOWING THAT THE CONTRACTOR POSSESSES ACTIVE LICENSES THAT ARE EQUIVALENT TO, OR HIGHER THAN:
  - A "WATER OPERATOR D" LICENSE AND
  - EITHER A "WASTEWATER D" LICENSE OR A "CLASS 1 COLLECTIONS" LICENSE

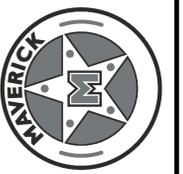
BOTH OF THESE LICENSES MUST BE ACTIVE AND MAINTAINED WHILE THE CONTRACTOR PERFORMS ANY WORK RELATED TO PUBLIC UTILITY CONNECTIONS. IF A CONTRACTOR ALLOWS EITHER OR BOTH OF THE REQUIRED LICENSES TO Lapse AT ANY TIME DURING THE COURSE OF THE PROJECT WORK DESCRIBED IN THIS NOTE, THEN ALL WORK UNDER THE PROJECT IS TO BE HALTED. WORK IS NOT TO RESUME UNTIL ADEQUATE DOCUMENTATION OF THE RENEWED LICENSES (OR NEW, PROPERLY LICENSED CONTRACTOR) ARE PROVIDED TO THE CITY OF MIDLAND.

**WATER MAIN CONSTRUCTION NOTES:**

- CAUTION: CONTRACTOR TO VERIFY UTILITY SIZE, LOCATION, ELEVATION AND TYPE PRIOR TO CONSTRUCTION AND INFORM ENGINEER OF CONFLICTS.
- INSTALL 12" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL 6" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL 6" DIAMETER PVC C900 DR18 WATER MAIN LINE. WATER MAIN LINE BEDDING SHALL CONFORM TO THE CITY OF MIDLAND DESIGN AND CONSTRUCTION STANDARDS DETAIL No. 310(A) AND 310(B) SEE SHEET C300.
- INSTALL METALLIC TRACER TAPE. CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATION.
- INSTALL 6x12" TAPPING SLEEVE AND VALVE PER CITY OF MIDLAND DETAIL 602 ON SHEET C300.
- INSTALL 1 EA. 12"x12" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 2 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 1 EA. 6" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- CONTRACTOR TO ADJUST VALVE BOX AND COVER TO FINAL GRADE.
- INSTALL 1 EA. 6" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 8" CAP PER CITY OF MIDLAND DETAIL 617 ON SHEET C301.
- INSTALL 1 EA. 12" 45° BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 616 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12" 45° VERTICAL BEND WITH THRUST BLOCKING PER CITY OF MIDLAND DETAIL No. 612 AND 613 SEE SHEET C301. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 1 EA. 12"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 1 EA. 12" GATE VALVE WITH VALVE BOX MjxMj AND 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj AND PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 24" STEEL CASING, 0.25" MINIMUM WALL THICKNESS PER CITY OF MIDLAND DETAIL 805 ON SHEET C300, AND DETAIL C308 ON SHEET C300.
- INSTALL 1 EA. 8"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 SEE SHEET C301.
- INSTALL 3 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.

- INSTALL 1 EA. 8"x8" TEE, MjxFL PER CITY OF MIDLAND DETAIL No. 615 SEE SHEET C301 AND DETAIL No. 601 WITH 2" WATER METER SERVICE CONNECTION PER CITY OF MIDLAND DETAIL No. 604(A) AND 604(B) SEE SHEET C301.
- INSTALL 2 EA. 8" GATE VALVE WITH VALVE BOX MjxMj PER CITY OF MIDLAND DETAIL No. 608(A) AND 608(B) SEE SHEET C300. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- TIE INTO PROPOSED STUB OUT.
- BEGIN / END WATER MAIN PIPE DEFLECTION. DEFLECT LINE A MAXIMUM OF 5" PER FITTINGS OR 1" PER JOINTS TO ADJUST FOR HORIZONTAL AND/OR VERTICAL ALIGNMENT.
- INSTALL 2" WATER METER PER CITY OF MIDLAND DETAILS 604(A) & 604(B) ON SHEET C301.

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| REVISIONS        |  |
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| CHECKED BY: CLB  |  |
| APPROVED BY: ALM |  |
| DATE: 04/24/2024 |  |
| JOB: 240024      |  |



**MCPW WM-1 P&P**  
UTILITY CONSTRUCTION PLANS  
TEMPORARY REGIONAL SE WASTE WATER LIFT  
STATION AND PORTABLE WATER CONNECTION  
BEING 324.97 ACRE TRACT OF LAND OUT  
OF AND PART OF SECTION 4, BLOCK 38, T-2-S  
CITY OF MIDLAND, MIDLAND COUNTY, TEXAS



04/24/2024

F:\2024\140024-BURNS ARCHITECTURE-REGIONAL SE WASTE WATER CONNECTION\DRAWINGS\CIVIL CONSTRUCTION\PLANS\240024\_CDM WM-1 P&P.DWG © COPYRIGHT 2024, ALL RIGHTS RESERVED

**TRENCH ZONES:**

- ZONE A: TRENCH BACKFILL
- ZONE B: PIPE BACKFILL
- ZONE C: HAUNCHING
- ZONE D: PIPE EMBEDMENT
- ZONE E: BEDDING

**MIDLAND**  
Engineering Services

**TRENCHING AND BEDDING**

**310(B)**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**TRENCH BACKFILL NOTES:**

1. APPLIES TO ALL PIPE TYPES. (DUCTILE IRON, PVC, ETC.)
2. UTILIZE SELECT FILL BACKFILL BENEATH ALL PAVED SURFACES. NATIVE MATERIAL BACKFILL CAN ONLY BE USER FOR UNPAVED TRENCH CONDITIONS IF BACKFILL MATERIAL IS 4' SHALL AND 5' IS 15' FT.
3. NATIVE MATERIAL TO BE EXISTING EXCAVATED SOIL FROM TRENCH WITH ALL MATERIAL BROKEN DOWN ≤ 2".
4. MOISTURE CONDITION ALL BACKFILL MATERIAL PRIOR TO PLACING IN TRENCH.
5. PLACE TRENCH BACKFILL MATERIAL IN MAXIMUM 12" LOOSE LIFTS AND COMPACT TO MAXIMUM 6" COMPACTED LIFTS.
6. REFER TO CITY DETAILS 311 AND 312 FOR TRENCH PAVEMENT REPLACEMENT REQUIREMENTS.
7. PLACE LAYERS B, C, AND E FOUND ON CITY DETAIL 310(B) AS SEPARATE LAYERS.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

**MIDLAND**  
Engineering Services

**TRENCHING AND BEDDING**

**310(A)**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

| APPROVED COMPONENT LIST |                   | VALVE BOX                        |  |
|-------------------------|-------------------|----------------------------------|--|
| NO.                     | VALUES            | VALVE COVERS                     | VALVE BOX                              |
| 1                       | MUELLER 2360 MU   | MUELLER 2360 FL X FL 360" SHORTY | BASS & HAYS STANDARD OR APPROVED EQUAL |
| 2                       | M & H 4087 MU     | M & H 4087-0                     | OR APPROVED EQUAL                      |
| 3                       | CLW 2838 MU       | CLW 2840 FL X FL                 | OR APPROVED EQUAL                      |
| 4                       | OR APPROVED EQUAL | OR APPROVED EQUAL                | OR APPROVED EQUAL                      |

| VALVE BLOCKING CHART |           |
|----------------------|-----------|
| PIPE SIZE            | VALVE BOX |
| 4"                   | 5.0"      |
| 6"                   | 6.5"      |
| 8"                   | 8.5"      |
| 10"                  | 10.5"     |
| 12"                  | 12.5"     |

**NOTES:**

1. FOR VALVES ON WATER MAIN PIPES LARGER THAN 12" SEE CITY DETAIL 608.
2. SETTING VALVE BOX TO GRADE MAY REQUIRE ADDING PVC PIPE IF ADDITIONAL PIPE IS REQUIRED. USE BELL SECTION WITH GASKET AND SET BELL DOWN OVER EXISTING PIPE RISER. A GASKETED SELF-CENTERING COLLAR MAY BE USED IN LIEU OF THE BELL SECTION.
3. CONCRETE RING TO BE CITY OF MIDLAND CLASS "C", 3600 PSI, UNLESS OTHERWISE NOTED.
4. USE FIBER REINFORCEMENT FOR ALL CONCRETE, WHETHER PAVEMENT OR THRUST BLOCKING.
5. 12" MINIMUM FOR CONCRETE RING IN AN ARTERIAL ROADWAY.
6. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) REQUIRED BENEATH ALL CONCRETE RINGS.
7. FLOWABLE FILL 2-SACK (2 SACK = 188 LBS/CY, PORTLAND CEMENT) REQUIRED FOR ALL OVER EXCAVATION BACKFILL.
8. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
9. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

**MIDLAND**  
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**TYPICAL VALVE AND VALVE BOX DETAILS**

**608(B)**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**CROSS SECTION VIEW**

**NOTES:**

1. CASING PIPE TO BE MINIMUM TWO (2) NOMINAL SIZES LARGER IN DIAMETER THAN CARRIER PIPE.
2. CASING PIPE TO BE NO LESS THAN 12" DIAMETER PIPE. 12" 1/2" DIAMETER CASING PIPE MAY BE STEEL OR PVC PIPE. CASING PIPE LARGER THAN 14" DIAMETER MUST BE STEEL PIPE. STEEL CASING PIPE TO BE MINIMUM 1/4" WALL THICKNESS. PVC CASING PIPE TO BE SDR-26 D2241 OR C900.
3. CASING PIPE TO BE STEEL OR PVC.
4. WATER TIGHT END SEAL TO BE GROUT OR APPROVED MANUFACTURED SEAL.
5. CASING SPACERS TO BE PIPE OR APPROVED EQUAL. MINIMUM FOUR (4) EQUALLY SPACED RUNNERS, WITH BAND CLAMP JOINT LOCATED AT SPRINGLINE. SPACERS FOR CASING PIPE LARGER THAN 24" DIAMETER REQUIRE MINIMUM SIX (6) EQUALLY SPACED RUNNERS.
6. CASING INSTALLED IN OPEN TRENCH IS TO BE BACKFILLED PER CURRENT CITY STANDARDS FOR AN ENCASED MAIN.
7. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
8. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

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**TYPICAL PIPE CASING DETAIL**

**805**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**NOTES:**

ALL THRUST BLOCKING TO BE CLASS 3 CONCRETE. CLASS 3 CONCRETE TO BE PLACED AGAINST UNDISTURBED EARTH. VALVE TO BE POLYWRAPPED AND SET AT SUBGRADE UNDER PAVEMENT OR 6" BELOW FINISHED SURFACE FOR AN UNPAVED SURFACE. (SEE VALVE BLOCKING CHART, CITY DETAIL 608(B))

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**TYPICAL VALVE AND VALVE BOX**

**608(A)**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**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**  
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**STANDARD MULTI-FAMILY & COMMERCIAL WATER SERVICE MANIFOLD**

**602**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**NOTES:**

1. SEE CITY DETAIL 608 FOR NEW PETROLEUM OR NATURAL GAS LINE REQUIREMENTS AT WATER MAIN CROSSINGS. REQUIREMENTS FOR WATER MAINS CROSSING WITH PETROLEUM OR NATURAL GAS LINES ARE THE SAME AS WHEN THEY ARE CROSSING WASTEWATER MAINS UNLESS STATED OTHERWISE IN CITY DETAIL 608.
2. IF AN EXISTING PETROLEUM OR NATURAL GAS LINE PRESENTS A PUBLIC ROW OR EASEMENT THAT THE WATER MAIN IS LOCATED IN THEN THE WATER MAIN DESIGN AND CONSTRUCTION MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS AS PER THE PETROLEUM OR NATURAL GAS LINE OWNERS STANDARDS.
3. PETROLEUM OR NATURAL GAS LINES AND MUST BE LOCATED AT LEAST 30" FROM ALL WATER MAINS IN ALL DIRECTIONS. IF THIS IS NOT POSSIBLE THEN AN ENGINEERING REPORT IS REQUIRED PER CITY DETAIL 608 FOR PETROLEUM OR NATURAL GAS LINES.
4. THIS DETAIL IS INTENDED TO COMPLY WITH TAC 217.2530 AND TAC 280.46. IF TAC AND THIS DETAIL DIFFER THEN THE MORE RESTRICTIVE STANDARD GOVERNS.
5. CENTER NEW WATER MAIN PIPE SEGMENT ON CROSSING SO THAT ALL PIPE SEGMENT JOINTS ARE EQUIDISTANT AND AT LEAST 8" FROM THE CENTERLINE OF THE CROSSING.
6. WATER MAIN TO CROSS PETROLEUM OR NATURAL GAS LINE AT 90° ANGLE.
7. SEE CITY DETAIL 608 FOR PETROLEUM OR NATURAL GAS LINE REQUIREMENTS AT WATER MAIN CROSSINGS. REQUIREMENTS FOR WATER MAINS CROSSING WITH PETROLEUM OR NATURAL GAS LINES TO BE LESS THAN 24" DIAMETER TO BE LESS THAN 24".
8. VERTICAL SEPARATION DIMENSIONS TO BE MEASURED FROM OUTER EDGE OF ALL PIPE ENCASEMENTS.
9. MATERIALS AND CONSTRUCTION METHODS TO CONFORM TO CITY OF MIDLAND STANDARDS AND SPECIFICATIONS.
10. CONSTRUCT AS SHOWN UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY ENGINEER.

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**NEW WATER MAIN CROSSING PETROLEUM AND NATURAL GAS LINE**

**308**

DRAWN: DPM  
EFFECTIVE DATE: 10/01/2018

CHECKED: JCF

APPROVED: MCC

SCALE: NTS

DETAIL:

**UTILITY DETAILS**

UTILITY CONSTRUCTION PLANS  
TEMPORARY REGIONAL SE WASTE WATER LIFT STATION AND PORTABLE WATER CONNECTION BEING 324.97 ACRE TRACT OF LAND OUT OF AND PART OF SECTION 4, BLOCK 38, T-2-S CITY OF MIDLAND, MIDLAND COUNTY, TEXAS

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