

SANITARY SEWER CONSTRUCTION NOTES

- ALL SANITARY SEWER LINE CONSTRUCTION SHALL CONFORM TO STANDARDS DEFINED BY LUMBERTON MUNICIPAL UTILITY DISTRICT SPECIFICATIONS FOR CONSTRUCTION 2008.
- ALL SANITARY SEWER LINES SHALL BE POLYVINYL CHLORIDE (P.V.C.) ASTM 3034, SDR 26 PIPE UNLESS OTHERWISE NOTED.
- ALL EIGHT-INCH (8") SANITARY SEWER LINES SHALL BE PLACED WITH A MINIMUM SLOPE OF 0.33%.
- ALL FOUR-INCH (4") SANITARY SEWER LINES SHALL BE PLACED WITH A MINIMUM SLOPE OF 1.00%.
- ALL SANITARY SEWER LINES SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH CLASS "C" BEDDING DETAIL AS SHOWN ON CONSTRUCTION DETAILS.
- EXCEPT AS OTHERWISE SHOWN, ALL SANITARY SEWER TRENCHES UNDER OR ADJACENT TO EXISTING OR PROPOSED PAVEMENT AND TO A POINT FIVE (5) FEET BACK OF CURBS SHALL BE BACKFILLED COMPLETELY WITH 1-1/2 SACK/CY CEMENT STABILIZED SAND TO BOTTOM OF PAVEMENT SUBGRADE. INCLUDE COST OF BACKFILL IN UNIT PRICE BID PER LINEAR FOOT OR PIPE.
- ALL CLEANOUTS AND WYES SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON PLANS.
- WATER UTILIZED FOR TESTING PURPOSES OR WHICH MAY HAVE INFILTRATED THE SEWER LINES SHALL BE PUMPED OUT AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL INSPECTION AT NO SEPARATE PAY.
- PLUMBING CONTRACTOR TO MAKE SEWER TAP TO CITY SPECIFICATION AND BE INSPECTED BY THE CITY OF LUMBERTON.

WATERLINE CONSTRUCTION NOTES

- ALL WATER LINE CONSTRUCTION SHALL CONFORM TO STANDARDS DEFINED BY LUMBERTON MUNICIPAL UTILITY DISTRICT SPECIFICATIONS FOR CONSTRUCTION 2008.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING WATER LINES LOCATED WITHIN THE PROJECT AREA.
- WATER LINE TRENCHES UNDER PAVEMENT OR WITHIN FIVE (5) FEET BACK OF CURBS TO BE BACKFILLED WITH HAND-TAMPED BANKSAND TO A POINT ONE (1) FOOT ABOVE THE TOP PIPE, THEN WITH CEMENT STABILIZED SAND (1-1/2 SACK/CY) TO BOTTOM OF PAVEMENT SUBGRADE. ALL WATER LINES SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH CLASS "C" BEDDING DETAIL AS SHOWN ON CONSTRUCTION DETAILS.
- NO SEPARATE PAY FOR PIPE BEDDING OR BACKFILL; INCLUDE THIS COST IN CONTRACT PRICE FOR PIPE.
- EIGHT-INCH (8") WATER LINE SHALL BE POLYVINYL CHLORIDE (P.V.C.) C900 CLASS 150 PRESSURE PIPE.
- ONE-INCH (1") WATER LINE SHALL BE SDR 9 HDPE PRESSURE PIPE.
- WATER LINE FITTINGS SHALL BE CEMENT LINED ACCORDING TO AWWA C-104 OR DUCTILE IRON, CONFORM TO AWWA C-110 AND SHALL BE MECHANICAL JOINT.
- ALL GATE VALVES SHALL BE AMERICAN 80 CRS GATE VALVES OR DISTRICT APPROVED EQUAL.
- WATER LINES TO HAVE MINIMUM COVER OF 4'-0" BELOW FINISHED TOP OF GRADE, VARY FLOW LINE UNIFORMLY TO DEPTHS AND LOCATIONS SHOWN ON PLANS.
- CONTRACTOR SHALL PROVIDE VALVE BOX EXTENSIONS WHERE REQUIRED TO CONSTRUCT VALVE BOXES FLUSH WITH PROPOSED GRADES AS SHOWN, AT NO SEPARATE PAY.
- CONTRACTOR TO PROVIDE ADEQUATE CONCRETE THRUST BLOCKING TO WITHSTAND TEST PRESSURES OR TO PROVIDE FITTINGS WITH RESTRAINED JOINTS.
- ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
- ALL PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 150 PSI.
- WATER LINES SHALL BE INSTALLED TO THE ALIGNMENT SHOW ON THE PLANS. FIELD ADJUSTMENTS TO THE ALIGNMENTS MAY BE NECESSARY TO AVOID UNKNOWN OBSTRUCTIONS.
- CONNECTIONS TO CITY WATER MAINS SHALL BE PERFORMED BY THE CITY OF LUMBERTON. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST FOR THIS WORK AND SHALL COORDINATE HIS WORK WITH THE CITY. UNLESS SPECIFICALLY SHOWN, COST OF TIE IN SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF WATER LINE.
- ALL WATER MAINS (AND FIRE LINES, IF ANY) WILL BE HYDROSTATICALLY TESTED PRIOR TO ACCEPTANCE BY CITY.
- BACTERIOLOGICAL AND PRESSURE TESTING ARE REQUIRED. THE WATER UTILITIES CONSTRUCTION INSPECTOR SHALL BE GIVEN 24 HOUR NOTIFICATION PRIOR TO TESTING.
- ALL HYDRANTS SHALL BE DARLING B-84-B OR DISTRICT APPROVED EQUAL WITH STORZ CONNECTION.

PAVING CONSTRUCTION NOTES

- ALL VEGETATION AND TOPSOIL SHALL BE REMOVED PRIOR TO ANY PAVING CONSTRUCTION.
- ALL SUBGRADE SHALL BE PROOF-ROLLED WITH A PNEUMATIC-TYPE ROLLER TO DETECT WEAK AREA. ALL SUBGRADE CAN BE MOISTURE CONDITIONED AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY (ASTM D698), AT OPTIMUM MOISTURE CONTENT, PLUS 3% OR MINUS 2%. (AS DESCRIBED IN GEOTECHNICAL REPORT NO. 40947 BY TOLLUNAY-WONG ENGINEERS, INC.
- REINFORCING STEEL TO BE PLACED 1/2 FROM BOTTOM OF SLAB AND SUPPORTED ON CHAIRS WHICH WILL ADEQUATELY SUPPORT IT DURING CONSTRUCTION.
- ALL DOWELS USED FOR EXPANSION JOINTS AND CONSTRUCTION JOINTS MUST BE SUPPORTED ADEQUATELY SO THAT THEIR POSITION WILL BE MAINTAINED DURING CONSTRUCTION.
- T.C. INDICATES TOP OF CURB ELEVATIONS AND T.P. INDICATES TOP OF PAVEMENT ELEVATIONS.
- ALL JOINTS SHALL BE SEALED WITH A TxDOT 2004 DMS-6310, CLASS 5 SEALANT.
- ALL SUBGRADE SHALL BE PROOF ROLLED PRIOR TO LIME STABILIZATION. ANY SOFT AREAS FOUND SHALL BE EXCAVATED AND BACKFILLED WITH AN APPROVED FILL MATERIAL AND COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY.
- SIDEWALKS AND WHEEL CHAIR RAMPS SHALL BE CONSTRUCTED AS SHOWN ON PLANS.
- WHERE WATER VALVES FALL WITHIN LIMITS OF SIDEWALK, ADJUST VALUE BOXES TO BE FLUSH WITH SIDEWALK SURFACE.

SEPARATION DISTANCES

THE FOLLOWING RULES APPLY TO SEPARATION DISTANCE BETWEEN POTABLE WATER AND WASTEWATER TREATMENT PLANTS, AND WATERLINES AND SANITARY SEWERS.

(A) WATER LINE/NEW SEWER LINE SEPARATION. WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATER LINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY:

- WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.
- WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 6 INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.
- WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKET JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF THE WATERLINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE THE TOP OF THE PIPE.
- WHERE A SEWER CROSSES OVER A WATERLINE ALL PORTION OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 5 FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.

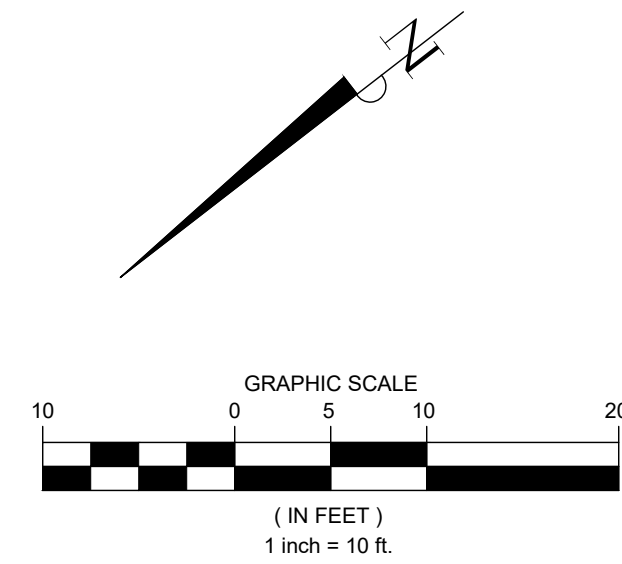
(B) WATER LINE/MANHOLE SEPARATION. UNLESS SANITARY SEWER MANHOLE THE CONNECTING SEWER CAN BE MADE WATERTIGHT AND TESTED FOR NO LEAKAGE, THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATERLINE. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, A CARRIER PIPE AS DESCRIBED IN SUBSECTION (A) (4) OF THIS SECTION MAY BE USED WHERE APPROPRIATE.

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- ALL FOUR-INCH (4") SANITARY SEWER LINES SHALL BE PLACED WITH A MINIMUM SLOPE OF 1.00%.
- ALL SANITARY SEWER LINES SHALL BE BEDDED AND BACKFILLED IN ACCORDANCE WITH CLASS "C" BEDDING DETAIL AS SHOWN ON CONSTRUCTION DETAILS.
- EXCEPT AS OTHERWISE SHOWN, ALL SANITARY SEWER TRENCHES UNDER OR ADJACENT TO EXISTING OR PROPOSED PAVEMENT AND TO A POINT FIVE (5) FEET BACK OF CURBS SHALL BE BACKFILLED COMPLETELY WITH 1-1/2 SACK/CY CEMENT STABILIZED SAND TO BOTTOM OF PAVEMENT SUBGRADE. INCLUDE COST OF BACKFILL IN UNIT PRICE BID PER LINEAR FOOT OR PIPE.
- ALL CLEANOUTS AND WYES SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON PLANS.
- WATER UTILIZED FOR TESTING PURPOSES OR WHICH MAY HAVE INFILTRATED THE SEWER LINES SHALL BE PUMPED OUT AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL INSPECTION AT NO SEPARATE PAY.
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STORM SEWER CONSTRUCTION NOTES

- ALL RCP STORM SEWER SHALL BE A.S.T.M., C-76, CLASS III, REINFORCED CONCRETE PIPE, INSTALLED WITH CLASS "A" BEDDING AS SHOWN ON PLANS.
- ALL POLYETHYLENE STORM SEWER SHALL BE ADS N-12 PIPE WITH GASKETED JOINTS (OR APPROVED EQUAL), INSTALLED WITH CLASS "A" BEDDING AS SHOWN ON PLANS. NYLOPLAST DRAIN BASINS SHALL BE USED WHERE POSSIBLE.
- ALL STORM SEWER TRENCHES AND STRUCTURES UNDER OR ADJACENT TO EXISTING OR PROPOSED PAVEMENT, AND TO A POINT FIVE (5) FEET BACK OF CURBS, SHALL BE BACKFILLED COMPLETELY WITH 1-1/2 SACK/CY CEMENT STABILIZED SAND TO BOTTOM OF PAVEMENT SUBGRADE. INCLUDE COST OF BACKFILL IN UNIT PRICE BID PER LINEAR FOOT OF PIPE.



TEMPORARY BENCHMARK "A": ELEV: 38.51'

BEING A RAILROAD SPIKE EMBEDDED IN A POWER POLE. IT IS LOCATED ±110' FROM THE NORTHWESTERN CORNER OF THE PROPERTY. IT IS ALSO LOCATED ±90' FROM THE NORTHEASTERN CORNER OF THE PROPERTY.

TEMPORARY BENCHMARK "B": ELEV: 39.74'

BEING THE SOUTHWESTERN CORNER OF A STORM SEWER MANHOLE. IT IS LOCATED ±60' FROM THE SOUTHWESTERN CORNER OF THE PROPERTY. IT IS ALSO LOCATED ±135' FROM THE SOUTHEASTERN CORNER OF THE PROPERTY.

FLOOD STATEMENT:

THIS PROPERTY LIES WITHIN ZONE "X-UNSHADED". AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN PER THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 48199C0530F WHICH BEARS AN EFFECTIVE DATE OCTOBER 6, 2010.



Justin A. Schraeder

DATE	REVISION
04/10/2026	ISSUE FOR PERMIT AND BID

CONSTRUCTION PLANS FOR
NECHES FEDERAL CREDIT UNION
 - LUMBERTON BRANCH
PARKING ADDITION
 (PRIVATE ON-SITE)
 PAVING & DRAINAGE FACILITIES

299 COUNTRY LANE DRIVE,
 LUMBERTON, TEXAS 77657

GENERAL NOTES

PRO-E PROJECT NO.: 1018-0015	
SUBMITTED: SCALE: N/A 10'	DESIGNED BY: JAS
DATE: APRIL, 2026	DRAWN BY: KHL/JP
SURVEYED BY:	SHEET NO. C2 OF C9
	CITY DWG NO.: