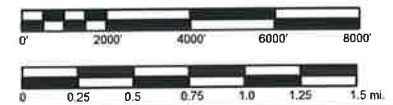


LEGEND

- EXISTING PHASE I - 2" PRESSURE SEWER
- EXISTING PHASE I - 3" PRESSURE SEWER
- EXISTING PHASE I - 4" PRESSURE SEWER
- EXISTING PHASE I - 6" PRESSURE SEWER
- EXISTING PHASE II - 2" PRESSURE SEWER
- EXISTING PHASE II - 3" PRESSURE SEWER
- EXISTING PHASE II - 4" PRESSURE SEWER
- EXISTING PHASE II - 6" PRESSURE SEWER
- PROPOSED - 4" FORCE MAIN

Service Address	Customer Name
3329 Parnell Rd.	Martha McCurry
3288 Parnell Rd.	Vacant Feb. 2023
3274 Parnell Rd.	Joe McCurry
3275 Parnell Rd.	Not Found
3247 Parnell Rd.	Carroll Gadberry
3279 Parnell Rd.	Randall McCloy
3345 Parnell Rd.	Not Found
3243 Parnell Rd.	Bill McCloy
3226 Parnell Rd.	Robert Bursey
3220 Parnell Rd.	Not Found
3212 Parnell Rd.	Vacant Feb. 2023
3214 Parnell Rd.	Not Found
3162 Parnell Rd.	Mac's General Contractors, Inc.
3110 Parnell Rd.	Brittney Hicks
3105 Parnell Rd.	Reborn Foundation, LLC
3093 Parnell Rd.	Raymond & Minnie Springer
3090 Parnell Rd.	Beulah Grove Baptist Church
3083 Parnell Rd.	Not Found
3065 Parnell Rd.	Vacant Feb. 2023
3058 Parnell Rd.	Essie Richmand
3033 Parnell Rd.	Jimmie Springer
3004 Parnell	Penny Martin
125 Dawson Lane	Vincent Dawson
2954 Parnell Rd.	Travis Dawson
2953 Parnell Rd.	Donald & Mary Jenson
2926 Parnell Rd.	Leranzo Dawson
2912 Parnell	Stacy Brock
112 Neal Rd.	Joyce Moody
2888 Parnell Rd.	Not Found



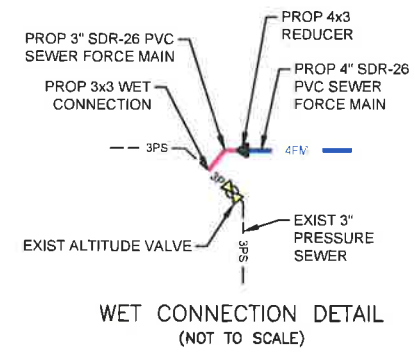
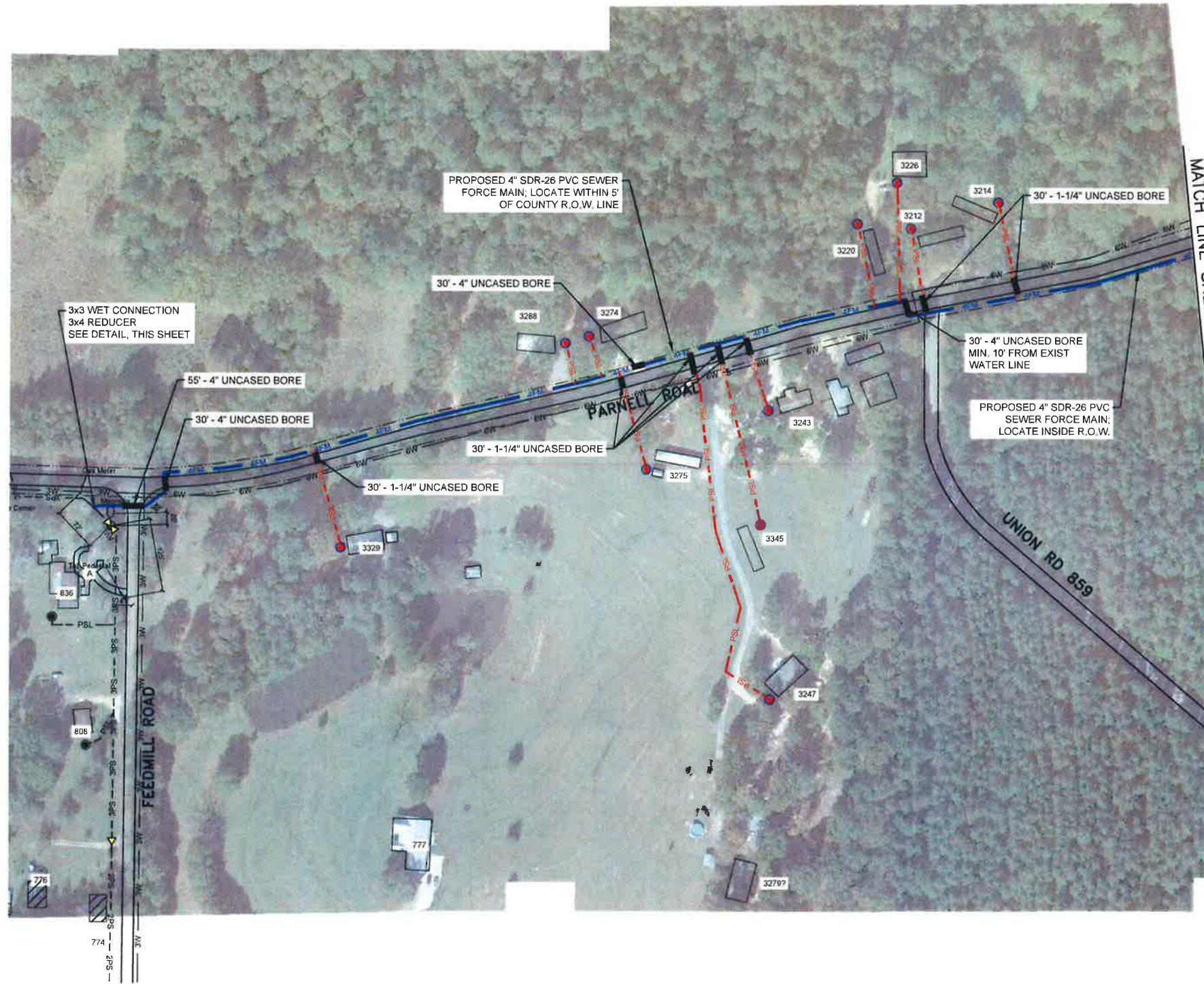
GAUNT ENGINEERS, INC.
ENGINEERS, SURVEYORS AND PLANNERS
3400 W. HILLSBORO, EL DORADO, AR 71730

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**RURAL PRESSURE SEWER SYSTEM
PARNELL ROAD FORCE MAIN
AND MISC. IMPROVEMENTS
PROJECT LAYOUT**

DESIGNED BY	PKC	CHECKED BY	
DRAWN BY	PKC	APPROVED BY	
PLOT AT 1: 2.12	DATE: 02/2024	GE JOB NO:	
SCALE	DRAWING NUMBER	REV.	
1" = 2000'	1	1	

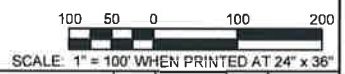
REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	REVISED CONNECTION LOCATION		02/2025		



MATCH LINE SHEET 3



- LEGEND**
- 4FM PROPOSED 4" FORCE MAIN
 - 1.25" PSL PROPOSED 1.25" PRESSURE SERVICE LATERAL
 - BORE PROPOSED BORE
 - CT PROPOSED CUSTOMER TANK
 - EASEMENT PROPOSED EASEMENT
 - 6PS EXISTING 6" FORCE MAIN
 - 3PS EXISTING 3" PRESSURE SEWER
 - 2PS EXISTING 2" PRESSURE SEWER
 - 1.25" PSL EXISTING 1.25" PRESSURE SERVICE LATERAL
 - CT EXISTING CUSTOMER TANK
 - AV EXISTING AIR AND VACUUM VALVE
 - R EXISTING REDUCER
 - WL EXISTING WATER LINE
 - GS EXISTING GRAVITY SEWER



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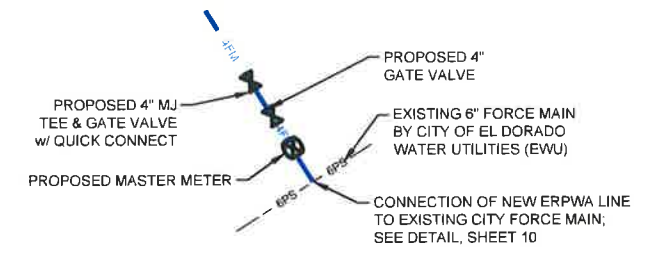
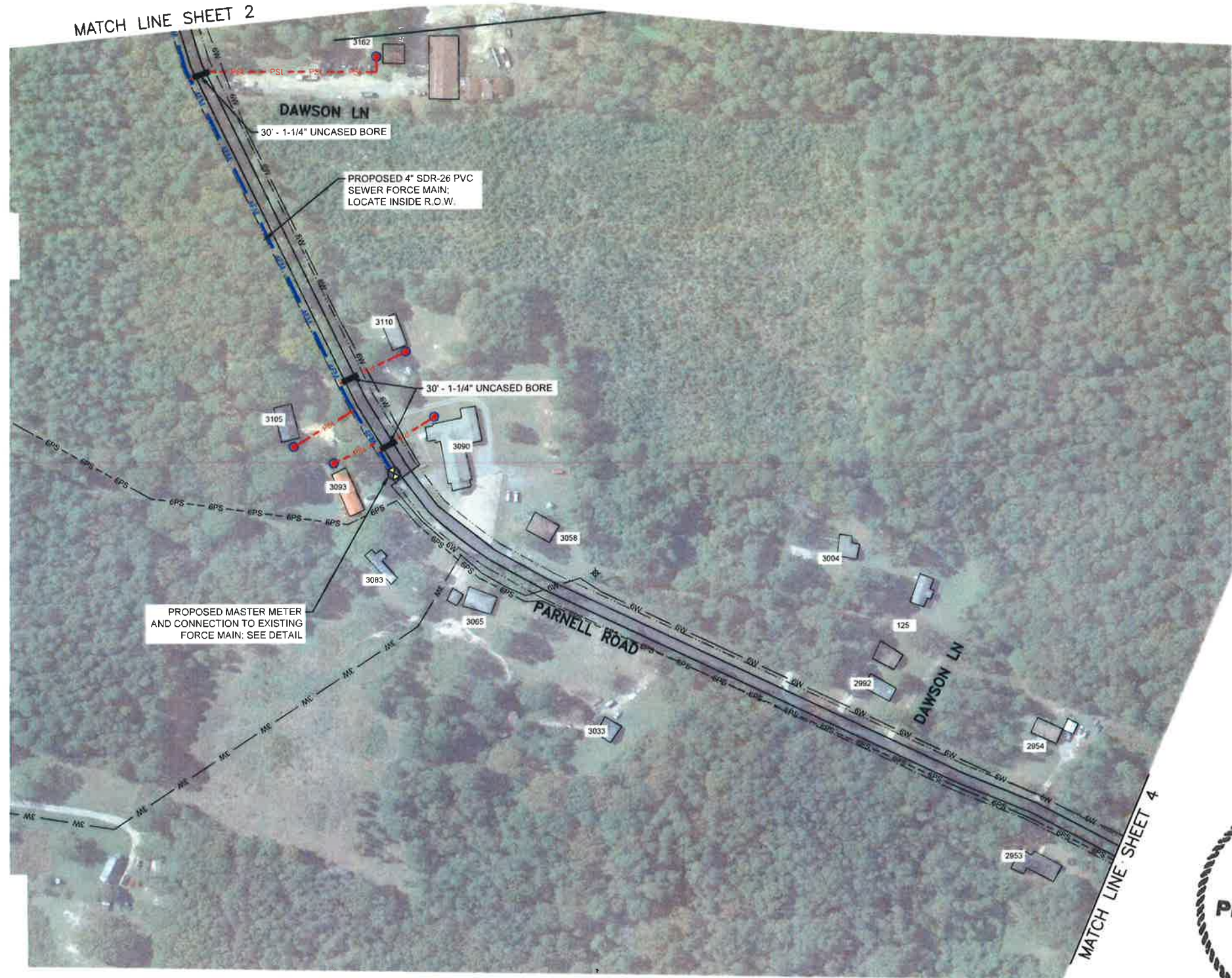
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EL DORADO RURAL PUBLIC WATER AUTHORITY
PARNELL ROAD EXTENSION PLANS

DESIGNED BY	JWD	CHECKED BY	
DRAWN BY	JWD	APPROVED BY	
PLOT AT 1: 2.12	DATE:	GE JOB NO.:	GE ITEM NO.:
SCALE	DRAWING NUMBER		REV.
1"=100'	2		

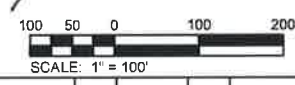
REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	MOVE LINE INSIDE R.O.W.		02-2025		

MATCH LINE SHEET 2



MASTER METER & CONNECTION DETAIL
(SEE STANDARD DETAIL, SHEET 10)
(NOT TO SCALE)

- LEGEND**
- 4FM PROPOSED 4" FORCE MAIN
 - 1.25" PSL PROPOSED 1.25" PRESSURE SERVICE LATERAL
 - BORE PROPOSED BORE
 - PROPOSED CUSTOMER TANK
 - PROPOSED EASEMENT
 - 6PS EXISTING 6" FORCE MAIN
 - 3PS EXISTING 3" PRESSURE SEWER
 - 2PS EXISTING 2" PRESSURE SEWER
 - 1.25" PSL EXISTING 1.25" PRESSURE SERVICE LATERAL
 - EXISTING CUSTOMER TANK
 - EXISTING AIR AND VACUUM VALVE
 - EXISTING REDUCER
 - EXISTING WATER LINE
 - EXISTING GRAVITY SEWER



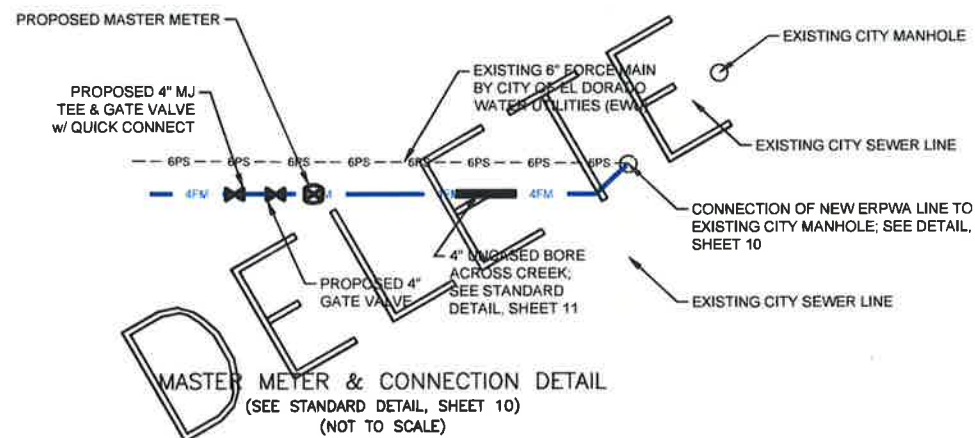
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**EL DORADO RURAL PUBLIC WATER AUTHORITY
PARNELL ROAD EXTENSION PLANS**

DESIGNED BY		CHECKED BY	
DRAWN BY	JKD	APPROVED BY	
PLAT AT 1: 2.12	DATE:	GE JOB NO:	GE ITEM NO:
SCALE	DRAWING NUMBER	REV.	
1"=100'	3		

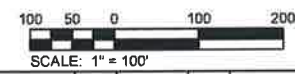
REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	END AT EXISTING FORCE MAIN		02-2025		



STATE OF
 ARKANSAS

 REGISTERED
 PROFESSIONAL
 ENGINEER
 No. 4818
 WILLIAM GAUNT
W. Gaunt
 2/30/25

- LEGEND**
- 4FM PROPOSED 4" FORCE MAIN
 - 1.25" PSL PROPOSED 1.25" PRESSURE SERVICE LATERAL
 - BORE PROPOSED BORE
 - CT PROPOSED CUSTOMER TANK
 - EASEMENT PROPOSED EASEMENT
 - 6PS EXISTING 6" FORCE MAIN
 - 3PS EXISTING 3" PRESSURE SEWER
 - 2PS EXISTING 2" PRESSURE SEWER
 - 1.25" PSL EXISTING 1.25" PRESSURE SERVICE LATERAL
 - CT EXISTING CUSTOMER TANK
 - AV EXISTING AIR AND VACUUM VALVE
 - R EXISTING REDUCER
 - W EXISTING WATER LINE
 - G EXISTING GRAVITY SEWER



REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	DELETE SECTION OF LINE		02/2025		
	REVISED MASTER METER DETAIL		01/2025		

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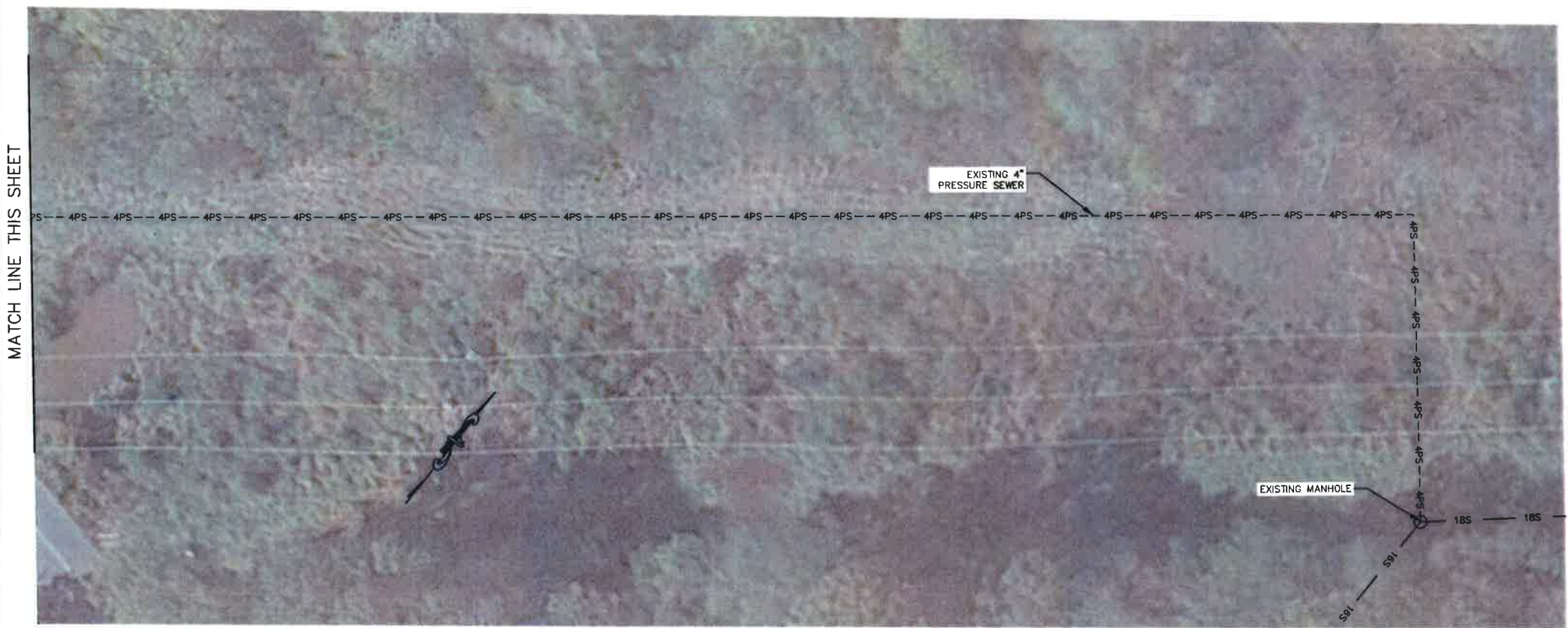
EL DORADO RURAL PUBLIC WATER AUTHORITY

PARNELL ROAD EXTENSION PLANS

DESIGNED BY	JND	CHECKED BY	
DRAWN BY		APPROVED BY	
PLOT AT 1: 2.12	DATE	GE JOB NO:	GE ITEM NO:
SCALE	DRAWING NUMBER		REV.
1"=100'	4		

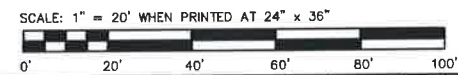


William Gaunt
1/2/2025



MATCH LINE THIS SHEET

- LEGEND**
- 3PS --- PROPOSED 3" PRESSURE SEWER LINE
 - 4PS --- PROPOSED 4" PRESSURE SEWER LINE
 - 2PS --- EXISTING 2" PRESSURE SEWER LINE
 - 3PS --- EXISTING 3" PRESSURE SEWER LINE
 - 4PS --- EXISTING 4" PRESSURE SEWER LINE
 - 6PS --- EXISTING 6" PRESSURE SEWER LINE
 - 4W --- EXISTING WATER LINE
 - BS --- EXISTING GRAVITY SEWER LINE
 - 4FM --- EXISTING SEWER FORCE MAIN
 - ⊗ --- EXISTING GATE VALVE
 - ⊗ --- EXISTING MASTER METER STATION



REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	DELETE BYPASS PIPING		01/2025		

GAUNT ENGINEERS, INC.
 ENGINEERS, SURVEYORS AND PLANNERS
 3256 W. HILLSBORO, EL DORADO, AR 71730

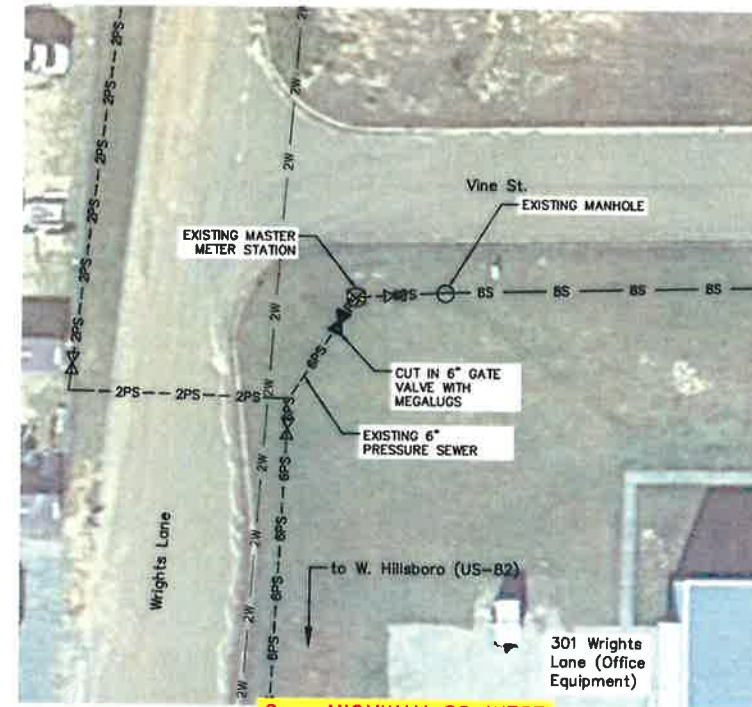
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**EL DORADO RURAL PUBLIC WATER AUTHORITY
 BYPASS LINES AROUND MASTER METERS**

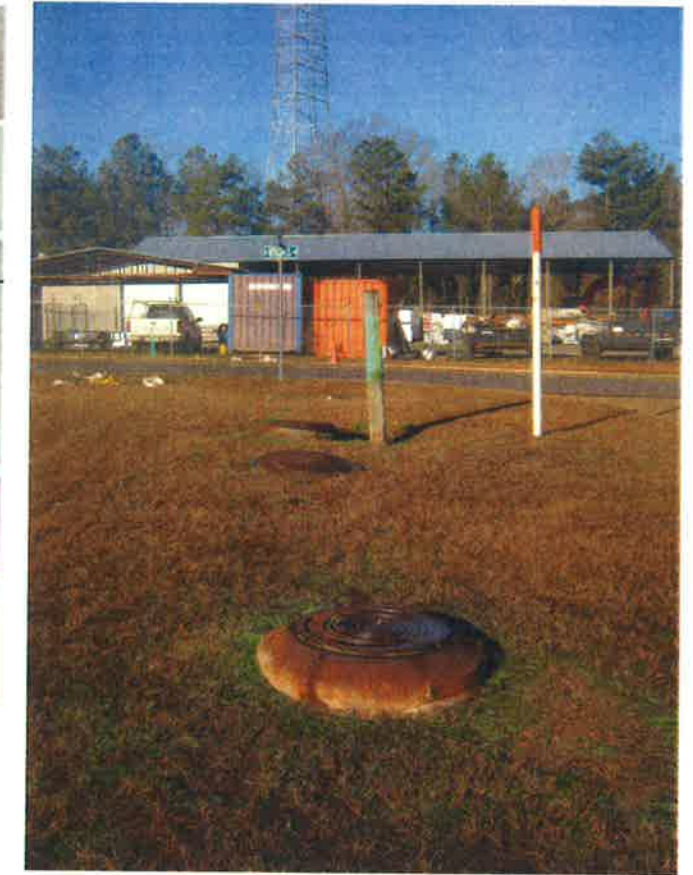
DESIGNED BY:	JED	CHECKED BY:	
DRAWN BY:		APPROVED BY:	
PLOT AT 1:	DATE: 09-12-12	GE JOB NO.:	GE ITEM NO.:
SCALE: NONE	DRAWING NUMBER: 5	REV.:	0



B - 2518 MT. HOLLY RD.



C - HIGHWAY 82 WEST AT 301 WRIGHTS LN.



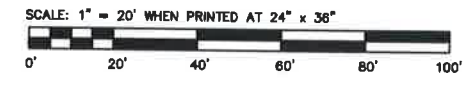
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ENGINEERS, SURVEYORS AND PLANNERS
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**EL DORADO RURAL PUBLIC WATER AUTHORITY
BYPASS LINES AROUND MASTER METERS**

DESIGNED BY	JED	CHECKED BY	
DRAWN BY		APPROVED BY	
PLOT AT 1: 2.12	DATE: 02/2024	GE JOB NO.	GE ITEM NO.
SCALE	DRAWING NUMBER	REV.	
NONE	6	0	

- LEGEND**
- 3PS --- PROPOSED 3" PRESSURE SEWER LINE
 - 4PS --- PROPOSED 4" PRESSURE SEWER LINE
 - G --- PROPOSED GATE VALVE
 - 2PS --- EXISTING 2" PRESSURE SEWER LINE
 - 3PS --- EXISTING 3" PRESSURE SEWER LINE
 - 4PS --- EXISTING 4" PRESSURE SEWER LINE
 - 6PS --- EXISTING 6" PRESSURE SEWER LINE
 - G --- EXISTING GATE VALVE
 - M --- EXISTING MASTER METER STATION
 - 4W --- EXISTING WATER LINE
 - BS --- EXISTING GRAVITY SEWER LINE
 - 4FM --- EXISTING SEWER FORCE MAIN



REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
	DELETE BYPASS PIPING		01/2025		

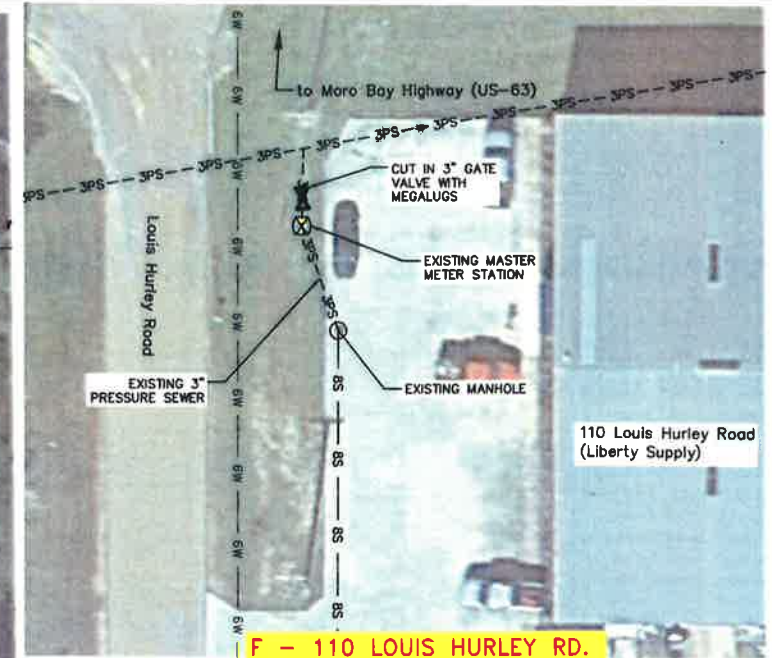
SEE SHEET 1 FOR LOCATIONS WITHIN OVERALL SYSTEM



D - 3671 JUNCTION CITY HWY.



E - 135 PONDEROSA DRIVE



F - 110 LOUIS HURLEY RD.



STATE OF ARKANSAS
 REGISTERED PROFESSIONAL ENGINEER
 No. 4818
 WILLIAM GAUNT
 [Signature]
 2/30/25



SEE SHEET 1 FOR LOCATIONS WITHIN OVERALL SYSTEM

- LEGEND**
- 3PS --- PROPOSED 3" PRESSURE SEWER LINE
 - 4PS --- PROPOSED 4" PRESSURE SEWER LINE
 - 2PS --- EXISTING 2" PRESSURE SEWER LINE
 - 3PS --- EXISTING 3" PRESSURE SEWER LINE
 - 4PS --- EXISTING 4" PRESSURE SEWER LINE
 - 6PS --- EXISTING 6" PRESSURE SEWER LINE
 - 4W --- EXISTING WATER LINE
 - BS --- EXISTING GRAVITY SEWER LINE
 - 4FM --- EXISTING SEWER FORCE MAIN
 - ⊗ --- EXISTING GATE VALVE
 - ⊗ --- EXISTING MASTER METER STATION



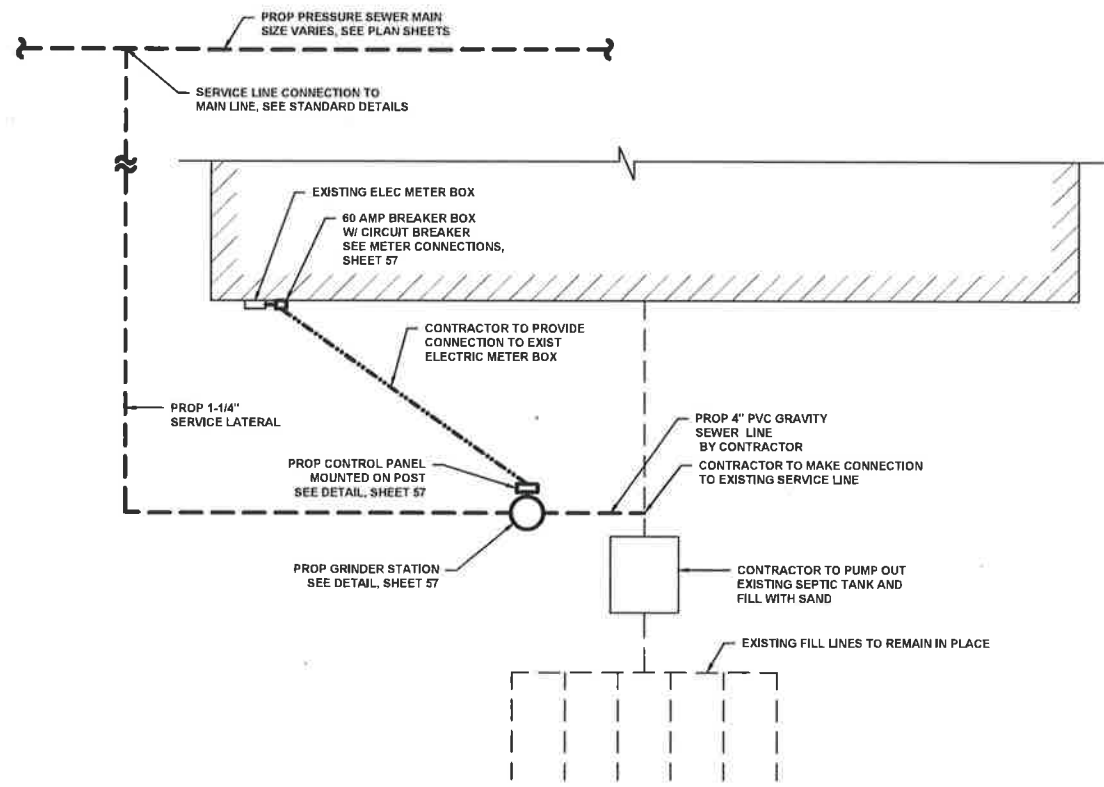
REV.	CORRECTED LINE SIZE IN CALLOUT	DESCRIPTION	CHK.	DATE	APP.	DATE

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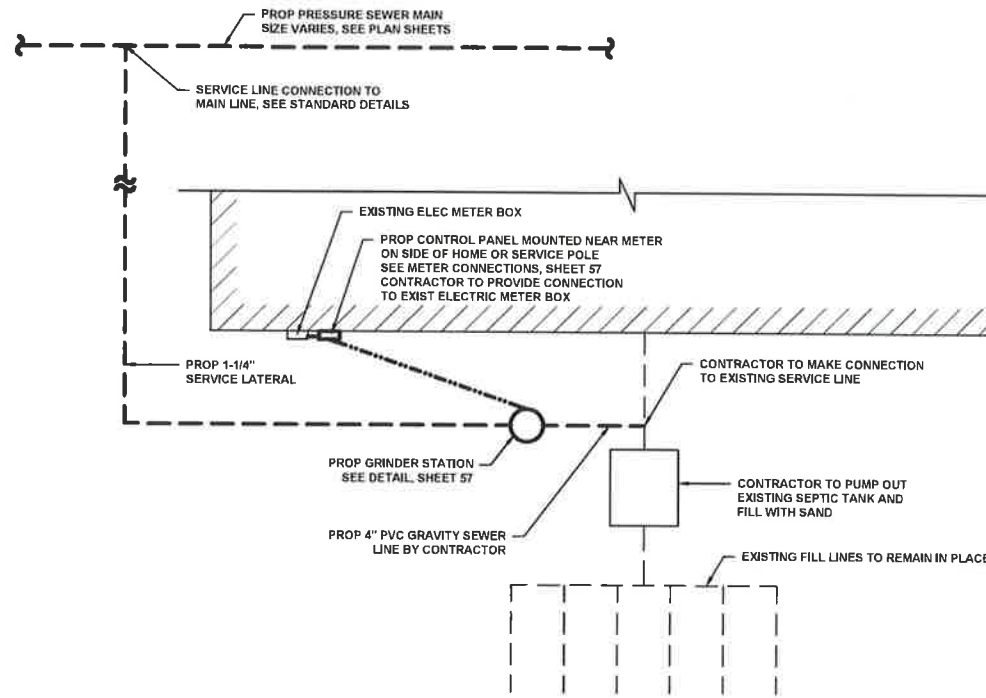
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EL DORADO RURAL PUBLIC WATER AUTHORITY
 BYPASS LINES AROUND MASTER METERS

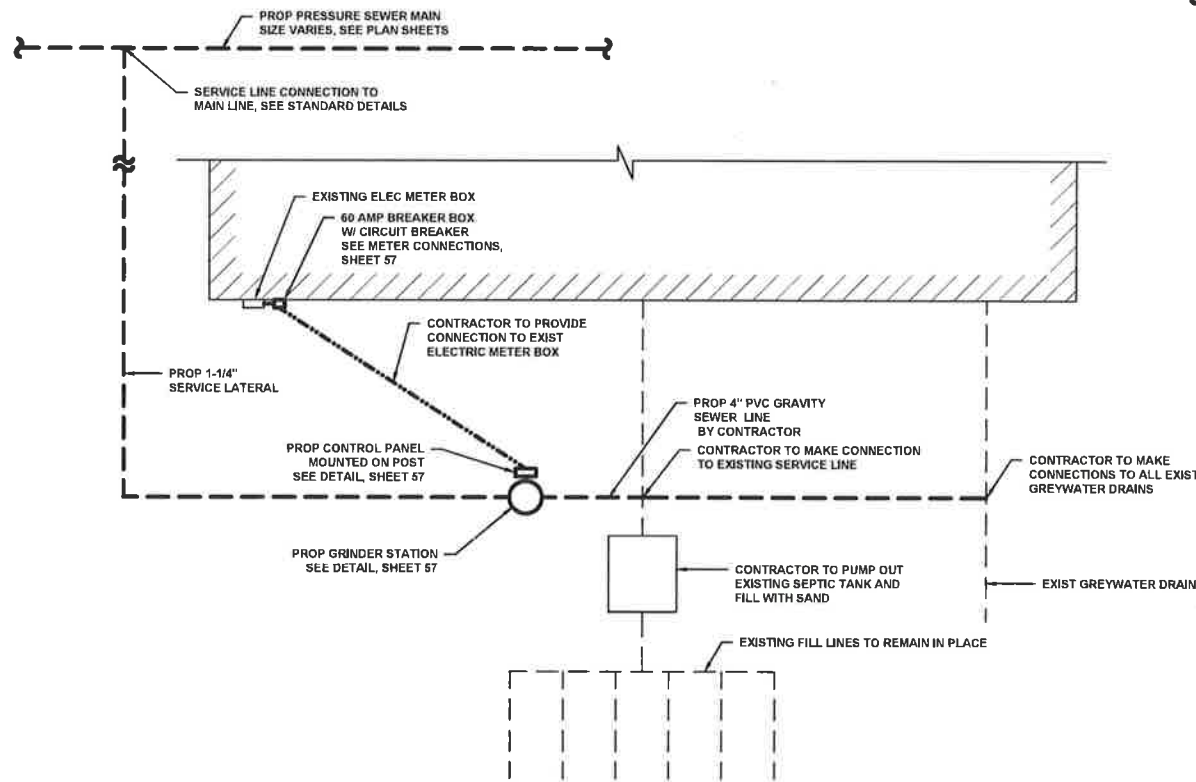
DESIGNED BY: JED	CHECKED BY:
DRAWN BY: JED	APPROVED BY:
PLOT AT 1: 2.12	DATE: 02/2024
CE JOB NO:	GE ITEM NO:
SCALE: NONE	DRAWING NUMBER: 7
REV. 0	



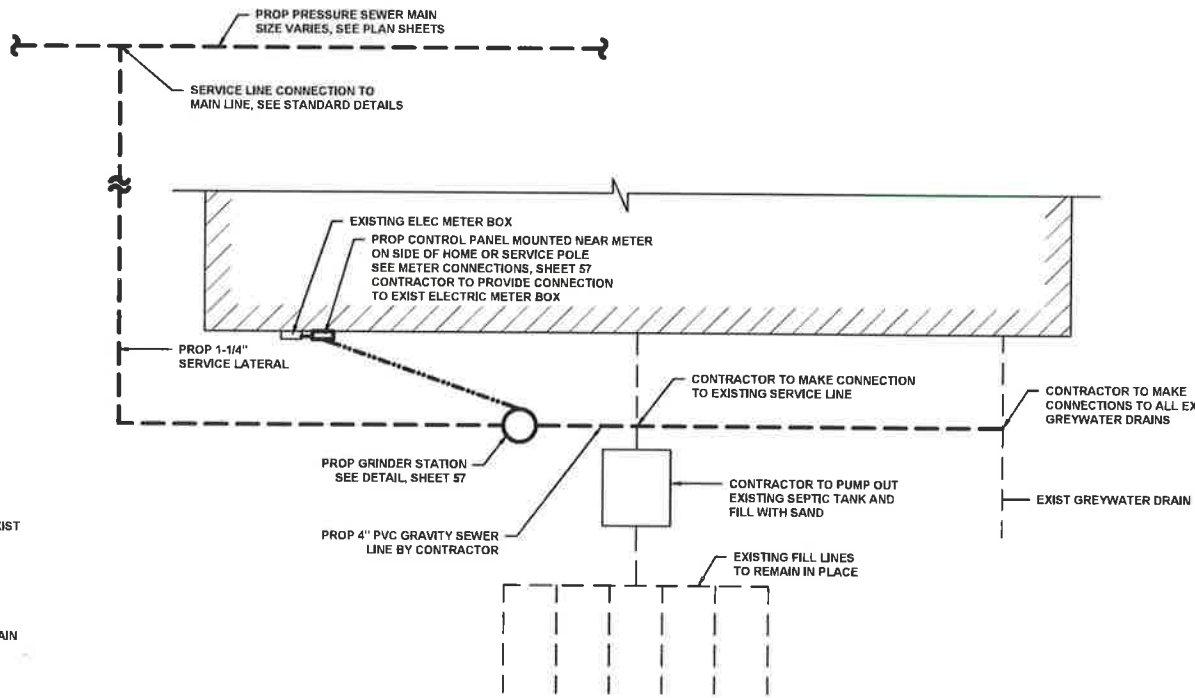
TYP GRINDER PUMP STATION LAYOUT TYPE A



TYP GRINDER PUMP STATION LAYOUT TYPE B



TYP GRINDER PUMP STATION LAYOUT TYPE C



TYP GRINDER PUMP STATION LAYOUT TYPE D

NOTES:

1. LUMP SUM BID INCLUDES 50 FT OF ELECTRICAL CABLE & 50 FT OF 4-INCH PVC SERVICE LINE AND REQUIRED CLEANOUTS.
2. CONCRETE DRIVEWAY AND SIDEWALK BORES PAID FOR SEPARATELY.
3. 4-INCH PVC SERVICE LINE OVER 50 FT TO BE PAID FOR AS A SEPARATE BID ITEM BY THE LINEAR FOOT.
4. ELECTRICAL CABLE OVER 50 FT TO BE PAID FOR AS A SEPARATE BID ITEM BY THE LINEAR FOOT.
5. RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS. NEW SODDING IS NOT REQUIRED.
6. GRINDER PUMP CONTROL PANEL TO COME EQUIPPED WITH A DISCONNECT SWITCH AND TIME CLOCK.



W Gaunt
3/30/24

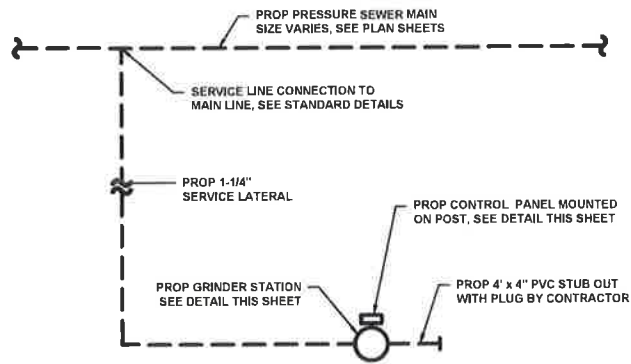
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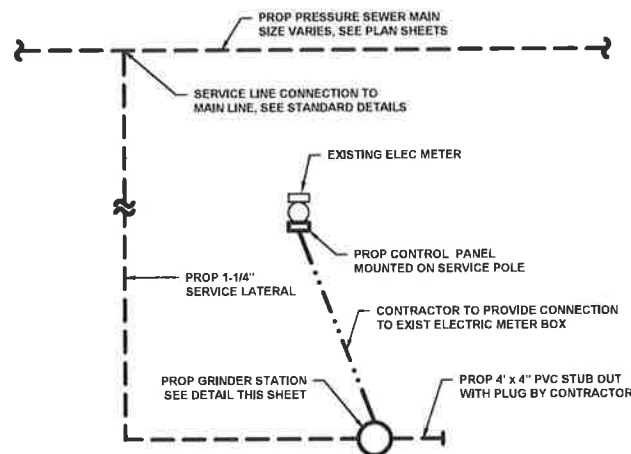
**EL DORADO RURAL PUBLIC WATER AUTHORITY
GRINDER PUMP STATION
TYPICAL INSTALLATION LAYOUTS**

DESIGNED BY	DATE	CHECKED BY	DATE
DRAWN BY	DATE	APPROVED BY	DATE
PLOT AT 1:	DATE: 02/2024	GE JOB NO:	DC ITEM NO:
SCALE: NONE	DRAWING NUMBER: 8	REV.:	0

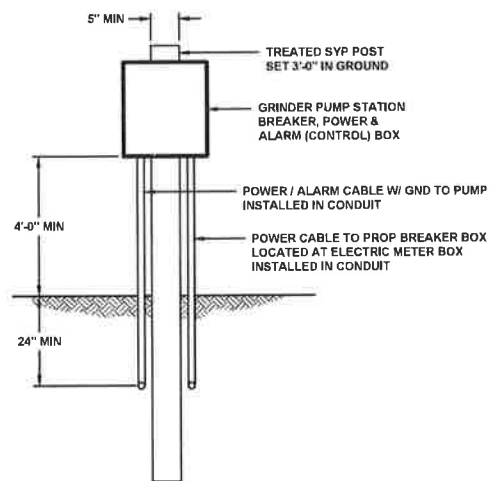
REV.	DESCRIPTION	CHK.	DATE	APP.	DATE
0					



TYP GRINDER PUMP STATION LAYOUT TYPE E



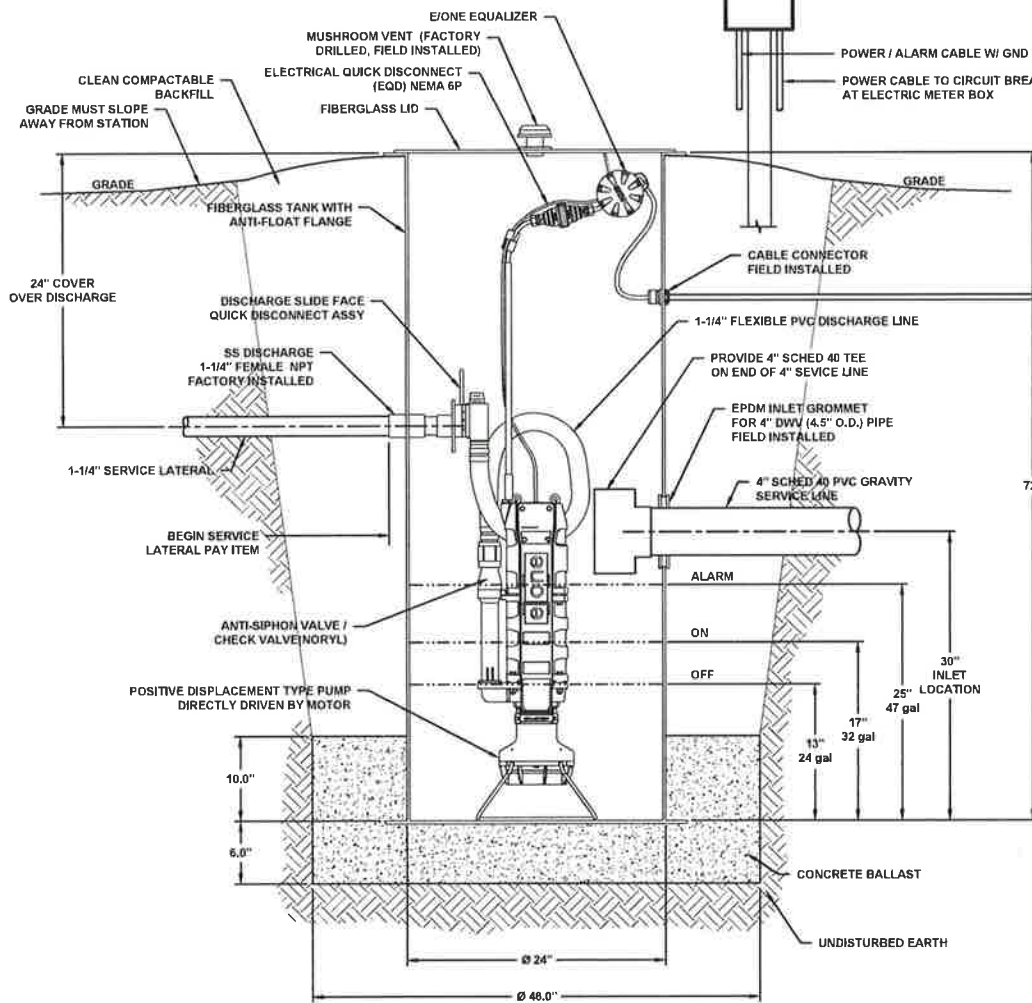
TYP GRINDER PUMP STATION LAYOUT TYPE F



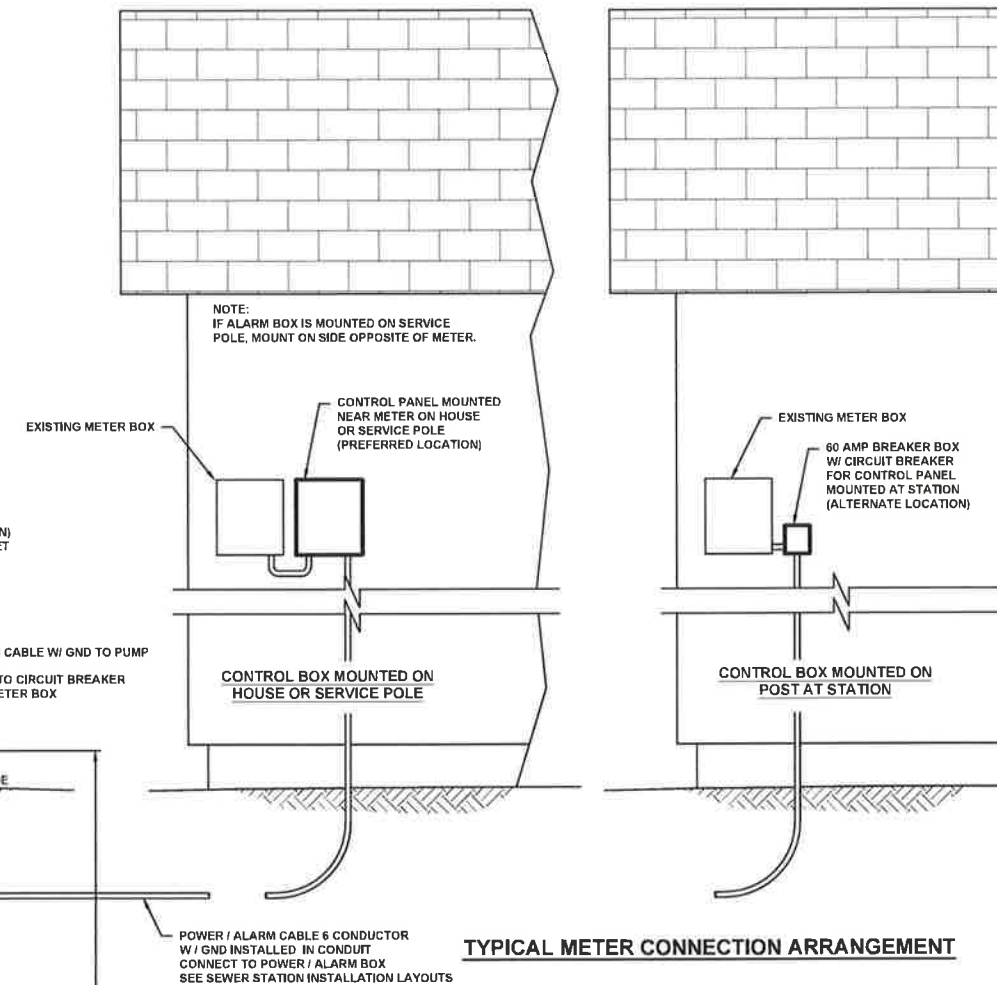
POST MOUNTED STATION CONTROL BOX

NOTES:

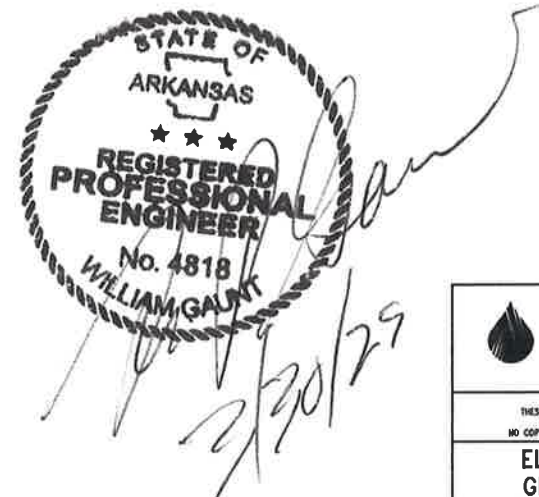
1. LUMP SUM BID INCLUDES 50 FT OF ELECTRICAL CABLE & 50 FT OF 4-INCH PVC SERVICE LINE AND REQUIRED CLEANOUTS.
2. CONCRETE DRIVEWAY AND SIDEWALK BORES PAID FOR SEPARATELY.
3. 4-INCH PVC SERVICE LINE OVER 50 FT TO BE PAID FOR AS A SEPARATE BID ITEM BY THE LINEAR FOOT.
4. ELECTRICAL CABLE OVER 50 FT TO BE PAID FOR AS A SEPARATE BID ITEM BY THE LINEAR FOOT.
5. RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS. NEW SODDING IS NOT REQUIRED.
6. GRINDER PUMP CONTROL PANEL TO COME EQUIPPED WITH A DISCONNECT SWITCH AND TIME CLOCK.
7. FIELD ADJUST GRINDER STATION AS REQUIRED TO ENABLE CONNECTION TO EXISTING GRAVITY LINE FROM RESIDENCE. ADJUST IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



GRINDER PUMP STATION DETAIL



TYPICAL METER CONNECTION ARRANGEMENT



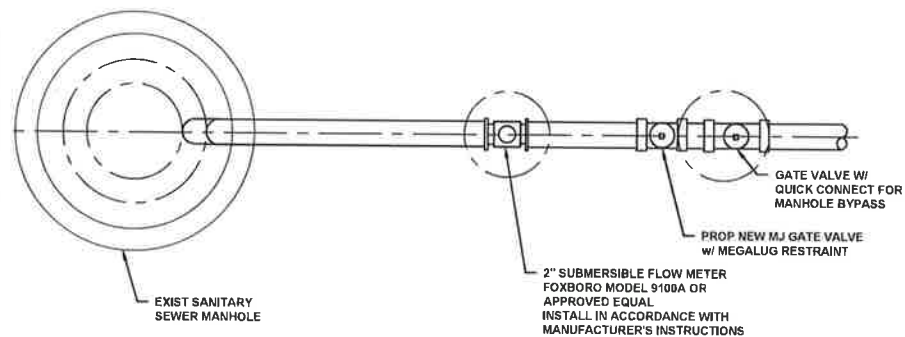
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ENGINEERS, SURVEYORS AND PLANNERS
3256 W. HILLSBORO, EL DORADO, AR 71730

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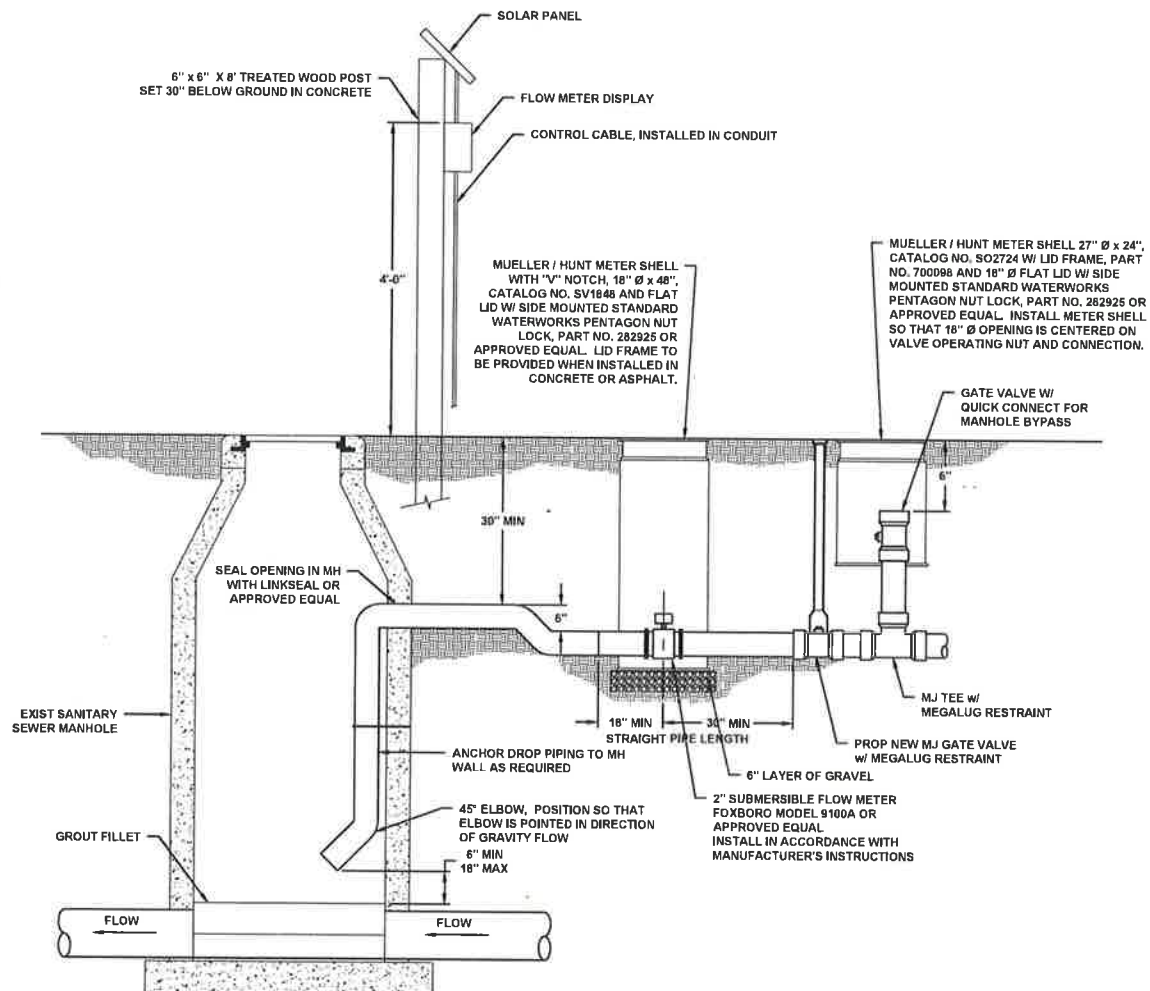
**EL DORADO RURAL PWA
GRINDER PUMP STATION
TYPICAL INSTALLATION LAYOUTS
& STATION DETAILS**

DESIGNED BY	PSE	CHECKED BY	
DRAWN BY		APPROVED BY	
PLOT AT 1:	DATE:	GE JOB NO.:	GE ITEM NO.:
SCALE	DRAWING NUMBER	REV.	D
NONE	9		

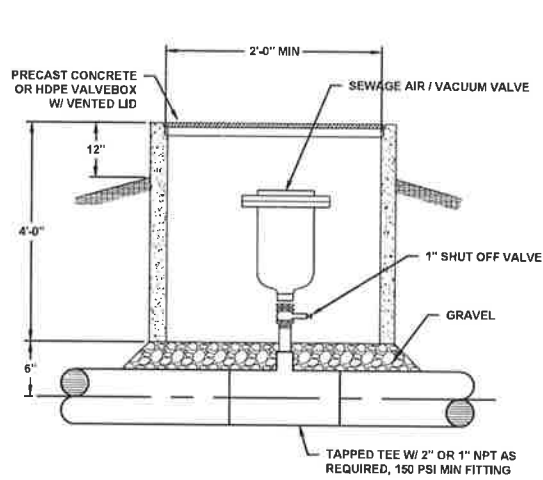
REV.	DESCRIPTION	CHK.	DATE	APP.	DATE



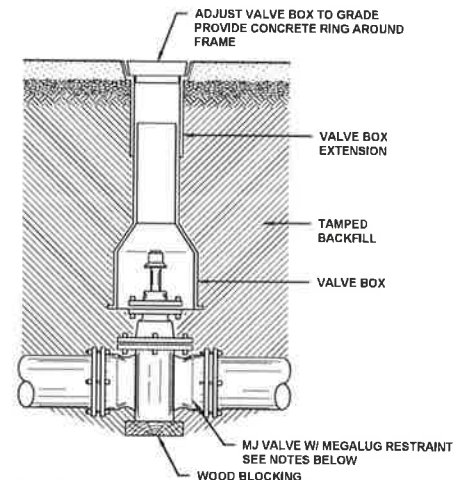
**TYPICAL METER STATION @ EXIST MANHOLE
PLAN VIEW (NOT TO SCALE)**



**TYPICAL METER STATION @ EXIST MANHOLE
SECTION VIEW (NOT TO SCALE)**

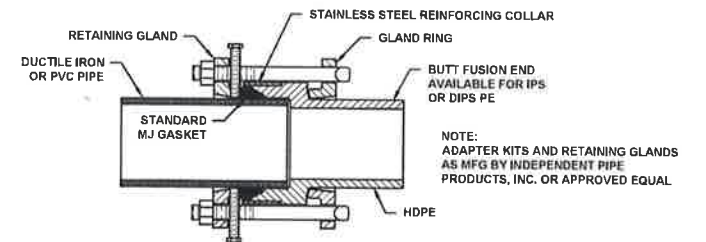


AIR / VACUUM VALVE

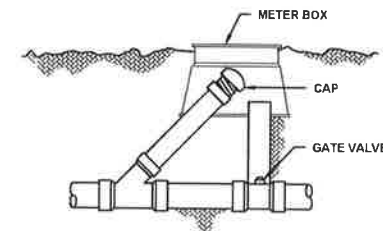


- NOTES:
1. PROVIDE CAST IRON MECHANICAL JOINT VALVES WITH MEGALUG RESTRAINTS FOR ALL VALVES 3" AND LARGER.
 2. PROVIDE CAST IRON FEMALE NPT VALVES, SCHEDULE 80 S X M.P.T. ADAPTOR AND THRUST RESTRAINT FOR ALL 2" VALVES.
 3. CONTRACTOR TO PROVIDE DETAILS OF CONCRETE RING DURING SHOP DRAWING SUBMISSION.

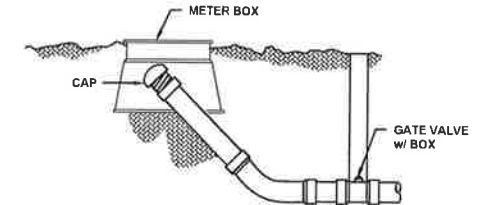
VALVE & VALVE BOX



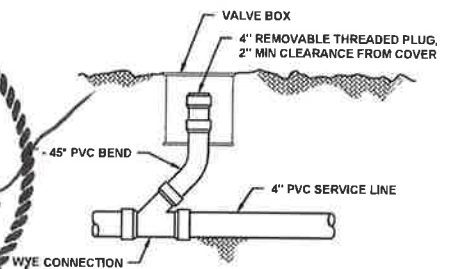
**HDPE ADAPTER
CONNECTS HDPE TO PLAIN END DIP OR PVC**



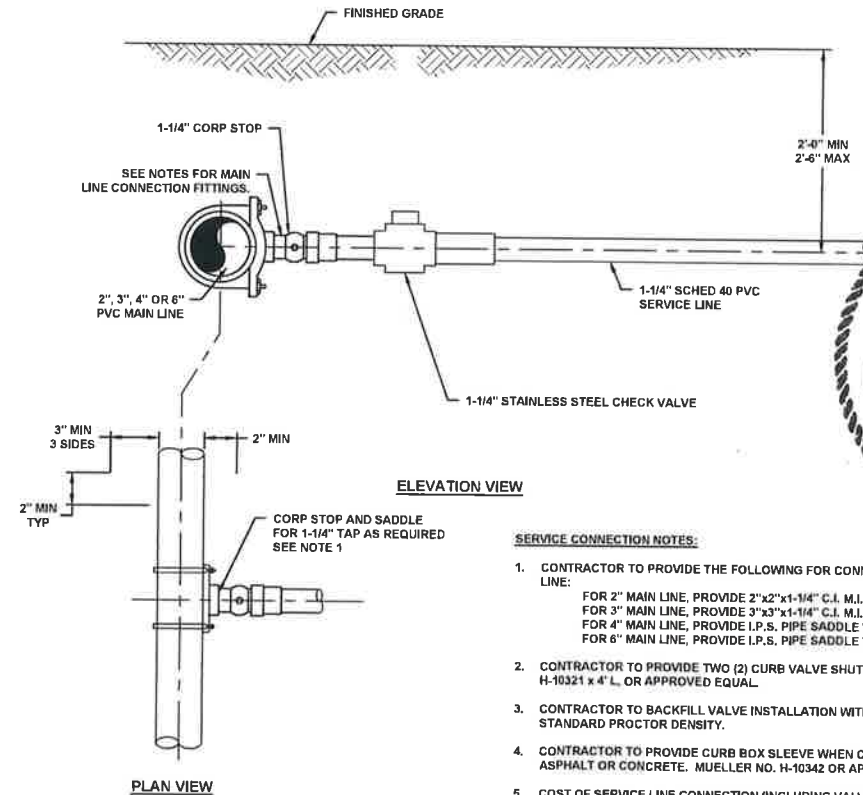
MAIN LINE IN-LINE CLEANOUT



MAIN LINE TERMINAL CLEANOUT



SERVICE LINE CLEANOUT



SERVICE LINE TO MAIN LINE CONNECTION

- SERVICE CONNECTION NOTES:**
1. CONTRACTOR TO PROVIDE THE FOLLOWING FOR CONNECTING SERVICE LINE TO MAIN LINE:
 FOR 2" MAIN LINE, PROVIDE 2"x2"x1-1/4" C.I. M.P. TEE (NOT SHOWN)
 FOR 3" MAIN LINE, PROVIDE 3"x3"x1-1/4" C.I. M.P. TEE (NOT SHOWN)
 FOR 4" MAIN LINE, PROVIDE I.P.S. PIPE SADDLE WITH 1-1/4" TAP (AS SHOWN)
 FOR 6" MAIN LINE, PROVIDE I.P.S. PIPE SADDLE WITH 1-1/4" TAP (AS SHOWN)
 2. CONTRACTOR TO PROVIDE TWO (2) CURB VALVE SHUT-OFF RODS, MUELLER NO. H-10321 x 4" L. OR APPROVED EQUAL.
 3. CONTRACTOR TO BACKFILL VALVE INSTALLATION WITH SAND, COMPACTED TO 85% STANDARD PROCTOR DENSITY.
 4. CONTRACTOR TO PROVIDE CURB BOX SLEEVE WHEN CURB BOX IS INSTALLED IN ASPHALT OR CONCRETE. MUELLER NO. H-10342 OR APPROVED EQUAL.
 5. COST OF SERVICE LINE CONNECTION (INCLUDING VALVE, SADDLE, ETC. AS SHOWN) TO BE INCLUDED IN THE UNIT PRICE FOR INDIVIDUAL PUMP STATIONS (GRINDER OR EFFLUENT).

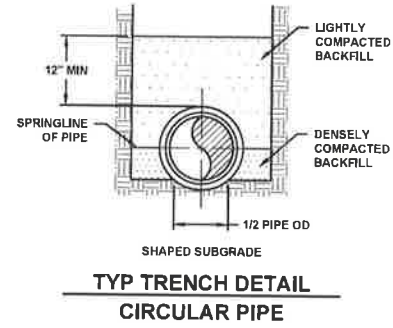


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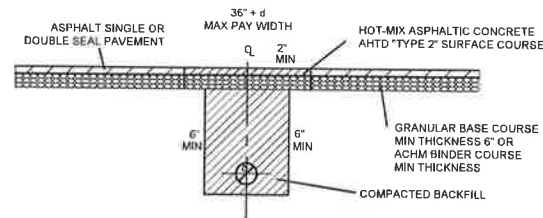
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DRAWN BY	DATE: 03-2024	DATE: 03-2024	DATE: 03-2024
REVISED METER STATION DETAIL		01/2025	
REV.	DESCRIPTION	CHK.	DATE APP. DATE

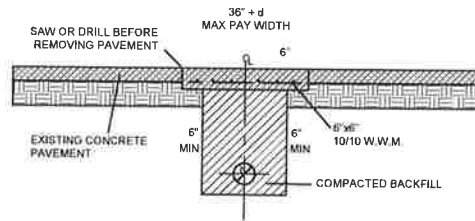


**TYP TRENCH DETAIL
CIRCULAR PIPE**



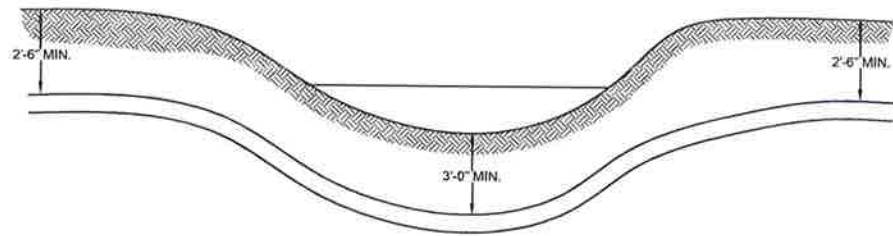
NOTE:
d = NOMINAL DIAMETER OF PIPE

ASPHALT OR SEAL STREET REPAIR

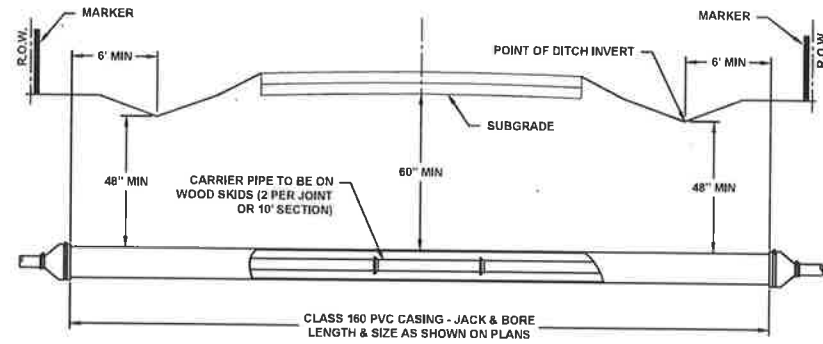


NOTE:
d = NOMINAL DIAMETER OF PIPE

CONCRETE STREET REPAIR



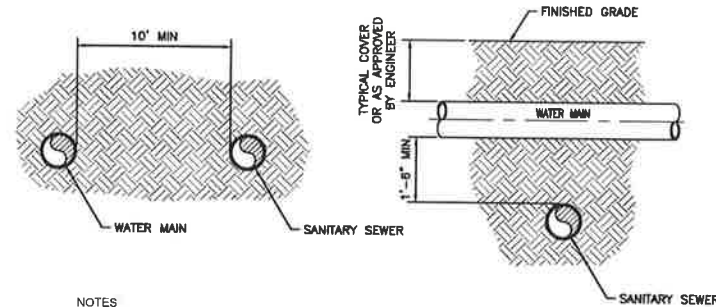
TYPICAL CREEK CROSSING



NOTES:

1. MARKER: A MARKER BEARING THE UTILITY OWNERS NAME SHALL BE PLACED AT EACH RIGHT OF WAY LINE WHERE CROSSED. (NOT REQUIRED FOR SERVICE LINES)
2. CASING PIPE SHALL BE SEALED AT THE ENDS WITH A FLEXIBLE MATERIAL.

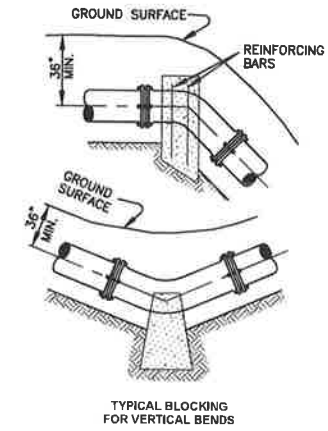
TYPICAL HIGHWAY CROSSING BORE



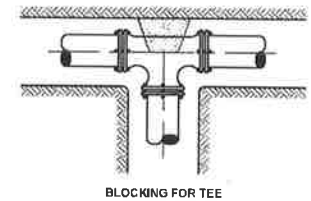
NOTES:

1. WATER MAINS AND SANITARY SEWER SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH.
2. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION.
3. WATER LINES AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH.
4. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWER MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR SEWER LINE MUST BE ENCASED IN WATER TIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED.
5. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN THE PRECEDING ENCASEMENT REQUIREMENTS.

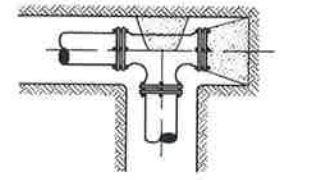
MINIMUM WATER / SEWER LINE SEPARATION



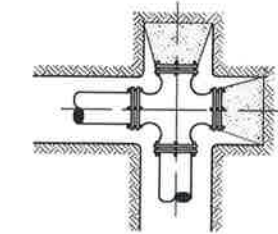
TYPICAL BLOCKING FOR VERTICAL BENDS



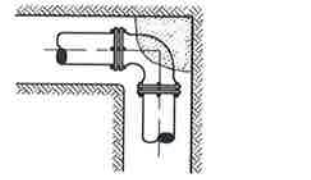
BLOCKING FOR TEE



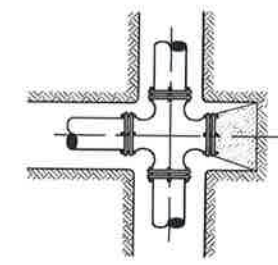
SPECIAL BLOCKING FOR TEE WITH PLUG (WHEN DIRECTED BY ENGINEER)



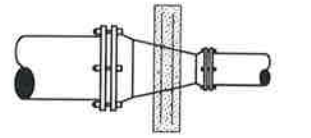
TYPICAL SECTION OF CROSS AND 2 PLUG BLOCKING (WHEN DIRECTED BY ENGINEER)



TYPICAL BLOCKING FOR HORIZONTAL BENDS



TYPICAL SECTION OF CROSS AND BLOCKING (WHEN DIRECTED BY ENGINEER)

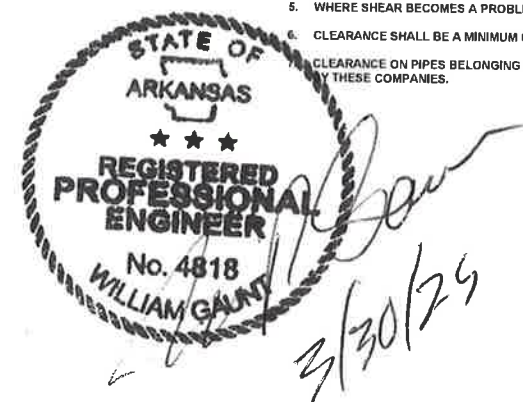


THRUST SUPPORT FOR REDUCER CONNECTION (SIZE TO BE DETERMINED BY ENGINEER)

NOTES:

1. ALL BLOCKING SHALL BE AGAINST UNDISTURBED HAND DUG SOIL.
 2. WHERE SOIL CONDITIONS MAKE IT NECESSARY TO POUR CONCRETE BLOCKING OVER JOINTS, THE ENDS OF THE ADJACENT PIPES MUST HAVE A KICKER BLOCK TO RESIST MOVEMENT OF THESE JOINTS.
 3. WEIGHT CALCULATIONS TO BE BASED ON THRUST DUE TO STATIC PRESSURE +50% THRUST = 2 AP SIN 1/2 L. WHERE A = AREA OF PIPE AND P = WATER PRESSURE.
 4. WHERE BLOCKING OVER PLUG, PLUG SHOULD BE COVERED WITH PAPER TO PREVENT BINDING OF CONCRETE.
 5. WHERE SHEAR BECOMES A PROBLEM, PROPER REINFORCING MUST BE INSTALLED INTO THE BLOCKING.
 6. CLEARANCE SHALL BE A MINIMUM OF 6" BETWEEN PIPE AND OBSTRUCTION.
- CLEARANCE ON PIPES BELONGING TO OIL & GAS COMPANIES SHALL BE 18" UNLESS SPECIAL PERMISSION IS GIVEN BY THESE COMPANIES.

THRUST BLOCKING



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DATE: 02-2024	GE JOB NO:	GE ITEM NO:	
SCALE: NONE	DRAWING NUMBER: 11	REV.	

GENERAL NOTES

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
2. PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, COMMUNICATIONS, CABLE TV, SANITARY, AND STORM SEWERS ON AND/OR ADJACENT TO THE SITE.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "ONE CALL" OR UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR OR SUBCONTRACTORS.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY LIMITS INSTRUCTION/REQUIREMENTS. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THESE PERMITS.
6. SAFETY:
 - 6.1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR, OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
 - 6.2. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
 - 6.3. THE MINIMUM STANDARDS AS SET FOR THE STATE HIGHWAY DEPARTMENT SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
 - 6.4. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
 - 6.5. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT", THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
7. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
8. TO REITERATE: CONTRACTOR TO UNCOVER & VERIFY SIZE AND TYPE OF EXISTING LINE AT TIE INS BEFORE LAYING ANY LINES.

DEMOLITION NOTES:

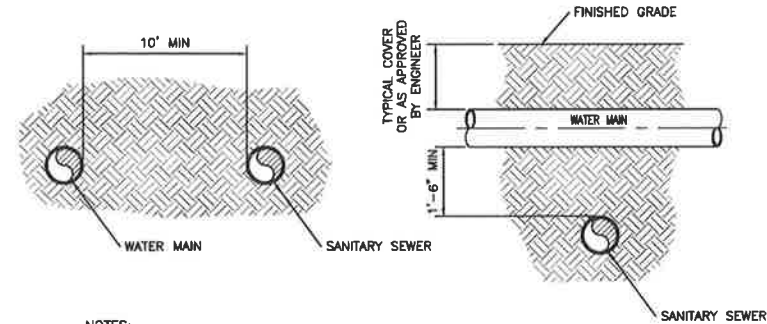
1. EXISTING BUILDINGS AND ASSOCIATED STRUCTURES SHALL BE DEMOLISHED AS INDICATED ON THE DRAWINGS AND REMOVED FROM THE SITE WHERE REQUIRED, ASPHALT OR CONCRETE SHALL BE SAW-CUT TO LEAVE A CLEAN LINE.
2. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CODES (LOCAL, STATE & FEDERAL) FOR DEMOLITION OF STRUCTURES, DUST CONTROL, SOIL EROSION CONTROL, AND DISPOSAL OF DEMOLITION MATERIAL.
3. IF REQUIRED BY CITY, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A SEPARATE DEMOLITION PERMIT FROM THE CITY PRIOR TO DEMOLISHING THE STRUCTURES. CONTRACTOR SHALL PAY FOR ALL COSTS ASSOCIATED WITH DEMOLITION PERMIT.
4. ALL EXISTING UNDERGROUND DRAINAGE PIPES AND STRUCTURES TO REMAIN SHALL BE UNDISTURBED UNLESS NOTED OTHERWISE.
5. ALL MATERIAL SHALL BE DISPOSED OF IN A PROPER MANNER AT A LOCATION APPROVED BY ENGINEER WHEN DIRECTED BY OWNER.
6. ALL EQUIPMENT SHALL BE DELIVERED TO CITY SHOP UNLESS NOT WANTED BY CITY.

EROSION CONTROL NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES TO PROTECT ADJACENT PROPERTY AND TO ENSURE THAT SEDIMENT IS CONFINED TO THE SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF WORK.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF MUD TRACKED ONTO PUBLIC RIGHT-OF-WAY ON A TIMELY BASIS.
3. IF SOIL STOCKPILING IS USED ON THE SITE, SILT FENCES SHALL BE USED TO CONTROL AND CONTAIN THE SEDIMENT.
4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN ESTABLISHED.

WATER AND SEWER GENERAL NOTES:

1. CONTRACTOR SHALL NOTIFY ENGINEER, OWNER AND CITY WATER & SEWER DEPARTMENT 48 HOURS PRIOR TO BEGINNING WORK ON ANY NEW SANITARY SEWER OR WATER FACILITIES TO SCHEDULE INSPECTION OF THE WORK.
2. CONTRACTOR TO PROVIDE SAFE WORKING CONDITIONS, INCLUDING AIR CIRCULATION/VENTILATION WHEN CONTRACTOR'S PERSONNEL ARE WORKING IN MANHOLES OR OTHER STRUCTURES CONTAINING RAW SEWAGE OR HAZARDOUS MATERIALS.
3. SANITARY SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATION OF SANITARY SEWERS AT CROSSINGS OF WATER MAINS SHALL BE PERFORMED SO AS TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE, WHENEVER POSSIBLE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE SANITARY SEWERS, FORCE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE ENCASED IN CONCRETE. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED IN THE CROSSING.
4. A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO EDGE.
5. ALL PVC SEWER PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE (PVC) AND COMPLY WITH ASTM D-3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION NO. 2 OF ASTM D-3034.
6. ALL GRAVITY SEWERS MUST BE SDR 35 PVC EXCEPT FOR PIPE DEEPER THAN 14 FEET, IN WHICH CASE SDR 26 PIPE SHALL BE USED. ELASTOMETRIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE AND SHALL COMPLY WITH ASTM F-477, ASTM D-3034 & ASTM F-679. JOINTS SHALL COMPLY WITH ASTM D-3212.
7. ALL SANITARY MANHOLES SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM C-478.
8. PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION(S) OF EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
9. ALL GRAVITY SEWER PIPEING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S).
10. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST (LOW PRESSURE AIR) ON THE GRAVITY SEWERS IN ACCORDANCE WITH THE UTILITIES REQUIREMENTS.
11. PRESSURE LINES SHALL BE INSTALLED WITH A MINIMUM OF 30" COVER OVER THE TOP OF PIPE. LINES INSTALLED BENEATH ROAD SURFACES SHALL BE A MINIMUM OF 48" BENEATH THE SURFACE OF THE ROAD AND SHALL HAVE NO JOINTS BENEATH THE DRIVING SURFACE.
12. ALL PRESSURE LINES (INCLUDING SERVICE TUBING) SHALL BE INSTALLED WITH 10 GA. TYPE "M" STRANDED COPPER LOCATOR WIRE. ALL SPLICES IN LOCATOR WIRE SHALL BE MADE WITH COPPER "JM" BRAND DIRECT BURY SPLICE KIT MODEL DBR.
13. ALL NEW PRESSURE MAINS SHALL BE PRESSURE TESTED PRIOR TO THE TIE-IN OPERATIONS. ALL REPAIRS AND RE-TESTING SHALL BE MADE PRIOR TO TIE-IN. PRESSURE TEST SHALL BE IN ACCORDANCE WITH AWWA C605. THE TEST PRESSURE SHALL BE 150 PSI AT THE LOW POINT AND SHALL BE MAINTAINED FOR A MINIMUM OF 4 HOURS. THE CONTRACTOR SHALL FURNISH GAUGES, METERS, WATER, TOOLS, LABOR, EQUIPMENT AND OTHER MATERIALS NECESSARY TO CONDUCT THE TESTS. THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF TESTS.
14. WATER AND SEWER UTILITY CONSTRUCTION TO BEGIN ONLY AFTER APPROVAL BY THE DEPARTMENT OF HEALTH.
15. FOLLOWING THE ACCEPTANCE OF THE HYDROSTATIC TEST, ALL NEW WATER LINES INCLUDING APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651 (LATEST REVISION) AND ANY OTHER STATE REQUIREMENT.
16. ALL NEW WATER MAINS AND REPAIRED PORTIONS OF, OR EXTENSIONS TO, EXISTING MAINS SHALL BE CHLORINATED SO THAT A CHLORINE RESIDUAL OF NOT LESS THAN 25 PPM REMAINS IN THE WATER AFTER 24 HOURS STANDING IN THE PIPE. USUALLY, AN APPLICATION RATE OF 50 PPM IS REQUIRED. MAINS SHALL BE THOROUGHLY FLUSHED BEFORE INTRODUCTION OF THE DISINFECTANT.
17. WHILE THE DISINFECTANT IS BEING APPLIED TO ANY SECTION OF THE SYSTEM, THE WATER SHALL BE ALLOWED TO ESCAPE AT ALL EXTREMITIES OF THE SECTION UNTIL THE PRESENCE OF CHLORINE IS EVIDENT BY MEASURING WITH AN ORTHOTOLIDIN TEST KIT FURNISHED BY THE CONTRACTOR.
18. BACTERIOLOGICAL TESTS SHALL BE CONDUCTED BY A STATE CERTIFIED LABORATORY AND MUST INDICATE NEGATIVE FOR COLIFORM BACTERIA PRIOR TO USE OF THE WATER MAINS TO CONVEY WATER TO THE PUBLIC. IF BACTERIOLOGICAL TESTS INDICATE INSUFFICIENT DISINFECTION AT THE COMPLETION OF THE TESTING AND FLUSHING OF THE SYSTEM, THE PROCEDURE SHALL BE REPEATED UNTIL PROPER DISINFECTION IS ACHIEVED.



NOTES:

1. WATER MAINS AND SANITARY SEWER SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH.
2. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION.
3. WATER LINES AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH.
4. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWER MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR SEWER LINE MUST BE ENCASED IN WATER TIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED.
5. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN THE PRECEDING ENCASEMENT REQUIREMENTS.

MINIMUM WATER/SEWER LINE SEPARATION

RAILROAD CROSSING

NOTES:

1. PIPELINES PLACED UNDER RAILROAD TRACKS SHALL BE AT LEAST 5'-6" FROM BASE OF RAIL TO TOP OF PIPE.
2. PIPELINE CROSSINGS OF RAILROAD R.O.W. SHALL BE A MINIMUM OF 3' IN DEPTH FROM TOP OF PIPE TO BOTTOM OF DITCH.
3. WATER PIPELINES LAID LONGITUDINALLY ACROSS RAILROAD R.O.W. SHALL BE PLACED AT MINIMUM 4' DEPTH FROM TOP OF PIPE TO GROUND SURFACE.
4. BORES FOR RAILROAD CROSSINGS SHALL EXTEND 3' BEYOND R.O.W. IN BOTH DIRECTIONS



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DRAWN BY	APPROVED BY
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	ITEM NO:
SCALE N/A	DRAWING NUMBER 12
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