

Application # **PRPWFP20223669 (Chipman Road CIP, 72-322)**

Date: **August 3, 2022**

TO THE ADMINISTRATOR: The undersigned hereby makes application for a permit to develop in a floodplain. The work to be performed, including flood protection works, is as described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the Floodplain Management Ordinance, with all other applicable county/city ordinances, and the laws and regulations of the State of Missouri.

Spire Missouri, Inc.  
Developer/Owner or Agent  
  
700 Market St., St. Louis, MO, 63101  
Address  
  
314-342-0744  
Phone

Adam Watkins  
Contact Person for this Application  
  
7500 E. 35th Ter., Kansas City, MO, 64129  
Address  
  
adam.watkins@spireenergy.com; (816) 360-5678  
Email and Phone

**SITE INFORMATION**

- Location: NW 1/4; NW 1/4; Section 03; Township 47; Range 32  
Property Address: 3381 NW Chipman Rd Lees Summit, MO
- Type of Development: Filling ☐ Grading ☒ Excavation ☒ Minimum Improvement ☐ Substantial Improvement ☐  
Routine Maintenance ☐ New Construction ☒ Other ☐
- Description of Development: Installation of natural gas pipeline via horizontal directional drilling (HDD) and open trench methods. HDD will be used in pipe sections traversing the floodplain and floodway. Existing grades will be restored such that no substantial change in topography will result.
- Premises: Structure Size: N/A ft. x N/A ft. Area of site: N/A sq. ft.  
Principal Use: Roadways & Easements Accessory Uses (storage, parking, etc.): N/A
- Value of Improvement (fair market): \$ N/A Pre-Improvement/Assessed Value of Structure: \$ N/A
- Property located in a designated FLOODWAY? Yes ☒ No ☐ (If Yes to Question 6, certification must be provided prior to permit issuance indicating this project will result in no increase in the 1% base flood elevations.)
- Property located in a designated floodplain FRINGE? Yes ☒ No ☐ (If Yes to Question 6, certification must be provided prior to permit issuance indicating this project will result in no increase in the 1% base flood elevations.)
- Elevation of the 1% Base Flood / 100-year flood (ID source): 812' (FEMA NFHL Viewer) MSL/NGVD
- Elevation of the proposed development site: N/A (below grade at crossing) MSL/NGVD
- Elevation/floodproofing requirement: N/A MSL/NGVD
- Other floodplain elevation information/FIRM panel numbers (ID and describe source): FIRM Panels: 29095C0412G (FEMA NFHL Viewer)
- Other Permits required? Corps of Engineer 404 Permit: Yes ☐ No ☒ Provided ☐  
MO Dept. of Natural Resources: Yes ☐ No ☒ Provided ☐

NOTE: All provisions of City of Lee's Summit UDO Article 6, Division II, Floodplain Management Ordinance, shall be in compliance.

**APPLICATION APPROVAL/DENIAL**

Plans and Specifications Approved ☒ / Denied ☐ this 10th Day of August, 20 22  
**Craig R. Hoeferlin**

Craig Hoeferlin, Vice President - Operations Services & SMS  
Signature of Developer/Owner  
Print Name and Title

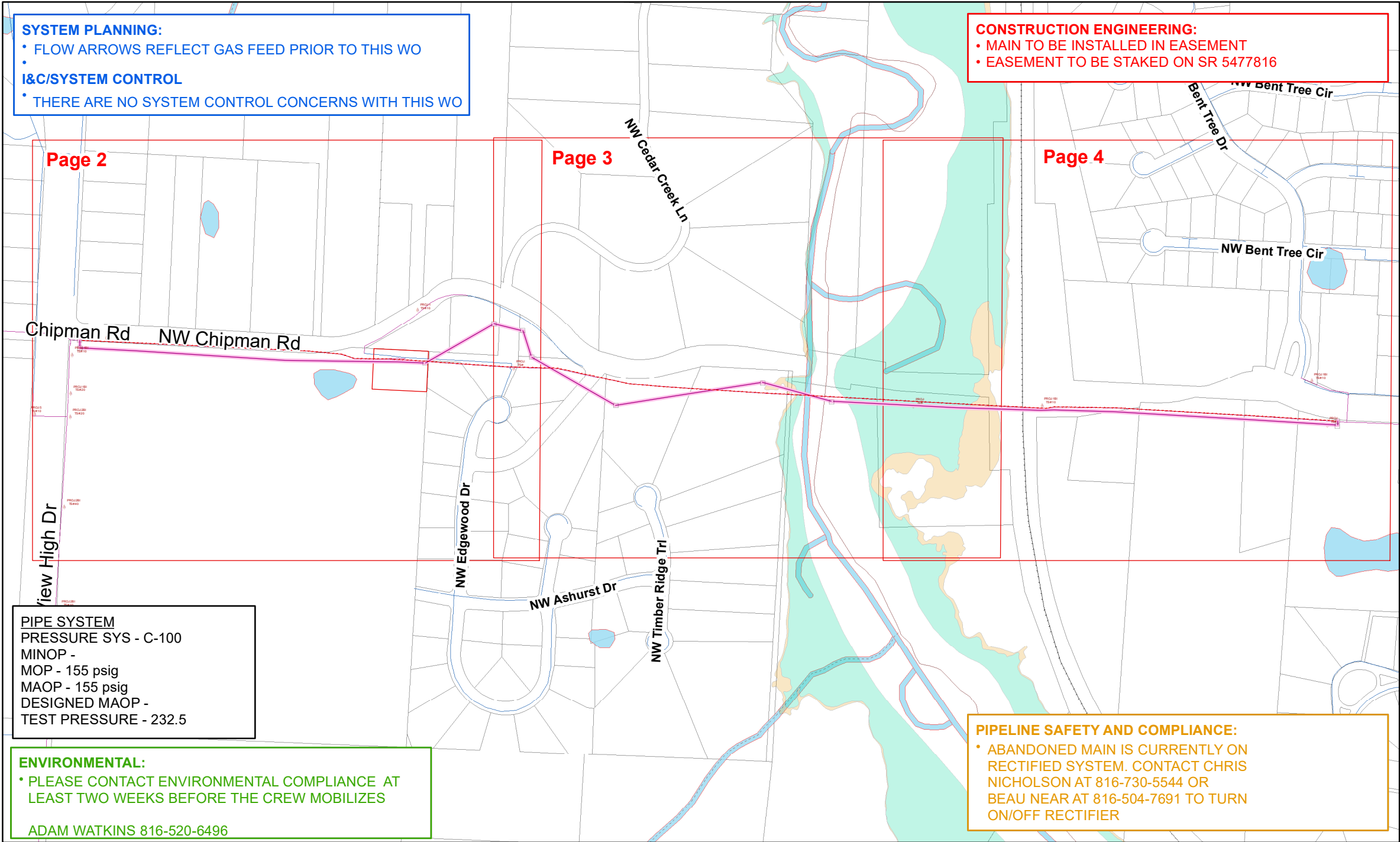
George M. Binger III, P.E. / City Engineer  
Authorizing Official  
Print Name and Title

IF APPROVED, THIS PERMIT REQUIRES A CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT FLOOR) OF ANY NEW OR SUBSTANTIALLY-IMPROVED RESIDENTIAL BUILDING WILL BE ELEVATED 2 FEET ABOVE THE BASE FLOOD ELEVATION. IF THE PROPOSED DEVELOPMENT IS A NON-RESIDENTIAL BUILDING, PERMIT APPROVAL WILL REQUIRE A CONDITION THAT THE LOWEST FLOOR (INCLUDING BASEMENT) OF A NEW OR SUBSTANTIALLY IMPROVED NON-RESIDENTIAL BUILDING WILL BE ELEVATED OR FLOODPROOFED 2 FEET ABOVE THE BASE FLOOD ELEVATION.

THIS APPLICATION IS USED WITH THE CONDITION THAT THE DEVELOPER/OWNER WILL PROVIDE CERTIFICATION BY A REGISTERED ENGINEER, ARCHITECT, OR LAND SURVEYOR OF THE "AS-BUILT" LOWEST FLOOR (INCLUDING BASEMENT) ELEVATION OF ANY NEW OR SUBSTANTIALLY-IMPROVED BUILDING COVERED BY THIS PERMIT APPLICATION.

**Signature:** Craig R. Hoferlin  
Craig R. Hoferlin [Aug 1, 2022 09:17 CDT]

**Email:** [craig.hoferlin@spireenergy.com](mailto:craig.hoferlin@spireenergy.com)



1. INSTALL STEEL MAIN PER STD. 2310, 2320, AND 2350.
2. INSTALL PLASTIC MAIN PER STD. 2310 AND 2351.
3. FOR INCREASES IN MAXIMUM OPERATING PRESSURE SEE STD. 3220.
4. SEE STD. 2310.3 FOR TRACE WIRE AND TEST STATION INFORMATION.
5. CONTRACTOR OR INTERNAL FOREMAN TO CHECK CATHODIC PROTECTION OF ALL EXISTING CATHODICALLY PROTECTED FACILITIES EXPOSED AND DIRECT STEPS NECESSARY TO MAINTAIN PROPER ISOLATION AND CATHODIC PROTECTION AS REQUIRED. READINGS ARE TO BE DOCUMENTED ON PRESSURE TEST PAGE.
6. INSTALL ANODES AND/OR TEST STATIONS PER STD. 3680 PER INSTRUCTIONS FROM CORROSION PROTECTION INSPECTOR.
7. CREATE A PIPE OBSERVATION IN MAXIMO TO DOCUMENT EXPOSED PIPE CONDITIONS PER STD. 3610.5.4.
8. FOR UTILITY LOCATES, CALL ONE-CALL SYSTEM "811" OR (1-800-344-7483), AREA CATV AND ALL OTHER AFFECTED UTILITIES.
9. CONTACT ROW TO SECURE NECESSARY EASEMENTS AND FOR ANY SURVEY WORK @ (314-658-5497 OR 314-349-2933).
10. SQUEEZE-OFF PROCEDURE - STD. 2510.
11. SHUTDOWN PROCEDURE - STD. 10000. CONTACT SYSTEM CONTROL AT 314-658-5486 OR 314-658-5488.
12. CONDUCT INITIAL CATHODIC PROTECTION SURVEY FOR NEW STEEL INSTALLATION.
13. RADIOGRAPH PER STD. 2210.7.3.
14. PRESSURE TEST PER STD. 2410 DOCUMENT ON PRESSURE TEST PAGE.
15. ABANDON GAS MAIN PER STD. 2620.
16. INSERT PLASTIC MAIN PER STD. 2320.
17. ANY QUESTIONS CONCERNING "UPGRADING" OF EXISTING MAINS CONTACT PIPELINE SAFETY AND COMPLIANCE @ 314-349-2932.
18. SPIRE PERSONNEL SHOULD FOLLOW STANDARD PRECAUTIONS REGARDING THE POTENTIAL FOR DRIP OIL TO BE PRESENT IN ACTIVE GAS MAINS AND ADHERE TO APPROVED PROCEDURES FOR MANAGEMENT/DISPOSAL OF ANY PIECES OF PIPE GENERATED IN THE COURSE OF ABANDONMENT. ANY DOCUMENTED DRIPS SHOULD BE CLEARED AND DRAINED BEFORE ABANDONMENT.
19. ALL PLASTIC MAIN TO BE TERMINATED PER STD 2310.2.4.
20. INSTALL EFV OR MANUAL SHUT-OFF VALVE PER STD 2385

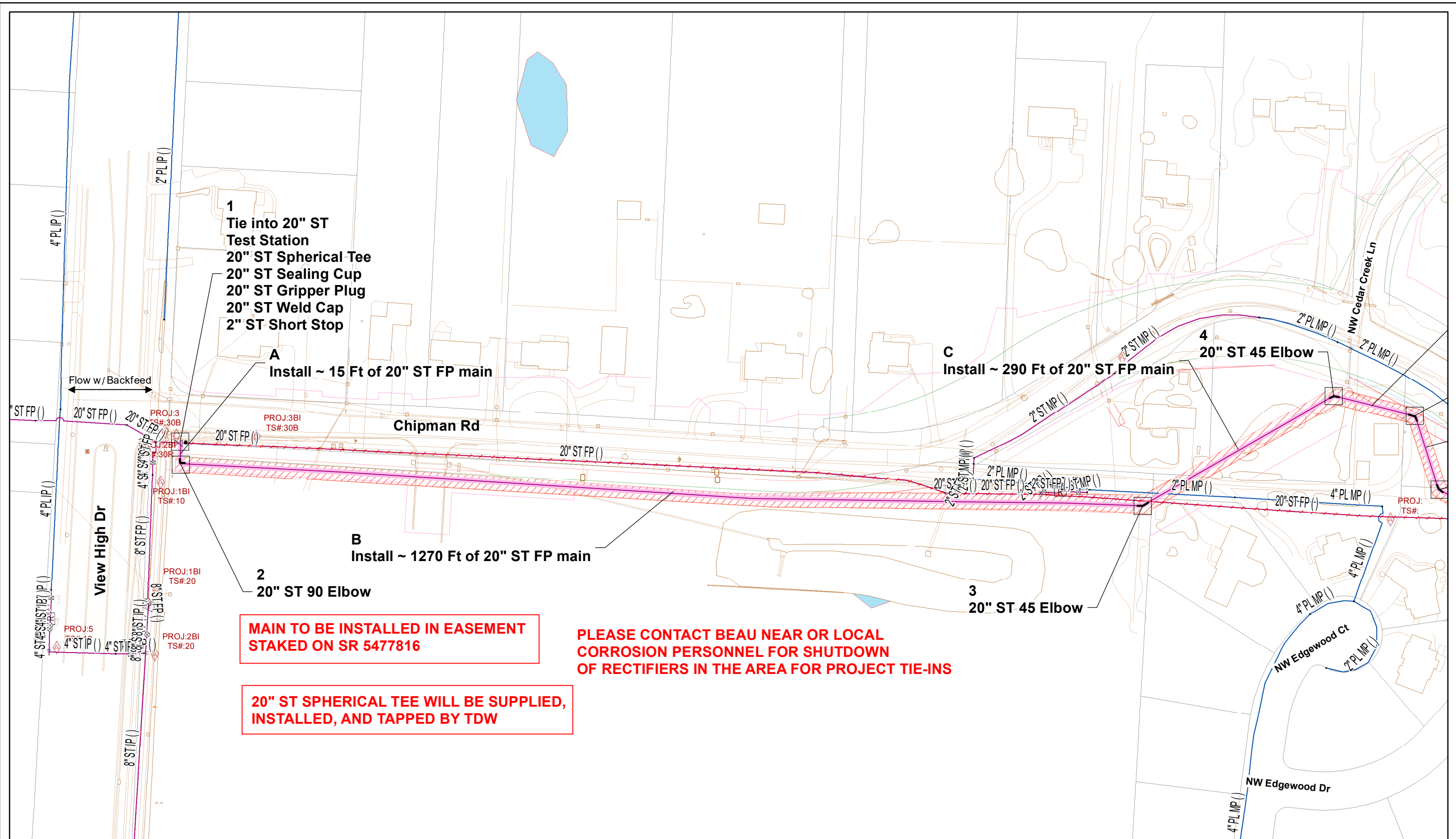
FOR QUESTIONS ABOUT THIS DESIGN OR TO REQUEST A SCOPE OF WORK CHANGE PLEASE CONTACT CONSTRUCTION ENGINEERING AT 816-266-1501 OR 816-969-2218

Main & Service	Gas Valve	Take Point	Electronic Marker	End Cap	Vertical Ell	Street Car Tracks
Existing	Ball	Drip	Service Tee	Flange	Bend	RCP Reinforced Concrete Pipe
Install	Butterfly	Test Station	Stopper / Bottom Outlet	Insulated Flange	Exposed Pipe	CMP Corrogated Metal Pipe
Proposed	Gate	Regulator Station	Coupling	Cross	Rectifier	Contamination
Abandon	Plug	Meter Setting	Insulated Coupling	Reducer	Rectifier Cable	DNR Tanks
Gas Pipe Casing	Blow Down	Marker Post	Trace Wire Box	Tee	SteamLines	DNR Remediation

Check for  
Work Order Authorization

Designer :	Revision Date(s):
BW	
Original Date:	
10-27-21	

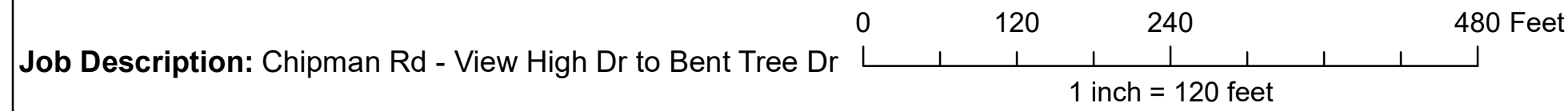




**MAIN TO BE INSTALLED IN EASEMENT  
STAKED ON SR 5477816**

**20" ST SPHERICAL TEE WILL BE SUPPLIED,  
INSTALLED, AND TAPPED BY TDW**




**PLEASE CONTACT BEAU NEAR OR LOCAL  
CORROSION PERSONNEL FOR SHUTDOWN  
OF RECTIFIERS IN THE AREA FOR PROJECT TIE-INS**



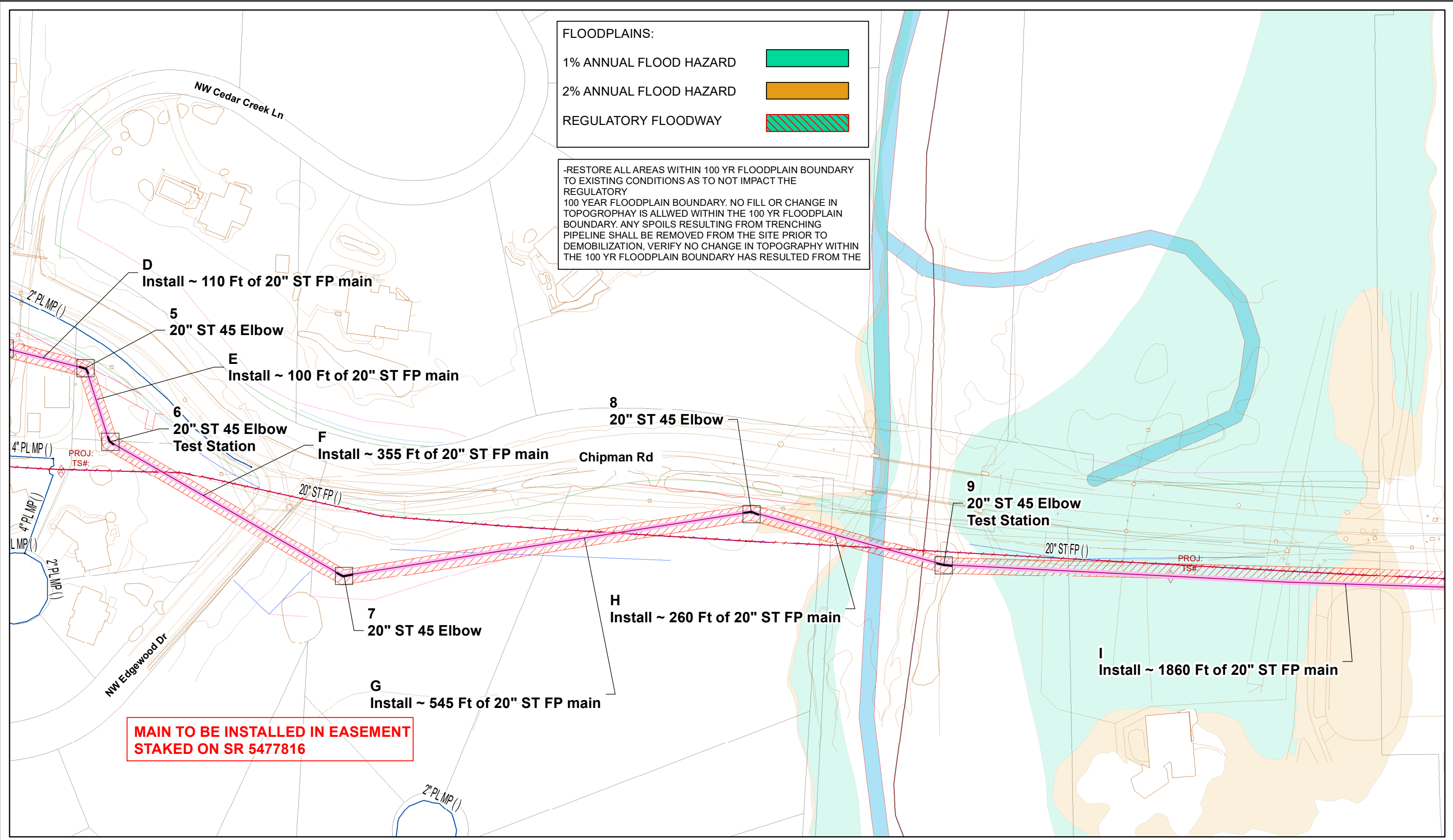
**Maximo Work Order:** 19609081  
**Project #:** 804590



**FLOODPLAINS:**

1% ANNUAL FLOOD HAZARD	
2% ANNUAL FLOOD HAZARD	
REGULATORY FLOODWAY	

-RESTORE ALL AREAS WITHIN 100 YR FLOODPLAIN BOUNDARY TO EXISTING CONDITIONS AS TO NOT IMPACT THE REGULATORY 100 YEAR FLOODPLAIN BOUNDARY. NO FILL OR CHANGE IN TOPOGRAPHY IS ALLOWED WITHIN THE 100 YR FLOODPLAIN BOUNDARY. ANY SPOILS RESULTING FROM TRENCHING PIPELINE SHALL BE REMOVED FROM THE SITE PRIOR TO DEMOBILIZATION, VERIFY NO CHANGE IN TOPOGRAPHY WITHIN THE 100 YR FLOODPLAIN BOUNDARY HAS RESULTED FROM THE




**Job Description:** Chipman Rd - View High Dr to Bent Tree Dr

0 120 240 480 Feet

1 inch = 120 feet

**Maximo Work Order:** 19609081

**Project #:** 804590



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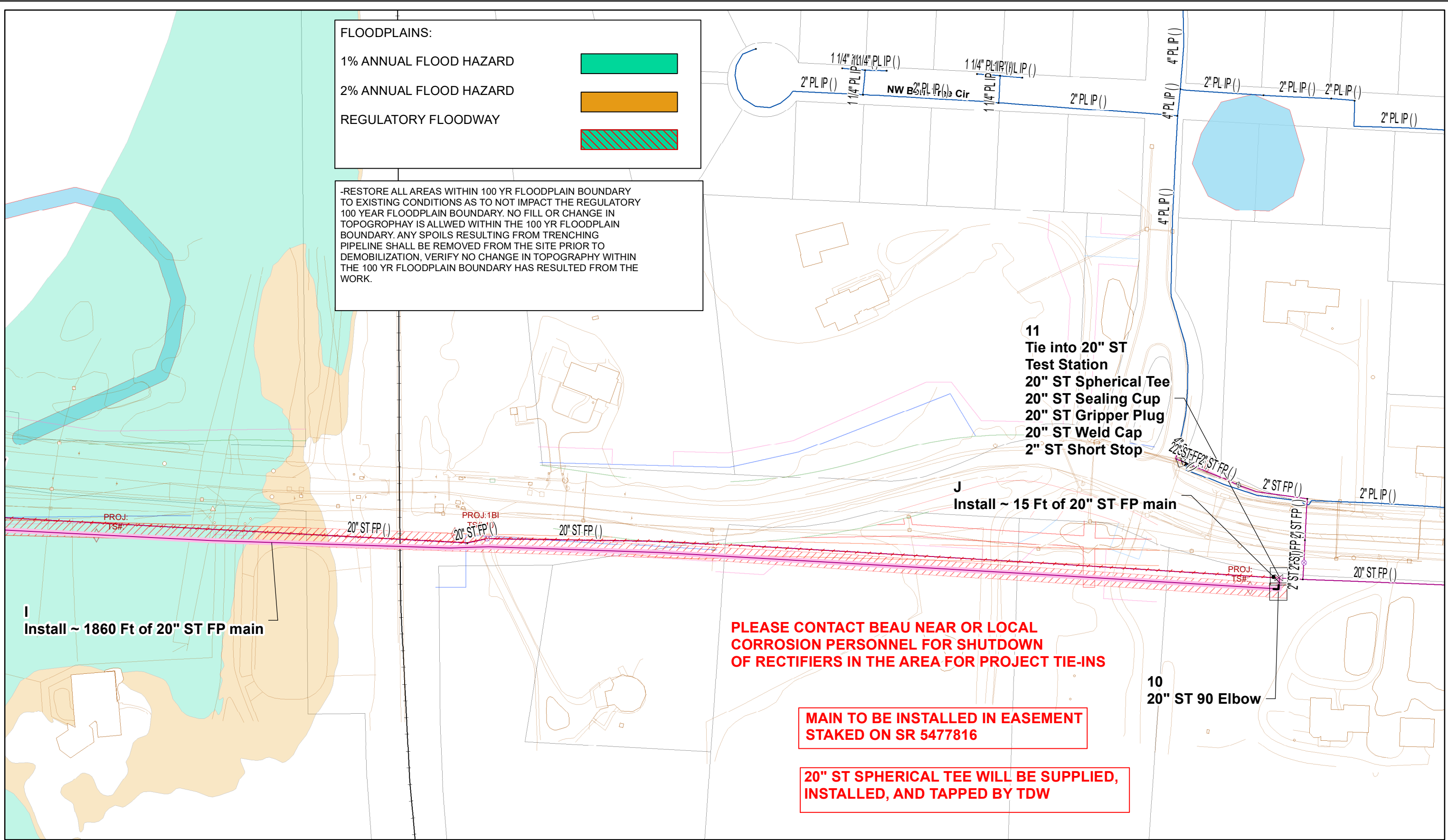
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GENERAL NOTES

- 1. CONTRACTOR SHAL PERFORM ALL WORK IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS AS DEFINED BY THE CONTRACT DOCUMENTS, SPECIFICATIONS, DRAWINGS, ENVIRONMENTAL PLANS, AND PERMIT STIPULATIONS.
- 2. CLIENT ENGINEERING SHALL APPROVE ANY DEVIATIONS FROM THE CONSTRUCTION DRAWINGS PRIOR TO INSTALLATION.
- 3. INFORMATION CONTAINED ON THESE DRAWINGS MUST BE CONSIDERED PROJECT SPECIFIC AND MUST NOT BE USED FOR ANY OTHER PURPOSE.
- 4. INFORMATION PERTAINING TO NEW ROADWAYS, EXISTING LINE LOCATIONS, RIGHT-OF-WAY BOUNDARIES, AND ALL ELEVATION DATA MUST BE CONSIDERED AS APPROXIMATE ONLY.
- 5. CONTRACTOR MUST FIELD-VERIFY ALL INFORMATION SHOWN PRIOR TO CONSTRUCTION. STANDARDS.
- 6. CONTRACTOR TO FURNISH AND MAINTAIN SAFETY AND SECURITY MEASURES AS NECESSARY TO ENSURE PUBLIC SAFETY.
- 7. CONTRACTOR SHALL ESTABLISH AND MAINTAIN BASE LINES AND BENCHMARKS CONVENIENT TO THE WORK, AND PROVIDE HORIZONTAL AND VERTICAL CONTROL FOR THE DETAILED CONSTRUCTION REQUIREMENTS.

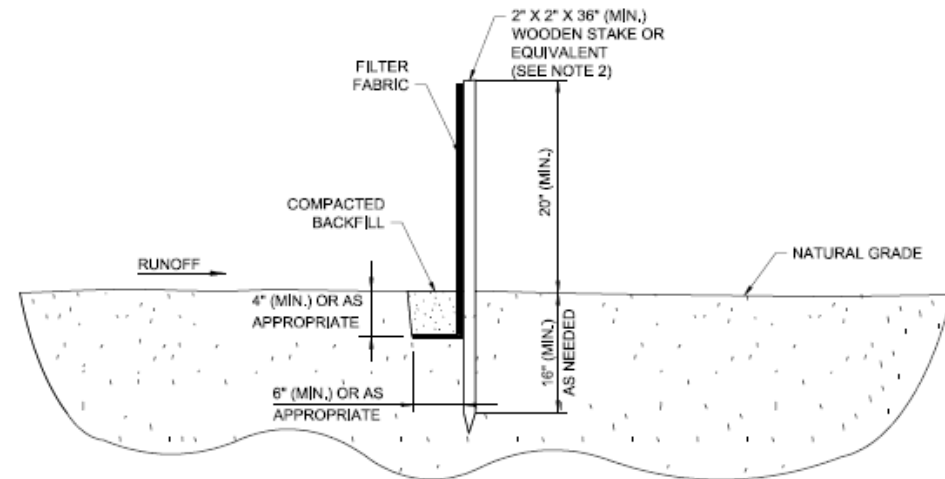
UTILITY NOTES

- 1. CONTRACTOR MUST CONTACT 811 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- 2. THE LOCATIONS OF BURIED AND ABOVE GROUND UTILITIES SHOWN ON THE DRAWING ARE FOR CONTRACTOR INFORMATIONAL USE ONLY AND ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE COMPANY, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE.
- 3. BURIED AND ABOVE GROUND UTILITY LOCATION, IDENTIFICATION, MARKING, AND PROTECTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 4. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND COMPANY. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVEGROUND UTILITIES REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONSTRUCTION NOTES

- 1. ALL WORK PERFORMED BY CONTRACTOR/SUBCONTRACTOR, INCLUDING TASKS THAT AFFECT THE OPERATIONS OR INTEGRITY OF THE PIPELINE (COVERED TASKS) PER THE DEFINITIONS SET FORTH IN DOT REGULATIONS 49 CFR PARTS 192 OR 195 (OPERATOR QUALIFICATIONS REQUIREMENTS), MUST BE PERFORMED OR SUPERVISED BY QUALIFIED INDIVIDUALS AS DEFINED IN SUCH OQ REQUIREMENTS. CONTRACTOR AGREES TO FURNISH COMPANY REPRESENTATIVE WITH ALL OQ DOCUMENTATION PRIOR TO START OF WORK.
- 2. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH ALL COMPANY STANDARDS AND SHALL CONFORM TO ANSI B31.4 LATEST EDITION.
- 3. THE EXCAVATIONS FOR THIS PROJECT SHALL BE CARRIED OUT IN ACCORDANCE WITH O.S.H.A. REGULATIONS. PROVISIONS FOR WORKER PROTECTION WITHIN EXCAVATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 4. CONTRACTOR TO EXCAVATE AND RESTORE DISTURBED AREAS TO ORIGINAL CONDITIONS OR BETTER, AND IS RESPONSIBLE FOR ALL RESEEDING, MULCH, GRAVEL, FENCING, ETC., NECESSARY FOR RESTORATION.
- 5. MINIMUM DEPTH OF PIPE COVER FOR NEW INSTALLATIONS IS 3 FEET, UNLESS OTHERWISE NOTED.
- 6. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION.
- 7. CONTRACTOR TO EXPOSE EXISTING LINE(S) AS REQUIRED FOR TIE-IN OR FIELD BEND(S) FOR FINAL ALIGNMENT.
- 8. CONTRACTOR TO FIELD VERIFY COATING ON EXISTING PIPE AND INSTALL CORRESPONDING TIE-IN GIRTH WELD COATING PER COMPANY STANDARD.
- 9. ANY DAMAGE TO THE PIPE COATING SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR. HOLIDAYS AND COATING DAMAGE ON FBE COATING SHALL BE RECOATED PER COMPANY STANDARDS.
- 10. CONTRACTOR SHALL PROVIDE ALL PRESSURE TESTING MATERIALS, INCLUDING BUT NOT LIMITED TO TEST MANIFOLDS, VALVES, GAUGES, PUMPS, HOSES, AND CALIBRATED TEST INSTRUMENTS, ETC., TO PERFORM THE PROJECT SCOPE.
- 11. CONTRACTOR IS RESPONSIBLE FOR ALL WATER HAULING AND DISPOSAL. WATER FILL AND DISCHARGE SITES SHALL BE IN ACCORDANCE WITH APPLICABLE PERMITS.
- 12. CONTRACTOR IS REPSONSIBLE FOR ALL DRILLING MUD HAULING AND DISPOSALTO APPROPRIATE DISCHARGE SITES.
- 13. THE SITE SHALL BE CLEARED OF ALL ORGANIC AND DELETERIOUS MATERIAL TO NATURAL GRADE, UNLESS PROHIBITED BY PERMIT STIPULATIONS, REMOVE ALL BELOW-GRADE STUMPS, ROOTS, LOGS, AND DELETERIOUS MATERIAL. MATERIAL FROM CLEARING AND GRUBBING OPERATIONS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN APPROVED LANDFILL. MAINTAN THE WORK SITE CLEAR OF DEBRIS AND RUBBISH.
- 14. EXISTING FACILITIES ALONG WITH TREES OR VEGETATION TO REMAIN UNDISTURBED SHALL BE DESIGNATED BY THE CLIENT. THE CONTRACTOR SHALL MARK AND PROTECT THESE ITEMS DURING THE COURSE OF CONSTRUCTION.
- 15. CONTRACTOR SHALL LOCATE SOURCES AND PROVIDE TEMPORARY STOCKPILE SITES FOR SUITABLE FILL MATERIAL AND EXCESS SPOIL. FILL MATERIAL SHALL BE APPROVED BY THE CLIENT FIELD REPRESENTATIVE BEFORE USE. NO EXCESS MATERIAL OR SPOIL IS ALLOWED WITHIN THE FLOODPLAIN AREA.
- 16. CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCE, SILT FENCE, TIMBER MATS, STRAW BALES, DRAINAGE, DEWATERING, AND EROSION CONTROL TO PROTECT EXISTING FACILITIES AND COMPLETED/IN PROGRESS WORK.
- 17. UTILIZE BEST PRACTICES TO MAINTAIN MINIMUM VERTICAL AND HORIZONTAL DISTANCES AT UTILITY CROSSINGS. MINIMUM 24” VERTICAL SEPARATION WHERE APPLICABLE.
- 18. CONTRACTOR SHALL NOT STAGE MATERIALS, EQUIPMENT, SANITARY FACILITIES, OR VEHICLES WITHIN THE MAPPED FLOODPLAIN.
- 19. CONTRACTOR SHALL NOT WORK DURING, OR WITHIN 48 HOURS OF HEAVY OR PERSISTENT RAIN EVENTS IN THE AREA DUE TO FLOOD RISKS IN THE AREA. BACKFILL ALL OPEN EXCAVATIONS WITHIN THE MAPPED FLOODPLAIN PRIOR TO FORECASTED RAIN EVENTS.
- 20. ALL AREAS WITHIN THE 100 YR FLOODPLAIN BOUNDARY TO BE RESTORED TO EXISTING CONDITIONS AS NOT TO IMPACT THE REGULATORY 100 YE FLOODPLAIN BOUNDARY. NO FILL OR CHANGE IN TOPOGRAPHY IS ALLOWED WITHIN THE 100 YR FLOODPLAIN BOUNDARY. ANY SPOILS RESULTING FROM DRILLING ACTIVITIES OR ANY EXCESS MATERIAL RESULTING FROM TRENCHING PIPELINE SHALL BE REMOVED FROM THE SITE. PRIOR TO DEMOBILIZATION VERIFY NO CHANGE IN TOPOGRAPHY WITHIN THE 100 YR FLOODPLAIN BOUNDARY HAS RESULTED FROM THE WORK.

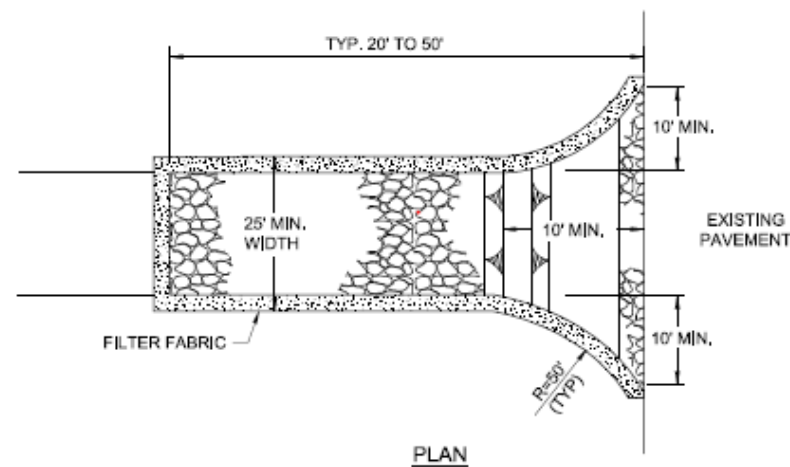




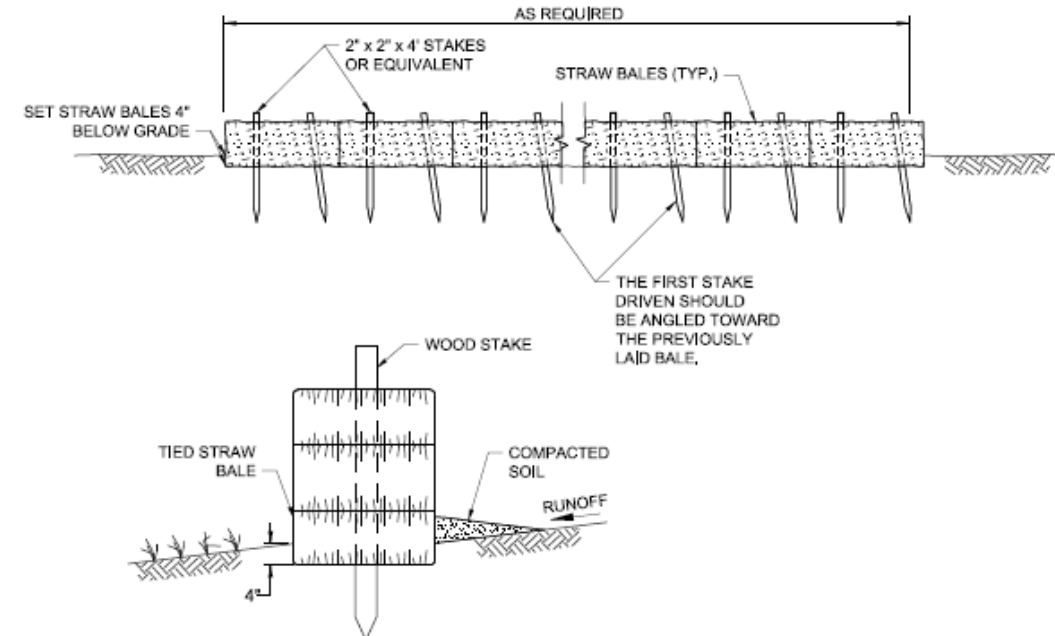
SECTION

**NOTES:**

1. SILT FENCES ARE TO BE USED IN AREAS WHERE SHEET FLOW OR RELATIVELY SMALL VOLUMES OF WATER CAN BE EXPECTED TO OCCUR. FOR LARGER VOLUMES SUCH AS WITHIN A DEFINED CHANNEL, A CHECK DAM WILL BE REQUIRED.
2. STAKES ARE TO BE PLACED A MINIMUM OF 10 FEET APART, AS DIRECTED BY ENVIRONMENTAL INSPECTOR.
3. ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF (3) LOCATIONS.
4. THE FILTER FABRIC (MIN. 12 INCHES) IS TO BE ANCHORED IN AN APPROPRIATE TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC AS SHOWN TO PREVENT UNDERMINING.
5. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED UP SLOPE AS DIRECTED BY ENVIRONMENTAL INSPECTOR.
6. SILT FENCES ARE TO BE CHECKED AND MAINTAINED ON A REGULAR BASIS AND IN ACCORDANCE WITH PERMIT REQUIREMENTS, REMOVE ANY BUILD-UP OF SEDIMENT WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS APPROXIMATELY 50% OF THE HEIGHT OF THE BARRIER.
7. MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC, SECONDARY REINFORCEMENT, SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC.
8. WHERE ANCHORING CONDITIONS FOR THE SILT FENCE ARE POOR, PLACE ANCHORED STRAW BALES OR SANDBAGS ON UPSTREAM/DOWNSTREAM SIDE OF THE SILT FENCE AS REQUIRED.
9. STAKED STRAW BALES MAY NOT BE USED IN LIEU OF SILT FENCE.



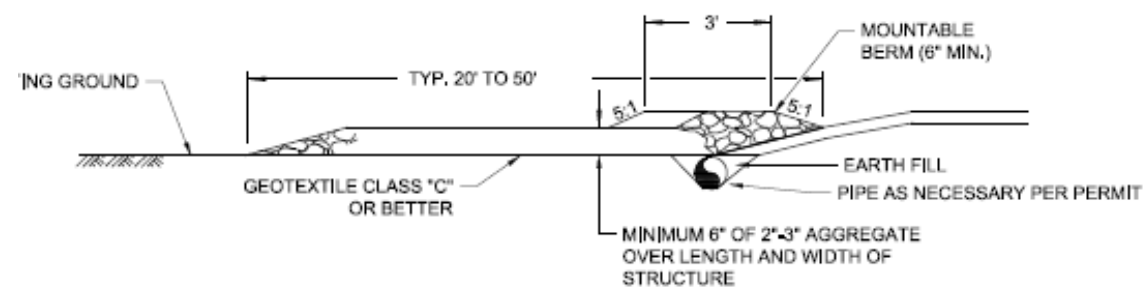
PLAN



EMBEDDED  
SECTION

**NOTES:**

1. EACH BALE SHOULD BE SECURED BY AT LEAST TWO STAKES, THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
2. COMPACT EXCAVATED SOIL AS NECESSARY AGAINST THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING, SEGREGATED TOP SOIL MAY NOT BE USED FOR THIS PURPOSE.
3. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE STRAW BALE BARRIER SHOULD BE TURNED AND EXTENDED UP SLOPE. EMBED BALES IN EARTH APPROXIMATELY 4 INCHES DEPENDENT UPON SOIL CONDITIONS.
4. STRAW BALE BARRIERS REQUIRE CONTINUAL MAINTENANCE TO REMOVE COLLECTED SEDIMENT AND REPLACE DAMAGED BALES, MAINTAIN AND REPAIR DAMAGED BALES, END RUNS, AND UNDERCUT BALES AS NEEDED.
5. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL, AS NECESSARY, THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.



PROFILE