# GATEWAY SERVICES DISTRICT GATEWAY BLVD / GRIFFIN DRIVE UTILITY RELOCATION

10600 CHEVROLET WAY, SUITE 102 ESTERO, FLORIDA 33928

Ph: 239-390-1467 Fax: 239-390-1467



www.tetratech.com

PROJECT LOCATION:

CLIENT INFORMATION:
GATEWAY SERVICES DISTRICT
13240 GRIFFIN DRIVE
FORT MYERS, FLORIDA 33913

Tt PROJECT No.: CLIENT PROJECT No.:

200-37678-20010

ITB-23-03-UT

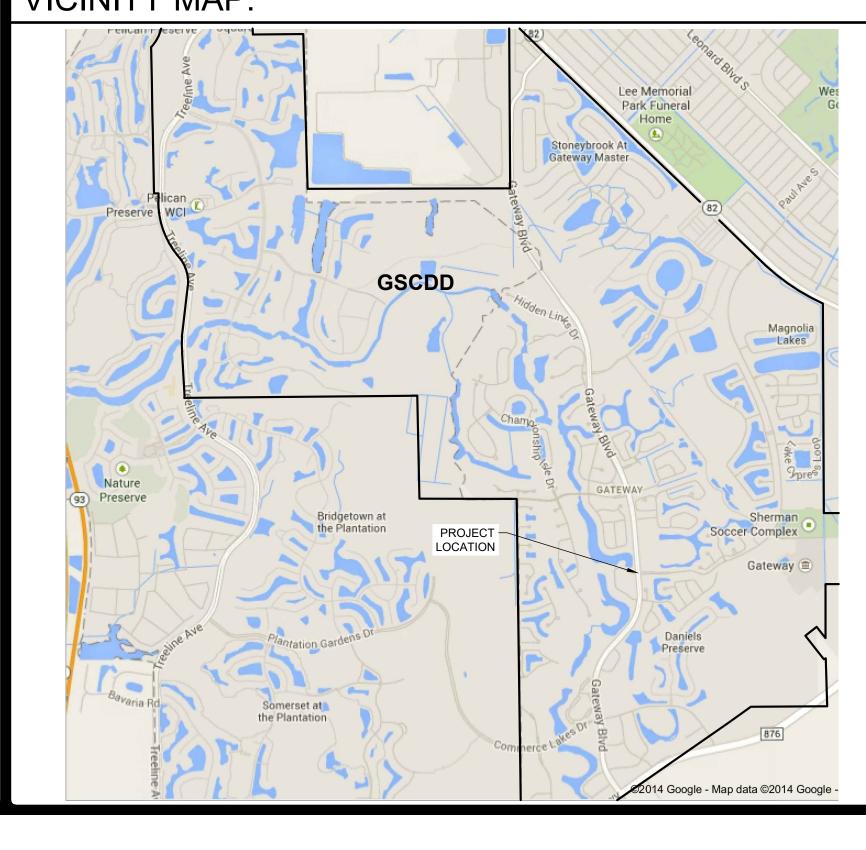
### PROJECT DESCRIPTION / NOTES:

THE WORK CONSISTS OF REPLACING POTABLE WATER, IRRIGATION WATER, AND WASTEWATER MAINS AT THE GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION. THE WORK INCLUDES OPE TRENCH CONSTRUCTION OF: 16-INCH DIP WATER MAIN; 16-INCH DIP WATER MAIN WITH 30-INCH STEEL CASING; 12-INCH PVC IRRIGATION MAIN; 12-INCH PVC IRRIGATION MAIN WITH 24-INCH STEEL CASING; 16-INCH PVC WASTEWATER FORCE MAIN; 16-INCH PVC WASTEWATER FORCE MAIN WITH 30-INCH STEEL CASING.

### **ISSUED**:

NOVEMBER / 2022 - BIDDING PLANS

### VICINITY MAP:





# PREPARED FOR

### GATEWAY SERVICES DISTRICT

13240 GRIFFIN DRIVE FORT MYERS, FLORIDA 33913

## PREPARED BY

# TETRA TECH, INC.

Infrastructure Offices Throughout Florida Orlando \* Estero

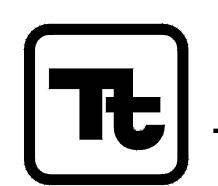
10600 CHEVROLET WAY - SUITE 102 - ESTERO - FL 33928 TELEPHONE (239) 390-1467 - FAX (239) 390-1769 - WWW.TETRATECH.COM

Alfred J. Mittl, Professional Engineer, State of Florida, License No. 59913.

This item has been digitally signed and sealed by Alfred J. Mittl, PE, on 11/17/2022.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.





LOCATION MAP

### **GENERAL NOTES**

- 1. CONTRACTOR SHALL REPLACE ALL UTILITY BOXES/COVERS DAMAGED DURING CONSTRUCTION.
- 2. OFFSET MEASUREMENTS ARE TO CENTER OF STRUCTURE OR GRATE, UNLESS OTHERWISE NOTED.
- 3. EXISTING DRAINAGE STRUCTURES AND UTILITIES WITHIN THE CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
- 4. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR, AND REPAIR, ALL DAMAGES TO BUILDINGS, TELEPHONE OR OTHER CABLES, SEWER AND WATER PIPES, PAVEMENT, DRIVEWAYS, WALLS, SPRINKLER SYSTEMS, SURVEY MARKERS, OR OTHER STRUCTURES WHICH MAY BE ENCOUNTERED WHETHER OR NOT SHOWN ON THE PLANS. CONTRACTOR TO REPORT ANY DAMAGES TO EXISTING ITEMS TO REMAIN PRIOR TO BEGINNING CONSTRUCTION.
- 5. PRIOR TO ANY CONSTRUCTION OR FABRICATION, THE CONTRACTOR SHALL SUBMIT FIVE (5) SETS OF SHOP DRAWINGS FOR ALL MATERIALS, PIPE AND APPURTENANCES. CONSTRUCTION MAY PROCEED ONCE THE SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER.
- 6. AREAS AFFECTED BY THIS PROJECT SHALL BE REGRADED TO MATCH PROPOSED CONDITIONS AS DIRECTED BY THE ENGINEER. SOD WILL BE INSTALLED AT AREAS AS DIRECTED BY THE ENGINEER.
- 7. ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCING ANY CONSTRUCTION WORK.
- 8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- 9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE PUBLIC HEALTH AND ENSURE JOB SAFETY. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE OCCUPATIONAL SAFETY & HEALTH AGENCY (OSHA) STANDARDS AND FEDERAL, STATE AND LOCAL GOVERNMENT SAFETY REQUIREMENTS.
- 10. ALL DEFECTIVE WORK NOT ACCEPTED BY THE ENGINEER, OR BY THE OWNERS REPRESENTATIVE SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- 11. ANY PUBLIC LAND CORNER OR BENCHMARK WITHIN THE LIMITS OF THE CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
- 12. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS UNLESS OTHERWISE APPROVED BY THE ENGINEER. WHENEVER CONSTRUCTION INTERFERES WITH AN EXISTING DRIVEWAY. THE CONTRACTOR SHALL PROVIDE AN ALTERNATE MEANS OF ACCESS TO THE PROPERTY.
- 13. CONTRACTOR SHALL PROVIDE SUFFICIENT PERSONNEL AND EQUIPMENT ON THE JOB AT ALL TIMES DURING CONSTRUCTION TO SATISFY THE SPECIFICATIONS AND TO COMPLETE WORK.
- 14. CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANS. IF ANY DISCREPANCY IN QUANTITIES IS FOUND, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND OWNER.
- 15. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- 16. ALL FIELD LAYOUT SURVEYING FOR CONSTRUCTION AND LOCATING EASEMENTS, ROW, AND PROPERTY LINES FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR AT THEIR EXPENSE; UNDER THE DIRECTION OF A LICENSED PROFESSIONAL LAND SURVEYOR.
- 17. BENCH MARK DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD 88). COORDINATE SYSTEM FOR THIS PROJECT SHALL BE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST; NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT).
- 18. THE COST OF SAW CUTTING SHALL BE INCIDENTAL TO THE WORK BEING PERFORMED.
- 19. ALL LANES MUST BE ABLE TO BE RE-OPENED IN 12 HOURS FOR TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER EMERGENCY EVENTS AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE PROJECT ENGINEER
- 20. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, AND DEPTH OF ALL EXISTING UTILITIES IN THE FIELD.
- 21. CONTRACTOR SHALL VERIFY ALL UTILITIES AND PROVIDE AT LEAST 48 HOURS NOTICE TO THE INDIVIDUAL UTILITY COMPANIES AND LCDOT PRIOR TO CONSTRUCTION
- 22. IN ANY EXCAVATION WORK IT SHOULD BE NOTED THAT THE WATER TABLE IS HIGH IN THIS AREA.
- 23. ALL CONSTRUCTION IN THE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT LEE COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS. ALL REQUIRED INSPECTIONS SHALL BE PERFORMED AS REQUIRED BY THESE STANDARDS. CONTRACTOR SHALL PROVIDE BOND AND PERMIT FEE AS BEOLUBED.
- 24. ALL MATERIALS AND WORKMANSHIP UNDER THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF LEE COUNTY DEVELOPMENT STANDARDS, LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2019-20, UNLESS OTHERWISE NOTED
- 25. ALL PERVIOUS AREAS WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE GRASSED, SODDED, MULCHED OR LANDSCAPED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN IF INCLUDED WITH THIS PLAN SET OR PROVIDED SEPARATELY AS PART OF CONTRACT. EXISTING SOD IS MOSTLY SAINT AUGUSTINE.
- 26. ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS SHALL BE COMPLIED WITH.
- 27. APPROPRIATE TURBIDITY CONTROL DEVICES SUCH AS SILT FENCES WILL BE UTILIZED DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NPDES NOTICE OF INTENT, NOTICE OF TERMINATION, AND LEE COUNTY RIGHT-OF-WAY PERMITS. NOI MUST BE FILED WITH FDEP IN ACCORDANCE WITH DEP DOCUMENT NO. 62-621 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND MAINTAINING AN EFFECTIVE STORMWATER POLLUTION PREVENTION PLAN.
- 28. ALL EXISTING PIPES THAT ARE TO REMAIN IN SERVICE WITHIN THE RIGHT-OF-WAY CORRIDOR ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED IN THE PLANS.
- 29. ALL EXISTING DRAINAGE STRUCTURES ARE TO REMAIN UNLESS NOTED ON THE ROADWAY PLANS.
- 30. BURIED PHONE LINES EXIST THROUGHOUT THE LIMITS OF WORK BUT MAY NOT BE IDENTIFIED ON THE DRAWINGS. PROCEED WITH CAUTION TO MAINTAIN THE PHONE SERVICES. DAMAGES TO, OR RELOCATION OF PHONE LINES DURING CONSTRUCTION SHALL BE REPORTED IMMEDIATELY TO AND/OR COORDINATED WITH CENTURYLINK TELEPHONE AND REPAIRED OR RELOCATED AT THE CONTRACTOR'S EXPENSE.
- 31. WATER, SEWER, AND IRRIGATION SERVICES MAY EXIST WITHIN THE LIMITS OF WORK BUT MAY NOT BE IDENTIFIED ON THE DRAWINGS. PROCEED WITH CAUTION TO MAINTAIN THE WATER SERVICES.DAMAGES TO, OR RELOCATION OF WATER SERVICES DURING CONSTRUCTION SHALL BE REPORTED IMMEDIATELY TO AND/OR COORDINATED WITH GSCDD AND REPAIRED OR RELOCATED AT THE CONTRACTOR'S EXPENSE.

- 32. OVERHEAD AND UNDERGROUND ELECTRIC LINES EXIST THROUGHOUT THE LIMITS OF WORK BUT MAY NOT BE SHOWN ON THE DRAWINGS. PROCEED WITH CAUTION TO PROTECT THE ELECTRIC LINES AND DAMAGES TO, OR RELOCATION OF ELECTRIC LINES OR POLES SHALL BE REPORTED IMMEDIATELY TO AND/OR COORDINATED WITH POWER COMPANY AND REPAIRED OR RELOCATED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL ARRANGE AND PAY FOR ALL UTILITY POLE BRACING REQUIRED BY HIS OPERATIONS.
- 33. BURIED CABLE AND FIBER OPTIC LINES EXIST THROUGHOUT THE LIMITS OF WORK BUT MAY NOT BE SHOWN ON THE DRAWINGS. PROCEED WITH CAUTION TO PROTECT THE BURIED CABLE AND FIBER OPTIC LINES. DAMAGES TO OR RELOCATION OF CABLE AND FIBER OPTIC LINES SHALL BE REPORTED IMMEDIATELY TO AND/OR COORDINATED WITH THE CABLE COMPANY AND REPAIRED OR RELOCATED AT THE CONTRACTOR'S EXPENSE
- 34. DISRUPTION OR DAMAGE TO EXISTING UTILITY LINES SHALL BE REPORTED TO THE UTILITY OWNER, GSCDD AND ENGINEER IMMEDIATELY.
- 35. CONTRACTOR SHALL EXCAVATE TEST PITS FOR THE PURPOSE OF PROTECTING AND CONFIRMING LOCATION AND DEPTH OF EXISTING UTILITIES OR STRUCTURES IN ADVANCE OF CONSTRUCTION. TEST PITS SHALL BE DUG BY HAND AND BACKFILLED IMMEDIATELY AFTER THEIR PURPOSE HAS BEEN SATISFIED AND SHALL NOT REMAIN OPEN DURING NONWORKING HOURS.
- 36. HORIZONTAL AND VERTICAL SEPARATION OF WATER, SANITARY SEWER AND OTHER UTILITIES SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND THE SPECIFIC REQUIREMENTS OF THE PROJECT PERMITS.
- 37. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE ACCURATELY RECORDED ON THE CONSTRUCTION DRAWINGS. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY CONFLICTS WITH THE PROPOSED CONSTRUCTION.
- 38. CONTRACTOR SHALL PROVIDE SUPPLEMENTAL PHYSICAL SUPPORT FOR EXISTING UTILITIES THAT ARE EXPOSED BY EXCAVATION AS DIRECTED BY THE ENGINEER. THERE SHALL BE NO VISIBLE DEFLECTION ON EXISTING UTILITIES AS THEY ARE UNDERMINED FOR TRENCHING.
- 39. ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES SHALL BE COMPLETELY RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING PRIOR TO CONSTRUCTION.
- 40. THE CONTRACTOR SHALL OBTAIN THE NECESSARY TESTING TO ASSURE THAT THE PROPER COMPACTION HAS BEEN ACHIEVED PER THE PLANS AND SPECS. THE CONTRACTOR SHALL BEAR ALL COSTS ASSOCIATED WITH TESTING AND RETESTING OF THE AREAS AND SHALL PROVIDE THE OWNER AND THE ENGINEER WITH COPIES OF THE CERTIFICATION OF COMPACTION FROM THE TESTING COMPANY.
- 41. ALL EXCESS FILL FROM SITE SHALL BE STOCKPILED BY THE CONTRACTOR, IN A LOCATION DETERMINED BY THE OWNER OR THE OWNER'S REPRESENTATIVE AND THE ENGINEER.

DRAWING INDEX					
Sheet Number	Sheet Title				
G-000	COVER				
G-001	GENERAL NOTES & LOCATION MAP				
G-002	LEGENDS AND ABBREVIATIONS				
V-100	EXISTING CONDITIONS				
V-101	EXISTING CONDITIONS WITH AERIAL				
C-100	GATEWAY BLVD & GRIFFIN LS SITE PLAN - WEST				
C-101	GATEWAY BLVD & GRIFFIN LS SITE PLAN - EAST				
C-102	OVERALL SITE PLAN - GATEWAY BLVD & GRIFFIN DR				
C-201	UTILITY PROFILES				
C-202	UTILITY PROFILES				
C-203	UTILITY PROFILES				
C-204	IRRIGATION AND WATER MAIN TABLES				
C-205	FORCE MAIN TABLE				
C-501	STANDARD DETAILS				
C-502	STANDARD DETAILS				

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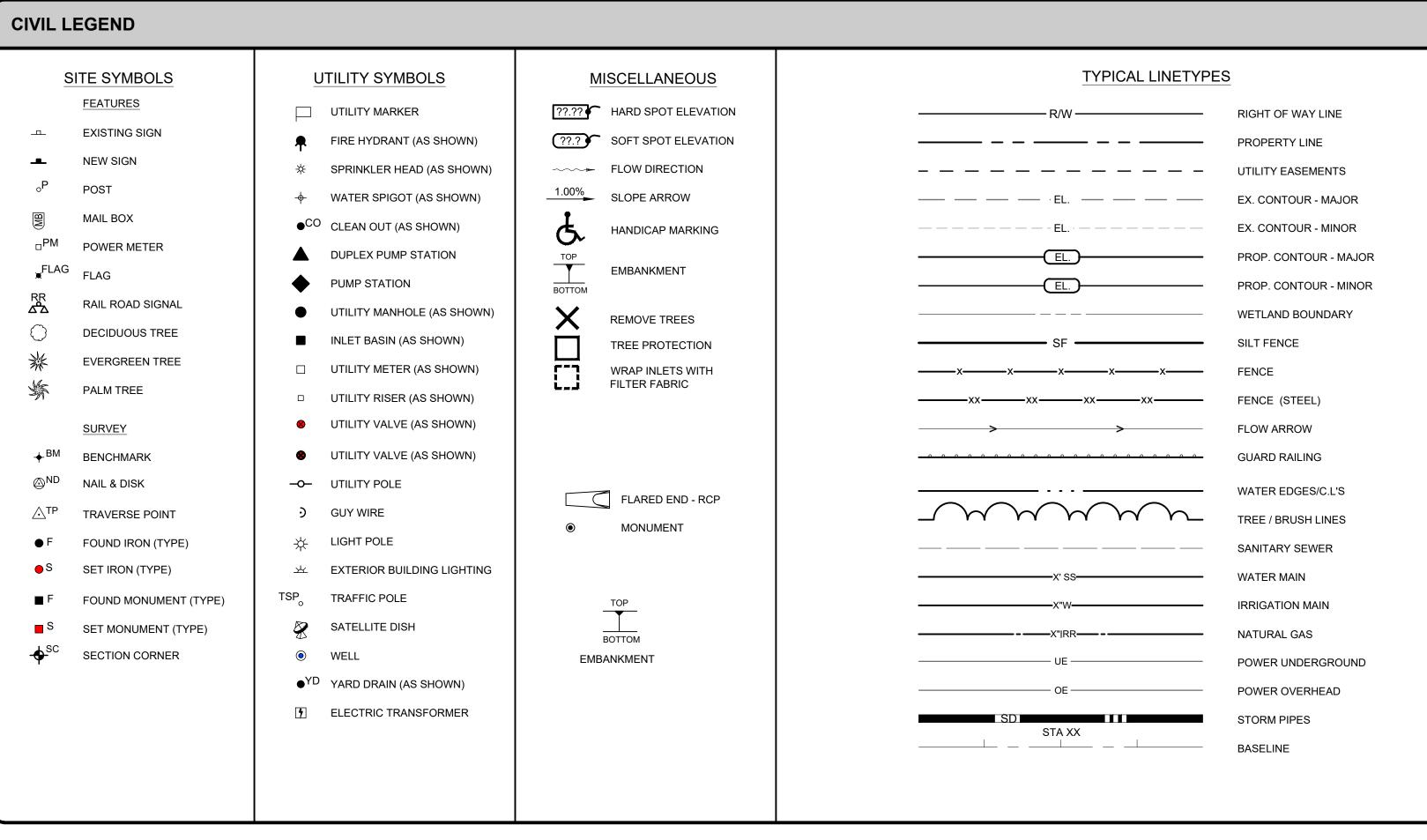
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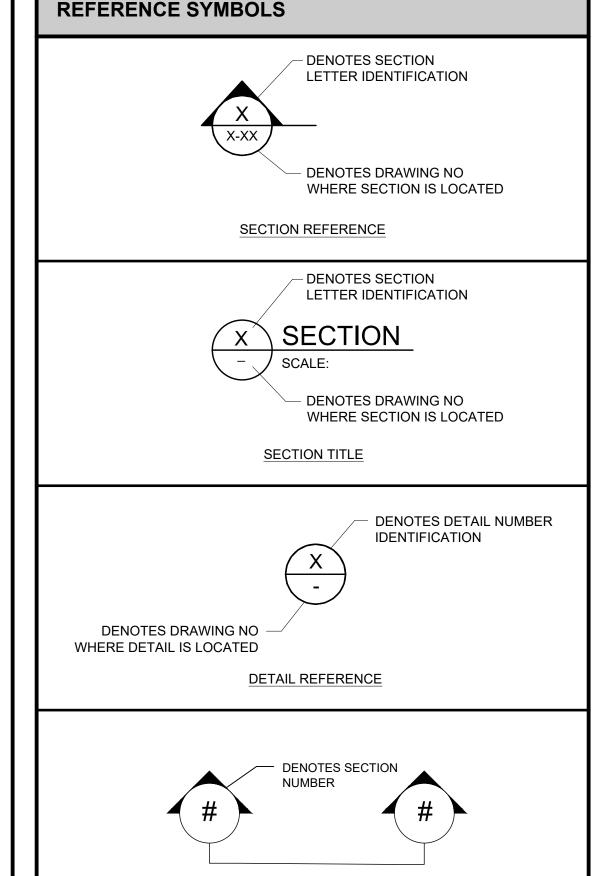
GATEWAY BLVD / GRIFFIN DE UTILITY RELOCATION LOCATION MAP & GENERAL NOTE

Project No.: 200-37678-20010
Designed By: TW
Drawn By: GM

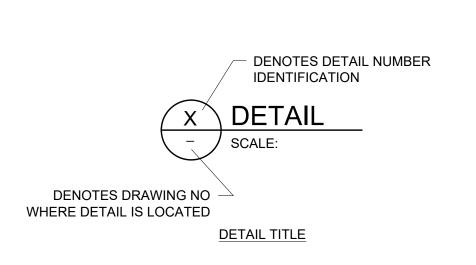
G-001

Checked By:





SECTION VIEW EVERY ±100'



НАТСН	ING LEGEND	
	ASPHALT OR CONCRETE SURFACE (SIDEWALK OR ROADWAY)	PRECAST CONCRETE
	ROADWAY/SIDEWALK OPEN CUT RESURFACE	GROUT
ψ ψ Ψ	SODDED OR SEEDED AND MULCHED AREA OR EXISTING WETLAND	CONCRETE UNIT MASONRY (PLAN)
	EARTH	STEEL
	EXISTING PIPES, STRUCTURES, EQUIPMENT TO BE REMOVED	ALUMINUM

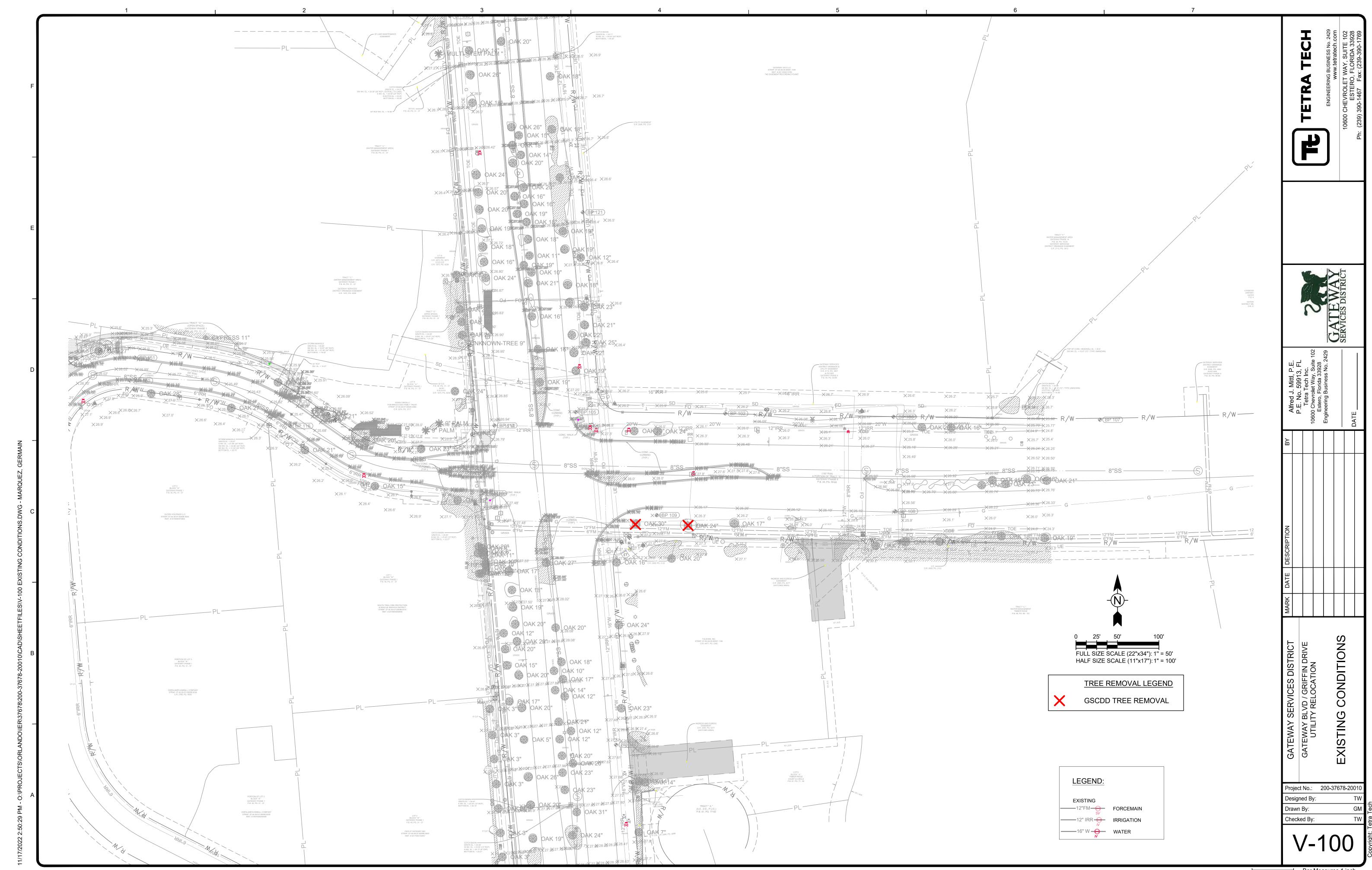
GRATING

CAST-IN-PLACE

CONCRETE

MECHANICAL/DRAFTING LEGEND					
	EXISTING	PROPOSED			
VISIBLE LINE					
HIDDEN LINE					
CENTER LINE					
PHANTOM LINE					
MATCHLINE					
BREAK LINE					
DIMENSION LINES AND LEADERS					

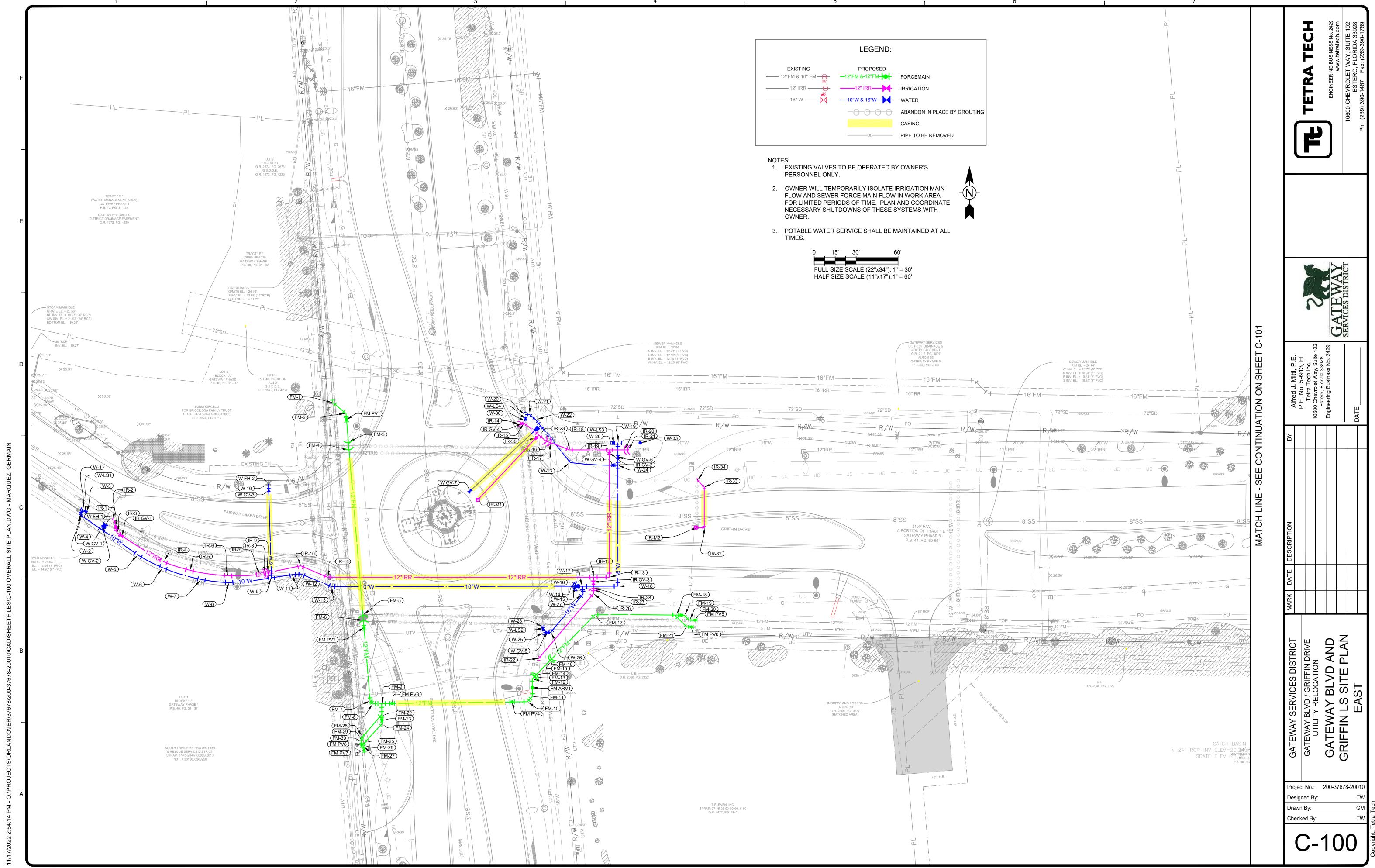
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	EXISTING	PROPOSED	AY SERVIC	AY BLVD / C	-EGENDS AND	<b>ABBREVIATIONS</b>	
			GATEW	GATEW, UJ	Ш	AB	
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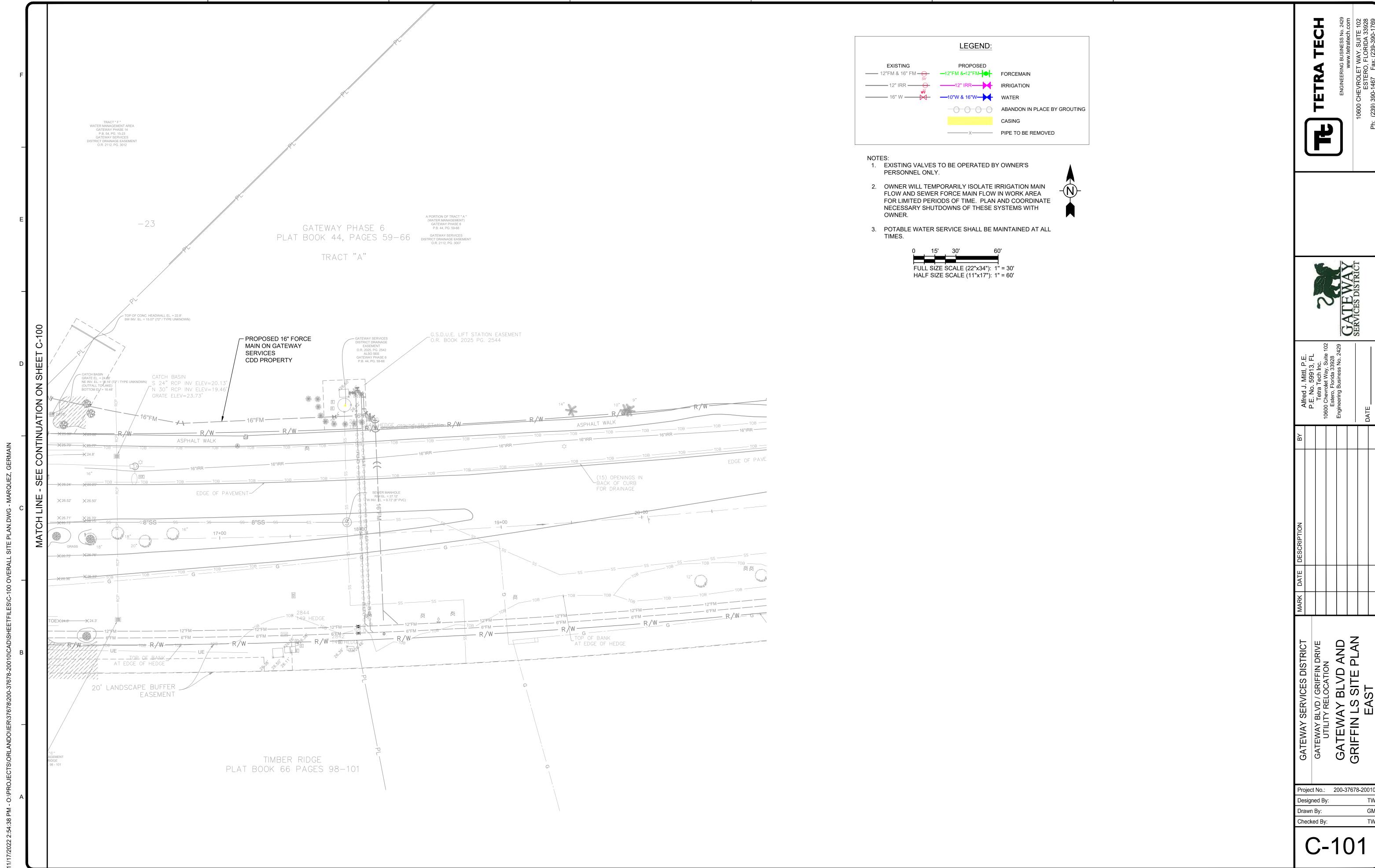
Bar Measures 1 inch

Project No.: 200-37678-20010 Designed By: Drawn By: Checked By: FULL SIZE SCALE (22"x34"): 1" = 50' HALF SIZE SCALE (11"x17"): 1" = 100'

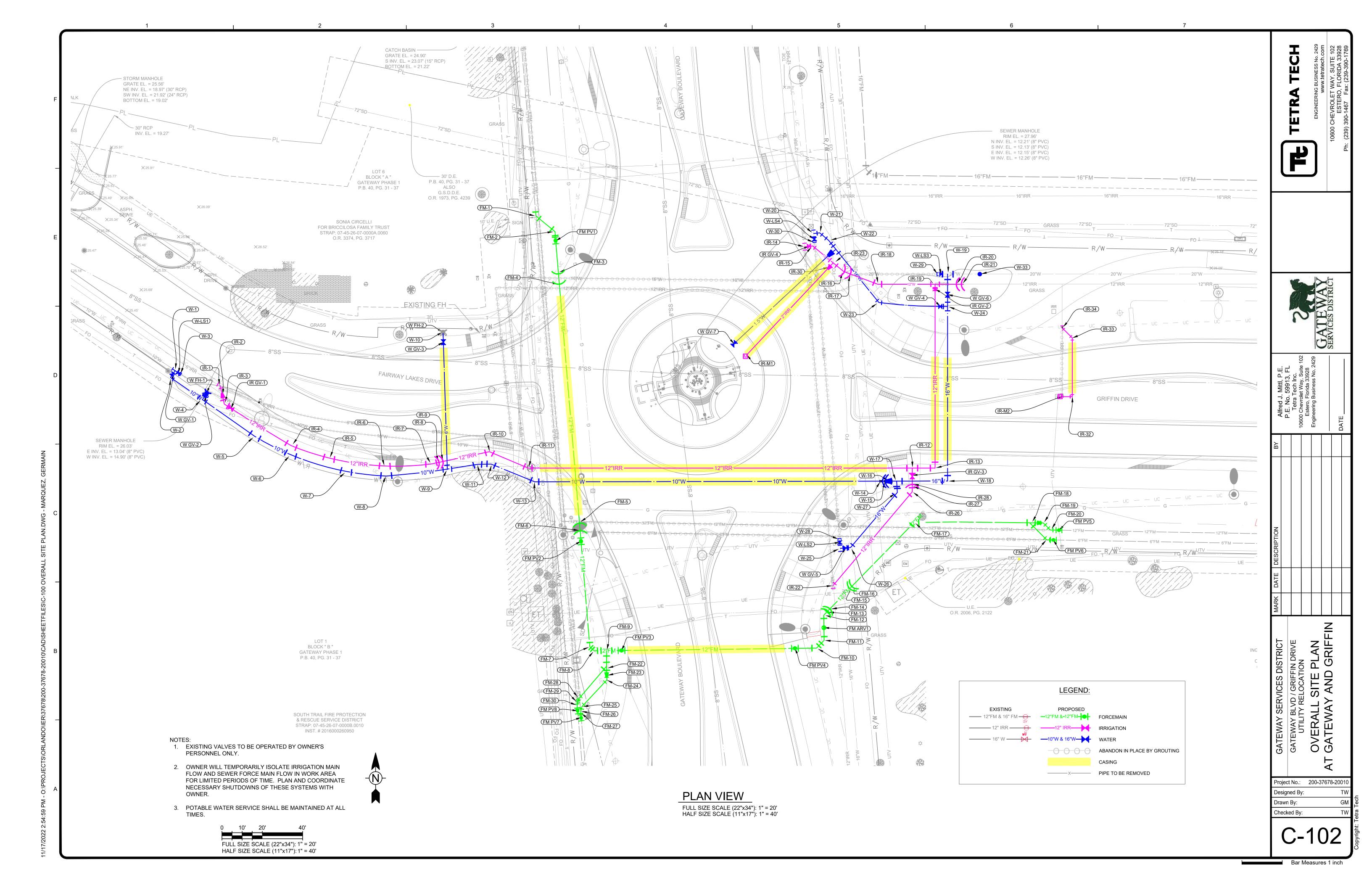
Bar Measures 1 inch

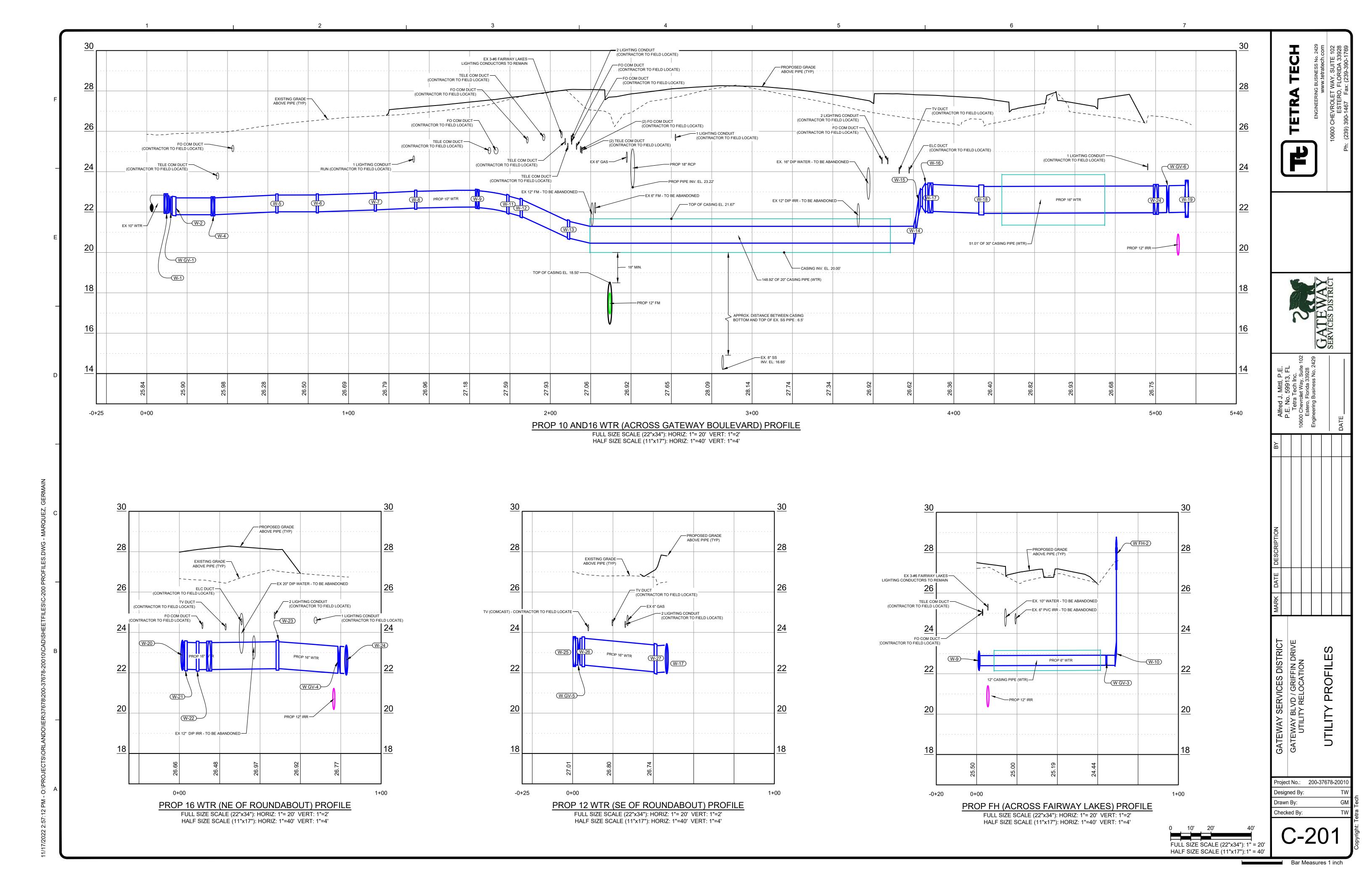


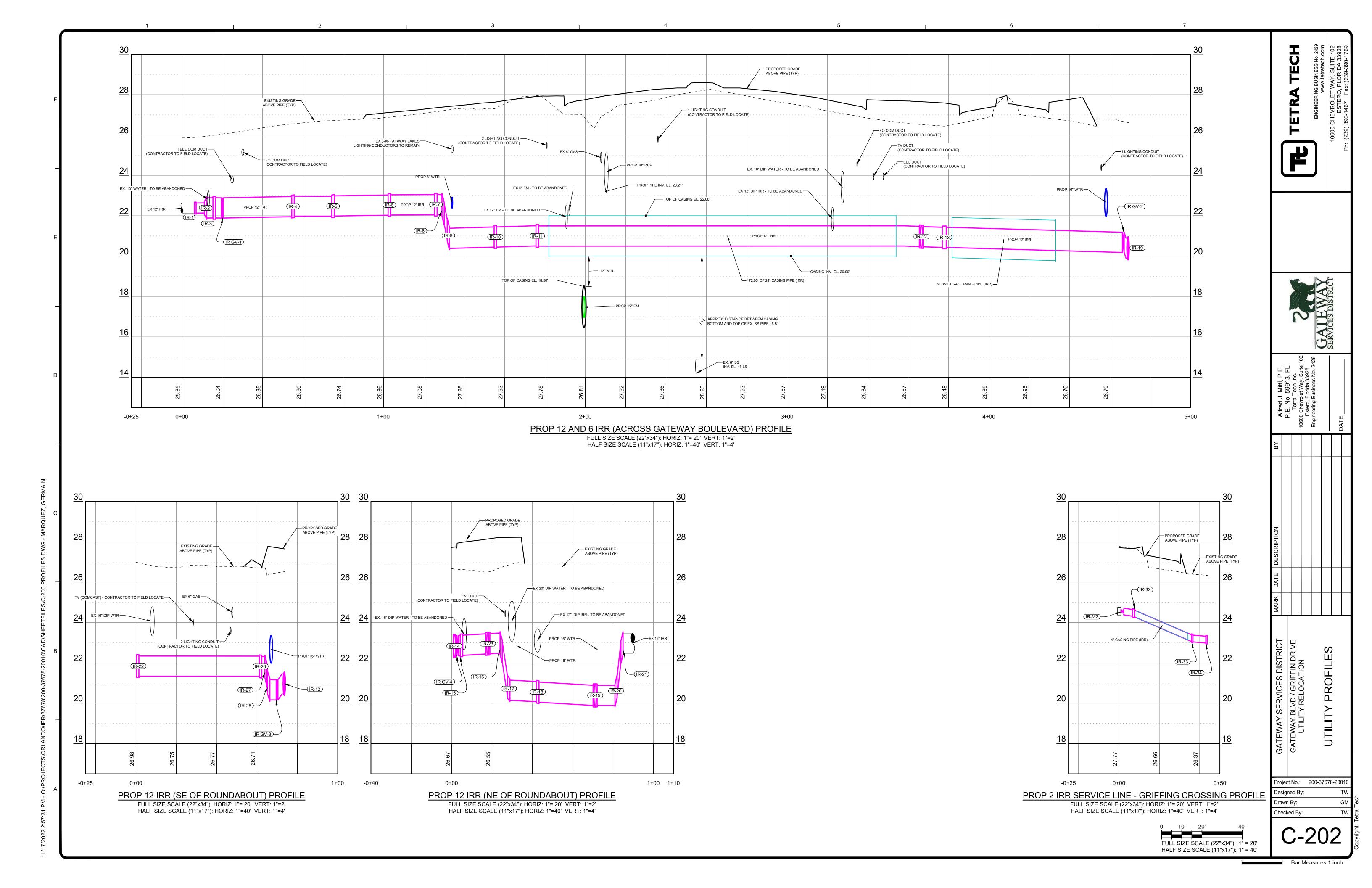
Bar Measures 1 inc

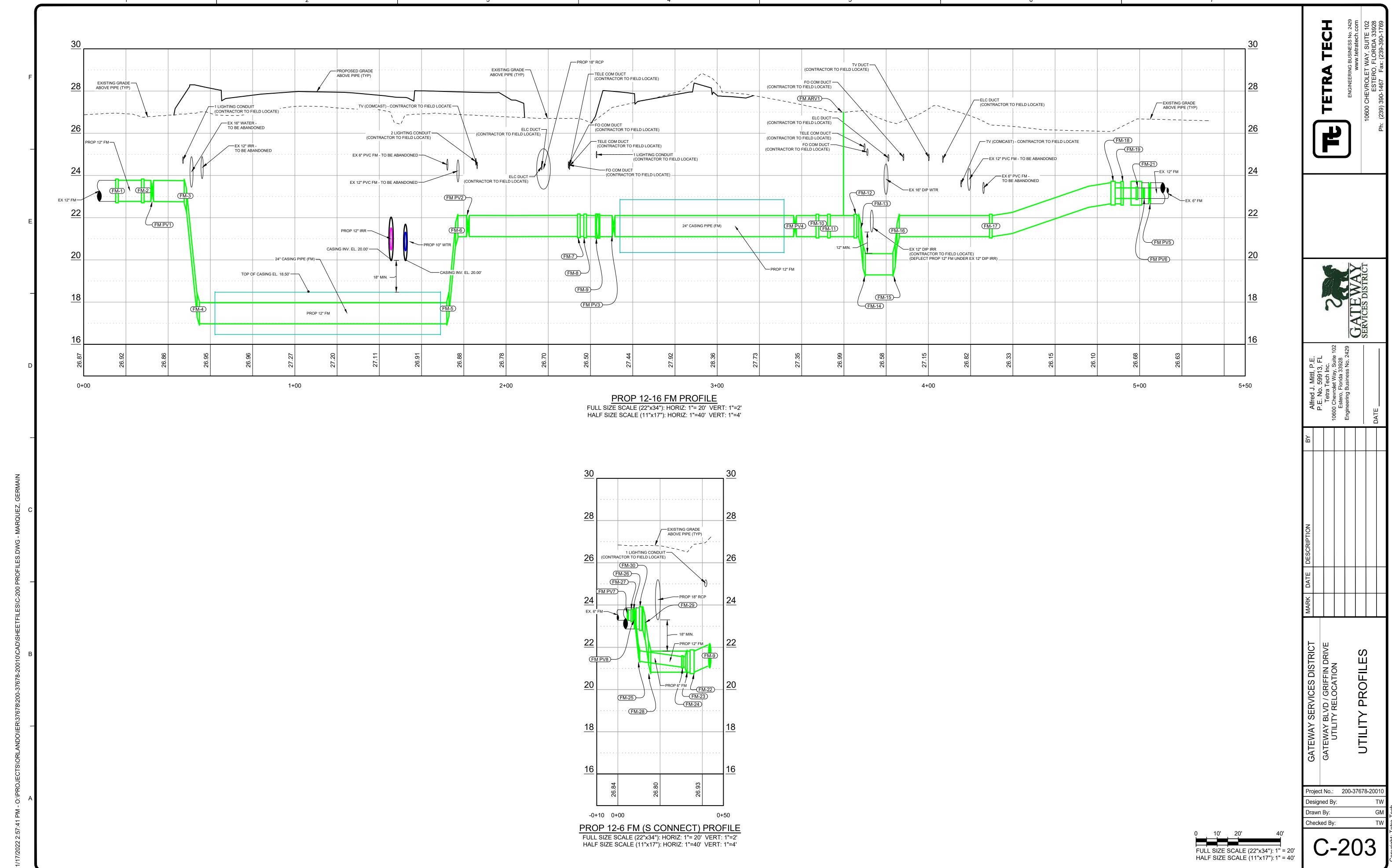


Bar Measures 1 inc









Bar Measures 1 inch

# WATER TABLES

PIPE TABLE

	FITTING TABLE						
ID	DIAMETER	TYPE	COORDINATES	ELEV. (CENTER)			
W-1	10 X 10	TEE	N:813596.4001 E:737967.7734	22.42			
W-2	10	90° BEND	N:813593.0515 E:737965.4750	22.27			
W-3	10	CAP	N:813594.6871 E:737970.3426	22.42			
W-4	10 X 6	TEE	N:813582.1199 E:737981.3142	22.29			
W-5	10	11.25° BEND	N:813563.8681 E:738007.2516	22.42			
W-6	10	11.25° BEND	N:813554.6416 E:738025.0405	22.47			
W-7	10	11.25° BEND	N:813546.2721 E:738052.5437	22.55			
W-8	10	11.25° BEND	N:813544.2140 E:738072.4377	22.61			
W-9	10 X 6	TEE	N:813547.4713 E:738102.8091	22.65			
W-10	6	90° BEND	N:813615.5409 E:738100.5843	22.66			
W-11	10	11.25° BEND	N:813550.0393 E:738117.7193	22.42			
W-12	10	22.5° BEND	N:813550.1284 E:738124.3685	22.22			
W-13	10	22.5° BEND	N:813541.3110 E:738146.0445	21.11			
W-14	10	45° BEND	N:813541.6501 E:738317.6794	20.88			
W-15	10	45° BEND	N:813541.6516 E:738319.9081	22.70			
W-16	16 X 10	REDUCER	N:813541.6505 E:738322.1771	22.70			
W-17	16 X 16	TEE	N:813541.6490 E:738325.3667	22.70			
W-18	16	90° BEND	N:813541.6991 E:738350.6178	22.60			
W-19	20 X 16	TEE	N:813644.2569 E:738350.6753	22.66			
W-20	16 X 16	TEE	N:813664.4166 E:738284.2879	22.87			
W-21	16	45° BEND	N:813664.6836 E:738287.2720	22.84			
W-22	16	11.25° BEND	N:813660.9590 E:738291.7292	22.82			
W-23	16	45° BEND	N:813630.1714 E:738316.6003	22.87			
W-24	16 X 16	TEE	N:813628.2144 E:738350.6322	22.63			
W-25	16 X 16	TEE	N:813508.3850 E:738297.4583	23.05			
W-26	16	45° BEND	N:813508.7916 E:738302.5088	23.04			
W-27	16	45° BEND	N:813536.0780 E:738325.7283	22.71			
W-28	16	CAP	N:813512.8508 E:738297.0792	23.05			
W-29	20	CAP	N:813644.2683 E:738345.8195	23.00			
W-30	16	CAP	N:813659.9517 E:738284.6781	22.87			
W-31	16 X 6	TEE	N:813656.5278 E:738295.3088	22.83			
W-32	6 X 3	REDUCER	N:813654.2834 E:738292.5305	22.83			
W-33	20	TEMPORARY LINE STOP	N:813644.2683 F:738366.5975	22.65			

THE TABLE				
LENGTH	PIPE SIZE	DESCRIPTION		
0.68'	10"	PROP 10" WTR"		
0.73'	10"	PROP 10" WTR"		
0.98'	10"	PROP 10" WTR"		
0.99'	16"	PROP 16" WTR"		
1.03'	16"	PROP 16" WTR"		
1.08'	16"	PROP 16" WTR"		
1.14'	6"	PROP 6" WTR"		
1.19'	16"	PROP 16" WTR"		
1.27'	6"	PROP 6" WTR"		
1.46'	10"	PROP 10" WTR"		
1.81'	16"	PROP 16" WTR"		
1.95'	6"	PROP 6" WTR"		
3.67'	16"	PROP 16" WTR"		
3.78'	16"	PROP 16" WTR"		
4.06'	16"	PROP 16" WTR"		
4.06'	6"	PROP 6" WTR"		
4.48'	16"	PROP 16" WTR"		
5.57'	10"	PROP 10" WTR"		
8.09'	16"	PROP 16" WTR"		
9.51'	16"	PROP 16" WTR"		
9.64'	16"	PROP 16" WTR"		
9.64'	10"	PROP 10" WTR"		
10.09'	16"	PROP 16" WTR"		
10.13'	10"	PROP 10" WTR"		
11.55'	10"	PROP 10" WTR"		
13.67'	10"	PROP 10" WTR"		
17.41'	10"	PROP 10" WTR"		
18.92'	10"	PROP 10" WTR"		
18.96'	10"	PROP 10" WTR"		
19.46'	10"	PROP 10" WTR"		
22.32'	10"	PROP 10" WTR"		
22.75'	16"	PROP 16" WTR"		
27.67'	10"	PROP 10" WTR"		
30.26'	10"	PROP 10" WTR"		
31.97'	16"	PROP 16" WTR"		
34.50'	16"	PROP 16" WTR"		
61.93'	6"	PROP 6" WTR"		
64.67'	1.5"	PROP 1.5" WTR"		
84.02'	16"	PROP 16" WTR"		
148.88'	10"	PROP 10" WTR"		

	ABLE		
	LENGTH	PIPE SIZE	DESCRIPTION
	51.01'	30"	30" CASING PIPE (WTR
	52.80'	12"	12" CASING PIPE (WTR
	148.92'	20"	20" CASING PIPE (WTR

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	APPURTENANCE TABLE						
ID	DIAMETER	TYPE	COORDINATES	ELEV (CENTER)			
W-LS1	10"	PROP 10" WATER HOT TAP WITH LINE STOP AND CAP	N:813595.2630 E:737969.4638	22.42			
W-LS2	16"	PROP 16" WATER HOT TAP WITH LINE STOP AND CAP	N:813511.2946 E:738297.2139	23.05			
W-LS3	20"	PROP 20" WATER HOT TAP WITH LINE STOP AND CAP	N:813644.2569 E:738347.5101	22.66			
W-LS4	16"	PROP 16" WATER HOT TAP WITH LINE STOP AND CAP	N:813661.5689 E:738284.5426	22.87			
W FH-1	6"	FIRE HYDRANT	N:813585.3266 E:737983.4691	22.64			
W FH-2	6"	RELOCATED EX FIRE HYDRANT	N:813615.5051 E:738100.5192	27.17			
W GV-1	10"	GATE VALVE	N:813594.7449 E:737966.6420	22.36			
W GV-2	6"	GATE VALVE	N:813584.1514 E:737982.6859	22.47			
W GV-3	6"	GATE VALVE	N:813610.5500 E:738100.7406	22.67			
W GV-4	16"	GATE VALVE	N:813628.2660 E:738347.0013	22.64			
W GV-5	16"	GATE VALVE	N:813508.6131 E:738300.2920	23.05			
W GV-6	16"	GATE VALVE	N:813634.0958 E:738350.6510	22.64			
W GV-7	4"	GATE VALVE	N:813609.7513 E:738244.8343	22.83			

### **IRRIGATION TABLES**

	PIPE	TABLE
LENGTH	PIPE SIZE	DESCRIPTION
0.27'	12"	PROP 12" IRR"
0.74'	12"	PROP 12" IRR"
0.86'	12"	PROP 12" IRR"
0.96'	12"	PROP 12" IRR"
1.51'	12"	PROP 12" IRR"
1.55'	12"	PROP 12" IRR"
1.61'	4"	PROP 4" IRR"
1.88'	12"	PROP 12" IRR"
2.14'	12"	PROP 12" IRR"
2.40'	12"	PROP 12" IRR"
2.68'	12"	PROP 12" IRR"
2.93'	12"	PROP 12" IRR"
3.08'	12"	PROP 12" IRR"
3.19'	12"	PROP 12" IRR"
4.10'	6"	PROP 6" IRR"
4.42'	2"	PROP 2" IRR SERVICE LINE
5.03'	12"	PROP 12" IRR"
6.41'	2"	PROP 2" IRR SERVICE LINE
7.53'	12"	PROP 12" IRR"
8.84'	12"	PROP 12" IRR"
9.32'	12"	PROP 12" IRR"
11.47'	12"	PROP 12" IRR"
13.16'	12"	PROP 12" IRR"
16.00'	12"	PROP 12" IRR"
18.02'	12"	PROP 12" IRR"
18.61'	12"	PROP 12" IRR"
19.57'	12"	PROP 12" IRR"
21.82'	12"	PROP 12" IRR"
22.20'	12"	PROP 12" IRR"
26.66'	12"	PROP 12" IRR"
26.81'	12"	PROP 12" IRR"
28.21'	2"	PROP 2" IRR SERVICE LINE
59.36'	2"	PROP 2" IRR"
59.63'	12"	PROP 12" IRR"
87.31'	12"	PROP 12" IRR"
181.24'	12"	PROP 12" IRR"

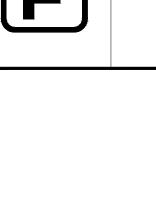
PIPE TABLE					
LENGTH	PIPE SIZE	DESCRIPTION			
25.23'	4"	4" CASING PIPE (IRR)"			
51.35'	24"	24" CASING PIPE (IRR)"			
172.05'	24"	24" CASING PIPE (IRR)"			

	FITTING TABLE							
ID	DIAMETER	TYPE	COORDINATES	ELEV. (CENTER)				
IR-1	6	45° BEND	N:813589.0773 E:737990.0646	22.38				
IR-2	12 X 6	REDUCER	N:813584.1177 E:737991.2520	22.38				
IR-3	12	45° BEND	N:813579.9212 E:737992.1570	22.39				
IR-4	12	11.25° BEND	N:813559.2852 E:738025.2700	22.45				
IR-5	12	11.25° BEND	N:813552.7781 E:738044.0352	22.48				
IR-6	12	11.25° BEND	N:813548.8907 E:738071.6759	22.53				
IR-7	12	11.25° BEND	N:813550.1905 E:738094.7088	22.55				
IR-8	12	45° BEND	N:813550.9689 E:738098.2741	22.54				
IR-9	12	45° BEND	N:813551.4615 E:738100.6167	20.88				
IR-10	12	45° BEND	N:813556.2869 E:738123.5673	20.95				
IR-11	12	22.5° BEND	N:813548.1451 E:738142.7173	21.00				
IR-12	12 X 12	TEE	N:813548.1689 E:738333.1111	20.96				
IR-13	12	90° BEND	N:813548.1423 E:738344.4310	20.93				
IR-14	12 X 12	TEE	N:813657.8613 E:738279.8533	22.84				
IR-15	12	45° BEND	N:813658.2167 E:738283.8809	22.87				
IR-16	12	45° BEND	N:813645.6081 E:738299.0804	22.98				
IR-17	12	45° BEND	N:813644.3115 E:738302.5301	20.49				
IR-18	12	22.5° BEND	N:813639.2483 E:738316.0010	20.57				

	FITTING TABLE					
ID	DIAMETER	TYPE	COORDINATES	ELEV. (CENTER)		
IR-19	12 X 12	TEE	N:813639.2335 E:738344.4349	20.39		
IR-20	12	45° BEND	N:813639.2364 E:738354.8989	20.39		
IR-21	12	45° BEND	N:813639.2364 E:738357.6587	22.98		
IR-22	12	45° BEND	N:813489.8985 E:738293.8517	21.84		
IR-23	12 X 4	TEE	N:813649.8586 E:738293.9564	22.94		
IR-26	12	45° BEND	N:813536.4109 E:738333.1242	21.83		
IR-27	12	45° BEND	N:813539.2057 E:738333.1326	21.82		
IR-28	12	45° BEND	N:813540.3963 E:738333.1361	20.61		
IR-30	4 X 3	REDUCER	N:813647.6283 E:738292.1063	22.94		
IR-32	4	90° BEND	N:813583.5570 E:738412.4228	24.47		
IR-33	4	45° BEND	N:813612.6413 E:738412.4100	23.21		
IR-34	4	45° BEND	N:813617.6430 E:738407.4083	23.15		

APPURTENANCE TABLE					
ID	DIAMETER	TYPE	COORDINATES	ELEV (CENTER)	
IR-M1	2"	2" IRR METER	N:813604.2834 E:738251.1179	22.94	
IR-M2	2"	2" IRR METER	N:813583.5583 E:738407.4597	24.55	
R GV-1	12"	GATE VALVE	N:813577.7716 E:737995.4887	22.38	
R GV-2	12"	GATE VALVE	N:813636.8660 E:738344.4348	20.68	
R GV-3	12"	GATE VALVE	N:813544.6184 E:738333.1148	20.66	
R GV-4	12"	GATE VALVE	N:813658.0436 E:738281.9929	22.85	





BY Alfred I Mi#I D E	P.E. No. 59913, FI	Tetra Tech Inc.	Estero, Florida 33928	Engineering Business No.	DATE	
RIPTION						

GATEWAY SERVICES DISTRICT
GATEWAY BLVD / GRIFFIN DRIVE
UTILITY RELOCATION

Drawn By:
Checked By:

### FORCE MAIN TABLE

		FITTIN	NG TABLE	
ID	DIAMETER	TYPE	COORDINATES	ELEV. (CENTER)
FM-1	12	45° BEND	N:813673.0675 E:738146.6146	23.27
FM-2	12	45° BEND	N:813665.3243 E:738155.9935	23.27
FM-3	12	45° BEND	N:813645.1311 E:738157.7377	23.26
FM-4	12	45° BEND	N:813639.2224 E:738158.2343	17.44
FM-5	12	45° BEND	N:813521.2511 E:738168.1663	17.47
FM-6	12	45° BEND	N:813517.2556 E:738168.5021	21.62
FM-7	12	45° BEND	N:813459.5833 E:738173.3203	21.61
FM-8	12	45° BEND	N:813457.5750 E:738175.6079	21.61
FM-9	12 X 12	TEE	N:813457.7113 E:738181.5486	21.60
FM-10	12	45° BEND	N:813458.9627 E:738285.5149	21.60
FM-11	12	45° BEND	N:813462.8043 E:738289.4221	21.60
FM-12	12	45° BEND	N:813475.2995 E:738289.2610	21.60
FM-13	12	45° BEND	N:813476.8573 E:738290.7875	21.60
FM-14	12	45° BEND	N:813478.2450 E:738292.1421	19.75
FM-15	12	45° BEND	N:813488.4751 E:738302.1285	19.79
FM-16	12	45° BEND	N:813489.7233 E:738303.3470	21.60
FM-17	12	45° BEND	N:813521.2015 E:738334.0762	21.60
FM-18	12 X 6	WYE	N:813521.0296 E:738392.2264	23.16
FM-19	12	45° BEND	N:813521.0084 E:738398.0910	23.16
FM-20	12	45° BEND	N:813517.4832 E:738401.5128	23.16
FM-21	6	45° BEND	N:813512.6067 E:738399.7877	23.16
FM-22	12 X 12	WYE	N:813448.9806 E:738181.6483	21.32
FM-23	12 X 6	REDUCER	N:813445.4269 E:738181.6975	21.31
FM-24	6	45° BEND	N:813443.1473 E:738181.7163	21.31
FM-25	6	45° BEND	N:813429.9647 E:738169.4093	21.58
FM-26	6	45° BEND	N:813427.7231 E:738168.8527	23.54
FM-27	6	11.25° BEND	N:813426.8263 E:738168.7927	23.50
FM-28	12	45° BEND	N:813434.1456 E:738168.1240	21.32
FM-29	12	45° BEND	N:813432.2050 E:738167.1764	23.34
FM-30	12	11.25° BEND	N:813430.7006 E:738167.0367	23.36

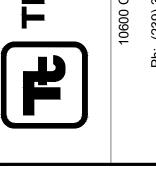
6-inch PVC force main					
LENGTH	PIPE SIZE	DESCRIPTION			
0.42'	6"	PROP 6" FM"			
1.28'	6"	PROP 6" FM"			
1.65'	6"	PROP 6" FM"			
9.44'	6"	PROP 6" FM"			
17.20'	6"	PROP 6" FM"			

12-	inch PVC f	orce main
LENGTH	PIPE SIZE	DESCRIPTION
0.42'	12"	PROP 12" FM"
0.86'	12"	PROP 12" FM"
0.93'	12"	PROP 12" FM"
1.02'	12"	PROP 12" FM"
1.25'	12"	PROP 12" FM"
1.79'	12"	PROP 12" FM"
2.38'	12"	PROP 12" FM"
2.93'	12"	PROP 12" FM"
3.11'	12"	PROP 12" FM"
3.22'	12"	PROP 12" FM"
3.66'	12"	PROP 12" FM"
3.94'	12"	PROP 12" FM"
4.09'	12"	PROP 12" FM"
4.23'	12"	PROP 12" FM"
4.32'	12"	PROP 12" FM"
4.57'	12"	PROP 12" FM"
5.02'	12"	PROP 12" FM"
5.07'	12"	PROP 12" FM"
5.62'	12"	PROP 12" FM"
5.62'	12"	PROP 12" FM"
5.84'	12"	PROP 12" FM"
6.43'	12"	PROP 12" FM"
9.27'	12"	PROP 12" FM"
9.42'	12"	PROP 12" FM"
10.61'	12"	PROP 12" FM"
10.91'	12"	PROP 12" FM"
13.05'	12"	PROP 12" FM"
14.49'	12"	PROP 12" FM"
15.21'	12"	EX 12" IRR"
18.04'	12"	PROP 12" FM"
20.17'	12"	PROP 12" FM"
31.05'	12"	PROP 12" FM"
36.19'	12"	PROP 12" FM"
42.74'	12"	PROP 12" FM"
77.67'	12"	PROP 12" FM"
109.14'	12"	PROP 12" FM"

2	24" steel casing						
LENGTH PIPE SIZE DESCRIPTION							
77.70'	24"	24" CASING PIPE (FM)"					
106.86' 24" 24" CASING PIPE (FM)"							

APPURTENANCE TABLE					
ID	DIAMETER	TYPE	COORDINATES	ELEV (CENTER)	
FM ARV1	2"	ARV	N:813469.0524 E:738289.3433	27.00	
FM PV1	12"	PLUG VALVE	N:813660.8413 E:738156.3963	23.27	
FM PV2	12"	PLUG VALVE	N:813511.9022 E:738168.9535	21.60	
FM PV3	12"	PLUG VALVE	N:813457.7816 E:738189.0474	21.60	
FM PV4	12"	PLUG VALVE	N:813458.8326 E:738274.9686	21.60	
FM PV5	12"	PLUG VALVE	N:813517.4123 E:738405.8293	23.16	
FM PV6	6"	PLUG VALVE	N:813512.5521 E:738403.0249	23.16	
FM PV7	6"	PLUG VALVE	N:813424.5654 E:738169.0466	23.53	
FM PV8	12"	PLUG VALVE	N:813427.9297 E:738167.2837	23.37	

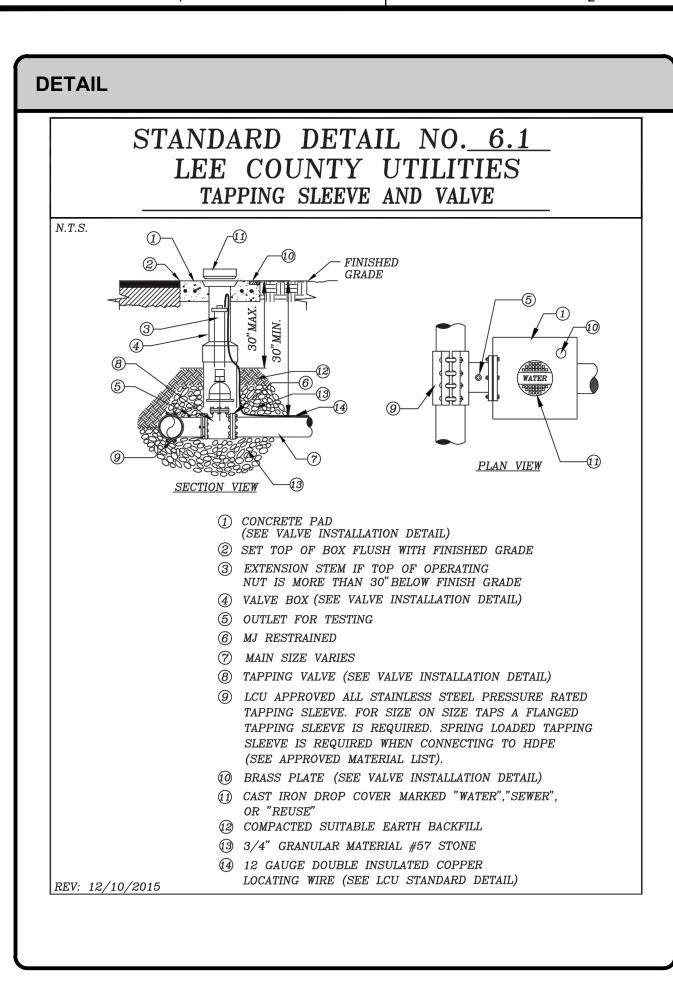


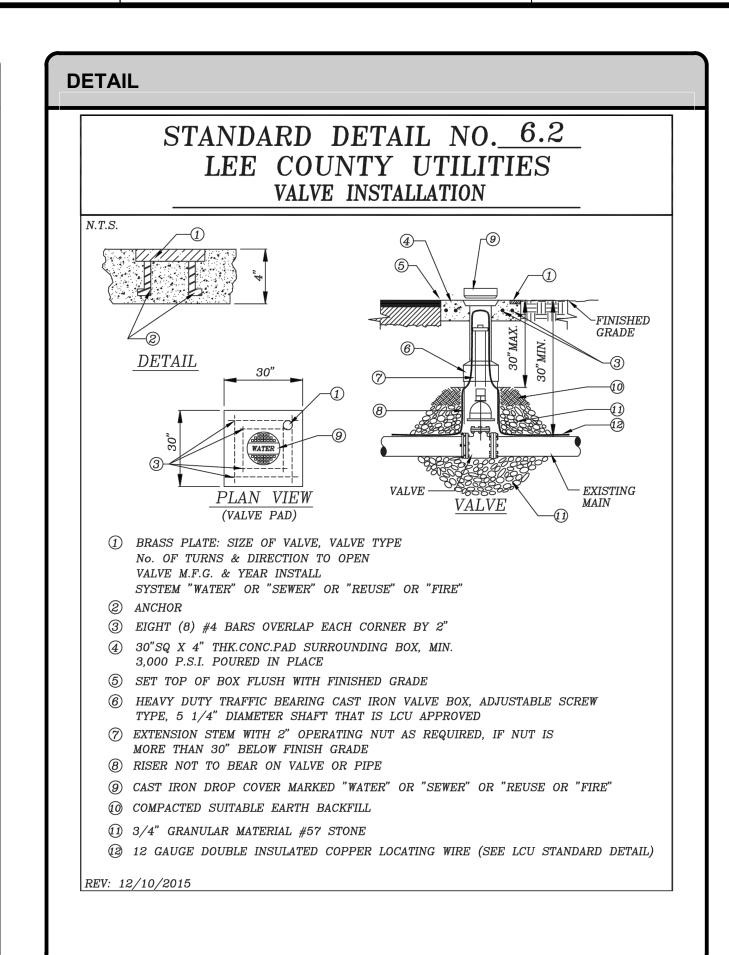


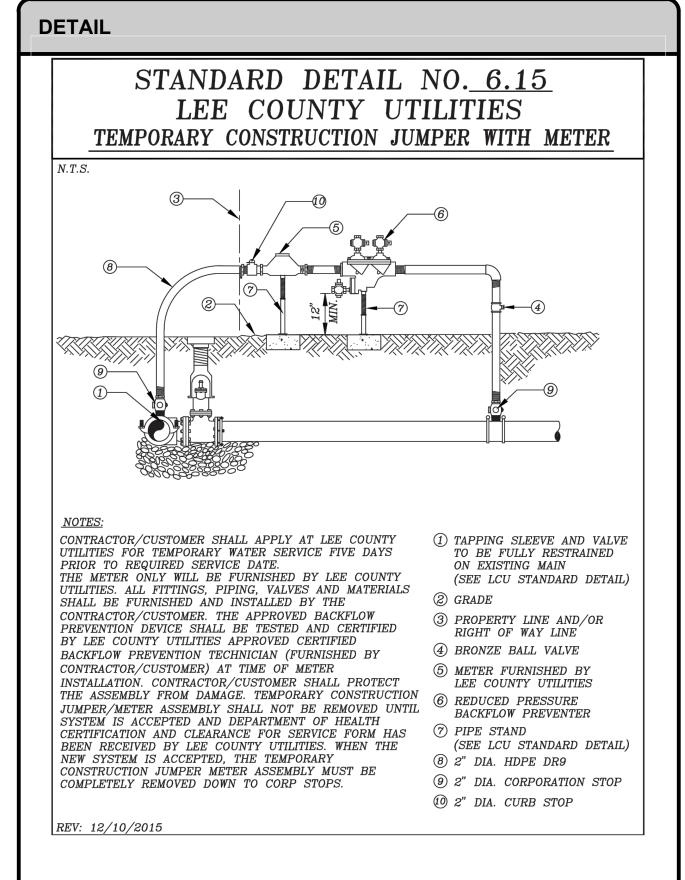
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Ifred J. Mittl, P.E. E. No. 59913, FL Tetra Tech Inc. Chevrolet Way, Suite 102 stero, Florida 33928 sering Business No. 2429	

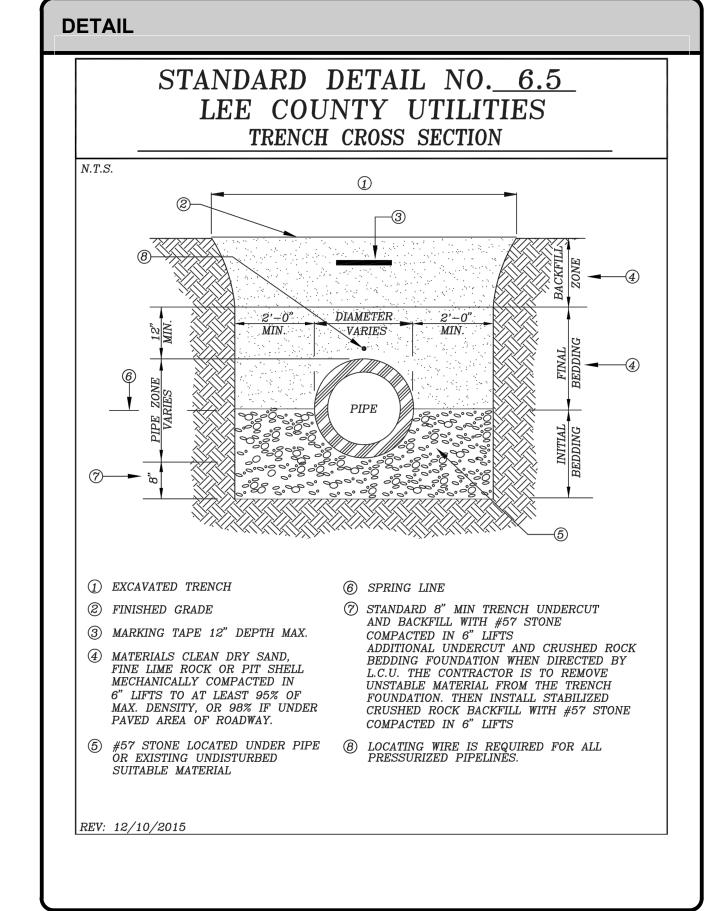
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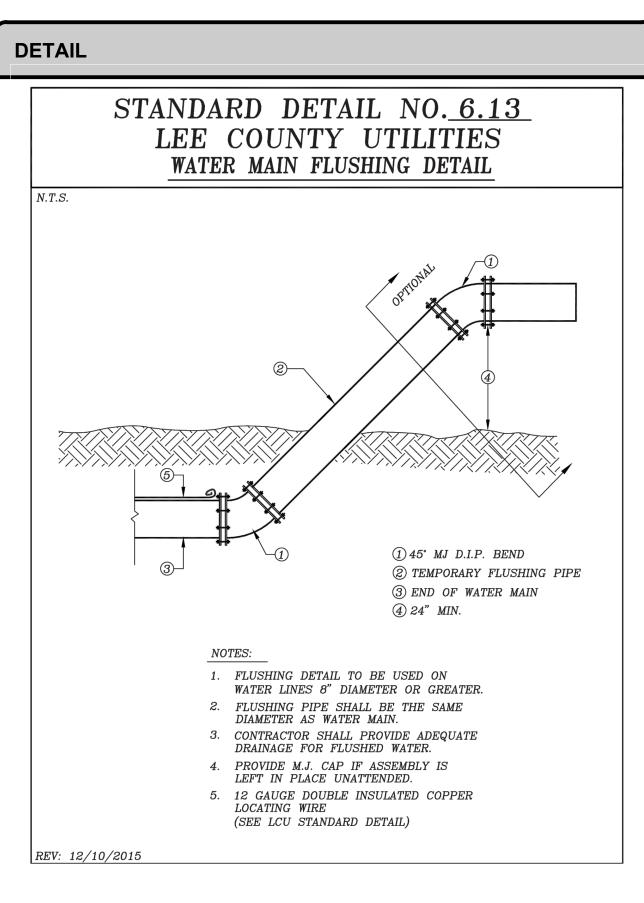
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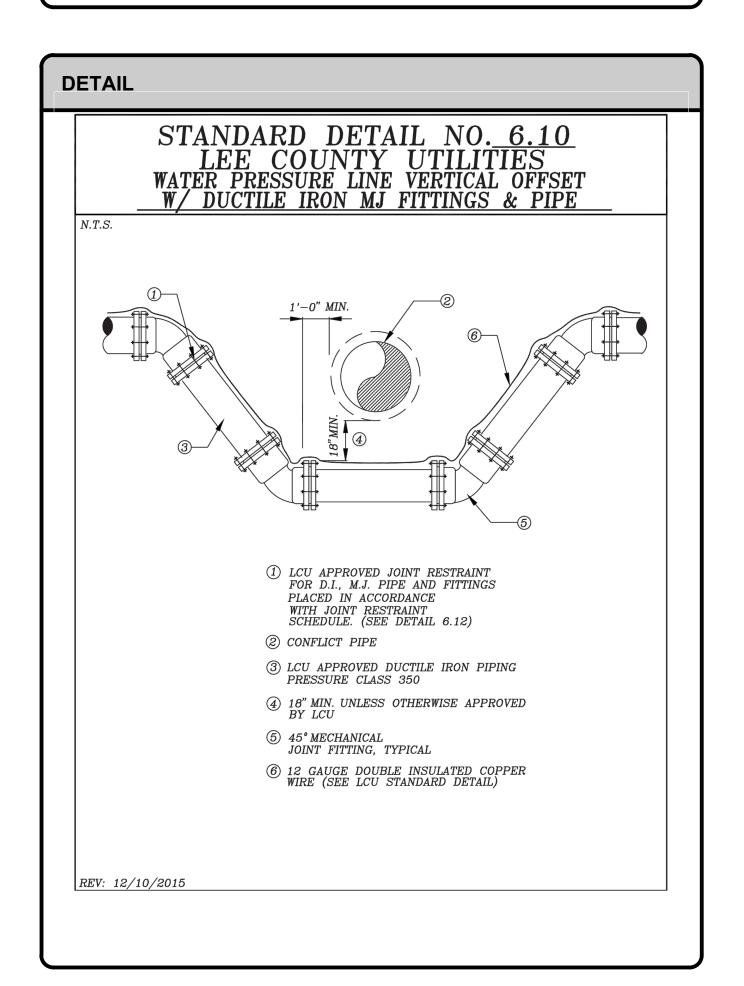


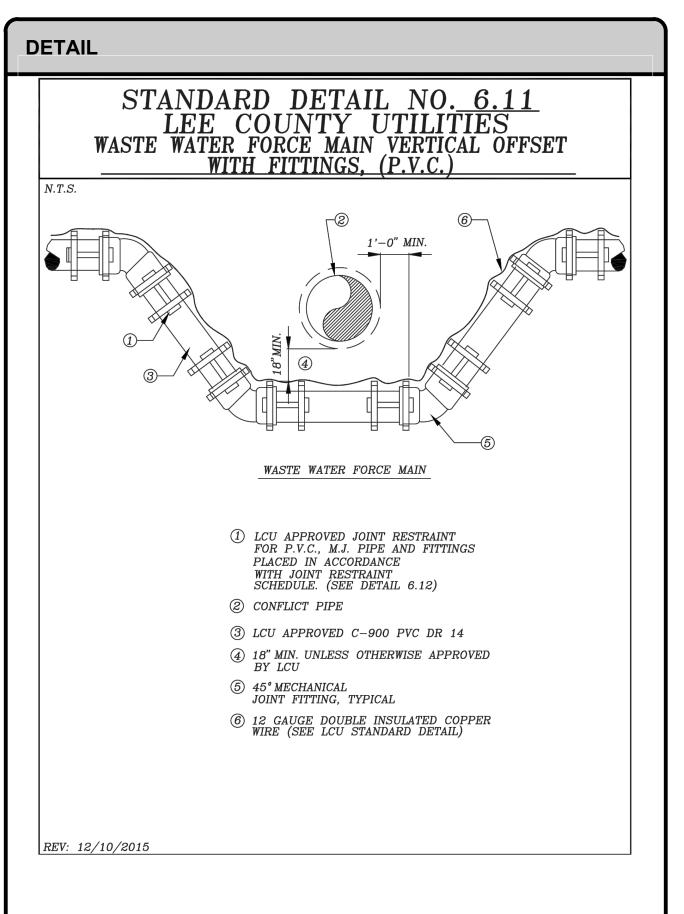


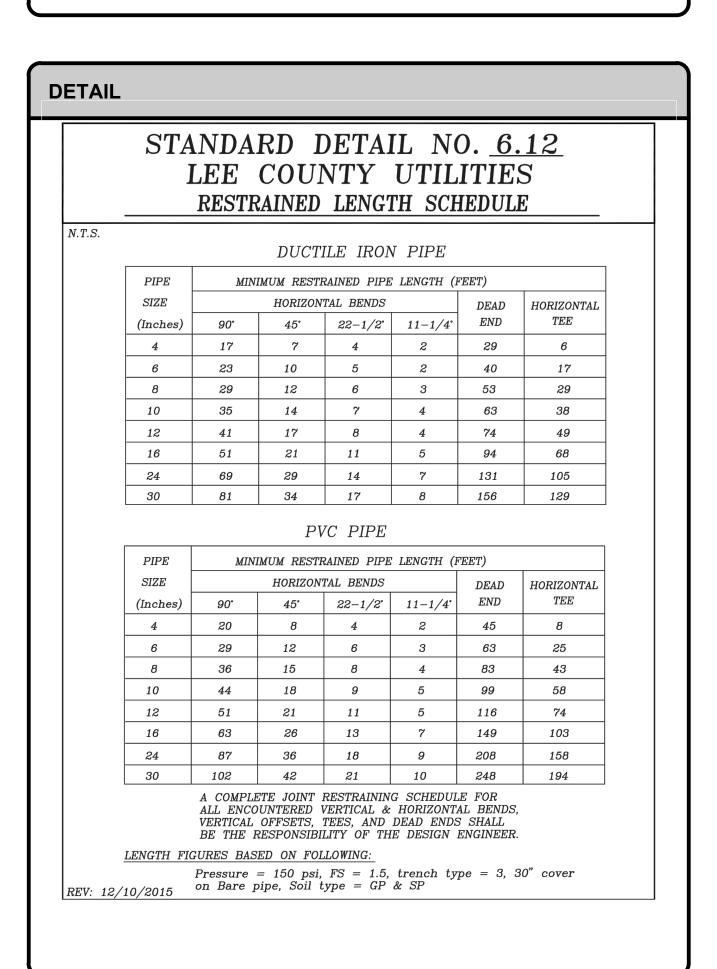


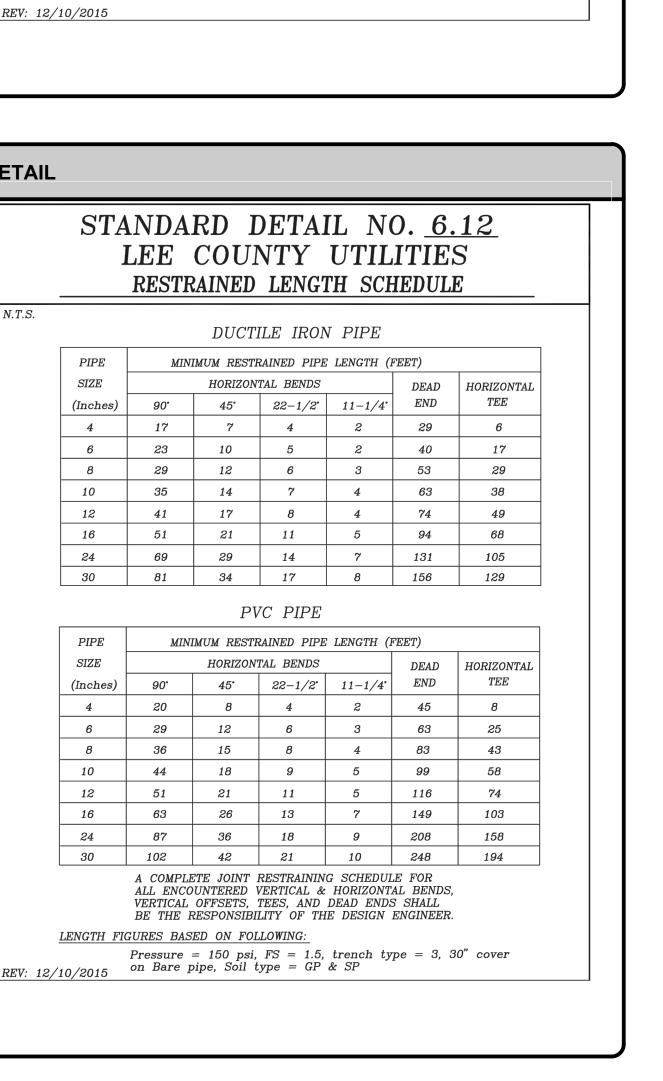




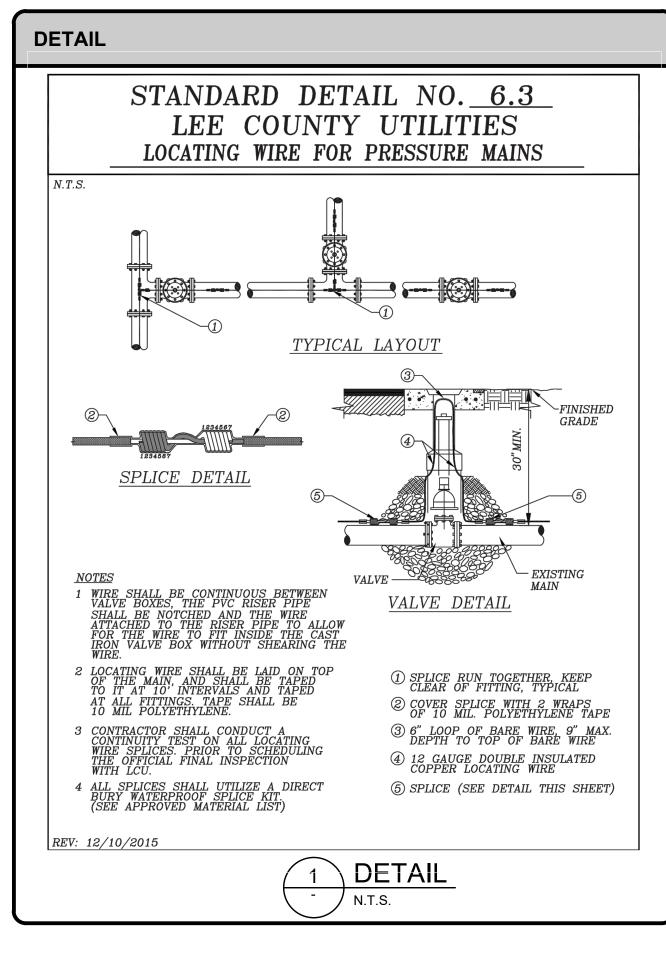


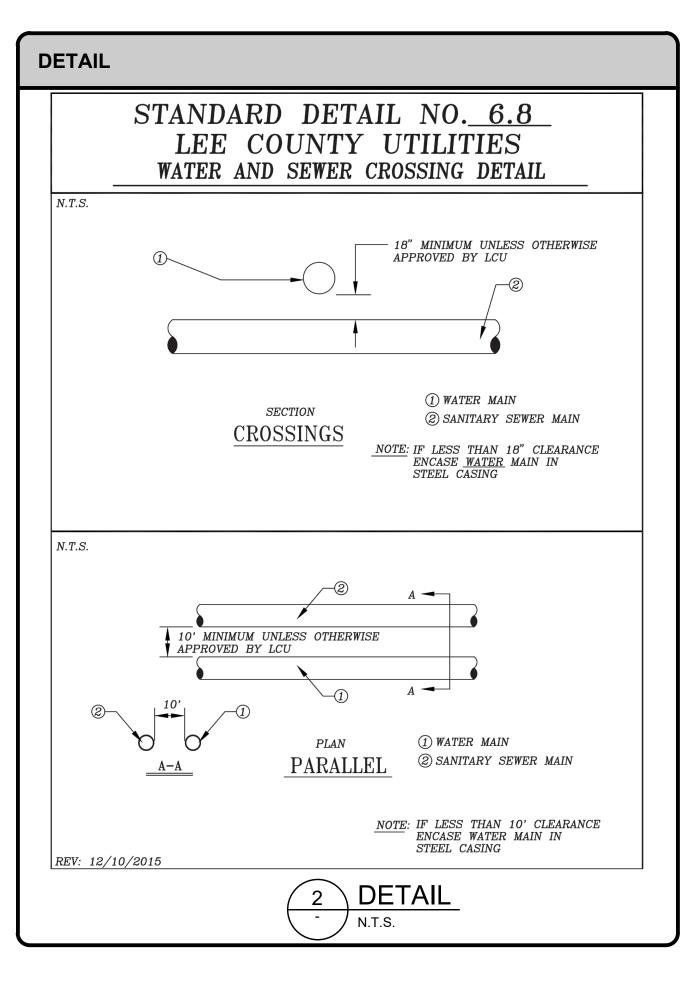


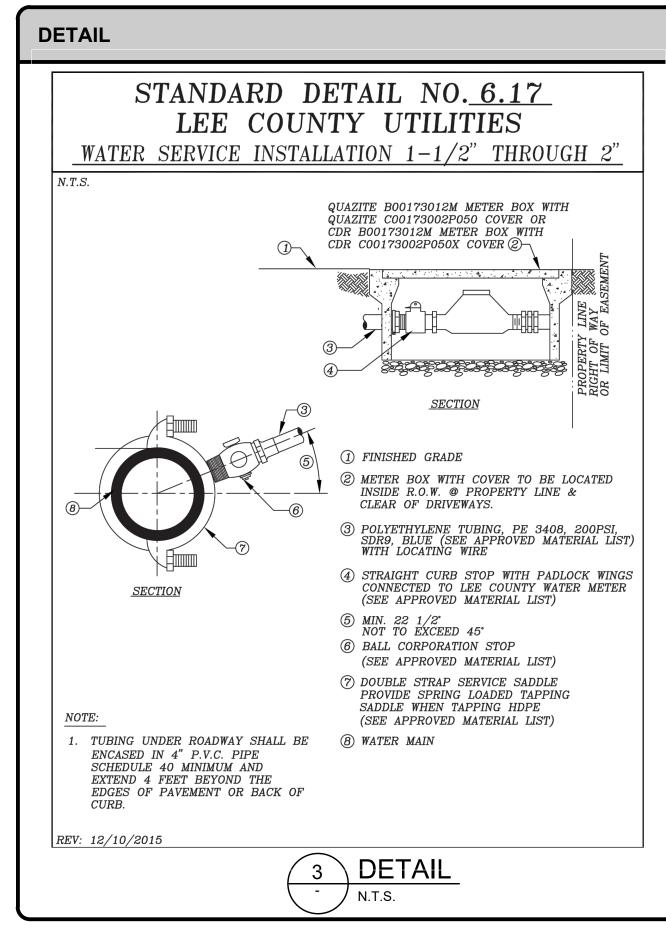


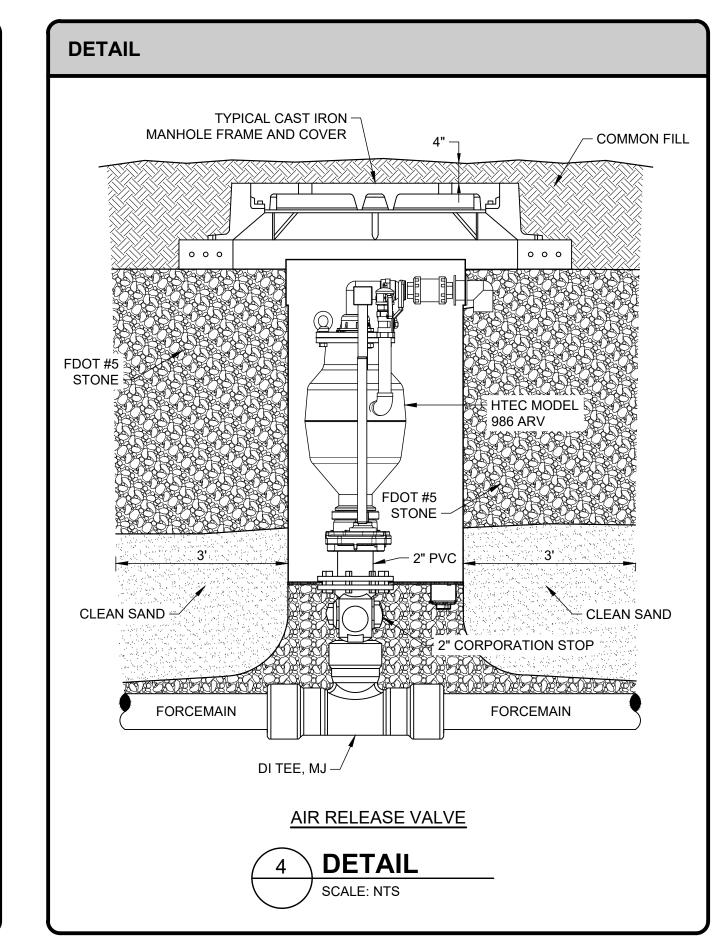


Project No.: 200-37678-200 Designed By Drawn By: hecked By:









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DETAIL NOT USED	





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