CONSTRUCTION PLANS

DATE	ISSUE	BY

US 27 WATER MAIN EXTENSION
COUNTY ROAD 48 TO MIDDLESEX ROAD

LEESBURG, LAKE COUNTY, FLORIDA

JIMMY BURRY
MAYOR
DISTRICT 5

ALLYSON BERRY
COMMISSIONER
DISTRICT 1

ALAN REISMAN
COMMISSIONER
DISTRICT 2

JAY CONNELL
MAYOR PRO-TEM
DISTRICT 3

MIKE PEDERSON
COMMISSIONER
DISTRICT 4

AL MINNER
CITY MANAGER

CLIFF KELSEY
DIRECTOR OF PUBLIC WORKS

OWNER/DEVELOPER
CITY OF LEESBURG
550 SOUTH 14TH STREET
LEESBURG, FLORIDA 34748
CLIFF KELSEY, DIRECTOR OF PUBLIC WORKS
PHONE: (352) 728-9786
CLIFF.KELSEY@LEESBURGFLORIDA.GOV

ENGINEER:
HALFF ASSOCIATES, INC.
902 SINCLAIR AVENUE
TAVARES, FL. 32778
MICHAEL C. SCULLION, P.E.
(352) 343-8481
MSCULLION@HALFF.COM

SURVEYOR:
HALFF ASSOCIATES, INC.
902 SINCLAIR AVENUE
TAVARES, FL. 32778
JOHN T. MCGLOHORN, PSM
(352) 343-8481

VICINITY MAP
1" = 2000'

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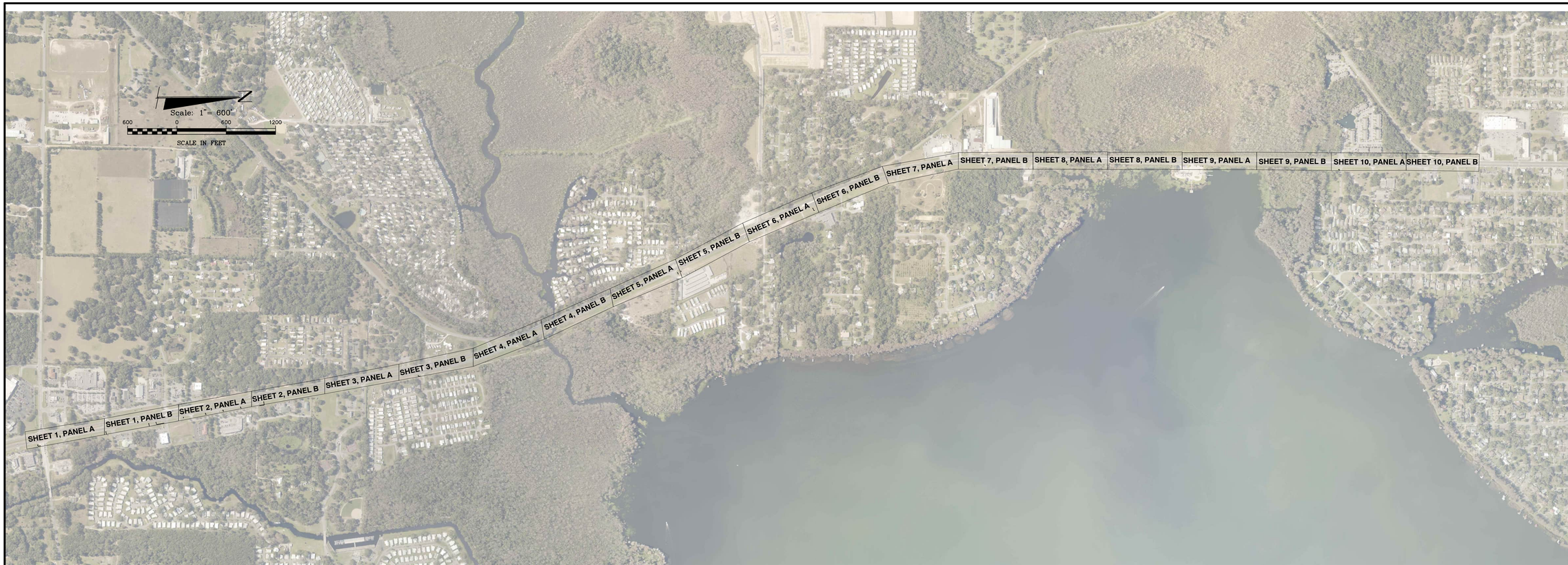
Sunshine 811

Call 811 or www.sunshine 811.com two full business days before digging to have utilities located and marked.
Check positive response codes before you dig!

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 33380

Original Document Size 24"x36"
0 1 2 3 4 5
(Inches)

12-08-2023, 90% REVIEW SET (NOT FOR CONSTRUCTION UNTIL CONFORMED)



LEGEND

- (SAN) SANITARY SEWER LINE CROSSING CONFLICT
- (SD) STORM DRAIN LINE CROSSING CONFLICT
- (GAS) GAS LINE CROSSING CONFLICT
- (WM) WATER LINE CROSSING CONFLICT

*INSTALL CONFLICT CROSSING, PER LEESBURG DETAIL G-3, W-17 AT ALL MARKED CONFLICT AREAS

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO LAKE COUNTY, FDOT AND THE CITY OF LEESBURG STANDARDS.
2. THE CONTRACTOR SHALL ENSURE ALL NECESSARY PERMITS ARE IN HAND BEFORE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING ALL REQUIREMENTS OF REGULATORY AGENCY PERMITS IN REGARD TO CONSTRUCTION ACTIVITIES AND CONDITIONS STATED THEREIN.
3. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, ALL ITEMS NOTED TO BE REMOVED SHALL REMAIN THE PROPERTY OF CITY OF LEESBURG (OWNER). ALL ITEMS REMOVED SHALL BE STORED BY THE CONTRACTOR ON-SITE AS DIRECTED BY THE OWNER OR ENGINEER.
4. LIMITS OF CONSTRUCTION FOR THIS PROJECT SHALL BE THE AREA SHOWN WITHIN THE PROPERTY BOUNDS. IF PERMITTED BY THE OWNER, SPOIL AREAS SHALL BE AS INDICATED ON THE DRAWINGS.
5. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL EXISTING UTILITIES SHOWN AND NOT SHOWN PRIOR TO ANY CONSTRUCTION. ANY CONFLICTS OR DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
6. NO DEVIATIONS FROM THESE PLANS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. THE CONTRACTOR SHALL REPLACE ALL PAVING, SODDING, STABILIZED EARTH, LANDSCAPING, DRIVEWAYS, SIDEWALKS, IRRIGATION SYSTEMS, UNDERGROUND PIPING, ETC., DISTURBED OR DAMAGED BY THE CONSTRUCTION. THE CONTRACTOR SHALL REPLACE WITH EQUAL MATERIAL OR AS DIRECTED BY THE ENGINEER.
8. CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER GRADE, ELEVATIONS AND ALIGNMENT FOR PROPOSED CONNECTIONS AS SHOWN ON THE DRAWINGS.
9. UTILITY SEPARATION SHALL BE AS REQUIRED IN CHAPTER 62-555.314 F.A.C.
10. WHERE MINIMUM SEPARATIONS BETWEEN UTILITIES IS REQUIRED, THE DISTANCE MEASURED IS FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
11. WHERE A CONNECTION IS TO BE MADE IN THE FIELD TO AN EXISTING PIPE, THE CONTRACTOR WILL EXCAVATE THE AREA TO VERIFY THE TYPE OF PIPE AND THE PIPE SIZE, AND OBTAIN THE OWNER'S APPROVAL OF THE PROPOSED METHOD OF CONNECTION PRIOR TO ORDERING AND INSTALLING MATERIALS.
12. ALL WATER OR SEWER SERVICE CONNECTIONS, INTERRUPTIONS OR RELOCATIONS SHALL BE COORDINATED IN ADVANCE WITH FIELD REPRESENTATIVES OF CITY OF LEESBURG.
13. CONTRACTOR SHALL CONNECT ALL EXISTING WATER SERVICES, EXISTING METER BOXES, AND BACK FLOW PREVENTERS TO PROPOSED WATER MAIN.
14. ALL PIPING AND/OR APPURTENANCES CONNECTING TO ADJACENT CONSTRUCTION SHALL BE PLUGGED IF ADJACENT WORK HAS NOT BEEN COMPLETED.
15. IN THE EVENT THAT THE POTABLE WATER SYSTEM IS CONTAMINATED (I.E., WATER DOES NOT MEET FEDERAL AND STATE REQUIREMENTS) DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE, UNDER THE DIRECTION OF THE OWNER, OR STATE AND LOCAL REGULATORY AGENCY FOR CORRECTING ANY SUCH CONTAMINATION PROBLEM INCLUDING DISINFECTION, TESTING AND OTHER CORRECTIVE ACTION.
16. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK AND EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE 48 HOURS OR 1,000 FEET IN ADVANCE OF THE WORK, WHICHEVER IS GREATER. IF THERE IS A POTENTIAL CONFLICT, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IMMEDIATELY. INFORMATION ON THE OBSTRUCTION TO BE FURNISHED BY THE CONTRACTOR SHALL INCLUDE: LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.
17. THE CONTRACTOR PRIOR TO EXCAVATING IN THE VICINITY OF A GAS PIPELINE SHALL NOTIFY THE GAS UTILITY OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF FLORIDA STATUTES, PROTECTION OF UNDERGROUND PIPELINES, F.S. 553.851, CH. 77-143.
18. THE SHOWN LOCATIONS OF RIGHTS-OF-WAY AND UTILITIES ARE APPROXIMATE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXACTLY LOCATE ALL RIGHTS-OF-WAY AND UTILITY LINES IN THE CONSTRUCTION AREA PRIOR TO EXCAVATION. ANY DAMAGE TO ANY EXISTING UTILITY, STRUCTURE OR SERVICE SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE RESPECTIVE UTILITY OWNER.
19. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES AS PER FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITIONS. CONTRACTOR SHALL PROVIDE TO FDOT PROPOSED MAINTENANCE OF TRAFFIC PLAN IN ACCORDANCE WITH FDOT STANDARD PLANS 102-600, 102-601, AND 102-604 PRIOR TO CONSTRUCTION.
20. CONTRACTOR SHALL FOLLOW FDOT STANDARD PLANS 102-660 FOR PEDESTRIAN CONTROL ASSOCIATED WITH THE PROPOSED CLOSURE AND CONSTRUCTION OF SIDEWALK. CONTRACTOR SHALL PROVIDE TO FDOT PROPOSED PEDESTRIAN TRAFFIC CONTROL PLAN PRIOR TO CONSTRUCTION.
21. WITHIN SR RIGHT OF WAY, ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN COMPLIANCE WITH THE 2023-2024 STANDARD PLANS, 2023-2024 STANDARD SPECIFICATIONS AND 2017 UTILITY ACCOMMODATION MANUAL.
22. ALL PROPOSED CURBS AND CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT STANDARD PLANS 520-001 AND 522-002, RESPECTIVELY.
23. REMOVAL OF TREES GREATER THAN 4-INCH BASAL DIAMETER SHALL BE ONLY AS DIRECTED BY THE OWNER/ENGINEER. CONTRACTOR SHALL LIMIT TO A MINIMUM THE AMOUNT OF TREE REMOVAL, CLEARING AND GRUBBING REQUIRED BY TRIMMING TREES WHEREVER POSSIBLE.
24. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH AFFECTED PROPERTY OWNERS AND OWNER/ENGINEER ONE WEEK IN ADVANCE OF TREE CLEARING AND GRUBBING. ALL DEBRIS FROM TREE CLEARING AND GRUBBING SHALL BE REMOVED.
25. ALL EXISTING PROPERTY, FENCING, DRIVEWAYS, PIPING, SIDEWALKS, SIGNS AND OTHER ITEMS SHALL BE RESTORED TO ORIGINAL LINE AND GRADE UNLESS APPROVED BY THE ENGINEER. ACCESS TO ADJOINING PROPERTY ALONG THE PROPOSED ROUTE SHALL BE MAINTAINED AT ALL TIMES.
26. CONTRACTOR TO SUBMIT COPIES OF ALL TESTING REPORTS TO THE OWNER AND ENGINEER FOR ACCEPTANCE AND CERTIFICATION.
27. EARTHWORK, PAVEMENT AND CONCRETE CONSTRUCTION NOT SPECIFICALLY ADDRESSED BY THE CITY LDC, SHALL BE CURRENT FISCAL YEAR 2023-2024 FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. https://www.fdot.gov/design/standardplans/current/default.shtm.
28. COPIES OF ALL MATERIALS AND COMPACTION TESTING PER THE LATEST EDITION FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION MUST BE PROVIDED PRIOR TO CLOSEOUT.
29. CONTRACTOR SHALL PROVIDE AN EMERGENCY CONTACT NUMBER LIST FOR KEY SITE PERSONNEL.
30. WATER SYSTEM COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARD C651 AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
31. CONTRACTOR SHALL PIG ALL LINES PRIOR TO SERVICE.
32. ALL PIPE SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
33. DEPTH OF WATER LINES TO BE MIN. 36" BELOW FINISHED GRADE.
34. PIPING BELOW SHALL UTILIZE RESTRAINED MECHANICAL JOINT CONNECTIONS, AND BE RESTRAINED IN ACCORDANCE WITH THE ATTACHED THRUST RESTRAINT TABLE.
35. WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4" OR LARGER, PIPES 3" OR SMALLER SHALL BE POLY TUBING. ALL COUPLINGS COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURER'S LATEST RECOMMENDATIONS.
36. WATER MAINS CROSSING UNDERNEATH ROADWAYS SHALL BE INSTALLED VIA DIRECTIONAL BORE AND SHALL BE CONSTRUCTED OF PE 4710, SDR 11. DIRECTIONAL BORES WITHIN FDOT RIGHT OF WAY SHALL CONFORM TO THE SPECIFICATIONS OUTLINED IN SECTION 3.16.9 OF THE 2017 FDOT UTILITY ACCOMMODATION MANUAL (UAM).
37. ALL PROPOSED PIPE UNDER ASPHALT ROADWAY SHALL BE DUCTILE IRON, EXCEPT DIRECTIONAL BORES.
38. CONTRACTOR SHALL PROVIDE TEMPORARY THRUST RESTRAINT, BRACING, TEST PLUGS AND/OR OTHER DEVICES NECESSARY TO SUCCESSFULLY COMPLETE PRESSURE TESTING OF ALL PRESSURE PIPING SYSTEMS.
39. ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH RESTRAINING DEVICES AT ALL DIRECTION CHANGES, UNLESS OTHERWISE NOTED. SEE THRUST RESTRAINT SPECIFICATION DETAILS AND NOTES.
40. AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATIONS AND METHOD OR INSTALLATION SHALL BE INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.
41. ALL NEW FIRE HYDRANTS TO BE EQUIPPED WITH STORZ FIRE DEPARTMENT CONNECTIONS PER THE CITY OF LEESBURG MANUAL OF STANDARDS.
42. CONTRACTOR SHALL REMOVE FIRE HYDRANTS AND CAP EXISTING LINES.
43. NO EXISTING FIRE HYDRANTS TO BE REMOVED FROM SERVICE UNTIL SUCH TIME AS NEW FIRE HYDRANTS HAVE BEEN PLACED ONLINE AND CLEARED FOR SERVICE.
44. UPON SYSTEM CLEARANCE, CONTRACTOR TO FLUSH ALL FIRE HYDRANTS FOR FLOW AND PRESSURE, PAINT BONNETS APPROPRIATE COLOR BASED UPON FLOW TEST RESULTS, AND PROVIDE WRITTEN REPORTS OF FLOW TESTS TO CITY UTILITY AND FIRE DEPARTMENTS. CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH BOTH CITY DEPARTMENTS AND COORDINATE THEIR AVAILABILITY TO WITNESS SAID TESTING.

DATE	REVISION
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	8

CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

KEY MAP & GENERAL NOTES

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 33380

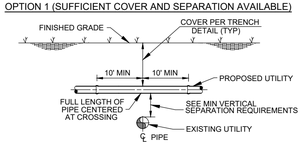
DATE:	DECEMBER 2023
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY.:	MCS
JOB NO.:	047549.001
FILE NAME:	US 27 Watermain B

Sheet G-1

Michael C. Scullion, P.E.
Registered Eng 70753

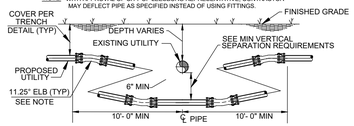
*NOTE: DO NOT ENCASE PIPING IN CONCRETE UNLESS SPECIFICALLY AUTHORIZED BY A CITY OF LEESBURG REPRESENTATIVE.

OPTION 1 (SUFFICIENT COVER AND SEPARATION AVAILABLE)



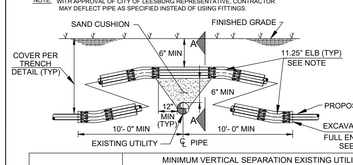
OPTION 2 (SUFFICIENT SEPARATION AVAILABLE)

*NOTE: WITH APPROVAL OF CITY OF LEESBURG REPRESENTATIVE, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.



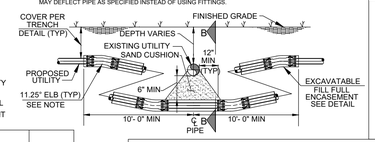
ALTERNATE OPTION 1 (SUFFICIENT COVER OR SEPARATION NOT AVAILABLE)

*NOTE: WITH APPROVAL OF CITY OF LEESBURG REPRESENTATIVE, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.

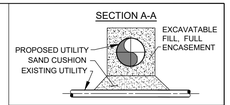


ALTERNATE OPTION 2 (SUFFICIENT SEPARATION NOT AVAILABLE)

*NOTE: 1. FOR PROPOSED WATER MAINS, THIS OPTION IS ONLY ALLOWED WITH APPROVAL OF CITY OF LEESBURG REPRESENTATIVE AND FDEP ON CASE BY CASE BASIS.
2. WITH APPROVAL OF CITY OF LEESBURG REPRESENTATIVE, CONTRACTOR MAY DEFLECT PIPE AS SPECIFIED INSTEAD OF USING FITTINGS.



SECTION A-A



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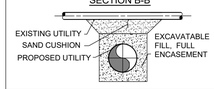
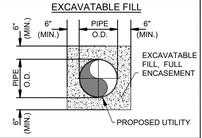


EXCAVATABLE FILL



PROPOSED UTILITY	MINIMUM VERTICAL SEPARATION EXISTING UTILITY						
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS	
POTABLE WATER	1'- 0"	1'- 6" (2)	1'- 6" (2)	1'- 0" (1)	1'- 0"	1'- 0"	SEE NOTE 1
GRAVITY SANITARY SEWER	1'- 6" (2)	1'- 0"	1'- 0"	1'- 6"	1'- 6" (2)	1'- 0"	
SEWAGE FORCE MAIN	1'- 6" (2)	1'- 0"	1'- 0"	1'- 0"	1'- 6" (2)	1'- 0"	SEE NOTE 2
STORM	1'- 0" (1)	1'- 6"	1'- 0"	1'- 0"	1'- 0"	1'- 0"	
RECLAIMED WATER	1'- 0"	1'- 6"	1'- 6"	1'- 0"	1'- 0"	1'- 0"	SEE NOTE 3
ELECTRIC TELECOMMUNICATIONS	1'- 0"	1'- 0"	1'- 0"	1'- 0"	1'- 0"	1'- 0"	

(1) FAC 62-555.314
(2) FAC 62-604.400
(3) FAC 62-610.469

*NOTE:
1. ONLY OPTION 1 CONSTRUCTION IS ALLOWED WITHOUT APPROVAL OF CITY OF LEESBURG REPRESENTATIVE.
2. ONLY OPTION 2 CONSTRUCTION IS ALLOWED WITHOUT APPROVAL OF CITY OF LEESBURG REPRESENTATIVE.

MINIMUM VERTICAL SEPARATION REQUIREMENTS

NOT TO SCALE

PROPOSED UTILITY	MINIMUM HORIZONTAL SEPARATION EXISTING UTILITY					
	POTABLE WATER	GRAVITY SANITARY SEWER	SEWAGE FORCE MAIN	STORM	RECLAIMED WATER	ELECTRIC TELECOMMUNICATIONS
POTABLE WATER	1'- 0"	10'- 0" (1,2)	10'- 0" (1,2)	3'- 0" (1)	3'- 0" (1,3)	3'- 0"
GRAVITY SANITARY SEWER	10'- 0" (2)	1'- 0"	1'- 0"	3'- 0"	3'- 0" (2)	3'- 0"
SEWAGE FORCE MAIN	10'- 0" (2)	1'- 0"	1'- 0"	3'- 0"	3'- 0" (2)	3'- 0"
STORM	3'- 0" (1)	3'- 0"	3'- 0"	1'- 0"	3'- 0"	3'- 0"
RECLAIMED WATER	3'- 0" (1,3)	3'- 0" (2)	3'- 0" (2)	3'- 0"	1'- 0"	3'- 0"
ELECTRIC TELECOMMUNICATIONS	3'- 0"	3'- 0"	3'- 0"	3'- 0"	3'- 0"	2'- 0"

(1) FAC 62-555.314
(2) FAC 62-604.400
(3) FAC 62-610.469

*NOTE: UTILITIES SHALL NOT BE INSTALLED WITHIN THE DRIP LINE OF TREES WITHOUT PRIOR WRITTEN APPROVAL FROM CITY OF LEESBURG REPRESENTATIVE.

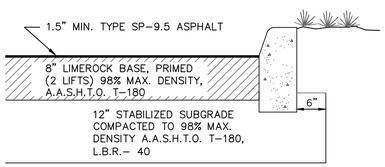
MINIMUM HORIZONTAL SEPARATION REQUIREMENTS

NOT TO SCALE

LEESBURG The Lakefront City

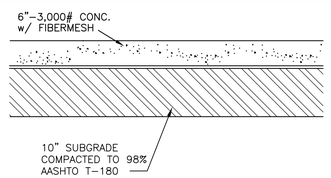
UTILITY CONFLICT STANDARD DETAIL
FOR VERTICAL & HORIZONTAL SEPARATION

City of Leesburg Standard Details
2023 | Detail G-3



TYPICAL ASPHALT DRIVE SECTION

NOT TO SCALE

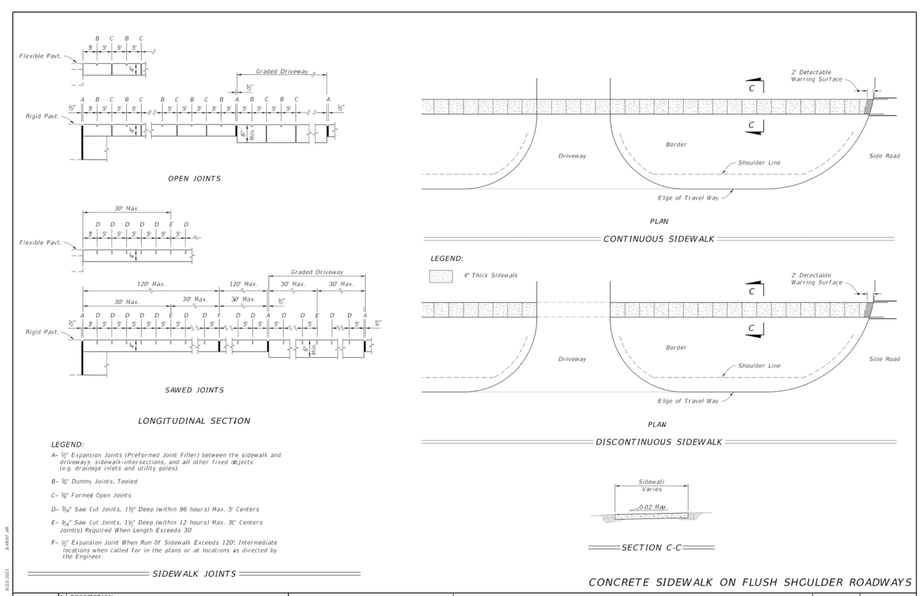


6" THICK CONCRETE DRIVE & PARKING

NOT TO SCALE

EXPANSION JOINT NOTE:
1/2" BITUMINOUS COATED EXPANSION JOINT MATERIAL TO BE USED AT ALL CURBS AND SIDEWALKS.

LONGITUDINAL CENTER JOINT @ 10' O.C., AND TRANSVERSE CONTRACTION JOINTS @ 20' O.C. 1/2" EXPANSION JOINTS 60' O.C. OR EVERY 3RD. TRANSVERSE JOINT TO BE AN EXPANSION JOINT.



LAST REVISION	DESCRIPTION:				
11/01/18		FY 2022-23 STANDARD PLANS	CONCRETE SIDEWALK	INDEX 522-001	SHEET 2 of 2

OTHER PIPE	HORIZONTAL SEPARATION	CROSSING (1)	JOINT SPACING @ CROSSINGS (FULL JOINT CENTERED)
Storm Sewer, Stormwater Force Main, Reclaimed Water (2)	3 ft. minimum	12 inches is the minimum except for storm sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 3 ft. minimum
Vacuum Sanitary Sewer,	10 ft. preferred 3 ft. minimum	12 inches is preferred 6 inches minimum	Alternate 3 ft. minimum
Gravity or Pressure Sanitary Sewer, Sanitary Sewer Force Main Reclaimed Water (4)	10 ft. preferred 6 ft. minimum (3)	12 inches is the minimum except for gravity sewer, then 6 inches is the minimum and 12 inches is preferred	Alternate 6 ft. minimum
On-Site Sewer Treatment & Disposal System	10 ft. minimum	----	----

(1) Water main should cross over other pipe. When water main must be below other pipe, the minimum separation is 12 inches.
(2) Reclaimed water regulated under Part III of Chapter 62-610, F.A.C.
(3) 3 ft. for gravity sanitary sewer where the bottom of the water main is laid at least 6 inches above the top of the gravity sanitary sewer.
(4) Reclaimed water not regulated under Part III of Chapter 62-610, F.A.C.
(5) If watermain is less than 18" above sanitary or storm sewer, reuse or sewerage forcemain pipe at a crossing, then center one full length joint of d.i.p. on crossing point.
(6) All piping clearances shall be in accordance with chapter 62-555.314, f.a.c., 62-604.400 and 62-610.469
(7) Do not encase piping in concrete unless specifically authorized.
(8) All piping shall clear other construction by 6" minimum.

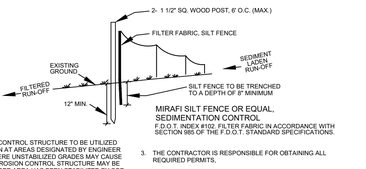
LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314

Disclaimer - This document is provided for your convenience only. Please refer to F.A.C. Rule 62-555.314, 62-604.400 and 62-610.469 for additional construction requirements, and most current standards.

NOT TO SCALE

LEESBURG The Lakefront City

City of Leesburg Standard Details
2023 | Detail W-17



MIRAFI SILT FENCE OR EQUAL, SEDIMENTATION CONTROL
F.D.O.T. INDEX #102. FILTER FABRIC IN ACCORDANCE WITH SECTION 985 OF THE F.D.O.T. STANDARD SPECIFICATIONS.

NOTES:
1. TEMPORARY EROSION CONTROL STRUCTURE TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY ENGINEER OR AREAS ON-SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL STRUCTURE MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY CONTRACTOR.
2. CONSTRUCT STORMWATER SYSTEMS BEFORE ANY BUILDING OR ROAD CONSTRUCTION IS STARTED.
   a.) PROTECT SYSTEM FROM SILTING AND DEBRIS BY METHODS PROVIDED IN DETAILS.
   b.) PROTECT SWALE BOTTOM FROM SEALING BY EXCAVATING ALL SILT DEPOSITS DURING CONSTRUCTION. THIS SHALL BE DONE BEFORE SOD & SEEDING & MULCHING IS FINISHED
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
4. TRENCHING OF SILT FENCE IS REQUIRED UNLESS ADVERSE CONDITIONS EXIST THAT RENDER TRENCHING IMPRACTICAL. SUCH CONDITIONS SHALL BE EVALUATED BY CITY OF LEESBURG REPRESENTATIVE.
5. AREAS WHERE A DOUBLE FENCE IS REQUIRED THE FENCING SHALL BE A MINIMUM OF 3 FEET APART.

SILT FENCE DETAIL

NOT TO SCALE

THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE SEDIMENTATION DURING AND AFTER CONSTRUCTION OF THE PROJECT.

PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT PROPERTIES AND WATER RESOURCES.

TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU OF PERMANENT MEASURES.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

LEESBURG The Lakefront City

City of Leesburg Standard Details
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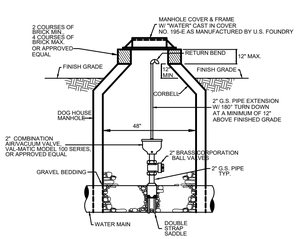

NOTES:
1. THE MINIMUM DIMENSION FROM TOP OF PIPE TO FINISHED GRADE SHALL BE 3.0 FEET.
2. DOUBLE STRAP SADDLE AND WRAP WITH TWO LAYERS OF WIDE PLASTIC OR POLY TAPE WITH STAINLESS STEEL STRAP.
3. PIPE INSTALLATION SHALL BE SUCH THAT THE ARV IS LOCATED AT THE HIGHEST POINT IN THE RESPECTIVE SEGMENT.
4. INTERIOR AND EXTERIOR CONCRETE SURFACES SHALL RECEIVE PROTECTIVE COATING AS SPECIFIED FOR STANDARD MANHOLES.
5. COVER SHALL READ "WATER".

COMBINATION AIR RELEASE & AIR / VACUUM VALVE FOR WATER MAINS

NOT TO SCALE

LEESBURG The Lakefront City

City of Leesburg Standard Details
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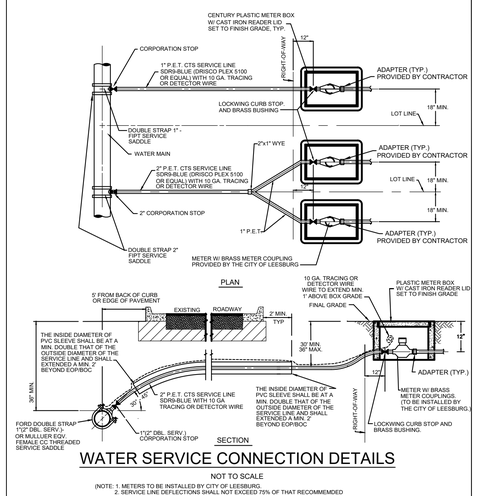
NOTE: CONTRACTOR SHALL ENSURE ARV'S ARE INSTALLED AT ALL HIGH POINTS ALONG THE PROPOSED WATER MAIN AT THE APPROXIMATE LOCATIONS SHOWN ON THE PLANS



WATER SERVICE CONNECTION DETAILS

NOT TO SCALE

(NOTE: 1. METERS TO BE INSTALLED BY CITY OF LEESBURG.
2. SERVICE LINE DEFLECTIONS SHALL NOT EXCEED 75% OF THAT RECOMMENDED BY MANUFACTURER.

LEESBURG The Lakefront City

City of Leesburg Standard Details
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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

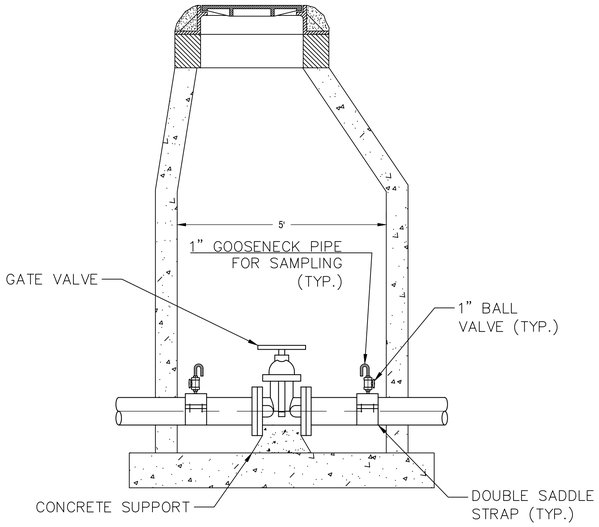
DETAILS

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 33380

DATE:	DECEMBER 2023
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY.:	MCS
JOB NO.:	047549.001
FILE NAME:	Cover Sheet, General notes, and Details B

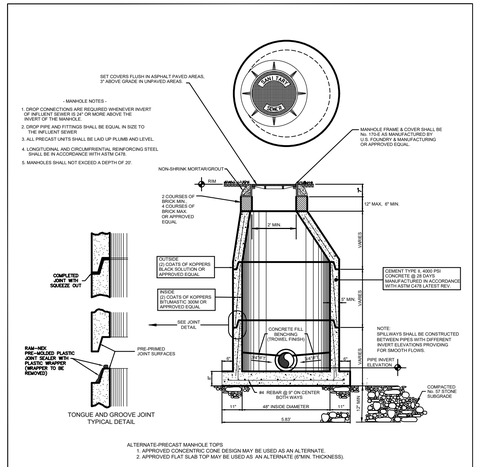
Sheet G-2

Michael C. Scullion, P.E.
Registered Eng 70753



SAMPLE TAP IN MANHOLE DETAIL

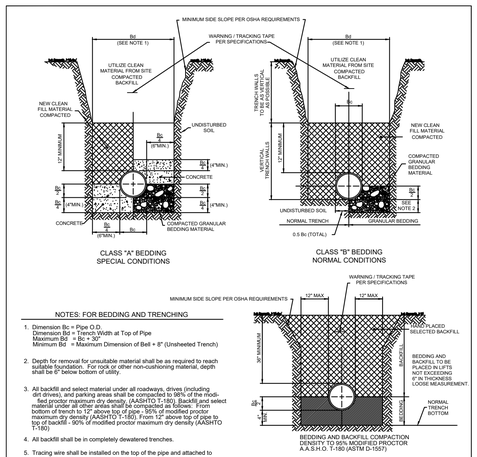
NOT TO SCALE



SANITARY PRECAST MANHOLE DETAIL

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail S-1



NOTES: FOR BEDDING AND TRENCHING

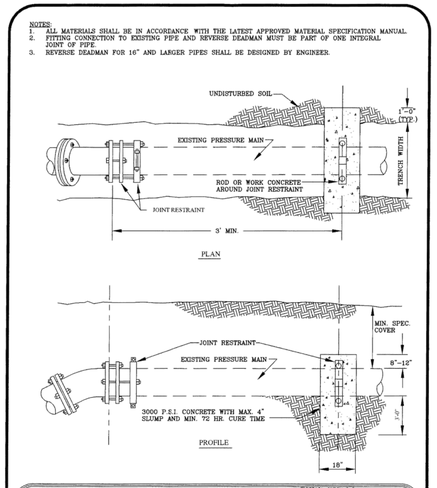
1. Dimension Bc = Pipe O.D.
   Dimension Bd = Trench Width at Top of Pipe
   Maximum Bd = Bc + 30"
   Minimum Bd = Maximum Dimension of Bell + 8" (Unsheeted Trench)
2. Depth for removal for unsuitable material shall be as required to reach suitable foundation. For rock or other non-cushioning material, depth shall be 6" below bottom of utility.
3. All backfill and select material under all roadways, drives (including dirt drives), and parking areas shall be compacted to 98% of the modified proctor maximum dry density. (AASHTO T-180). Backfill and select material under all other areas shall be compacted as follows: From bottom of trench to 12" above top of pipe - 95% of modified proctor maximum dry density (AASHTO T-180). From 12" above top of pipe to top of backfill - 90% of modified proctor maximum dry density (AASHTO T-180)
4. All backfill shall be in completely dewatered trenches.
5. Tracing wire shall be installed on the top of the pipe and attached to the pipe every 10' with a nylon wire tie.

BEDDING DETAILS

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail G-1

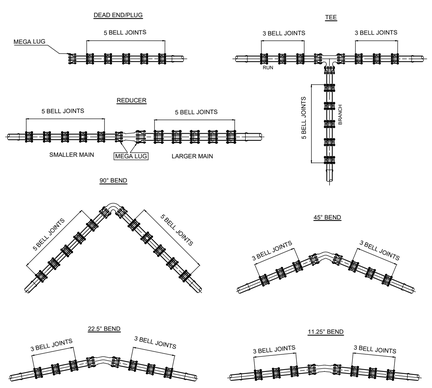
NOTES:
1. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED MATERIAL SPECIFICATION MANUAL.
2. FITTING CONNECTION TO EXISTING PIPE AND REVERSE DEADMAN MUST BE PART OF ONE INTEGRAL JOINT OF PIPE.
3. REVERSE DEADMAN FOR 16" AND LARGER PIPES SHALL BE DESIGNED BY ENGINEER.



PINELLAS COUNTY

REVERSE DEADMAN RESTRAINT DETAIL

DETAIL INDEX 1-3: PCU GD 6
DATE: FEB/2016
KEVIN BECOTTE, P.E.
REVISION:



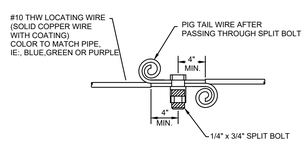
THRUST RESTRAINT DESIGN NOTES

*NOTE: THE CITY OF LEESBURG REQUIRES RESTRAINTS IN ALL DIRECTIONS ON ALL PIPE SIZES 4" OR LARGER. A MINIMUM OF 3 JOINT RESTRAINTS **WITH PRIOR APPROVAL BY THE CITY OF LEESBURG (NOT TO INCLUDE THE MEGA-LUG AT MJ FITTING)** UNLESS (DEAD END, 90°, TEE OR REDUCER IS PRESENT WHERE PIPE MINIMUM WILL BE RESTRAINED 100' IN EACH DIRECTION.
JOINT RESTRAINTS SHALL BE MEGA-LUG AND MODEL NUMBER SHALL BE FULLY COMPATIBLE WITH THE PIPING MATERIAL BEING RESTRAINED.

BELL RESTRAINT DETAILS

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail G-2



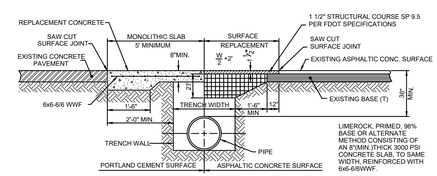
NOTES:

1. THE ENDS OF ALL LOCATING WIRES, WHETHER THEY ARE SPLICED, CONNECTED, OR TERMINATED, SHALL HAVE THE LAST THREE INCHES PIG TAILED AS DETAILED.
2. ANY PLACE THE PROTECTIVE COATING HAS BEEN REMOVED IT SHALL BE WRAPPED WITH ELECTRICAL TAPE THEN WRAPPED WITH DUCT TAPE.
3. AFTER INSTALLATION OF THE LOCATING WIRE THE SYSTEM SHALL BE SUBJECTED TO TESTING, IN THE PRESENCE OF CITY UTILITIES STAFF PRIOR TO BACKFILL, IN ORDER TO CONFIRM THAT THE SYSTEM IS FUNCTIONAL.

LOCATING WIRE SPLICING

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail G-5

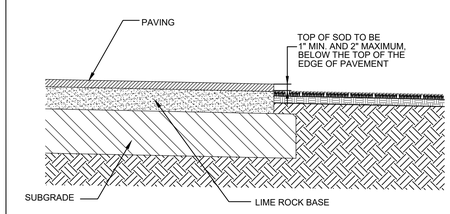


*NOTE:
THIS DETAIL SHALL NOT BE USED FOR ROADWAY REPAIRS. PLEASE SEE STREET STANDARDS PAVING SECTION SHEET ST-5 FOR OPEN CUT AND REPAIR DETAIL

OPEN CUT AND REPAIR DETAIL
FOR DRIVEWAYS and PARKING AREAS

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail G-6



SOD PLANTING

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail G-7

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

DETAILS

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
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JOB NO.:	047549.001
FILE NAME:	Cover Sheet, General notes, and Details B

Sheet G-3

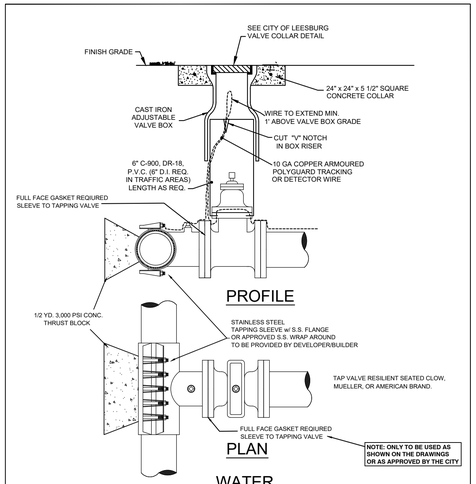
Michael C. Scullion, P.E.
Registered Eng 70753

1. WATER SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE.
2. ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.
3. WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS COMPOUNDS, SOLVENTS, LUBRICANTS AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.
4. DEPTH OF WATER MAINS TO BE 36" MINIMUM BELOW FINISHED GRADE TO TOP OF PIPE.
5. WATER MAINS TO BE LOCATED 5' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. ALL PIPING CLEARANCES SHALL BE IN ACCORDANCE WITH FAC 62-555.314, 62-604.400, 62-610.469, AND APPROVED BY THE CITY.
7. ALL WATER MAINS UNDER PAVEMENT SHALL BE DUCTILE IRON AND SHALL EXTEND 5' BEYOND THE BACK OF CURB, EXCEPT DIRECTIONAL BORES, WHICH SHALL BE SDR-11 HDPE.
8. ALL SLEEVES UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB.

* * NOTE: MARK ALL POINTS WHERE WATER SERVICES CROSS CURB WITH A "W" MARK IN CONCRETE.

WATER
GENERAL NOTES

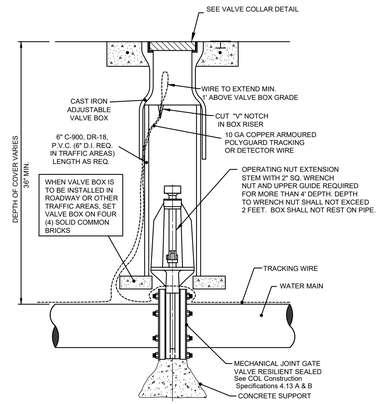
LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-1



WATER
WET TAP SLEEVE & TAP VALVE

NOT TO SCALE

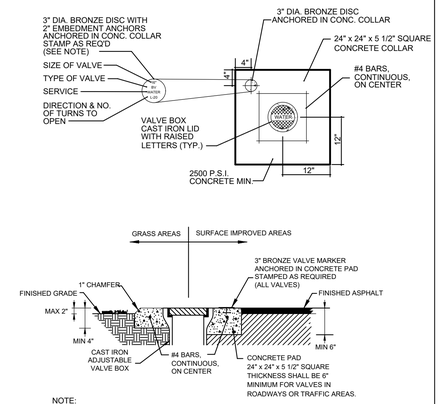
LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-2



WATER
GATE VALVE & BOX

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-3



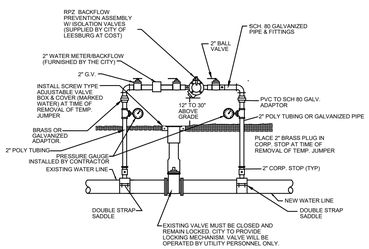
NOTE:
BRONZE IDENTIFICATION DISC SHALL BE REQUIRED FOR ALL VALVES

WATER
VALVE COLLAR WITH IDENTIFICATION DISK

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-5

NOTE: LOCATION TO BE DETERMINED AT TIME OF PRECONSTRUCTION CONFERENCE W/ CITY.



* * NOTE:
JUMPER/CONSTRUCTION METER MAY BE STAND MOUNTED BY THE CITY OF LEESBURG

WATER
TEMPORARY JUMPER CONNECTION DETAIL

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-7

1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.
2. JUMPER / CONSTRUCTION METER WILL BE SET BY WATER DEPARTMENT STAFF AND WILL TAKE A MINIMUM OF 7 BUSINESS DAYS TO SET LOCATIONS FOR THE ACCOUNT.
3. THE DETAIL IS TO BE USED FOR FILLING ANY WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 6" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 psi IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED. ADEQUATE THRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.
4. FLUSHING OF 10" DIAMETER AND LARGE WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE. IN THE PRESENCE OF THE UTILITY DEPART. THE UTILITY DEPARTMENT WILL BE NOTIFIED IN WRITING 48 HOURS PRIOR TO THE FLUSHING OF SAID MAINS.

   THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

   A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO THE TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.

   B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.
   - FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
   - ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE.
   - PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT, THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 psi.
   - TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALE IS ALWAYS GRATER THAN 20 psi.

   C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.

   D. THE TIE-IN VALVE SHALL BE OPENED ONLY A FEW TURNS FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE CITY AND OBSERVED BY THE ENGINEER.

   E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE CITY.
5. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER PERTINENT AGENCIES.
6. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.
7. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. DAMAGE / REPLACEMENT COST MAY EXCEED $2,000.00 FOR LOST, DAMAGED OR STOLEN JUMPER / CONSTRUCTION METER ASSEMBLIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPLACEMENT COST.
9. CONNECTION METERS MAY BE SUITED FOR JUMPER AND CONSTRUCTION WATER IF RPZ BACKFLOWS ARE INSTALLED PER EACH APPLICATION.
10. CONTACT CITY WATER DEPARTMENT FOR PROCUREMENT / PROCEDURE AT 352-728-9835.

WATER
TEMPORARY JUMPER CONNECTION NOTES

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-8

SPECIFICATIONS

*NOTE: VALVES SHALL BE PLACED ADJACENT TO MAIN, AND TIED TO TEE.

1. AWWA SPECIFICATIONS C-502
2. TWO 2-1/2" HOSE NOZZLE DISCHARGE
3. ONE 4-1/2" PUMPER NOZZLE DISCHARGE
4. ONE 1-1/2" OPERATING NUT, LEFT

APPLY TWO COATS OF SHERWIN WILLIAMS OR EQUAL OSHA SAFETY INDUSTRIAL YELLOW PAINT TO HYDRANT BARREL.
APPLY TWO COATS OF SHERWIN WILLIAMS OR EQUAL OSHA SAFETY INDUSTRIAL ENAMEL PAINT TO THE BONNET AND NOZZLE CAPS.
THE UTILITY DEPARTMENT INSPECTOR WILL DETERMINE THECOLOR TO PAINT THE HYDRANT BONNET AND NOZZLE CAPS BY FLOW TESTING HYDRANT.

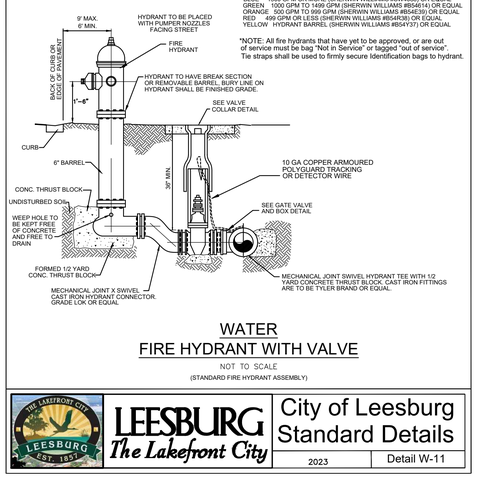
5. HYDRANTS SHALL BE FLOW TESTED BY CONTRACTOR. COORDINATE WITH CITY ENGINEER FOR TESTING PROCEDURES.
6. ALL HYDRANTS SHALL BE EQUIPPED WITH GRADE-LOK FITTINGS TO ALLOW FOR ELEVATION ADJUSTMENTS.

** UNLESS AGREEMENT IS MADE WITH THE CITY OF LEESBURG WATER DEPARTMENT

7. ALL HYDRANTS SHALL BE :
   a. MUELLER CENTURION
   b. CLOW MEDALLION
   c. KENNEDY K81A
   d. AMERICAN DARLING B-84-B (PREFERRED)

BLUE 1500 GPM OR MORE (SHERWIN WILLIAMS #SW4086) OR EQUAL
GREEN 1000 GPM TO 1499 GPM (SHERWIN WILLIAMS #B54614) OR EQUAL
ORANGE 500 GPM TO 999 GPM (SHERWIN WILLIAMS #B54636) OR EQUAL
RED 499 GPM OR LESS (SHERWIN WILLIAMS #B54638) OR EQUAL
YELLOW HYDRANT BARREL (SHERWIN WILLIAMS #B54737) OR EQUAL

*NOTE: All fire hydrants that have yet to be approved, or are out of service must be bag "Not in Service" or tagged "out of service". Tie straps shall be used to firmly secure Identification bags to hydrant.

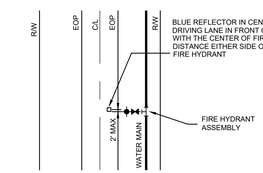


WATER
FIRE HYDRANT WITH VALVE

NOT TO SCALE

(STANDARD FIRE HYDRANT ASSEMBLY)

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-11



*NOTE:
1. HYDRANTS LOCATED BEYOND THE REQUIRED 9' AS SPICIFIED IN C.O.L. CONSTRUCTION SPECIFICATION 10.32, SHALL HAVE A 60" INDICATOR / REFLECTOR PLACED BEHIND FIRE HYDRANT, OR HAVE A REFLECTIVE COLLAR ON THE FIRE HYDRANT FOR LOCATION / IDENTIFICATION PURPOSES.

WATER
FIRE HYDRANT REFLECTOR DETAIL

NOT TO SCALE

LEESBURG The Lakefront City | City of Leesburg Standard Details | 2023 | Detail W-12

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

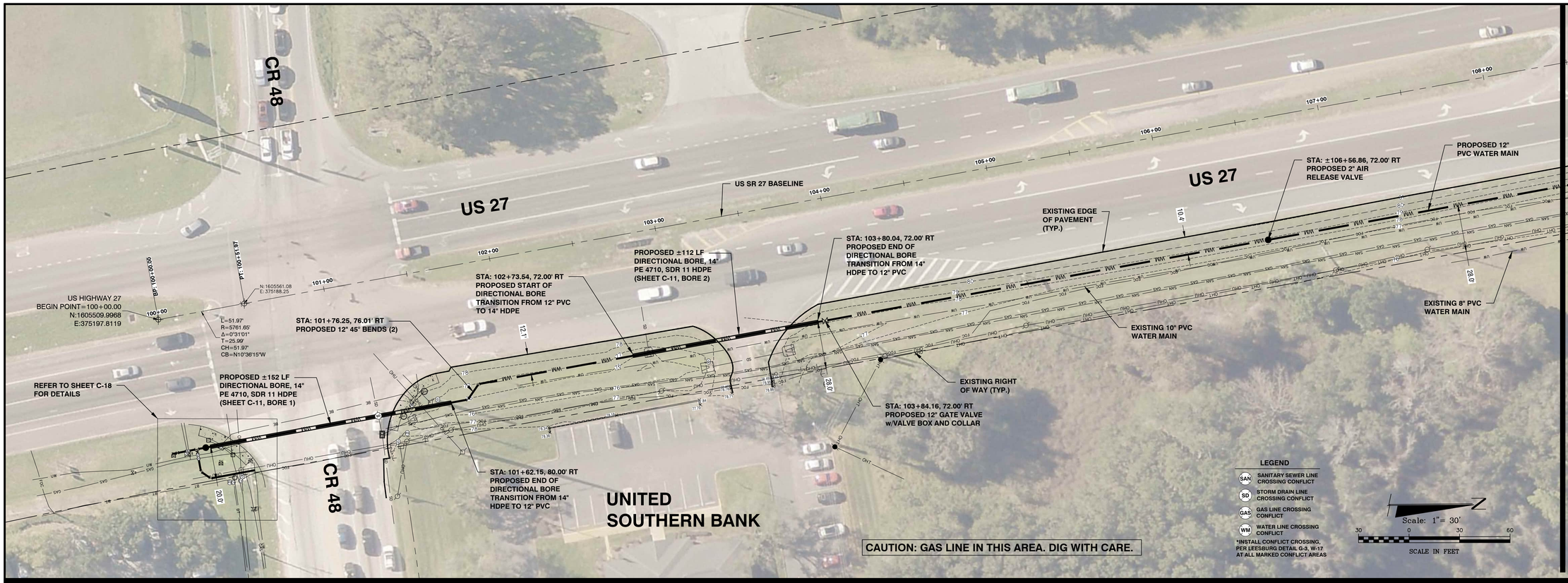
DETAILS

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 33380

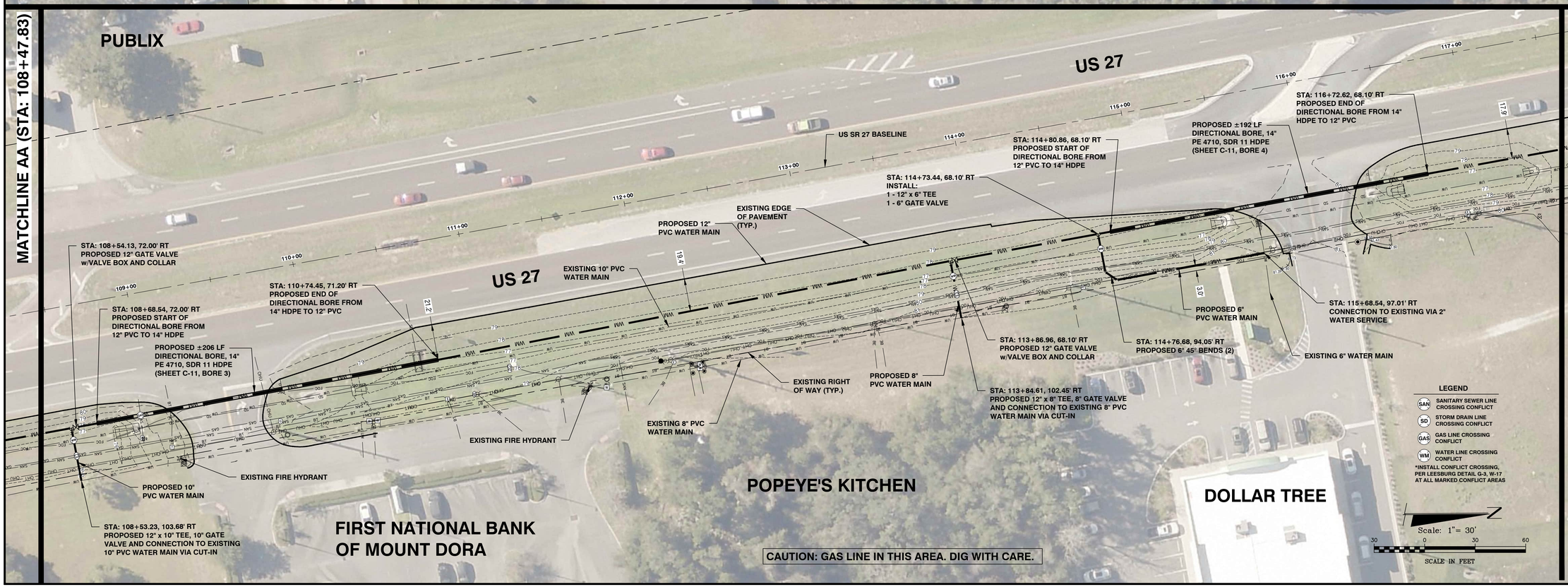
DATE:	DECEMBER 2023
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY.:	MCS
JOB NO.:	047549.001
FILE NAME:	Cover Sheet, General notes, and Details B

Sheet G-4

Michael C. Scullion, P.E.
Registered Eng 70753



MATCHLINE AA (STA: 108+47.83)



MATCHLINE AA (STA: 108+47.83)

MATCHLINE BB (STA: 117+65.83)

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

PLAN SHEET

halff
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Tavares, Florida 32778
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DATE:	DECEMBER 2023
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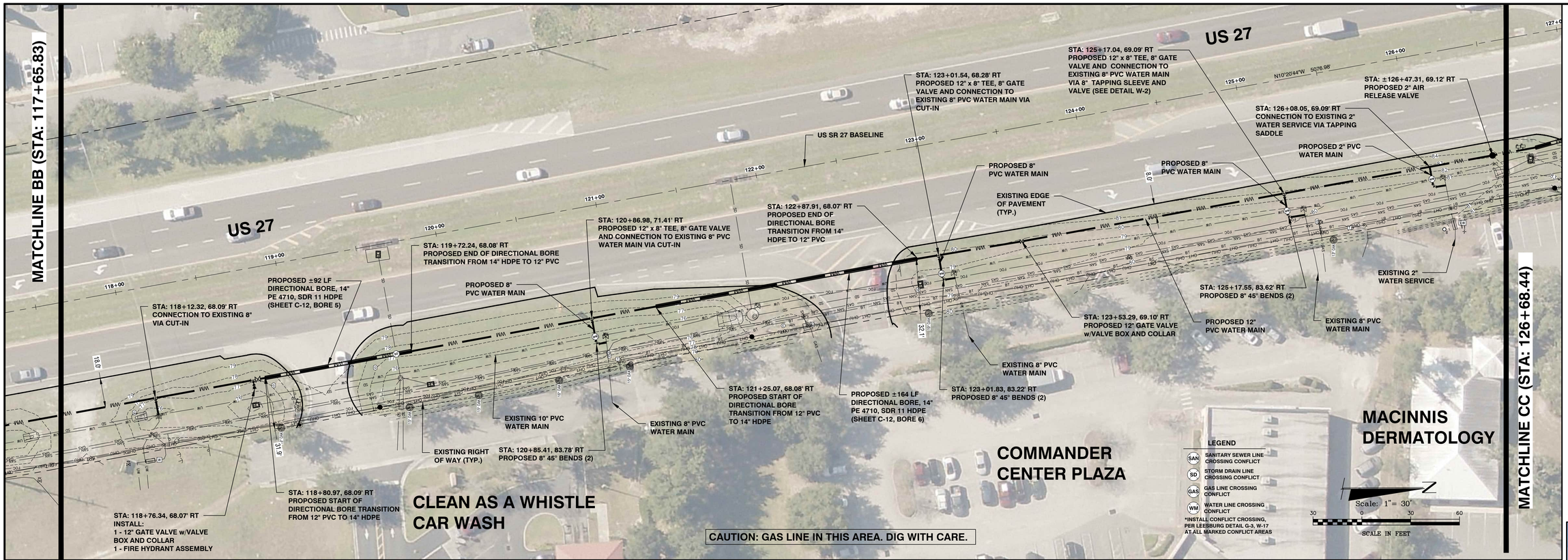
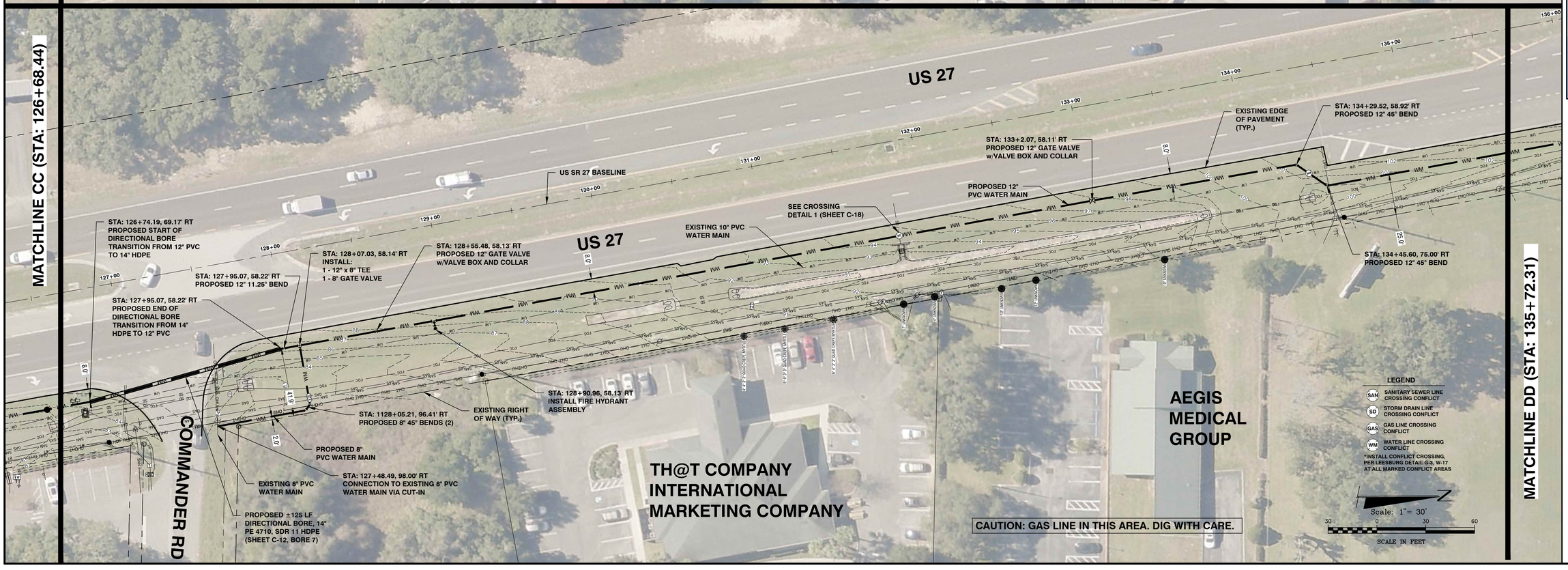
JOB NO.:	047549.001
FILE NAME:	US 27 Watermain B

Sheet C-1

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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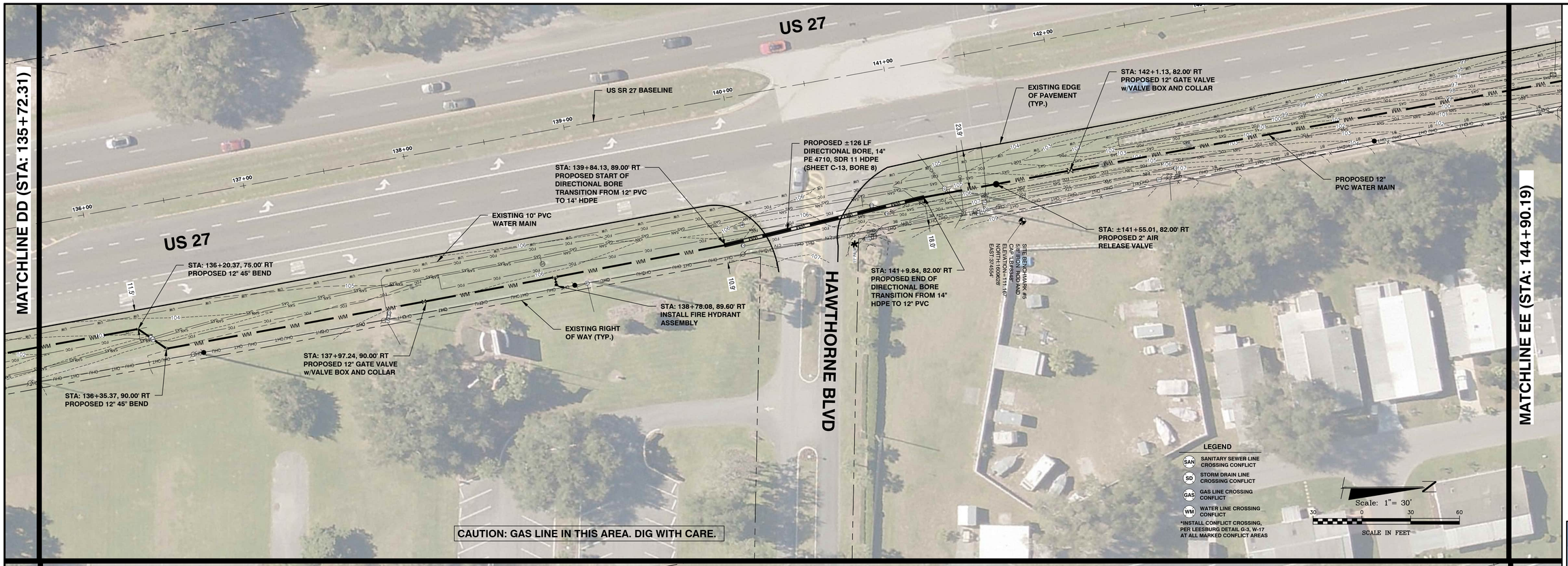
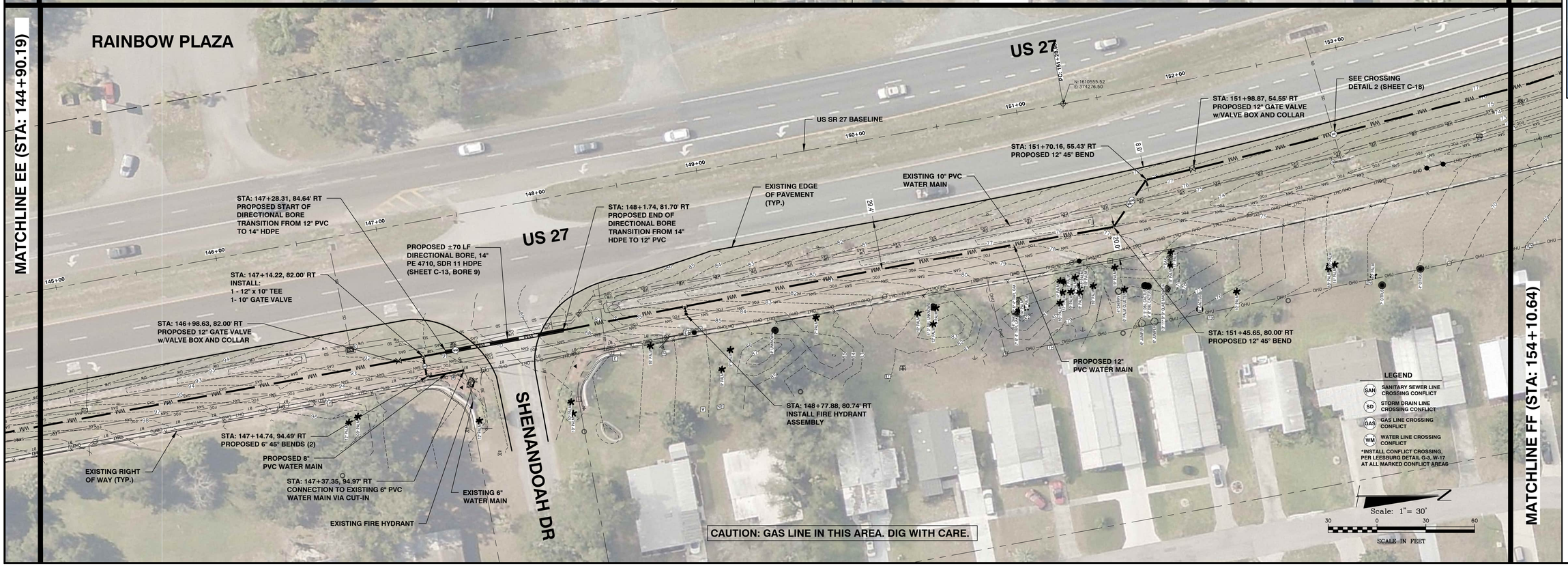
FILE NAME:	US 27 Watermain B

Sheet C-2

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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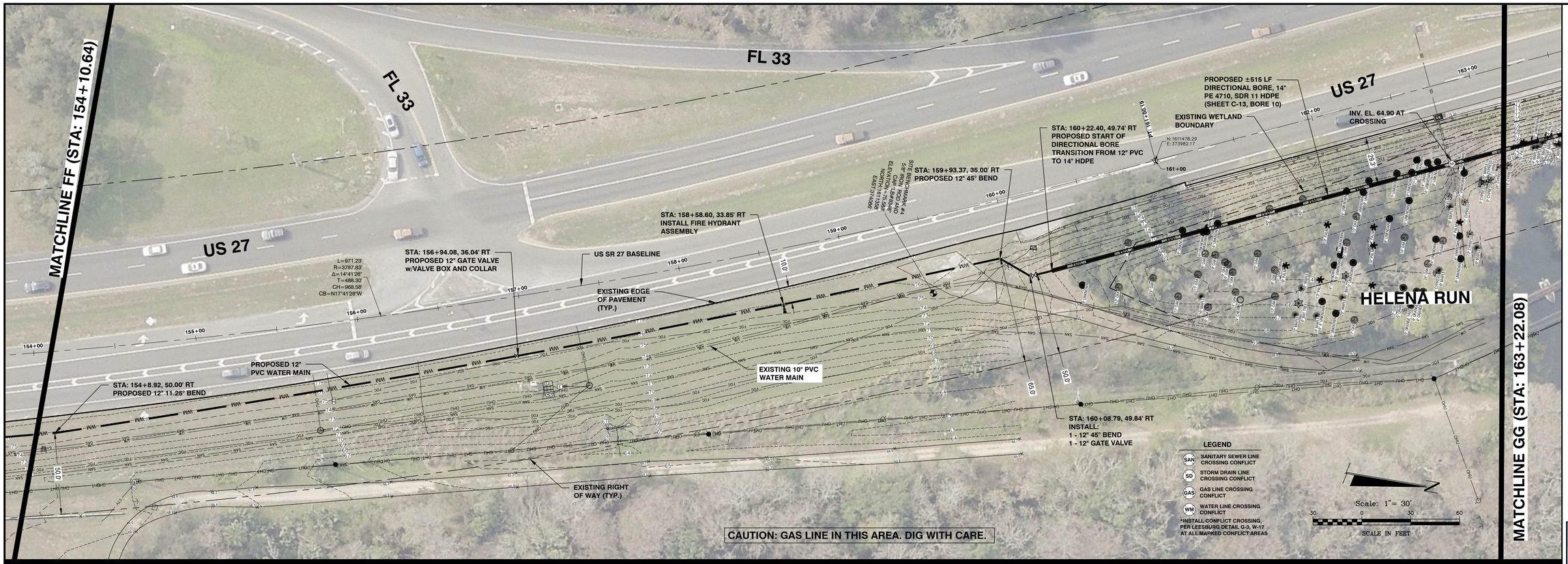
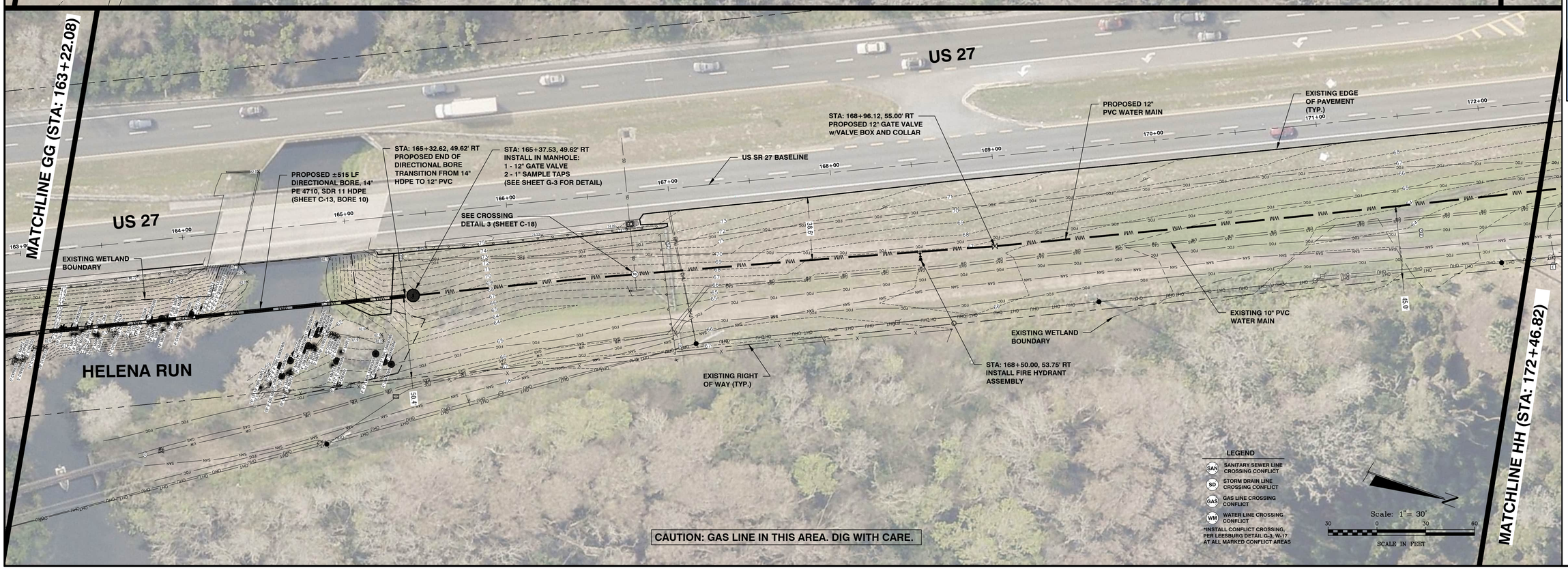
FILE NAME:	US 27 Watermain B

Sheet C-3

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

PLAN SHEET

halff
902 North Sinclair Ave.
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Office: 352.343.8481
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DATE:	NOVEMBER 2023
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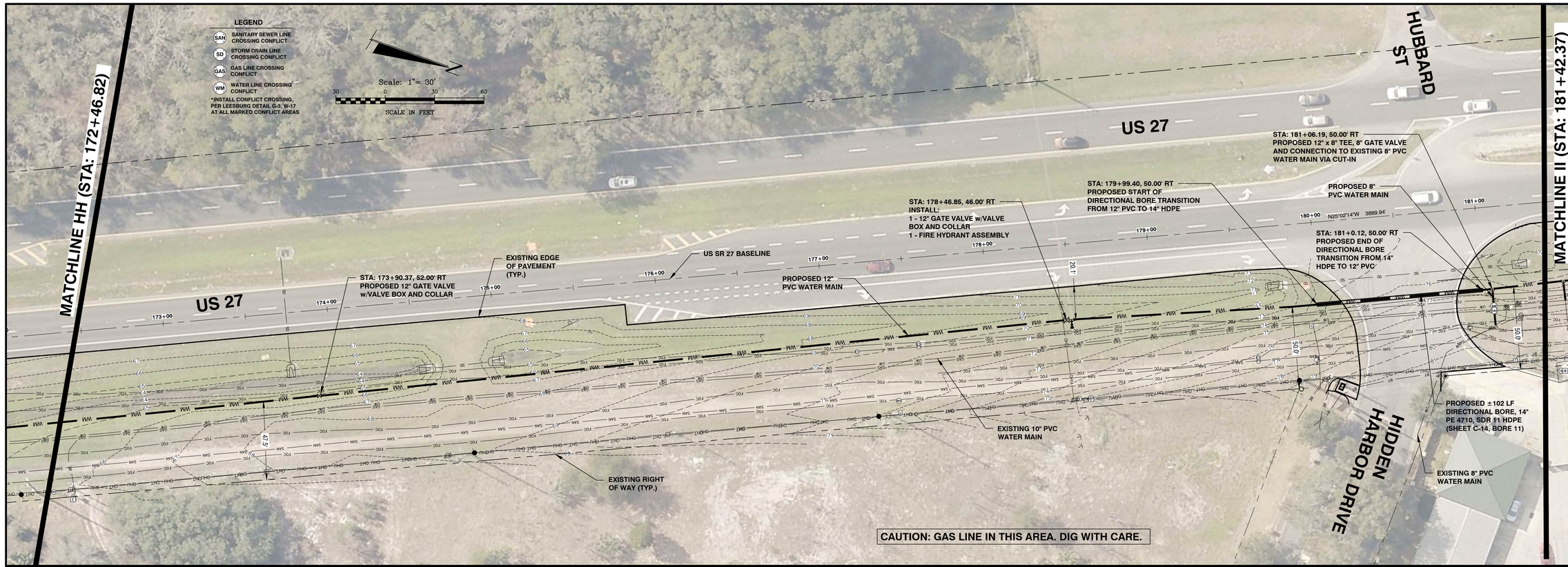
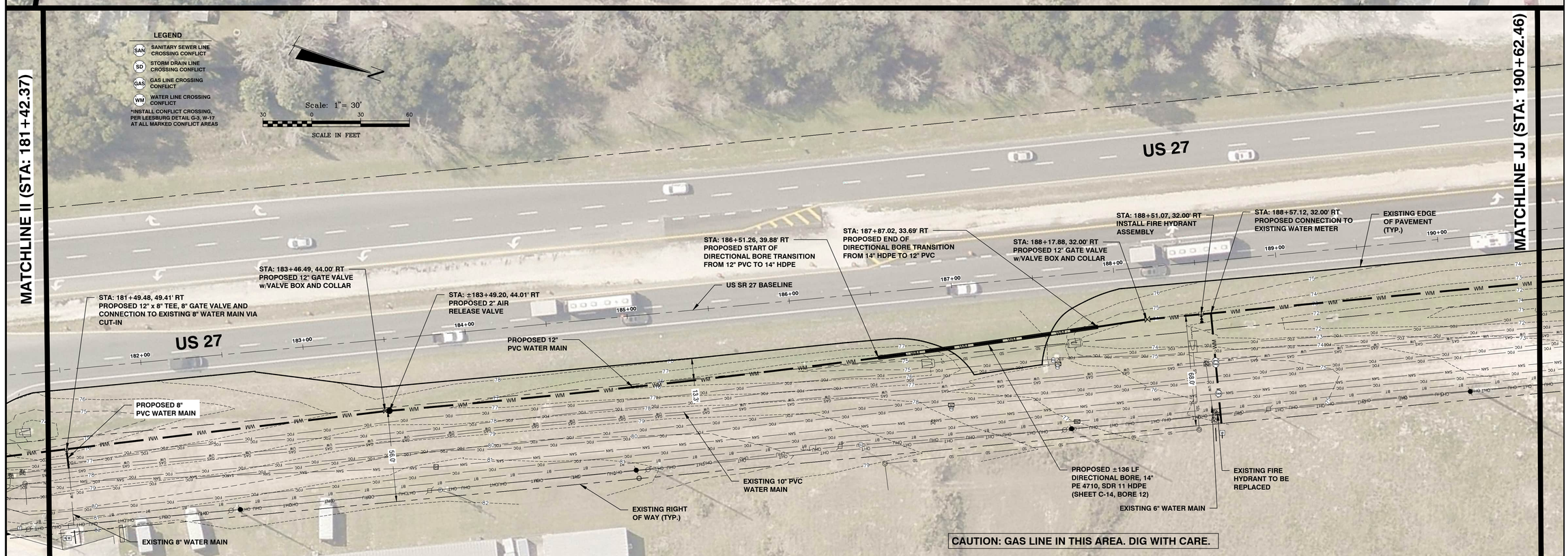
FILE NAME:	US 27 Watermain B

Sheet C-4

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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Sheet C-5

Michael C. Scullion, P.E.
Registered Eng 70753

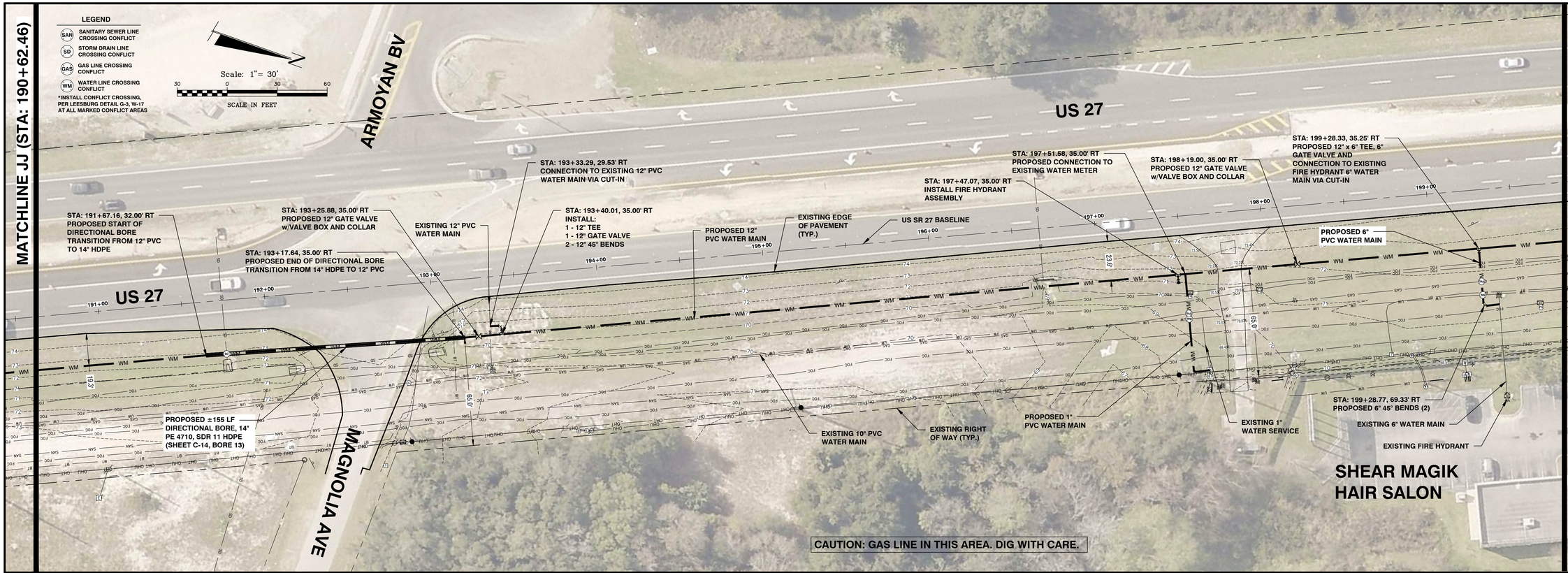
MATCHLINE JJ (STA: 190+62.46)

LEGEND

SAN — SANITARY SEWER LINE CROSSING CONFLICT
SD — STORM DRAIN LINE CROSSING CONFLICT
GAS — GAS LINE CROSSING CONFLICT
WM — WATER LINE CROSSING CONFLICT

*INSTALL CONFLICT CROSSING, PER LEESBURG DETAIL G-3, W-17 AT ALL MARKED CONFLICT AREAS

Scale: 1"= 30'
30 0 30 60
SCALE IN FEET



MATCHLINE KK (STA: 199+83.13)

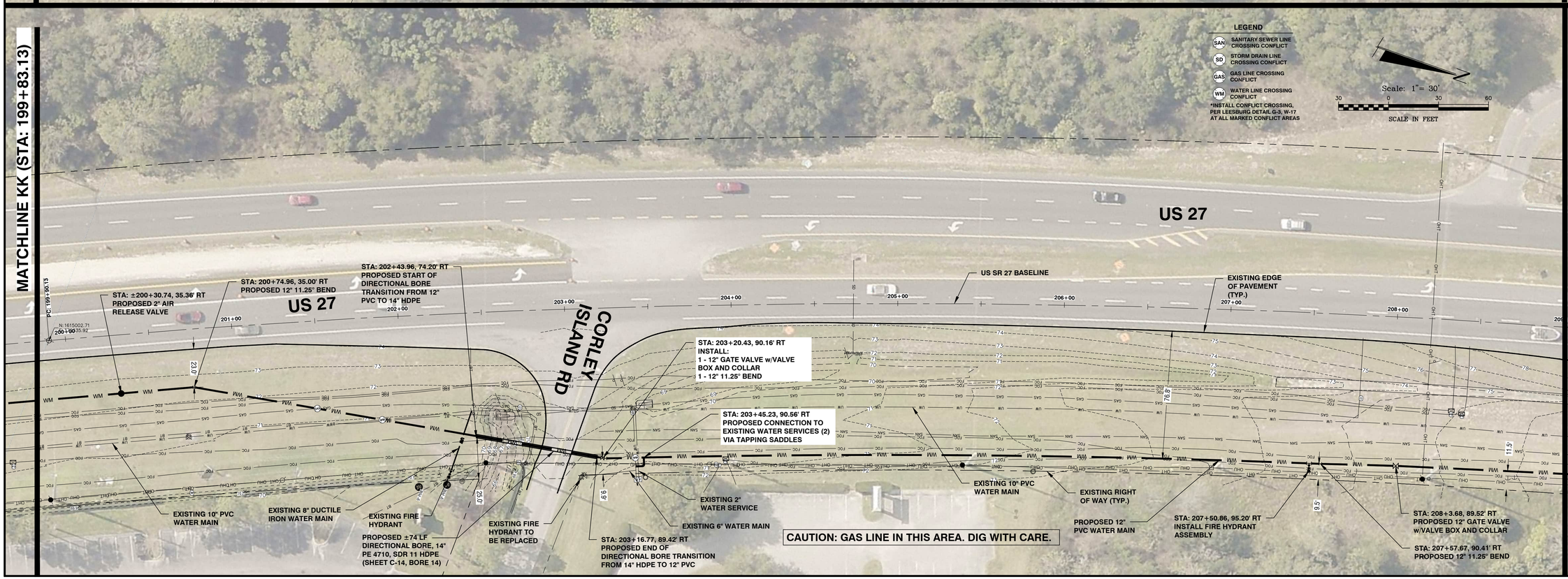
MATCHLINE KK (STA: 199+83.13)

LEGEND

SAN — SANITARY SEWER LINE CROSSING CONFLICT
SD — STORM DRAIN LINE CROSSING CONFLICT
GAS — GAS LINE CROSSING CONFLICT
WM — WATER LINE CROSSING CONFLICT

*INSTALL CONFLICT CROSSING, PER LEESBURG DETAIL G-3, W-17 AT ALL MARKED CONFLICT AREAS

Scale: 1"= 30'
30 0 30 60
SCALE IN FEET



MATCHLINE LL (STA: 209+00.66)

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CITY OF LEESBURG, FLORIDA
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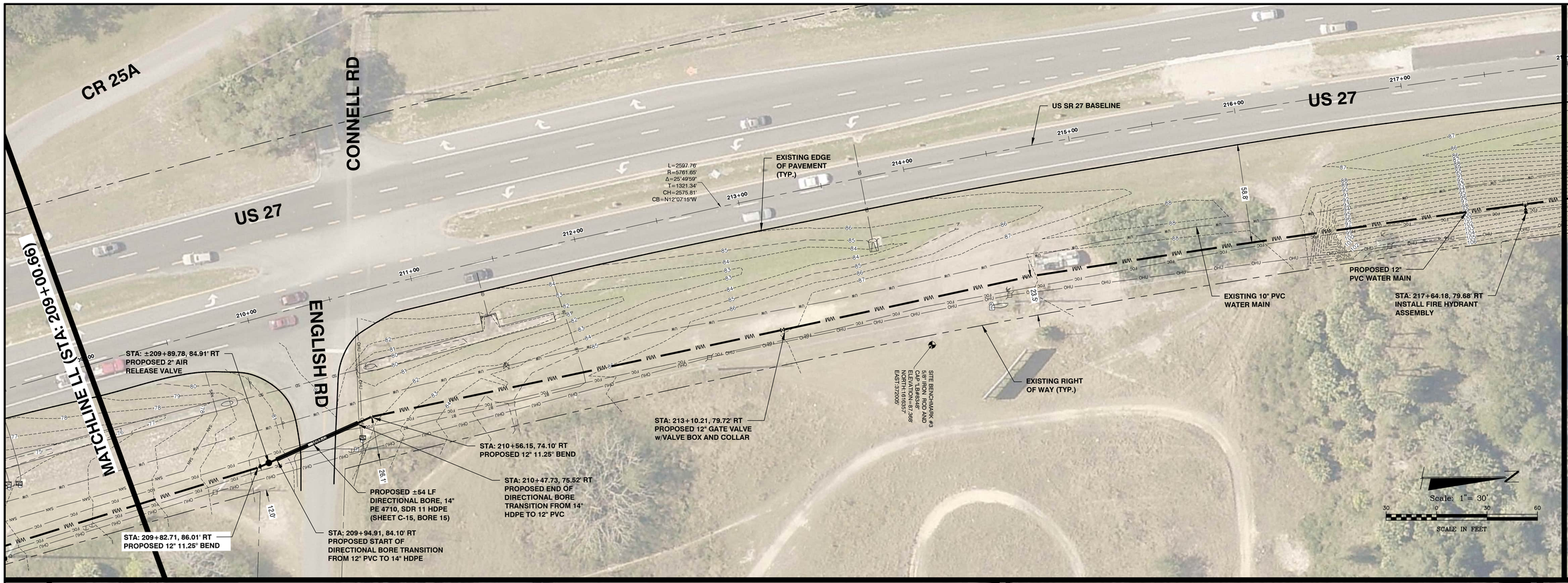
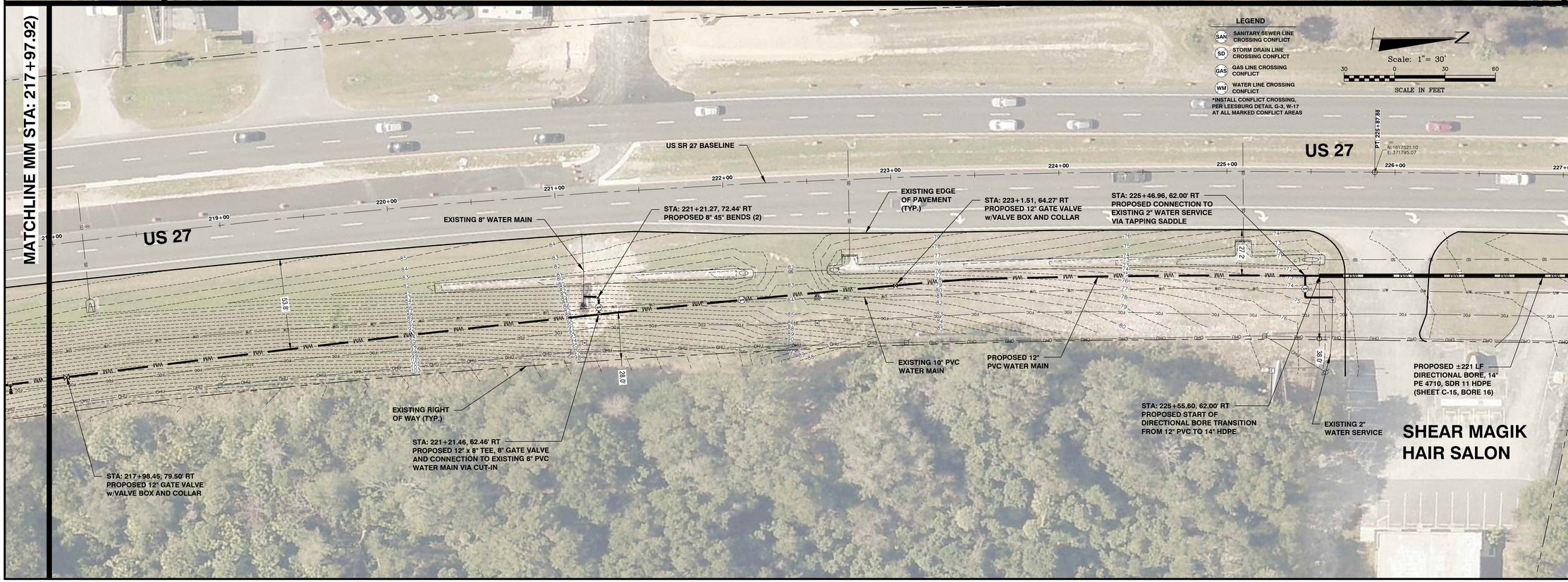
FILE NAME:	US 27 Watermain B

Sheet C-6

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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halff
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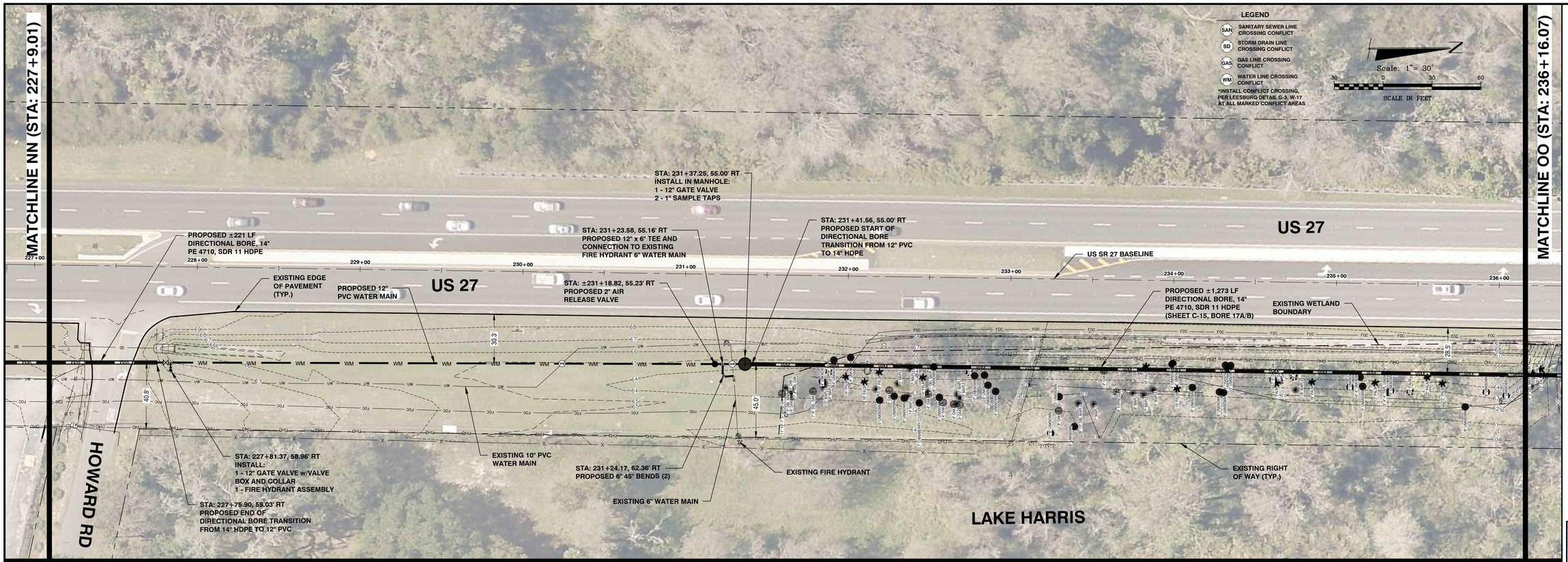
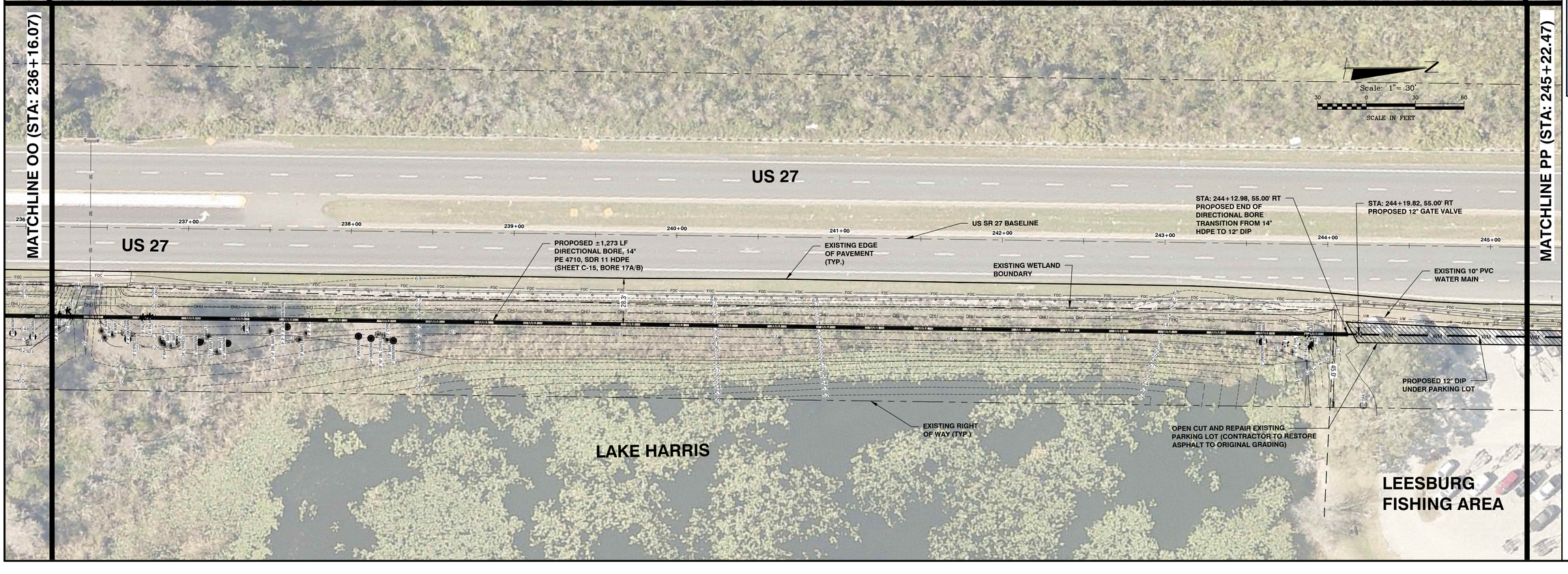
Sheet C-7

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

PLAN SHEET

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902 North Sinclair Ave.
Tavares, Florida 32778
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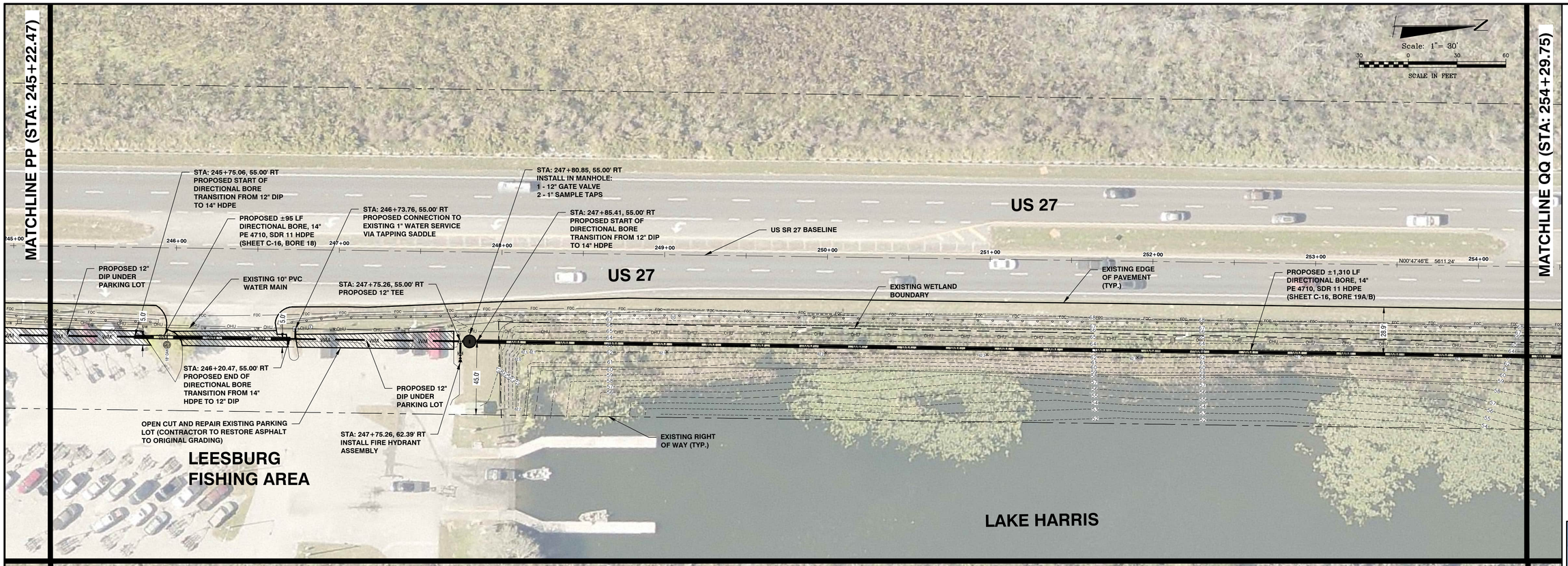
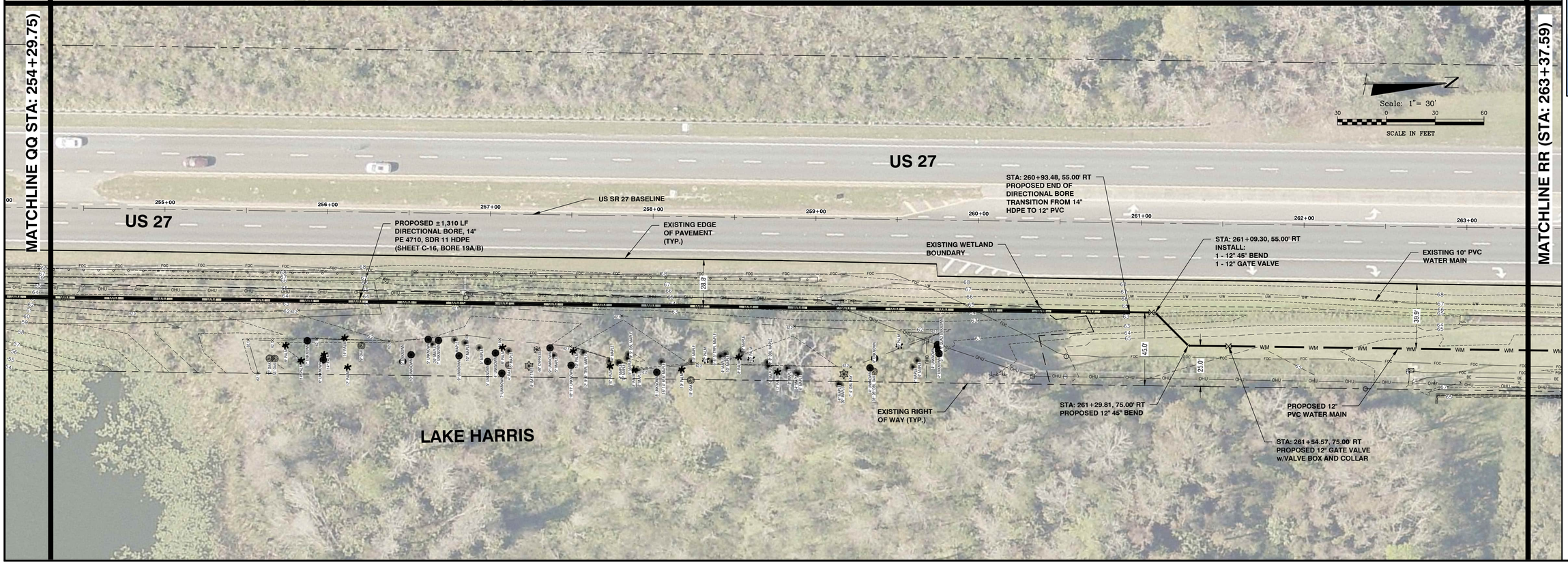
Sheet C-8

Michael C. Scullion, P.E.
Registered Eng 70753





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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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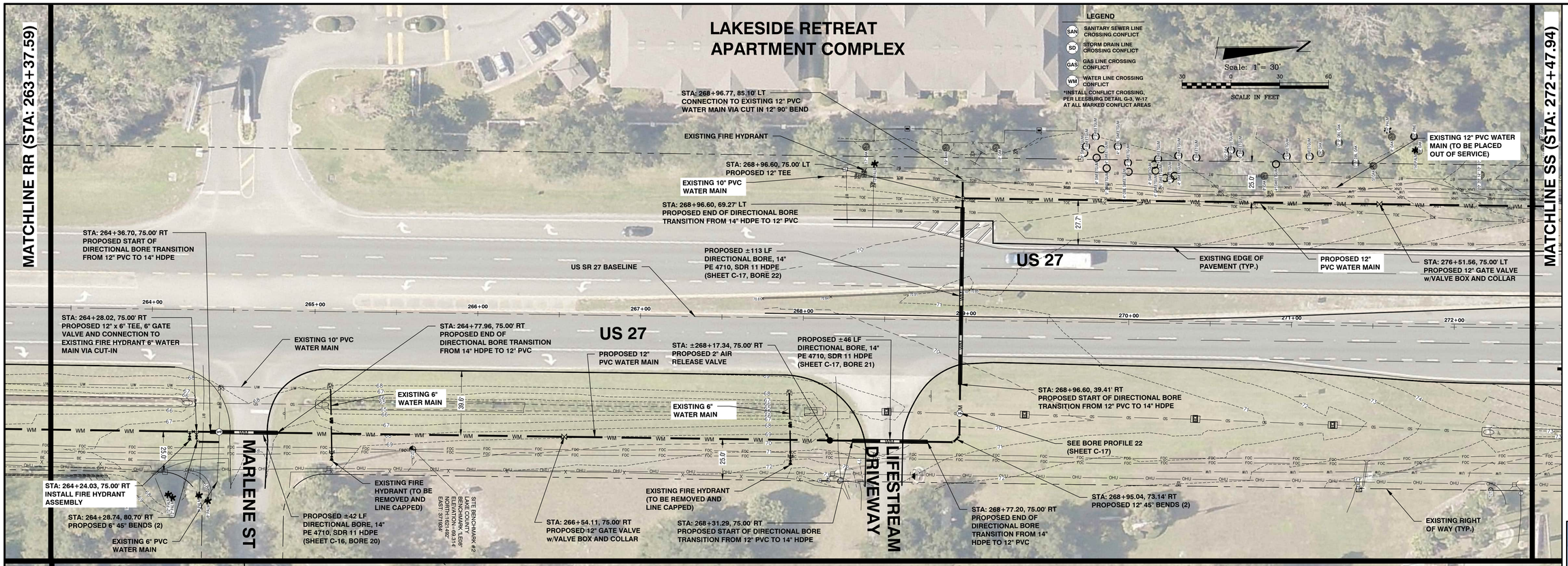
Sheet C-9

Michael C. Scullion, P.E.
Registered Eng 70753



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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

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FILE NAME:	US 27 Watermain B

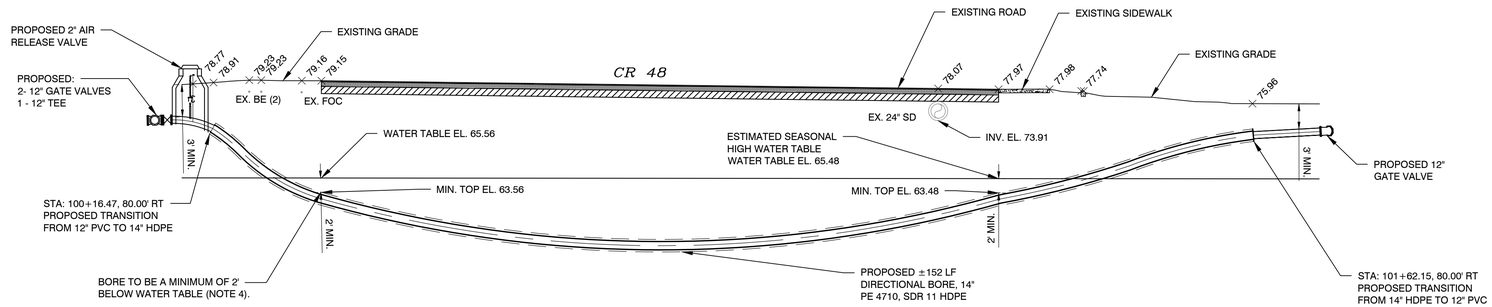
Sheet C-10

Michael C. Scullion, P.E.
Registered Eng 70753

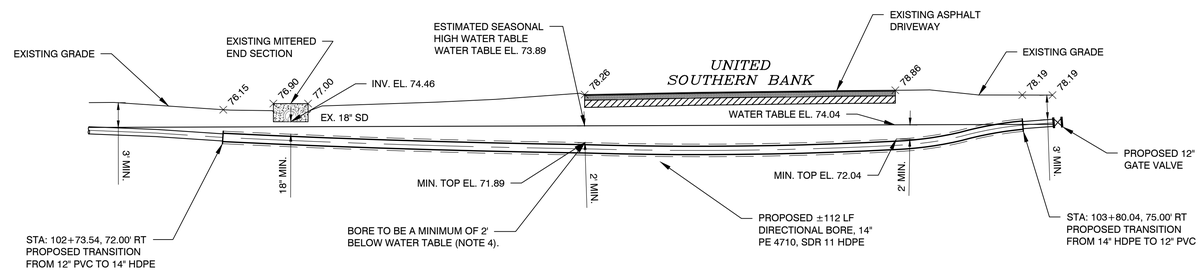
NOTE:

1. ALL PIPE SHALL BE INSTALLED WITH A MINIMUM OF THREE (3) FEET OF COVER.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
3. 21" MAXIMUM BORED DIAMETER DETERMINED USING FDOT 2017 UTILITY ACCOMMODATION MANUAL (UAM) SECTION 3.16.9.1.
4. BENEATH ROADWAYS, BORE DEPTH SHALL BE A MINIMUM OF TEN (10) TIMES THE BORED DIAMETER TO THE TOP OF THE BORE OR TWO (2) FEET BELOW THE WATER TABLE TO THE TOP OF THE BORE AS STATED IN UAM SECTION 3.16.9.1.

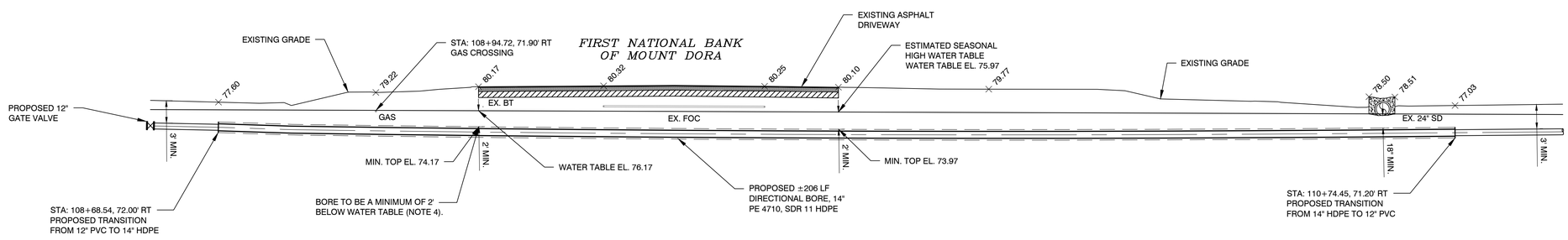
LEGEND:
FOC = FIBER OPTIC CABLE
BE = BURIED ELECTRIC
BT = BURIED TELEPHONE
SAN = GRAVITY SANITARY SEWER
SD = GRAVITY STORM DRAINAGE
FM = FORCE MAIN
WM = WATER MAIN



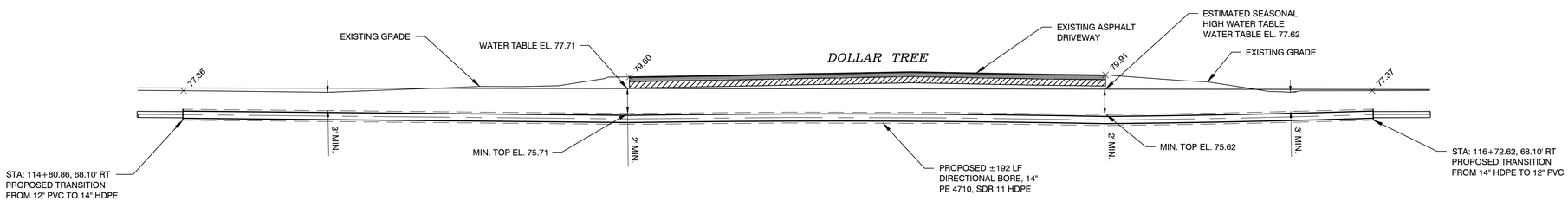
BORE 1 PROFILE (SHEET C-1, PANEL A)



BORE 2 PROFILE (SHEET C-1, PANEL A)



BORE 3 PROFILE (SHEET C-1, PANEL B)



BORE 4 PROFILE (SHEET C-1, PANEL B)

DATE	REVISION
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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

halff
902 North Sinclair Ave.
Tavares, Florida 32778
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Fax: 352.343.8495
Certificate of Authorization Number: 33380

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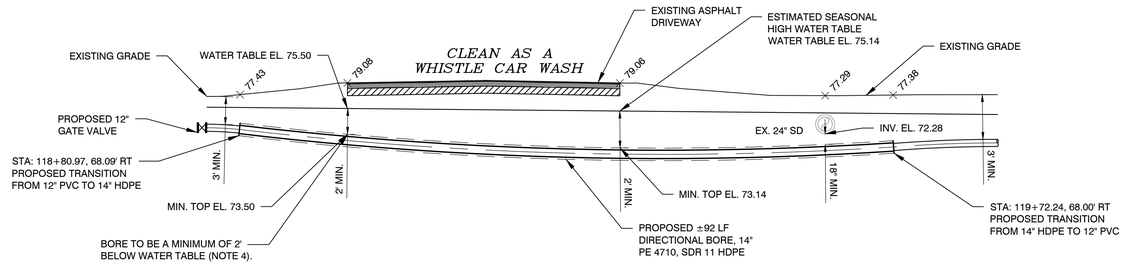
FILE NAME:	US 27 Watermain B Bore Profiles

Sheet C-11

Michael C. Scullion, P.E.
Registered Eng 70753

NOTE:

1. ALL PIPE SHALL BE INSTALLED WITH A MINIMUM OF THREE (3) FEET OF COVER.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
3. 21" MAXIMUM BORED DIAMETER DETERMINED USING FDOT 2017 UTILITY ACCOMMODATION MANUAL (UAM) SECTION 3.16.9.1.
4. BENEATH ROADWAYS, BORE DEPTH SHALL BE A MINIMUM OF TEN (10) TIMES THE BORED DIAMETER TO THE TOP OF THE BORE OR TWO (2) FEET BELOW THE WATER TABLE TO THE TOP OF THE BORE AS STATED IN UAM SECTION 3.16.9.1.



LEGEND:
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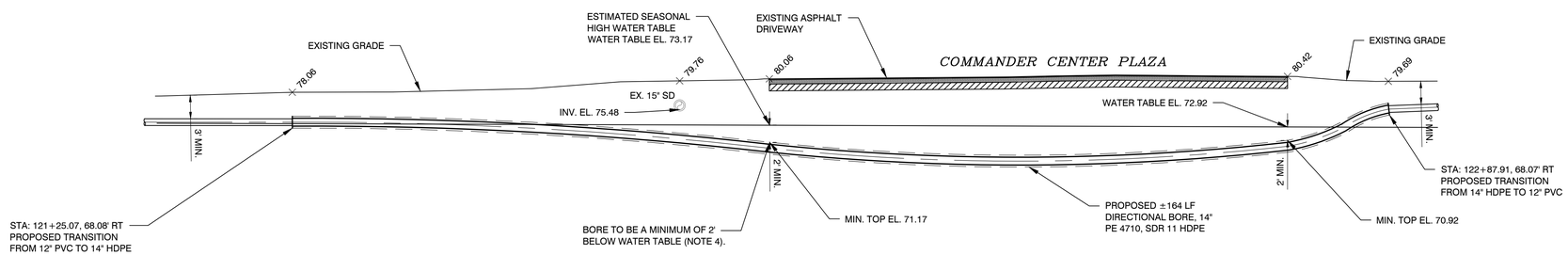
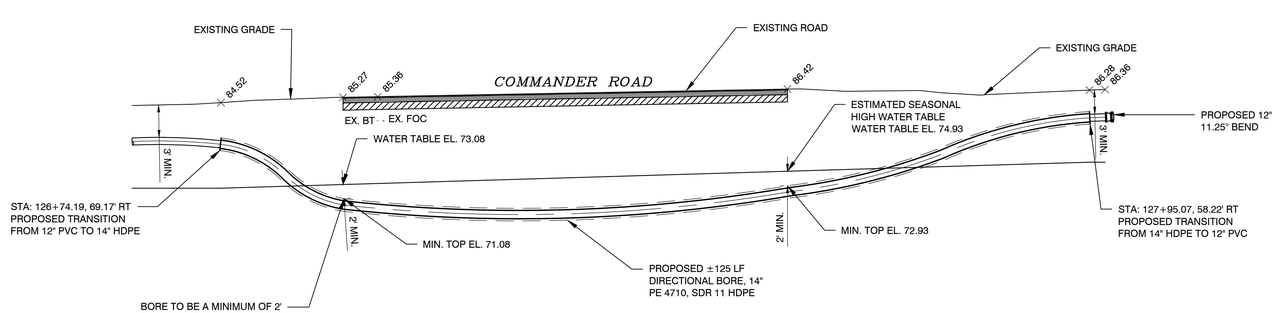
BE = BURIED ELECTRIC
BT = BURIED TELEPHONE
SAN = GRAVITY SANITARY SEWER
SD = GRAVITY STORM DRAINAGE
FM = FORCE MAIN
WM = WATER MAIN

BORE 5 PROFILE (SHEET C-2, PANEL A)



BORE 6 PROFILE (SHEET C-2, PANEL A)



BORE 7 PROFILE (SHEET C-2, PANEL B)

DATE	REVISION
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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

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FILE NAME:	US 27 Watermain B Bore Profiles

Sheet C-12

Michael C. Scullion, P.E.
Registered Eng 70753

NOTE:

1. ALL PIPE SHALL BE INSTALLED WITH A MINIMUM OF THREE (3) FEET OF COVER.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
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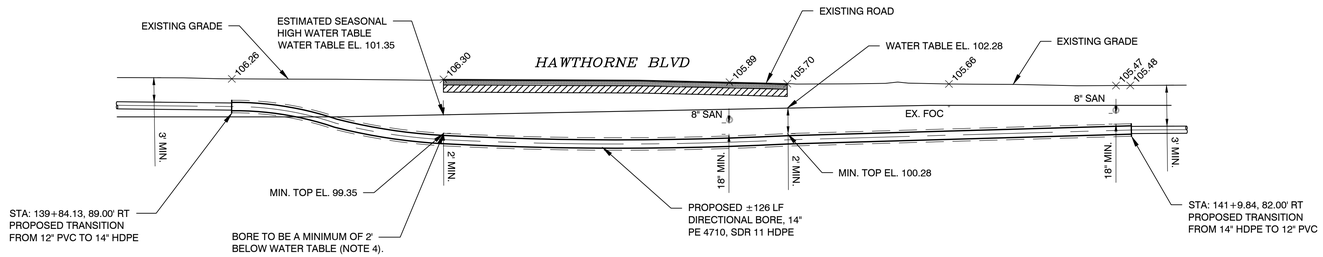
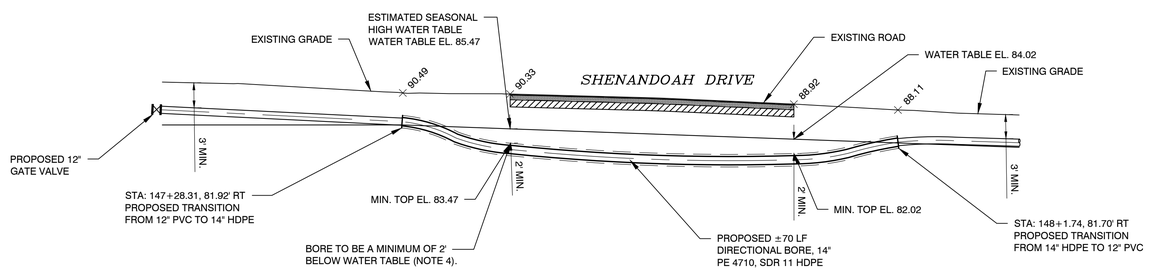
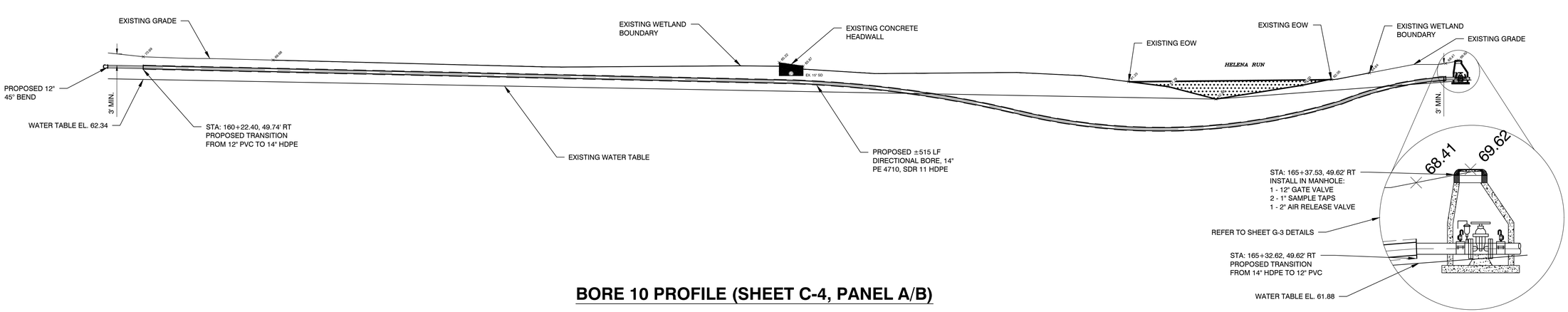


BORE 8 PROFILE (SHEET C-3, PANEL A)



BORE 9 PROFILE (SHEET C-3, PANEL B)



BORE 10 PROFILE (SHEET C-4, PANEL A/B)

DATE	REVISION
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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

halff
902 North Sinclair Ave.
Tavares, Florida 32778
Office: 352.343.8481
Fax: 352.343.8495
Certificate of Authorization Number: 33380

DATE:	DECEMBER 2023
DESIGNED BY:	CLM
DRAWN BY:	CLM
CHECKED BY.:	MCS
JOB NO.:	047549.001
FILE NAME:	US 27 Watermain B Bore Profiles
Sheet C-13	

Michael C. Scullion, P.E.
Registered Eng 70753

NOTE:

1. ALL PIPE SHALL BE INSTALLED WITH A MINIMUM OF THREE (3) FEET OF COVER.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
3. 21" MAXIMUM BORED DIAMETER DETERMINED USING FDOT 2017 UTILITY ACCOMMODATION MANUAL (UAM) SECTION 3.16.9.1.
4. BENEATH ROADWAYS, BORE DEPTH SHALL BE A MINIMUM OF TEN (10) TIMES THE BORED DIAMETER TO THE TOP OF THE BORE OR TWO (2) FEET BELOW THE WATER TABLE TO THE TOP OF THE BORE AS STATED IN UAM SECTION 3.16.9.1.

LEGEND:
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SAN = GRAVITY SANITARY SEWER
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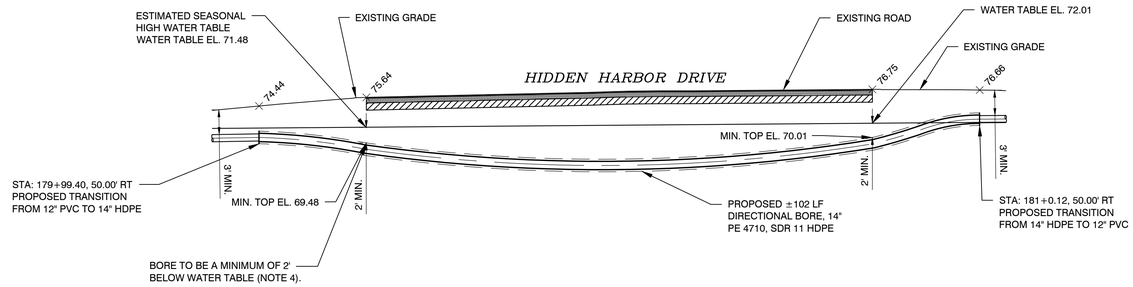
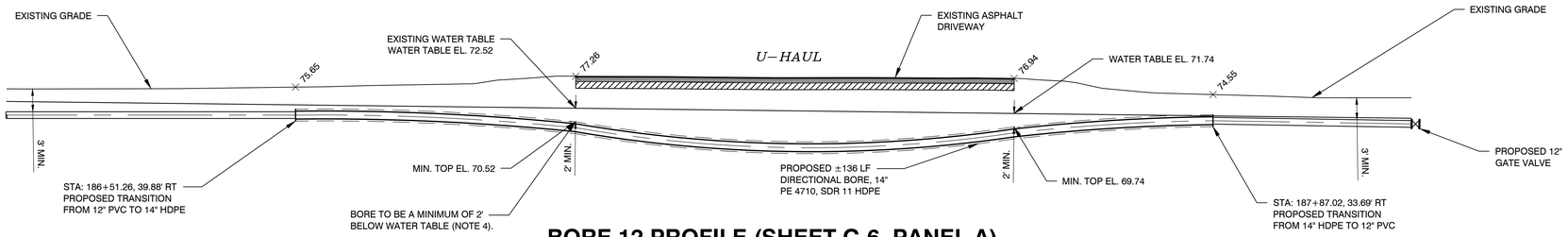
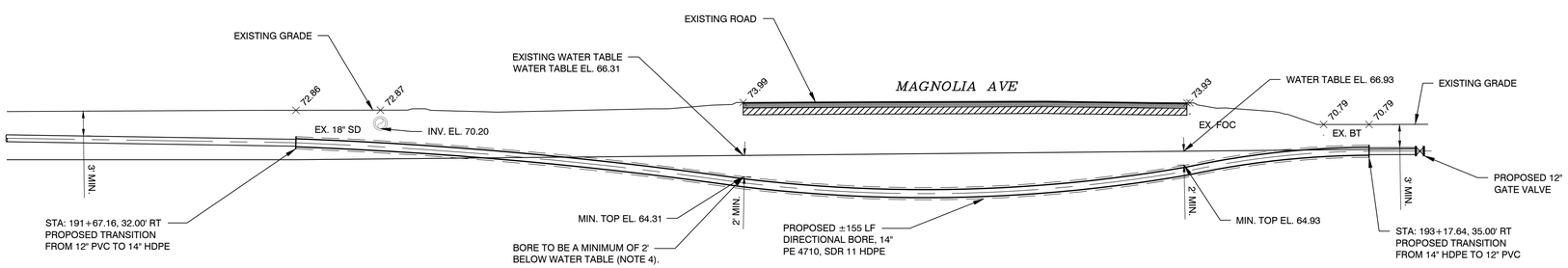


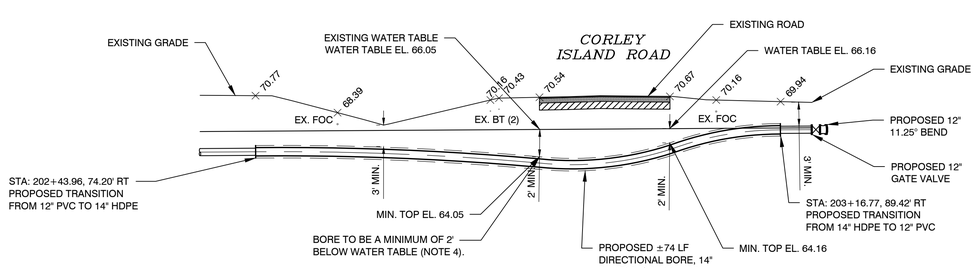
BORE 11 PROFILE (SHEET C-5, PANEL A)



BORE 12 PROFILE (SHEET C-6, PANEL A)



BORE 13 PROFILE (SHEET C-6, PANEL A)



BORE 14 PROFILE (SHEET C-6, PANEL B)

DATE	REVISION
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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

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Sheet C-14

Michael C. Scullion, P.E.
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NOTE:

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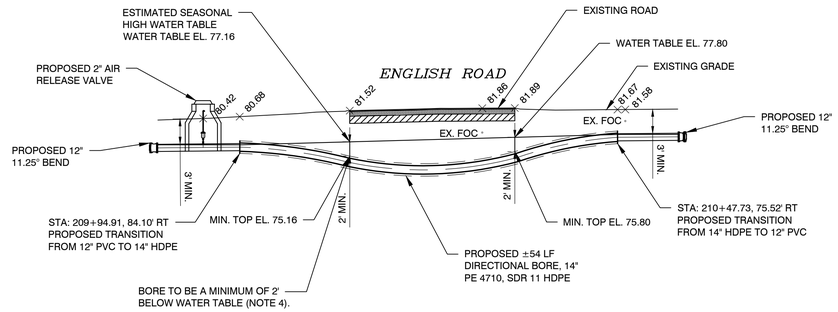

BORE 15 PROFILE (SHEET C-7, PANEL A)

LEGEND:
FOC = FIBER OPTIC CABLE
BE = BURIED ELECTRIC
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SAN = GRAVITY SANITARY SEWER
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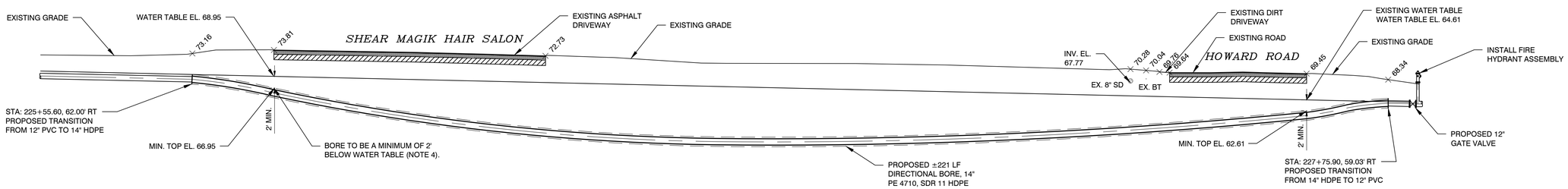
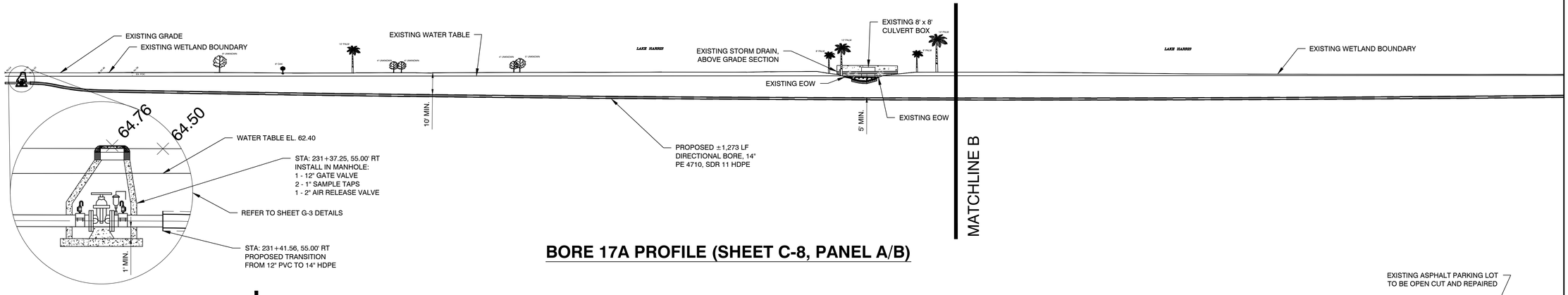
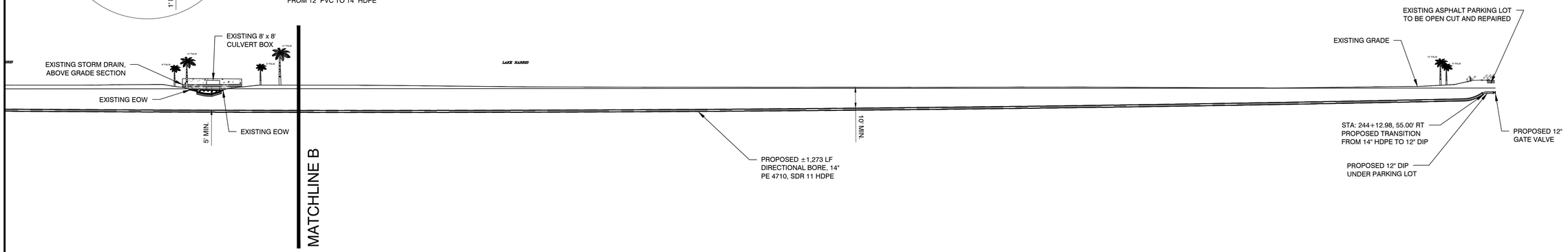


BORE 16 PROFILE (SHEET C-7, PANEL B/SHEET C-8, PANEL A)



BORE 17A PROFILE (SHEET C-8, PANEL A/B)



BORE 17B PROFILE (SHEET C-8, PANEL A/B)

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

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Michael C. Scullion, P.E.
Registered Eng 70753

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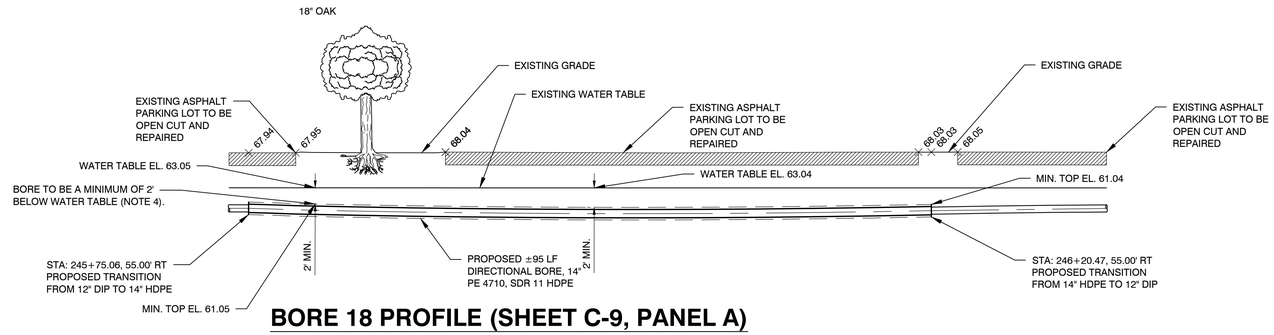
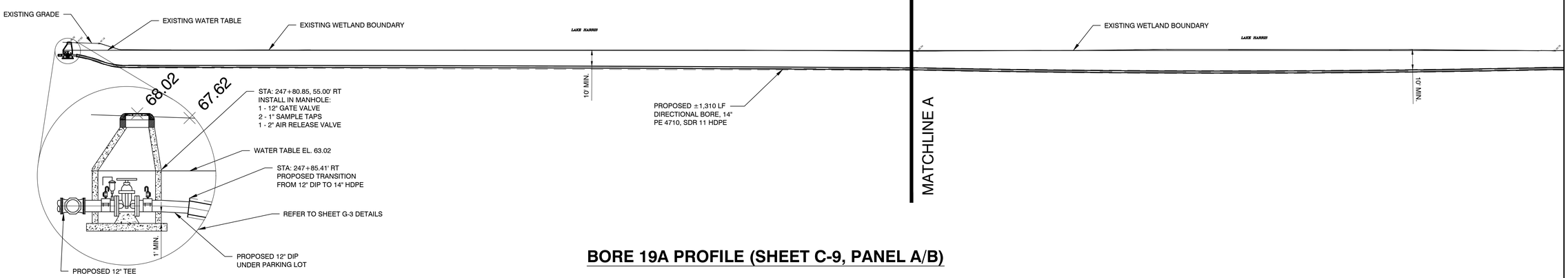
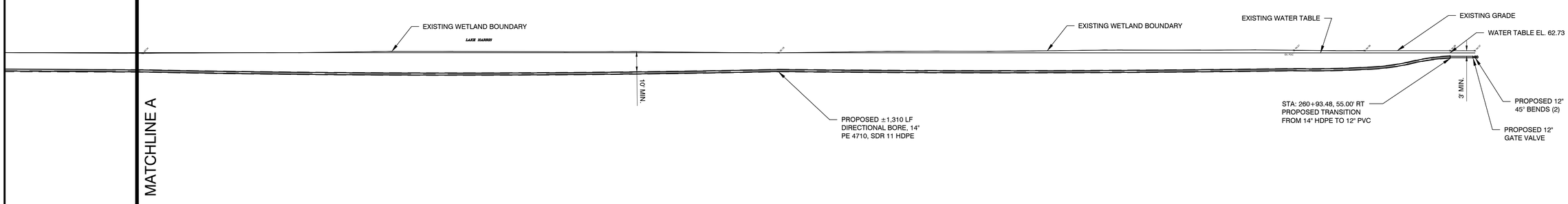


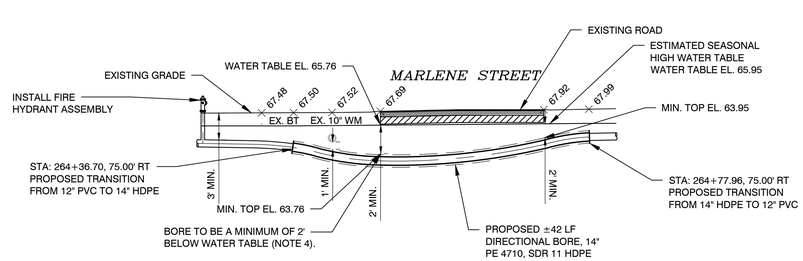
BORE 18 PROFILE (SHEET C-9, PANEL A)



BORE 19A PROFILE (SHEET C-9, PANEL A/B)



BORE 19B PROFILE (SHEET C-9, PANEL A/B)



BORE 20 PROFILE (SHEET C-10, PANEL A)

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

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Sheet C-16

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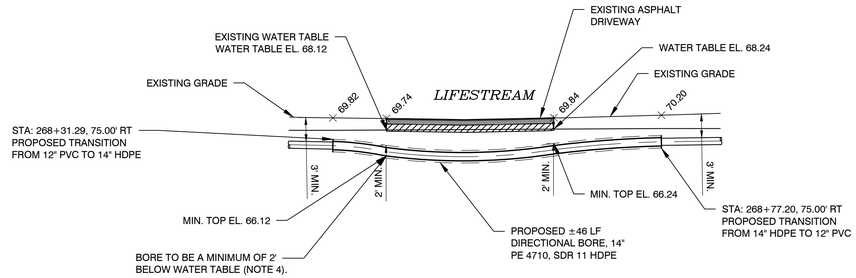
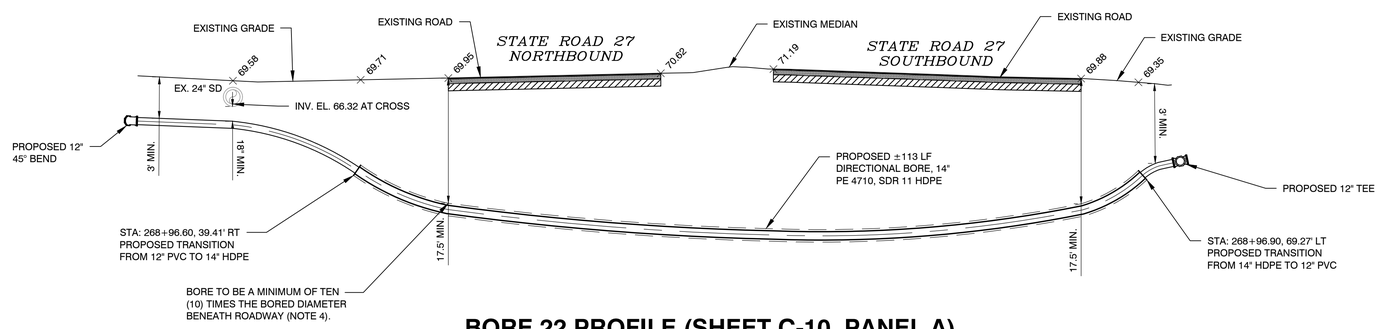
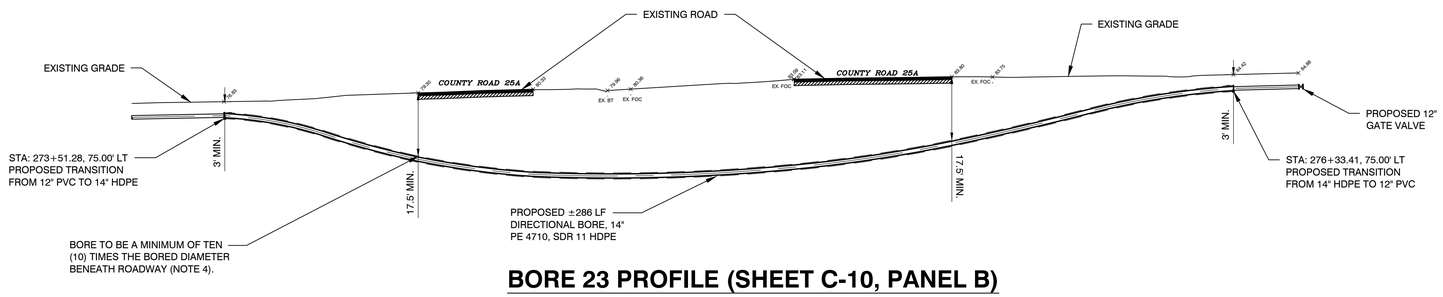


BORE 21 PROFILE (SHEET C-10, PANEL A)



BORE 22 PROFILE (SHEET C-10, PANEL A)



BORE 23 PROFILE (SHEET C-10, PANEL B)

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION COUNTY ROAD 48 TO MIDDLESEX ROAD

BORE PROFILES

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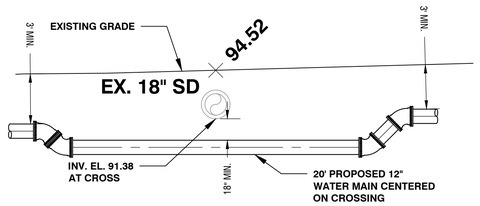
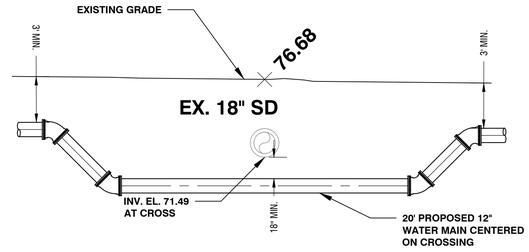
Sheet C-17

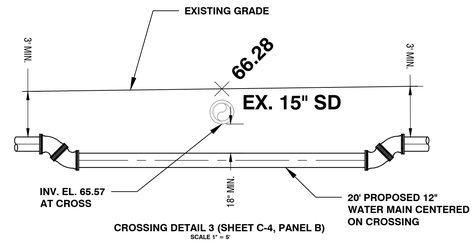
Michael C. Scullion, P.E.
Registered Eng 70753



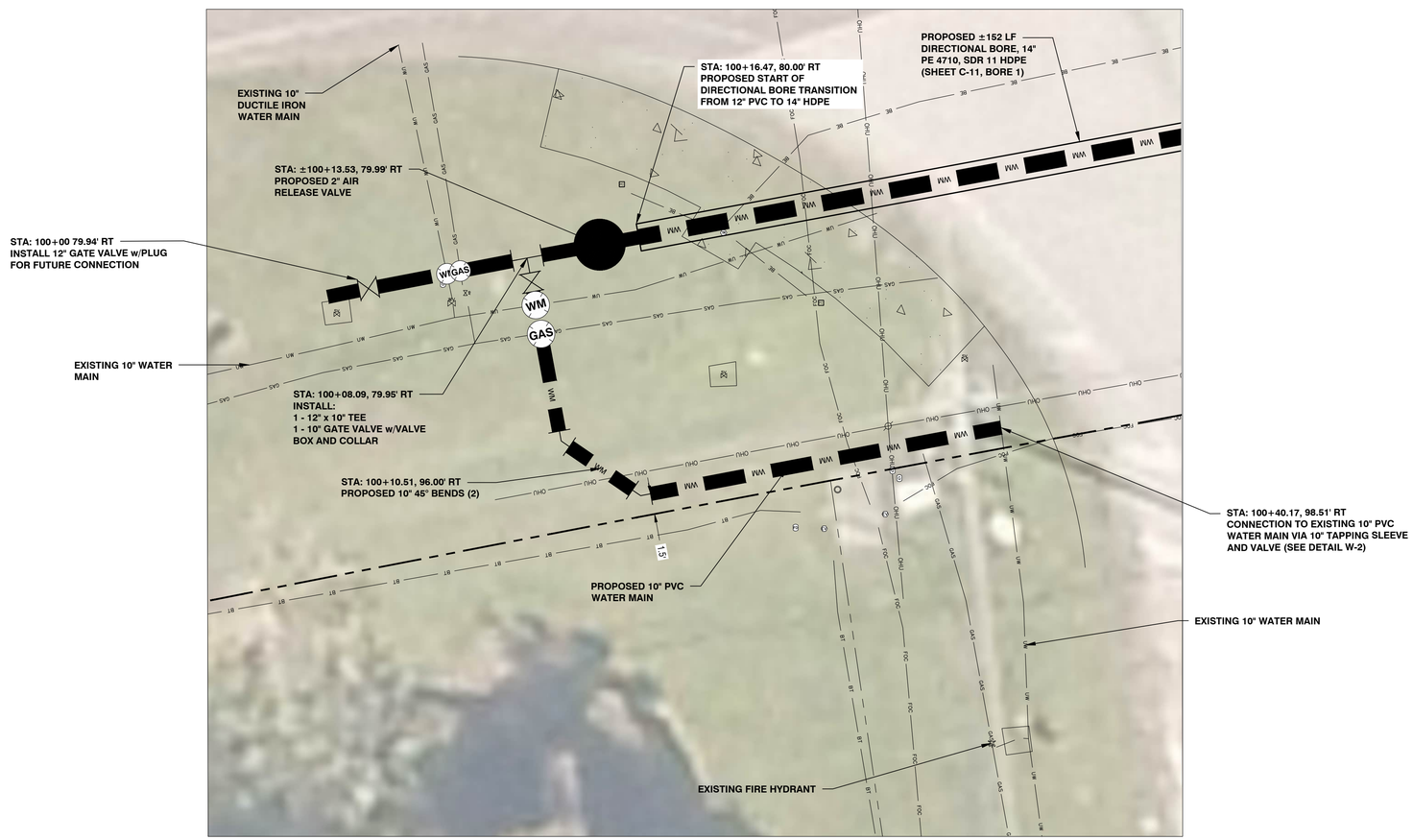
CROSSING DETAIL 1 (SHEET C-2, PANEL B)
SCALE 1" = 5'



CROSSING DETAIL 2 (SHEET C-3, PANEL B)
SCALE 1" = 5'



CROSSING DETAIL 3 (SHEET C-4, PANEL B)
SCALE 1" = 5'



SCALE 1" = 5'

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CITY OF LEESBURG, FLORIDA
US 27 WATER MAIN INSTALLATION
COUNTY ROAD 48 TO MIDDLESEX ROAD

CROSSING DETAILS

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Sheet C-18

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