PLANS PREPARED FOR

# ARCO/Murray National Construction Company, Inc.

COMPONENTS OF CONTRACT PLANS SET

\* ROADWAY CONSTRUCTION PLANS

# INDEX OF PLANS

SHEET NO. SHEET DESCRIPTION

KEYSHEET

GENERAL NOTES & SUMMARY OF PAY ITEMS

OFFSITE DRAINAGE PLAN TYPICAL SECTIONS

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ROADWAY CROSS SECTIONS

UTILITY DETAILS

TEMPORARY TRAFFIC CONTROL PLANS SIGNING AND PAVEMENT MARKING PLAN

Florida Department of Transportation, FY2020-21 Standard plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated Irs are available at the following website:

http://www.fdot.gov/design/Standardplans.shtm

APPLICABLE IRs: IR102-600, IR455-003, IR509-070

Standard Plans for Bridge Construction are included in the Structures Plans Component.

Florida Department of Transportation, July 2020 Standard Specifications for Road and Bridge Construction at the following website:

http://www.fdot.gov/programmanagement/Implemented/SpecBooks

# **Environmental Statement:**

This site was included in the overall Southern Grove DRI and environmental items were addressed as part of that development review process. The project site is currently vacant. According to the environmental summary assessment from October 2020, there are no environmentally sensitive lands or regulated wetlands on site. No wildlife, or evidence of wildlife, including that from the list of state and federally protected species, rare, threatened, endangered, or species of special concern was observed on the property. No portions of the property appear to be environmentally sensitive.

Description	Found (Yes/No)	Agency Contact Information	Management Plan (Yes/No)	Relocation Plan (Yes/No)
Wetlands	Yes		*Yes	*Yes
Rare Habitat	No			
Threatened Species	Yes		No	No
Endangered Species	No			
Species of Special Concern	No			
Invasive /Exotic Vegetation	Yes		N/A	N/A

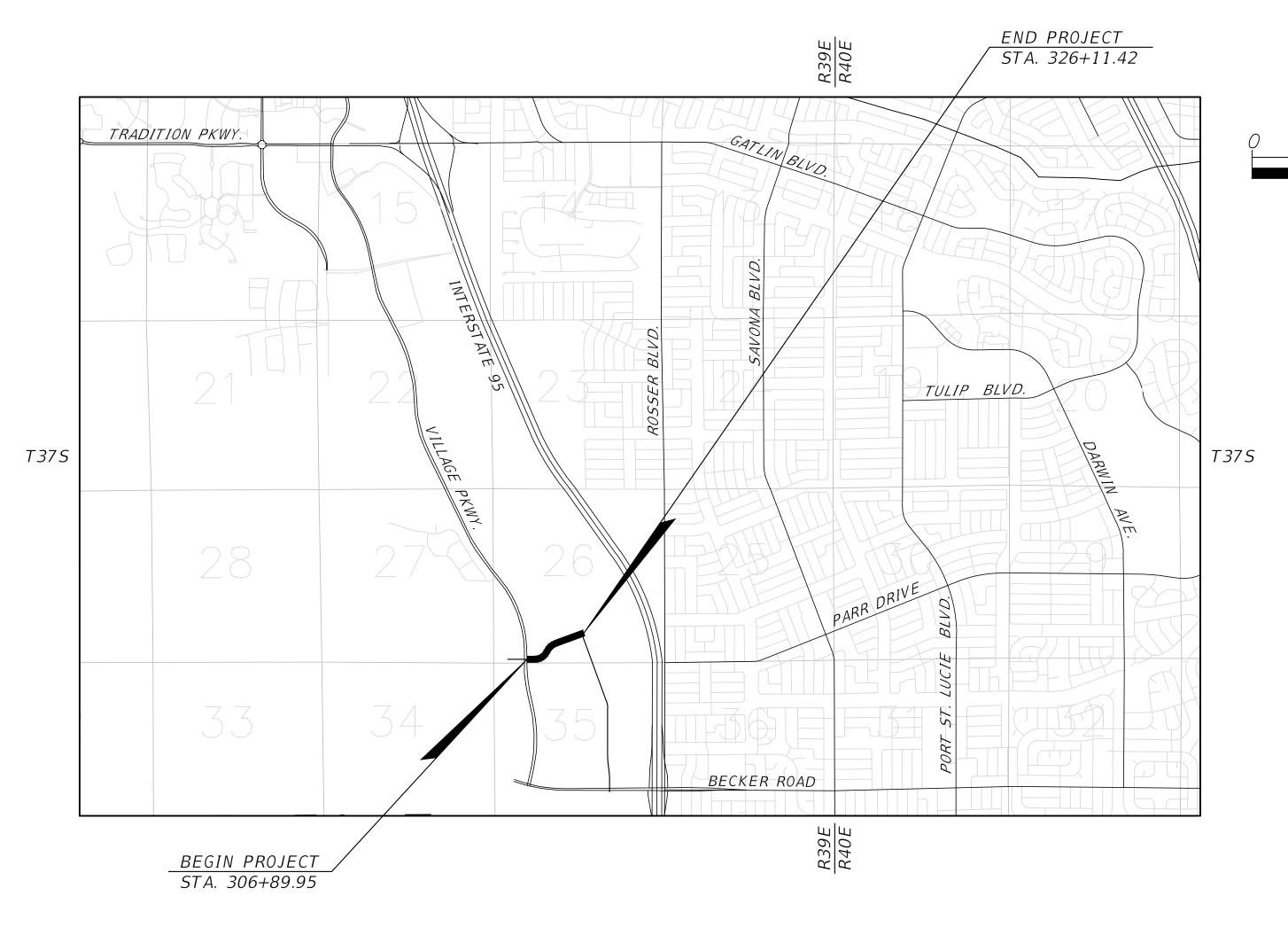
\*See existing permits: SFWMD 56-01544-P, 56-0279-P, and 56-02531-P / USACE SAJ-

REVISIONS

# CONTRACT PLANS

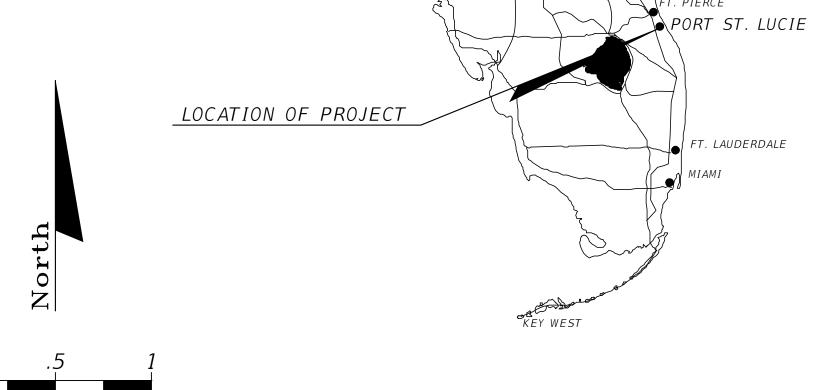
SW PAAR DRIVE

CITY OF PORT ST. LUCIE



LENGT	TH OF PROJEC	CT
	LIN. FT.	MILES
UTILITY	0 LF	0.000
ROADWAY	1,921.47 LF	0.364
BRIDGES	0 LF	0.000
EXCEPTIONS		
GROSS LENGTH OF PROJ.	1,921.47 LF	0.364

		KEY .	SHEET REVISIONS
DA	4 <i>T E</i>	BY	DESCRIPTION
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ST AUGUSTINE

CONSTRUCTION SHOP DRAWINGS TO BE SUBMITTED TO:

STEFAN K. MATTHES, PE 2980 SOUTH 25TH STREET FORT PIERCE, FLORIDA 34981

PLANS PREPARED BY:



NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

60% CONSTRUCTION PLANS APRIL 2, 2021

ROADWAY PLANS ENGINEER OF RECORD:

STEFAN K. MATTHES, P.E.

P.E. NO. : 38723

PSLUSD PROJECT NO. 5360C CITY OF PSL PROJECT NO. P21-059

C&T JOB NO.: 21-023

FISCAL YEAR	SHEE <sup>-</sup> NO.
21	1

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
101-1A	MOBILIZATION/GENERAL CONDITIONS/BONDS	LS	1
101-1B	CONSTRUCTION STAKEOUT & AS-BUILT SURVEY	LS	1
102-1	MAINTENANCE OF TRAFFIC	LS	1
104-10-3	SEDIMEN'T BARRIER	LF	3,820
104-11	FLOATING TURBIDITY BARRIER	LF	40
104-15	SOIL TRACKING PREVENTION DEVICE	EA	1
04-18	INLET PROTECTION SYSTEM	EA	2
110-1	CLEARING & GRUBBING	AC	14
120-1	REGULAR EXCAVATION	CY	5,835
20-3	LATERAL DITCH EXCAVATION	CY	47,000
120-6	EMBANKMENT	CY	30,800
160-4	TYPE B STABILIZATION (12" THICK)	SY	12,040
285-710	OPTIONAL BASE, BASE GROUP 09 (LBR 100)(10" THICK)	SY	9,890
327-70-1	MILLING EXISTING ASPH PAVT, 1" AVG DEPTH	SY	534
334-1-13	SUPERPAVE ASPHALTIC CONC. TRAFFIC C (SP-12.5) (3" THICK)	TON	1,606.0
337-7-82	SUPERPAVE ASPHALTIC CONC. TRAFFIC C (FC-9.5) (1.5" THICK)	TON	803.0
400-1-2	CONCRETE CLASS 1, ENDWALLS	CY	4.5
425-1-351	INLETS, CURB, TYPE P-5, <10'	EA	2
125-1-361	INLETS, CURB, TYPE P-6, <10'	EA	6
425-1-561	INLETS, DITCH BOTTOM, TYPE E, < 10'	EA	2
425-2-61	MANHOLE P-7, <10'	EA	4
425-2-71	MANHOLE J-7, <10'	EA	1
430-174-118	PIPE CULVERT, OPTIONAL, ROUND, 18"	LF	245
430-174-124	PIPE CULVERT, OPTIONAL, ROUND, 24"	LF	371
430-174-130	PIPE CULVERT, OPTIONAL, ROUND, 30"	LF	406
430-174-136	PIPE CULVERT, OPTIONAL, ROUND 36"	LF	77
430-174-172	PIPE CULVERT, OPTIONAL, ROUND 72"	LF	150
430-174-218	PIPE CULVERT, OPTIONAL, ELLIPTICAL 14" x 23"	LF	80
430-982-130	MITERED END SECTION, OPTIONAL, ROUND 30"	EA	2
430-982-172	MITERED END SECTION, OPTIONAL, ROUND 72"	EA	2
430-982-625	MITERED END SECTION, OPTIONAL, ELLIPTICAL 14" x 23"	EA	2
446-1-1	EDGEDRAIN DRAINCRETE STANDARD	LF	2,330
520-1-10	CONCRETE CURB & GUTTER, TYPE F	LF	2,610
522-1	CONCRETE SIDEWALK/PADS , 4" THICK	SY	3,541
522-2	CONCRETE DRIVEWAY, 6" THICK	SY	27
570-1-2	DETECTABLE MAT	SF	72
570-1-1	PERFORMANCE TURF, SEED & MULCH ( LATERAL DITCHES)	SY	28,000
570-1-2	PERFORMANCE TURF, SOD	SY	20,844
590-70	LANDSCAPE COMPLETE - STREET TREES	EA	106
590-80	IRRIGATION SYSTEM	LS	1
700-1-11	SINGLE POST SIGN, F&I GM, < 12 SF	EA	25
706-3	RETRO-REFLECTIVE/RAISED PAVEMENT MARKERS	EA	138
711-11-121	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	LF	4,620
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	LF	312
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	182
711-11-141	THERMOPLASTIC, STANDARD, WHITE, SKIP (10 - 30)	LF	160
711-11-160A	THERMOPLASTIC, STANDARD, WHITE, MESSAGE (MERGE)	EA	2
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	15
711-11-221	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	LF	3,600
711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18"	LF	40
715-2-115	2" CONDUIT (F&I) (UNDERGRD, PVC SCHEDULE 40)	LF	5,680
533-1123	FIBER OPTIC CABLE (96 STRAND)	LF	1900
535-2-11	PULL & SPLICE BOX (F&I) 13" x 24" COVER	EA	5
1050-31208C	UTILITY PIPE,PVC, F&I, 12" WATER MAIN	LF	140
1050-31212	UTILITY PIPE,PVC, F&I, 24" WATER MAIN	LF	1920
1080-24108B	UTILITY FIXTURE - VALVE ASSEMBLY, F&I, 12" WM	EA	1
1080-24112	UTILITY FIXTURE - VALVE ASSEMBLY, F&I, 24" WM	EA	4
1080-24113	UTILITY FIXTURE - WATER MAIN JUMPER	EA	1
1080-32102	UTILITY FIXTURE - SAMPLE POINT	EA	3
1644-112-06	FIRE HYDRANT ASSEMBLY w/ VALVE & FITTINGS	EA	5
	UTILITY FIXTURE - FITTINGS	TON	4
2000-1	I C TITAL TITAL CITE TITLINGO	ION	T T

## GENERAL NOTES

- 1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988).
- 2. ALL DRAINAGE INFRASTRUCTURE IS TO REMAIN UNLESS OTHERWISE NOTED.
- 3. ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
- 4. STATIONING AND OFFSETS REFER TO THE BASELINE OF CONSTRUCTION, UNLESS OTHERWISE NOTED.
- 5. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
- 6. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE ENGINEER SHOULD NOTIFY THE CITY SURVEYOR RICK COMPITELLO, WITHOUT DELAY, BY TELEPHONE (772) 871-5280.
- 7. NO CONSTRUCTION SHALL COMMENCE UNTIL ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN SECURED AND THE CONTRACTOR IS ISSUED A "NOTICE TO PROCEED".
- 8. DURING CONSTRUCTION, SHOULD ANY DRAINAGE STRUCTURES (INCLUDING PIPES) BE FOUND THAT ARE NOT SHOWN ON THE PLANS, NOTIFY THE ENGINEER IMMEDIATELY.
- 9. IN REFERENCE TO EXISTING UTILITIES AND UTILITY ADJUSTMENTS:
- A. THE LOCATION OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF "OTHER" UTILITIES (NOT SHOWN ON THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE ENGINEER AND NOTIFY THE RESPECTIVE UTILITY OWNER(S) TO RESOLVE UTILITY CONFLICTS AND UTILITY ADJUSTMENTS AS REQUIRED.
- B. FOR EXISTING UTILITY SYMBOLS, SEE FDOT STANDARD INDEX 002. C. WATER AND SANITARY SEWER UTILITY WORK SHALL BE IN CONFORMANCE WITH ALL CODES, STANDARDS, AND ORDINANCES CURRENTLY ADOPTED BY THE STATE OF FLORIDA D.E.P. AND PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT (PSLUSD).
- 10. CONTRACTOR SHALL USE EXTREME CAUTION AND COMPLY WITH ALL APPLICABLE OSHA REGULATIONS WHEN WORKING IN THE VICINITY OF OVERHEAD AND UNDERGROUND UTILITY LINES.
- 11. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (1-800-432-4770) AND UTILITY OWNERS LISTED BELOW IN TWO BUSINESS DAYS (OR 10 DAYS IF ON THE JOB SITE)

COMPANY	CONTACT	TEL. NO.
AT&T	IVAN ARILL	<del>(772) 46</del> 0-4441
COMCAST CABLE	RICK JOHNSON	(561) 402-4513
FLORIDA POWER & LIGHT, CO.	DIANA VILLEGAS	(772) 337-7011
PSLUSD	LANEY SOUTHERLY, P.E.	(772) 807-4452
CITY OF PSL TRAFFIC OPS	PAUL JOHNSON	(772) 871-5182

- (NOTE: IF THERE IS A TRAFFIC MONITORING SITE ON THE PROJECT OR WITHIN ONE MILE OF THE CONSTRUCTION, THE TRANSPORTATION STATISTICS OFFICE IN TALLAHASSEE SHALL BE ADDED TO THE LIST OF UTILITY OWNERS.)
- 12. WHEN UTILITY POLES ARE IN AREAS OF EXCAVATIONS, CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION OF FIVE (5') FEET BETWEEN THE POLE AND ANY EXCAVATION.
- 13. ALL SYNTHETIC BALES AND SILT FENCE SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT AND WHEN APPROVED BY THE NPDES INSPECTOR.
- 14. IF DEWATERING PERMIT IS REQUIRED FOR THIS PROJECT, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A DEWATERING PERMIT OR WATER USE PERMIT AND ALLOW TIME FOR THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND/OR FDEP TO REVIEW AND APPROVE THE PERMIT PRIOR TO THE CONSTRUCTION START DATE. IF DEWATERING PUMPS ARE REQUIRED TO RUN OVERNIGHT THE CONTRACTOR IS REQUIRED TO OBTAIN A NOISE PERMIT PER CITY CODE SECTION 94.07.
- 15. WORK HOURS ARE FROM 7:00 AM TO DUSK, MONDAY-FRIDAY. WORK WILL NOT BE ALLOWED ON WEEKENDS OR HOLIDAYS OBSERVED BY THE CITY OF PORT ST. LUCIE UNLESS WRITTEN APPROVAL IS OBTAINED FROM THE CITY. THE CONTRACTOR MUST RECEIVE WRITTEN PERMISSION FROM THE CITY AND PROVIDE AN APPROVED MOT PLAN BEFORE ANY LANE CLOSURES OCCUR.
- 16. THE MAXIMUM CROSS SLOPES ON ALL SIDEWALKS IS 2%. ALL TRANSITIONS BETWEEN PROPOSED SIDEWALKS AND EXISTING SIDEWALKS SHALL BE SMOOTH AND LEVEL. DURING CONSTRUCTION ALL EXISTING PEDESTRIAN AND VEHICULAR PATHS MUST REMAIN USABLE AND ACCESSIBLE, OR ALTERNATE PATHS MUST BE PROVIDED.
- 17. THE CONTRACTOR WILL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION.
- 18. EROSION CONTROL ITEMS ARE ESTIMATED FOR PREVENTION, CONTROL, ABATEMENT OF EROSION, SEDIMENTATION, AND WATER POLLUTION. THESE ITEMS ARE TO BE USED AT THE LOCATIONS DESCRIBED IN THE CONTRACTOR'S APPROVED EROSION CONTROL PLANS OR AS DIRECTED BY THE PROJECT ENGINEER TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
- 19. THE SIDEWALK MUST BE FREE OF OVERHEAD OBSTRUCTIONS PER SECTION 4.4.2 OF THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). CONTRACTOR SHALL ASSURE THAT NO OBSTRUCTION (UTILITY POLE, EQUIPMENT, SIGN, STRUCTURE, TREE, GRATE, ETC.) RESTRICTS ACCESS ALONG SIDEWALK TO A PATH LESS THAN 48".
- 20. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS ASSOCIATED WITH THIS PROJECT WITH THE PROJECT ENGINEER.
- 21. EXISTING LANDSCAPE IMPROVEMENT THAT ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS ARE TO BE RELOCATED PER THE DIRECTION OF THE ENGINEER OF

- REVISIONS -

22. LANE CLOSURES ALONG BECKER ROAD OR VILLAGE PARKWAY SHALL BE COORDINATED WITH THE CITY OF PORT ST. LUCIE.

- 23. GENERAL GRADING GUIDELINES FOR SWALE AND SODDED AREAS: -DRAINAGE FLOW SYMBOLS SHOWN ON THE PLAN SHEETS ARE INTENDED TO PROVIDE GENERAL DIRECTION WITH RESPECT TO THE INTENDED FLOW OF THE SODDED AREAS.
- -CONTRACTOR IS TO GRADE ALL SWALE AND SODDED AREAS WITHIN THE LIMITS OF CONSTRUCTION TO THE RESPECTIVE INLET AS DIRECTED BY THE FLOW ARROWS WHILE MINIMIZING DISTURBANCE TO EXISTING VEGETATION AND PRIVATE
- -FLOW ARROWS REPRESENT A MINIMUM OF 0.15% SLOPE UNLESS OTHERWISE NOTED ON THE PLANS.
- 24. IN REFERENCE TO THE PROPOSED DRAINAGE STRUCTURES & PIPE:
- A. CONCRETE PIPE CULVERT (R.C.P.) SHALL BE CLASS II, WALL B UNLESS
- OTHERWISE NOTED. B. ALL STORM STRUCTURE TOPS SHALL BE ADJUSTED AT TIME OF FINAL PAVEMENT OF CURB CONSTRUCTION. FINAL ADJUSTMENT OF ALL TOPS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- C. THE LENGTHS OF PIPE SHOWN HEREON HAVE BEEN DETERMINED BY CALCULATING THE DISTANCE BETWEEN THE "CENTERLINE" OF THE INLETS AND/OR MANHOLES.
- D. OFFSETS TO CURB INLETS ARE TO THE "CENTERLINE" OF THE INLETS.
- 25. EXCAVATED SOILS MAY BE USED FOR EMBANKMENT CONSTRUCTION PROVIDED THAT THE MATERIAL IS CLEAN FILL, FREE OF ORGANIC MATERIALS, ROOTS OR OTHER DELETERIOUS MATERIALS, AND CONFORMS WITH FDOT SPECIFICATIONS AND FDOT STANDARD INDEX 505 AND IS APPROVED BY THE CITY CONSTRUCTION ENGINEER.
- 26. ANY BORROW MATERIAL REQUIRED FOR THE PROJECT SHALL BE FURNISHED BY THE CONTRACTOR FROM AREAS PROVIDED BY HIM, AND THE COST OF FURNISHING SUCH MATERIAL SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR EARTHWORK AND GRADING.
- 27. ALL MUCK AND PLASTIC MATERIAL WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH FDOT INDEX 500.
- 28. ALL VEGETATION. DEBRIS. PAVEMENT. CONCRETE OR OTHER UNSUITABLE MATERIALS SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN AREA PROVIDED BY THE CONTRACTOR.
- 29. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLAN DIMENSIONS AND SITE CONDITIONS, AND IS TO NOTIFY THE THE PROJECT ENGINEER OF ANY DISCREPANCIES BETWEEN SITE CONDITION AND INFORMATION SHOWN ON PLANS PRIOR TO COMMENCEMENT OF WORK.
- 30. ANY KNOWN OR SUSPECT HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ENGINEER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECT HAZARDOUS MATERIAL FROM FURTHER ACCESS. THE PROJECT ENGINEER IS TO NOTIFY THE PROPER REGULATORY AUTHORITY OF THE DISCOVERY. THE PROPER REGULATORY AUTHORITY WILL ADVISE/DIRECT THE PROJECT ENGINEER IN THE INVESTIGATION, IDENTIFICATION AND/OR REMOVAL/REMEDIATION OF THE MATERIAL IN QUESTION AS NEEDED. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF SUSPECTED CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE PROJECT ENGINEER. THE REGULATORY AUTHORITY WILL ADVISE THE PROJECT ENGINEER IN THESE MATTERS.
- 31. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE PROJECT ENGINEER PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT
- 32. ALL AREAS DESIGNATED FOR PAVEMENT REMOVAL SHALL BE SAW-CUT AT THE LIMITS OF REMOVAL ADJACENT TO EXISTING PAVEMENT WHICH IS TO REMAIN.
- 36. ALL WORK ASSOCIATED WITH THIS PROJECT IS TO BE PERFORMED WITHIN THE RIGHT-OF-WAY LIMITS OR TEMPORARY CONSTRUCTION EASEMENTS AS DEPICTED ON THE PLAN SHEETS.
- 37. ALL ADA WARNING SURFACES ARE TO BE CAST IN PLACE.
- 38. ALL CONCRETE SIDEWALK JOINTS SHALL BE TOOLED WITHOUT EXPANSION

PSLUSD PROJECT NO. 5360C CITY OF PSL PROJECT NO. P21-059

STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

DATE: 04/02/2021 HORIZ. SCALE: SCALE VERT. SCALE: SCALE

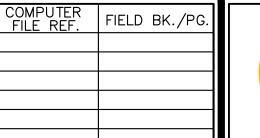
JOB No. 21-023

SHEET 2 of 12

GENERAL NOTES & SUMMARY OF PAY ITEMS



1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.





<b>.</b>	
NC	
FLORIDA 34981 www.ct-eng.com	,
SSIONAL	
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BY DATE

BY

APPROVED

DATE

SW PAAR DRIVE

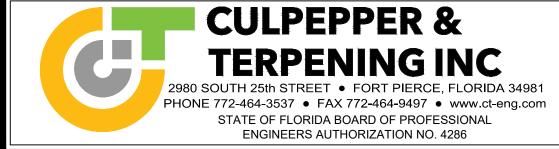


Know what's below.
Call before you dig.

NOTES:

1) ALL ELEVATIONS AND
BENCHMARKS SHOWN HEREON
ARE RELATIVE TO THE NORTH
AMERICAN VERTICAL DATUM
(N.A.V.D.) OF 1988.

COMPUTER FIELD BK./PG.



- R E V I S I O N S -	BY	DATE		BY	DA
			DESIGNED		
			CALCS.		
			DRAWN	DP	3-2
			DETAILED		
			CHECKED	SKM	3-2
			APPROVED	SKM	3-2

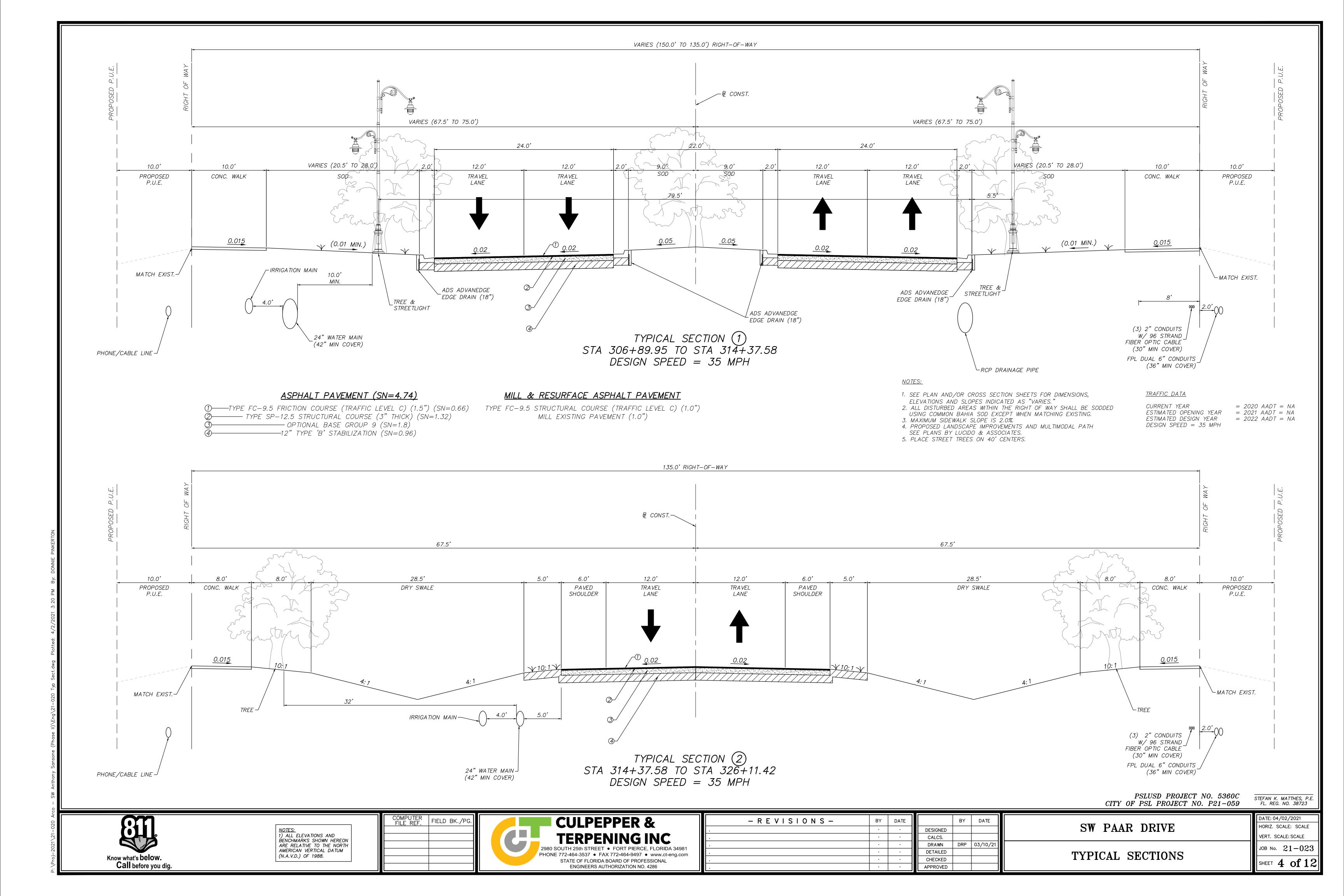
SW PAAR DRIVE

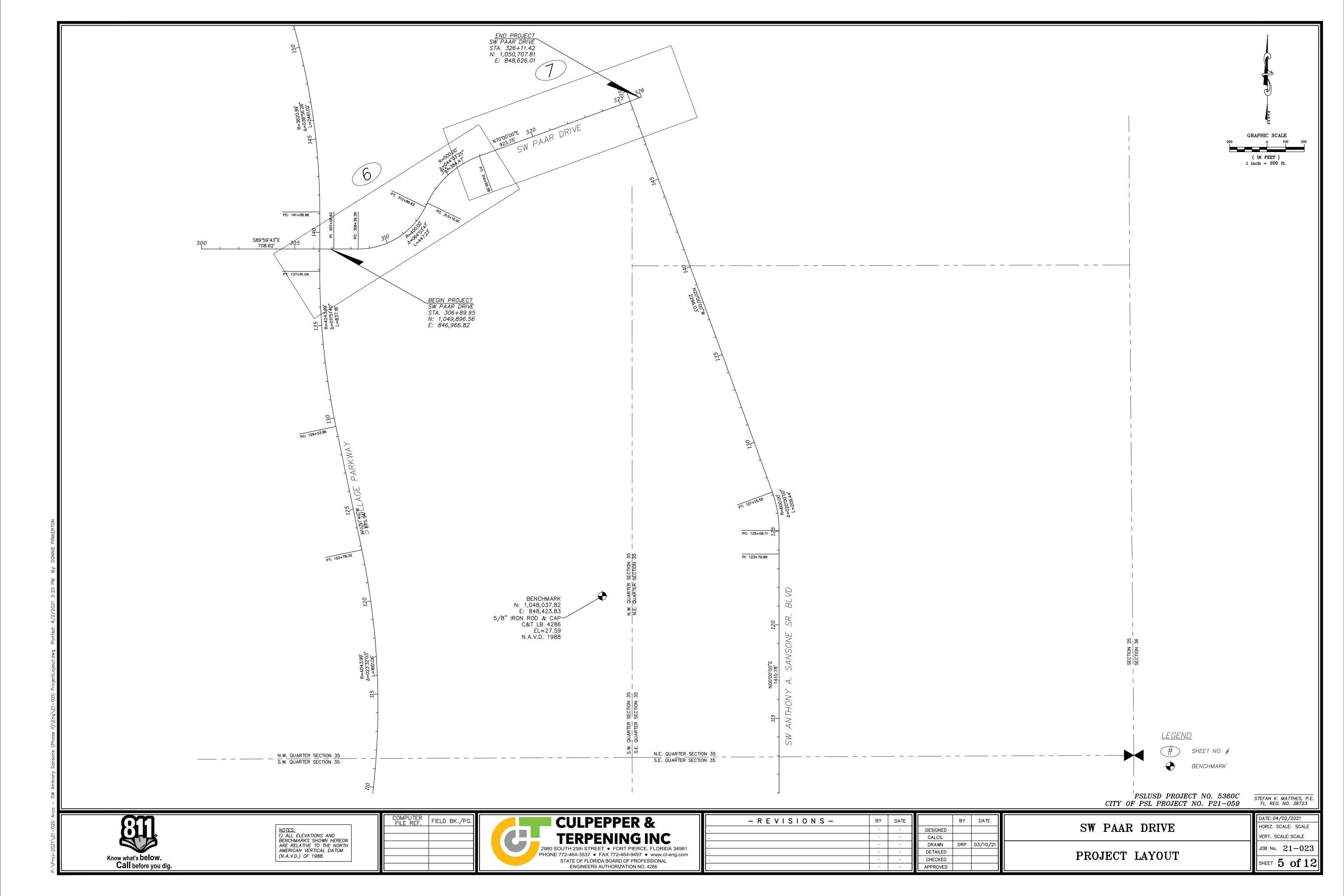
OFFSITE DRAINAGE PLAN

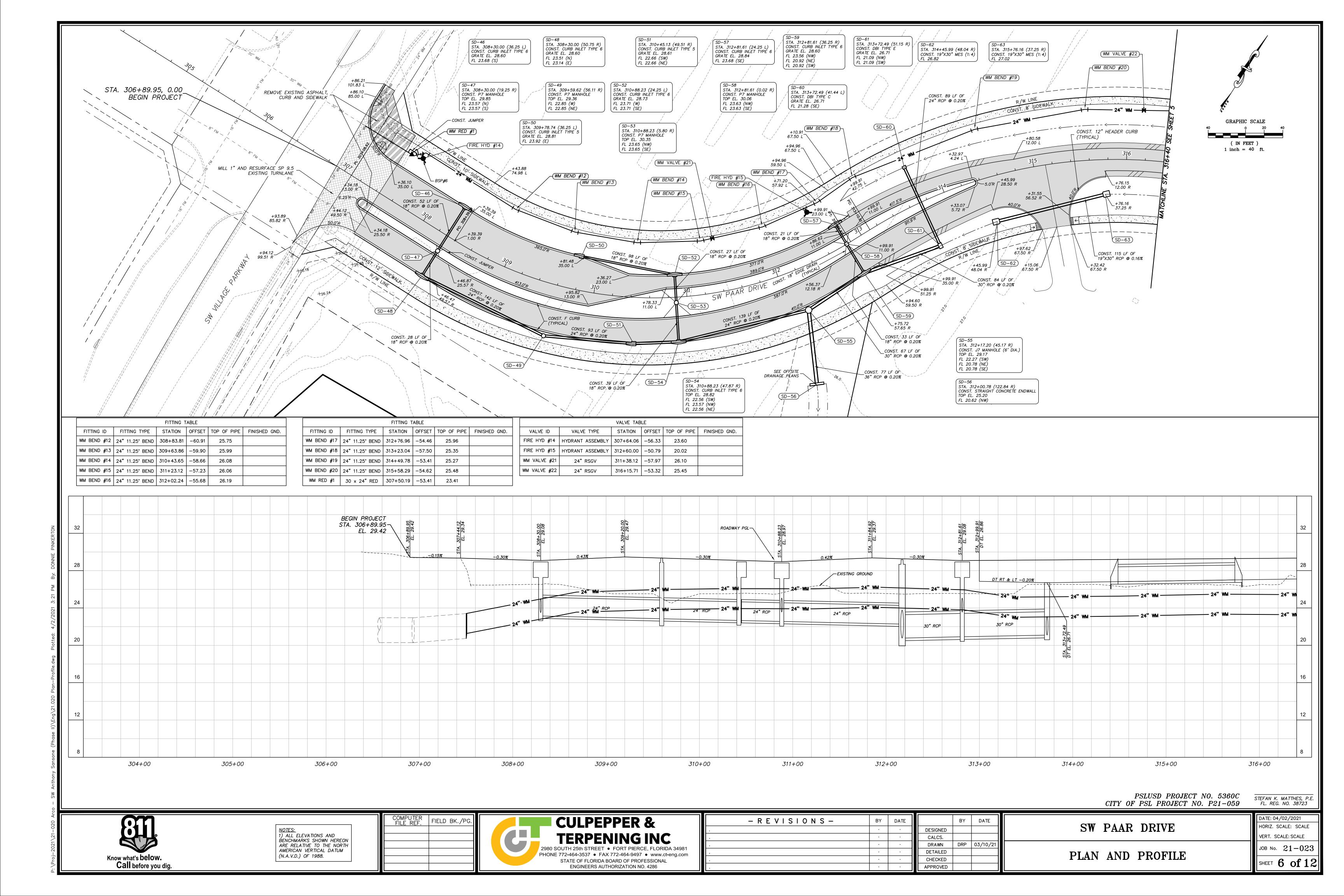
| JOB No. 21-023 | SHEET 3 of 12

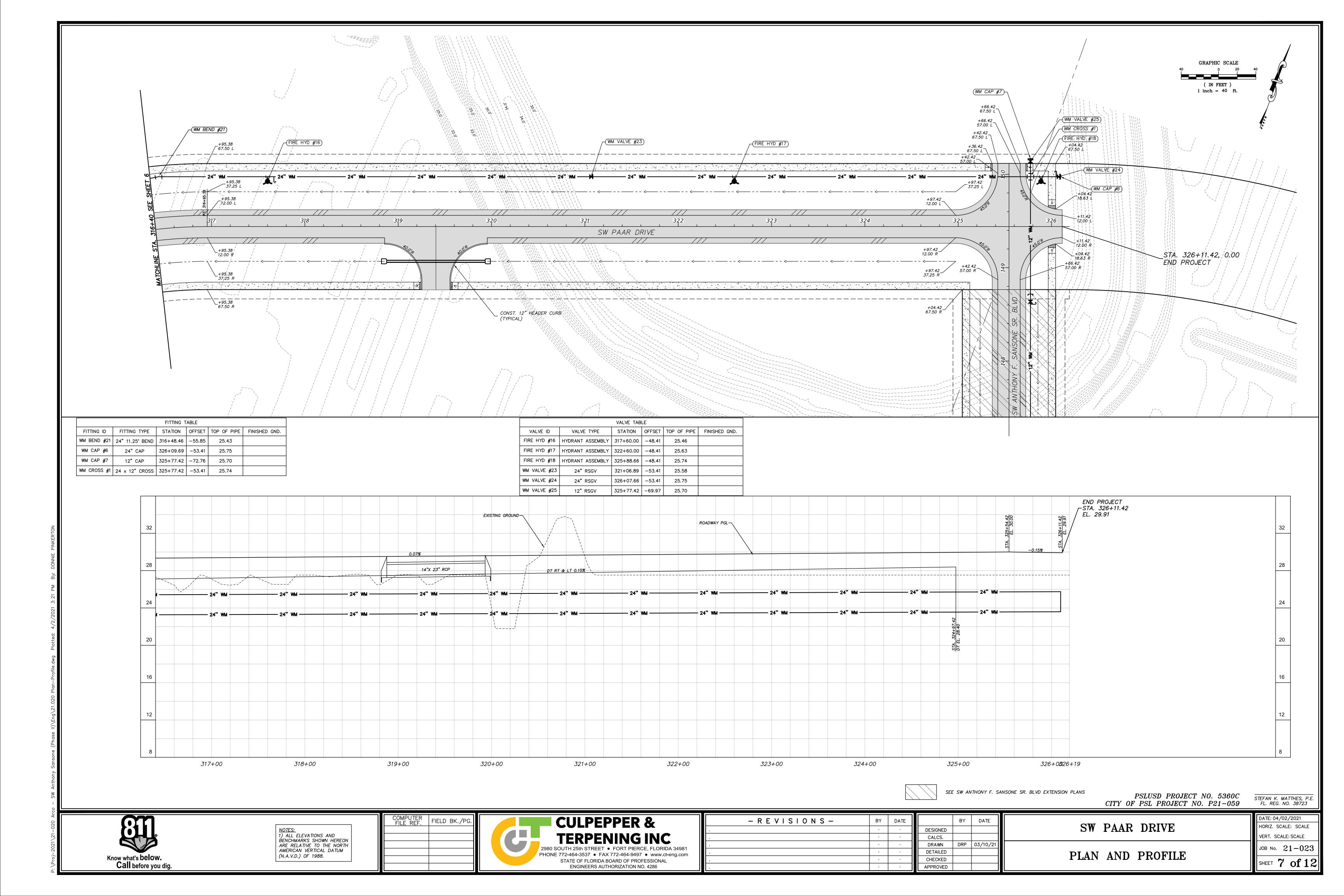
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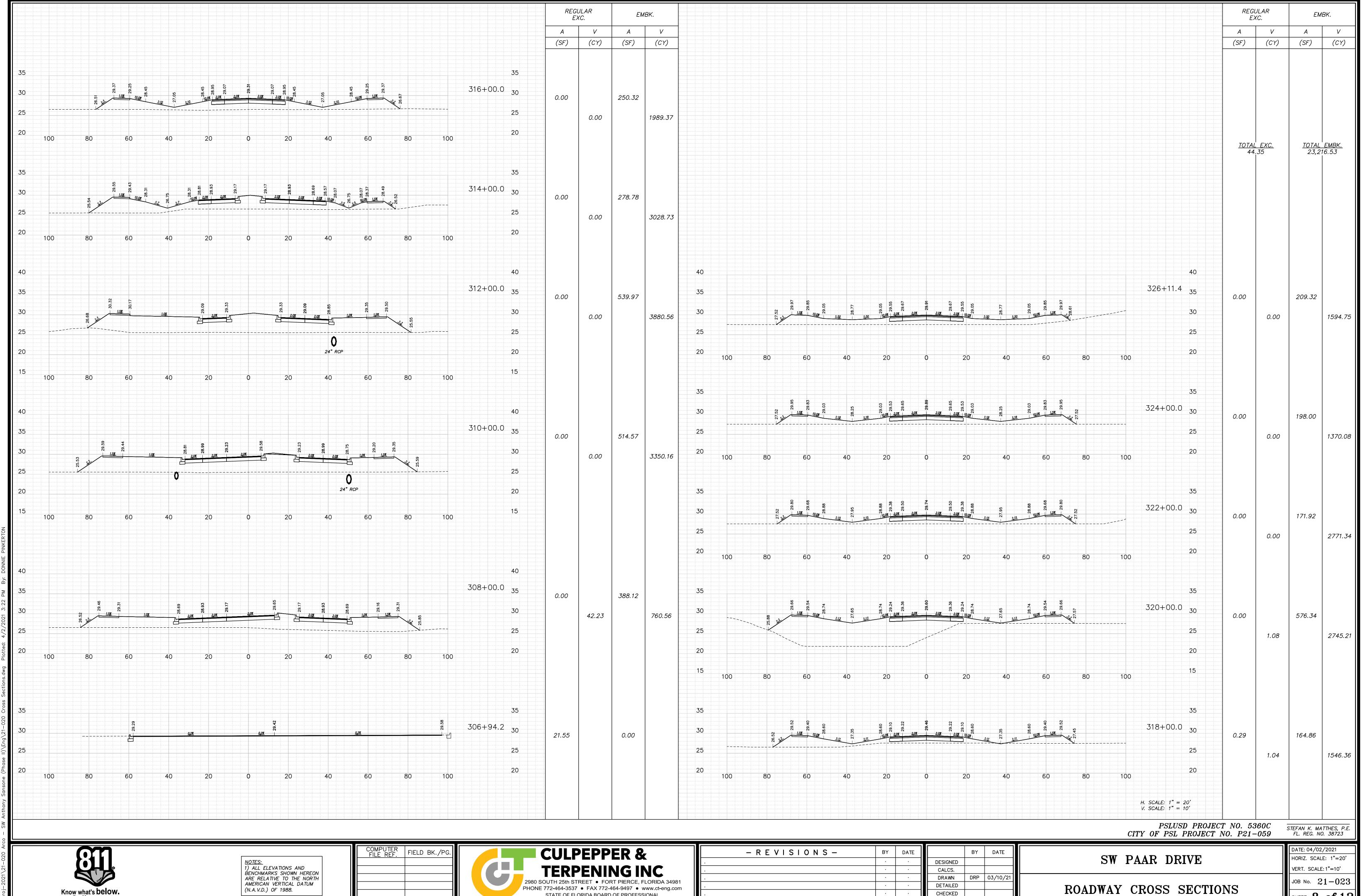
VERT. SCALE: N/A





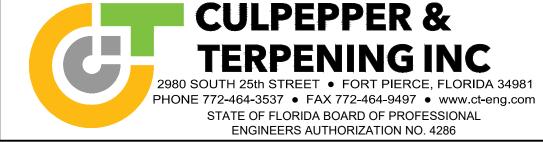






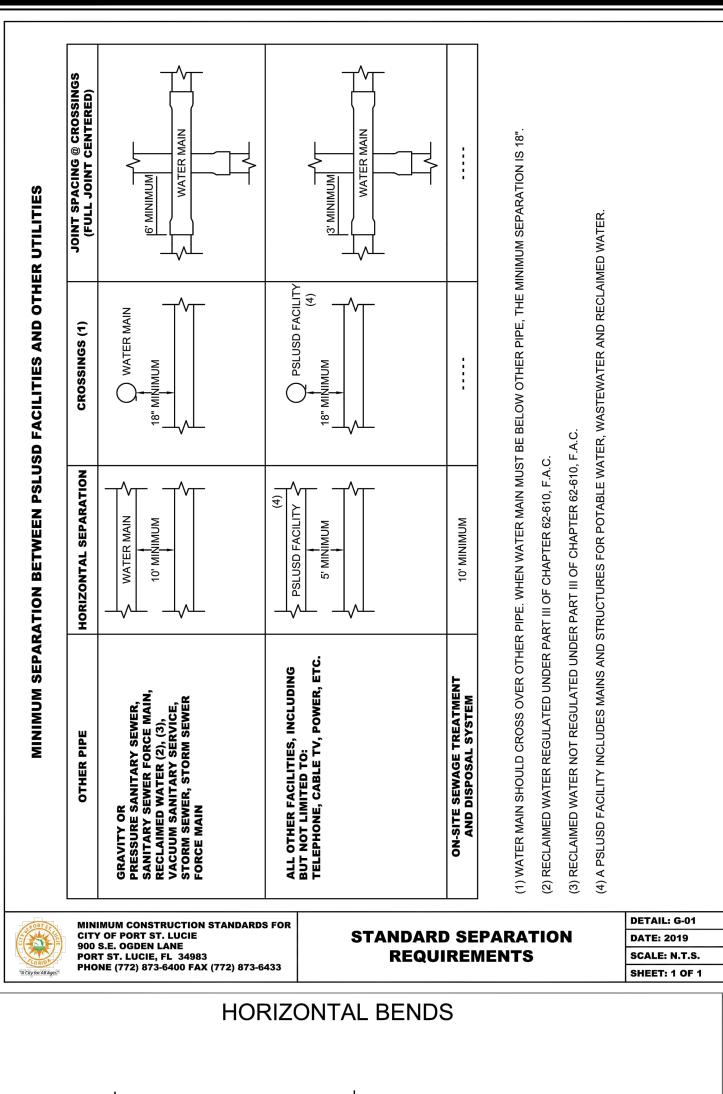
Know what's below.
Call before you dig.





- REVISIONS -	BA	DATE		BA	DATE
	•	•	DESIGNED		
	•	•	CALCS.		
	•	•	DRAWN	DRP	03/10/21
	•	•	DETAILED		
	•	•	CHECKED		
	•	•	APPROVED		

SHEET **8** of **12** 



HORIZONTAL - L (FEET)

19

26

29

39

1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING

2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS

- TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)

45

68 33 79 157

106 49 117 254

63 120

93 | 192 |

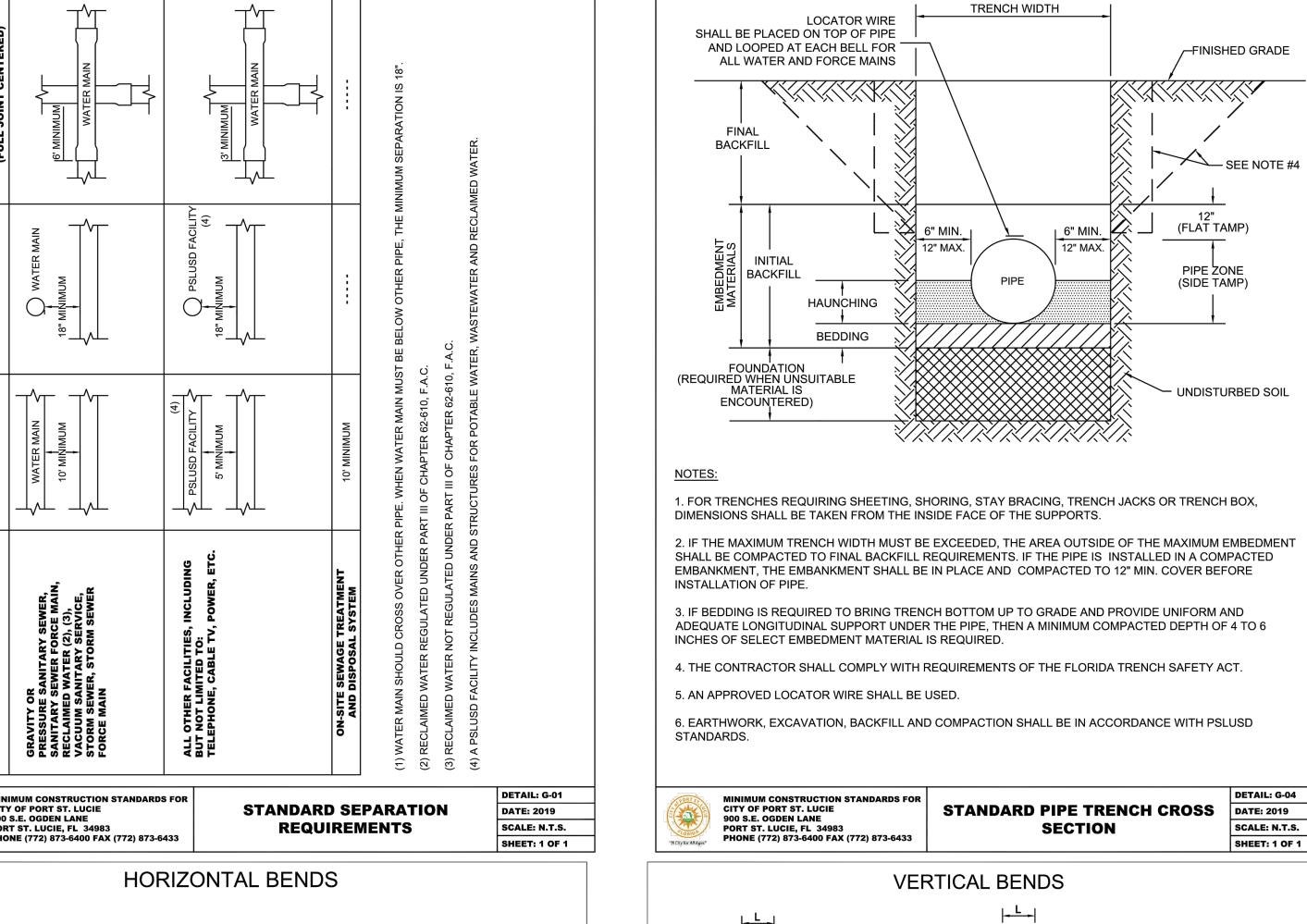
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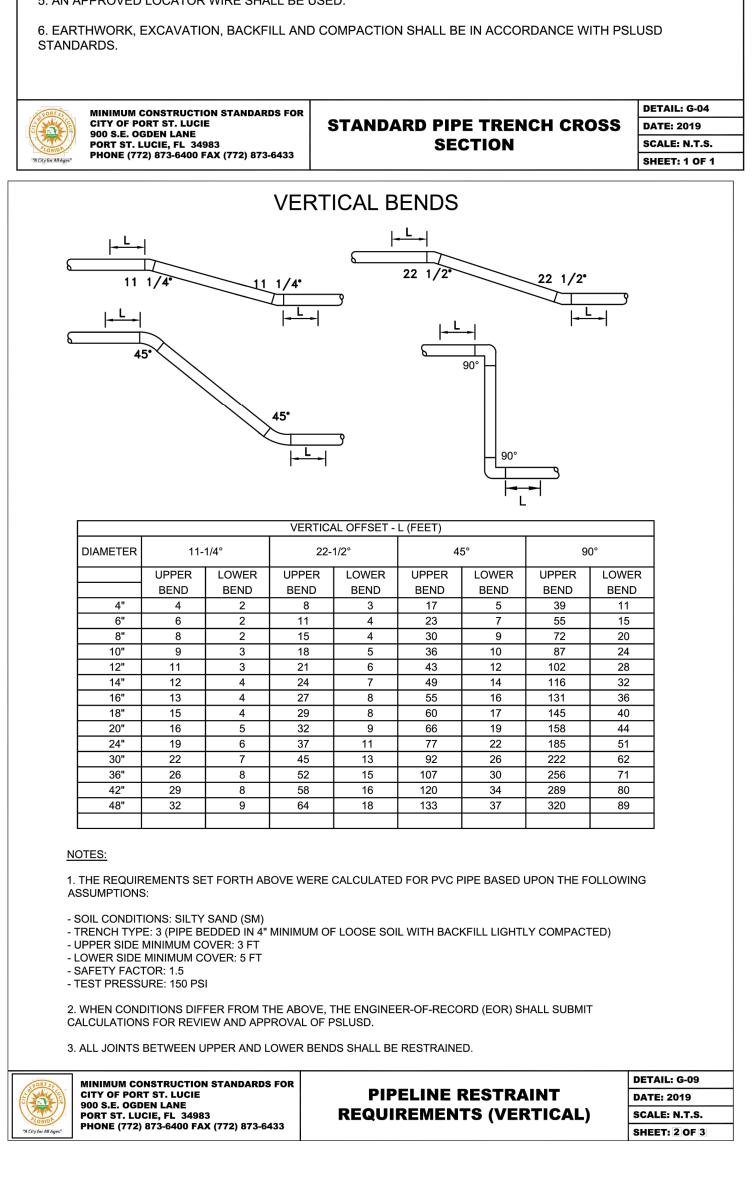
PIPELINE RESTRAINT

**REQUIREMENTS (HORIZONTAL)** 

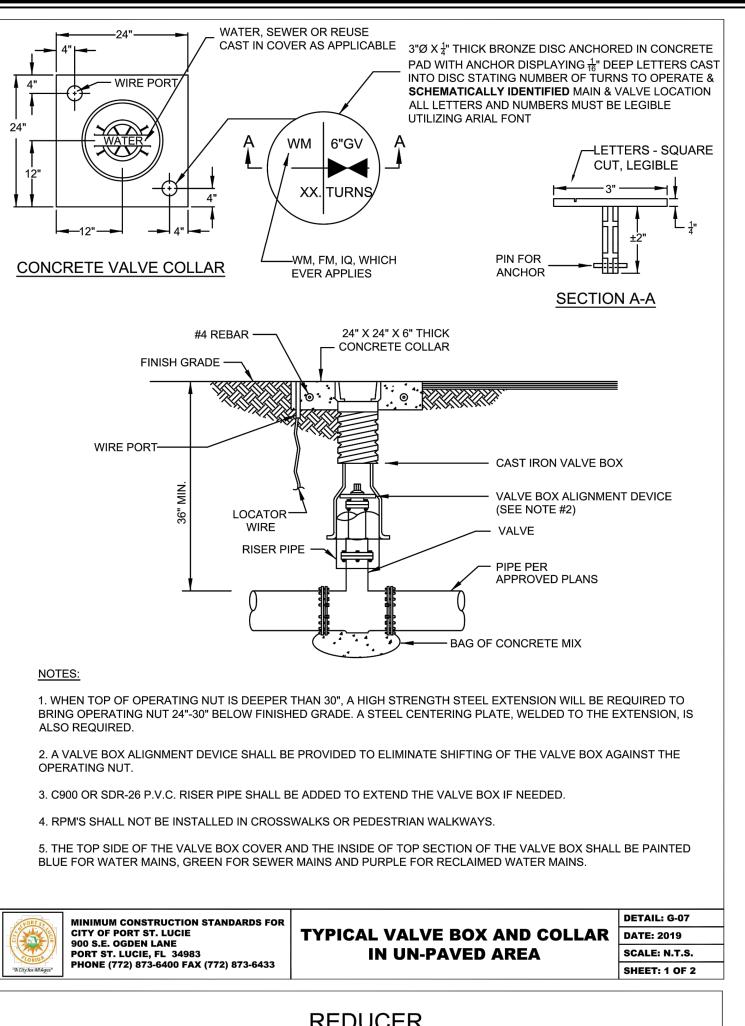
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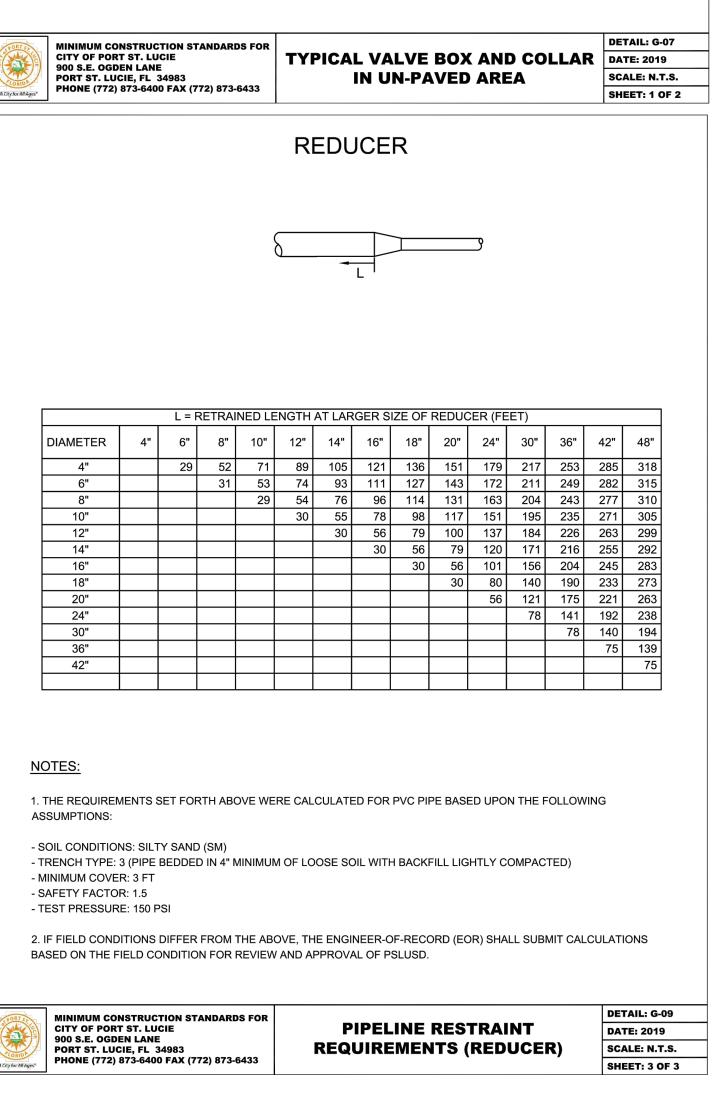
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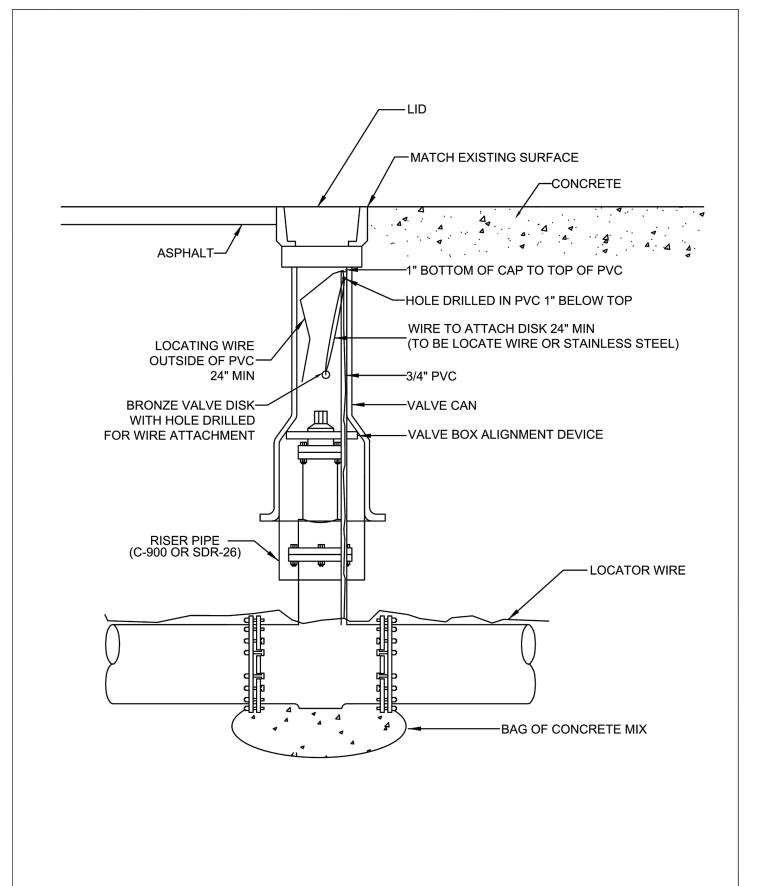


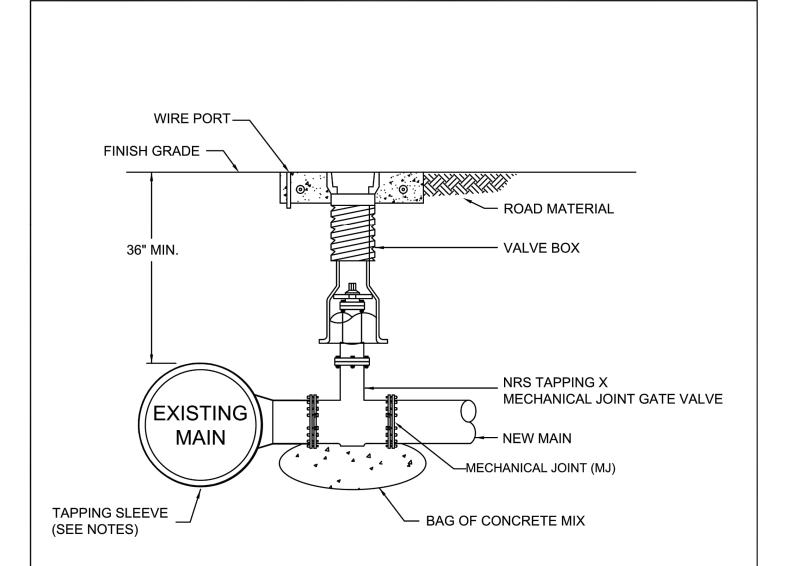


**EXCAVATED** 









**TYPICAL VALVE BOX** 

IN PAVED AREA

DATE: 2019

SCALE: N.T.S.

SHEET: 2 OF 2

1. THE VALVE BOX SHALL BE IN ACCORDANCE WITH STANDARD DETAIL G-07.

2. THRUST BLOCKS MAY BE REQUIRED AT THE UTILITY'S DIRECTION. (CASE BY CASE)

2. NO TAP WILL BE ALLOWED CLOSER THAN 5 FEET FROM ANY JOINT, FITTING OR EXISTING TAP ALONG THE MAIN.

4. ALL COUPONS MUST BE PROVIDED TO PSLUSD WITH DATE, LOCATION AND PIPE SIZE DOCUMENTED.

5. SIZE ON SIZE TAPS ARE NOT ALLOWED UNLESS APPROVED IN WRITING BY PSLUSD.

6. SEE NOTES ON DETAIL G-07.

MINIMUM CONSTRUCTION STANDARDS FOR

PHONE (772) 873-6400 FAX (772) 873-6433

CITY OF PORT ST. LUCIE

900 S.E. OGDEN LANE

MINIMUM CONSTRUCTION STANDARDS FOR 900 S.E. OGDEN LANE PORT ST. LUCIE, FL 34983 PHONE (772) 873-6400 FAX (772) 873-6433

TAPPING SLEEVE AND VALVE **ASSEMBLY** 

PSLUSD PROJECT NO. 5360C

CITY OF PSL PROJECT NO. P21-059

SCALE: N.T.S. SHEET: 1 OF 1

STEFAN K. MATTHES, P.E.

FL. REG. NO. 38723

DATE: 04/02/2021

DATE: 2019



- SOIL CONDITIONS: SILTY SAND (SM)

CITY OF PORT ST. LUCIE 900 S.E. OGDEN LANE

PORT ST. LUCIE, FL 34983

- \* SIZE ON SIZE TEE & 5' LENGTH ALONG RUN

- MINIMUM COVER: 3 FT

- SAFETY FACTOR: 1.5 - TEST PRESSURE: 150 PSI

11 1/4°

DIAMETER

11-1/4°

42" | 12 | 24

BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF PSLUSD.

22-1/2°

9

13

14

16

19

21

1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

DETAIL: G-09

**DATE: 2019** 

SCALE: N.T.S.

SHEET: 1 OF 3

IN-LINE VALVE

TEE\* VALVES OR

FIELD BK./P

**CULPEPPER &** TERPENING INC STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

- R E V I S I O N S -BY DATE CALCS. | DRP | 03/10/21 DETAILED CHECKED

APPROVED

SW PAAR DRIVE

HORIZ. SCALE: SCALE VERT. SCALE: SCALE

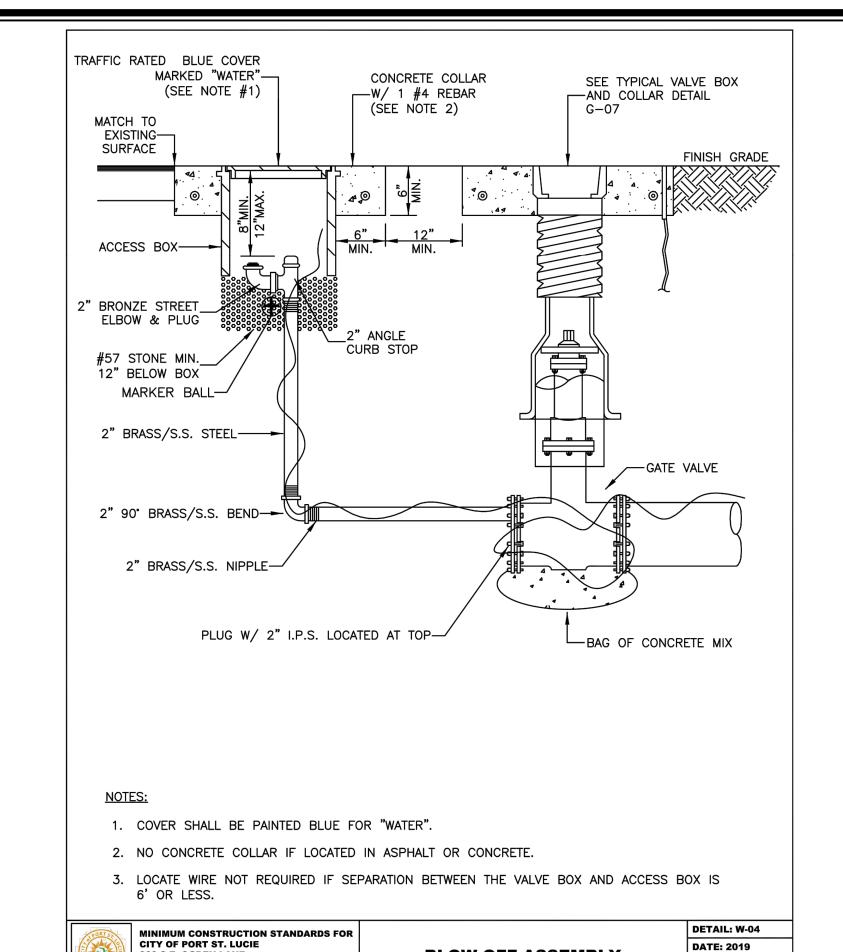
JOB No. 21-023

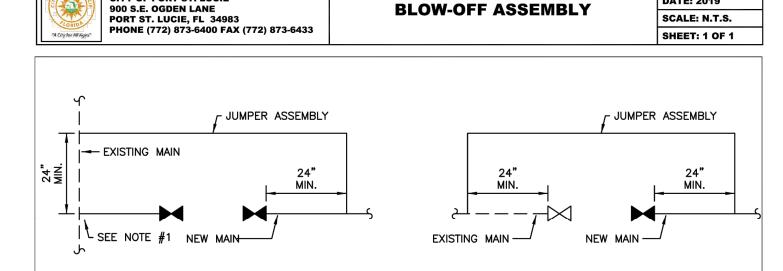
SHEET **9** of **12** 

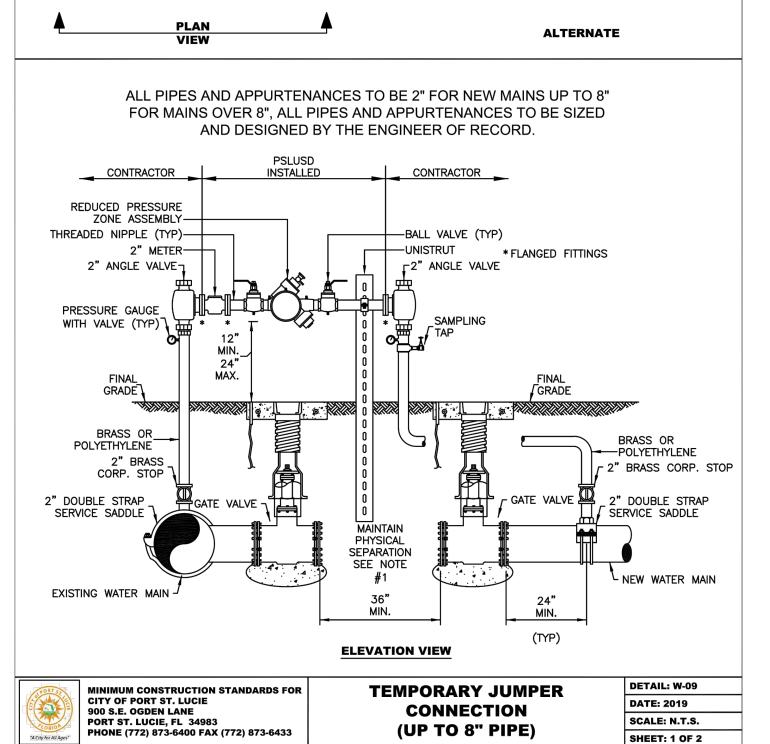
PHONE (772) 873-6400 FAX (772) 873-6433

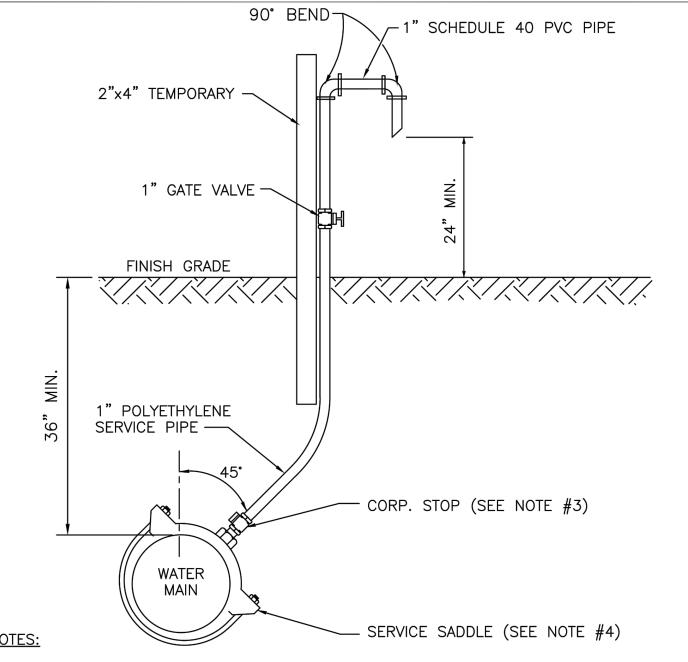
PHONE 772-464-3537 ● FAX 772-464-9497 ● www.ct-eng.com

UTILITY DETAILS





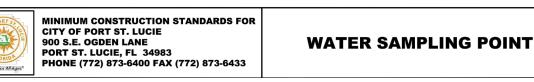




SAMPLING POINTS SHALL BE LOCATED AS SHOWN ON PLANS APPROVED BY PSLUSD AND AS REQUIRED BY FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. A SAMPLE POINT MAP (SINGLE SHEET PDF) SHALL BE SUBMITTED TO PSLUSD FOR REVIEW PRIOR TO DISINFECTION.

- 2. THE EXCAVATED HOLE FOR THIS INSTALLATION SHALL BE BACKFILLED TO FINISHED GRADE PRIOR TO DISCHARGING ANY WATER ON THE GROUND.
- 3. AFTER BACTERIOLOGICAL CLEARANCE IS RECEIVED, THE CONTRACTOR SHALL TURN CORPORATION STOP OFF, REMOVE TUBING AND PLUG CORPORATION STOP WITH BRASS PLUG/CAP.

4. NO DIRECT TAPS SHALL BE PERMITTED.



NOTES:

- 1. A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE PSLUSD WATER MAINS AND PROPOSED NEW WATER MAINS. A PHYSICAL SEPARATION SHALL BE MAINTAINED, EXCEPT AS NOTED IN #5 BELOW. THE PROCEDURES ARE APPLICABLE WHEN CONNECTING TO AN EXISTING PSLUSD WATER MAIN, WHETHER BY TAPPING TEE AND VALVE OR BY CONTINUATION OF A PLUGGED STUB OUT WITH AN EXISTING GATE
- 2. THE CONTRACTOR SHALL CONTACT THE PSLUSD REGARDING SCHEDULING OF REQUIRED INSPECTIONS RELATING TO THE CONNECTION. PSLUSD INSPECTIONS ARE SPECIFICALLY REQUIRED FOR TIE-INS OR WET TAPS TO EXISTING WATER MAINS, JUMPER INSTALLATION, FLUSHING, PRESSURE TESTING, DISINFECTION, SAMPLING, PLUGGING O SAMPLING POINTS AND PERMANENT CONNECTION OF THE NEW WATER MAIN. THE CONTRACTOR SHALL FOLLOW ALL PROCEDURES STRICTLY IN ACCORDANCE WITH THE PSLUSD UTILITY STANDARDS MANUAL
- 3. THE TEMPORARY JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE SUPPLIED, INSTALLED AND TESTED BY THE PSLUSD, IN COORDINATION WITH THE ENGINEER OF RECORD AND CONTRACTOR, OTHER MATERIALS AND INSTALLATION REQUIRED FOR THE CONNECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE UNDERGROUND FITTINGS SHALL BE RESTRAINED MECHANICAL JOINT TYPE. ALL MATERIALS SHALL BE PER THE PSLUSD APPROVED QUALIFIED PRODUCTS LIST. THE JUMPER CONNECTION SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE ASSEMBLY IS REMOVED BY THE PSLUSD.
- 4. ALL NEW WATER MAINS SHALL BE DOUBLE-PIGGED, FLUSHED, PRESSURE TESTED AND DISINFECTED. NEW MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL THE BACTERIOLOGICAL TEST RESULTS ARE SATISFACTORY AND A WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE PSLUSD
- . A PHYSICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE EXISTING MAIN AND NEW MAIN. EXCEPT AS NOTED HEREIN. IF THE NEW MAIN IS OF A SIZE OR LENGTH THAT PIGGING/FLUSHING CANNOT BE EFFECTIVELY ACCOMPLISHED WITH THE JUMPER CONNECTION, MORE THAN ONE JUMPER MAY BE USED AS DETERMNED BY THE
- a. THE PROCEDURE WILL BE CONDUCTED BY THE CONTRACTOR IN THE PRESENCE OF A PSLUSD INSPECTOR AND THE ENGINEER-OF-RECORD (EOR) OR REPRESENTATIVE.
- b. THE NEW VALVE(S) SHOWN IN THIS DETAIL SHALL BE PRESSURE/LEAKAGE TESTED AND REPLACED IF LEAKAGE IS OBSERVED. THE VALVES WILL BE KEPT CLOSED BY THE PSLUSD AND SHALL NOT BE OPERATED BY ANY ONE
- c. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW MAIN. d. THE CONTRACTOR SHALL DISINFECT THE PIPE AND FITTINGS USED TO MAKE THE CONNECTION BY SPRAYING
- e. ALL VALVES IN THE NEW SYSTEM DOWNSTREAM OF THE JUMPER SHALL BE OPENED BY THE CONTRACTOR
- 6. THE WATER MAINS SHALL BE PRESSURE TESTED <u>AFTER</u> FLUSHING AND <u>PRIOR</u> TO DISINFECTION. ALL VALVES SHALI REMAIN CLOSED DURING THE PRESSURE TEST AND WILL NOT BE OPENED UNTIL THE RESULTS OF PRESSURE TESTING AND BACTERIOLOGICAL TESTING ARE SATISFACTORY AND THE SYSTEM HAS BEEN ACCEPTED FOR OPERATION BY

INSPECTOR. THE VALVES WILL BE CLOSED BY PSLUSD PERSONNEL AFTER THE MAIN HAS BEEN FLUSHED.

- '. DISINFECTION SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C651. A MINIMUM PRESSURE OF 20 PSI SHALL BE
- 8. CONNECTION TO EXISTING MAINS SHALL NOT BE MADE PRIOR TO BACTERIOLOGICAL CLEARANCE AND UNTIL APPROVED BY THE PSLUSD.
- THE PRESENCE OF A PSLUSD INSPECTOR. UNLESS THE CONNECTION WAS PREVIOUSLY MADE AS INDICATED IN NOTE 5D; THE PIPE AND FITTINGS FOR CONNECTION SHALL BE DISINFECTED BY SPRAYING AND SWABBING WITH CHLORINE. ONCE APPROVAL TO PLACE THE WATER SYSTEM INTO OPERATION HAS BEEN RECEIVED, THE JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE REMOVED BY THE PSLUSD IN COORDINATION WITH THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE THE REST OF THE JUMPER CONNECTION PIPING AND PLUG THE CORPORATION

10. ABANDONED TAP LOCATIONS TO BE SHOWN ON THE AS-BUILTS.



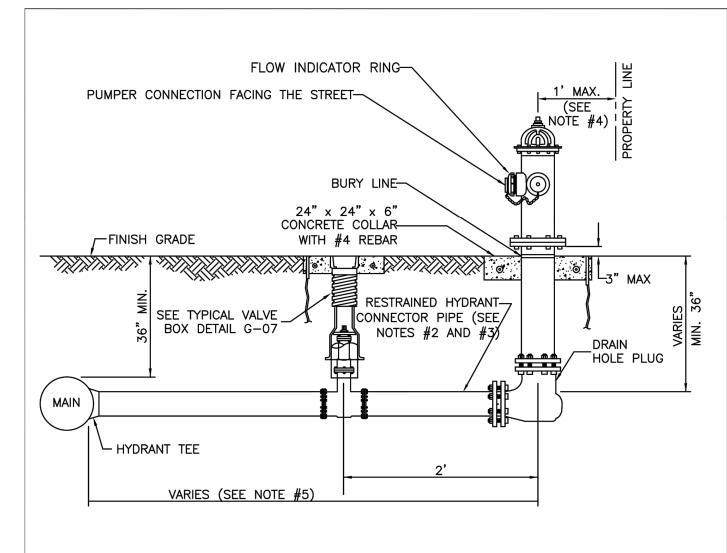
DATE: 2019 SCALE: N.T.S. SHEET: 2 OF 2

DETAIL: W-05

SCALE: N.T.S.

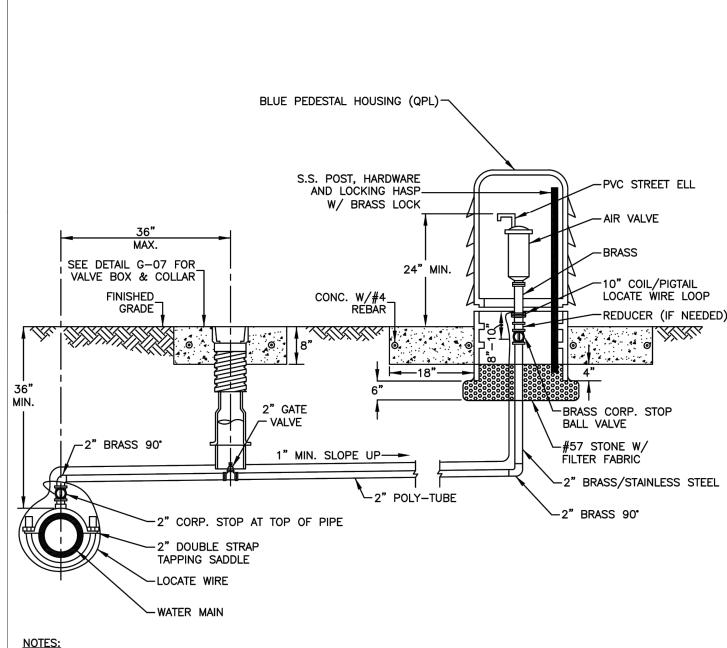
SHEET: 1 OF 1

DATE: 2019



- 1. HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600. THE HYDRANTS SHALL BE PAINTED BY THE MANUFACTURER WITH 2 COATS (MIN.).
- 2. VERTICAL BENDS MAY BE NECESSARY TO OBTAIN COVER UNDER SWALES OR AT HYDRANT LOCATION. VERTICAL BENDS OR OFFSETS ARE INCLUDED IN HYDRANT ASSEMBLY. ALL BENDS MUST BE
- 3. CONNECTOR PIPE AND ANY REQUIRED VERTICAL BENDS SHALL HAVE AN ANCHORING FEATURE ON BOTH ENDS SO THAT WHEN USED WITH M.J. SPLIT GLANDS, A RESTRAINED JOINT IS PROVIDED.
- 4. WHEN INSTALLED WITH SIDEWALK OR CURB, PROVIDE MIN. 2 FOOT CLEARANCE TO ANY PORTION OF THE HYDRANT, UTILIZING THE SIDE LOT EASEMENT IF NECESSARY.
- 5. A GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE FIRE HYDRANT. IF DISTANCE FROM THE WATER MAIN TO THE FIRE HYDRANT IS GREATER THAN 20 FEET, A SECOND GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE MAIN.
- 6. ANY DEVIATIONS FROM THE CRITERIA ABOVE REQUIRE A WRITTEN RECOMMENDATION FROM THE ENGINEER-OF-RECORD AND WRITTEN APPROVAL BY PSLUSD.





1. AIR VALVE, PIPING AND APPURTENANCES SHALL BE IN ACCORDANCE WITH PSLUSD UTILITY STANDARDS. 2. THE AIR VALVE SHALL BE SIZED BY THE ENGINEER-OF-RECORD (EOR) BASED ON MANUFACTURER'S RECOMMENDATION. THE EOR SHALL CONSULT WITH THE PSLUSD REGARDING THE TYPE OF THE VALVE TO BE USED AND

3. AT THE DIRECTION OF THE PSLUSD, BOLLARDS MAY BE REQUIRED TO PREVENT DAMAGE FROM ACCIDENTS. REFER TO DETAIL G-15 FOR BOLLARD INSTALLATION.



**AUTOMATIC AIR RELEASE VALVE FOR WATER MAINS** 

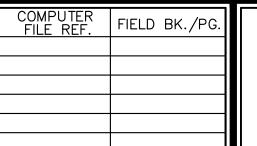
PSLUSD PROJECT NO. 5360C CITY OF PSL PROJECT NO. P21-059

STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

DATE: 04/02/2021

Call before you dig.

1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.



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		7				
- REVISIONS -	BY	DATE		BY	DATE	
	•	•	DESIGNED			
	•	•	CALCS.			
	•	•	DRAWN	DRP	03/10/21	
	•	•	DETAILED			
	•	•	CHECKED			
	•	•	APPROVED			

SW PAAR DRIVE

HORIZ. SCALE: SCALE VERT. SCALE: SCALE

**DETAIL: W-10** 

SCALE: N.T.S.

SHEET: 1 OF 1

DATE: 2019

JOB No. 21-023

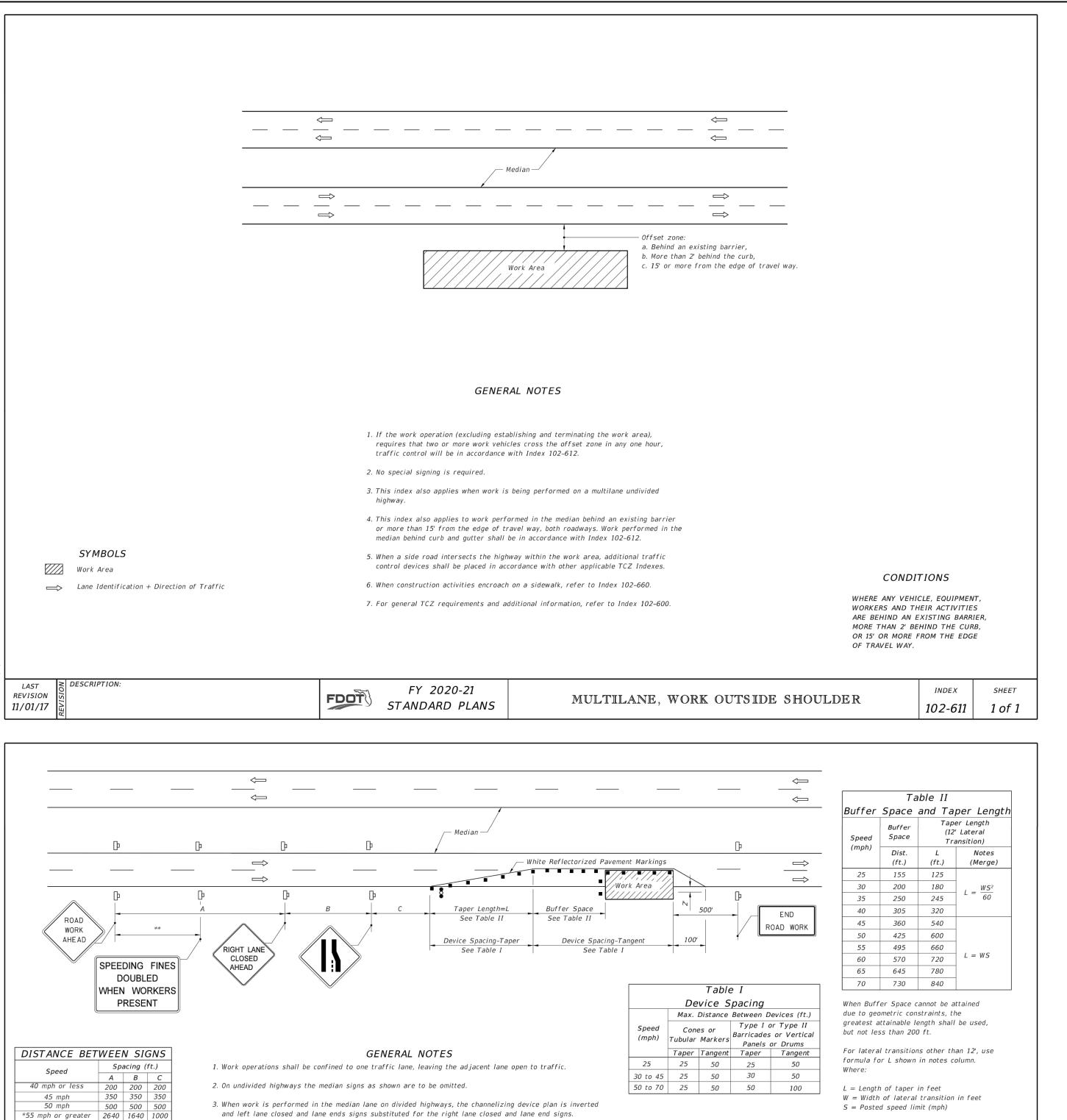
UTILITY DETAILS SHEET 10 of 12

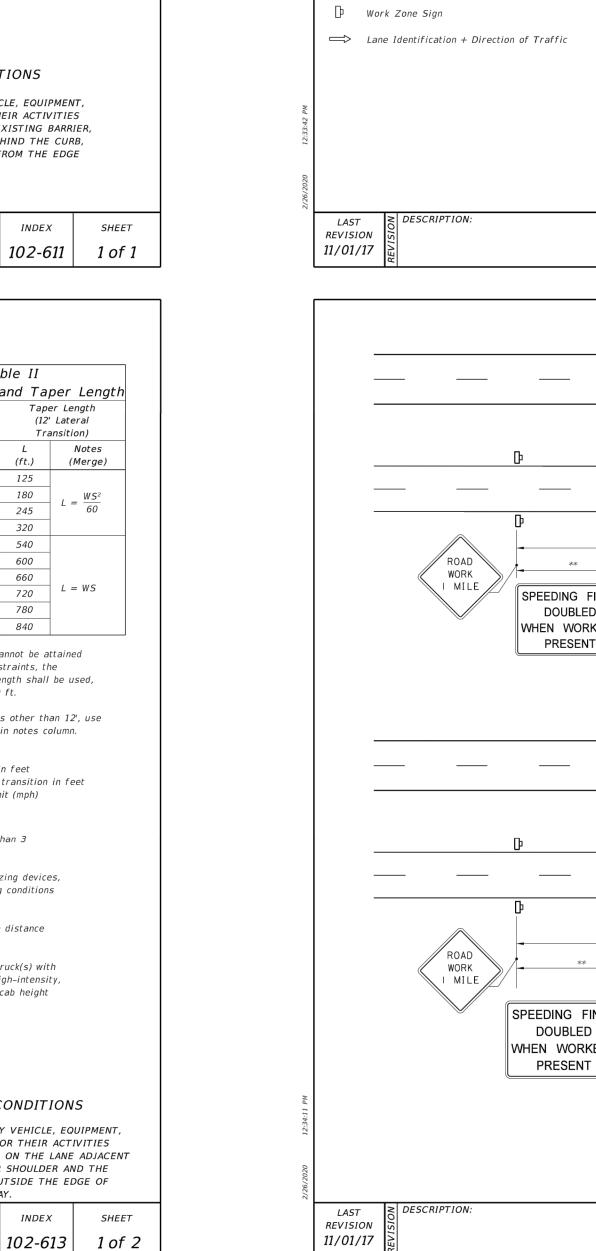
PRIOR TO FLUSHING. THE VALVES SHOWN IN THIS DETAIL SHALL BE OPENED BY PSLUSD PERSONNEL ONLY. f. THE PIGGING AND FLUSHING SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF A PSLUSD

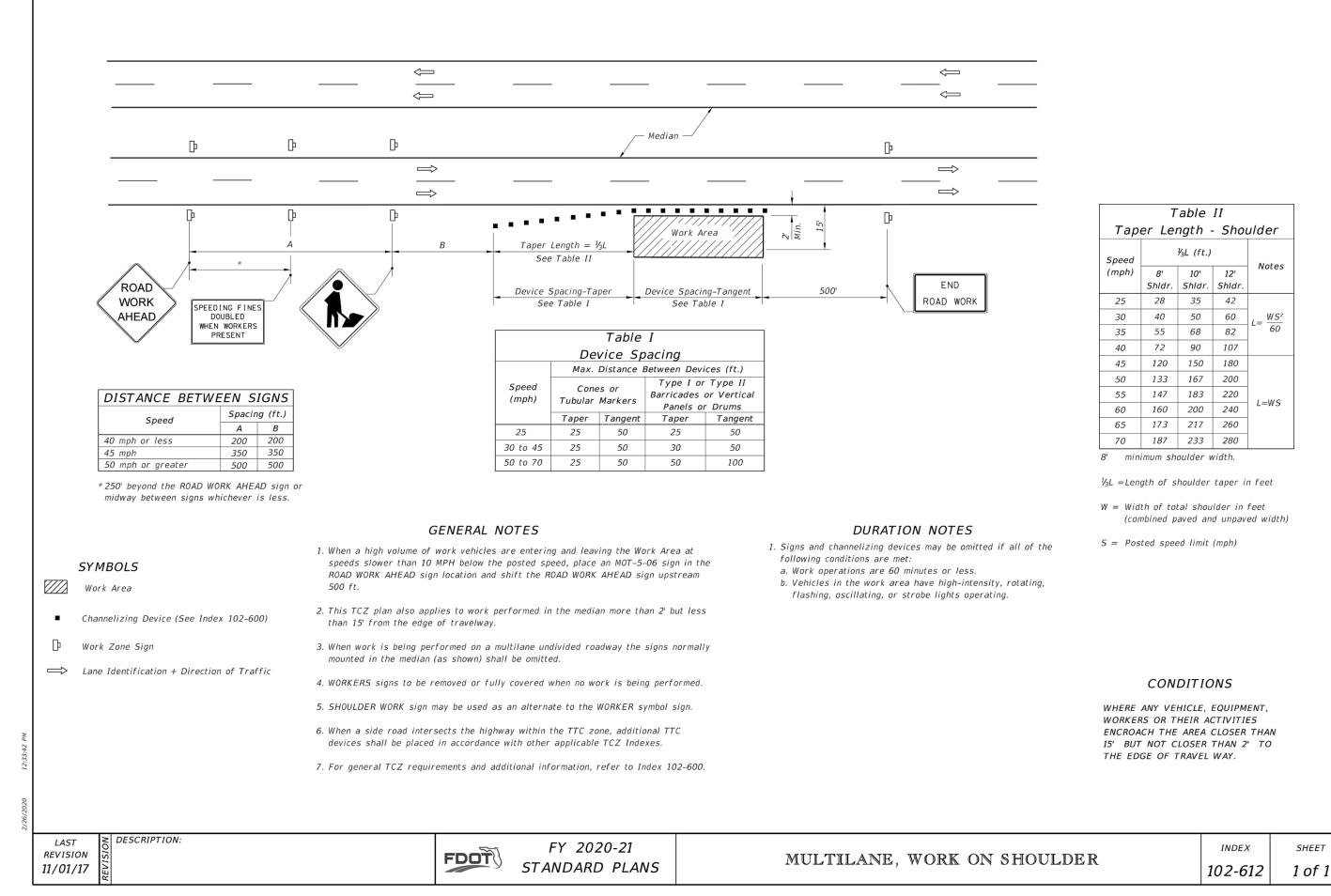
MAINTAINED IN THE NEW MAIN AFTER DISINFECTION.

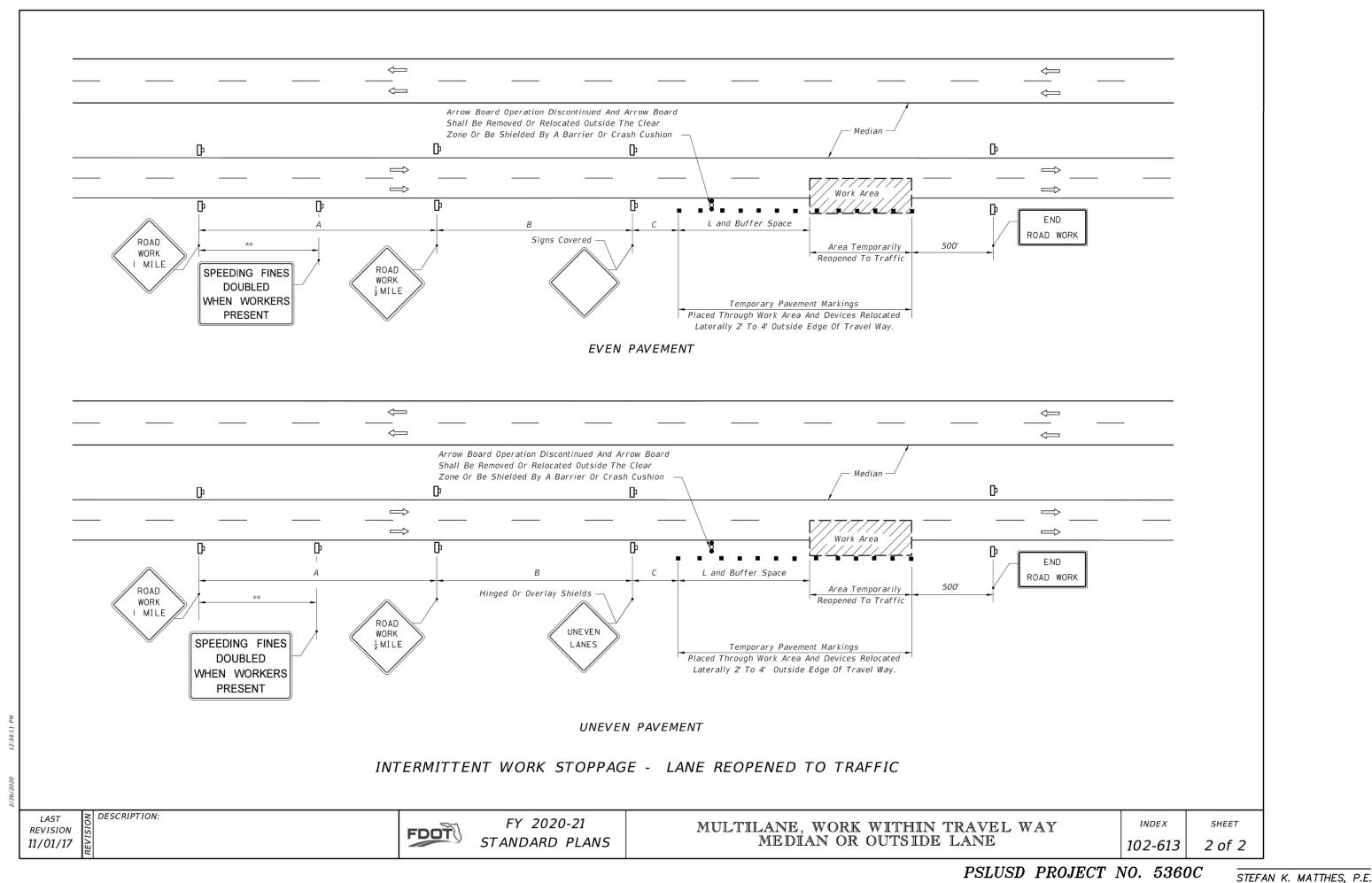
9. UPON WRITTEN ACCEPTANCE OF BACTERIOLOGICAL CLEARANCE BY THE PSLUSD. THE SAMPLING POINTS CAN BE

DETAIL: W-09 **TEMPORARY JUMPER** CONNECTION









Call before you dig.

REVISION

11/01/17

\* The ROAD WORK 1 MILE sign may be used

as an alternate to the ROAD WORK AHEAD

sign and the RIGHT LANE CLOSED 1/2 MILE

sign may be used as an alternate to the

\* 500' beyond the ROAD WORK AHEAD sign or

■ Channelizing Device (See Index 102-600)

midway between signs whichever is less.

RIGHT LANE CLOSED AHEAD sign.

SYMBOLS

Work Area

🕩 Work Zone Sign

●○● Advance Warning Arrow Board

1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

The same applies to undivided highways with the following exceptions:

the inverted plan is applied to the approach of both roadways.

way. See Index 102-612 for shoulder taper formulas.

accordance with other applicable TCZ Indexes.

highway. See Index 102-614.

b. Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and

When work on undivided highways occurs across the centerline so as to encroach on both median lanes,

4. Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE

5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the

6. When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to

7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in

8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane

FY 2020-21

STANDARD PLANS

close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the travel

details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.

work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.

9. For general TCZ requirements and additional information, refer to Index 102-600.

a. Work shall be confined within one median lane.

across the trailing end of the work area.

| FIELD BK./P



CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT,

ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF

INDEX

WORKERS OR THEIR ACTIVITIES

DURATION NOTES

2. For work operations up to approximately 15 minutes, signs, channelizing devices,

b. No sight obstructions to vehicles approaching the work area for a distance

d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with

rotating, flashing, oscillating, or strobe lights mounted above the cab height

a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity,

equal to the buffer space and the taper length combined.

c. Volume and complexity of the roadway has been considered.

3. For work operations up to 60 minutes, arrow board and buffer

are met, and vehicles in the work area have high-intensity,

rotating, flashing, oscillating, or strobe lights operating.

space may be omitted if conditions a, b, and c in DURATION NOTE 2

arrow board, and buffer space may be omitted if all of the following conditions

1. Temporary white edgeline may be omitted for work operations less than 3

consecutive calendar days.

MULTILANE, WORK WITHIN TRAVEL WAY

MEDÍAN OR OUTSIDE LANE

a. Speed limit is 45 mph or less.

- REVISIONS -BY DATE BY DESIGNED CALCS. DRAWN | DRP | 03/10/21 DETAILED CHECKED

APPROVED

SW PAAR DRIVE

CITY OF PSL PROJECT NO. P21-059

FL. REG. NO. 38723 DATE: 04/02/2021 HORIZ. SCALE: SCALE VERT. SCALE: SCALE JOB No. 21-023SHEET 11 of 12

TEMPORARY TRAFFIC CONTROL PLANS

