PLANS PREPARED FOR

VERANDA FALLS

CONTRACT PLANS

VERANDA FALLS ROADWAY PLAN

CITY OF PORT ST. LUCIE

* ROADWAY CONSTRUCTION PLANS

COMPONENTS OF CONTRACT PLANS SET

INDEX OF PLANS

SHEET NO. SHEET DESCRIPTION

KEYSHEET

GENERAL NOTES & SUMMARY OF PAY ITEMS

TYPICAL SECTION PROJECT LAYOUT

ROADWAY PLAN & PROFILE SHEETS

CROSS SECTIONS DRAINAGE DETAILS

UTILITY DETAILS TEMPORARY TRAFFIC CONTROL PLANS

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

LEGAL DESCRIPTION

BEING ALL OF TRACT R-1 AND TRACT R-2, ACCORDING TO THE PLAT OF VERANDA PLAT NO. 8, AS RECORDED IN PLAT BOOK ___, PAGE ___, PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.

CONTAINING 1.985 ACRES, MORE OR LESS.

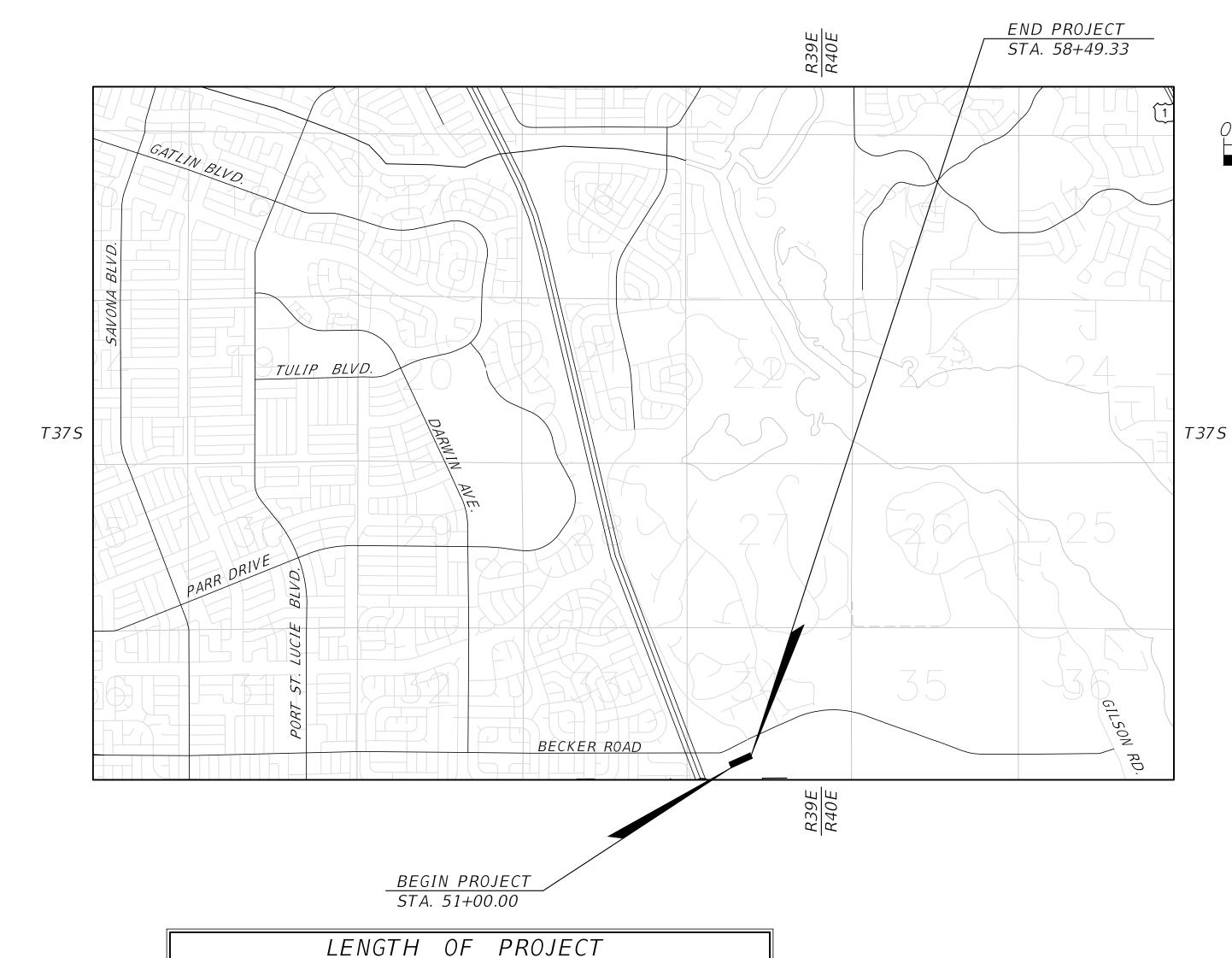
UTILITIES

TO BE CONSTRUCTED PER CITY OF PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT UTILITY STANDARDS MANUAL AND DETAILS 2019 EDITION (EFFECTIVE 01/01/19)

BENCHMARK

Elevations shown hereon are based on the North rim of existing Sanitary Manhole # 14 having an elevation of 13.99 feet based on the North American Vertical Datum (N.A.V.D.) of 1988.

REVISIONS



LIN. FT.

749.33 LF

749.33 LF

0 LF

0 LF

UTILITY

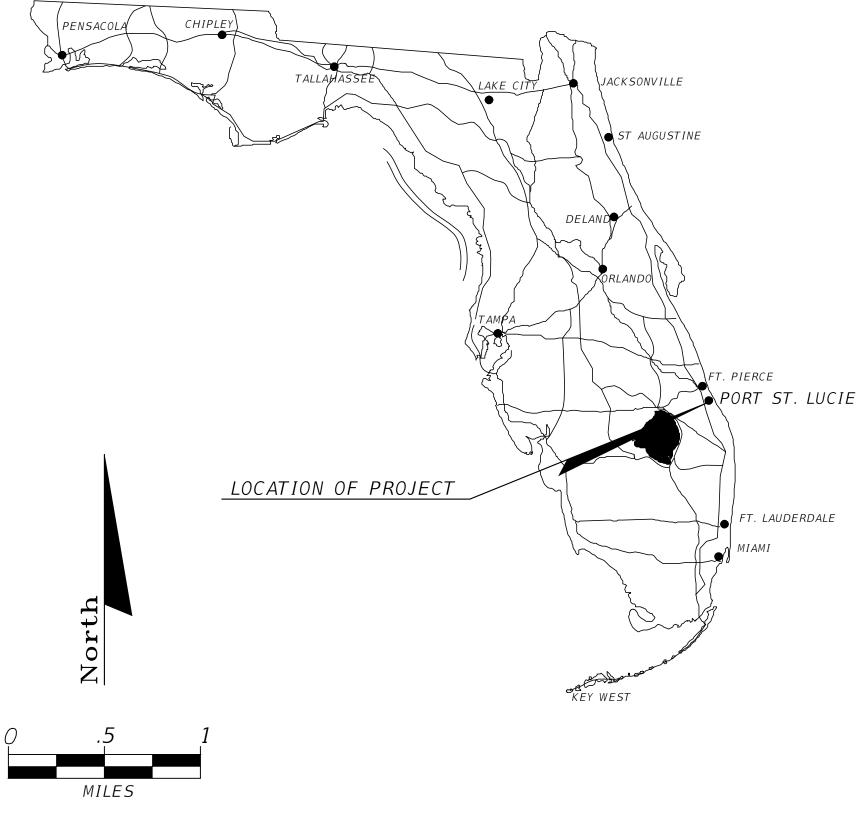
ROADWAY

BRIDGES

EXCEPTIONS

GROSS LENGTH OF PROJ.

MILES		KEY SHEET REVISIONS				
0.000	DATE	BY	DESCRIPTION			
0.142						
0.000						
0.142						



CONSTRUCTION SHOP DRAWINGS TO BE SUBMITTED TO:

STEFAN K. MATTHES, PE CULPEPPER & TERPENING, INC. 2980 SOUTH 25TH STREET FORT PIERCE, FLORIDA 34981

PLANS PREPARED BY:



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

30% CONSTRUCTION PLANS OCTOBER 15, 2021

ROADWAY PLANS STEFAN K. MATTHES, P.E. ENGINEER OF RECORD: P.E. NO. : 38723

PSLUSD PROJECT NO. 11-824-13 CITY OF PSL PROJECT NO. P21-140

SHEET FISCAL YEAR21

C&T JOB NO.: 20-237

	En	vironmental Studies		
Description	Found (Yes/No)	Agency Contact Information	Management Plan (Yes/No)	Relocation Plan (Yes/No)
Wetlands	n		n	n
Rare Habitat	n		n	n
Threatened Species	У		n	n
Endangered Species	n		n	t/b/d
Species of Special Concern	n		n	n
Invasive/Exotic Vegetation	n		n	n

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	TVAN ARILL	(772) 46 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
- 22. LANE CLOSURES ALONG ANY PUBLIC ROADWAYS 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
- -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
- 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. 11-824-13 CITY OF PSL PROJECT NO. P21-140

FL. REG. NO. 38723

STEFAN K. MATTHES, P.E.

DATE: 10/15/2021

HORIZ. SCALE: N/A

VERT. SCALE: N/A

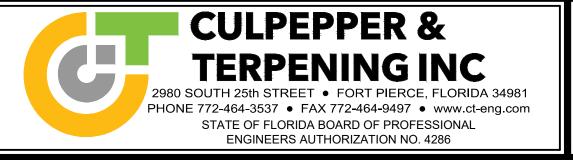
VERANDA FALLS ROADWAY PLAN

GENERAL NOTES &

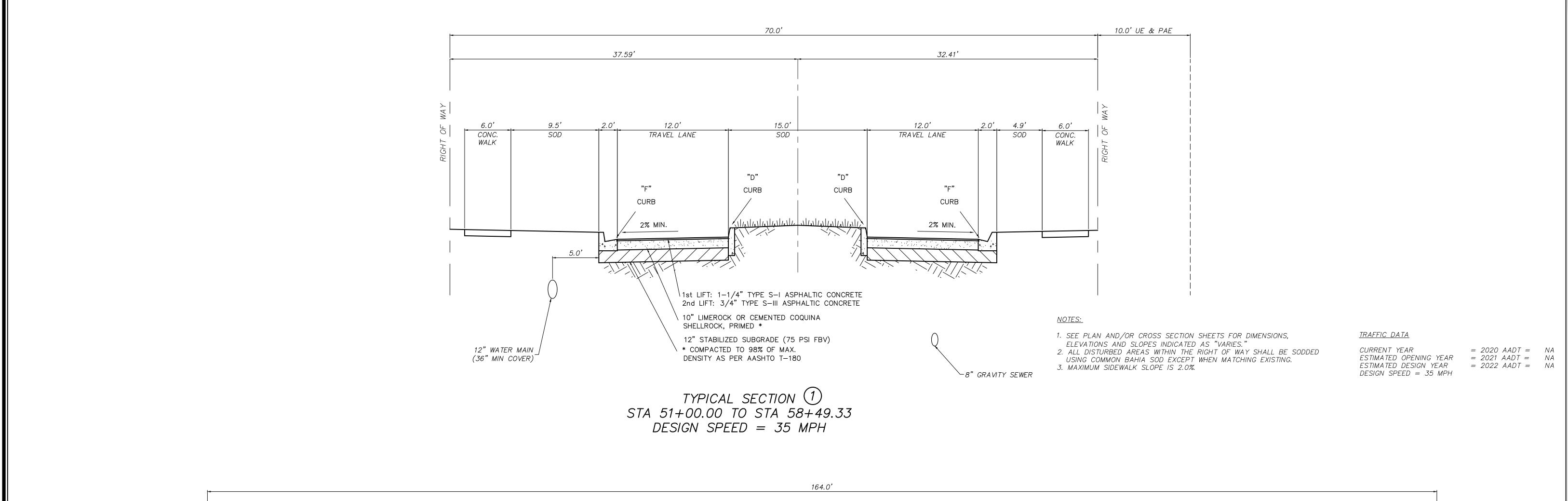
Know what's below. Call before you dig.

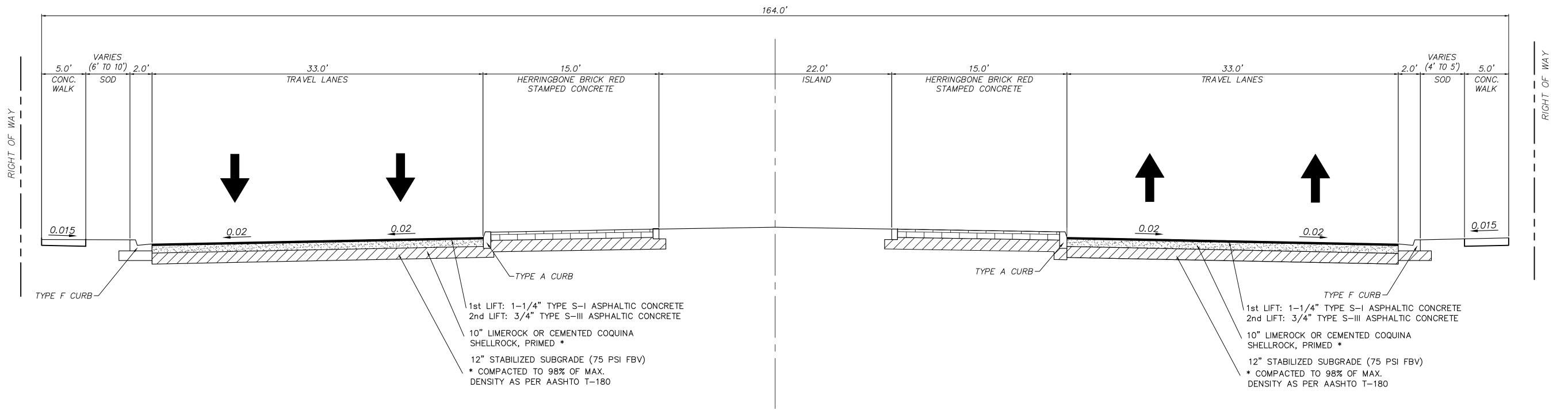
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

| FIELD BK./P



- REVISIONS -BY DATE BY DATE DESIGNED CALCS. DRAWN | DRP | 06/16/21 DETAILED CHECKED APPROVED





TYPICAL SECTION (2)ROUNDABOUT
STA 11+09.01 TO STA 13+43.94
DESIGN SPEED = 35 MPH

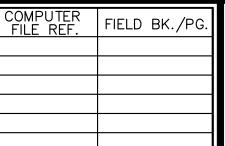
PSLUSD PROJECT NO. 11-824-13 CITY OF PSL PROJECT NO. P21-140

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

Know what's below.
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NOTES:

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AMERICAN VERTICAL DATUM
(N.A.V.D.) OF 1988.



CULPEPPER &	
TERPENING INC 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-e STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286	4 34981

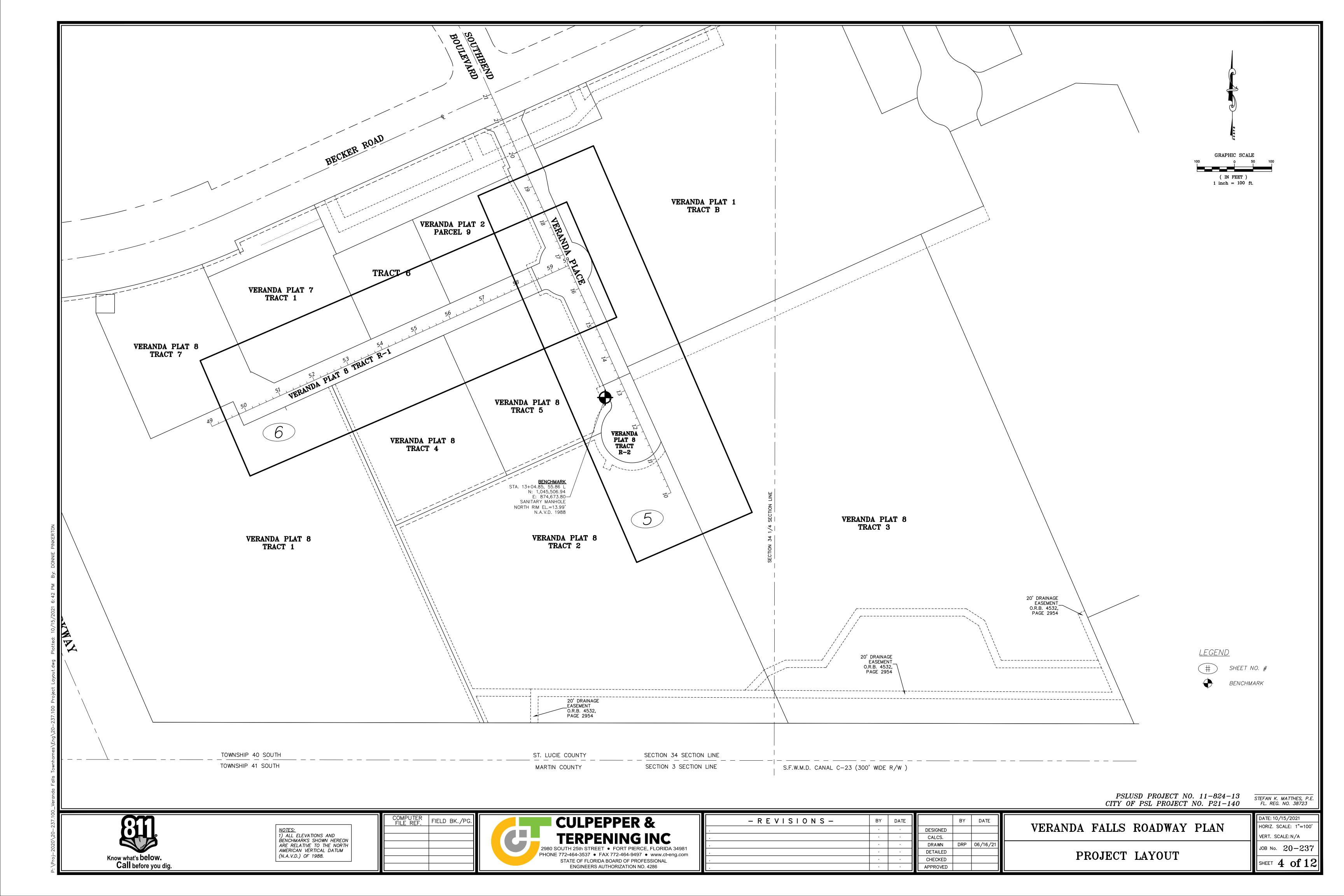
- R E V I S I O N S -	BY	DATE		BY	DATE
	•	•	DESIGNED		
	•	•	CALCS.		
	•	•	DRAWN	DRP	06/16/21
	•	•	DETAILED		
	•	•	CHECKED		
		•	APPROVED		

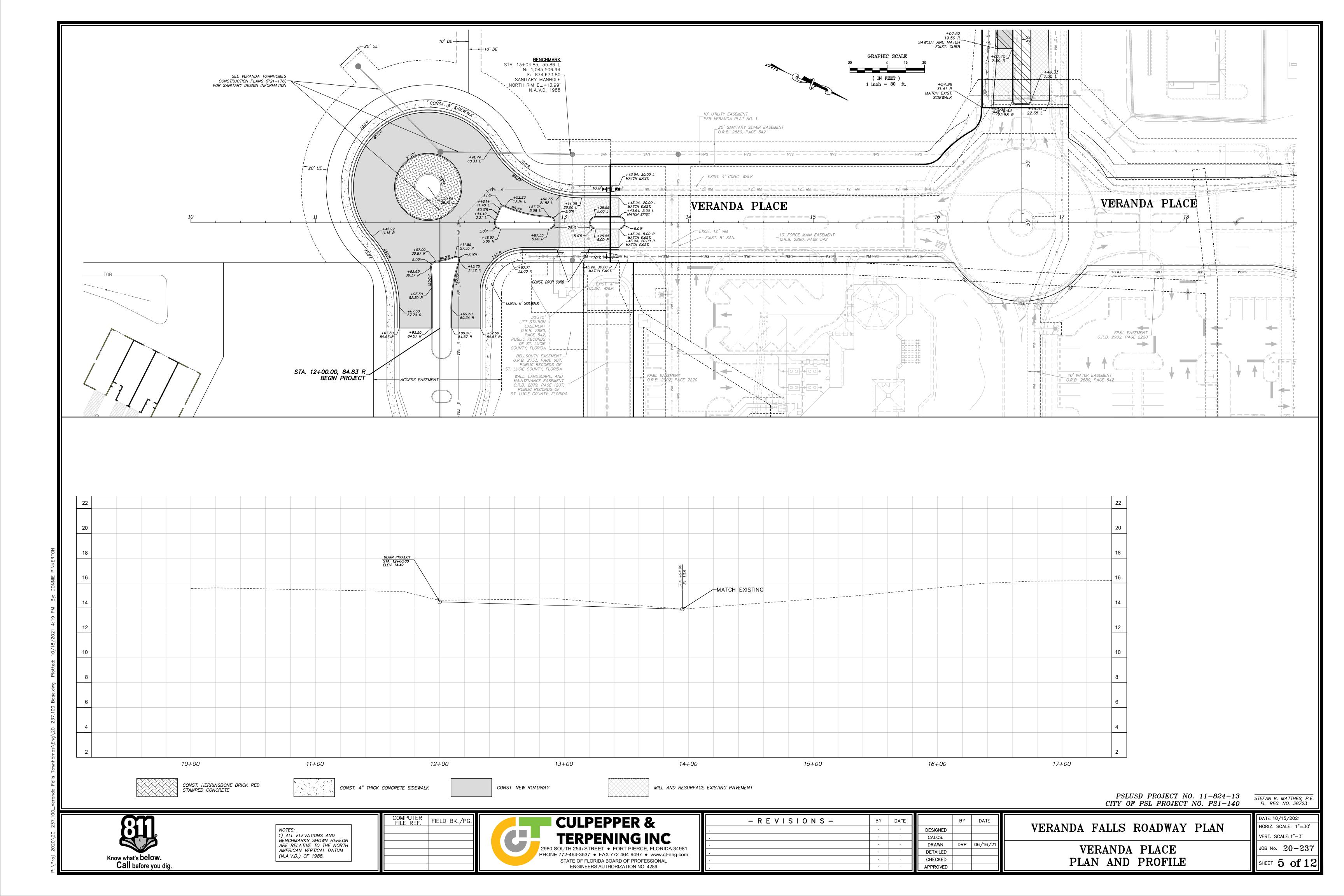
TYPICAL SECTIONS

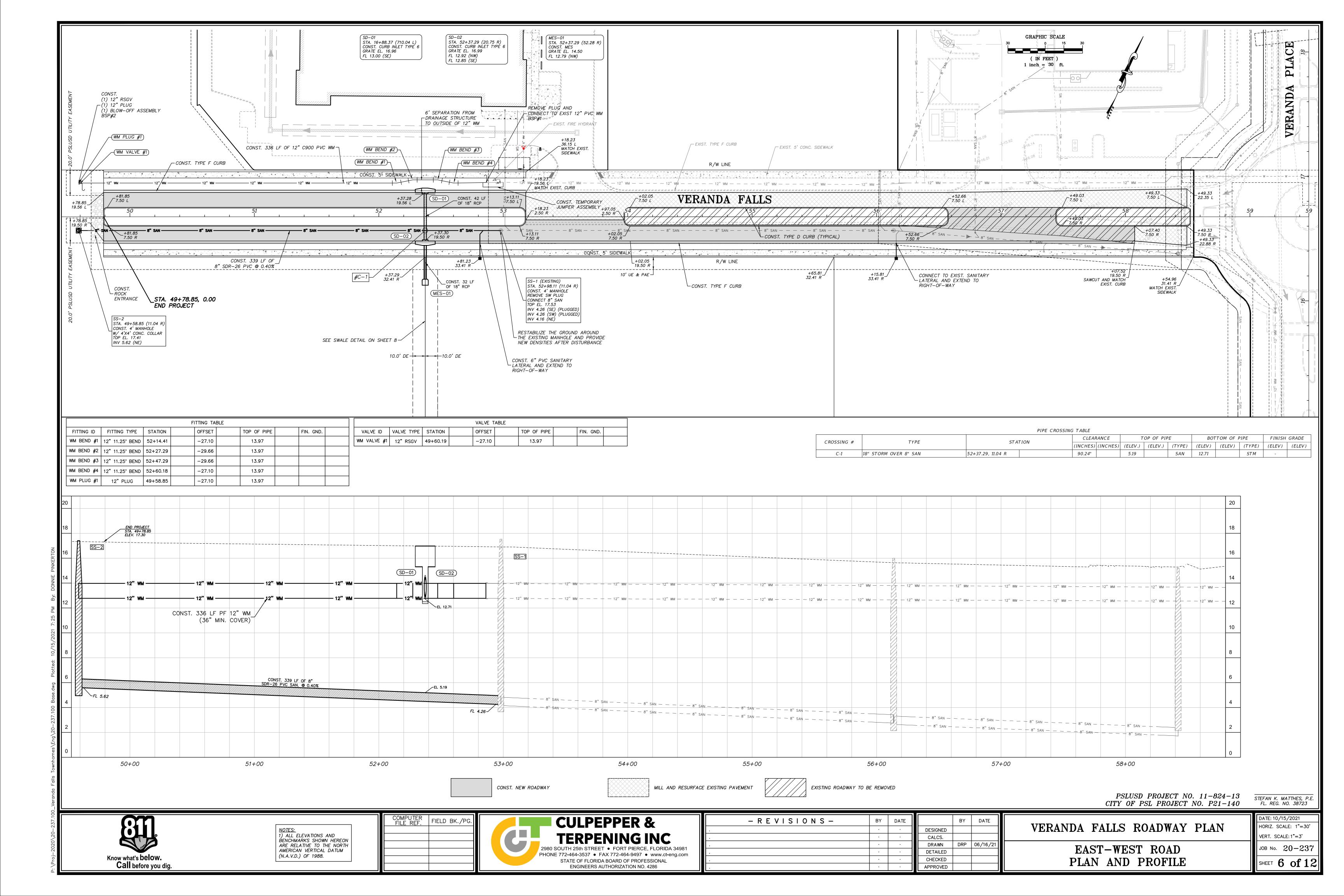
DATE: 10/15/2021
HORIZ. SCALE: N/A
VERT. SCALE: N/A

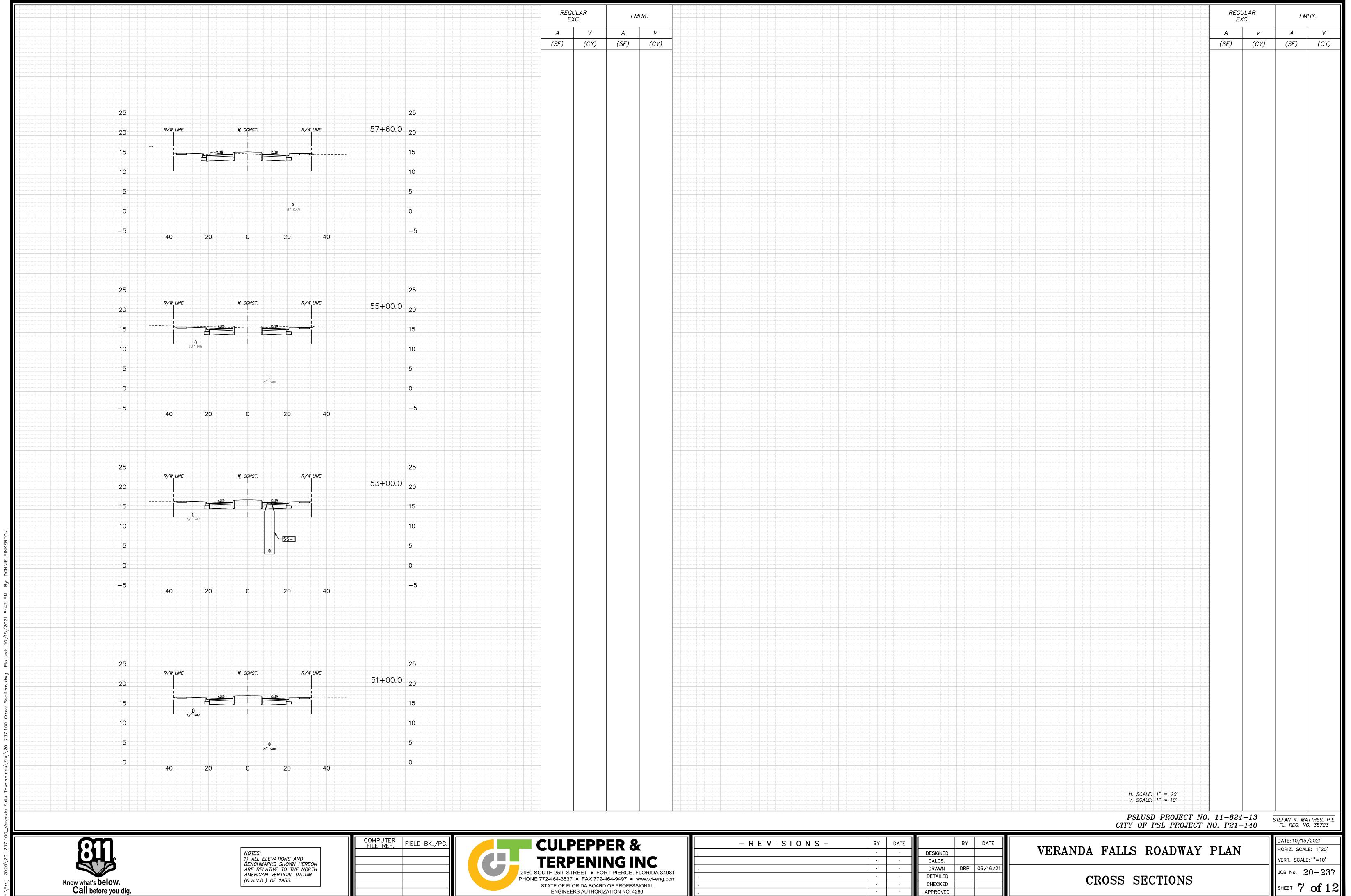
JOB No. 20-237

SHEET 3 of 12









(N.A.V.D.) OF 1988.



- R E V I S I O N S -	BY	DATE		BY	DATE
	•	•	DESIGNED		
	•	•	CALCS.		
	•	•	DRAWN	DRP	06/16/21
	•	•	DETAILED		
	•	•	CHECKED		
			APPROVED		

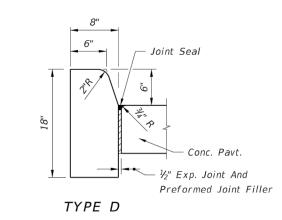
CROSS SECTIONS

SHEET 7 of 12

SIDEWALK DETAIL N.T.S.

TYPE F

— Same Slope As Adjacent Pavement — Joint Seal $\frac{1}{2}$ " Exp. Joint And Preformed Joint Filler Concrete Pavement For details depicting usage adjacent to flexible pavement



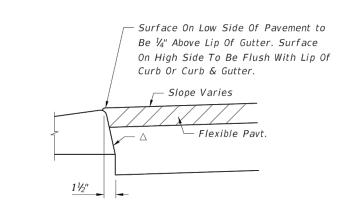
Note: For use adjacent to concrete or flexible pavement, concrete shown. Expansion joint, preformed joint filler and joint seal are required between curbs and concrete pavement only

TYPE F CURB DETAIL
N.T.S.

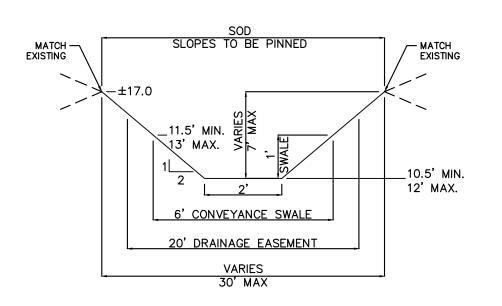
TYPE A CURB DETAIL
N.T.S.

TYPE A

TYPE D CURB DETAIL



riangle Applies to both high and low sides of pavement, low side shown. Applies to shoulder gutter only where adjoining traffic lanes. CURB AND GUTTER AND TYPE A CURB ADJACENT TO FLEXIBLE PAVEMENT



PROPOSED OUTFALL SWALE TYPICAL SECTION

N.T.S.

VERANDA FALLS ROADWAY PLAN

DRAINAGE DETAILS

PSLUSD PROJECT NO. 11-824-13 CITY OF PSL PROJECT NO. P21-140

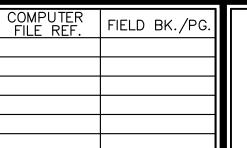
DATE: 10/15/2021 HORIZ. SCALE: N/A VERT. SCALE: N/A JOB No. 20-237

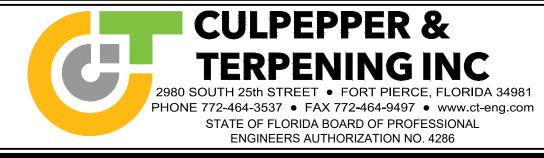
STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

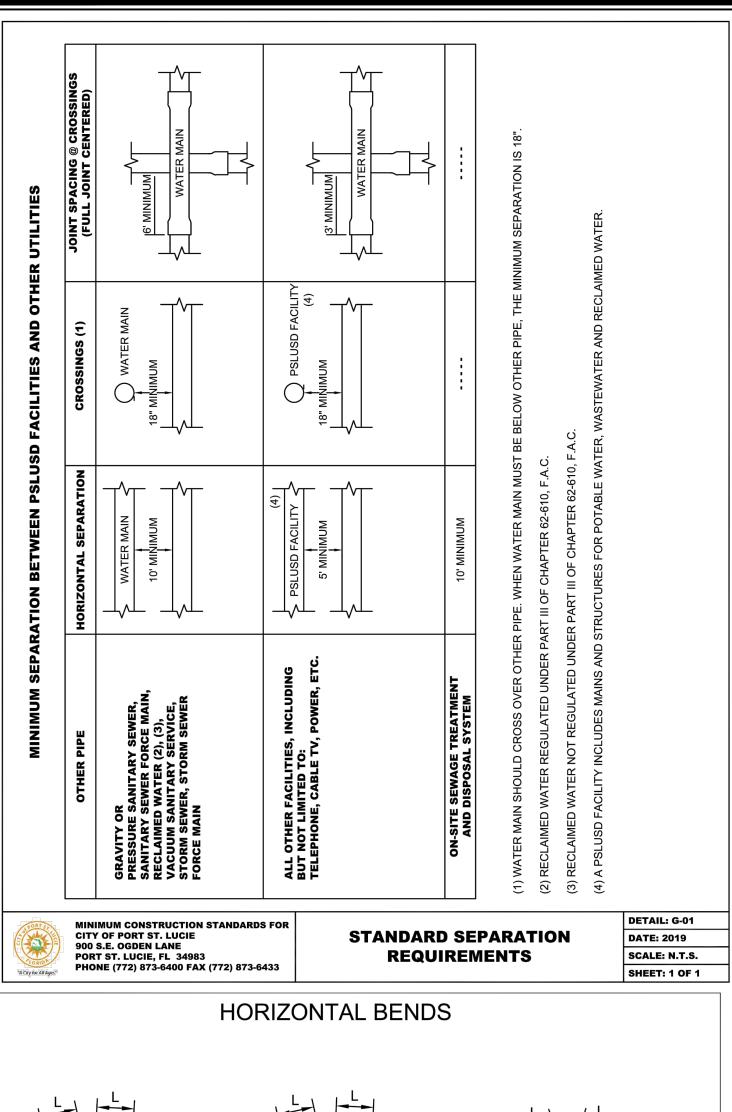
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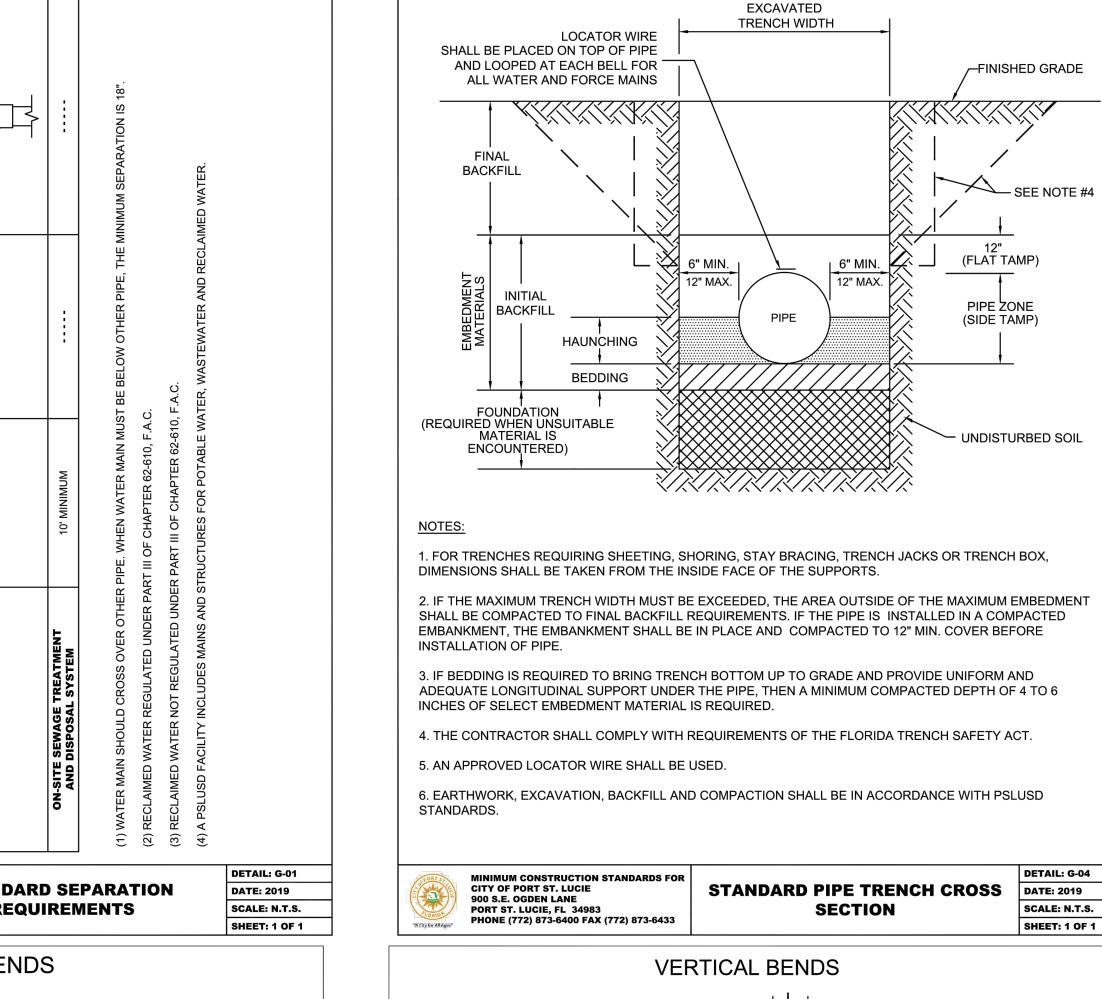
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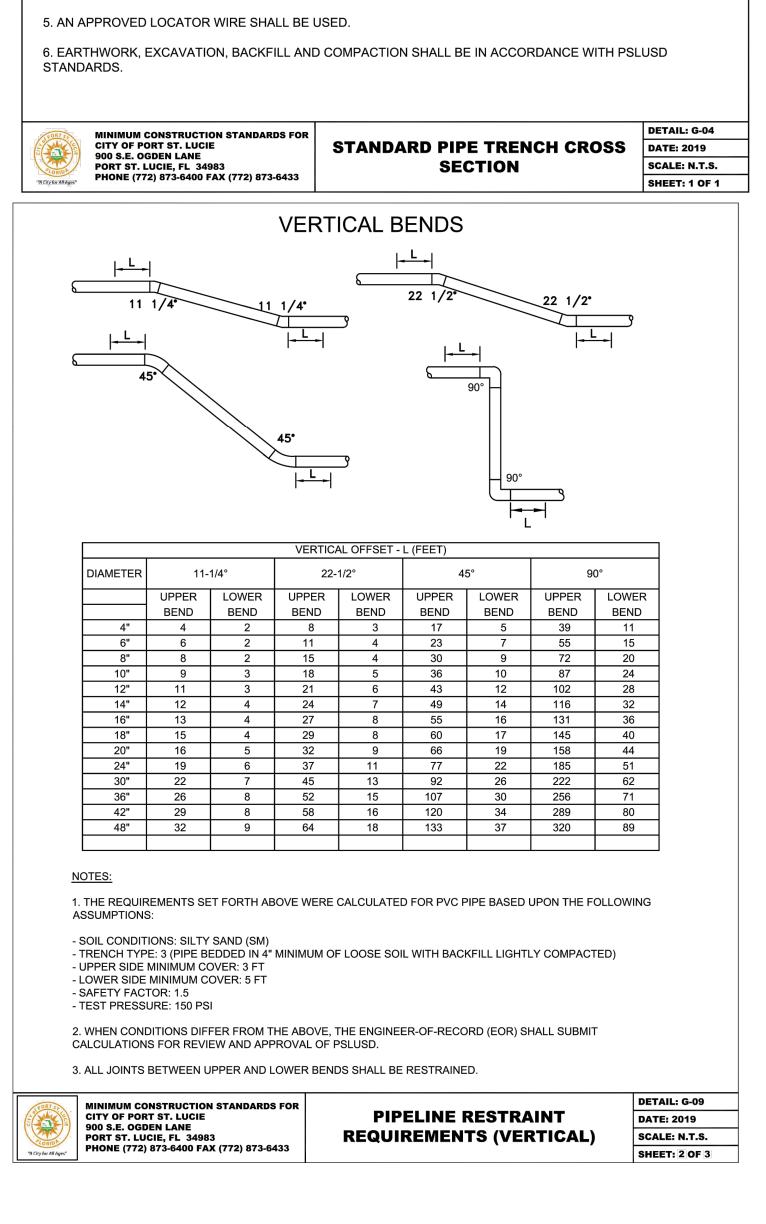
1) ALL ELEVATIONS AND
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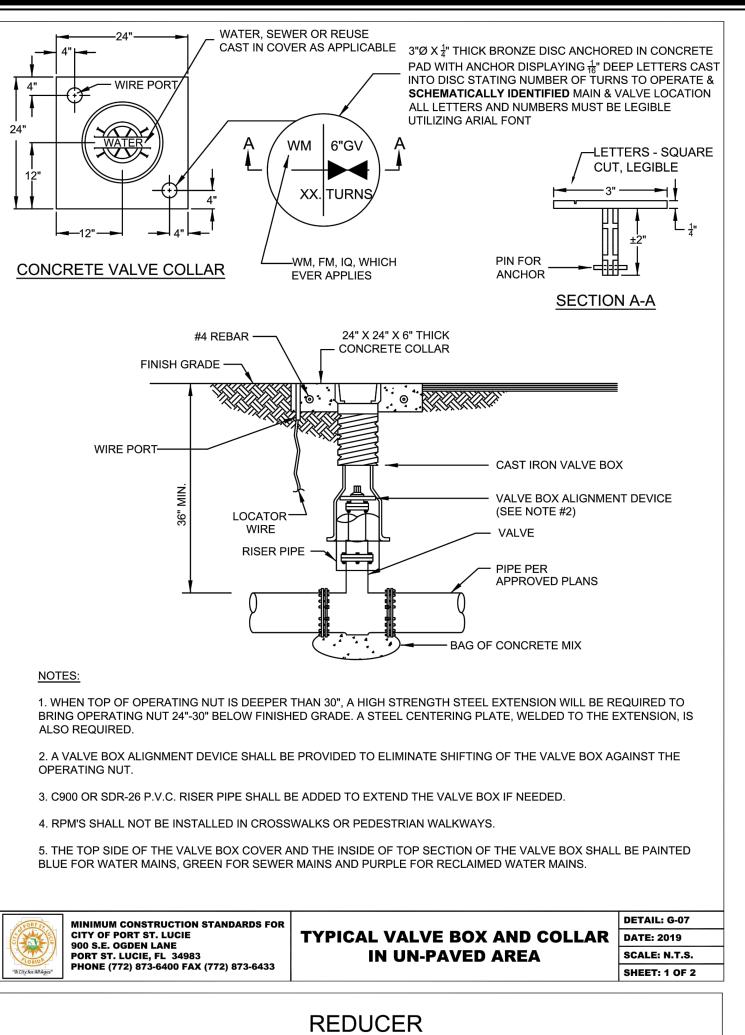


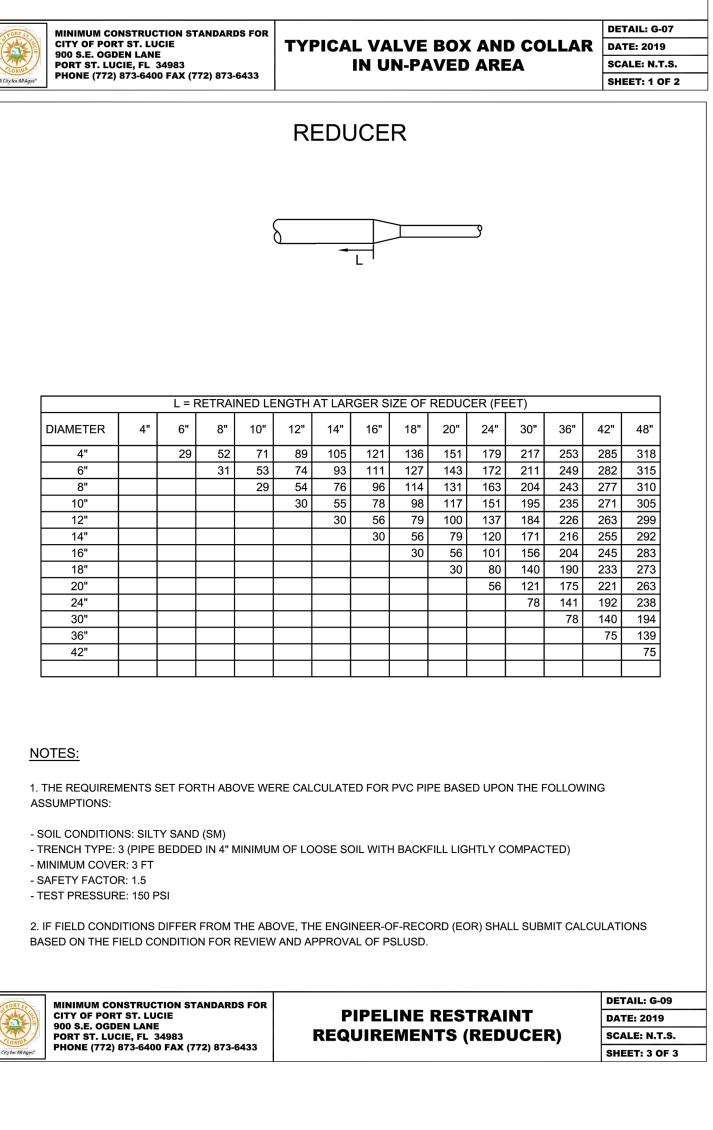


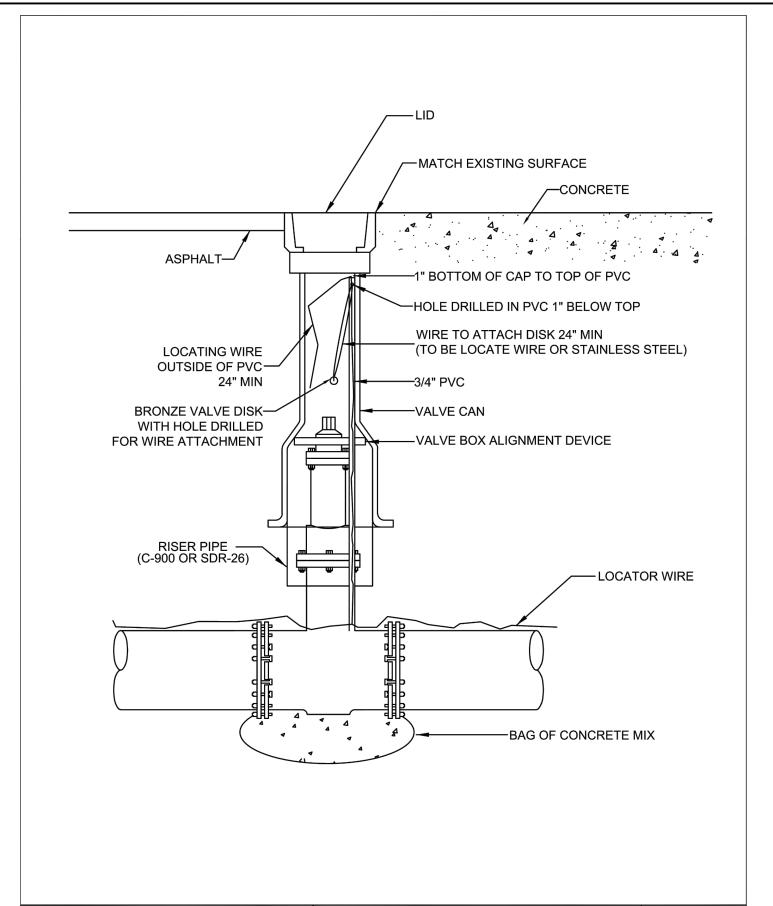


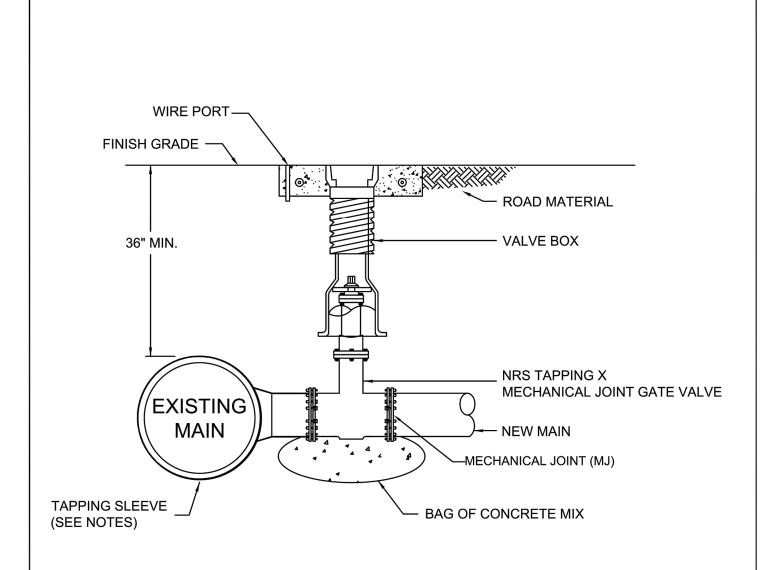












TYPICAL VALVE BOX

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.

TAPPING SLEEVE AND VALVE

CITY OF PSL PROJECT NO. P21-140

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

6. SEE NOTES ON DETAIL G-07.

CITY OF PORT ST. LUCIE

900 S.E. OGDEN LANE

MINIMUM CONSTRUCTION STANDARDS FOR

MINIMUM CONSTRUCTION STANDARDS FOR

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

CITY OF PORT ST. LUCIE

900 S.E. OGDEN LANE

PORT ST. LUCIE, FL 34983 **ASSEMBLY** PHONE (772) 873-6400 FAX (772) 873-6433 PSLUSD PROJECT NO. 11-824-13

STEFAN K. MATTHES, P.E.

DATE: 2019

SCALE: N.T.S.

SHEET: 1 OF 1

Call before you dig.

- TEST PRESSURE: 150 PSI

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

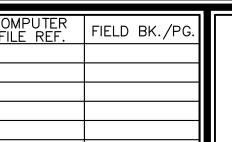
PORT ST. LUCIE, FL 34983

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

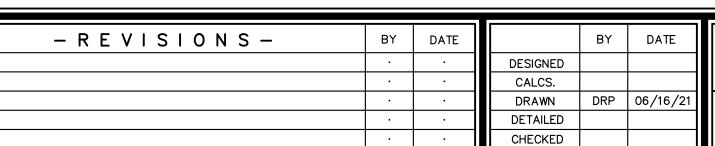
1) ALL ELEVATIONS AND BENCHMARKS SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM (N.A.V.D.) OF 1988.

IN-LINE VALVE

TEE* VALVES OR







APPROVED

VERANDA FALLS ROADWAY PLAN

DATE: 10/15/2021 HORIZ. SCALE: N/A VERT. SCALE: N/A JOB No. 20-237

FL. REG. NO. 38723

11 1/4°

DIAMETER

11-1/4°

42" | 12 | 24

22-1/2°

9

13

14

16

19

21

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

HORIZONTAL - L (FEET)

19

26

29

39

45

63 120

93 | 192 |

53 128 283 321

PIPELINE RESTRAINT

133

51 57

68 33 79 157

106 49 117 254

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

- MINIMUM COVER: 3 FT - SAFETY FACTOR: 1.5

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

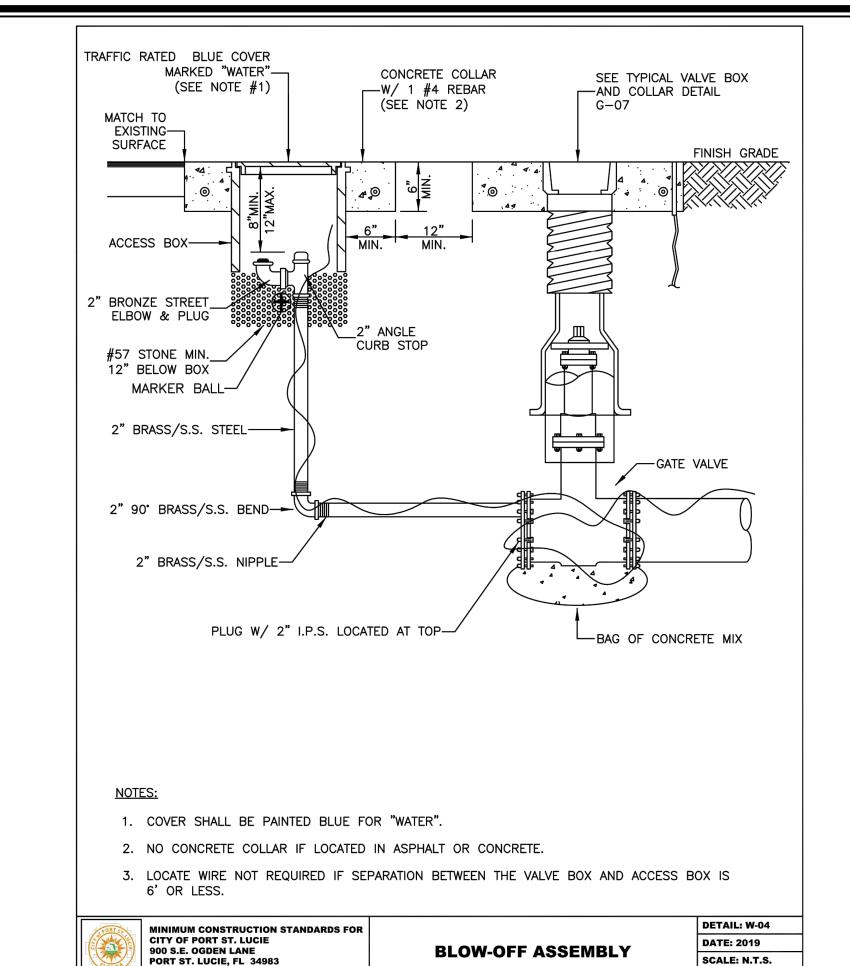
- * SIZE ON SIZE TEE & 5' LENGTH ALONG RUN 2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS

> DETAIL: G-09 **DATE: 2019 REQUIREMENTS (HORIZONTAL)** SCALE: N.T.S. SHEET: 1 OF 3

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

UTILITY DETAILS

SHEET 9 of 12



NOTES:

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

A TEMPORARY JUMPER CONNECTION SHALL BE PROVIDED IN ACCORDANCE WITH THIS DETAIL WHEN AN EXISTING PSLUSD WATER MAIN WILL BE USED FOR FILLING, FLUSHING OR PIGGING A NEWLY CONSTRUCTED POTABLE WATER, WASTEWATER FORCE MAIN OR RECLAIMED WATER MAIN. A DIRECT CONNECTION SHALL NOT BE MADE UNDER ANY CIRCUMSTANCES. THE SIZE OF THE JUMPER CONNECTION SHALL BE SPECIFIED BY THE ENGINEER-OF-RECORD (EOR) BASED ON VELOCITY REQUIRED TO FLUSH THE MAIN.

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 MAINS, JUMPER INSTALLATION, FLUSHING, PIGGING, PRESSURE TESTING, DISINFECTION, SAMPLING, PLUGGING OF SAMPLING POINTS AND PERMANENT CONNECTION OF THE NEW MAIN. THE CONTRACTOR SHALL FOLLOW ALL PROCEDURES STRICTLY IN ACCORDANCE WITH THE PSLUSD UTILITY STANDARDS MANUAL.

THE TEMPORARY JUMPER ASSEMBLY (FLANGE TO FLANGE) WILL BE SUPPLIED, INSTALLED AND TESTED BY THE PSLUSD, IN COORDINATION WITH THE EOR AND CONTRACTOR. OTHER MATERIALS AND INSTALLATION REQUIRED FOR THE CONNECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL DISINFECT THE PIPE AND FITTINGS USED TO MAKE THE CONNECTION BY SPRAYING AND SWABBING WITH CHLORINE AS NECESSARY. A SUPPORT SHALL BE PROVIDED FOR THE ASSEMBLY AS NECESSARY. 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. THE VALVES SHALL BE OPERATED BY PSLUSD PERSONNEL ONLY.

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.

PIGGING AND FLUSHING SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF A PSLUSD INSPECTOR. WATER MAINS SHALL BE PRESSURE TESTED AFTER FLUSHING AND PRIOR TO DISINFECTION. ALL VALVES SHALL 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 THE PSLUSD. ALL VALVES SHALL BE CLOSED BY PSLUSD PERSONNEL AFTER FLUSHING AND SHALL REMAIN CLOSED DURING THE PRESSURE TEST.

DISINFECTION OF POTABLE WATER MAINS SHALL BE CONDUCTED IN ACCORDANCE WITH AWWA C651. A MINIMUM PRESSURE OF 20 PSI SHALL BE MAINTAINED IN THE NEW MAIN AFTER DISINFECTION.

CONNECTION TO EXISTING WATER MAINS SHALL NOT BE MADE PRIOR TO BACTERIOLOGICAL CLEARANCE.

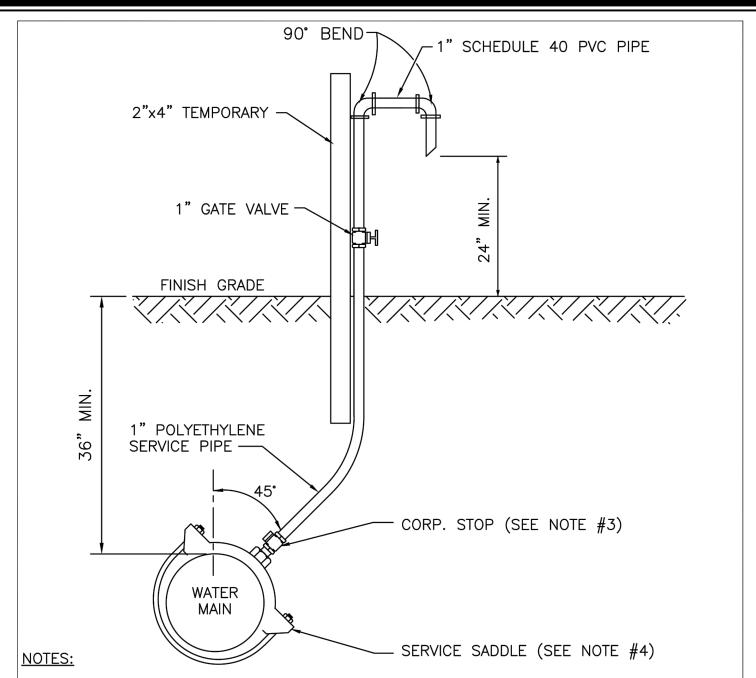
. UPON WRITTEN APPROVAL, THE SAMPLING POINTS SHALL BE REMOVED AND PLUGGED BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE THE PERMANENT CONNECTION IN THE PRESENCE OF A PSLUSD INSPECTOR. THE PIPE AND FITTINGS FOR CONNECTION SHALL BE DISINFECTED BY SPRAYING AND SWABBING WITH CHLORINE.

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 STOP VALVES.

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

TEMPORARY JUMPER CONNECTION

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



1. 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.

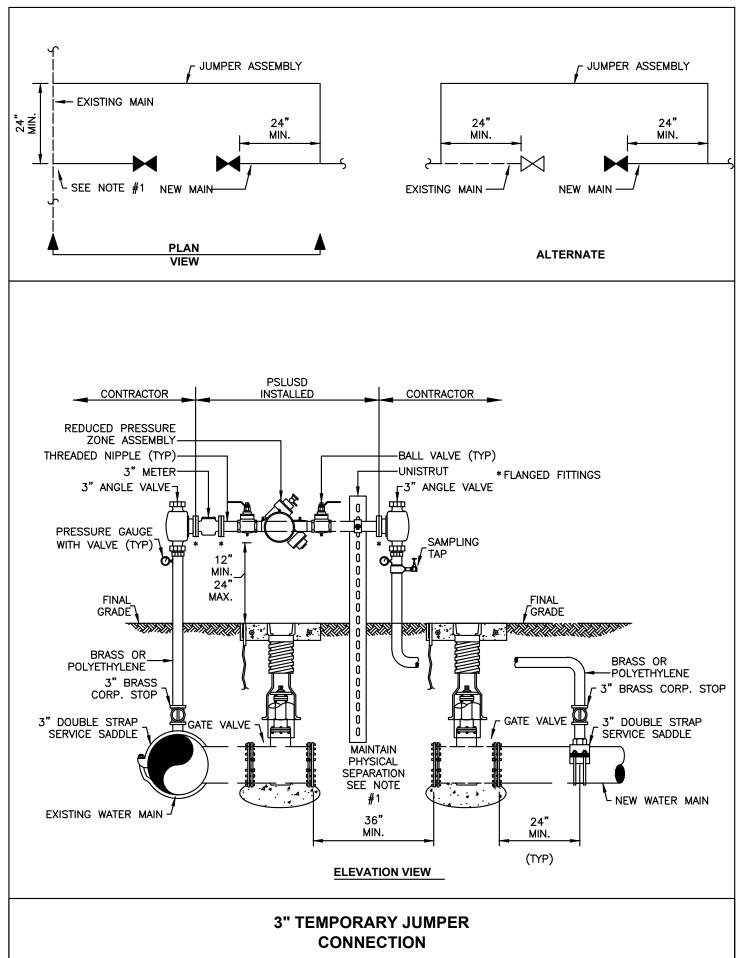
2. THE EXCAVATED HOLE FOR THIS INSTALLATION SHALL BE BACKFILLED TO FINISHED GRADE PRIOR TO DISCHARGING ANY WATER ON THE GROUND.

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.

SHEET: 1 OF 1





PSLUSD PROJECT NO. 11-824-13 CITY OF PSL PROJECT NO. P21-140

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

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MINIMUM CONSTRUCTION STANDARDS FOR

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

PORT ST. LUCIE, FL 34983

PSLUSD

INSTALLED

PHYSICAL

SEPARATION

SEE NOTE

FOR 2" JUMPER CONNECTIONS

UP TO 8" PIPE

TEMPORARY JUMPER CONNECTION

REDUCED PRESSURE ZONE ASSEMBLY –

THREADED NIPPLE (TYP)-

PRESSURE GAUGE

WITH VALVE (TYP) $m{1}$

GRADE .

BRASS OR

CORP. STOP

POLYETHYLENE

2" DOUBLE STRAP

SERVICE SADDLE

EXISTING WATER MAIN -

2" ANGLE VALVE 7

2" METER —

CONTRACTOR

BALL VALVE (TYP)

r 2" ANGLE VALVE

* FLANGED FITTINGS

· GATE VALVE 🖳

BRASS OR

----POLYETHYLENE

2" DOUBLE STRAP

SERVICE SADDLE

DETAIL: G-14

DATE: 2019

SCALE: N.T.S.

SHEET: 1 OF 2

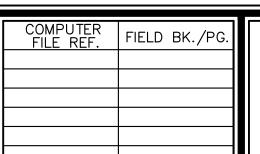
NEW WATER MAIN

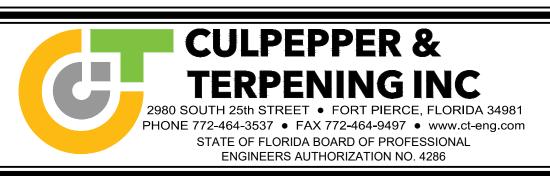
┌ 2" BRASS CORP. STOP

-UNISTRUT

NOTES:

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





DETAIL: G-14

- REVISIONS -	BY	DATE		BY	DATE
	•	•	DESIGNED		
	•	•	CALCS.		
	•	•	DRAWN	DRP	06/16/21
	•	•	DETAILED		
	•	•	CHECKED		

APPROVED

DATE: 10/15/2021
HORIZ. SCALE: N/A
VERT. SCALE: N/A

JOB No. 20-237

SHEET 10 of 12

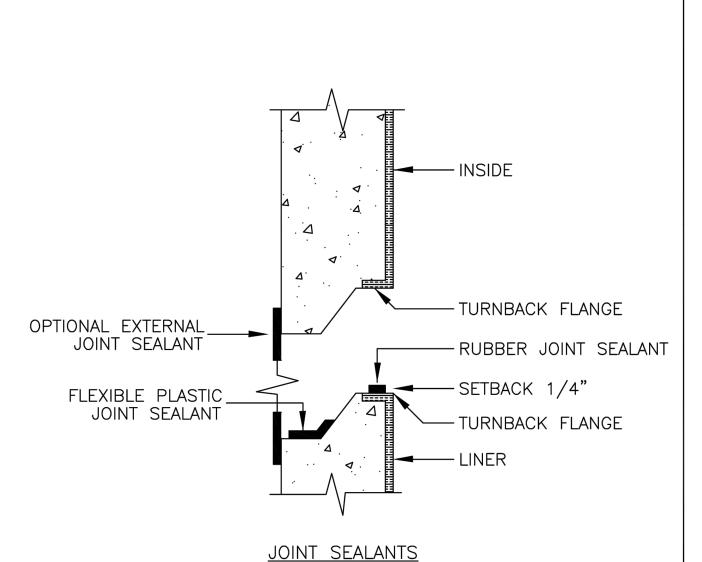
. THE ENGINEER-OF-RECORD SHALL SUBMIT TO PSLUSD THE SHOP DRAWINGS FOR EACH STRUCTURE, PROVIDING THE DIAMETER OF EACH PIPE, INVERT ELEVATION OF EACH PIPE, RIM ELEVATION AND THE NUMBER OF DEGREES BETWEEN PIPES. (15 DEGREE INCREMENTS IF POSSIBLE)

2. MANHOLE INTERIOR SHALL BE LINED UTILIZING A CORROSION BARRIER SYSTEM. LISTED ON THE PSLUSD QUALIFIED PRODUCT LIST.

3. MANHOLE EXTERIOR SHALL BE COATED WITH A PRIMER AND TWO COATS OF A WATER BASED EPOXY 3-5 MILS EACH PER THE PSLUSD SPECIFICATIONS. APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.

DETAIL: WW-01 MINIMUM CONSTRUCTION STANDARDS FOR **INVERT FLOW CHANNELS** CITY OF PORT ST. LUCIE **DATE: 2019** PORT ST. LUCIE, FL 34983 SCALE: N.T.S.

MANHOLES



NOTES:

. APPROVED JOINT SEALANTS SHALL BE USED.

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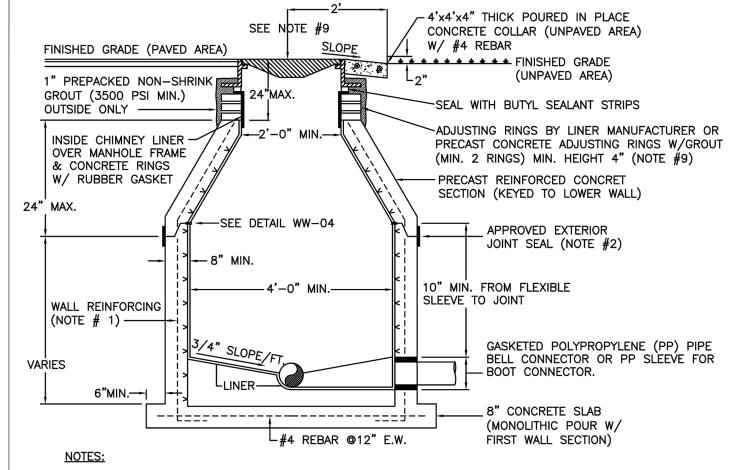
2. WELDED CAP STRIPS AT JOINTS OR WELDED JOINTS MAY BE ACCEPTABLE IF APPROVED IN WRITING BY PSLUSD.

CITY OF PORT ST. LUCIE 900 S.E. OGDEN LANE PORT ST. LUCIE, FL 34983 PHONE (772) 873-6400 FAX (772) 873-6433

MANHOLE / WETWELL JOINT DETAIL

DETAIL: WW-04 DATE: 2019 SCALE: N.T.S. SHEET: 1 OF 1

SHEET: 1 OF 1



1. MANHOLE FABRICATION SHALL BE IN ACCORDANCE W/ ASTM C-478, LATEST REVISION.

2. SEALANT SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION BETWEEN MANHOLE SECTIONS & AT ALL JOINTS (SEE DETAIL WW-04). ALSO AN APPROVED EXTERNAL JOINT SEAL MAY BE APPLIED AT THE JOINTS. (EXTERNAL JOINT SEAL IS OPTIONAL)

3. ALL PIPE OPENINGS SHALL BE GAS AND WATER TIGHT WITH NO EXPOSED CONCRETE SURFACES.

4. CAST OPENINGS SHALL BE MANUFACTURED WITH PRECAST HOLE W/ CAST-IN LINER SLEEVE SIZED FOR APPROPIATE PIPE AND FLEXIBLE CONNECTOR. APPROVED FLEXIBLE MANHOLE CONNECTORS SHALL BE USED AT PIPE CONNECTIONS. HOLE SIZE PER BOOT MANUFACTURER'S SPECIFICATIONS. DOUBLE STAINLESS STEEL PIPE CLAMPS MUST BE INSTALLED ON THE FLEXIBLE SLEEVES WHERE REQUIRED BY BOOT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5. FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT FLOW INTO FLOW STREAM (SEE DETAIL

6. LIFT HOLES ARE PERMITTED BUT MUST BE GROUTED ONCE MANHOLE IS IN PLACE. 7. MANHOLE AND BASE WILL BE LINED INSIDE WITH AN APPROVED LINER SYSTEM.

8. AN APPROVED COVER & FRAME SHALL BE PROVIDED. APPROVED INSIDE MANHOLE CHIMNEY SEALANT SHALL BE APPLIED OVER THE MANHOLE FRAME, CONCRETE RINGS, AND LINER SECTION IN

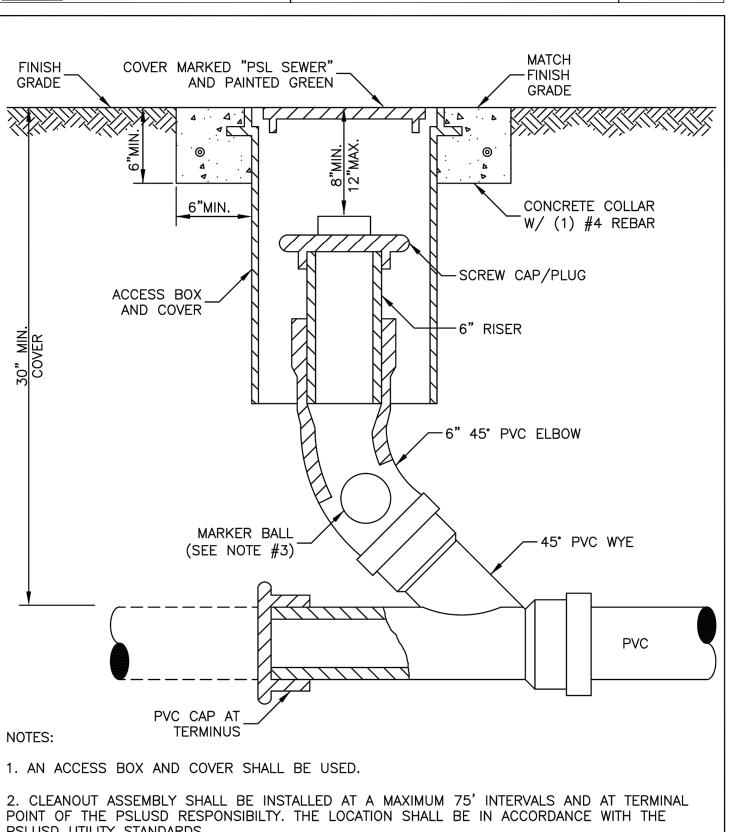
9. MAXIMUM HEIGHT OF CHIMNEY SHALL NOT EXCEED 24 INCHES INCLUDING FRAME CASTING.

CONT. ON SHEET 2 OF 2

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

ACCORDANCE WITH THE SPECIFICATIONS.

DETAIL: WW-02 DATE: 2019 STANDARD PRECAST MANHOLE SCALE: N.T.S. SHEET: 1 OF 2



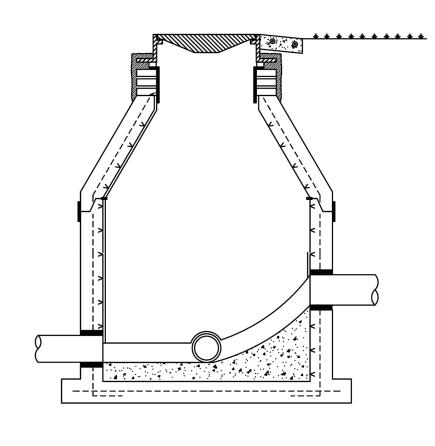
PSLUSD UTILITY STANDARDS.

3. MARKER BALL SHALL BE STRAPPED TO THE ELBOW.

CITY OF PORT ST. LUCIE 900 S.E. OGDEN LANE PORT ST. LUCIE, FL 34983 PHONE (772) 873-6400 FAX (772) 873-6433

SANITARY SEWER CLEANOUT

DETAIL: WW-05 DATE: 2019 SCALE: N.T.S. SHEET: 1 OF 1

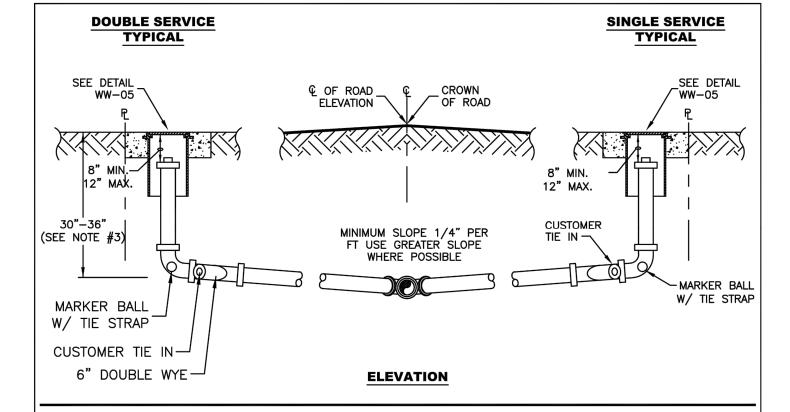


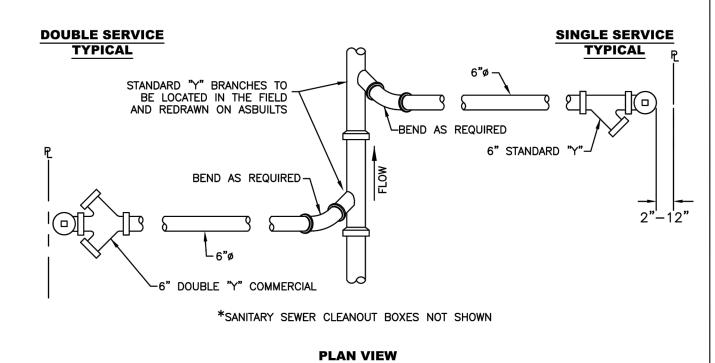
10. EXCAVATION, DEWATERING, BACKFILL & COMPACTION SHALL BE CONDUCTED IN ACCORDANCE W/ THE PSLUSD UTILITY STANDARDS. DENSITY TESTS SHALL BE PERFORMED AND SUBMITTED AS

11. THE MANHOLE BASE SHALL BE CONSTRUCTED AS SHOWN IN THIS DETAIL WHERE THE DROP IN INVERT EXCEEDS 0.1' BUT IS LESS THAN 2'. FOR DROPS 2' OR GREATER A DROP CONNECTION PER DETAIL WW-03 SHALL BE USED.

12. THE MANHOLE SHALL BE CONSTRUCTED AS SHOWN IN THIS DETAIL WHERE THE DROP IN INVERT EXCEEDS 0.1" BUT LESS THAN 2'. FOR DROPS 2' OR GREATER A DROP CONNECTION PER DETAIL WW-03 SHALL BE USED.

DETAIL: WW-02 MINIMUM CONSTRUCTION STANDARDS FOR STANDARD PRECAST MANHOLE CITY OF PORT ST. LUCIE DATE: 2019 SCALE: N.T.S. PORT ST. LUCIE, FL 34983 PHONE (772) 873-6400 FAX (772) 873-6433 SHEET: 2 OF 2



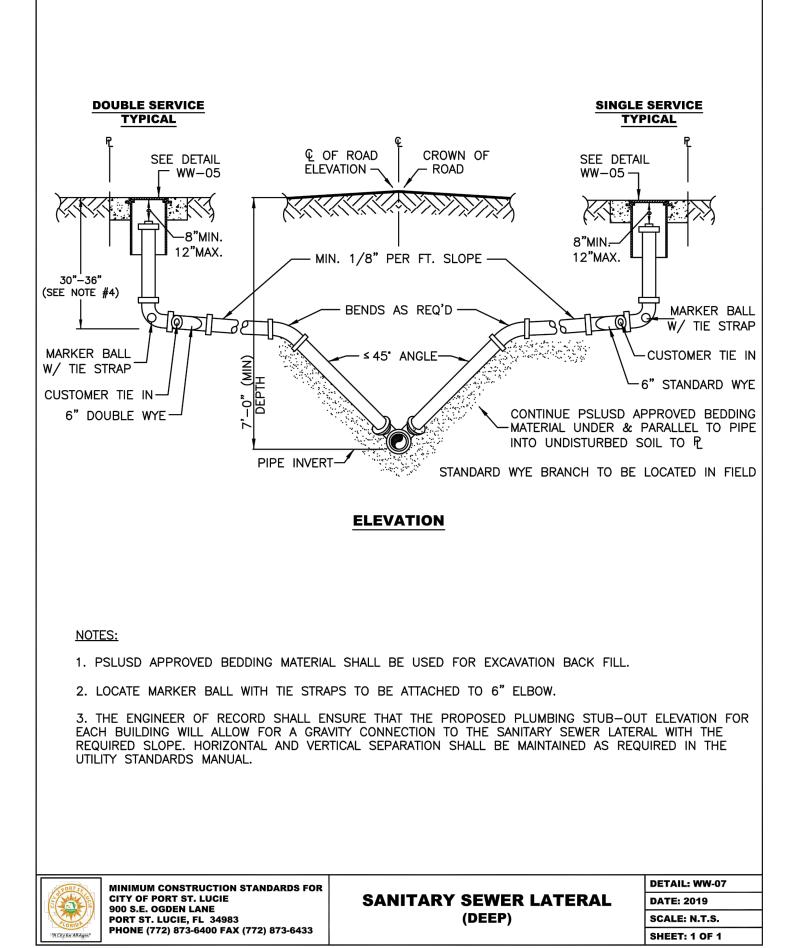


1. SANITARY SEWER LATERALS SHALL BE 6" IN DIAMETER.

2. THE ENGINEER OF RECORD SHALL ENSURE THAT THE PROPOSED PLUMBING STUB-OUT ELEVATION FOR EACH BUILDING WILL ALLOW FOR A GRAVITY CONNECTION TO THE SANITARY SEWER LATERAL WITH THE REQUIRED SLOPE. HORIZONTAL AND VERTICAL SEPARATION SHALL BE MAINTAINED AS REQUIRED IN THE UTILITY STANDARDS MANUAL.

CITY OF PORT ST. LUCIE 900 S.E. OGDEN LANE PORT ST. LUCIE, FL 34983 PHONE (772) 873-6400 FAX (772) 873-6433 **SANITARY SEWER LATERAL** (SHALLOW)

DETAIL: WW-06 DATE: 2019 SCALE: N.T.S. SHEET: 1 OF 1

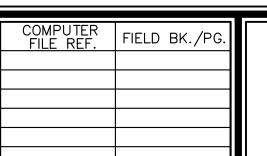


PSLUSD PROJECT NO. 11-824-13 CITY OF PSL PROJECT NO. P21-140 STEFAN K. MATTHES, P.E. FL. REG. NO. 38723

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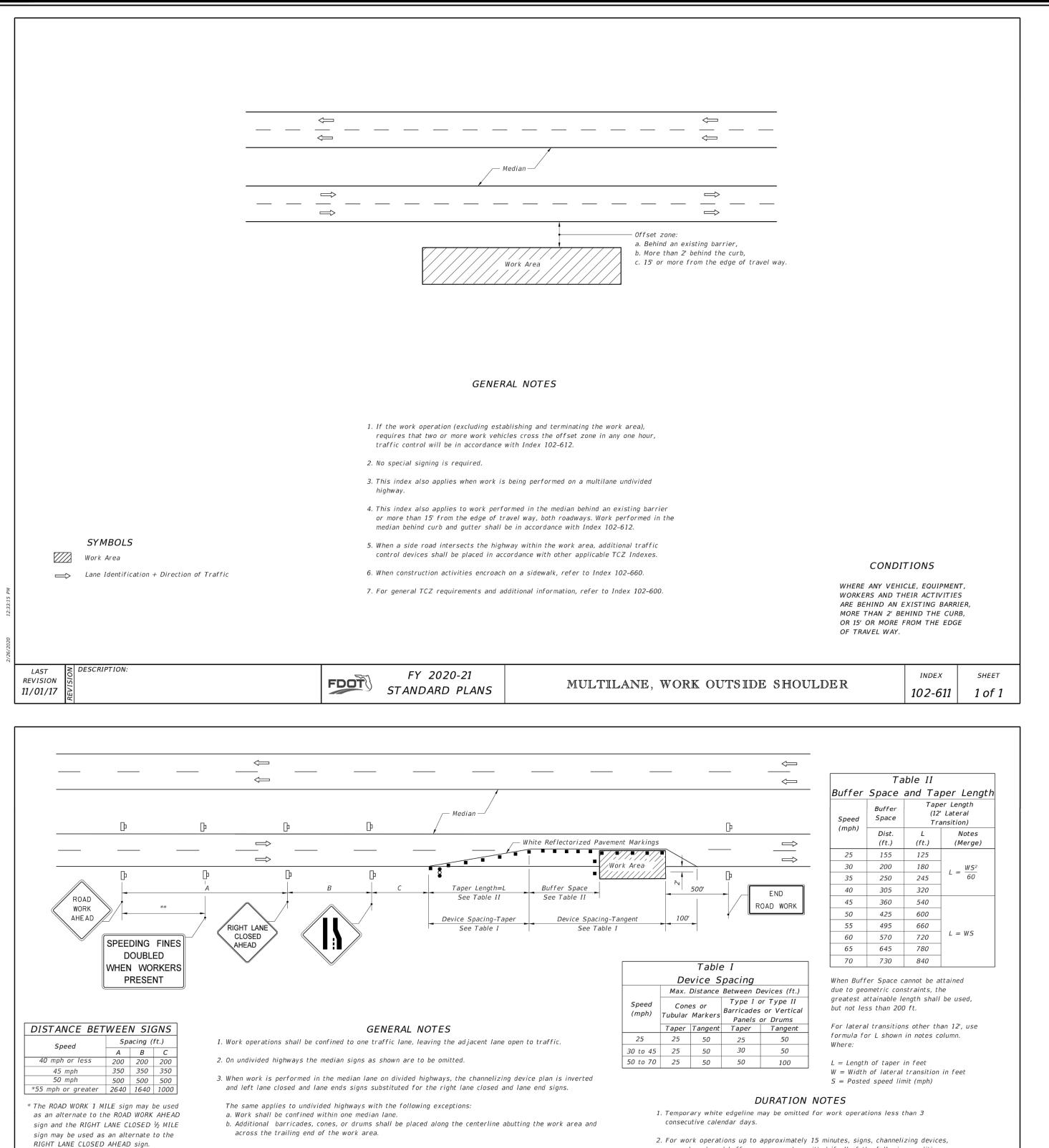
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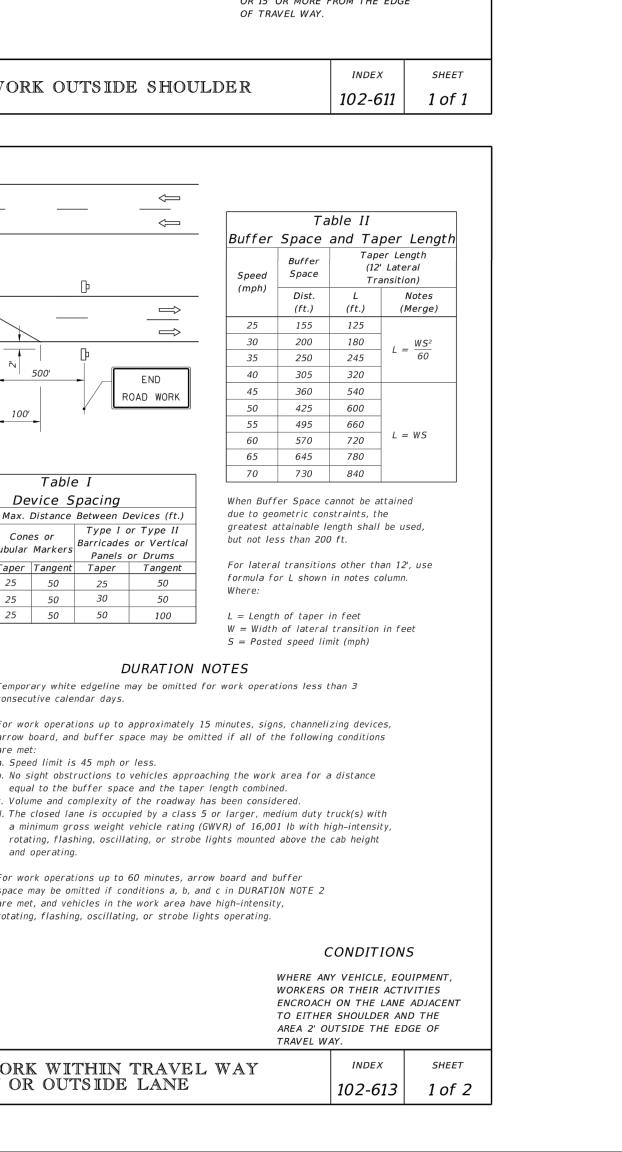
VERANDA FALLS ROADWAY PLAN

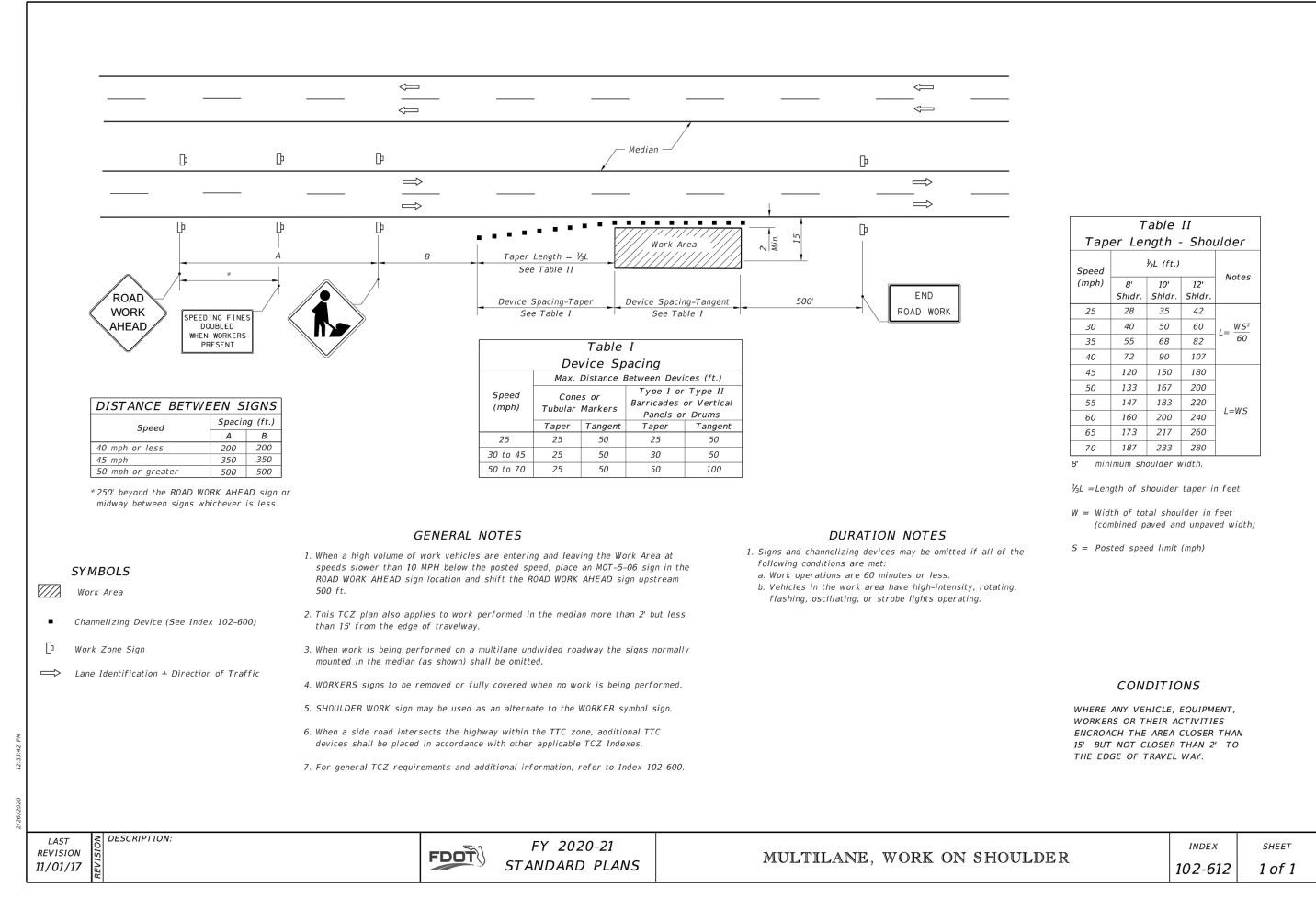
UTILITY DETAILS

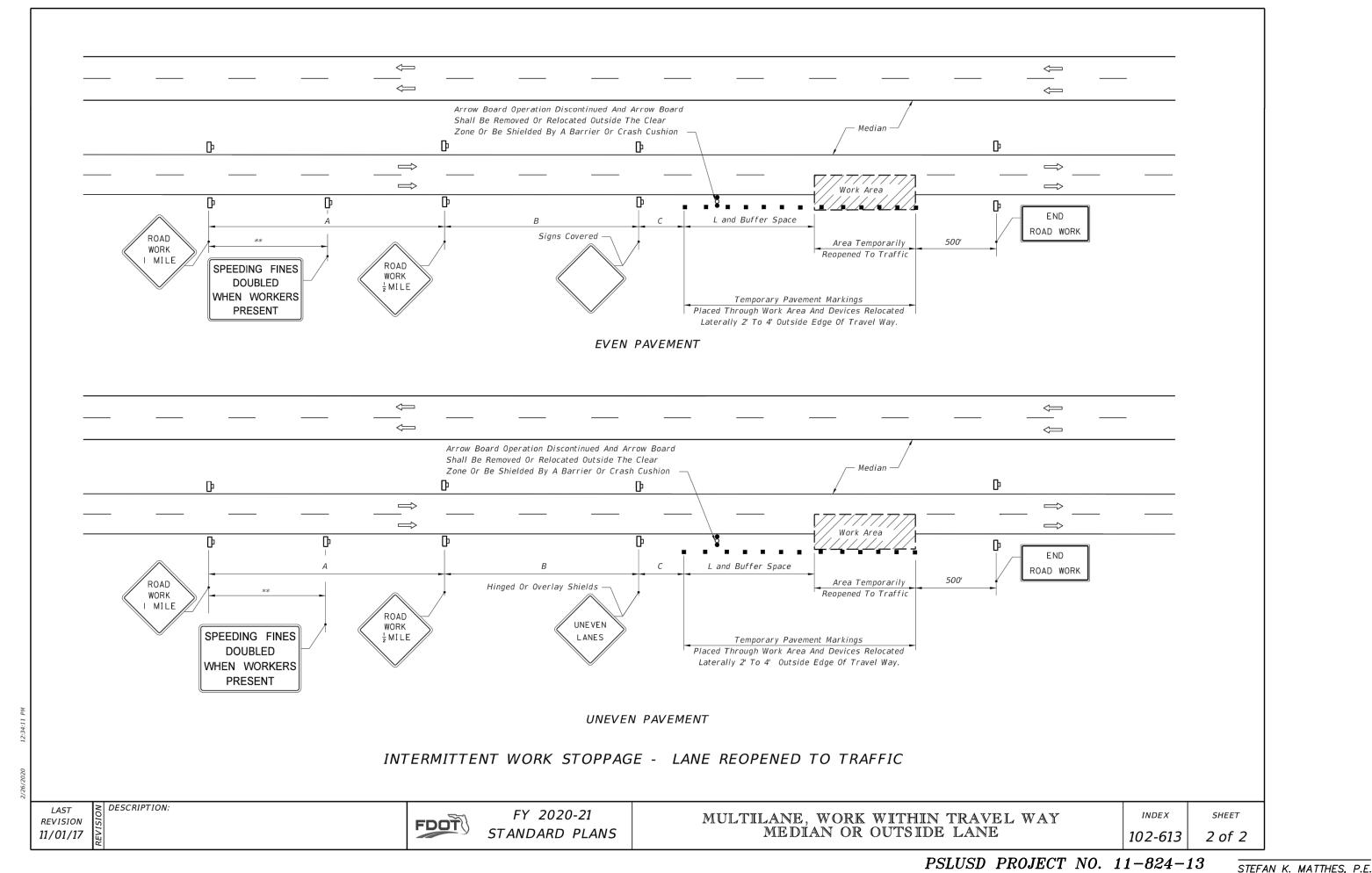
DATE: 10/15/2021 HORIZ. SCALE: N/A VERT. SCALE: N/A JOB No. 20-237

SHEET 11 of 12









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REVISION

11/01/17

SYMBOLS

Work Area

₩ork Zone Sign

●○● Advance Warning Arrow Board

** 500' beyond the ROAD WORK AHEAD sign or

■ Channelizing Device (See Index 102-600)

midway between signs whichever is less.

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

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.

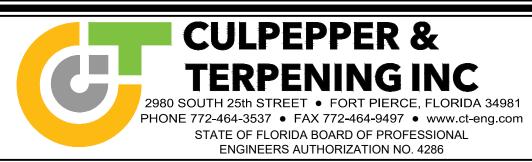
the inverted plan is applied to the approach of both roadways.

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

accordance with other applicable TCZ Indexes.

highway. See Index 102-614.

| FIELD BK./P



INDEX

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

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

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

a. Speed limit is 45 mph or less.

MULTILANE, WORK WITHIN TRAVEL WAY

MEDÍAN OR OUTSIDE LANE

	DATE	BY		DATE	BY	- R E V I S I O N S -
			DESIGNED	•	•	
			CALCS.	•	•	
1	06/16/21	DRP	DRAWN	•	•	
∐∥դր			DETAILED	•	•	
IJ ⋓			CHECKED	•	•	
			APPROVED			

VERANDA FALLS ROADWAY PLAN

CITY OF PSL PROJECT NO. P21-140

TEMPORARY TRAFFIC CONTROL DETAILS

DATE: 10/15/2021 HORIZ. SCALE: N/A VERT. SCALE: N/A JOB No. 20 - 237

FL. REG. NO. 38723

SHEET 12 of 12