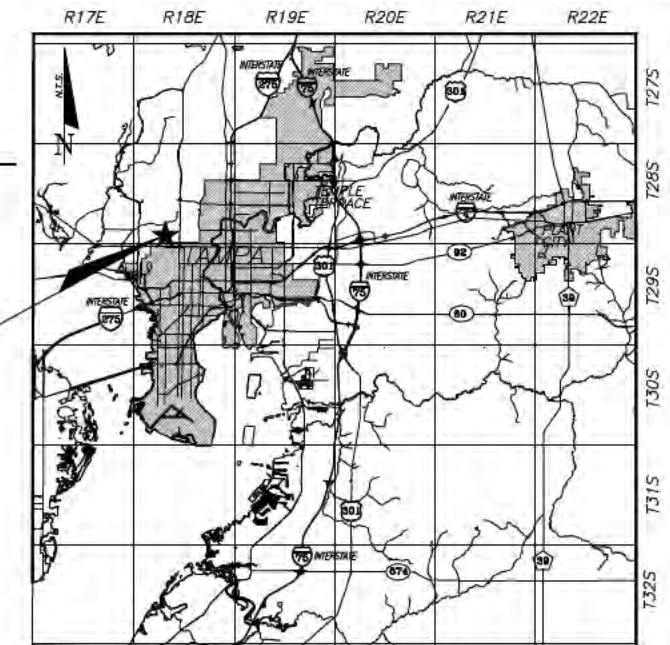


**HILLSBOROUGH COUNTY**  
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION



PLANS FOR PROPOSED  
WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS  
C.I.P. 46132.024



FINAL SUBMITTAL  
INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	GENERAL SYMBOLS
4	TYPICAL SECTION
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6	SUMMARY OF DRAINAGE STRUCTURES
7	OVERALL KEY SHEET
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21-24	DETAIL SHEETS

SECTION 32, TOWNSHIP 28 S., RANGE 18 E.



THE BOARD OF COUNTY COMMISSIONERS  
**LESLEY "LES" MILLER, JR.** CHAIRMAN  
**VICTOR D. CRIST** VICE-CHAIRMAN  
**SANDRA L. MURMAN** COMMISSIONER  
**AL HIGGINBOTHAM** COMMISSIONER  
**STACY WHITE** CHAPLAIN  
**KEVIN BECKNER** COMMISSIONER  
**KEN HAGAN** COMMISSIONER

PLANS PREPARED BY:  
**URS** URS Corporation Southern  
 7650 West Courtney  
 Campbell Causeway  
 Tampa, FL 33607-1462  
 813-286-1711  
 C.A. No. 00000002

ENGINEER OF RECORD:  
 RUSSELL WARREN PRATT, JR., P.E.  
 STATE OF FLORIDA PROFESSIONAL ENGINEER  
 FL. P.E. LICENSE NUMBER 54580

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY RUSSELL WARREN PRATT, JR., P.E. ON OCTOBER 28, 2016 USING A SHA-1 AUTHENTICATION CODE.  
 PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA-1 AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

PROJECT LENGTH IS BASED ON  $\hat{C}$  OF CONSTRUCTION

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	1107	0.21
BRIDGES	N/A	N/A
NET LENGTH OF PROJECT	1107	0.21
EXCEPTIONS (LAMBRIGHT DITCH)	1655	0.31
GROSS LENGTH OF PROJECT	2762	0.52

KEY SHEET REVISIONS	
DATE	DESCRIPTION

PROJECT LENGTH BASED ON C/L CONSTRUCTION.  
 C.I.P. PROJECT COORDINATOR/MANAGER: ROBERT WISEMEN, P.E.

GOVERNING STANDARDS AND SPECIFICATIONS:  
 Florida Department of Transportation, 2016 Design Standards and revised Index Drawings as appended herein, and 2016 Standard Specifications for Road and Bridge Construction, as amended by Contract Documents  
 For Design Standards click on the "Design Standards" link at the following web site:  
<http://www.dot.state.fl.us/rddesign/>  
 For the Standard Specifications for Road and Bridge Construction click on the "Specifications" link at the following web site:  
<http://www.dot.state.fl.us/specificationsoffice/>  
 HILLSBOROUGH COUNTY SPECIFICATIONS (2009).

PLOTTED October 28, 2016 3:11 PM PLOTTED BY: SHERMAN, LES S:\PROJECTS\1400\WATER PROJECTS\HILLS CO GEC 2012\LAMBRIGHT\CADD\1 COVER SHEET.DWG

**GENERAL NOTES:**

1. LOCATION, ELEVATION, AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AT TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AFFECTING HIS WORK AND SHALL COMPLY WITH ALL STATE, COUNTY, AND LOCAL ORDINANCES AND OBTAIN ANY NECESSARY WORK PERMITS THAT MAY BE REQUIRED PRIOR TO CONSTRUCTION.
3. PRIVATE UTILITIES TO BE ADJUSTED BY UTILITY OWNERS. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COORDINATION.
4. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT THE RELOCATION OF THE EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT SUNSHINE STATE ONE UTILITIES NOTIFICATION CENTER AT 1-800-432-4770.
5. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE H.C. LAND DEVELOPMENT CODE REGARDING TREE REMOVAL, SITE CLEARING AND LAND ALTERATION REGULATIONS.
6. POSSIBLE TREE TRIMMING AND REMOVAL MAY BE REQUIRED TO PROVIDE ADEQUATE SIGHT DISTANCE, OR AS ORDERED BY THE ENGINEER, ALL EXPENSES INCURRED FOR THIS WORK WILL BE INCLUDED IN THE PRICE BID FOR CLEARING AND GRUBBING.
7. MAINTENANCE OF TRAFFIC (MOT) WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN TRAFFIC UTILIZING FOOT STANDARD SPECIFICATION SECTION 102 AND FDOT ROADWAY AND TRAFFIC DESIGN STANDARD, INDEX SERIES 600 THE CONTRACTOR SHALL SUBMIT M.O.T. PLANS TO THE COUNTY'S PROJECT MANAGER FOR REVIEW AND APPROVAL.
8. ALL STREET SIGNS AND STREET MARKERS ARE TO BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER.
9. WHERE CONNECTION TO EXISTING DRIVEWAY IS NOT INDICATED ON THE PLANS, PROPER CONNECTION IS TO BE MADE AT THE DIRECTION OF THE COUNTY PROJECT MANAGER. DRIVEWAY LOCATIONS AND WIDTHS MAY BE FIELD ADJUSTED BY THE PROJECT MANAGER UPON THE REQUEST OF THE PROPERTY OWNER IN ACCORDANCE WITH APPLICABLE STANDARDS. ACCESS TO ALL DRIVEWAYS LYING WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES.
10. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS, ANY AND ALL MATERIAL TO BE REMOVED SUCH AS CULVERT PIPE, GUARDRAIL, ROAD SIGNS, ETC. THAT THE ENGINEER DEEMS SALVAGEABLE SHALL BE NEATLY STOCKPILED IN AN AREA DESIGNATED BY THE ENGINEER, FOR FUTURE REMOVAL BY COUNTY FORCES.
11. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE SUITABLE BORROW MATERIAL, APPROVED BY THE ENGINEER, AND INSTALL SAID MATERIAL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
12. THE COUNTY SHALL PROVIDE BENCH MARK AND COORDINATE CONTROL POINTS FOR THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY POINTS FOR LINE AND GRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE STAKEOUT OF THE PROJECT, ELECTR./CABLE/TEL. LINE, GRADE, SLOPE STAKING, MAINTENANCE OF STAKING, AND ANY RESTAKING THAT MAY BE REQUIRED TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR APPLICABLE ITEMS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK.
13. OVERALL CLEAN UP SHALL BE ACCOMPLISHED BY THE CONTRACTOR IN ACCORDANCE WITH COUNTY STANDARDS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE LINE ITEMS.
14. THE CONTRACTOR SHALL ENDEAVOR TO PROTECT PRIVATE PROPERTY. ANY DAMAGE CAUSED BY THE CONTRACTOR IN THE PERFORMANCE OF HIS WORK SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
15. ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE COUNTY PROJECT ENGINEER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
16. ANY U.S.C. AND G.S. MONUMENT WITHIN LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHOULD NOTIFY:
 

GEODETIC INFORMATION CENTER  
 ATTN.: MARK MAINTENANCE CENTER  
 ATTN.: N/CG-162  
 6001 EXECUTIVE BLVD. ROCKVILLE,  
 MARYLAND 20852  
 (301) 443-8319
17. THE CONTRACTOR(S) PERFORMING TRENCH EXCAVATION ON THIS CONTRACT, SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) TRENCH EXCAVATION SAFETY STANDARDS, 29 C.F.R., 1926.650, SUBPART P, INCLUDING ALL SUBSEQUENT REVISIONS OR UPDATES TO THE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DLES).
18. UNLESS OTHERWISE SPECIFIED IN THE PLANS, EXISTING SOD, DISTURBED BY CONSTRUCTION, SHALL BE REPLACED IN KIND (OR BETTER, AS APPROVED BY THE COUNTY'S PROJECT MANAGER.)
19. MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2015 EDITION USING ENGLISH SYSTEM.
20. ELEVATIONS SHOWN ON THE PLANS REFERENCE:
  - NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D. - 1929)
  - X** NORTH AMERICAN DATUM OF 1988 (N.A.D. - 1988)

THE SITE SPECIFIC CONVERSION FACTOR BETWEEN THE NGVD 1929 VERTICAL DATUM AND THE NAVD 1988 VERTICAL DATUM IS 0.86- FEET. THE ELEVATIONS REFERENCED TO THE NAVD 1988 VERTICAL DATUM AS SHOWN IN THESE PLANS ARE 0.86- FEET LOWER THAN THE ELEVATIONS REFERENCED TO THE NGVD 1929 VERTICAL DATUM AS SHOWN IN THE CALCULATIONS DOCUMENTED IN THE DRAINAGE REPORT FOR THIS PROJECT.

HORIZONTAL DATUM IS: WEST FLORIDA NAD 83 (2007)
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIAL AND THE PROPER DISPOSAL OF THE SAME.
22. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BARRIERS AS DICTATED BY ACTUAL SITE CONDITIONS AND AS DIRECTED BY THE COUNTY'S ENGINEER. THEIR LOCATIONS WILL BE ADJUSTED TO REFLECT PROJECT PHASING REQUIREMENTS AND THEY WILL BE REMOVED WHEN NO LONGER REQUIRED. THE MAINTENANCE AND SUBSEQUENT REMOVAL OF EROSION CONTROL DEVICES ARE TO BE INCLUDED IN THEIR INDIVIDUAL UNIT BID PRICE. IF AREA DISTURBED IS 1 ACRE OR GREATER, CONTRACTOR SHALL PREPARE AND SUBMIT A NOTICE OF INTENT FOR COVERAGE UNDER THE FDEP

- NPDES CONSTRUCTION GENERIC PERMIT AND COMPLY WITH ALL PROVISIONS OF THAT PERMIT INCLUDING PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PER FDEP GUIDANCE.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE EXISTING DRAINAGE SYSTEM WITHIN THE LIMITS OF THE PROJECT AREA, FOR THE DURATION OF THE PROJECT. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE WORK INVOLVED.
24. THE CONTRACTOR IS TO MARK IN WHITE THE AREAS OF EXCAVATION PRIOR TO CALL TO "SUNSHINE ONE CALL".
25. THE CONTRACTOR IS TO CALL THE WATER DEPARTMENT'S FACILITIES MAINTENANCE REPRESENTATIVE ROY BEAM, PHONE # (813) 671-7604, NO LESS THAN 48 HOURS PRIOR TO THE START OF CONSTRUCTION FOR COORDINATION AND PREPAREDNESS IN THE EVENT FACILITIES ARE DAMAGED BY THE CONSTRUCTION.
26. A FACILITIES MAINTENANCE REPRESENTATIVE FROM HILLSBOROUGH COUNTY, WATER DEPARTMENT MUST BE PRESENT WHEN CONSTRUCTION IS BEING DONE TO, OR IN THE IMMEDIATE VICINITY, OF THEIR FACILITIES.
27. THE CONTRACTOR IS TO "PROTECT IN PLACE" THE FACILITIES THAT ARE NOT TO BE RELOCATED AND/OR REMOVED, BUT ARE TO REMAIN IN PLACE.
28. THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL COUNTY FACILITIES PRIOR TO CONSTRUCTION. ALL CONFLICTS MUST BE IDENTIFIED AND RESOLVED AT THAT TIME WITH THE REPRESENTATIVES OF THE COUNTY AND THE OTHER UTILITIES ARE PRESENT.
29. THE CONTRACTOR IS TO ADJUST OR RELOCATE FACILITIES IN ACCORDANCE WITH THE DIRECTION OF THE COUNTY'S REPRESENTATIVE AND THE OTHER UTILITIES REPRESENTATIVE(S).
30. THE CONTRACTOR SHALL PROVIDE DETAILED RECORD DRAWINGS RELATED TO THE WATER DEPARTMENT'S RELOCATED FACILITIES, AS WELL AS OF ALL DRAINAGE RELATED ITEMS, ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE LINE ITEMS.

**CONSTRUCTION NOTES:**

THE FINISHED GRADE AND SLOPE OF THE INLET TOPS ARE TO CONFORM TO THE FINISHED CROSS SLOPE AND GRADE OF THE PROPOSED PAVEMENT, SIDEWALK AND/OR BORDER.

1. WHEN INLETS ARE TO BE CONSTRUCTED ON A CURVE, REFER TO THE PLANS TO DETERMINE THE RADIUS AND, WHERE NECESSARY, MODIFY THE INLET DETAILS ACCORDINGLY.
2. TRAFFIC CONTROL SIGNS (STOP, YIELD, ETC.) MAY ONLY BE REMOVED DURING THE CONSTRUCTION PERIOD OF THE DAY, AND, IF A STOP OR YIELD SIGN IS TEMPORARILY MOVED, A FLAG MAN SHALL BE PLACED AT THE SAME LOCATION TO DIRECT TRAFFIC UNTIL SUCH TIME AS THE TRAFFIC CONTROL SIGN IS REPLACED AT THE END OF THE WORK DAY.
3. MAIL BOXES MAY BE TEMPORARILY RELOCATED, BUT MUST BE RELOCATED SO THAT (1) IT IS CLEAR WHICH RESIDENCE THE MAIL BOX IS FOR AND (2) SO THAT THE POST OFFICE CAN EASILY REACH THE MAIL BOXES FOR DELIVERY OF MAIL.
5. CONTRACTOR TO SUBMIT SIGNED & SEALED SHOP DRAWINGS AND STRUCTURAL CALCULATIONS FOR DESIGN OF BOX CULVERT. THE BOX CULVERT DESIGN CALCULATIONS MUST BE SIGNED & SEALED BY A FLORIDA CERTIFIED PROFESSIONAL ENGINEER. BOX CULVERT SIZE AND INVERT ELEVATIONS HAVE BEEN EVALUATED HYDRAULICALLY AND CANNOT BE MODIFIED.
6. BOX CULVERT AND DRAINAGE STRUCTURES, INCLUDING GRATES, MUST BE DESIGNED AS TRAFFIC BEARING STRUCTURES.
7. INLET STRUCTURES S-21, S-22, S-24 AND S-25 SHALL HAVE 7" HIGH SLOTS IN THE UPSTREAM SIDE PER FDOT INDEX 232. STRUCTURE S-8, S-10 AND S-23 SHALL HAVE A 7" SLOT ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES.
8. OBJECT MARKERS TYPE OM2-1V, AS DESCRIBED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION, REV. 2, PAGE 134 AND 135, MOUNTED ON STA-RITE TYPE PLASTIC POSTS, SHALL BE INSTALLED ON INLETS B. 10, 21, 22, 23, 24, AND 25 AS SHOWN IN THE PLANS.
9. SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED DURING REPLACEMENT OF THE 10" SANITARY PIPE AT STATION 41+01. CONTRACTOR SHALL COORDINATE WITH COUNTY UTILITIES AND ALL NECESSARY REGULATORY AGENCIES TO ARRANGE BYPASS PUMPING OF SANITARY FLOW AS REQUIRED.
10. THE COSTS OF BYPASS PUMPING FOR THE REPLACEMENT SANITARY PIPE AT STATION 41+01, AND FOR ANY STORM WATER BYPASS PUMPING, SHALL BE INCLUDED IN CLEARING AND GRUBBING.
11. DRAINAGE FLOW IN THE PROJECT SHALL NOT BE INTERRUPTED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH COUNTY STORMWATER MANAGEMENT AND ALL NECESSARY REGULATORY AGENCIES TO ARRANGE BYPASS PUMPING OF STORMWATER AS REQUIRED.
12. ALL PUMPS USED IN BYPASS PUMPING OF ANY KIND SHALL HAVE A SILENCER ADDED AND SHALL MEET ALL REQUIREMENTS OF THE COUNTY'S NOISE CONTROL ORDINANCE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING SURVEY OF THE DITCH AREA SO AS TO DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF INLETS S-8, S-21, S-22, S-23, S-24, S-25 AND S-10.
14. FINAL GRADE OF THE DITCH EMBANKMENT ALONG THE NORTH AND SOUTH PROPERTY LINES OF THE EXISTING DITCH LYING BETWEEN HESPERIDES STREET AND OCCIDENT STREET SHALL MATCH THE EXISTING GRADE ON THE PRIVATE PROPERTY SIDE OF EACH PROPERTY LYING ADJACENT TO THE NORTH AND SOUTH PROPERTY LINES OF THE EXISTING DITCH. PLEASE REFER TO SHEETS 10, 11, 12 AND 13 OF THE PLANS.

RUSSELL WARREN PRATT, JR., P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
FL. P.E. LICENSE NUMBER 54580

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PLOTTED October 28, 2016 3:11 PM PLOTTED BY: SHERMAN, L.S. S:\PROJECTS\14301\WORKSPACE\PROJECTS\HILLS CO. GEC 2016\LAMBRIGHT\CA0013\_GENERAL NOTES.DWG

REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED



**URS Corporation Southern**  
7650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
C.A. No. 00000002

RUSSELL WARREN PRATT, JR., P.E.  
FL. P.E. LICENSE NO. 54580



**HILLSBOROUGH COUNTY**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

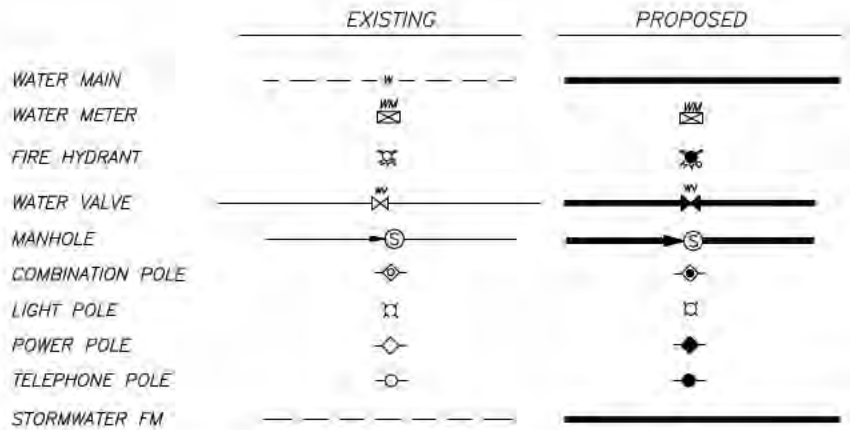
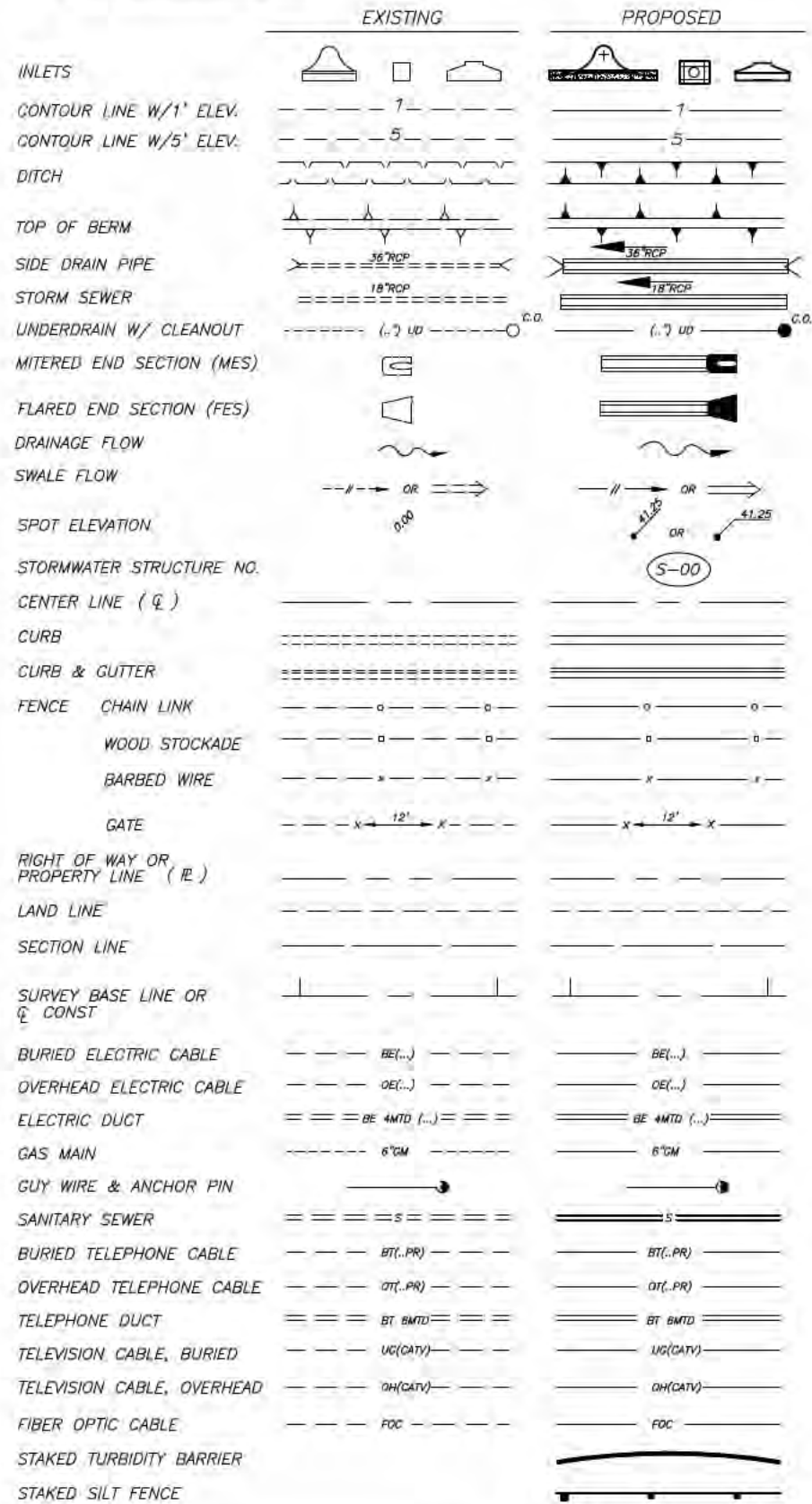
	NAME	DATE
DESIGNED BY:	L. SHERMAN	10/28/16
DRAWN BY:	T. SONNENBERG	10/28/16
CHECKED BY:	R. PRATT	10/28/16
SCALE:	AS SHOWN	
FILE NAME:	2 GENERAL NOTES	

**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**

**GENERAL NOTES**

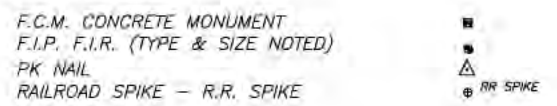
C.I.P. NO.	46132.024
SHEET NO.	2

**GENERAL SYMBOLS:**

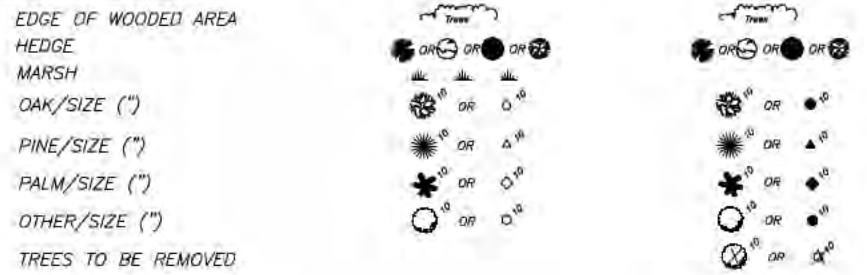


\* ALL SYMBOLS AND ABBREVIATIONS NOT SHOWN SHALL BE REFERRED TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 001 & 002.

**REFERENCE MARKERS**



**VEGETATION SYMBOLS**



**UTILITY COMPANIES**

NOTIFY	UTILITY	CONTACT NAME	TELEPHONE NO.	FAX NO.
	Adelphia Business Solutions	Mr. Jay Malinowski	(813)-202-7010	(813)-223-7630
	AT&T	Mr. William (Bill) Mercer	(813)-628-5140/(800)-241-3624	(813)-628-5134
	Central Florida Pipeline	Mr. Eddie Foster	(813)-248-2148	(813)-247-4214
	City of Plant City (Engineering Dept.)	Mrs. Katherine Burke	(813)-659-4230	(813)-659-4206
	City of Tampa (Sanitary Sewer & Stormwater Mgmt.)	Mr. Jack Farris	(813)-274-8095	(813)-274-8880
		Ms. Barbara Kilgore	(813)-274-8937	(813)-274-8880
	Florida Power/Light	Mr. Noel Reese	1(305)-552-3249	(305)-552-2411
X	City of Tampa (Water Dept.)	Mr. Rory Jones	(813)-231-5291	(813)-274-7435
	City of Temple Terrace (Public Works Dept.)	Mr. Woody Garcia	(813)-989-7170	(813)-989-7066
	C.S.X. Transportation	Mr. Niles Blaize	(813)-664-6226	(813)-664-6220
	Florida Cities Water	Mr. Roland Wakefield	(813) 961-8760	(813)-961-0322
	Florida Gas Transmissions	Mr. Kevin Duke	(727) 726-4403	(727) 669-6704
X	Verizon	Mr. Michael Little	(813)-978-2161/c813-892-9648	(813)-632-3820
		Mr. Lito Rubio-S. Hills.	(813)-984-0774	(813)-985-2917
		Mr. Tom Faulkner-E. McIntosh	(813)-984-0774	(813)-985-2917
	Hillsborough County (Water Dept./Util. Coordinator & Records)	Mr. Jason Parrillo	(813)-272-5977/Ext. 43348	(813)-276-2895
	Hillsborough County (Water Dept.) (Northwest)	Mr. Darrick Young	(813)-554-5010	(813)-554-5066
X	Hillsborough County (Wastewater/Reclaimed) (Northwest)	Mr. Patrick Killgore	(813)-554-5010	(813)-554-5066
	Hillsborough County (Water Dept.) (South/Central)	Mr. Roy Beam	(813)-744-5600	(813)-671-7606
	Hillsborough County (Wastewater/Reclaimed) (South/Central)	Mr. Bobby Levens	(813)-744-5600	(813)-671-7606
	M.C.I. Telecommunications (Relocations/Upgrades)	Mr. Charles Welch	(972) 656-6016	(972) 656-6022
	TECO People's Gas System, Inc.	Mr. Luis Castellanos	(813)-275-3743	(813)-275-3706
	Tampa Bay Pipeline & Tampa Pipeline Transport Company	Mr. Glenn Howell	(800)-623-2431	(813)-628-8266
X	Tampa Electric Company (T&D System) (Joint Use Liaison)	Ms. Heather Vitrana	(813)-275-3433	(813)-228-1333
X	Brighthouse Networks	Mr. Lew Conti	(813)-684-6100	(813)-651-1888/1597
	Utility Inc. of Florida (Eastlake Water Service)	Mr. Patrick Flynn	(813)-205-2056/(800)-272-1919	(407)-869-6961
	Southern States Utilities (Florida Water Services)	Mr. Terry Roney	(813)-621-7462	(813) 621-0714
	Florida Power and Light	Mr. Noel Reese	(305)-552-3249	(305) 552-2411

X = EXISTING FACILITIES LOCATED WITHIN PROJECT VICINITY. NOTIFY INDICATED UTILITIES PRIOR TO CONSTRUCTION.

NOTE: CONTRACTOR SHALL BE REQUIRED TO NOTIFY MR. JASON PARRILLO, UTILITY COORDINATOR, HILLSBOROUGH COUNTY WATER DEPARTMENT, AT (813) 276-5920, PRIOR TO CONSTRUCTION RELATED TO THE RELOCATION OR DISTURBANCE OF EXISTING HILLSBOROUGH COUNTY WATER DEPARTMENT SYSTEMS. NOTIFICATION SHALL NOT BE LESS THAN 2 WORK DAYS PRIOR TO THE EVENT.

RUSSELL WARREN PRATT, JR., P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
FL. P.E. LICENSE NUMBER 54580

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REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED

**URS**  
URS Corporation Southern  
7650 West Courtney  
Campbell Causeway  
Tampa, FL 33607-1462  
C.A. No. 00000002

RUSSELL WARREN PRATT, JR., P.E.  
FL. P.E. LICENSE NO. 54580

**HILLSBOROUGH COUNTY**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

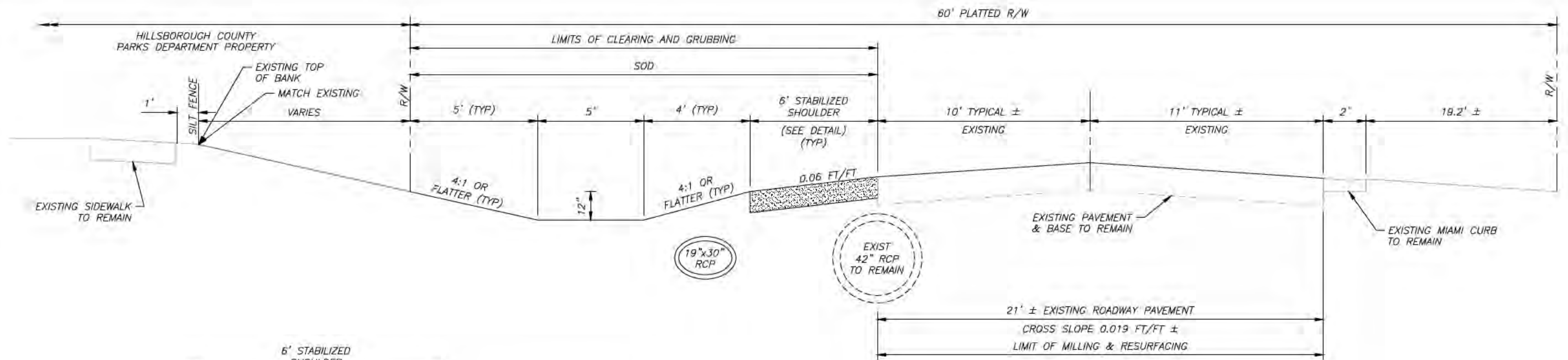
NAME	DATE
DESIGNED BY: L. SHERMAN	10/28/16
DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 3 GENERAL SYMBOLS	

**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**

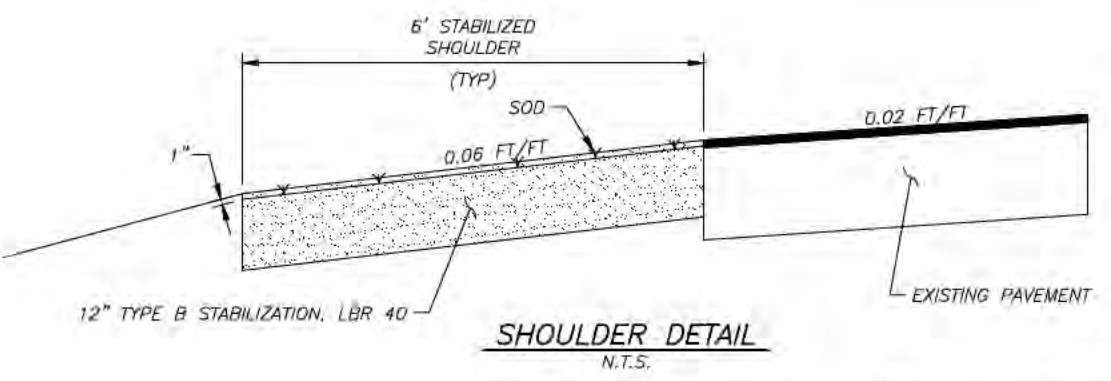
**GENERAL SYMBOLS**

C.I.P. NO.  
46132.024

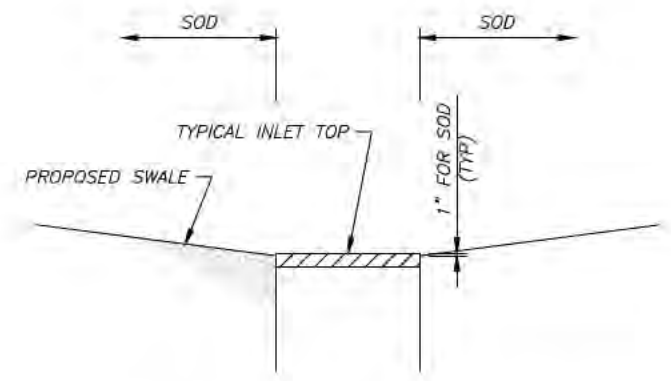
SHEET NO.  
3



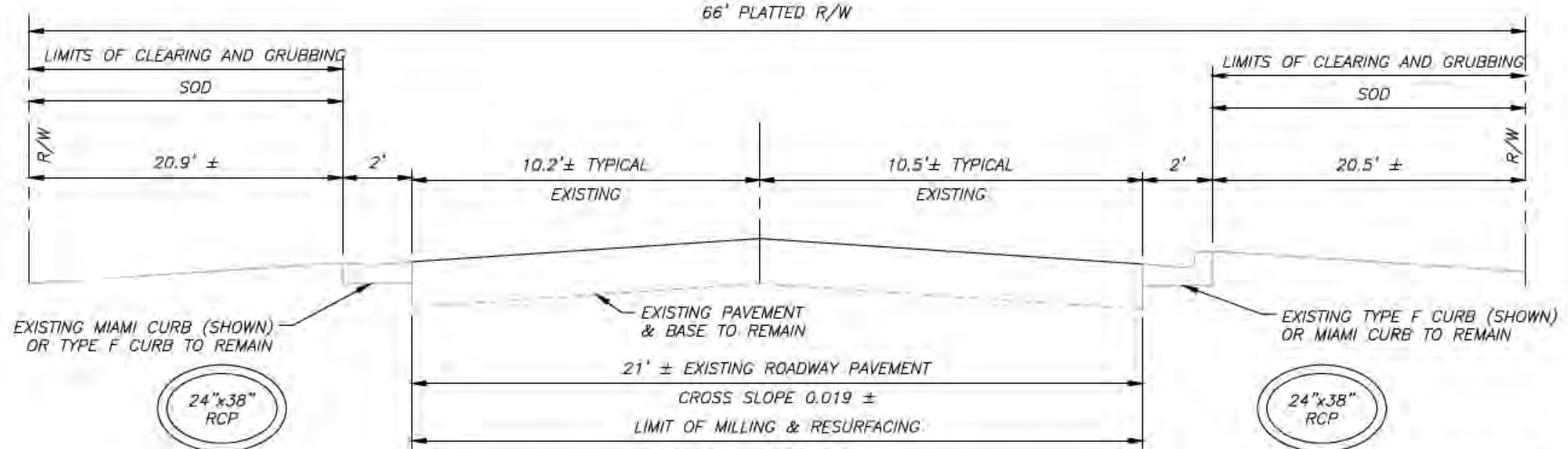
**TYPICAL SECTION**  
**WEST OCCIDENT STREET STA 4+75 TO STA 11+60**  
 N.T.S.  
**MILLING**  
 MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1" (EAST SIDE OF PAVEMENT)  
**RESURFACING**  
 TYPE SP-9.5 STRUCTURAL COURSE (1")  
**DESIGN SPEED**  
 25 MPH



**SHOULDER DETAIL**  
 N.T.S.



**TYPICAL SWALE AT INLETS DETAIL**  
 N.T.S.



**TYPICAL SECTION**  
**WEST HESPERIDES STREET STA 19+60 TO STA 23+40**  
 N.T.S.  
**MILLING**  
 MILL EXISTING ASPHALT PAVEMENT FOR DEPTH 1"  
**RESURFACING**  
 TYPE SP-9.5 STRUCTURAL COURSE (1")  
**DESIGN SPEED**  
 30 MPH

RUSSELL WARREN PRATT, JR., P.E.  
 STATE OF FLORIDA PROFESSIONAL ENGINEER  
 FL. P.E. LICENSE NUMBER 54580

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NO.	DATE	DESCRIPTION	APPROVED

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 URS Corporation Southern  
 7650 West Courtney  
 Campbell Causeway  
 Tampa, FL 33607-1462  
 C.A. No. 00000002

RUSSELL WARREN PRATT, JR., P.E.  
 FL. P.E. LICENSE NO. 54580

**HILLSBOROUGH COUNTY**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

	NAME	DATE
DESIGNED BY:	L. SHERMAN	10/28/16
DRAWN BY:	T. SONNENBERG	10/28/16
CHECKED BY:	R. PRATT	10/28/16
SCALE:	AS SHOWN	
FILE NAME:	4 TYPICAL SECTION	

**WEST LAMBRIGHT STREET**  
**DRAINAGE IMPROVEMENTS**  
**TYPICAL SECTION**

C.I.P. NO.	46132.024
SHEET NO.	4



West Lambright Street Drainage Improvements - CIP 46132.024

SUMMARY OF PAY ITEMS

Table with 5 columns: BID ITEM NUMBER, FDOT BASIS OF ESTIMATES NO., QUANTITY, UNIT, ITEM DESCRIPTION. Contains 47 rows of pay item details.

Table with 5 columns: BID ITEM NUMBER, COT PAY ITEM NUMBER, QUANTITY, UNIT, CITY OF TAMPA WATER DEPARTMENT ITEM DESCRIPTION. Contains 24 rows of pay item details.

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HILLSBOROUGH COUNTY  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

Table with 2 columns: NAME, DATE. Rows for DESIGNED BY, DRAWN BY, CHECKED BY, SCALE, FILE NAME.

WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS

SUMMARY OF PAY ITEMS

C.I.P. NO.  
46132.024  
SHEET NO.  
5

SUMMARY OF DRAINAGE STRUCTURES

QTY	STR NO.	STATION	OFFSET	DESCRIPTION	B R L S	SIZE (INCHES)	FLOW FROM	FLOW TO	STORM DRAIN OPTIONAL TYPE								MITERED END SECTION	HEAD WALL	INTER LOCKING PAV BLKS	RUBBLE R/P RAP	REMARKS					
									ELLIPTICAL SHAPE PIPE				ROUND PIPE	CURB INLETS								DITCH BOT INLETS				
									14X23	19X30	24X38	29X45		4'X8' BOX CULV	P-4	J-1						J-2	J-7	C	D	E
<b>OCCIDENT STREET</b>																										
P	S-1	4+75	20.0' LT	TYPE C DBI (9'X5') J-BOT	1	19X30	EXIST. SWALE	EXIST. MH	3									1								
F	S-2			DELETED																						
P	S-3	7+90	17.6 LT	DELETED																						
F	S-4	7+90	23.6' LT	TYPE C DBI (9'X5') J-BOT	1	18	SWALE, S-5	S-3	315		3							1								
P	S-5	11+51.7	23' LT	10' X 6' J-7 MH	1	19X30	S-6, S-7	S-3	362									1								
F	S-6	11+70	23' LT	TYPE D DITCH BOT INLET	1	19X30	EXIST. SWALE	S-5	15											1						
<b>LAMBRIGHT DITCH</b>																										
P	S-7	32+60	0.4' LT	10' X 12' J-7 MH	1	29X45	S-8	S-5												1						
F	S-8	33+00	0.4' LT	TYPE D DBI (5'X15') J-BOT	2	24X38	S-21	S-7													75					
P	S-9			DELETED																						
F	S-10	48+17.5	0'	TYPE D DBI (5'X15') J-BOT	2	24X38	S-11	S-26													35					
P	S-21	33+75	0.4' LT	TYPE C DITCH BOT INLET	1	4'X12'	S-22	S-8													75					
F	S-22	36+99	0.3' LT	TYPE C DITCH BOT INLET	1	4'X12'	S-23	S-21													324					
P	S-23	41+01	0.2' LT	TYPE J CONFL STRUC (8'X15')	1	8'X12'	S-27	S-22													402					
F	S-24	44+18	0.1' LT	TYPE C DITCH BOT INLET	1	4'X12'	S-25	S-27													317					
P	S-25	47+42	0.1' LT	TYPE C DITCH BOT INLET	1	4'X12'	S-26	S-24													324					
F	S-26			DELETED																						
P	S-27			DELETED																						
F	<b>HESPERIDES STREET</b>																									
P	S-11	48+34	0' LT	TYPE P-4 CURB INLET	2	24X38	S-12, S-14, S-15	S-10													31					
F	S-12	48+66	0' LT	TYPE P-4 CURB INLET	1	24X38	S-18, S-19	S-11																		
P	S-13	19+77.7	21' LT	TYPE P-4 CURB INLET	1	24X38	STREET	S-14													45					
F	S-14	20+22.7	20.7' LT	TYPE P-4 CURB INLET	1	24X38	S-13	S-12													127					
P	S-15	22+78.3	22.6' LT	TYPE P-4 CURB INLET	1	24X38	S-16	S-11													128					
F	S-16	23+22	21.5' LT	TYPE P-4 CURB INLET	1	24X38	STREET	S-15													44					
P	S-17	19+78.8	21.8' RT	TYPE P-4 CURB INLET	1	24X38	STREET	S-18													41					
F	S-18	20+20	24.2' RT	TYPE P-4 CURB INLET	1	24X38	S-17	S-12													130					
P	S-19	22+78.1	22.4' RT	TYPE P-4 CURB INLET	1	24X38	S-20	S-12													128					
F	S-20	23+22.6	22.1' RT	TYPE P-4 CURB INLET	1	24X38	STREET	S-19													44					
TOTAL									695	798	5	1552	3	10												

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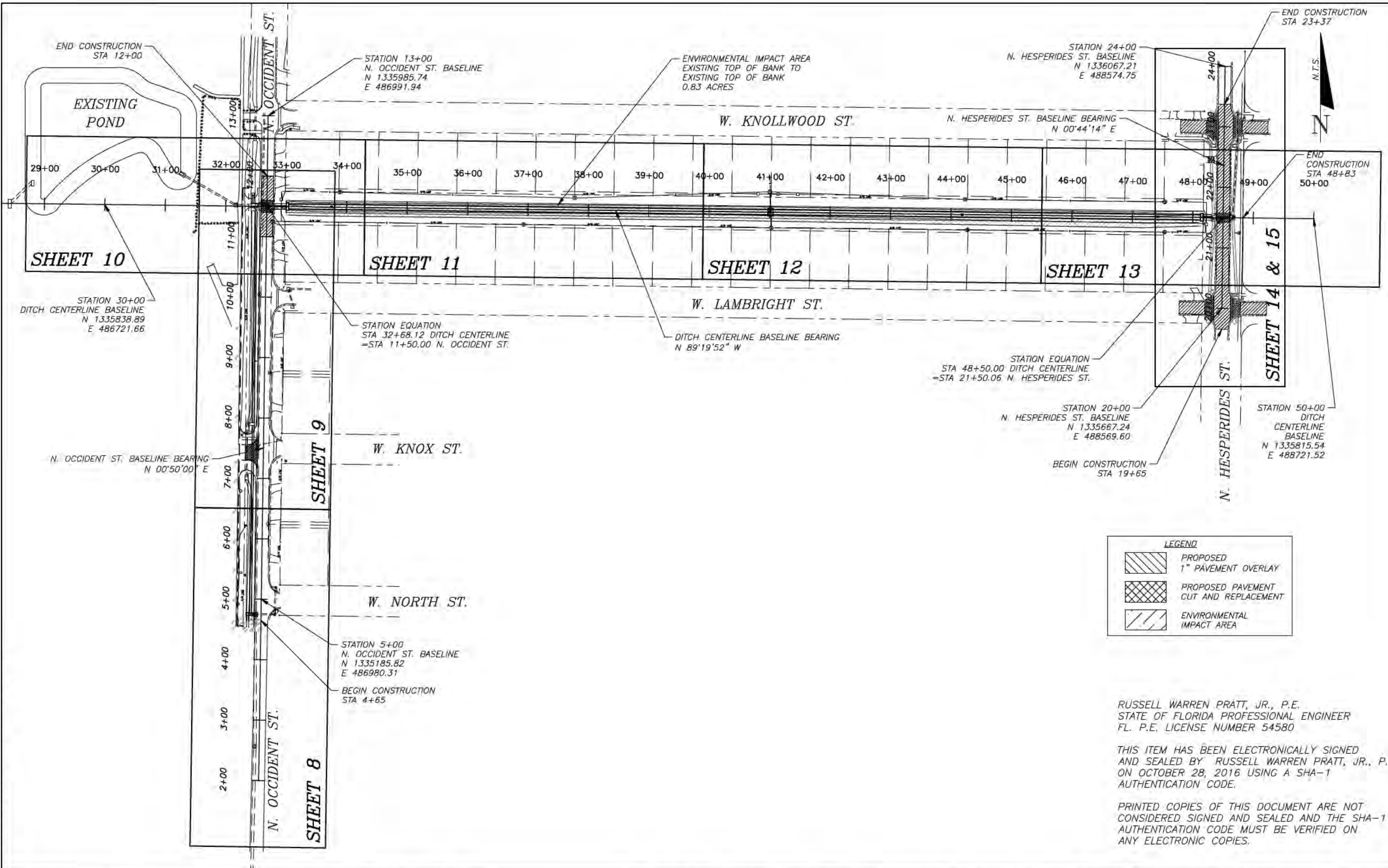
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PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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CHECKED BY:	R. PRATT	10/28/16
SCALE:	AS SHOWN	
FILE NAME:	6 SUMMARY OF DRAINAGE STRUCTURES	

<b>WEST LAMBRIGHT STREET DRAINAGE IMPROVEMENTS</b>	C.I.P. NO. 46132.024
<b>SUMMARY OF DRAINAGE STRUCTURES</b>	SHEET NO. 6

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**LEGEND**

	PROPOSED 1" PAVEMENT OVERLAY
	PROPOSED PAVEMENT CUT AND REPLACEMENT
	ENVIRONMENTAL IMPACT AREA

RUSSELL WARREN PRATT, JR., P.E.  
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FILE NAME:	7 OVERALL KEY SHEET	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
**OVERALL KEY SHEET**

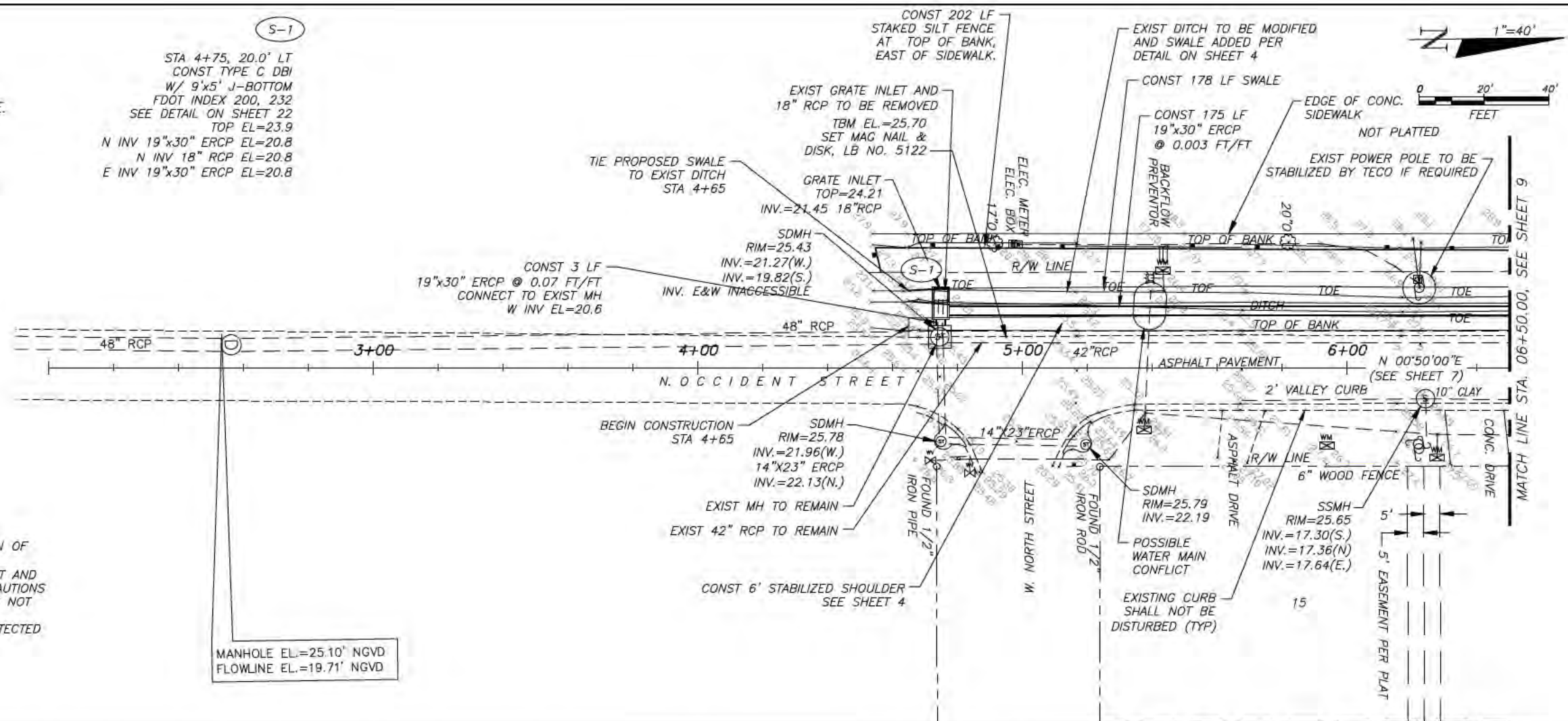
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**46132.024**  
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(S-1)  
 STA 4+75, 20.0' LT  
 CONST TYPE C DBI  
 W/ 9'x5' J-BOTTOM  
 FDOT INDEX 200, 232  
 SEE DETAIL ON SHEET 22  
 TOP EL=23.9  
 N INV 19"x30" ERCP EL=20.8  
 N INV 18" RCP EL=20.8  
 E INV 19"x30" ERCP EL=20.8

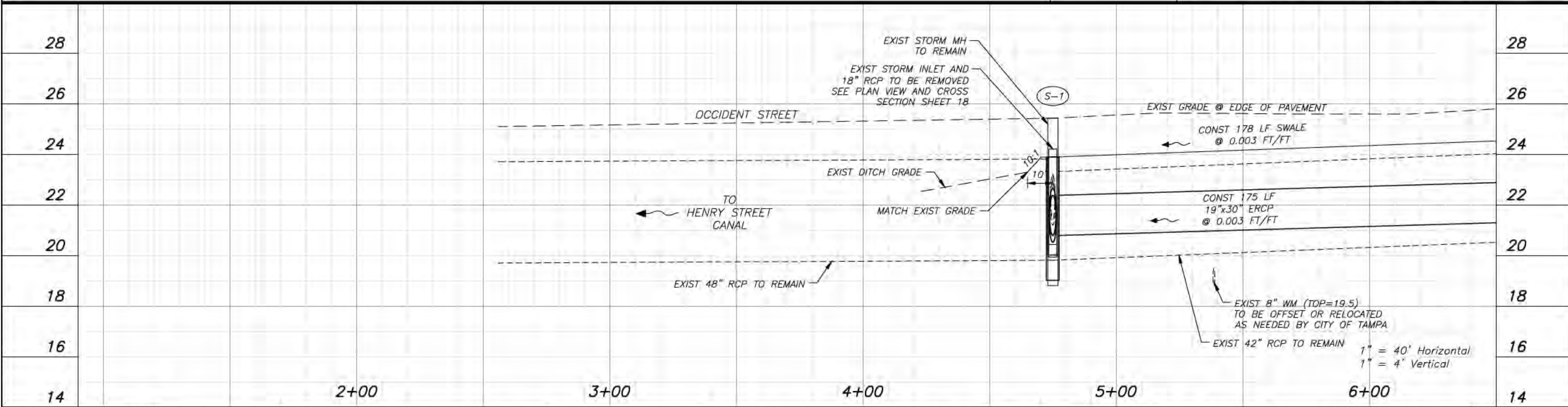


**NOTES**

- CONTRACTOR SHALL CAREFULLY NOTE THE LOCATION OF THE EXISTING 10" VCP SANITARY SEWER LINE AND MANHOLES ON THE EAST SIDE OF OCCIDENT STREET AND SHALL TAKE ALL NECESSARY MEASURES AND PRECAUTIONS TO ENSURE THAT THE EXISTING SANITARY SEWER IS NOT DISTURBED IN ANY WAY DURING CONSTRUCTION.
- EXISTING WEST EDGE OF PAVEMENT SHALL BE PROTECTED AGAINST DAMAGE EXCEPT AT STATION 11+50.

MANHOLE EL.=25.10' NGVD  
 FLOWLINE EL.=19.71' NGVD

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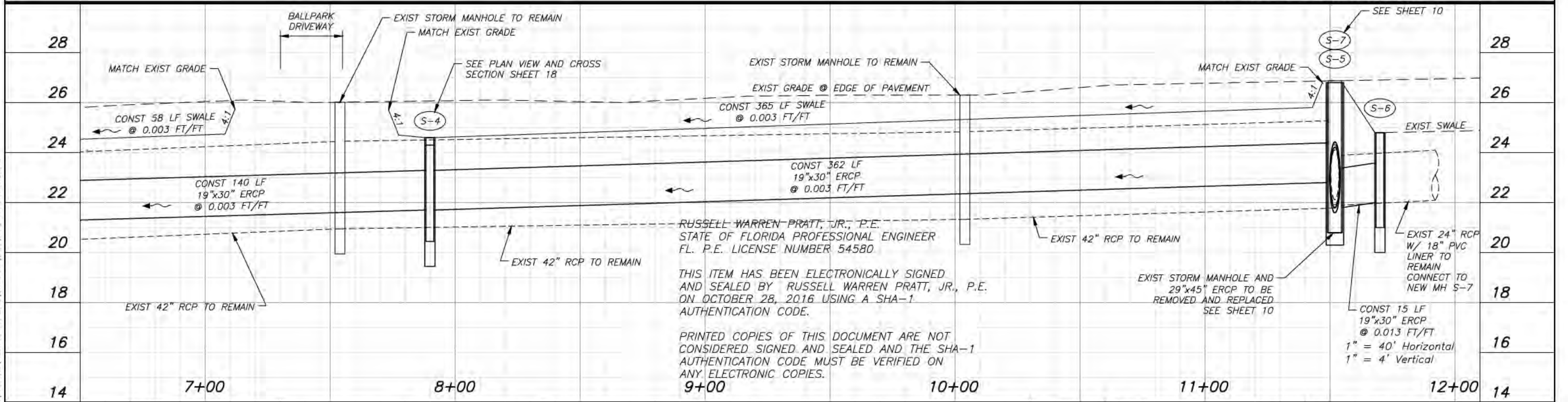
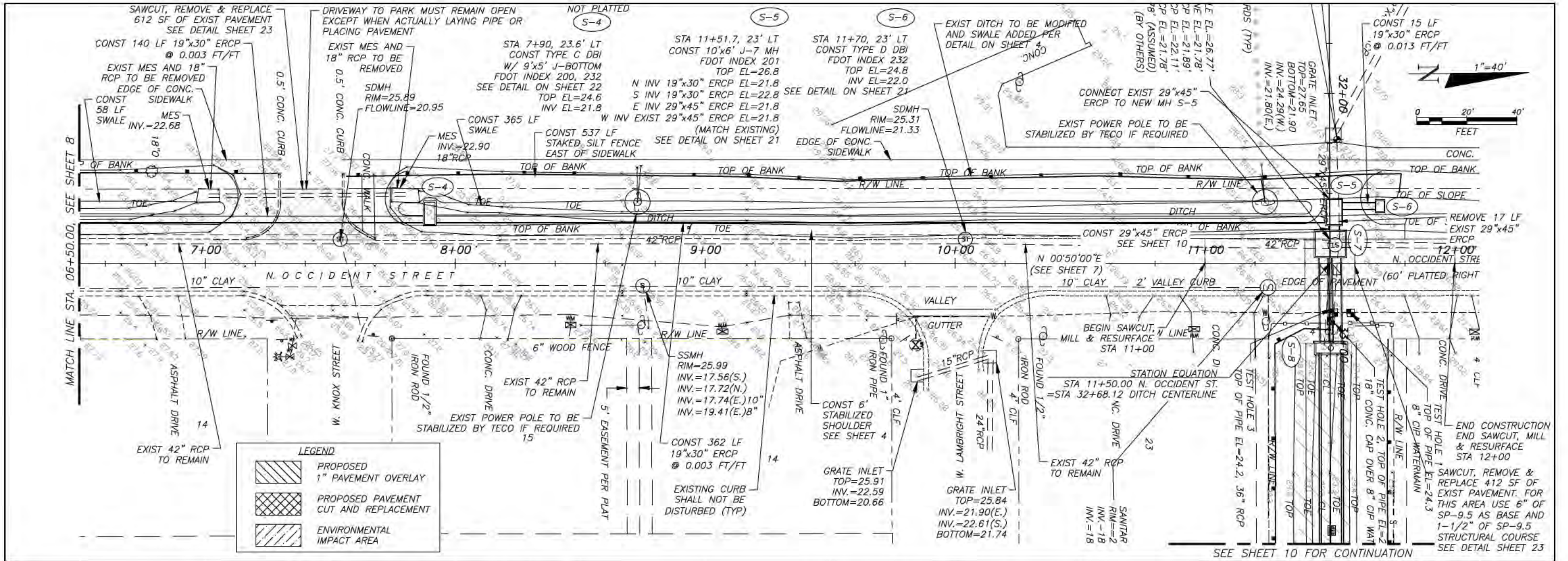
**HILLSBOROUGH COUNTY**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
DESIGNED BY: L. SHERMAN	10/28/16
DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
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FILE NAME: 8 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
 PLAN AND PROFILE

C.I.P. NO.  
 46132.024  
 SHEET NO.  
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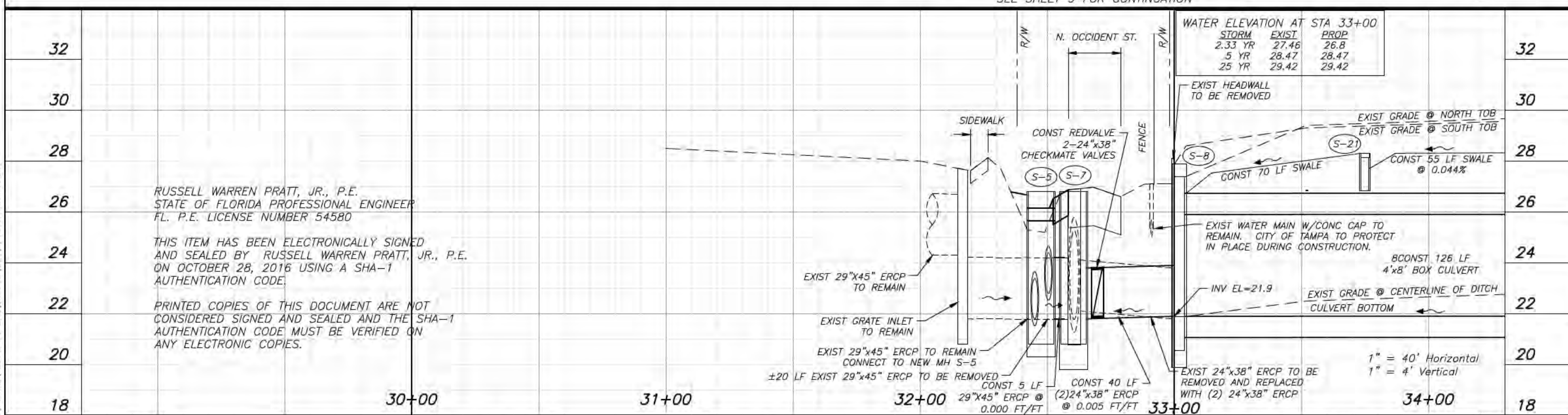
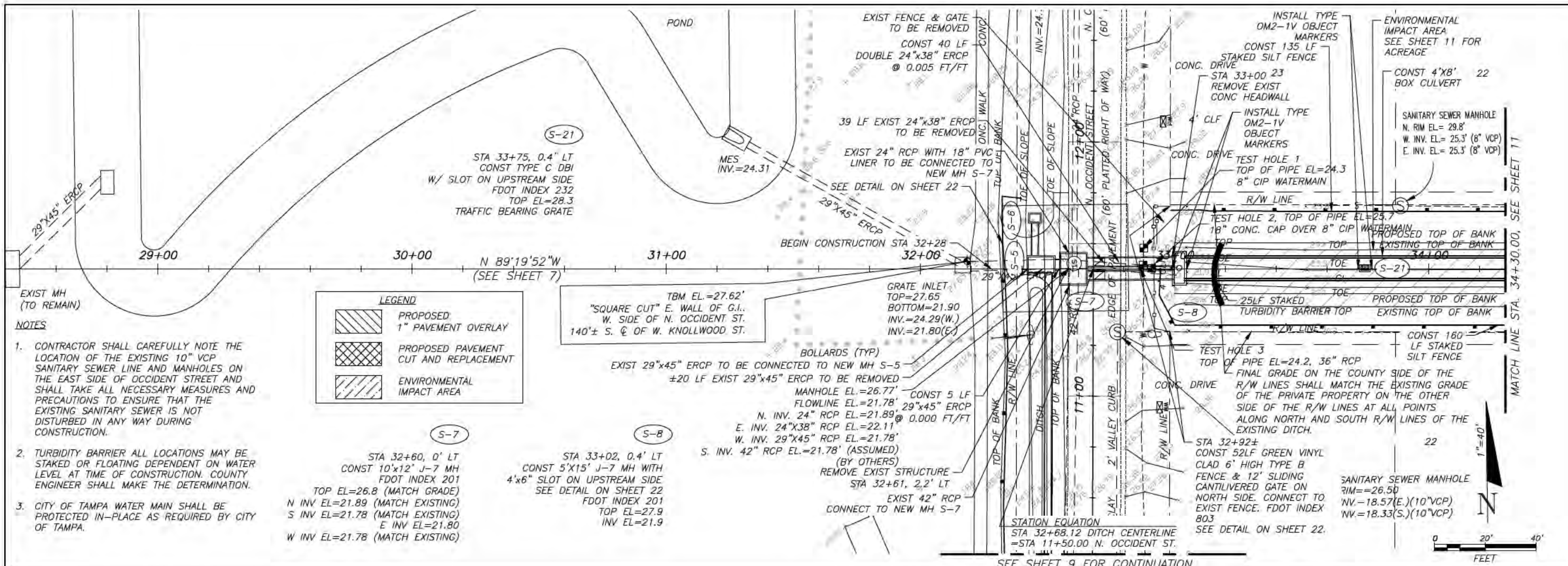
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 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 9 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
  
**PLAN AND PROFILE**  
 C.I.P. NO. 46132.024  
 SHEET NO. 9



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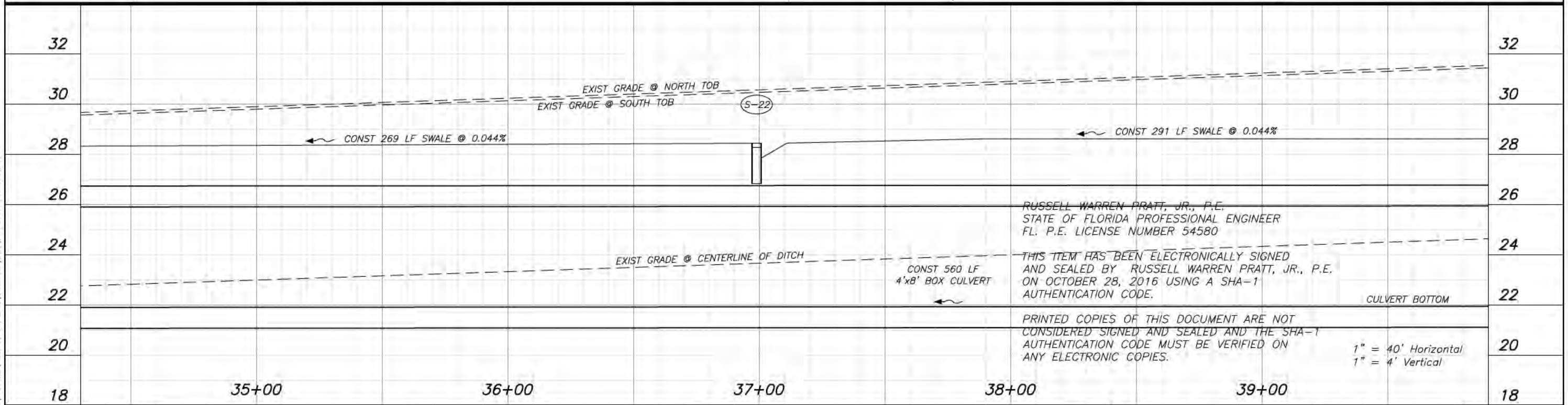
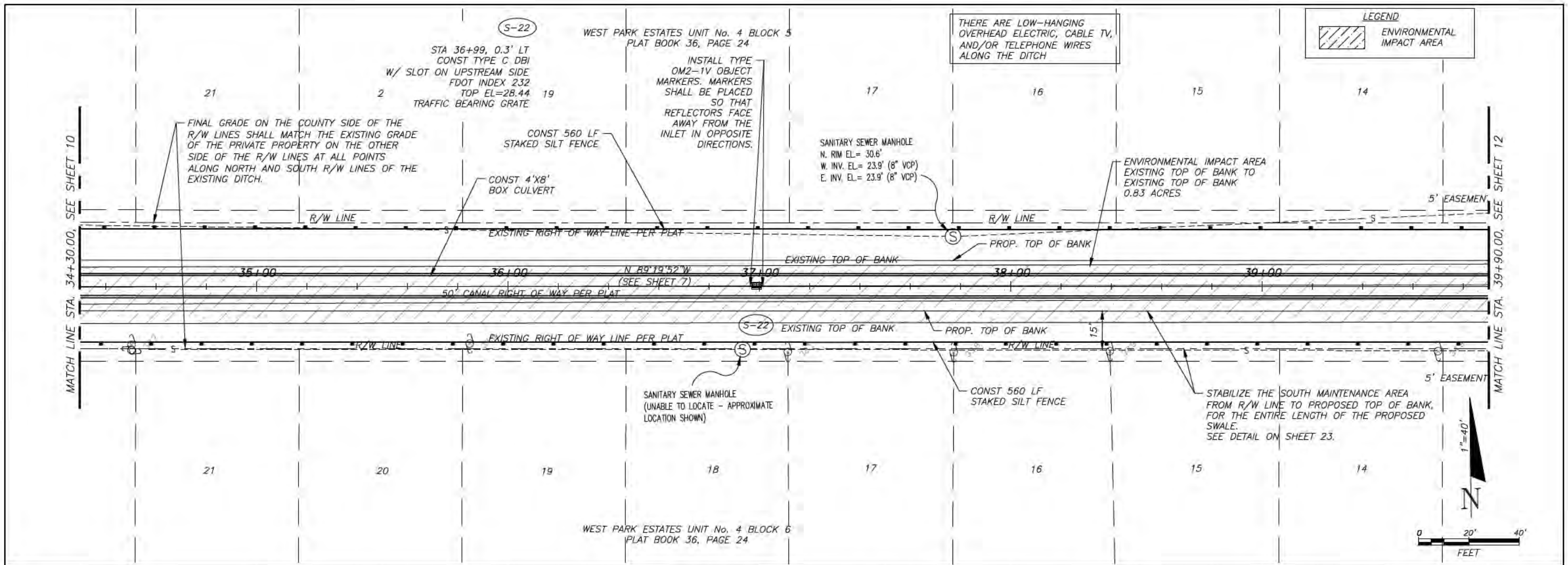
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FILE NAME: 10 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
 PLAN AND PROFILE  
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 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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FILE NAME: 11 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**

**PLAN AND PROFILE**

C.I.P. NO.  
**46132.024**

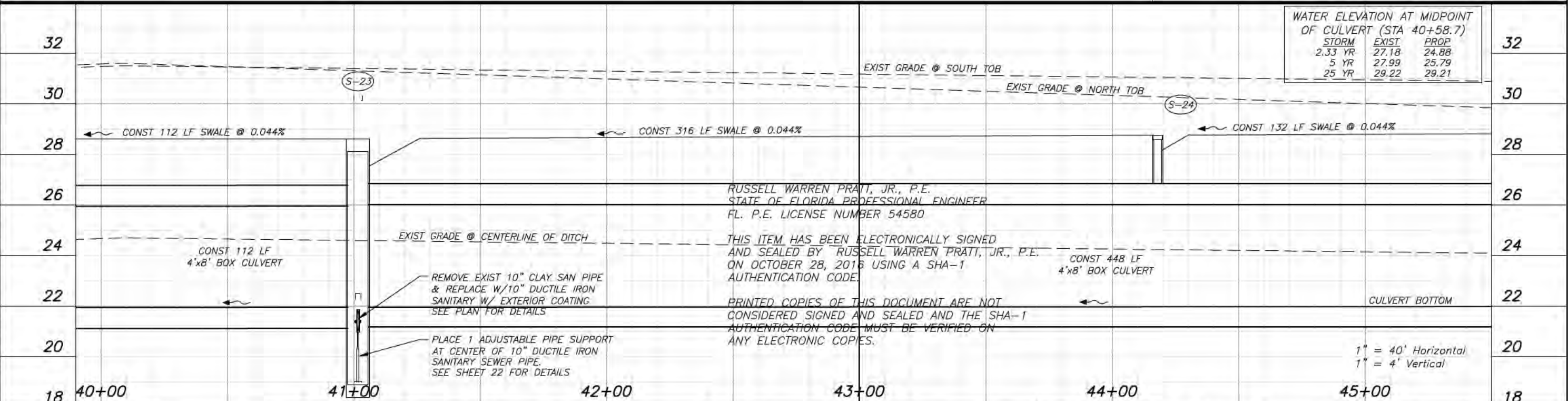
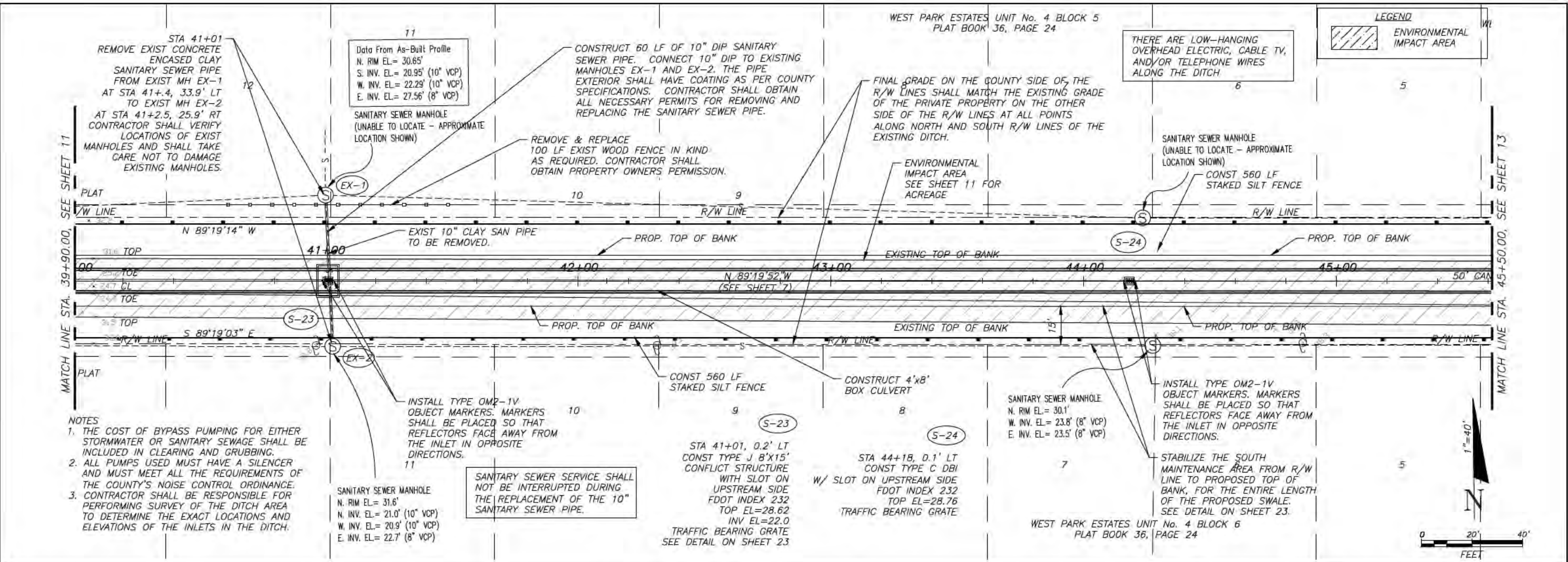
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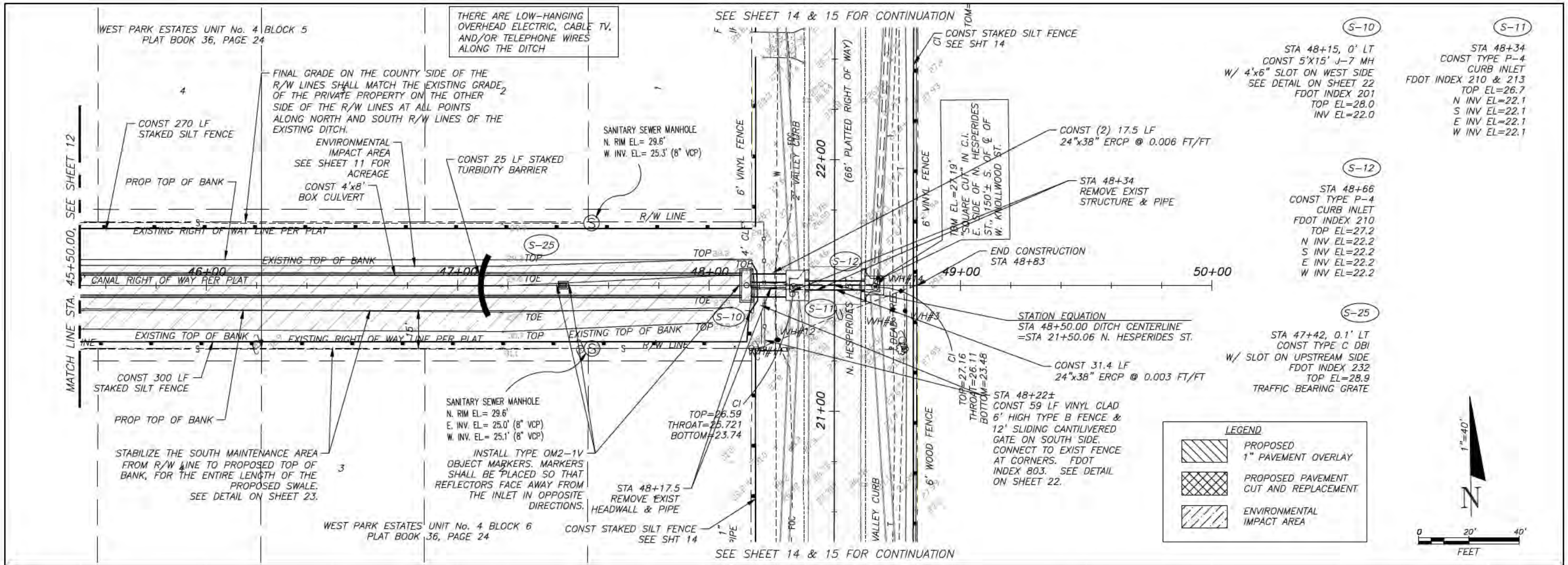
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601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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FILE NAME: 12 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**

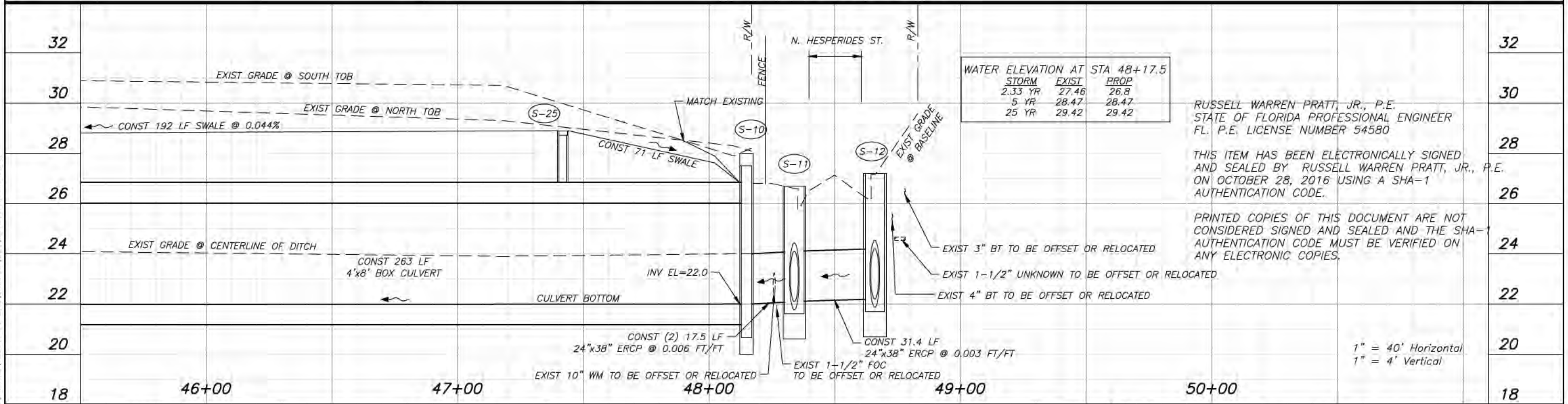
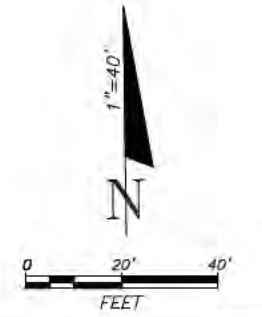
**PLAN AND PROFILE**

C.I.P. NO. 46132.024  
SHEET NO. 12



**LEGEND**

	PROPOSED 1" PAVEMENT OVERLAY
	PROPOSED PAVEMENT CUT AND REPLACEMENT
	ENVIRONMENTAL IMPACT AREA



RUSSELL WARREN PRATT, JR., P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
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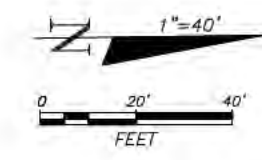
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CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 13 PLAN AND PROFILE	

**WEST LAMBRIGHT STREET DRAINAGE IMPROVEMENTS**

**PLAN AND PROFILE**

C.I.P. NO. 46132.024  
SHEET NO. 13

PLOTTED October 28, 2016 3:15 PM PLOTTED BY: SHERMAN, LES  
S:\PROJECTS\2016\WEST LAMBRIGHT\PROJECTS\HILLS CO DEC 2016\LAMBRIGHT\CADD\13 PLAN AND PROFILE.dwg



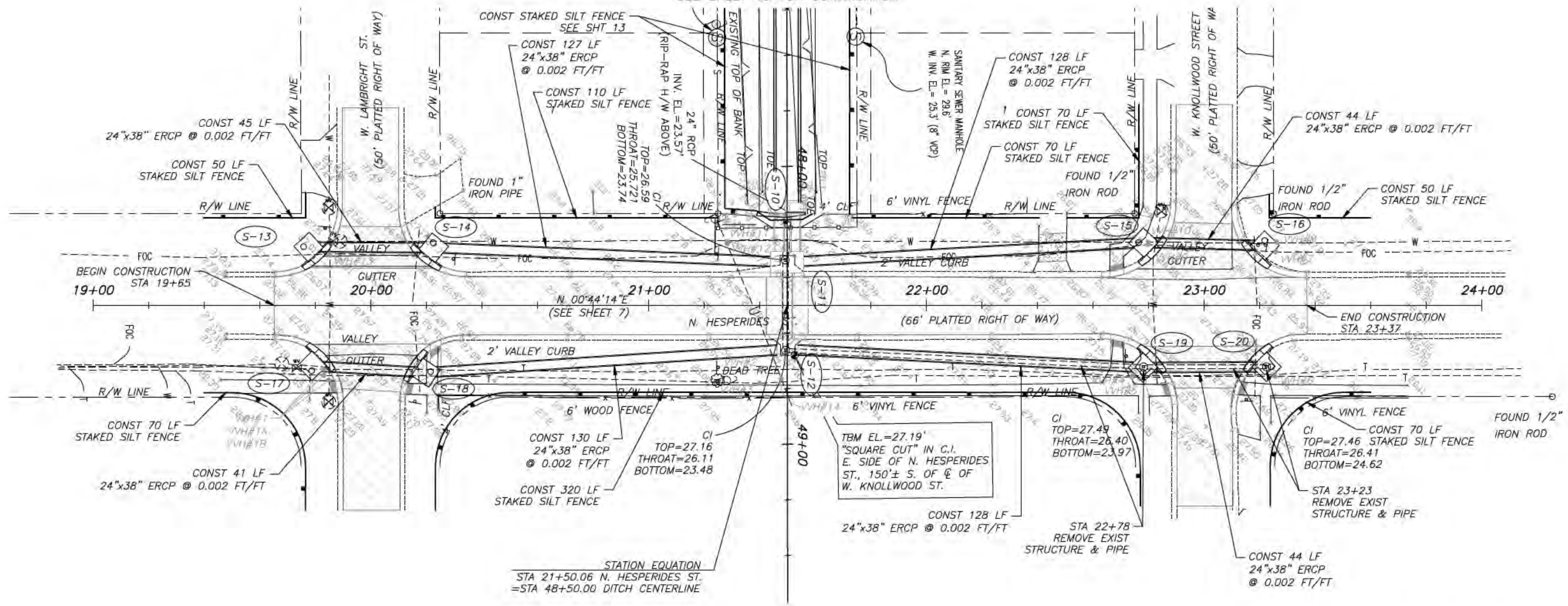
S-13  
 STA 19+77.7, 21' LT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.2  
 INV EL=22.4

S-14  
 STA 20+22.7, 20.7' LT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.2  
 INV EL=22.3

S-15  
 STA 22+78.3, 22.6' LT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.1  
 INV EL=22.3

S-16  
 STA 23+22, 21.5' LT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.7  
 INV EL=22.4

SEE SHEET 13 FOR CONTINUATION



S-17  
 STA 19+78.8, 21.8' RT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.2  
 INV EL=22.5

S-18  
 STA 20+20, 24.2' RT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.1  
 INV EL=22.4

S-19  
 STA 22+78.1, 22.4' RT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.2  
 INV EL=22.4

S-20  
 STA 23+22.6, 22.1' RT  
 CONST TYPE P-4  
 CURB INLET  
 FDOT INDEX 210  
 TOP EL=27.6  
 INV EL=22.5

NOTES:  
 1. SEE ENLARGED PLANS ON SHEETS 16 & 17 FOR CURBS, PAVING, SIDEWALKS AND DRIVEWAYS NOTES.

LEGEND

	PROPOSED 1\"/>
	PROPOSED PAVEMENT CUT AND REPLACEMENT

RUSSELL WARREN PRATT, JR., P.E.  
 STATE OF FLORIDA PROFESSIONAL ENGINEER  
 FL. P.E. LICENSE NUMBER 54580

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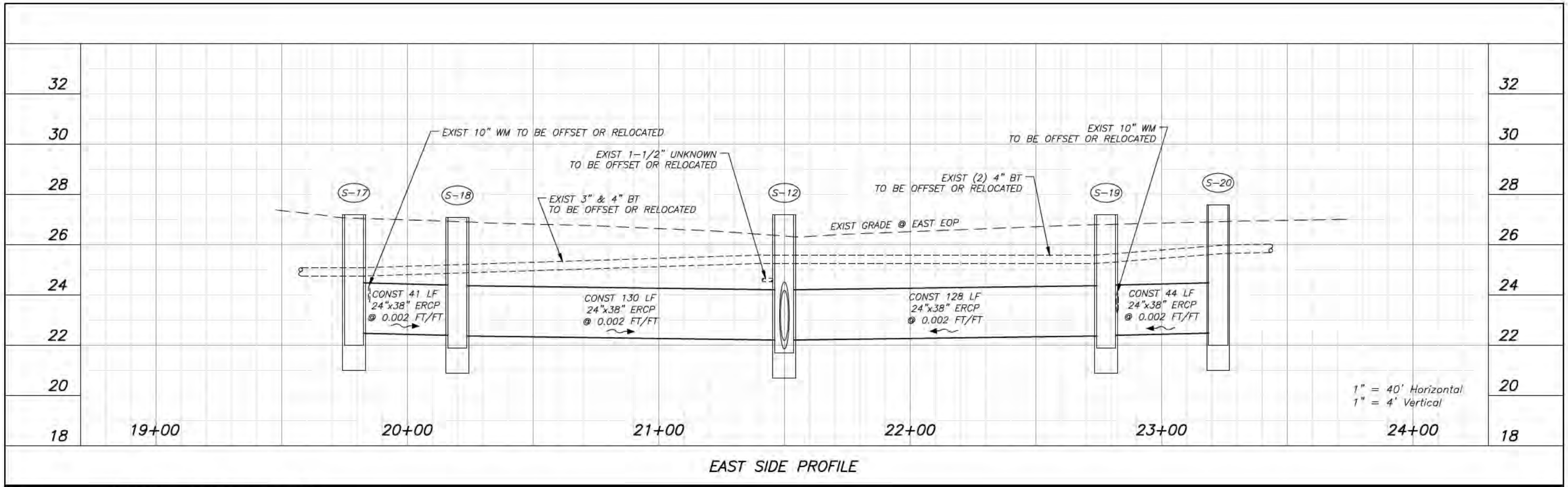
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**HILLSBOROUGH COUNTY**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
DESIGNED BY: L. SHERMAN	10/28/16
DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 14 NORTH HESPERIDES PLAN	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
**NORTH HESPERIDES  
 PLAN**

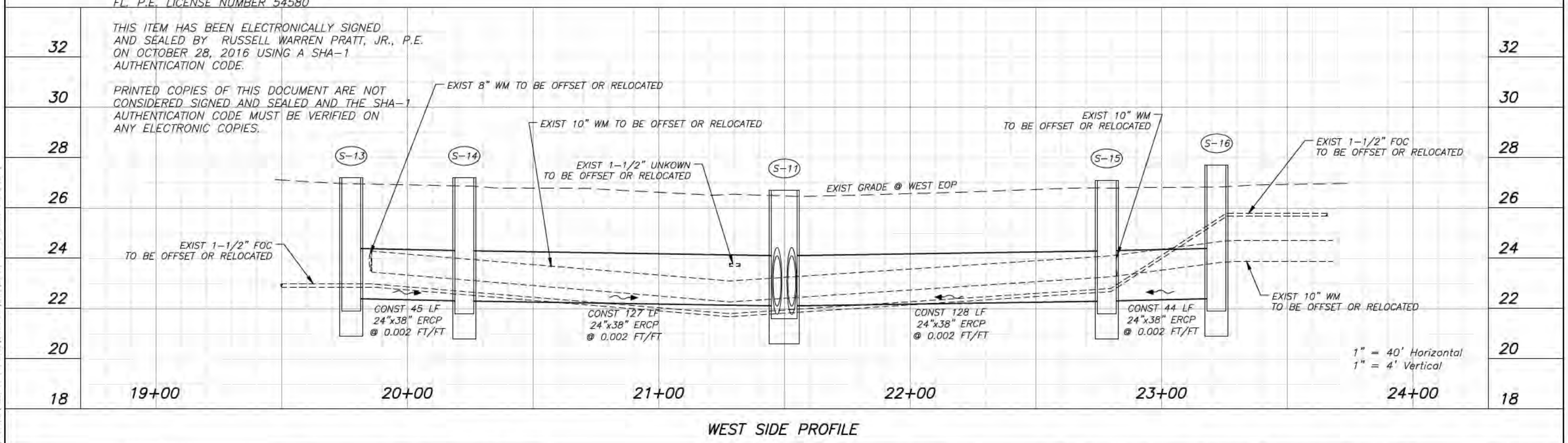
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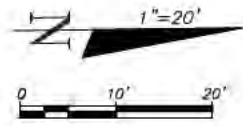
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FILE NAME: 15 NORTH HESPERIDES PROFILES	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**  
**NORTH HESPERIDES  
 PROFILES**

C.I.P. NO. 46132.024
SHEET NO. 15

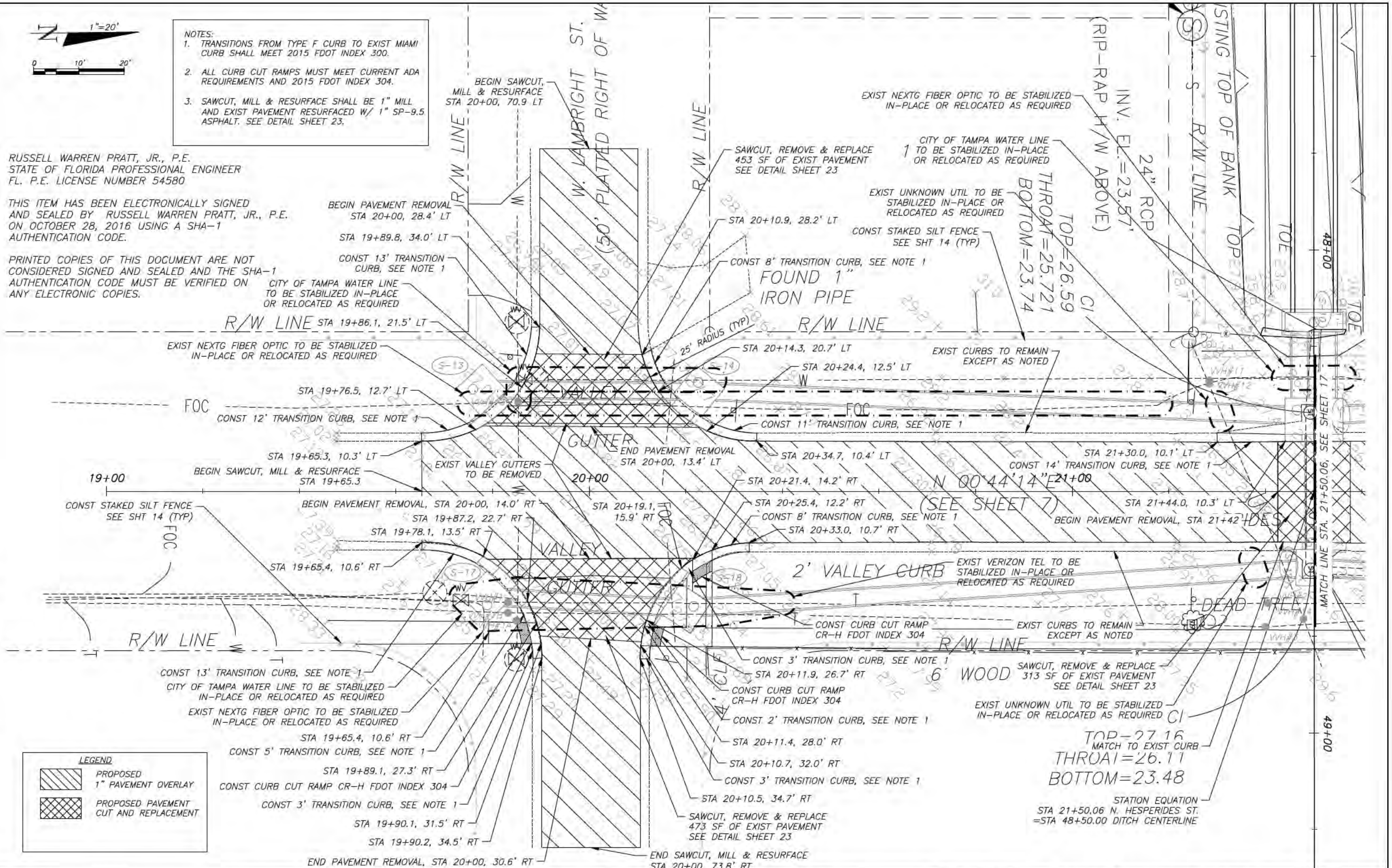


- NOTES:
1. TRANSITIONS FROM TYPE F CURB TO EXIST MIAMI CURB SHALL MEET 2015 FDOT INDEX 300.
  2. ALL CURB CUT RAMPS MUST MEET CURRENT ADA REQUIREMENTS AND 2015 FDOT INDEX 304.
  3. SAWCUT, MILL & RESURFACE SHALL BE 1" MILL AND EXIST PAVEMENT RESURFACED W/ 1" SP-9.5 ASPHALT. SEE DETAIL SHEET 23.

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**LEGEND**

	PROPOSED 1" PAVEMENT OVERLAY
	PROPOSED PAVEMENT CUT AND REPLACEMENT

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
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DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 16 ENLARGED SOUTH PLAN HESPERIDES STREET	


**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**  
**ENLARGED SOUTH PLAN  
HESPERIDES STREET**

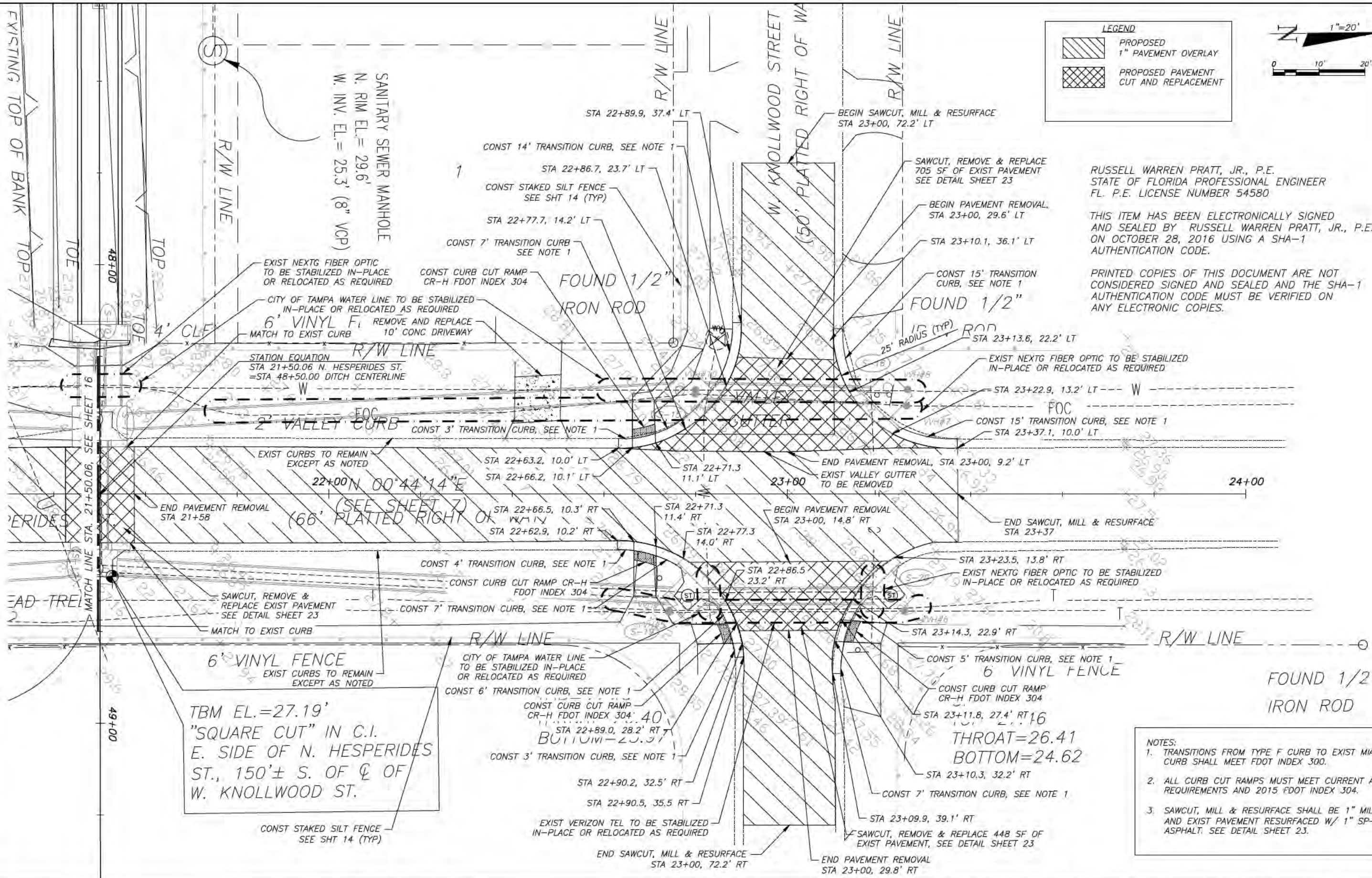
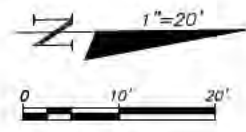
C.I.P. NO.  
**46132.024**  
SHEET NO.  
**16**



**LEGEND**

 PROPOSED 1" PAVEMENT OVERLAY

 PROPOSED PAVEMENT CUT AND REPLACEMENT



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801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 17 ENLARGED NORTH PLAN HESPERIDES STREET	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**

**ENLARGED NORTH PLAN  
 HESPERIDES STREET**

C.I.P. NO.  
**46132.024**

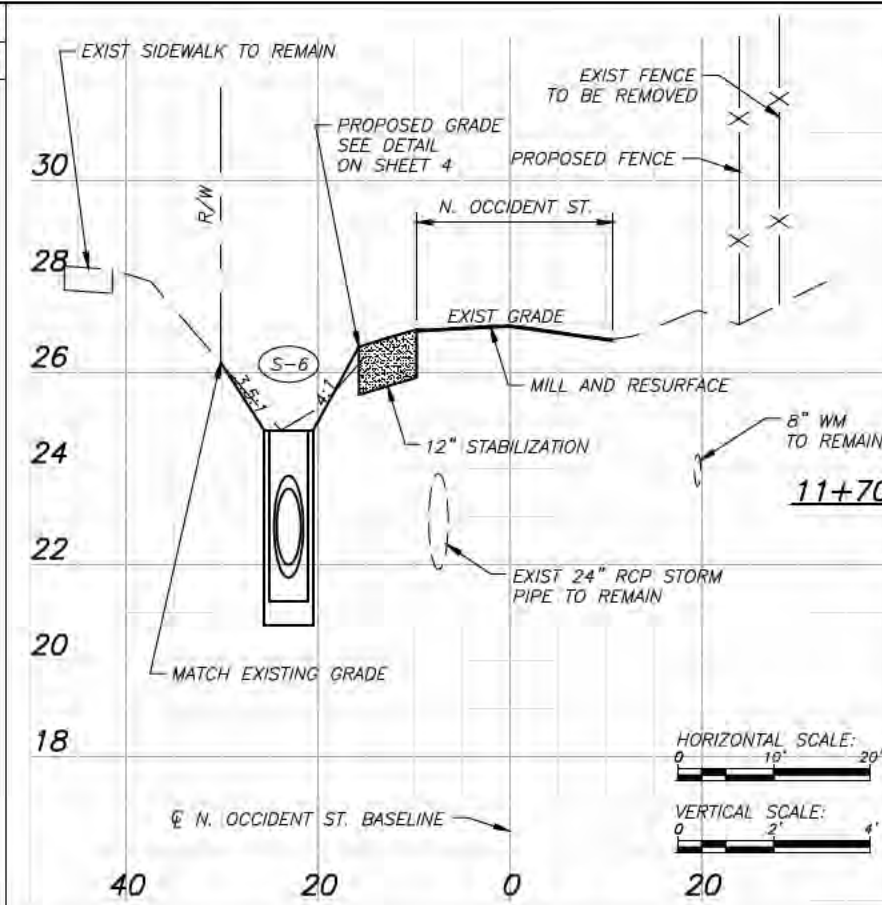
SHEET NO.  
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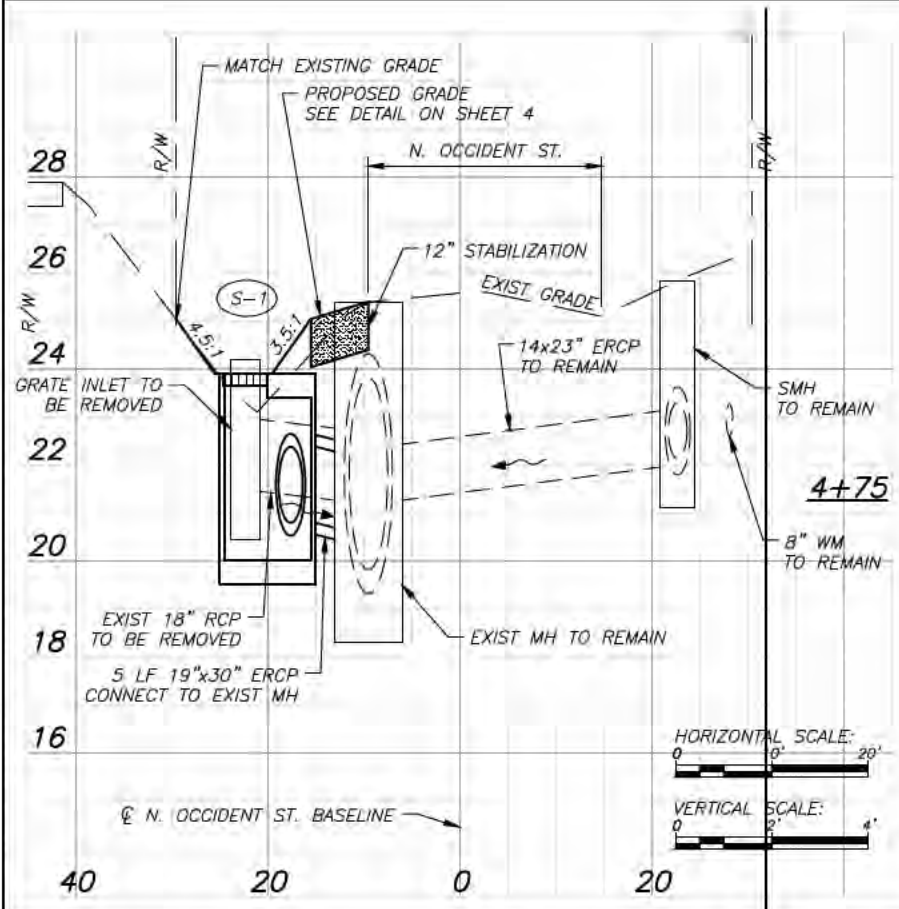
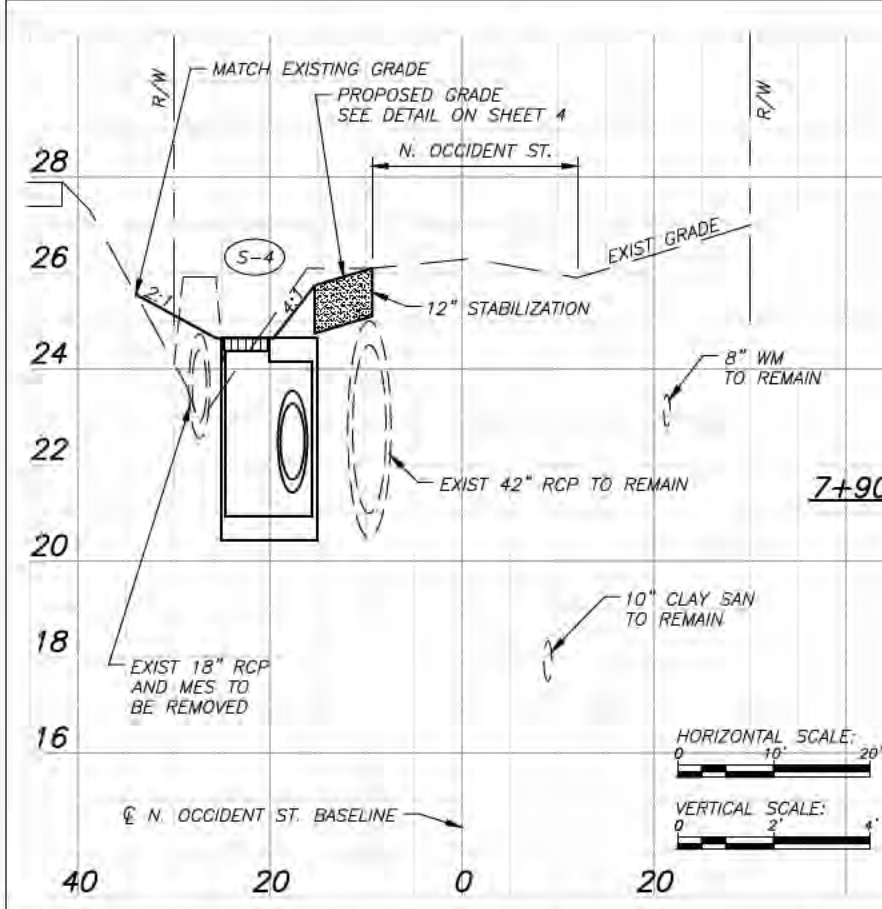
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Subsoil Exc.		Regular Exc.		Embankment	
A(sf)	V(cy)	A(sf)	V(cy)	A(sf)	V(cy)



Subsoil Exc.		Regular Exc.		Embankment	
A(sf)	V(cy)	A(sf)	V(cy)	A(sf)	V(cy)



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801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 18 CROSS SECTIONS	

**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**  
CROSS SECTIONS  
C.I.P. NO. 46132.024  
SHEET NO. 18

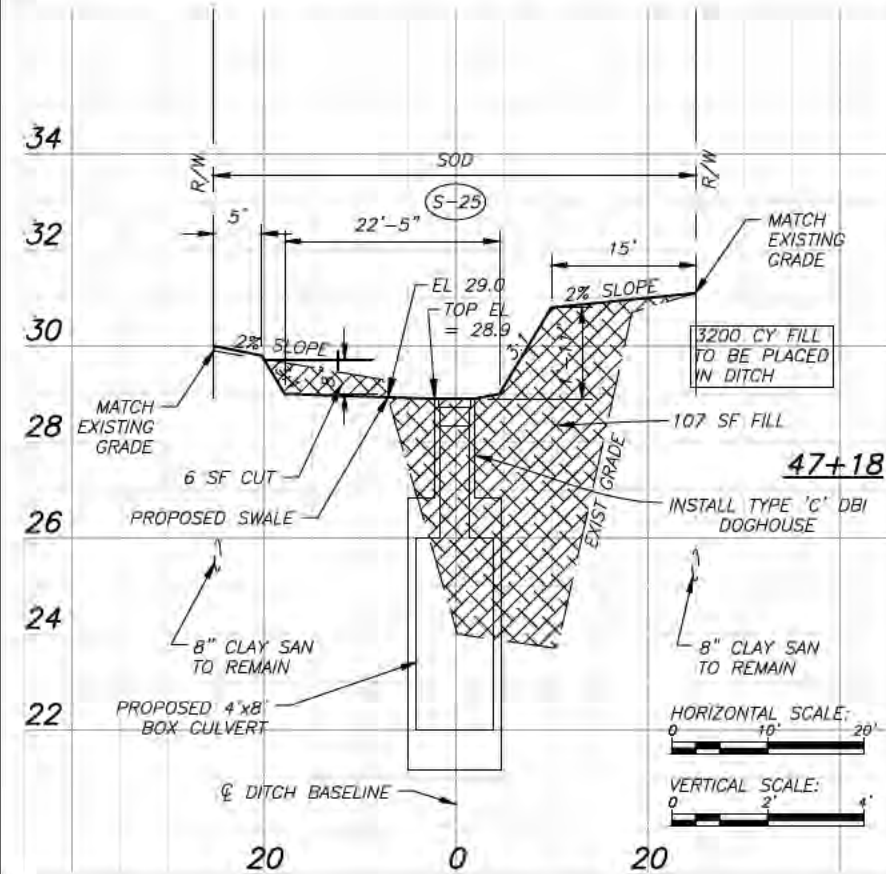
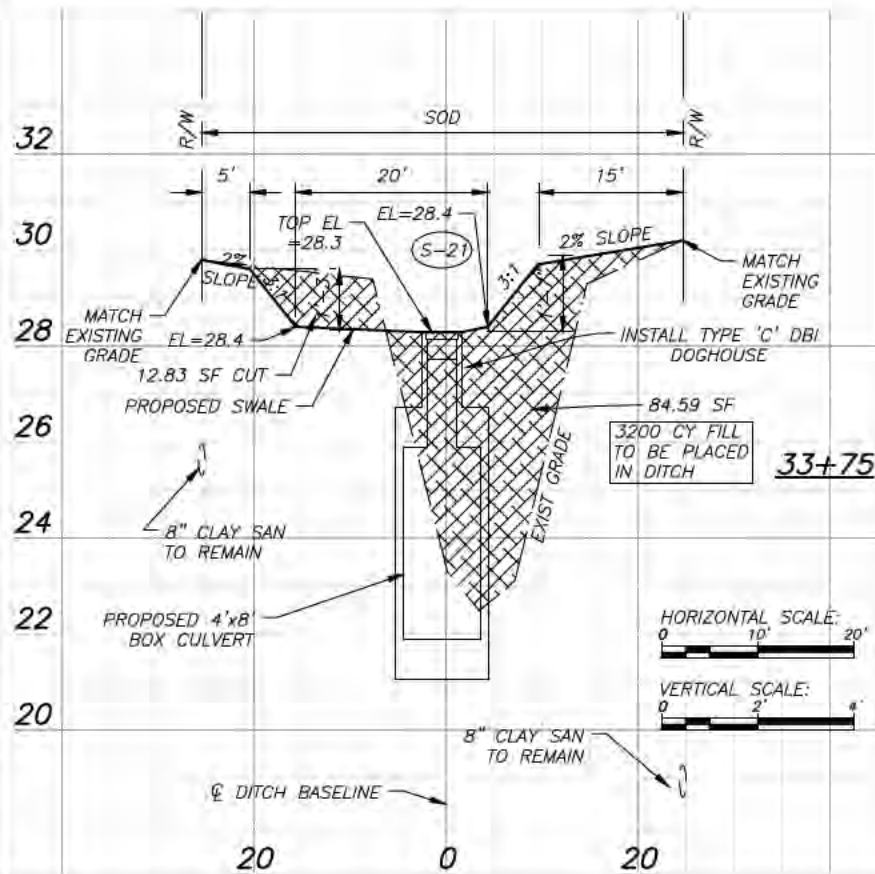
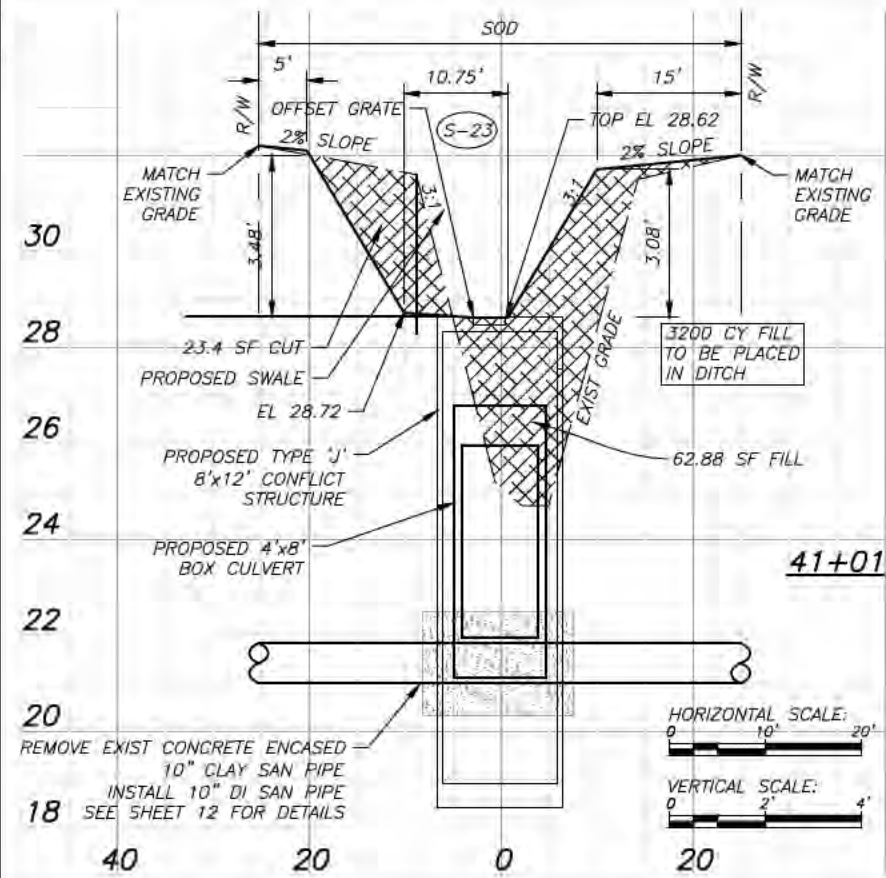
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Subsoil Exc.		Regular Exc.		Embankment	
A(sf)	V(cy)	A(sf)	V(cy)	A(sf)	V(cy)

Subsoil Exc.		Regular Exc.		Embankment	
A(sf)	V(cy)	A(sf)	V(cy)	A(sf)	V(cy)



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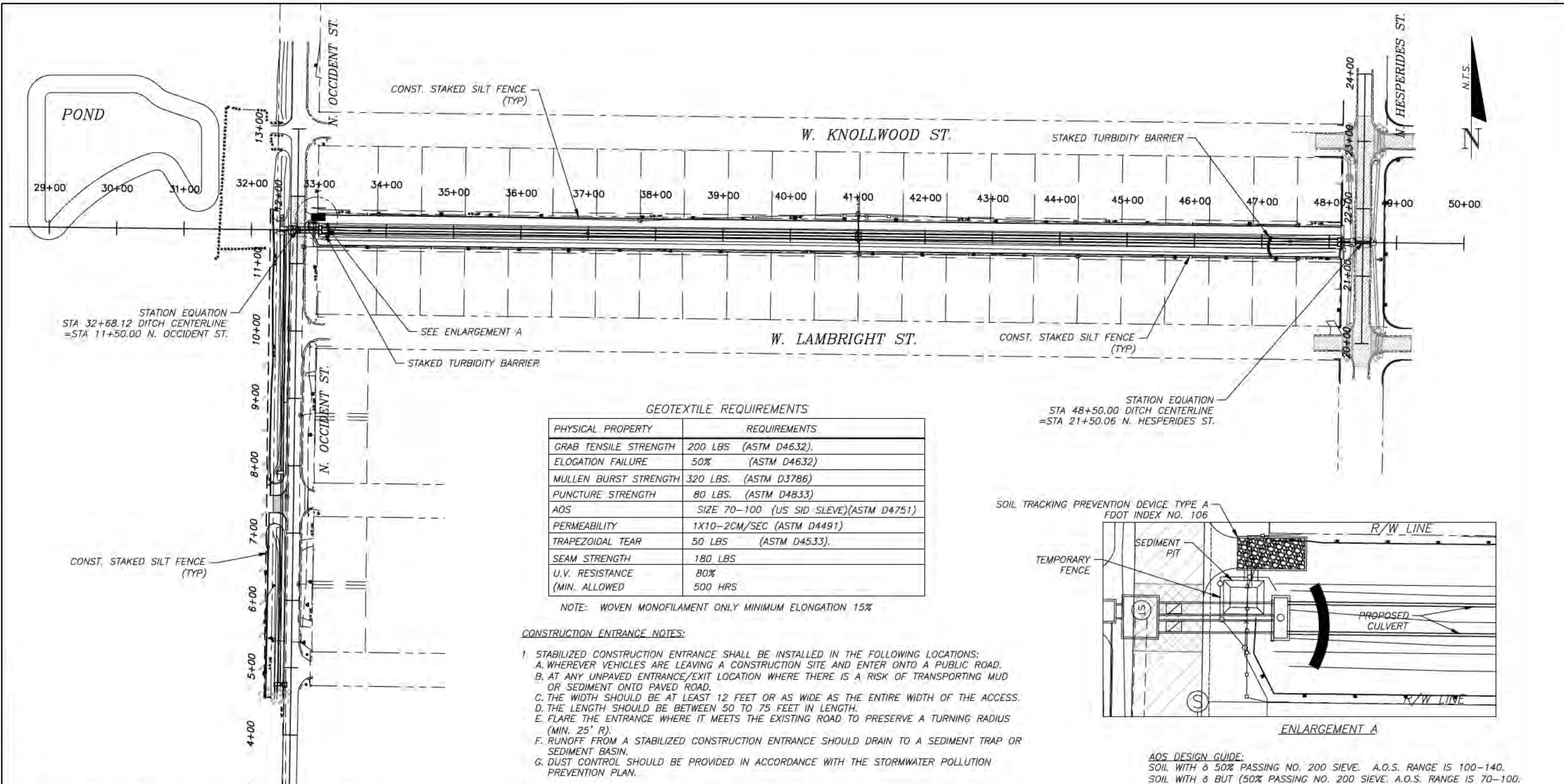
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ENGINEERING DIVISION  
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801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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FILE NAME: 19 CROSS SECTIONS	

WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS

CROSS SECTIONS

C.I.P. NO.  
46132.024  
SHEET NO.  
19



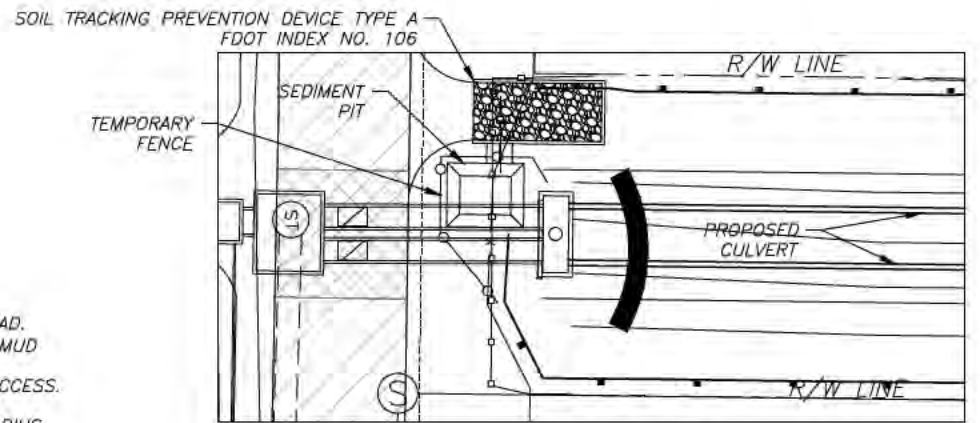
**GEOTEXTILE REQUIREMENTS**

PHYSICAL PROPERTY	REQUIREMENTS
GRAB TENSILE STRENGTH	200 LBS. (ASTM D4632).
ELONGATION FAILURE	50% (ASTM D4632)
MULLEN BURST STRENGTH	320 LBS. (ASTM D3786)
PUNCTURE STRENGTH	80 LBS. (ASTM D4833)
AOS	SIZE 70-100 (US SIEVE)(ASTM D4751)
PERMEABILITY	1X10-2CM/SEC (ASTM D4491)
TRAPEZOIDAL TEAR	50 LBS (ASTM D4533).
SEAM STRENGTH	180 LBS
U.V. RESISTANCE	80%
(MIN. ALLOWED)	500 HRS

NOTE: WOVEN MONOFILAMENT ONLY MINIMUM ELONGATION 15%

**CONSTRUCTION ENTRANCE NOTES:**

- STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
  - WHEREVER VEHICLES ARE LEAVING A CONSTRUCTION SITE AND ENTER ONTO A PUBLIC ROAD.
  - AT ANY UNPAVED ENTRANCE/EXIT LOCATION WHERE THERE IS A RISK OF TRANSPORTING MUD OR SEDIMENT ONTO PAVED ROAD.
  - THE WIDTH SHOULD BE AT LEAST 12 FEET OR AS WIDE AS THE ENTIRE WIDTH OF THE ACCESS.
  - THE LENGTH SHOULD BE BETWEEN 50 TO 75 FEET IN LENGTH.
  - FLARE THE ENTRANCE WHERE IT MEETS THE EXISTING ROAD TO PRESERVE A TURNING RADIUS (MIN. 25' R).
  - RUNOFF FROM A STABILIZED CONSTRUCTION ENTRANCE SHOULD DRAIN TO A SEDIMENT TRAP OR SEDIMENT BASIN.
  - DUST CONTROL SHOULD BE PROVIDED IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN.
- CONSTRUCTION SPECIFICATIONS:
  - CLEAR ALL VEGETATION ROOTS AND ALL OTHER OBSTRUCTIONS IN PREPARATION FOR GRADING.
  - PRIOR TO PLACING GEOTEXTILE (FILTER FABRIC) MAKE SURE THAT THE ENTRANCE IS PROPERLY GRADED AND COMPACTED. SEE GEOTEXTILE REQUIREMENTS.
  - TO REDUCE MAINTENANCE AND LOSS OF AGGREGATE PLACE GEOTEXTILE (FILTER FABRIC) OVER THE EXISTING GROUND BEFORE PLACING THE STONE FOR THE ENTRANCE.
  - STONE SHOULD BE PLACED TO A DEPTH OF 6 IN. OR GREATER FOR THE ENTIRE WIDTH AND LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.
- MAINTENANCE:
  - INSPECT ON A REGULAR BASIS AND AFTER THERE HAS BEEN A HIGH VOLUME OF TRAFFIC OR STORM EVENT.
  - APPLY ADDITIONAL STONE PERIODICALLY AND WHEN REPAIR IS REQUIRED.
  - IMMEDIATELY REMOVE SEDIMENTS OR ANY OTHER MATERIALS TRACKED ONTO THE PUBLIC ROADWAY.
  - ENSURE THAT ASSOCIATED SEDIMENT CONTROL MEASURES ARE IN GOOD WORKING CONDITION.



ENLARGEMENT A

**AOS DESIGN GUIDE:**  
 SOIL WITH ≥ 50% PASSING NO. 200 SIEVE, A.O.S. RANGE IS 100-140.  
 SOIL WITH ≥ BUT (50% PASSING NO. 200 SIEVE, A.O.S. RANGE IS 70-100.  
 SOIL WITH < 15% PASSING NO. 200 SIEVE, A.O.S. RANGE IS 40-70.

**SILT FENCE AND TURBIDITY BARRIER NOTES:**

- PRIOR TO INITIATING THE CONSTRUCTION ACTIVITIES
  - THE CONTRACTOR MUST PROVIDE STAKED SILT SCREEN AROUND THE PROJECT AREA. THE STAKED SILT SCREEN MUST BE INSTALLED STRICTLY AS PER FDOT STANDARD INDEX 102.
- DURING CONSTRUCTION:
  - CHECK SILT SCREEN AND TURBIDITY BARRIER DAILY AND AFTER A RAINFALL REINSTALL THE SILT SCREEN AND TURBIDITY BARRIER IF REQUIRED.
- CONSTRUCTION CLOSE-OUT:
  - SOD ALL SLOPES AND DISTURBED AREAS IMMEDIATELY.
  - REMOVE SILT SCREEN AFTER ALL THE SLOPES ARE ESTABLISHED.

RUSSELL WARREN PRATT, JR., P.E.  
 STATE OF FLORIDA PROFESSIONAL ENGINEER  
 FL. P.E. LICENSE NUMBER 54580

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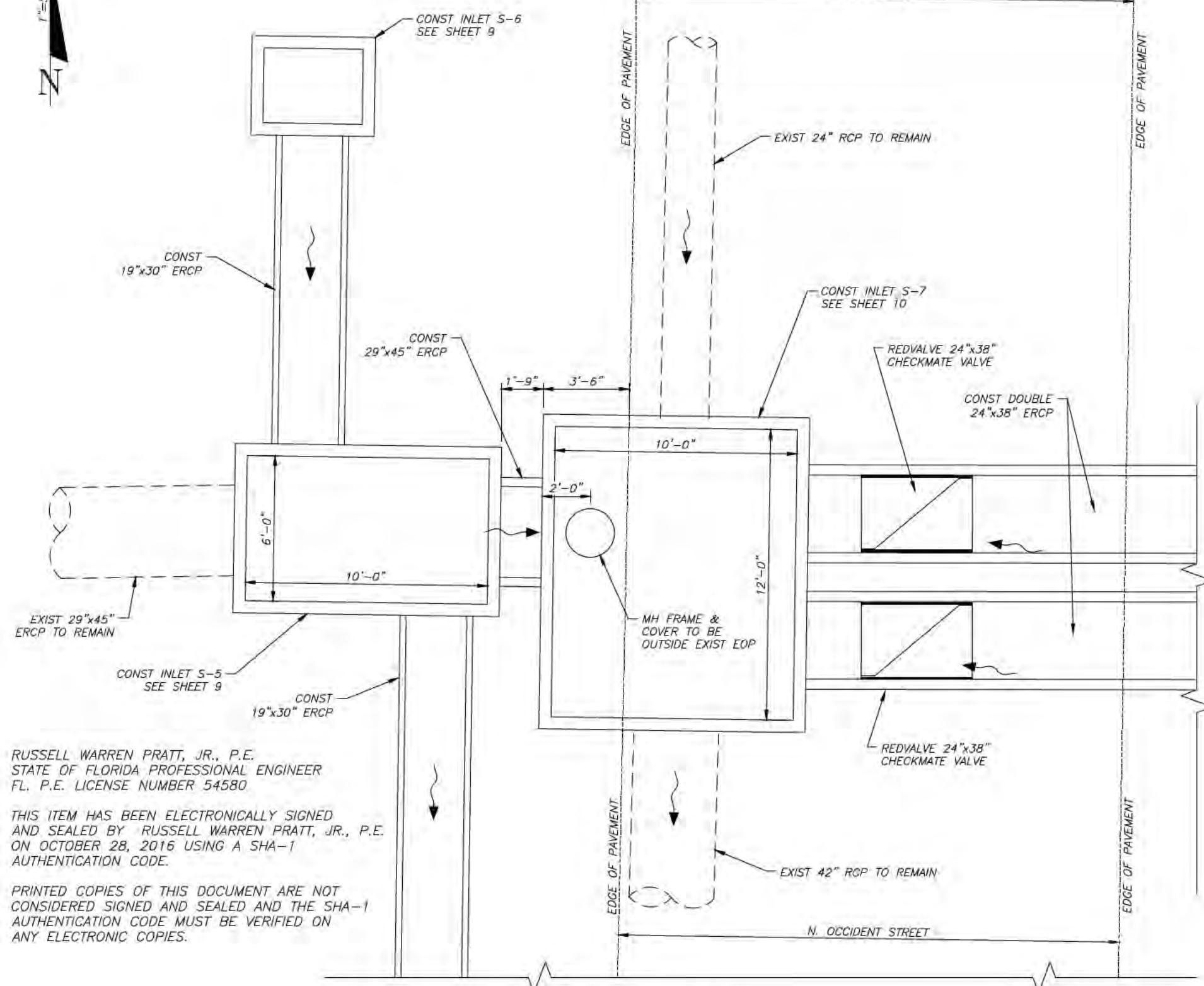
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 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
DESIGNED BY: L. SHERMAN	10/28/16
DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 20 STORMWATER EROSION CONTROL PLAN	

**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS  
 STORMWATER EROSION CONTROL  
 PLAN**

C.I.P. NO. 46132.024  
 SHEET NO. 20

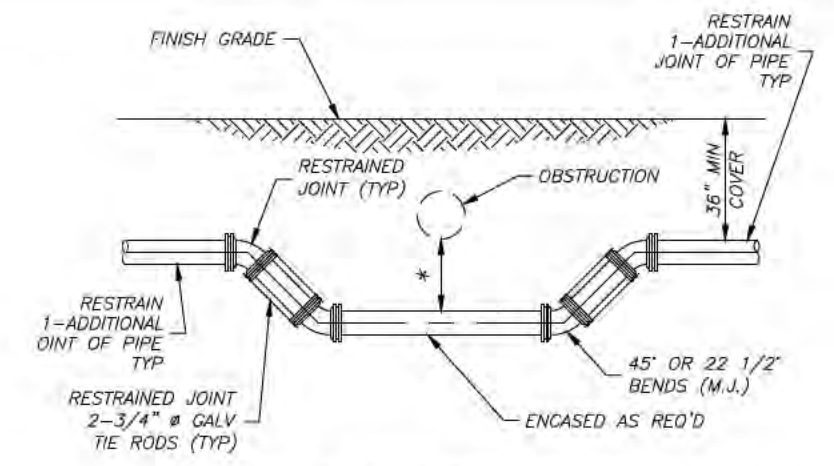


**STRUCTURE S-5 AND S-7 DETAIL**  
SCALE: 1" = 5'

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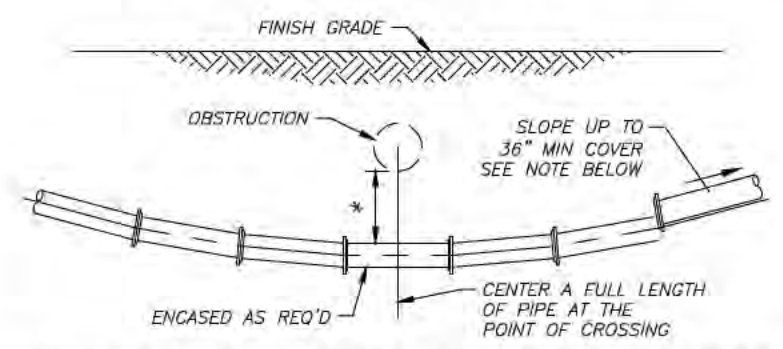
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**SPECIAL UTILITY CROSSING - FITTING TYPE**  
NTS

\* 18" MIN CLEARANCE REQUIRED FOR WATER AND SEWER MAIN CROSSINGS.  
12" MIN CLEARANCE REQUIRED FOR OTHER TYPE UTILITIES CROSSINGS.  
SEE WATER AND SEWER SEPARATION STATEMENT ON THIS SHEET.



**STANDARD UTILITY CROSSING - DEFLECTION TYPE**  
NTS

1. THE DEFLECTION TYPE CROSSING SHALL BE USED WHERE EVER POSSIBLE. ONLY UNDER SPECIFIC ORDERS BY THE ENGINEER SHALL THE FITTING TYPE CROSSING BE ALLOWED.
2. CONSTRUCT STANDARD CROSSING USING 75% OF MANUFACTURERS MAXIMUM JOINT DEFLECTION (MAX).
3. COAT TIE RODS WITH A COAL TAR ENAMEL AFTER ASSEMBLY. (2 COATS MIN).
4. TIE RODS MAY BE OMITTED WHEN OTHER APPROVED METHODS OF RESTRAINING ARE UTILIZED.

**UTILITY CROSSING**  
NTS

**STANDARD WATER AND SEWER SEPARATION NOTES**

1. STORM AND SANITARY SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS AND BOTH PIPES SHALL BE D.I.P. WHERE THERE IS NOT ALTERNATIVE TO SEWER PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION BETWEEN LINES AND JOINTS IN THE ABOVE, SHALL BE REQUIRED AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION. D.I.P. IS NOT REQUIRED FOR STORM SEWERS.
2. MAINTAIN TEN (10) FEET HORIZONTAL DISTANCE BETWEEN WATER MAIN AND SANITARY SEWER MAIN, AS A MINIMUM, UNLESS OTHERWISE SHOWN ON THE PLANS, OR OTHERWISE DIRECTED BY THE COUNTY PROJECT MANAGER.
3. FORCE MAIN CROSSING WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE STORM FORCE MAIN AND OUTSIDE OF THE WATER MAIN WITH WATER CROSSING OVER THE FORCE MAIN.

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Tampa, FL 33607-1462  
C.A. No. 00000002

RUSSELL WARREN PRATT, JR., P.E.  
FL. P.E. LICENSE NO. 54580

**HILLSBOROUGH COUNTY**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
801 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

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DRAWN BY: T. SONNENBERG	10/28/16
CHECKED BY: R. PRATT	10/28/16
SCALE: AS SHOWN	
FILE NAME: 21 DETAILS - 1 OF 4	

**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**

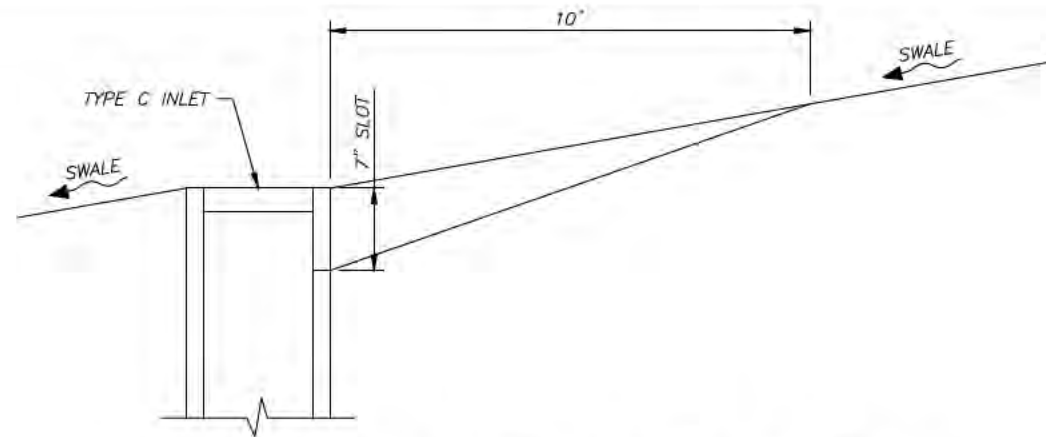
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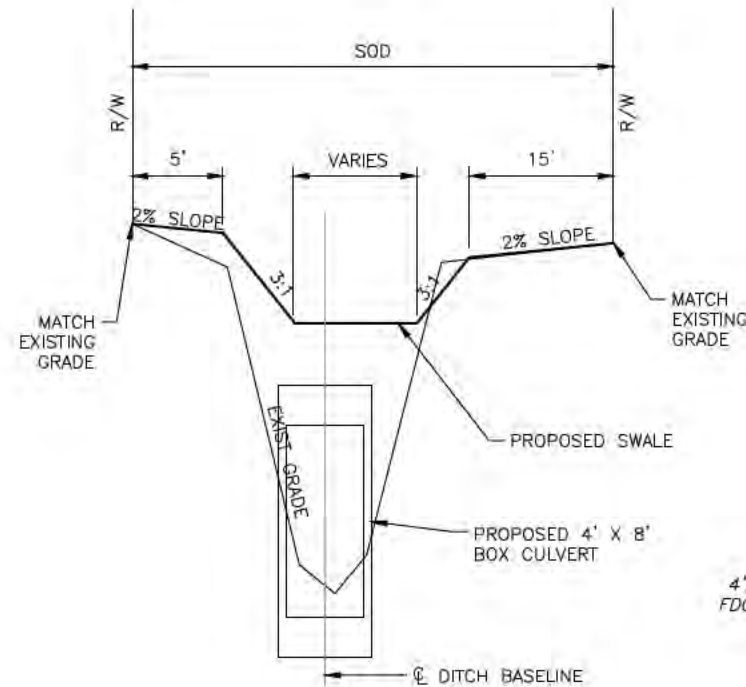
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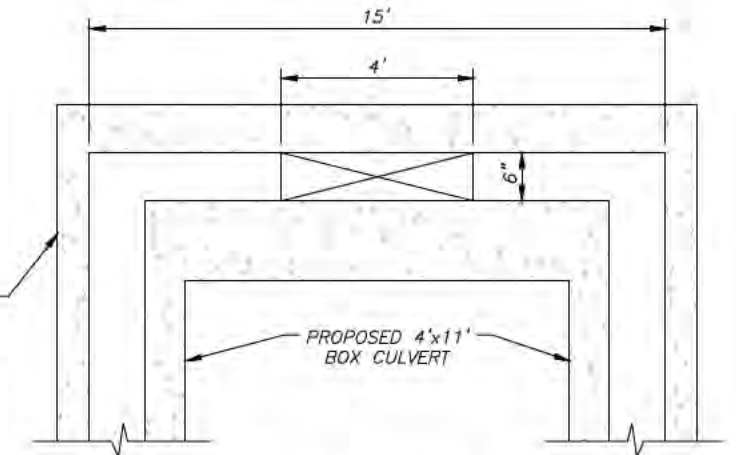
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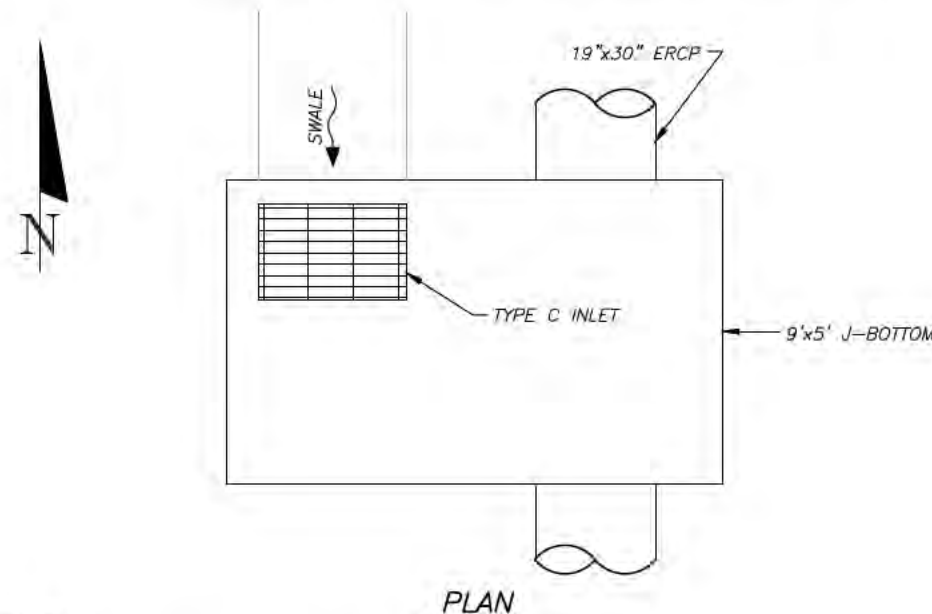
**TYPICAL SWALE TO SLOT AT CULVERT INLETS**  
 SCALE: NTS



**TYPICAL DITCH SECTION DETAIL**  
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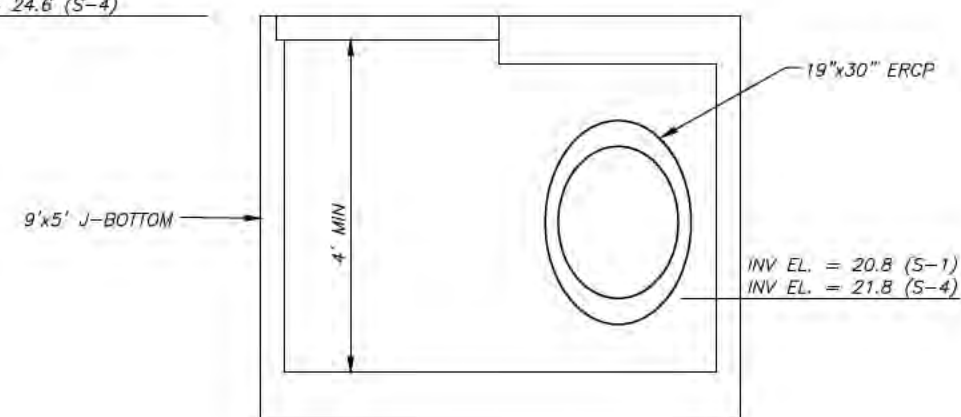


**STRUCTURE S-8 & S-10 SLOT DETAIL**  
 SCALE: NTS



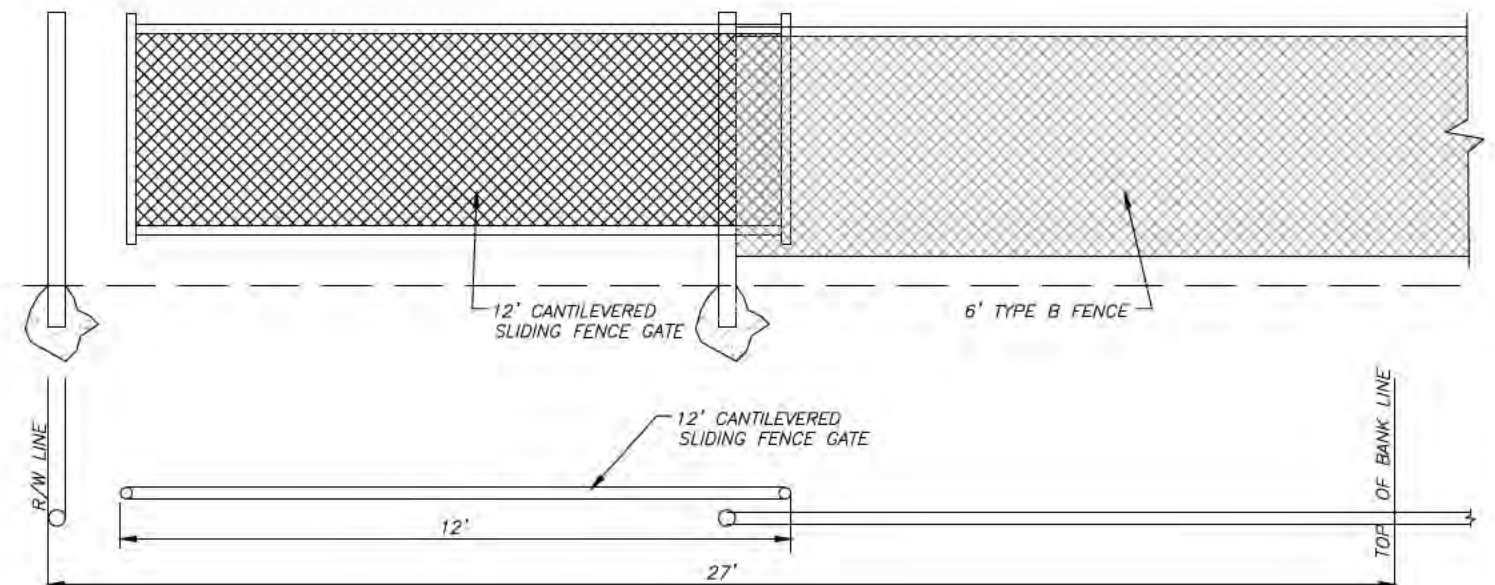
**PLAN**

TOP EL. = 23.9 (S-1)  
 TOP EL. = 24.6 (S-4)



**SECTION**

**STRUCTURE S-1 & S-4 DETAIL**  
 SCALE: 1/4" = 1'-0"



**CANTILEVERED SLIDING GATE DETAIL**  
 PER FDOT INDEX 803  
 SCALE: NTS

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**WEST LAMBRIGHT STREET  
 DRAINAGE IMPROVEMENTS**

**DETAILS - 2 OF 4**

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**46132.024**  
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**22**

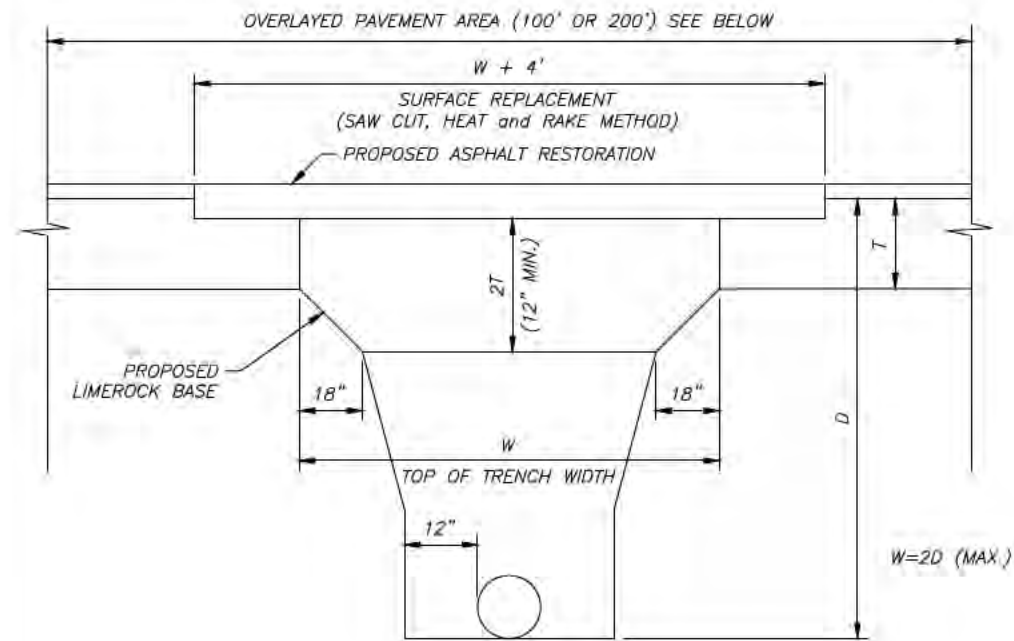


FIGURE 1  
N.T.S.

**ROADWAY RESTORATION DETAIL  
FOR PERPENDICULAR UTILITY CROSSING**

**BACKFILL PROCEDURE FOR ROADWAY RESTORATION**

THE BACKFILL AND BEDDING MATERIAL SHALL BE OF THE A-1, A-2, A-3 OR A-2-4 CLASSIFICATION AS PER AASHTO, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

THE BACKFILL SHALL BE COMPACTED IN 12" LAYERS WITH MECHANICAL TAMPERS TO THE FULL WIDTH OF THE TRENCH AND UP TO THE BOTTOM OF THE ROADWAY BASE. PARTICULAR ATTENTION MUST BE GIVEN TO THE ADEQUATE COMPACTION OF THE FILL BENEATH THE HAUNCHES OF THE PIPE. THE BACKFILL SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180-57. ONE DENSITY TEST SHALL BE TAKEN AT THE SPRING LINE OF THE PIPE, AT ONE FOOT ABOVE THE CROWN OF THE PIPE, AND EVERY FOOT VERTICALLY THEREAFTER. A MINIMUM OF TWO COMPLETE SETS OF BACKFILL DENSITY TESTS ARE REQUIRED. FLOWABLE FILL IN ACCORDANCE WITH SECTION 121 OF THE F.D.O.T. STANDARD SPECIFICATIONS MAY BE SUBSTITUTED.

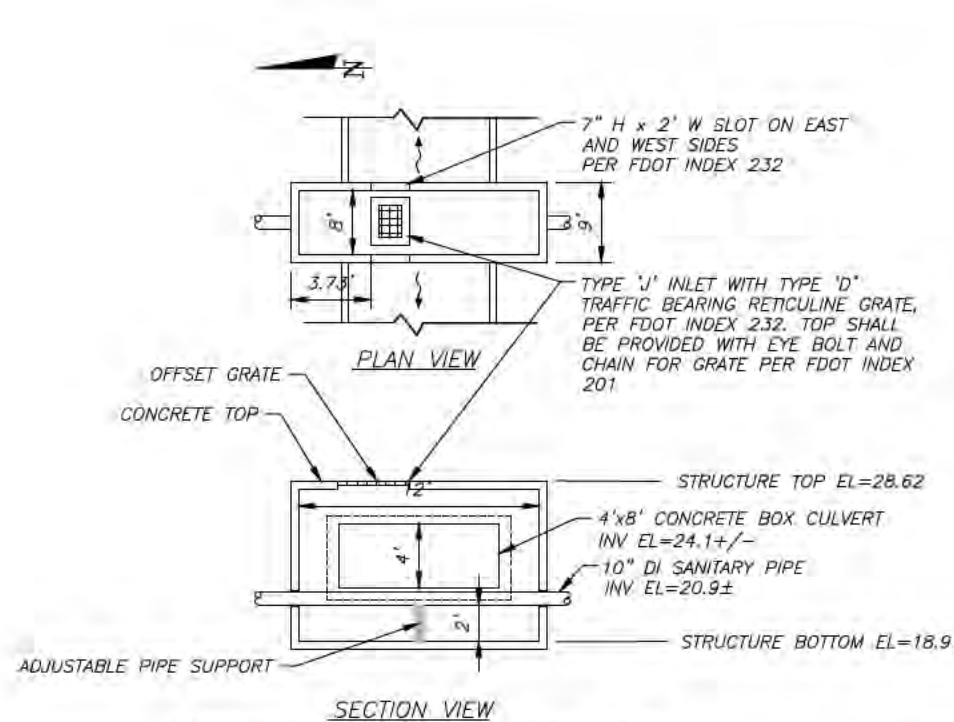
IF WELL POINTS ARE USED TO PROVIDE A DRY TRENCH FOR LAYING THE UTILITY, THEY SHALL REMAIN IN OPERATION UNTIL THE BACKFILL IS COMPLETE AND TESTED.

**PAVEMENT AND BASE REPLACEMENT FOR ROADWAY RESTORATION**

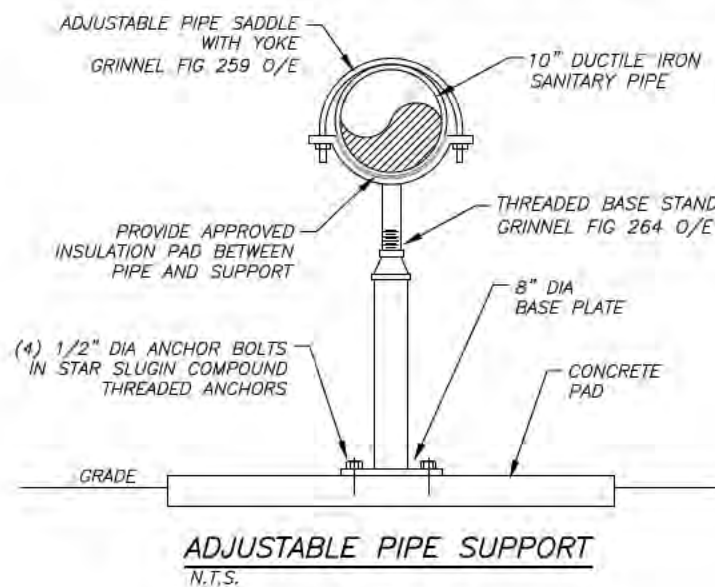
BASE, INSTALLED TO A THICKNESS OF TWO TIMES THE THICKNESS OF THE EXISTING BASE OR 12" WHICHEVER IS GREATER, SHALL BE INSTALLED IN 6" LIFTS. THE BASE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180-57. A MINIMUM OF TWO DENSITY TESTS PER LIFT IS REQUIRED. NINE (9) INCHES OF SUPERPAVE ASPHALT INSTALLED IN THREE (3) INCH LIFTS MAY BE SUBSTITUTED.

THE SURFACE COURSE SHALL BE F.D.O.T. SUPERPAVE AC WITH A THICKNESS EQUAL TO THE EXISTING OR 1 3/4", WHICHEVER IS GREATER. PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED. THE PATCH AREA SHALL BE A SMOOTH PLANE SUCH THAT A STRAIGHT EDGE PLACED ACROSS THE PATH, PARALLEL TO TRAFFIC FLOW AND EXTENDING TO UNDISTURBED PAVEMENT SHALL SHOW NO MORE THAN 1/4" IRREGULARITY. ANY IRREGULARITIES SHALL BE CORRECTED IN SUBSTANTIAL COMPLIANCE WITH F.D.O.T. SPECS. IN LIEU OF HEATING AND RAKING, THE TRENCH SHALL BE OVERLAYED WITH 1" OF SUPERPAVE ASPHALT A MINIMUM OF 100 FEET CENTERED ON THE TRENCH FOR ROADWAYS WITH 35 MPH OR LESS SPEED LIMIT OR 200 FEET FOR ROADWAYS WITH SPEED LIMITS GREATER THAN 35 MPH.

DISTURBED ROADWAYS CONSTRUCTED OF FULL DEPTH ASPHALT SHALL BE REPLACED IN KIND.



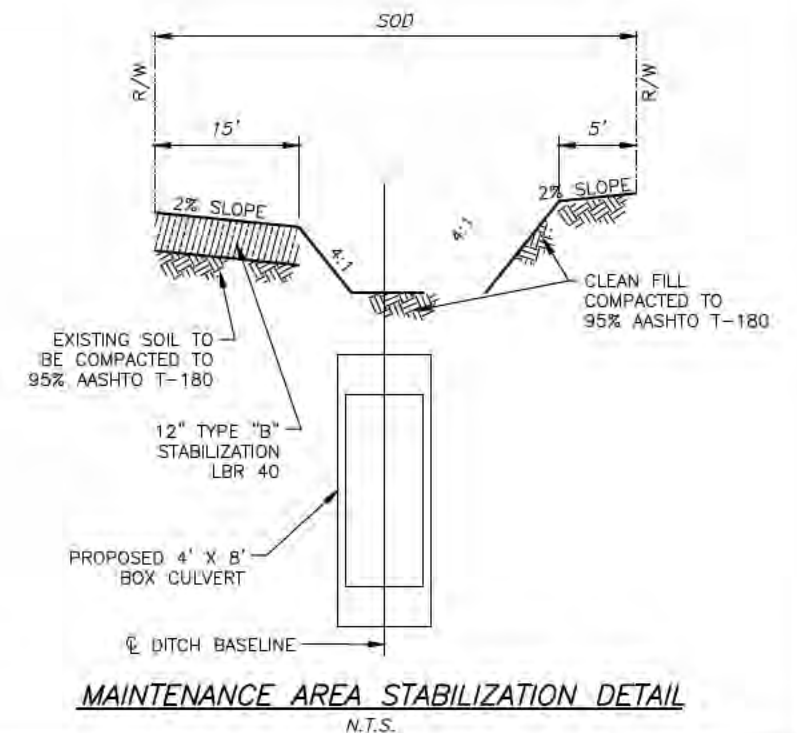
CONFLICT STRUCTURE S-23 DETAIL  
N.T.S.



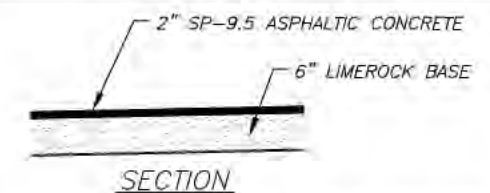
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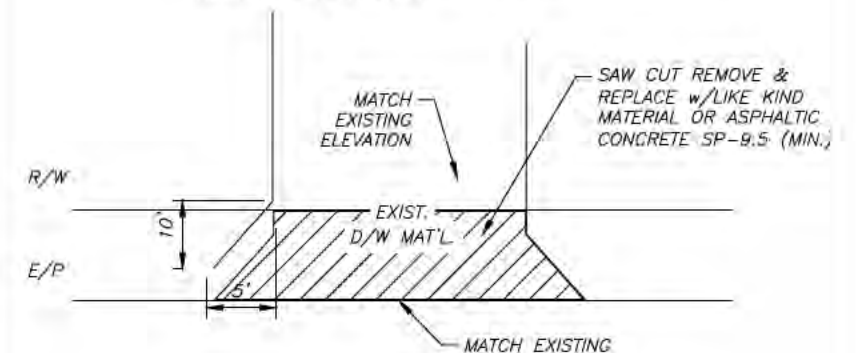
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MAINTENANCE AREA STABILIZATION DETAIL  
N.T.S.



BASE: COMPACTED LIMEROCK BASE (PRIMED) L.B.R.=100 (98% MAXIMUM DENSITY, AASHTO T 180)  
2" SP-9.5 ASPHALTIC CONCRETE BACKFILL BELOW DRIVEWAY TO BE COMPACTED TO 98% MAXIMUM DENSITY, AASHTO T 180  
REFER TO F.D.O.T. INDEX NO. 514 FOR OPTIONAL BASE GROUPS.



NOTE:  
REPLACED CONCRETE DRIVEWAYS, IF ANY, ARE TO BE 6" CONCRETE, BACKFILL BELOW A REPLACED CONCRETE DRIVEWAY TO BE COMPACTED TO 98% MAX. DENSITY, AASHTO T 180.

TYPICAL DRIVEWAY REPLACEMENT DETAIL  
N.T.S.

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WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS

DETAILS - 3 OF 4

C.I.P. NO.  
46132.024  
SHEET NO.  
23

**ALL TREES SHOULD BE BARRICADED MEETING THE SPECIFICATIONS AS ILLUSTRATED ON THE ATTACHED DIAGRAM**

Protective barriers are used during land alteration and construction activities to protect trees and natural areas to be retained on a site.

Protective barriers must be erected around TREES to be retained within an area where land alteration and construction activities will occur as well as along NATURAL AREAS where such areas are adjacent to permitted land alteration and construction activities. A PROTECTIVE BARRIER must remain in place until the land alteration and construction activities are completed or until commencement of grade finishing and sodding. No ground disturbance must occur within the barricaded area.

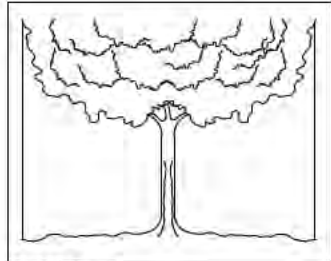


FIGURE A

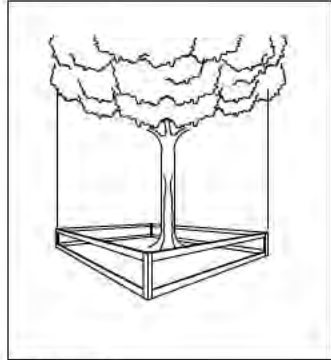


FIGURE B

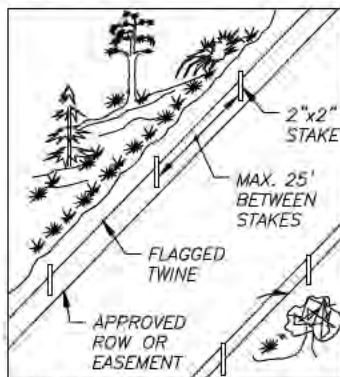


FIGURE C

1. TREES - To restrict access into the area within the DRIPLINE of a tree, a physical structure not less than 3 feet in height, comprised of wood or other suitable material, is placed around the tree at the DRIPLINE, except where land alteration or construction activities are approved within the dripline. See Ord. B7-2, Sec. 4.B.3.m.

2. The DRIPLINE of a tree is the imaginary, vertical line that extends downward from the outermost tips of the tree's branches to the ground. Fig. A.

**BARRIER SPECIFICATIONS FOR TREES:**

1. Four corner upright stakes of no less than 2" x 2" lumber connected by horizontal members of no less than 1" x 4" lumber; or upright stakes spaced at 4-5' intervals of no less 2" x 2" lumber connected by twine flagged with plastic surveying tape at regular intervals. Fig. B. 2.

2. NATURAL AREAS - To restrict access into areas where land alteration and construction activities are not authorized, a physical structure not less than 3 feet in height is placed along the perimeter of such areas.

**BARRIER SPECIFICATIONS FOR NATURAL AREAS:**

1. Upright stakes of no less than 2" x 2" lumber spaced no more than 25' apart and connected by twine flagged with plastic surveying tape at regular intervals of 5-10'. Fig. C. Other methods of demarcation will be considered depending upon the characteristics of the site.

**WHY A BARRIER**

1. To protect all above ground portions of trees and other significant vegetation from mechanical damage.
2. To protect root systems from compaction.
3. To provide awareness of protected areas to equipment operators.

**WHY IT WORKS**

1. A tree's chance for survival is greatly enhanced if no construction material, heavy equipment or stockpiling of soil is allowed inside the barrier; only hand labor.

**EXCAVATIONS**

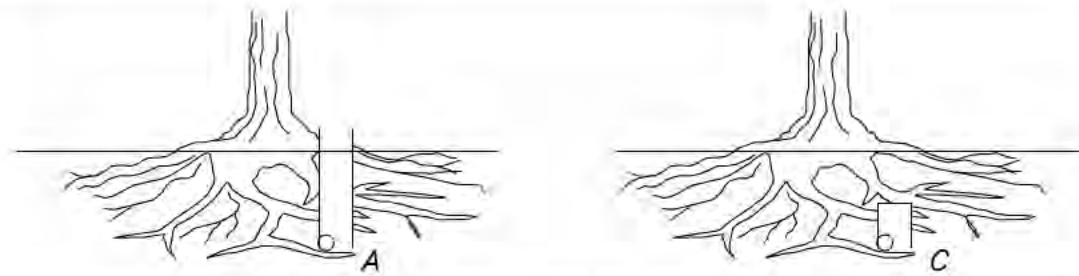
WHEN DEEP SOIL CUTS ARE MADE OVER THE ENTIRE AREA OCCUPIED BY THE ROOTS, IT IS DIFFICULT TO MAINTAIN THE HEALTH OF TREES. LOWERING THE GRADE 6-8 INCHES WILL REMOVE A MAJOR PORTION OF THE TOP SOIL AND MOST OF THE FEEDER ROOTS. A LOSS OF 1/2 TO 1/3 OF THESE SURFACE ROOTS WILL KILL THE TREE.

TO PRESERVE THE TREE AND AVOID ROOT DAMAGE WHEN CUTTING A GRADE, CURVE OR ZIG-ZAG AROUND THE ROOTS AS MUCH AS POSSIBLE. THE AREA OF THE DRIPLINE SHOULD BE SUFFICIENT. TOP SOIL IS AN EXTREMELY IMPORTANT FACTOR IN THE SURVIVAL OF A TREE. ROOTS SHOULD BE CUT CLEANLY. LARGE ROOTS SHOULD BE PROMPTLY TREATED WITH A WOUND DRESSING.

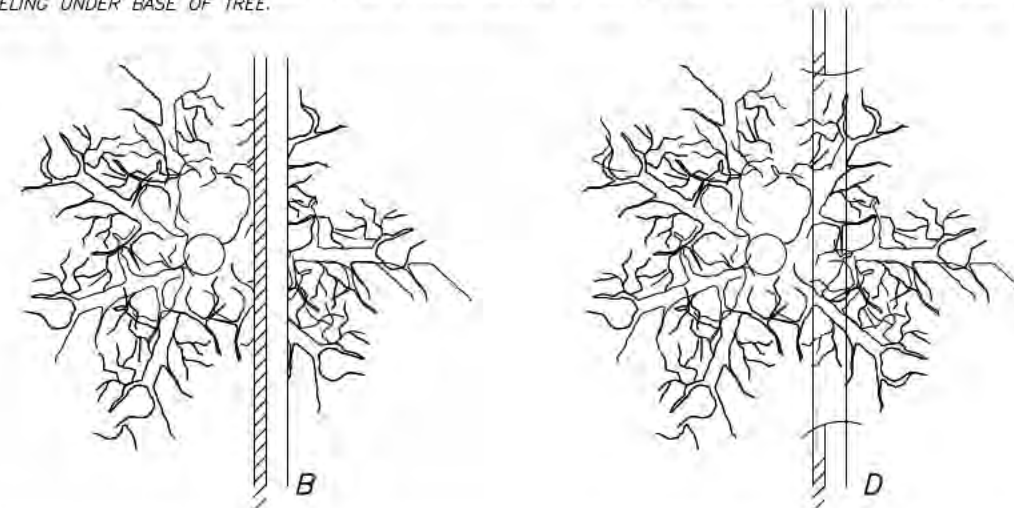
DEEP GRADE CHANGES WILL REQUIRE A RETAINING WALL. THE WALL SHOULD BE POROUS TO ALLOW FOR AERATION. CONSTRUCTION IS SIMILAR TO DRY WELL. TOP PRUNING WILL AID IN RETAINING TREE VIGOR WHEN ROOTS ARE CUT, AND FERTILIZATION WILL STIMULATE NEW GROWTH.

WATER FREQUENTLY UNTIL THE TREE BECOMES ESTABLISHED. SEVERE ROOT DAMAGE WILL REQUIRE 6 MONTHS TO A YEAR FOR THE TREE TO FULLY RECOVER.

OAKS, MAPLES, BAYS, AND CONIFERS ARE AMONG THE SPECIES MOST SUSCEPTIBLE TO GRADE CHANGES.

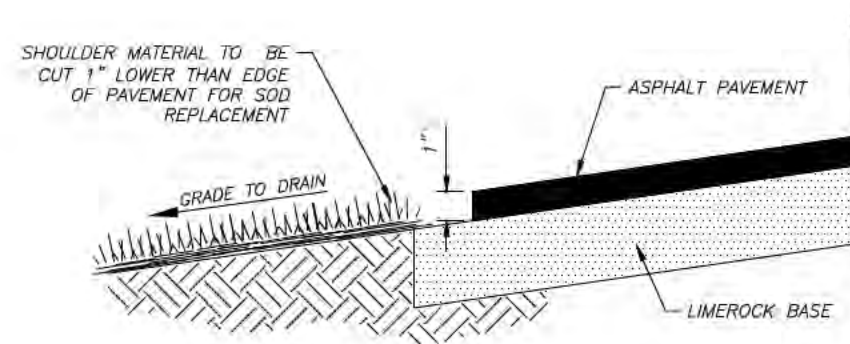


ROOTS SEVERED, AS INDICATED BY DIGGING TRENCHES NEAR TREE (SIDE AND TOP VIEWS): A AND B, MANY ROOTS ARE DESTROYED BY TRENCHING CLOSE TO TREE TRUNKS; C AND D, ONLY A FEW ROOTS DESTROYED BY TUNNELING UNDER BASE OF TREE.



TREES CAN BE PROTECTED WHEN EXCAVATION FOR WATER AND SEWER LINES IS PERFORMED. START BY CONSIDERING THE LOCATION OF THE TRENCHES. IF THE TRENCHES CANNOT BE ROUTED AROUND THE TREES AND OUTSIDE THE DRIPLINE, THE NEXT BEST THING IS TO TUNNEL UNDER THEM.

POWER-DRIVEN SOIL AUGERS ARE OFTEN USED FOR THIS PURPOSE. TUNNELING UNDER THE TREES HAS BEEN SHOWN TO MINIMIZE ROOT KILL. TUNNELING SHOULD BE OFFSET TO ONE SIDE OF THE TRUNK TO PREVENT DAMAGE TO THE MAIN TAP ROOTS.



**SOD REPLACEMENT DETAIL**  
N.T.S.

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**WEST LAMBRIGHT STREET  
DRAINAGE IMPROVEMENTS**

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