



**BAYWEST CANAL  
BRADENTON, FLORIDA  
COVER SHEET**



VICINITY MAP  
N.T.S.

## PROJECT SITE

## SITE LOCATION

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NO.	REVISION DESCRIPTION	BY	DATE
	PROJECT #	465-6044500	
	SURVEY #	000	
	SEC./TWN./RGE	30/34S/17E	
	SCALE	1"=30'	
		BY	DATE
	SURVEYED	GFY	07/20/11
	DESIGNED	JKP	09/15/11
	DRAWN	JKP	10/20/11
	CHECKED	BL	11/10/11

JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
2/2/17  
Signature & Date

**PROJECT DESCRIPTION**  
PIPING 1,100 LF OF CANAL.



Know what's below  
Call before you dig

**SHEET 1**



CONTRACTOR SHALL REFERENCE SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS FOR RECORD DRAWING REQUIREMENTS.

# Topographic Survey

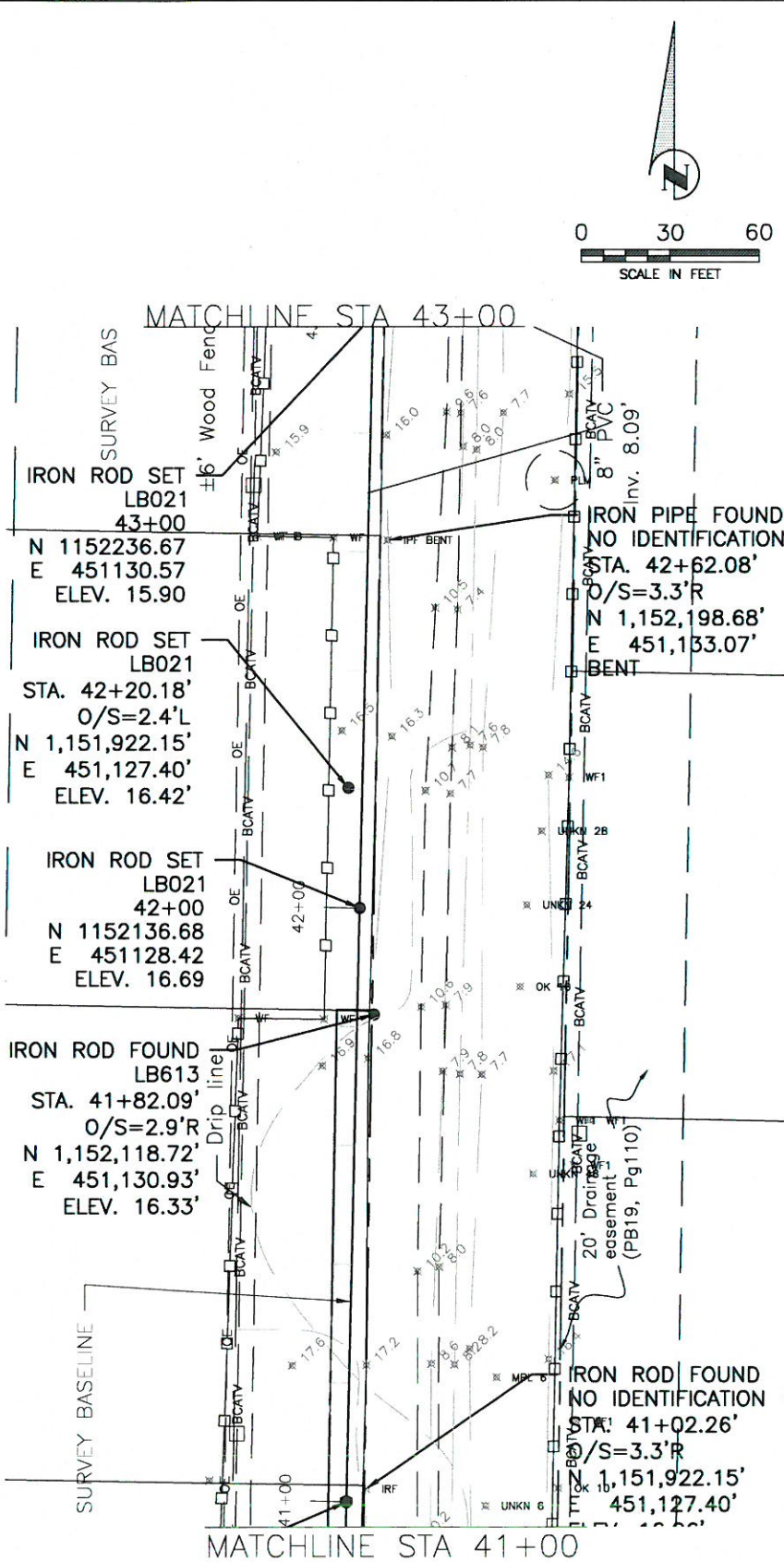
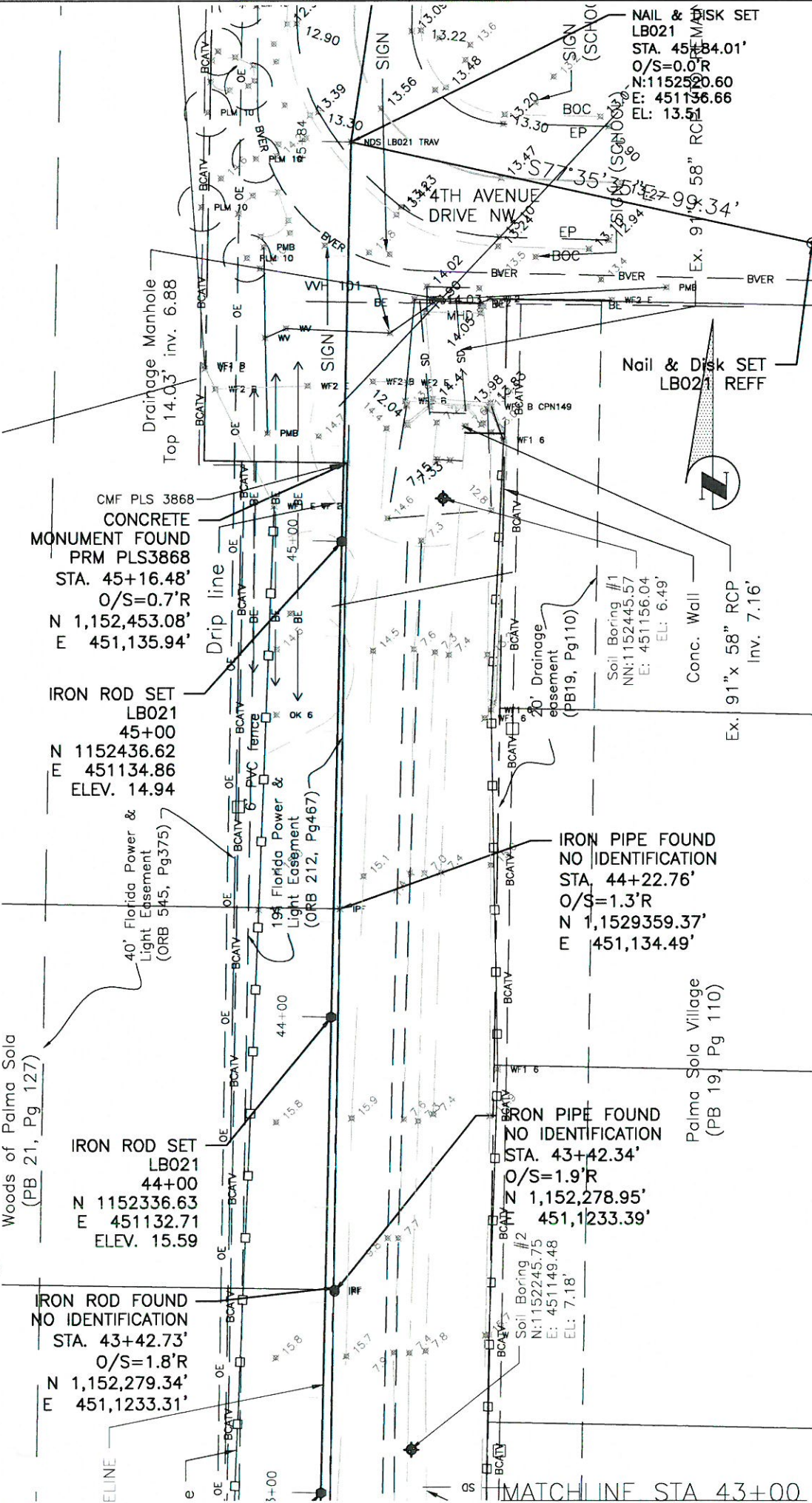
of  
In Section 30, Township 34 South, Range 17 East  
Manatee County, Florida

## SURVEYOR'S REPORT

- Unless noted, locations limited to - observable, above ground improvements, no underground improvements have been located except those shown hereon. Some features may be exaggerated for clarity, dimensions shown supersede scaled dimensions.
- This survey does not certify or warranty: title, zoning, easements, or freedom of encumbrances.
- There are no visible encroachments except as shown. The location and existence of underground utilities and underground foundations or any other pertinent attributes to subject property (if any) not abstracted as part of this survey, except as shown.
- No instruments of record reflecting easements, rights-of-way and/or ownership are known by, or were furnished to this surveyor except as shown hereon.
- This drawing is not valid without the original raised seal and signature of the Florida Registered Surveyor & Mapper shown hereon.
- Parcel information shown hereon was gathered from the Manatee County Geographic Information Systems property locator web site.
- This survey does not reflect or determine ownership.
- Bearings shown are based on State Plane Coordinates, Florida West zone-NAD '83, and were based on GPS observations of survey monument COB1052 (PID #D06936) with published coordinates of (N)1,148,020.42, (E)450,328.94 and survey monument Trent Battles (PID #B8CJ31) with published coordinates of (N)1,154,110.14, (E)447,284.58.
- The elevations shown hereon are based on MAN 4 (A 2" brass disk) (NGS PID#AG7656), elevation 25.23' feet, North American Vertical Datum of 1988 (NAVD88), and Manatee County benchmark Trent Battles, elevation 17.19' feet NAVD88.
- Subject to all restrictions, rights of way and easements of record, if any.
- Reuse of documents: this document is an instrument of service in respect of the project to which it applies and any reuse without written verification or adaptation by George F. Young, Inc. (GFY) for the specific purposes intended will be at the user's sole risk and without liability or legal exposure to GFY and user shall indemnify and hold harmless GFY from all claims, damages, losses and expenses including attorneys fees arising out of or resulting therefrom. Any such verification or adaptation will entitle GFY to further compensation at rates to be agreed upon by user and GFY.
- The expected use of the land, as classified in the Standards of Practice for Surveyors and Mappers (5J-17-F.A.C.), is suburban.
- The purpose of this topographic survey was to obtain existing conditions for the design of the "Bay West Canal" piping project. Substantial visible improvements were located and shown hereon only in the proximity of the design area.
- Soil borings shown hereon were marked in the field by a representative of Driggers Engineering Services Inc, and located by GFY.
- The dates of field survey were 07/08/15 through 07/29/15.

## SUE RELATED NOTES:

- THIS REPORT CONTAINS SUBSURFACE UTILITIES PHYSICALLY EXPOSED BY VACUUM EXCAVATION (VW), ELECTRONICALLY DESIGNATED LINES AS SHOWN IN THE MAP OF SURVEY MAY DEViate FROM THE ACTUAL UTILITY LOCATION AND SHOULD BE CONSIDERED APPROXIMATE.
- SUBSURFACE STORM DRAIN AND GRAVITY SANITARY SEWER STRUCTURES AND THEIR ASSOCIATED PIPING ARE EXCLUDED FROM THIS SURVEY, EXCEPT AT SPECIFIC LOCATIONS REQUESTED BY THE CLIENT.
- SURFACE ELEVATIONS AND MEASURE DOWNS (DEPTH OF COVER) ARE VALID AT THE DATE OF THIS SURVEY ONLY AS SURFACE GRADE CONDITIONS MAY CHANGE OVER TIME.
- SUBSURFACE UTILITIES WERE LOCATED BY UTILIZING THE VACMASTER SYSTEM 2000 FOR VACUUM EXCAVATION WITH THE BENEFIT OF ELECTRONIC DESIGNATION AND GROUND PENETRATING RADAR (GPR).
- UTILIZATION OF THE ABOVE EQUIPMENT AND METHODS IS THE INDUSTRY RECOGNIZED PROCEDURE FOR FINDING AND LOCATING UNDERGROUND UTILITIES. ALTHOUGH EFFECTIVE AND RELIABLE, THERE IS THE POSSIBILITY THAT ALL UTILITIES MAY NOT BE DETECTED DUE TO ENVIRONMENTAL CONDITIONS, SOIL CONDITIONS, WATER TABLE, EXCESSIVE DEPTH, AND/OR FEATURE MAKEUP.
- UTILITY SIZE AND MATERIAL COMPOSITION WERE COLLECTED BY FIELD OBSERVATION UNDER ADVERSE CONDITIONS AND SHOULD BE CONSIDERED APPROXIMATE.
- UTILITY SIZE REFLECTS THE APPROXIMATE OUTSIDE DIAMETER UNLESS OTHERWISE SPECIFIED.
- UTILITY OWNER'S NAMES USED IN THIS REPORT REFLECT INFORMATION OBTAINED FROM FIELD OBSERVATIONS, FIELD MEETINGS, AND UTILITY RESEARCH AND MAY NOT REFLECT ACTUAL OWNERSHIP.
- MEASUREMENTS DESCRIBED AS ELECTRONIC DESIGNATION ONLY/DEPTH METER, IF ANY, HAVE BEEN OBTAINED BY ELECTRONIC DESIGNATING EQUIPMENT. THE 3-DIMENSIONAL POSITION OF ELECTRONICALLY DESIGNATED UTILITIES HAS NOT BEEN PHYSICALLY MEASURED AND SHOULD BE CONSIDERED APPROXIMATE.
- HORIZONTAL VALUES (NORTHING/EASTING) ARE RELATIVE TO THE STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, NORTH AMERICAN DATUM OF 1983-1990 ADJUSTMENT (NAD 1983-1990) AND WERE ESTABLISHED BY GLOBAL POSITIONING SYSTEM (GPS) SURVEY.
- VERTICAL VALUES, ELEVATIONS, (LISTED AS "SURFACE OR TOP" IN THE VW TABLE) ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



## SUE TABLE:

VW UTILITY LOCATIONS (VERIFICATION OF VERTICAL & HORIZONTAL) (FIELD DATE: 07/20/15)-SUE NOTES (TRUCK 118, BOOK 1020)					
VW NUMBER	UTILITY TYPE	TOP UTILITY ELEVATION	UTILITY	LOCATION	
				NORTHING	EASTING
101	6" PVC WM (MANATEE COUNTY)	11.4	WATER MAIN	1152480.41	451144.83
102	16" DIP FM (MANATEE COUNTY)	21.7	FORCED MAIN	1151363.27	451097.22
103	16" DIP FM (MANATEE COUNTY)	20.9	FORCED MAIN	1151364.18	451135.29
104	16" DIP FM (MANATEE COUNTY)	20.8	FORCED MAIN	1151363.92	451162.11
105	16" DIP WM (MANATEE COUNTY)	19.4	WATER MAIN	1151345.19	451114.60
106	16" DIP FM (MANATEE COUNTY)	19.0	FORCED MAIN	1151344.08	451159.19

PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

### BAYWEST CANAL BRADENTON, FLORIDA TOPOGRAPHICAL SURVEY

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	465-6044500	
SURVEY #	000	
SEC./TWN./RGE	30/34S/17E	
SCALE	1"=30'	
SURVEYED	GFY	07/20/15
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Signature & Date

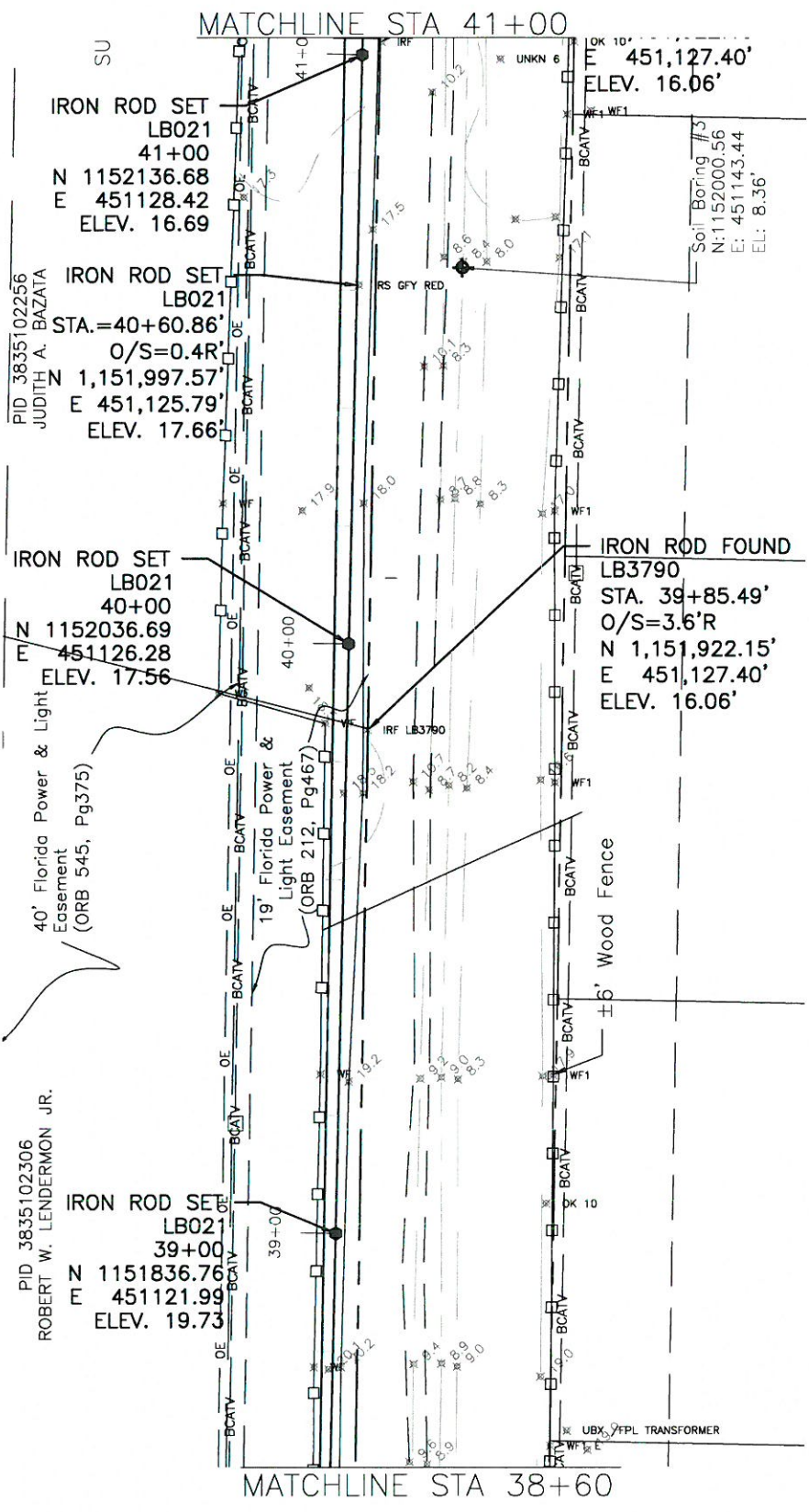
SHEET 2



CONTRACTOR SHALL REFERENCE SECTION 14 IN THE  
CURRENT MANATEE COUNTY UTILITY STANDARDS FOR  
RECORD DRAWING REQUIREMENTS.

# Topographic Survey

of  
In Section 30, Township 34 South, Range 17 East  
Manatee County, Florida





GENERAL

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: WILLIAM LORENZO AND CAN BE REACHED AT 941- 708-7450 EXT. 7338.
2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER.
3. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
4. VERTICAL CONTROL FOR THIS PROJECT WAS ESTABLISHED BY A MINIMUM OF TWO REFERENCE BENCHMARKS DESCRIBED ON THE "THE NORTH AMERICAN VERTICAL DATUM OF 1988", (NAVD '88), TO CONVERT ELEVATIONS TO NAVD FROM NGVD, SUBTRACT 0.97 FT. NAVD ELEV. = NGVD ELEV. -0.97 FT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
6. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
7. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
8. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
9. ALL STATIONS AND OFFSETS REFER TO THE BASELINE OF CONSTRUCTION.
10. THE CONSTRUCTION LENGTHS ARE IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS DIRECTED BY THE ENGINEER.
11. SEPARATE PAY SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE COORDINATION OF CONSTRUCTION SCHEDULING BETWEEN CONTRACTOR AND ALL UTILITY AGENCIES.
13. ANY DAMAGE TO COUNTY ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE COUNTY PROJECT MANAGER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.

14. NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONAL PROJECT RESTRAINTS, REFER TO SECTION 01310 OF THE SPECIFICATIONS.

SAFETY

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
16. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
17. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
18. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

ENVIRONMENTAL

19. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
20. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
21. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
22. SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED, OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
23. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
24. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.
25. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
26. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
27. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

RIGHT-OF-WAY

28. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY RIGHT-OF-WAY.
29. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
30. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.
32. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.

UTILITIES

33. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY AFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
34. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
35. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
36. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.

RESTORATION

37. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
38. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
39. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS.
40. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
41. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

CONSTRUCTION

42. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT Baffles POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
43. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEEPED DAILY AS PART OF DAILY CLEAN UP.
44. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
45. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
46. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
47. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
48. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.
49. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS.
50. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER.
51. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
52. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
53. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
54. CONTRACTOR IS RESPONSIBLE FOR ALL UNSUITABLE MATERIAL REMOVAL WITHIN PROJECT LIMITS. EXCAVATION, EMBANKMENT, INCLUDING UTILIZATION, AND UNSUITABLE MATERIAL SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS, LATEST VERSION.
55. ALL STUMPS, ROOTS, AND OTHER DEBRIS PROJECTING THROUGH OR APPEARING ON THE SURFACE OF THE GROUND SHALL BE REMOVED TO A DEPTH OF 1 FOOT BELOW THE COMPLETED SURFACE. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
56. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. THIS WORK SHALL BE INCLUDED IN AND PAID UNDER THE PAY ITEM FOR CLEARING AND GRUBBING.
57. THE CONTRACTOR SHALL NOT DISTURB NO MORE GROUND THAN WHAT IS NECESSARY FOR CONSTRUCTION. NO OPEN EXCAVATED TRENCH, OR OTHER UNSAFE CONDITION WILL BE LEFT OVERNIGHT. THE INTENT OF THIS PROVISION IS TO SAFE-UP THE PROJECT SITE AS WORK PROGRESSES, AND SHALL INCLUDE REMOVING FORMS, FILLING HOLES, GRADING AND REMOVAL OF DEBRIS.
58. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.
59. ANY EXISTING SIGN THAT IS DISTURBED OR RELOCATED DURING CONSTRUCTION SHALL BE RESET TO CURRENT STANDARDS FOR HEIGHT, OFFSET, AND METHOD OF INSTALLATION AT NO ADDITIONAL COST TO THE COUNTY.
60. ALL EXISTING FENCES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AND REINSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST. ALL EXISTING FENCES TO BE RELOCATED SHALL BE REINSTALLED 1 FOOT OUTSIDE EXISTING RIGHT OF WAY.
61. ALL EXISTING TREES WITHIN THE EXISTING RIGHT OF WAY SHALL REMAIN UNLESS OTHERWISE NOTED.
62. ALL EXISTING STORM DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE REMAIN UNLESS OTHERWISE NOTED.
63. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
64. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH MANATEE COUNTY HIGHWAY, TRAFFIC & STORMWATER STANDARDS DATED 2007 AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS SHALL BE STRICTLY ENFORCED. A COPY OF MANATEE COUNTY HIGHWAY, TRAFFIC & STORMWATER STANDARDS WILL BE PROVIDED UPON REQUEST.

DRAINAGE AND GRADING

65. ALL CONSTRUCTION IS TO BE STAKED IN THE FIELD BY OR UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR.
66. THE CONTRACTOR IS TO PROVIDE THE ENGINEER OF RECORD WITH REPRODUCIBLE RECORD DRAWINGS SHOWING ALL IMPROVEMENT LOCATIONS AND ELEVATIONS IN ACCORDANCE WITH LATEST MANATEE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SWFWMD STANDARDS. THE CONTRACTOR SHALL PROVIDE FIVE SETS OF PRINTS, SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR, OF THE RECORD DRAWING TO THE ENGINEER OF RECORD. RECORD DRAWINGS SHALL INCLUDE TOP OF BANK AND STORM STRUCTURES AND BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT.
67. TOPOGRAPHIC GROUND ELEVATIONS, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, PAVEMENT, HAVE BEEN OBTAINED BY RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF THE SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS HE MAY DEEM NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.
68. ALL PIPE LENGTHS SHOWN ON PLAN VIEW ARE TO THE END OF THE MITERED END SECTION. REFER TO MES DETAIL FOR LENGTH OF PIPE TO BE INCLUDED IN PRICE FOR MES.
69. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES PRIOR TO INSTALLATION.
70. ALL BACKFILL AREAS TO BE CONSTRUCTED IN 12" MAXIMUM LIFTS.
71. STATION LOCATIONS AND OFFSETS FOR DITCH BOTTOM INLETS / MANHOLES / MITERED END SECTIONS (MES) REFERENCE THE CENTER OF THE SPECIFIED STRUCTURE BOTTOM. FOR PIPES WITH MITERED END SECTIONS, THE PROPOSED LENGTHS SHOWN ON THE PLANS INCLUDE THE LENGTH OF THE MES. PAYMENT FOR PIPE SHALL NOT INCLUDE THE LENGTH OF THE MES, AS SPECIFIED BY DIMENSION "F" AS SHOWN IN FDOT INDEX 272 AND 273.
72. ALL MANHOLES SHALL HAVE HEAVY DUTY RING AND COVER MANHOLE ACCESS. ALL STORM STRUCTURES SHALL HAVE 6" MINIMUM WALLS.
73. DURING DEWATERING OPERATIONS, THE CONTRACTOR SHALL NOT DISCHARGE DIRECTLY TO RECEIVING WATERS, EXISTING CONVEYANCES TO RECEIVING WATERS, OR WETLAND SYSTEMS. TEMPORARY SEDIMENT BASINS, TRAPS, OR SILTATION REDUCTION DEVICES SHALL BE UTILIZED TO COLLECT THE DISCHARGE FROM DEWATERING ACTIVITIES TO ELIMINATE THE POTENTIAL FOR OFFSITE SEDIMENT TRANSPORT AND TO INSURE THAT DIRECT DISCHARGE DOES NOT OCCUR.
74. CONTRACTOR TO MAINTAIN PROPER STORMWATER CONVEYANCE AT ALL TIMES DURING CONSTRUCTION.

EMERGENCY CONTACTS

MANATEE COUNTY  
PUBLIC WORKS DEPT.  
UTILITIES ENGINEERING DIV. MGR.  
SCOTT MAY, P.E.  
1022 26TH AVENUE EAST  
BRADENTON, FL 34208  
(941) 708-7450 EXT. 7650  
FAX: (941) 708-7507  
scott.may@mymanatee.org

TECO/PEOPLES GAS CO.  
DAN SHANAHAN  
8261 VICO COURT  
SARASOTA, FL 34240  
(941) 342-4030  
FAX: (941) 342-4011  
EMERGENCY: 1-877-832-6911

FRONTIER  
DENISE HUTTON  
1701 RINGLING BLVD.  
SARASOTA, FL 34236  
(941) 906-6722  
FAX: (941) 906-6706  
Denise.Hutton@verizon.com

FLORIDA POWER & LIGHT  
GREG COKER  
1253 12TH AVENUE EAST  
PALMETTO, FL 34221  
(941) 723-4430  
FAX: (941) 723-4444  
EMERGENCY: 1-800-4-OUTAGE  
Greg.Coker@fpl.com

MANATEE COUNTY HEALTH DEPT.  
HARRY MESSICK  
410 6th AVENUE EAST  
BRADENTON, FL 34208  
(941) 748-0747 EXT. 1355  
FAX: (941) 750-9364

SOUTHWEST FLORIDA WATER  
MANAGEMENT DISTRICT  
SARASOTA SERVICE OFFICE  
STEVE LOPES, P.E.

6750 FRUITVILLE ROAD  
SARASOTA, FL 34240(941)  
377-3722  
FAX: (941) 373-7660

FLORIDA GAS TRANSMISSION  
CHAD HARRELL  
7804 ANDERSON RD.  
TAMPA FL 33634  
PHONE: (813) 466-3327  
E-mail: chad.harrell@sug.com

FDEP, SOUTHWEST DISTRICT  
ED WATSON  
13051 N. TELECOM PKWY  
TEMPLE TERRACE, FL 33637  
(813) 470-5875  
FAX: (813) 470-5993

SPECTRUM  
TOM WRIGHT  
5413 E. STATE ROAD 64  
BRADENTON, FL 34208-5535  
(941) 748-3816 EXT. 21348  
Tom.Wright@mybriighthouse.com

SUNSHINE STATE ONE CALL OF  
FLORIDA 1-(800) 432-4770

PEACE RIVER ELECTRIC  
COOPERATIVE, INC.  
210 Metheny RD  
WACHULA, FL 33873  
Jamie Harrison  
(863) 767-4668  
jamie.harrison@preco.coop

MANATEE COUNTY PUBLIC WORKS  
DEPT./TRAFFIC ENGINEERING/ ATMS  
2101 47TH TERRACE EAST  
BRADENTON, FL 34203  
VISHAL KAKKAD, P.E.  
(941) 749-3500 EXT. 7812  
FAX: (941) 749-3571  
vishal.kakkad@mymanatee.org.

LEGEND	
EXISTING	PROPOSED
BENCH MARK	R/W RIGHT OF WAY
CONCRETE MONUMENT	CONC CONCRETE
IRON PIPE	ASPH ASPHALT
IRON ROD	DRWY DRIVEWAY
HUB	SWK SIDEWALK
NAIL & DISK	EP EDGE OF PAVEMENT
ELEVATION	BOC BACK OF CURB
LOT NO.	FM FORCE MAIN
GUY WIRE	PW POTABLE WATER
POWER POLE	RW RECLAIMED WATER
LIGHT POLE	SS SANITARY SEWER
MAIL BOX	SD STORM DRAIN
SIGN	GL GAS LINE
REFLECTOR	OCHT OVERHEAD CABLE TV
SPRINKLER	BCOT BURIED CABLE TV
GAS MARKER	OHE OVERHEAD ELECTRIC
BACKFLOW PREVENTER	BE OVERHEAD ELECTRIC
BLOW OFF VALVE	OHV OVERHEAD VERZON
FIRE HYDRANT	BV BURIED VERZON
WATER VALVE	VZ VERZON
AIR RELEASE VALVE	BU BURIED UTILITY
WATER METER	OU OVERHEAD UTILITY
SANITARY SEWER MANHOLE	RRT RAIL ROAD TRACKS
SANITARY SEWER CLEAN OUT	EC EDGE OF CONCRETE
SOIL BORING LOCATION	ER EDGE OF ROAD
TELEPHONE SERVICE BOX	TS TOE OF SLOPE
FLOW DIRECTION	TB TOP OF BANK
GRATE INLET	PL PROPERTY LINE
MITERED END SECTION	RW RIGHT OF WAY
SPOT ELEVATION	



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

BAYWEST CANAL  
BRADENTON, FLORIDA  
GENERAL NOTES

REVISION	DESCRIPTION	DATE
NO.		
PROJECT #	465-6044500	
SURVEY #	000	
SEC./TWN./RGE	30/34S/17E	
SCALE	1"=30'	
	BY	DATE
SURVEYED	GFY	07/20/15
DESIGNED	JKP	09/15/15
DRAWN	JKP	10/20/15
CHECKED	EL	11/10/15
JOHN FARI, P.E.		
FLORIDA P.E. # 56366		
2/25/17		
Signature & Date		
SHEET 4		



**BAYWEST CANAL  
BRADENTON, FLORIDA  
QUANTITIES**

NO.	REVISION DESCRIPTION	BY	DATE
	PROJECT #	465-6044500	
	SURVEY #	000	
	SEC./TWN./RGE	30/34S/17E	
	SCALE	1"=30'	
		BY	DATE
	SURVEYED	GFY	07/20/15
	DESIGNED	JKP	09/15/15
	DRAWN	JKP	10/20/15
	CHECKED	RL	11/10/15

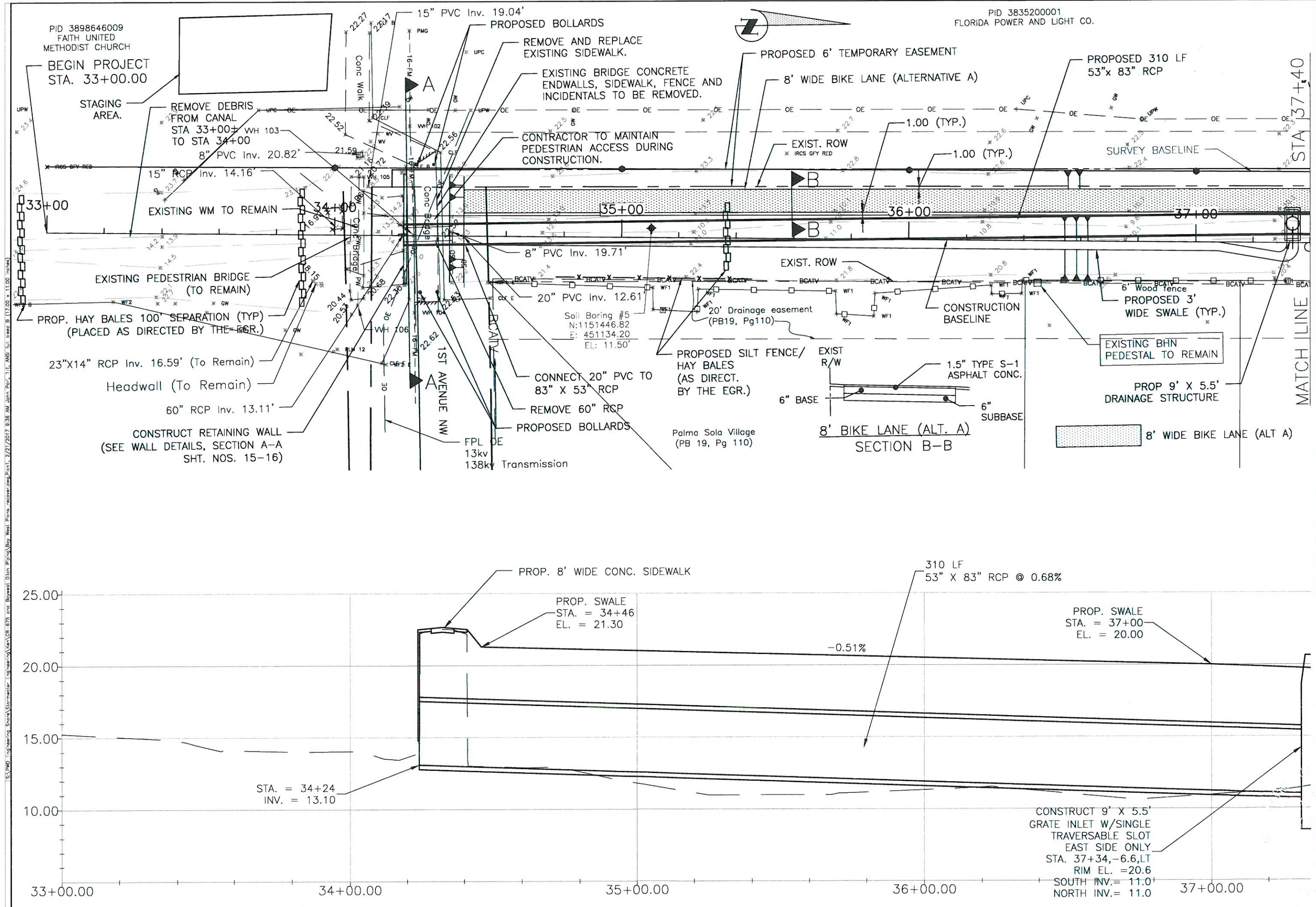
JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
*[Signature]*  
2/2/17  
Signature & Date  
SHEET 5

LINE NO.	ITEM NO.	DESCRIPTION	EST. QTY	U/M
1.	160-4	6" Stabilization Subbase (LBR 60)	1,257.00	SY
2.	285-701	Optional Base Group 1	1,257.00	SY
3.	334-1-MC1	1 1/2" Type S-I Asphalt Concrete (Incl. Prime Coat)	90.00	TON
4.	700-MC1	Signs - Misc.	1.00	LS
5.	710-MC1	Painted pavement markings (Incl. Messages & Arrows)	1.00	LS



NO.	REVISION DESCRIPTION	BY	DATE
	PROJECT #	465-6044500	
	SURVEY #	000	
	SEC./TWN./RGE	30/34S/17E	
	SCALE	1"=30'	
		BY	DATE
	SURVEYED	GFY	07/20/15
	DESIGNED	JKP	09/15/15
	DRAWN	JKP	10/20/15
	CHECKED	BL	11/10/15
JOHN PARI, P.E.			
FLORIDA P.E. # 56368			
<i>[Signature]</i> 2/21/17			
Signature & Date			

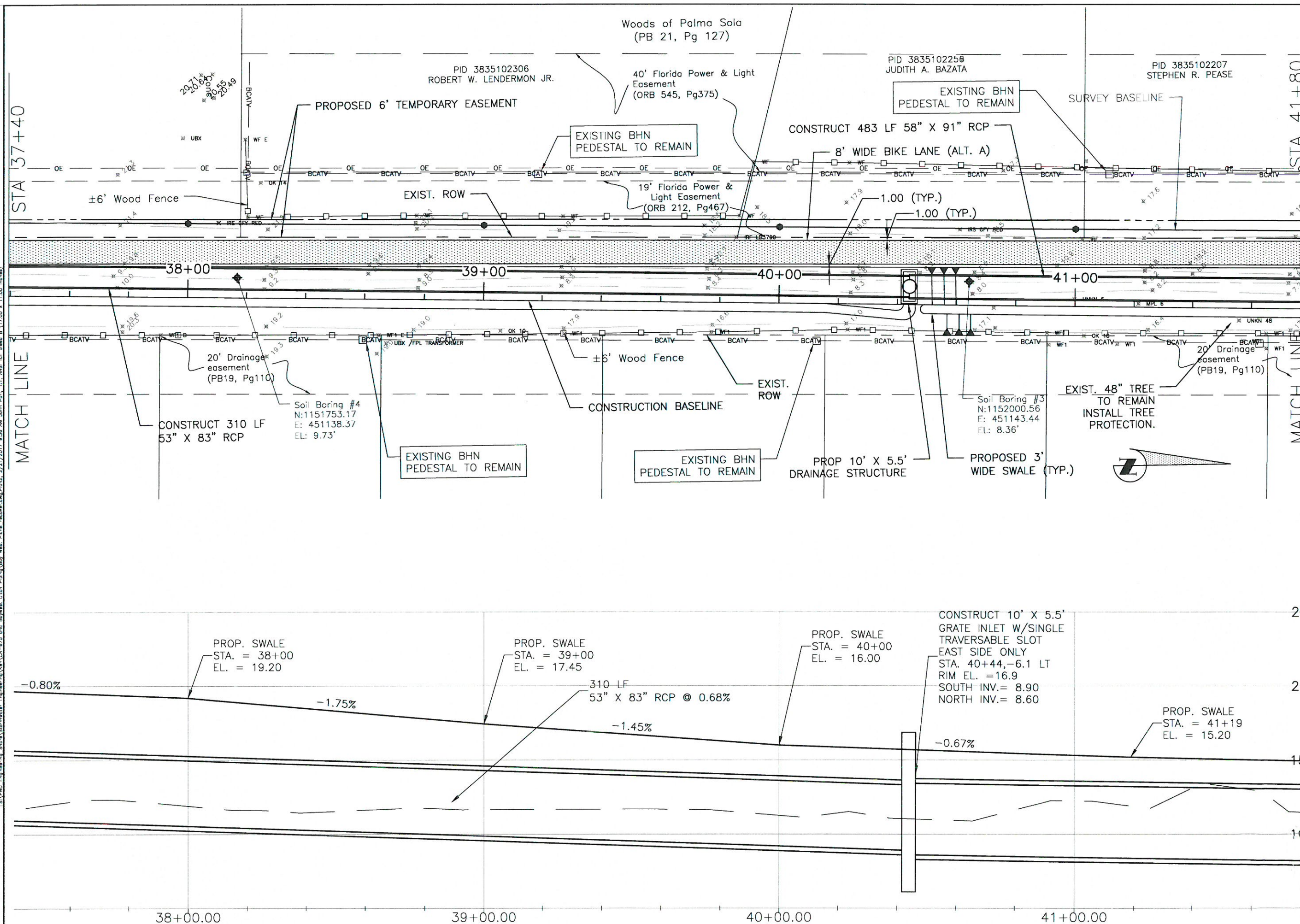
**SHEET 6**






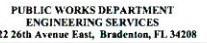
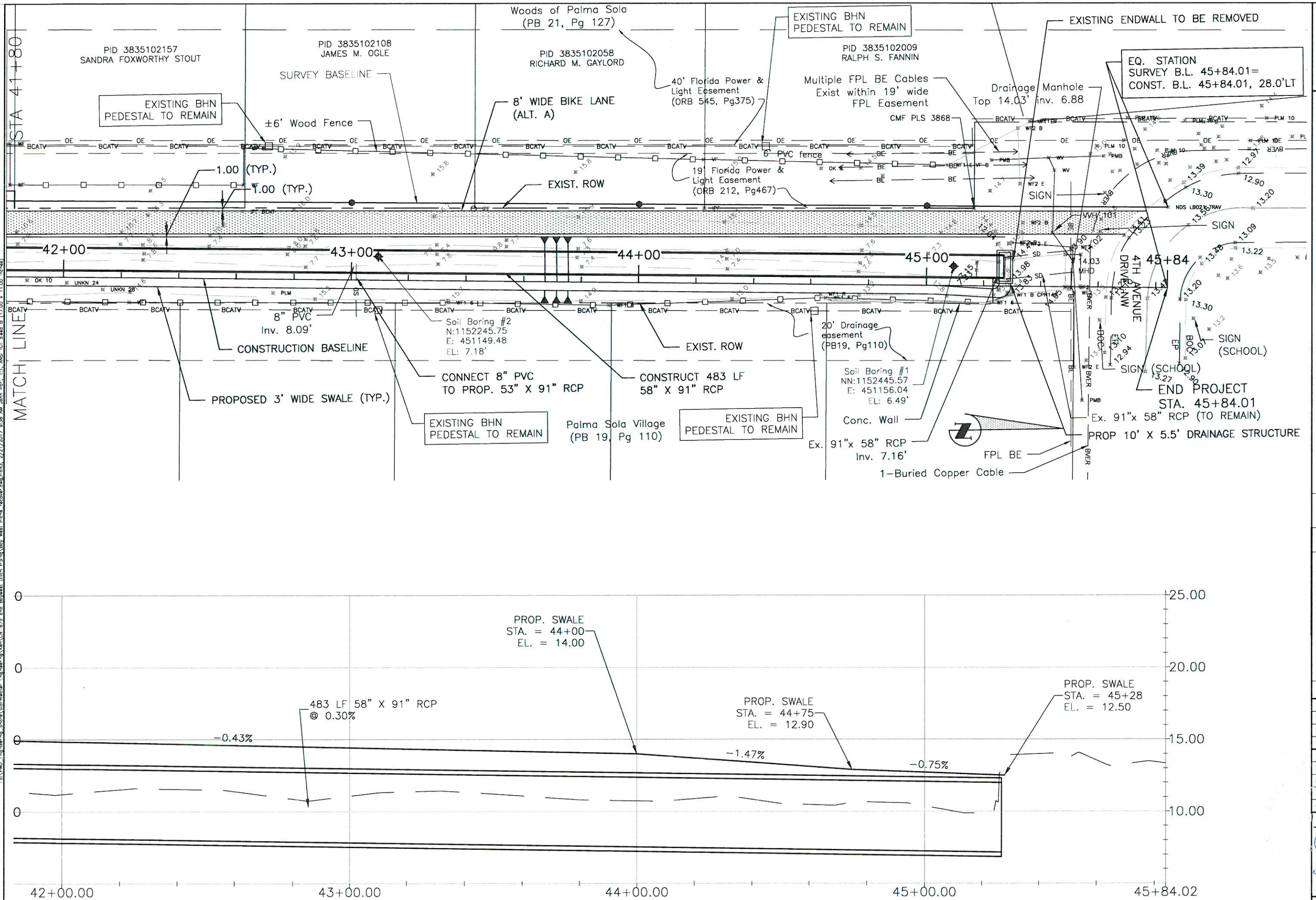


# BAYWEST CANAL BRADENTON, FLORIDA PLAN AND PROFILE

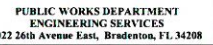


REVISION DESCRIPTION		BY	DATE
NO.			
PROJECT #		465-6044500	
SURVEY #		000	
SEC./TWN./RGE		30/34S/17E	
SCALE		1"=30'	
	BY	DATE	
SURVEYED	GFY	07/20/	
DESIGNED	JKP	08/15/	
DRAWN	JKP	10/20/	
CHECKED	BL	11/10/	
JOHN PARK, P.E.			
FLORIDA P.E. # 56368			
 2/21/17 Signature & Date			
SHEET 7			



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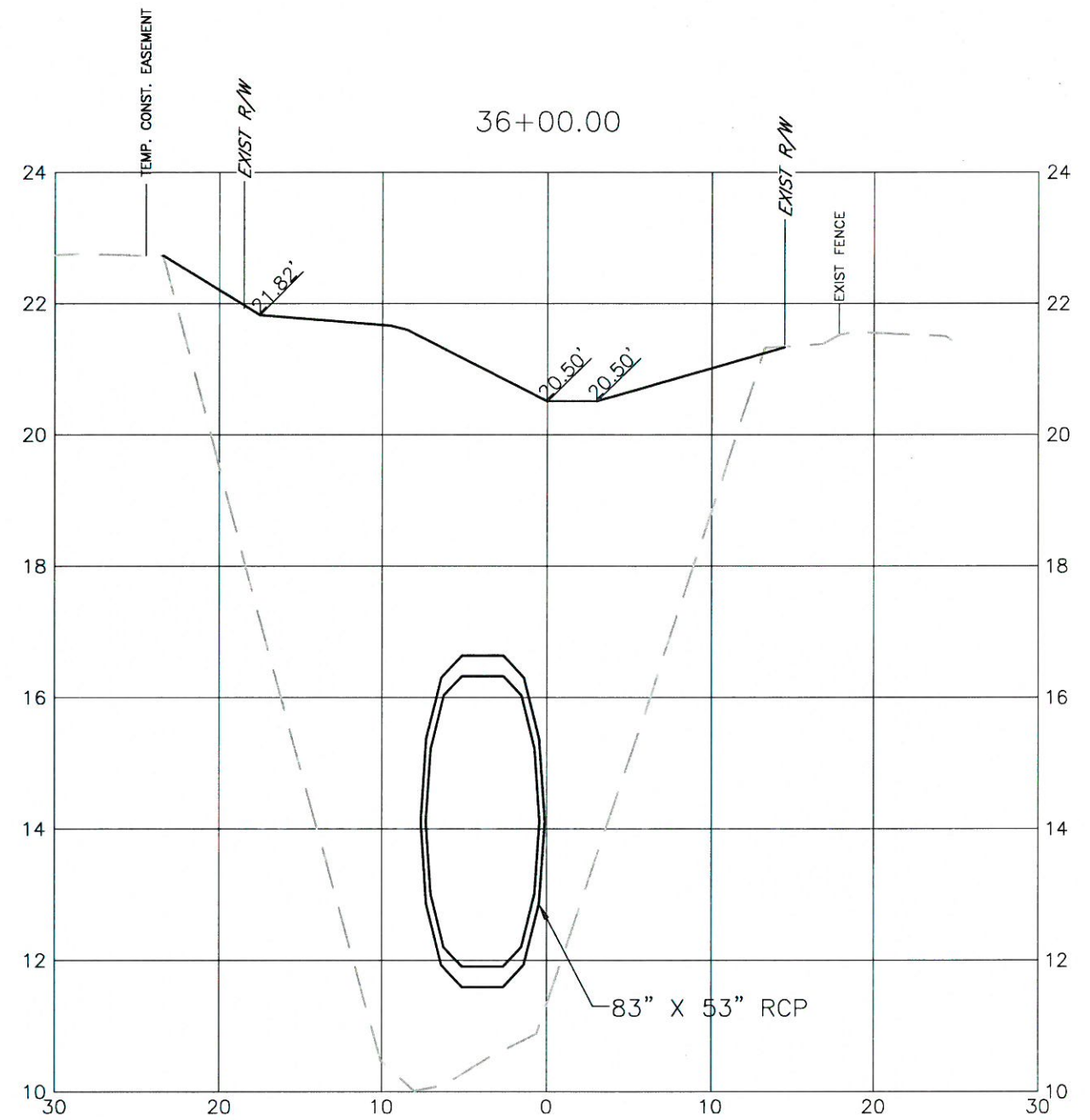
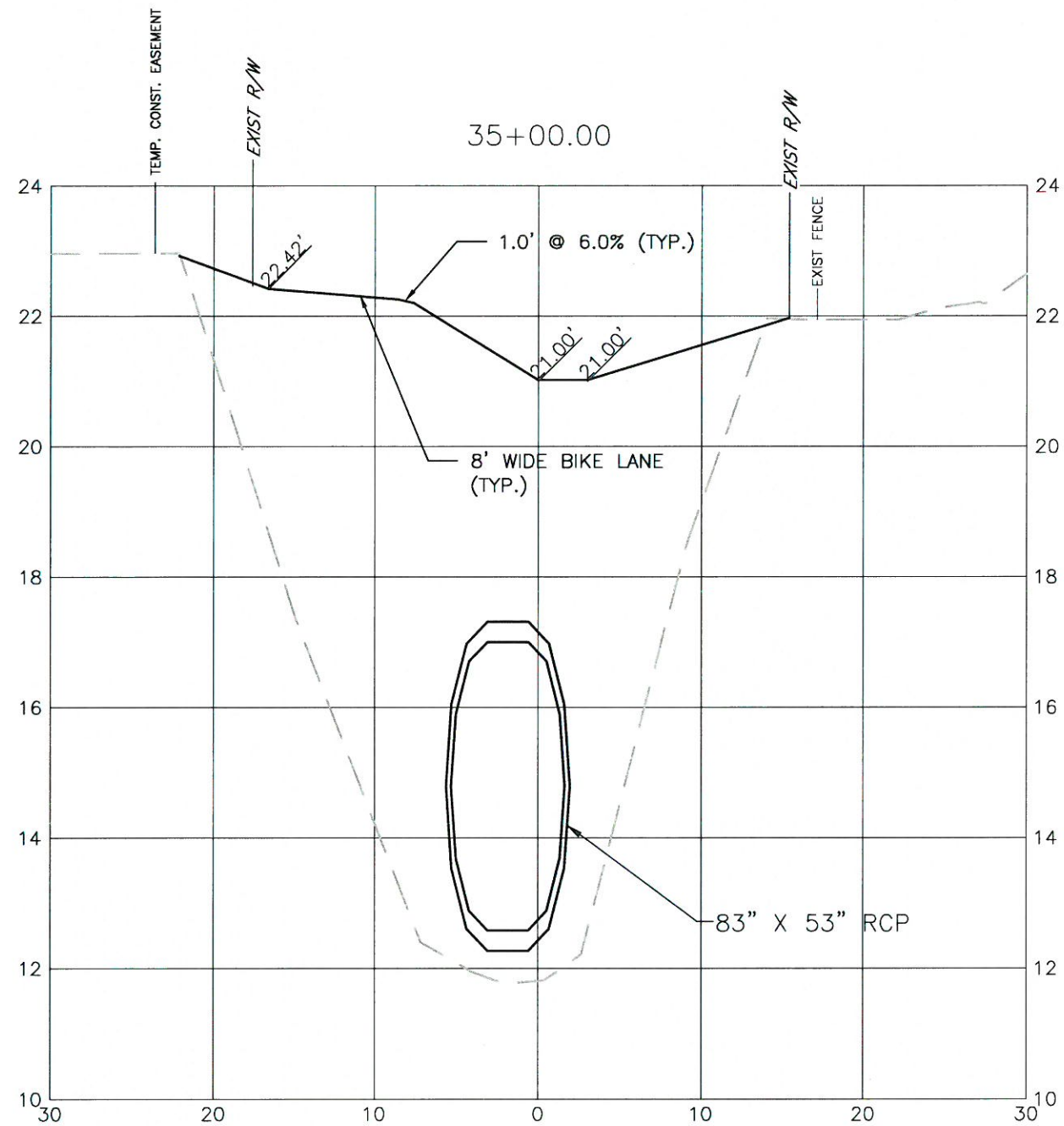




# BAYWEST CANAL BRADENTON, FLORIDA CROSS SECTIONS

NO.	REVISION DESCRIPTION	BY	DATE
PROJECT #	465-6044500		
SURVEY #	000		
SEC./TWN./RGE	30/34S/17E		
SCALE	AS SHOWN		
	BY	DATE	
SURVEYED	GFY	07/20/15	
DESIGNED	JKP	09/15/15	
DRAWN	JKP	10/20/15	
CHECKED	BL	11/10/15	

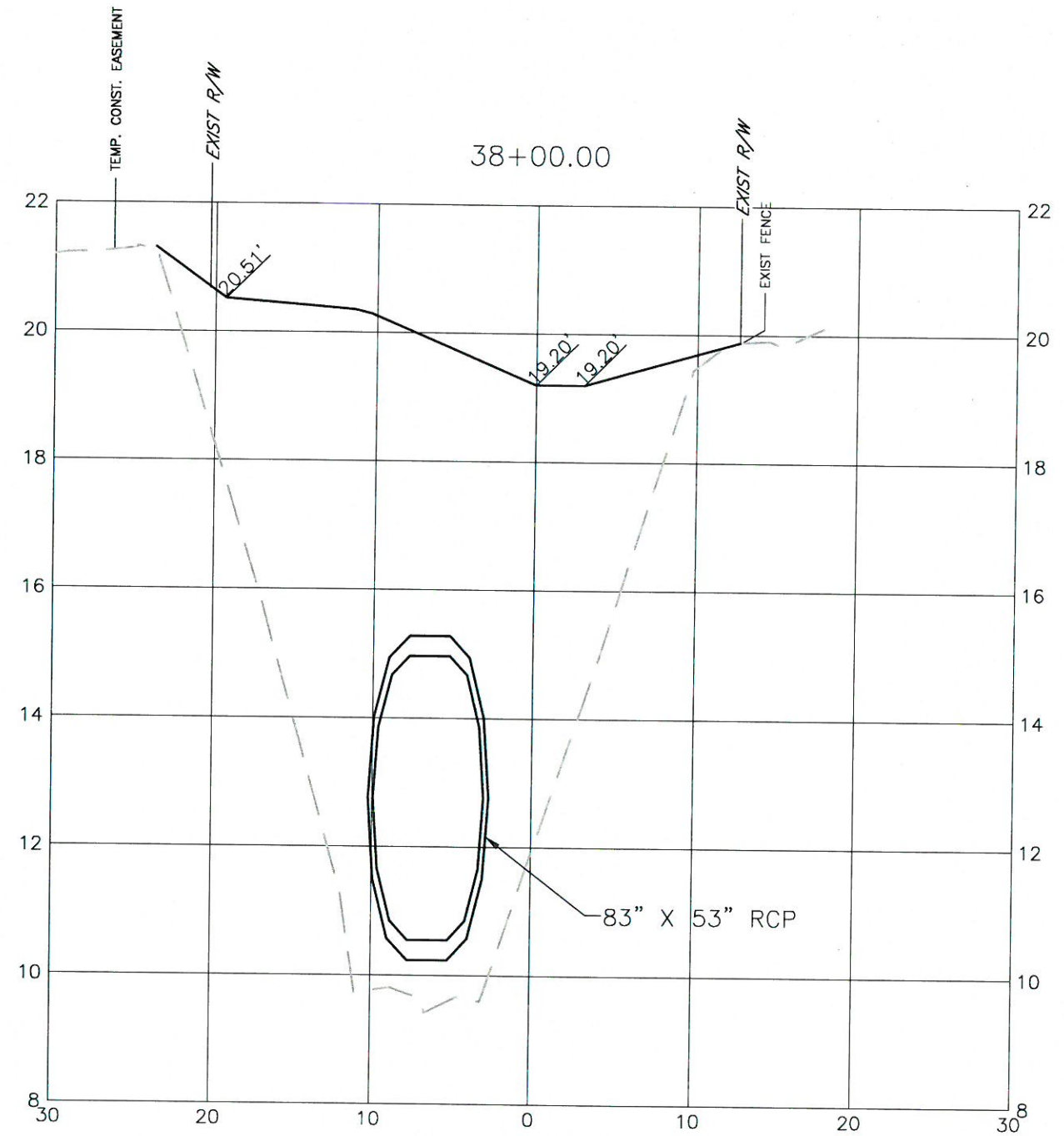
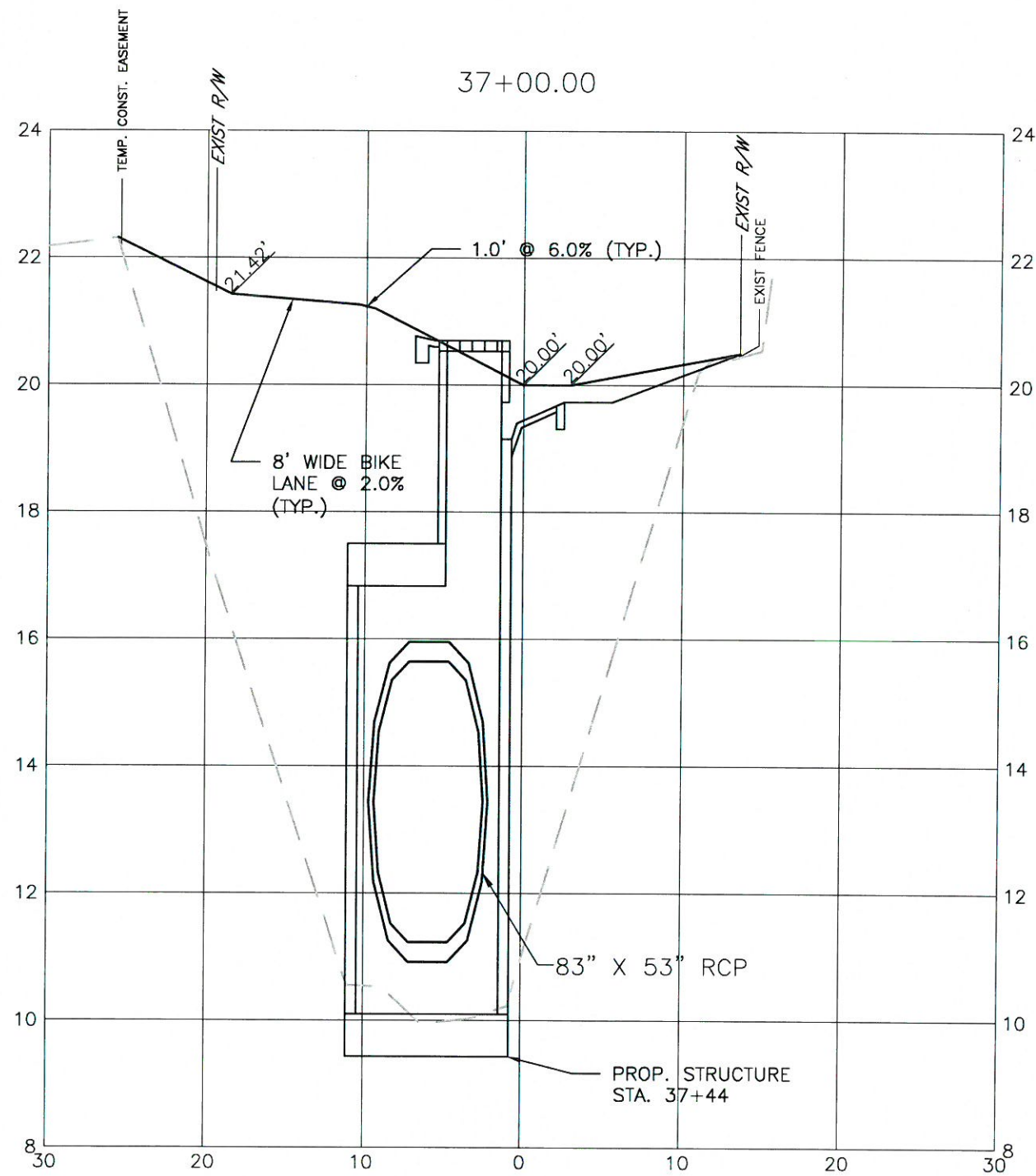
JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
2/2/17  
Signature & Date



SCALE:   HORZ: 1"=10'  
          VERT.: 1"= 2.5'

S:\PWD Engineering Shore Stormwater Engineering\en\CR-675 and Boywest Ditch Paving\Boy West Plans recover.dwg, Section 1, 2/21/2017 9:39 AM Jonn Per, 1:1, ANS (U) bleed B (17.00 x 11.00 inches)





SCALE:   HORZ: 1"=10'  
          VERT.: 1"= 2.5'



**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

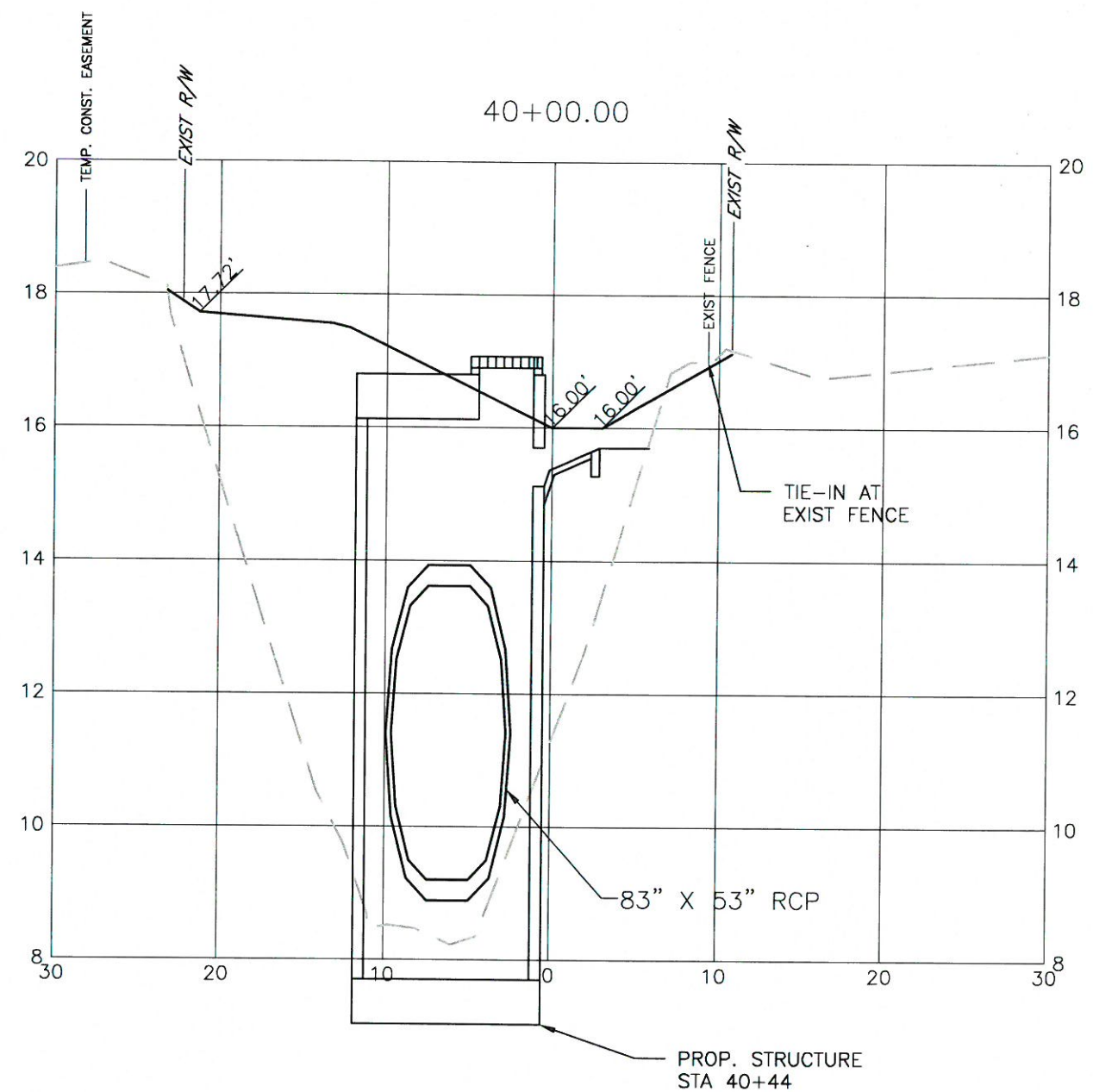
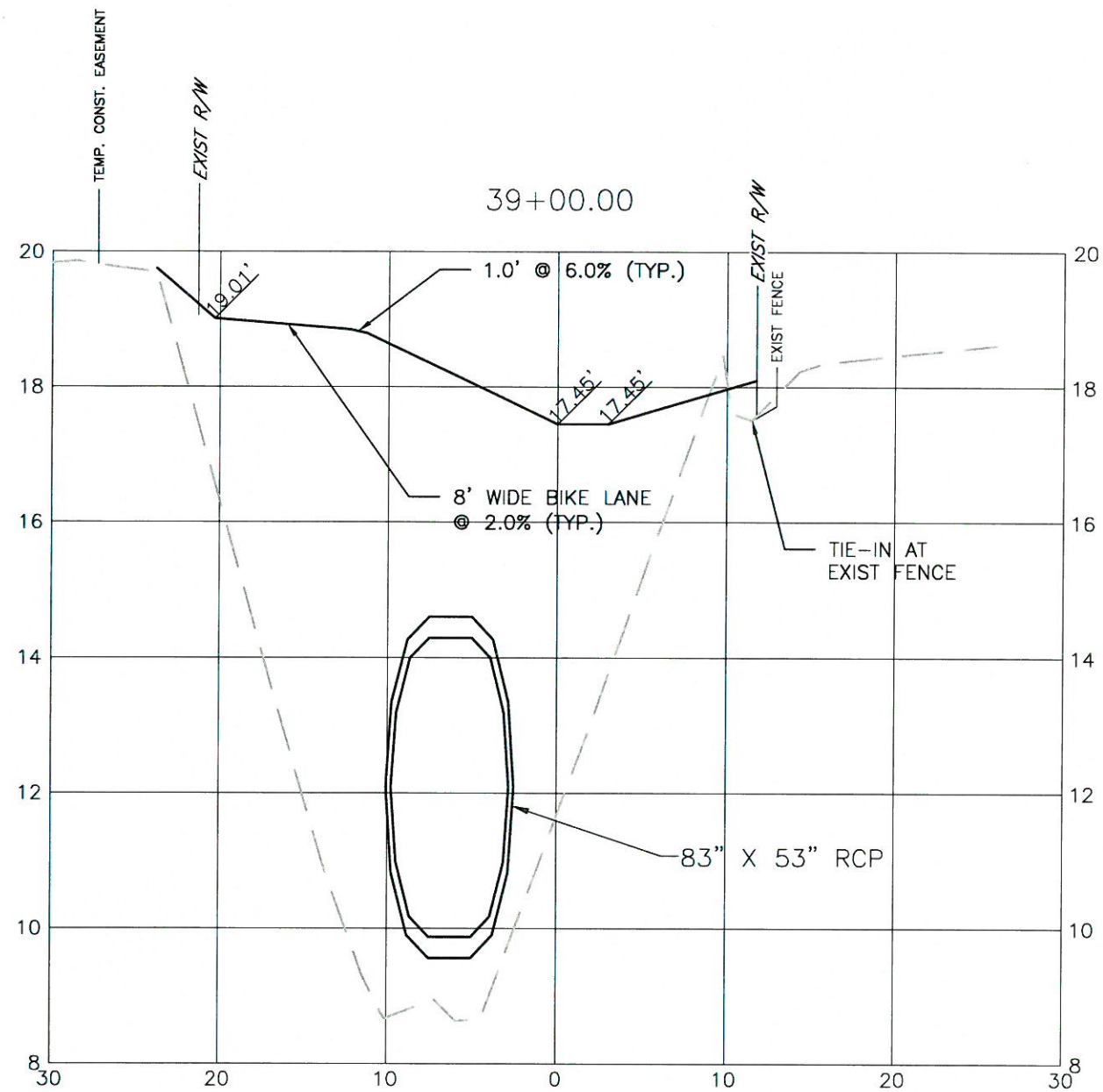
# BAYWEST CANAL BRADENTON, FLORIDA CROSS SECTIONS

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PROJECT #	465-6044500	
SURVEY #	000	
SEC./TWN./RGE	30/34S/17E	
SCALE	AS SHOWN	
	BY	DATE
SURVEYED	GFY	07/20/15
DESIGNED	JKP	09/15/15
DRAWN	JKP	10/20/15
CHECKED	BL	11/10/15

JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
2/21/17  
Signature & Date





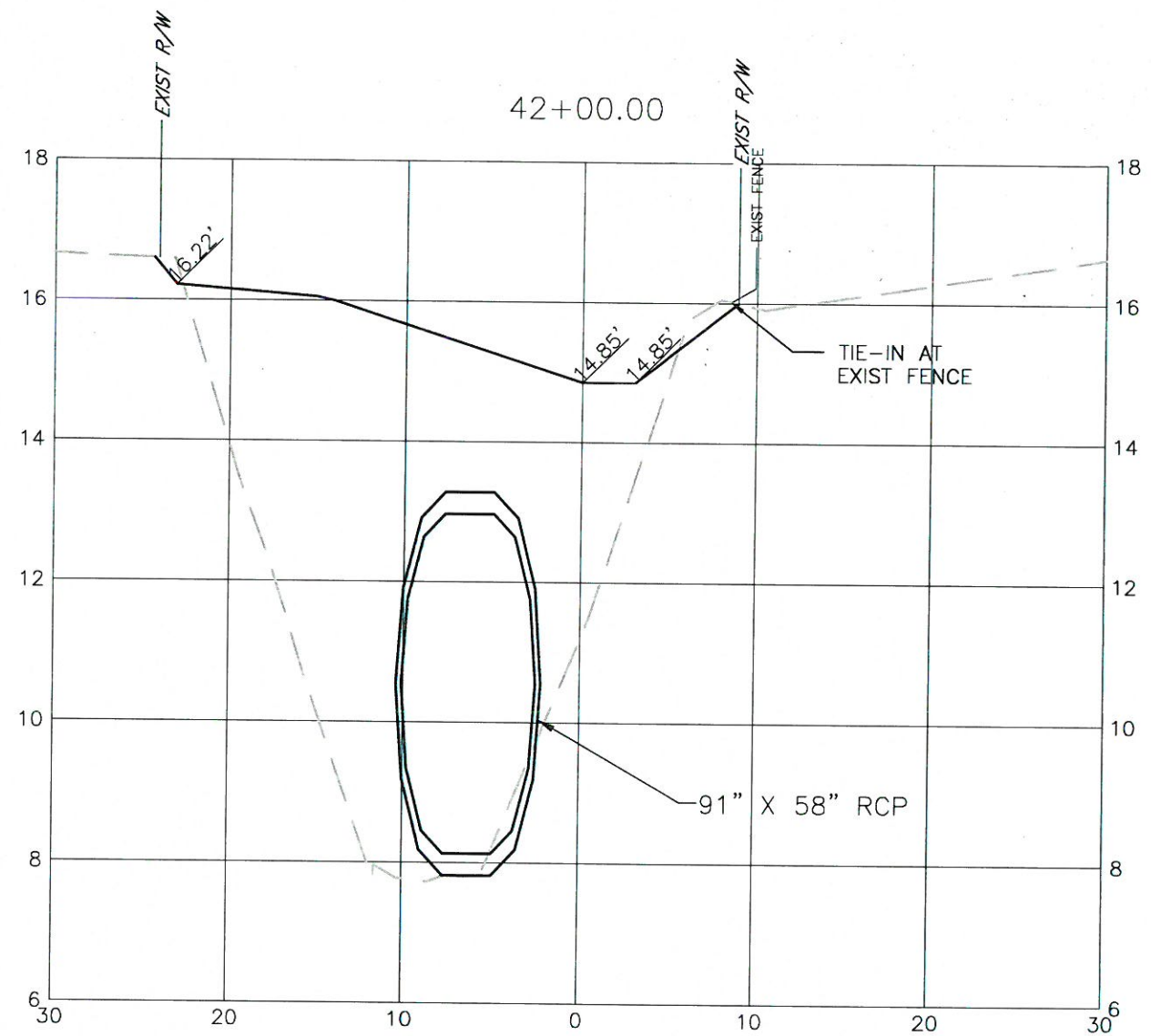
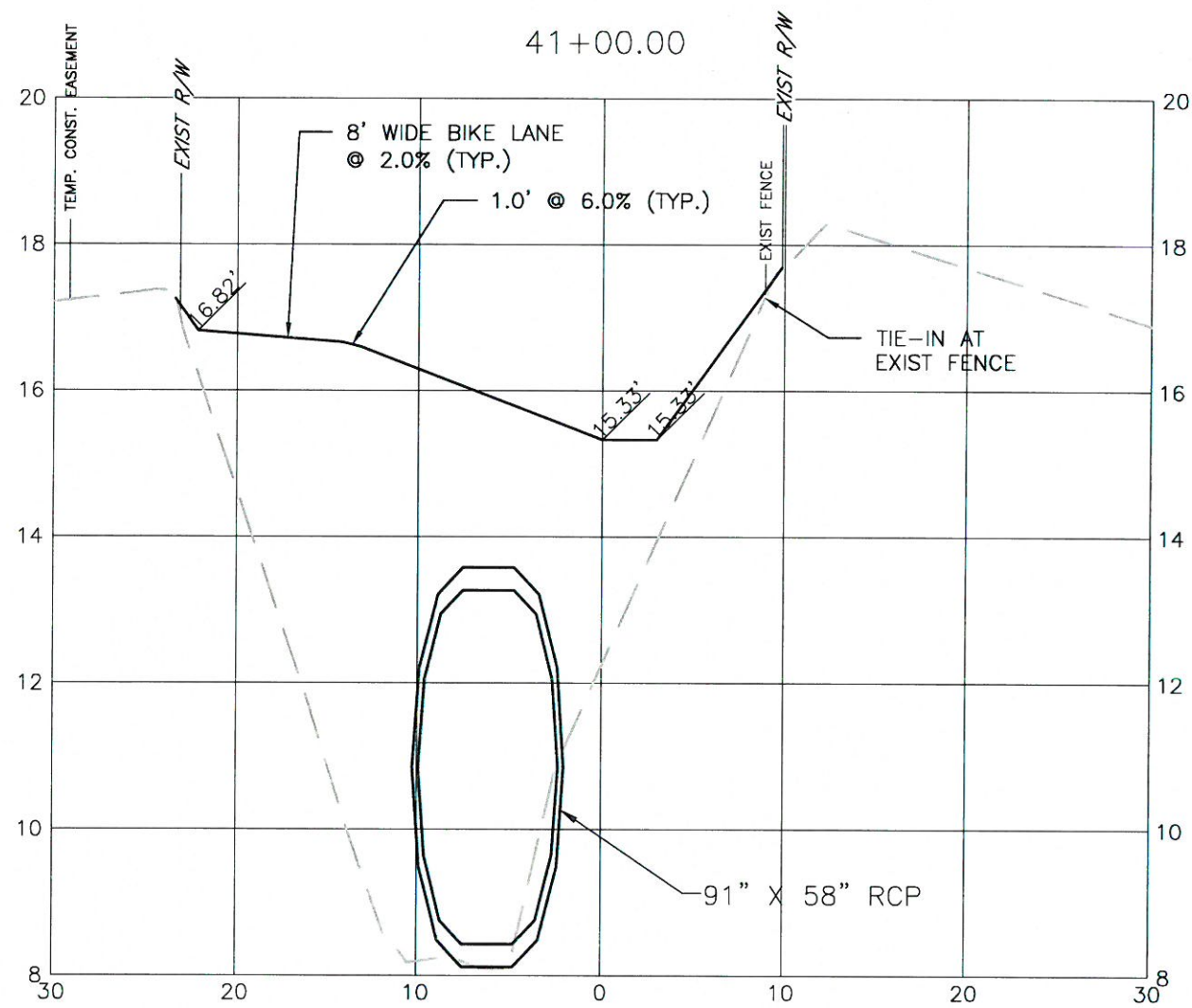
SCALE:   HORZ: 1"=10'  
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# BAYWEST CANAL BRADENTON, FLORIDA CROSS SECTIONS

[illegible]

JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
2/21/17  
Signature & Date





SCALE:   HORZ: 1"=10'  
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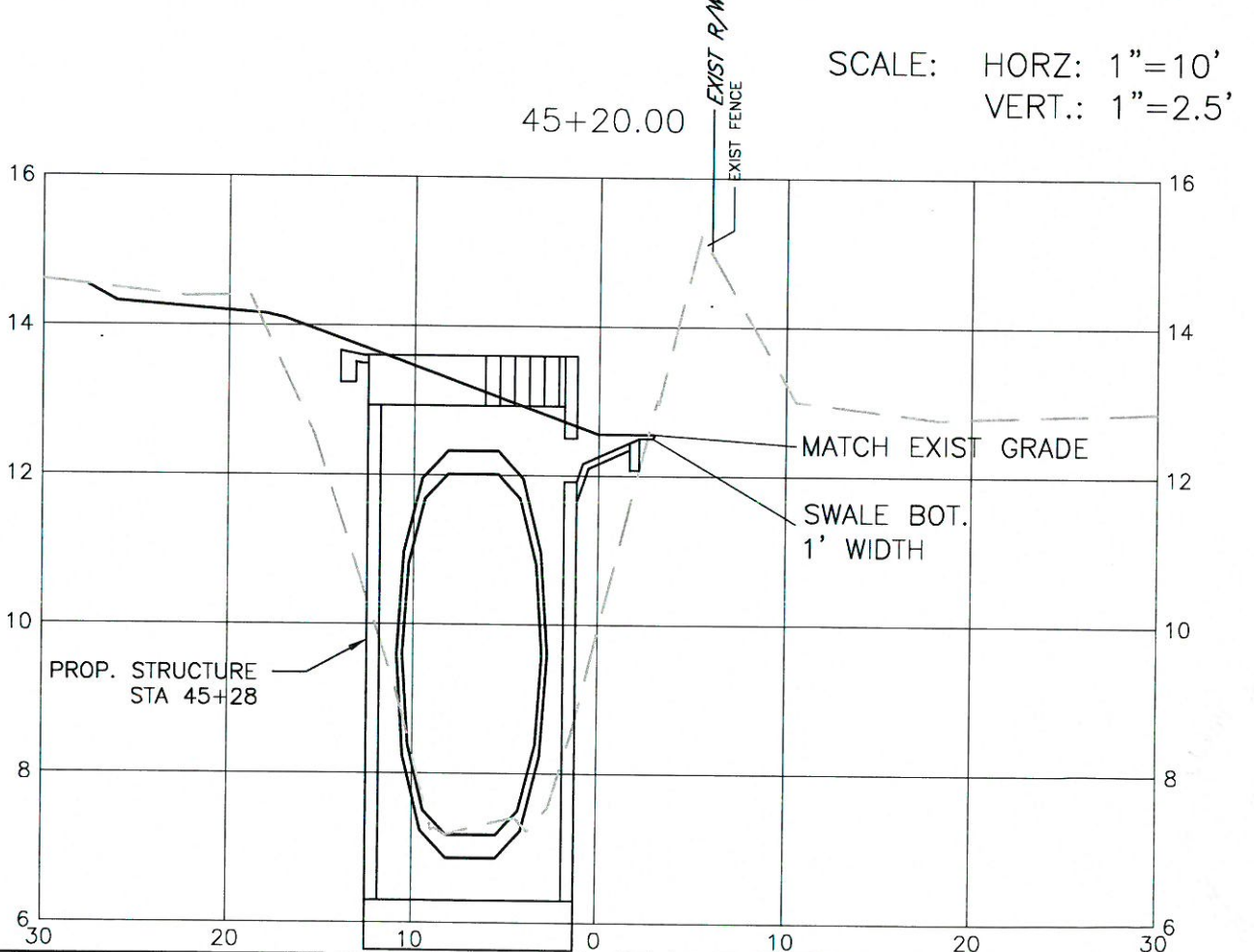
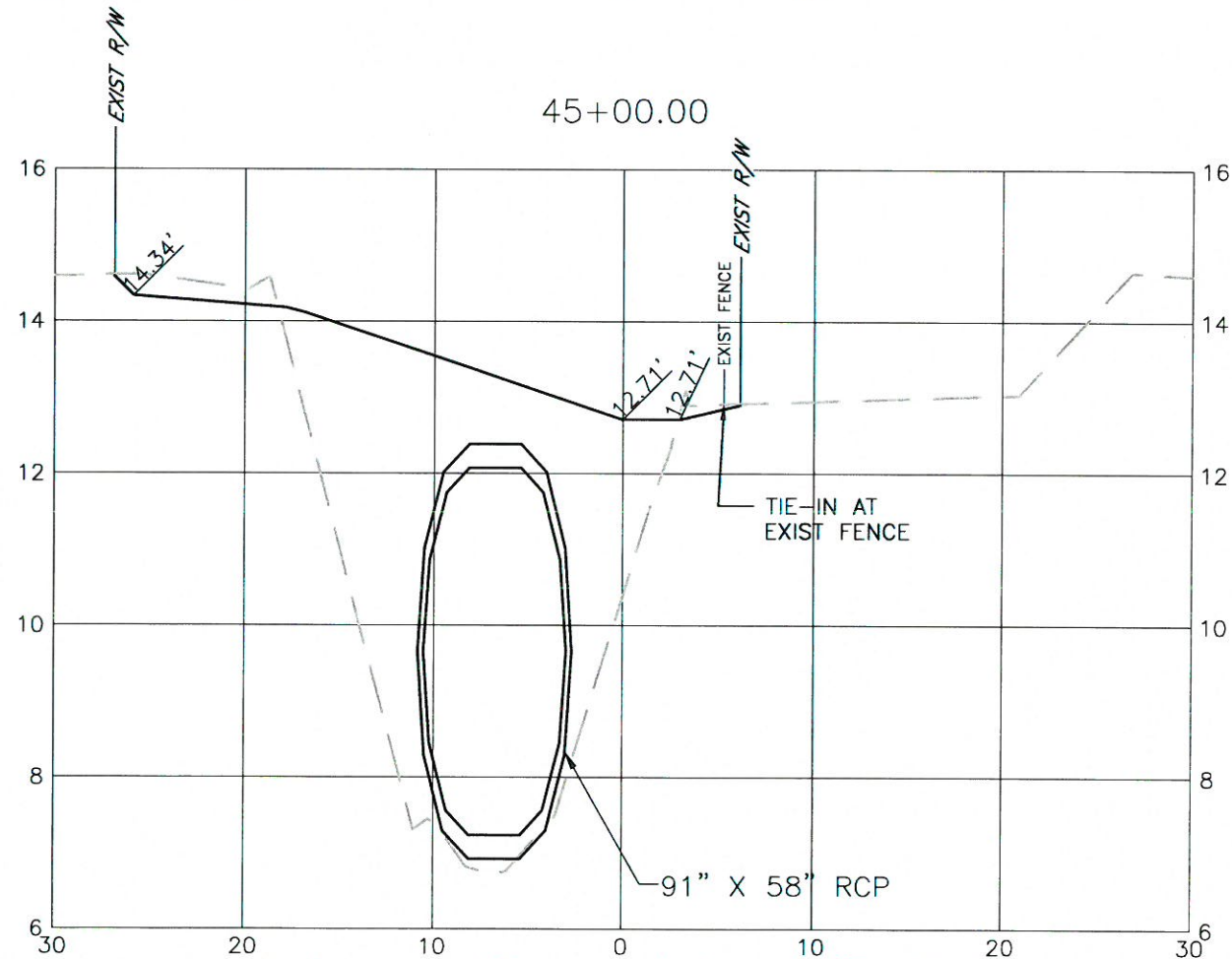
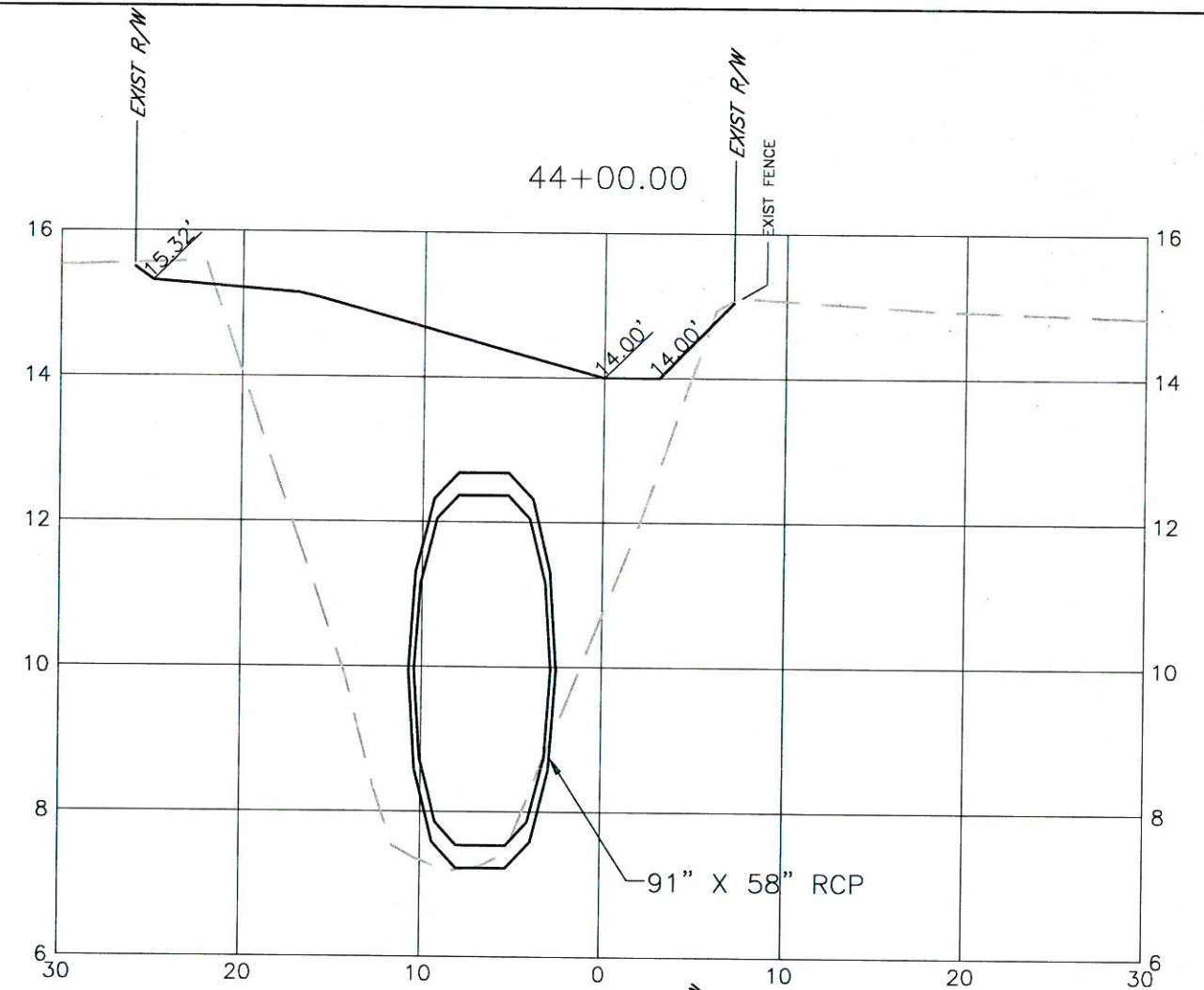
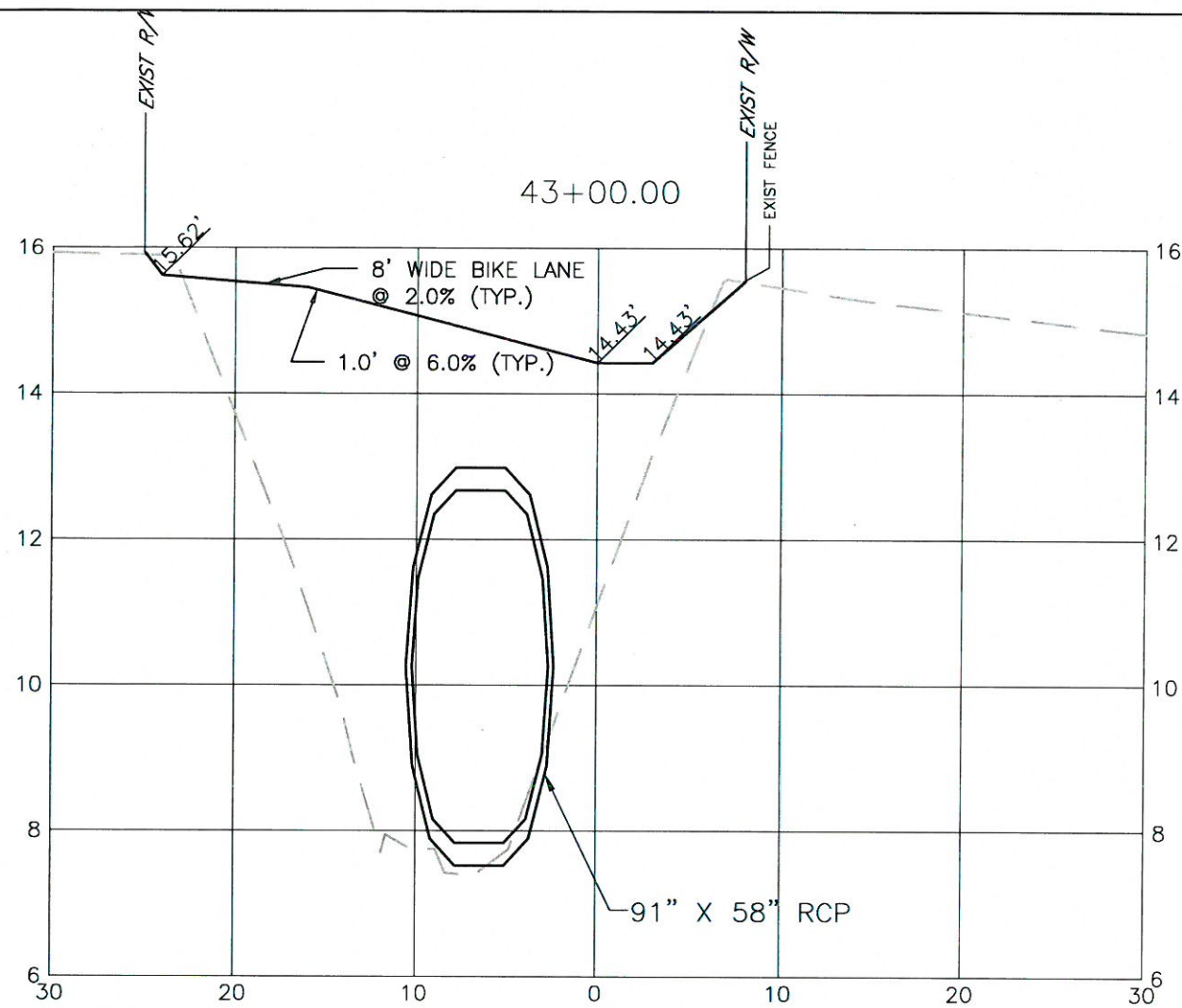
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

# BAYWEST CANAL BRADENTON, FLORIDA CROSS SECTIONS

REVISION DESCRIPTION						BY	DATE
NO.							
<b>PROJECT #</b>				465-6044500			
<b>SURVEY #</b>				000			
<b>SEC./TWN./RGE</b>				30/34S/17E			
<b>SCALE</b>				<b>AS SHOWN</b>			
		<b>BY</b>		<b>DATE</b>			
SURVEYED		GFY		07/20/15			
DESIGNED		JKP		09/15/15			
DRAWN		JKP		10/20/15			
CHECKED		BL		11/10/15			

JOHN PARI P.E.  
FLORIDA P.E. # 56368  
2/2/17  
Signature & Date






SCALE:   HORZ: 1"=10'  
          VERT.: 1"=2.5'

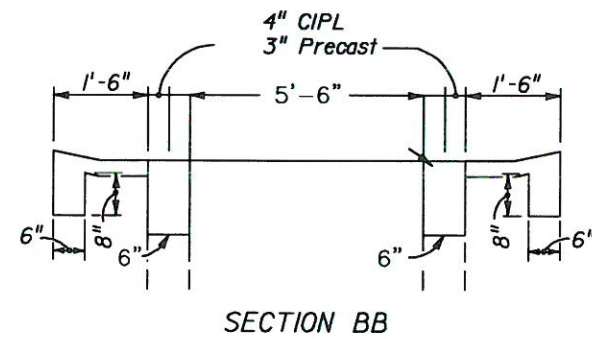
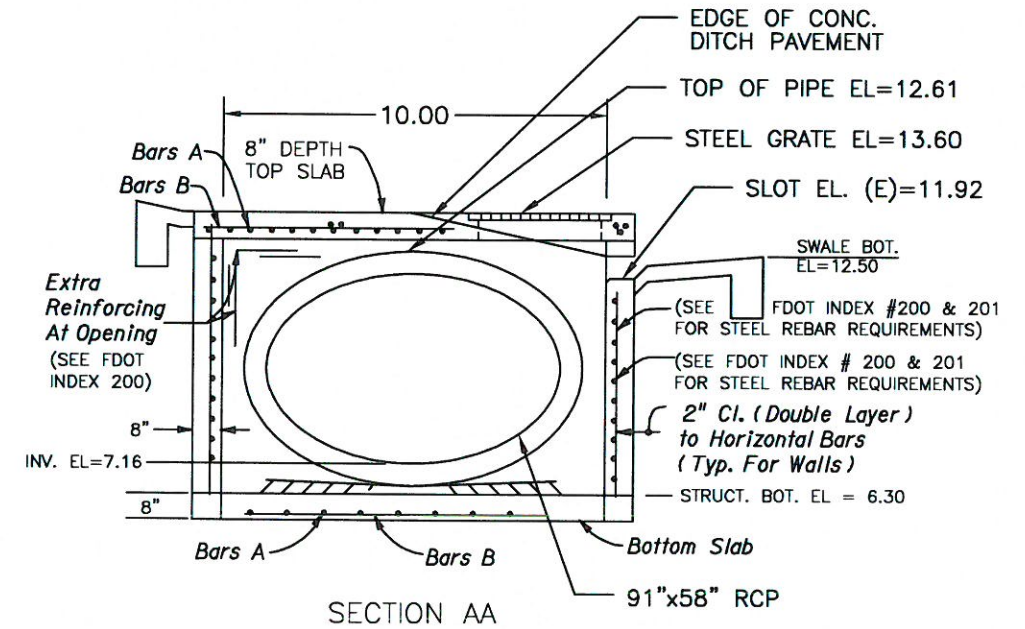
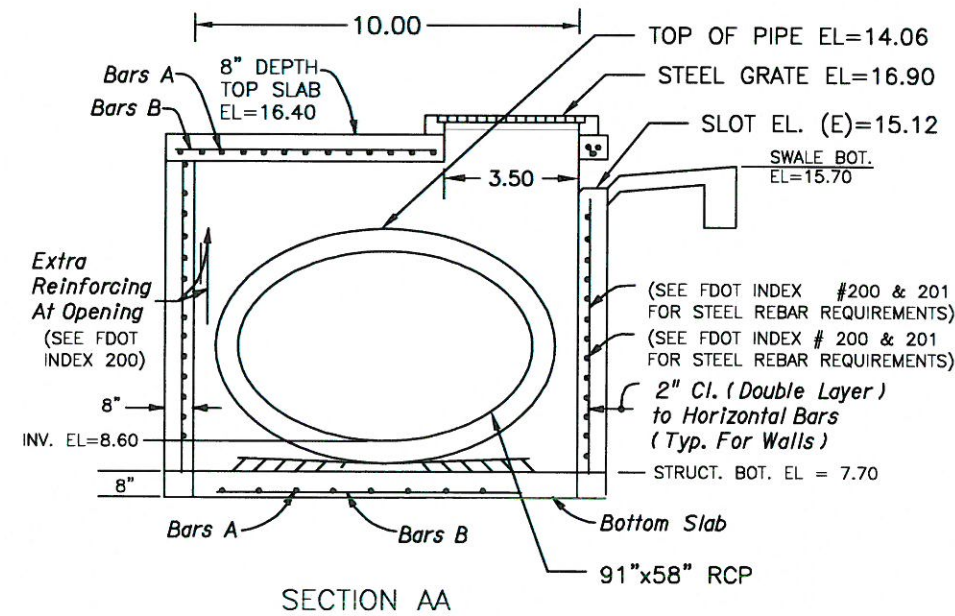
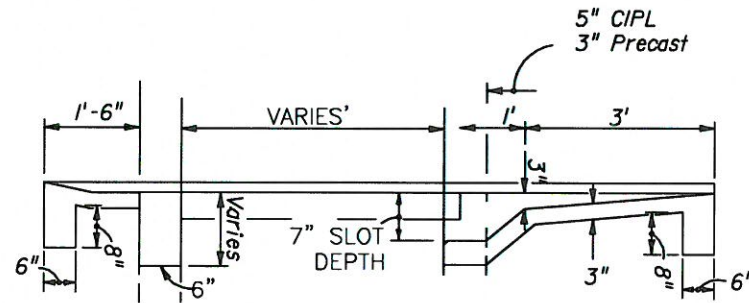
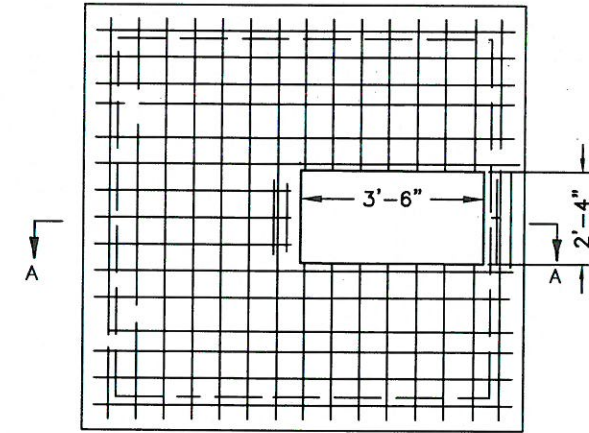
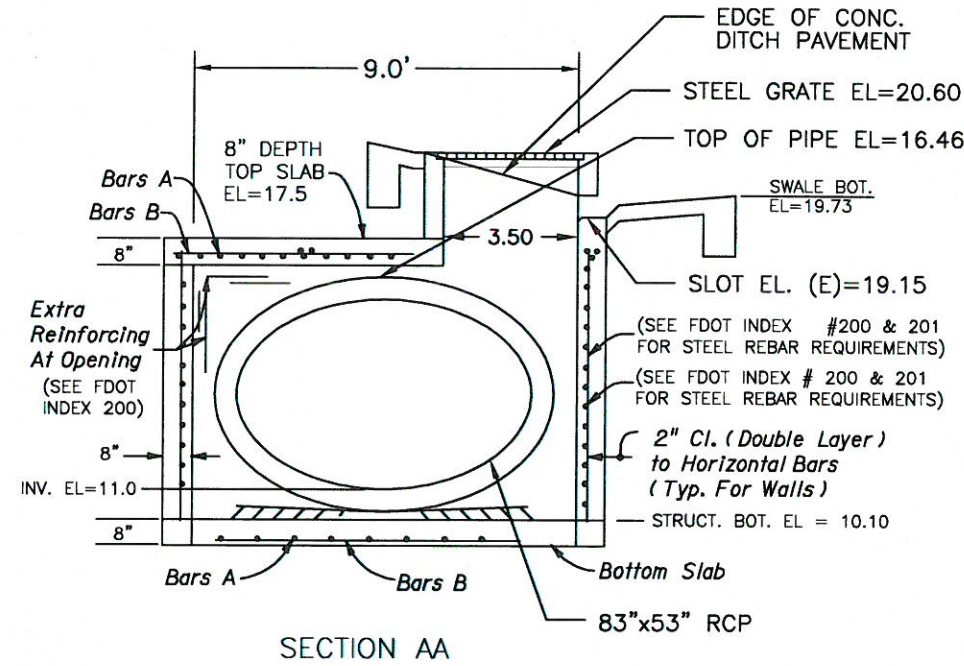
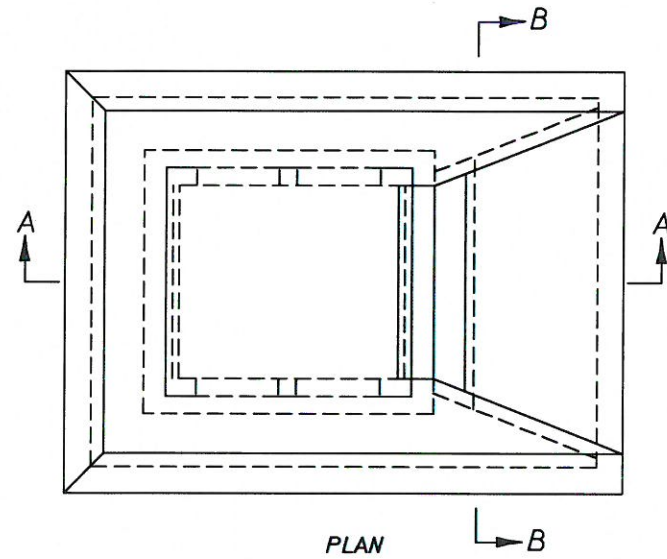


# BAYWEST CANAL BRADENTON, FLORIDA CROSS SECTIONS

PROJECT #	465-6044500		
SURVEY #	000		
SEC./TWN./RGE	30/34S/17E		
SCALE	AS SHOWN		
	BY	DATE	
SURVEYED	GFY	07/20/15	
DESIGNED	JKP	08/15/15	
DRAWN	JKP	10/20/15	
CHECKED	BL	11/10/15	
JOHN PARK, P.E.			
FLORIDA P.E. # 56368			
 2/2/17 Signature & Date			
SHEET 13			



BAYWEST CANAL  
BRADENTON, FLORIDA  
CONSTRUCTION DETAILS

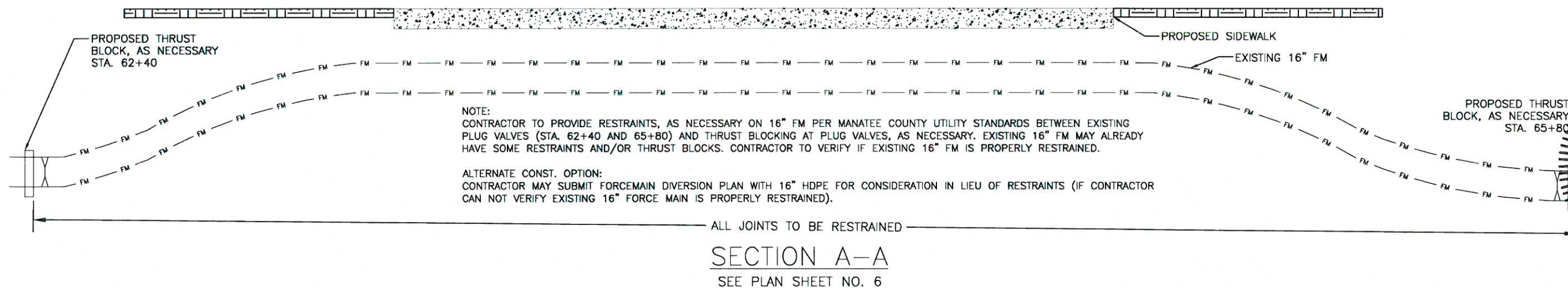


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JOHN PARI, P.E.  
FLORIDA P.E. # 56368  
Signature & Date  
2/2/17



DATE		BY		REVISION DESCRIPTION		NO.	
PROJECT #				465-6044500			
SURVEY #				000			
SEC. TWN / RGE				30 / 34S / 17E			
SCALE				1" = 5'			
DESIGNED BY				DATE			
DESIGNED SML				08 / 20 / 19			
CHECKED ADR				04 / 01 / 19			
DRAWN SML				04 / 01 / 19			
STATE OF FLORIDA P.E. #166429							
FLORIDA PROFESSIONAL ENGINEER				2/21/17			
Signature & Date							
SHEET 15							



NOTE:  
CONTRACTOR TO PROVIDE RESTRAINTS, AS NECESSARY ON 16" FM PER MANATEE COUNTY UTILITY STANDARDS BETWEEN EXISTING PLUG VALVES (STA. 62+40 AND 65+80) AND THRUST BLOCKING AT PLUG VALVES, AS NECESSARY. EXISTING 16" FM MAY ALREADY HAVE SOME RESTRAINTS AND/OR THRUST BLOCKS. CONTRACTOR TO VERIFY IF EXISTING 16" FM IS PROPERLY RESTRAINED.

ALTERNATE CONST. OPTION:  
CONTRACTOR MAY SUBMIT FORCEMAIN DIVERSION PLAN WITH 16" HDPE FOR CONSIDERATION IN LIEU OF RESTRAINTS (IF CONTRACTOR  
CAN NOT VERIFY EXISTING 16" FORCE MAIN IS PROPERLY RESTRAINED).

- ALL JOINTS TO BE RESTRAINED

SECTION A-A  
SEE PLAN SHEET NO. 6

PROPOSED THRUST  
BLOCK, AS NECESSARY  
STA. 65+80

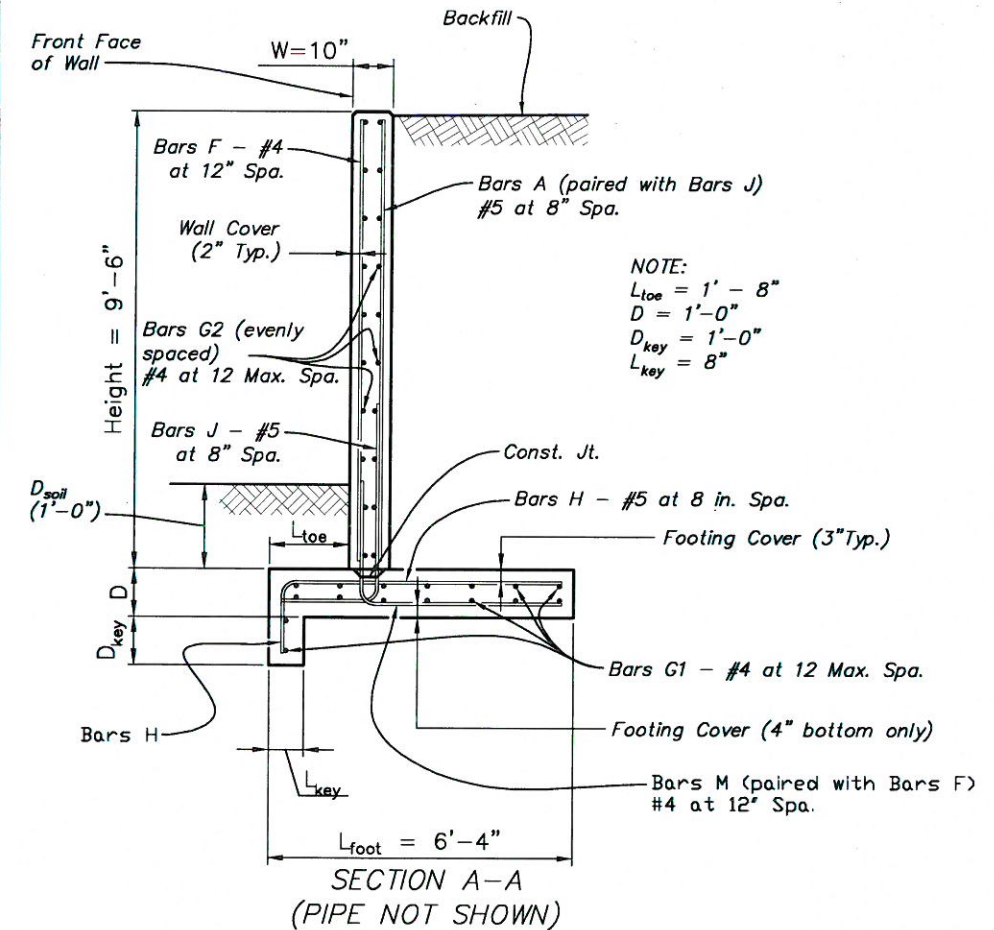
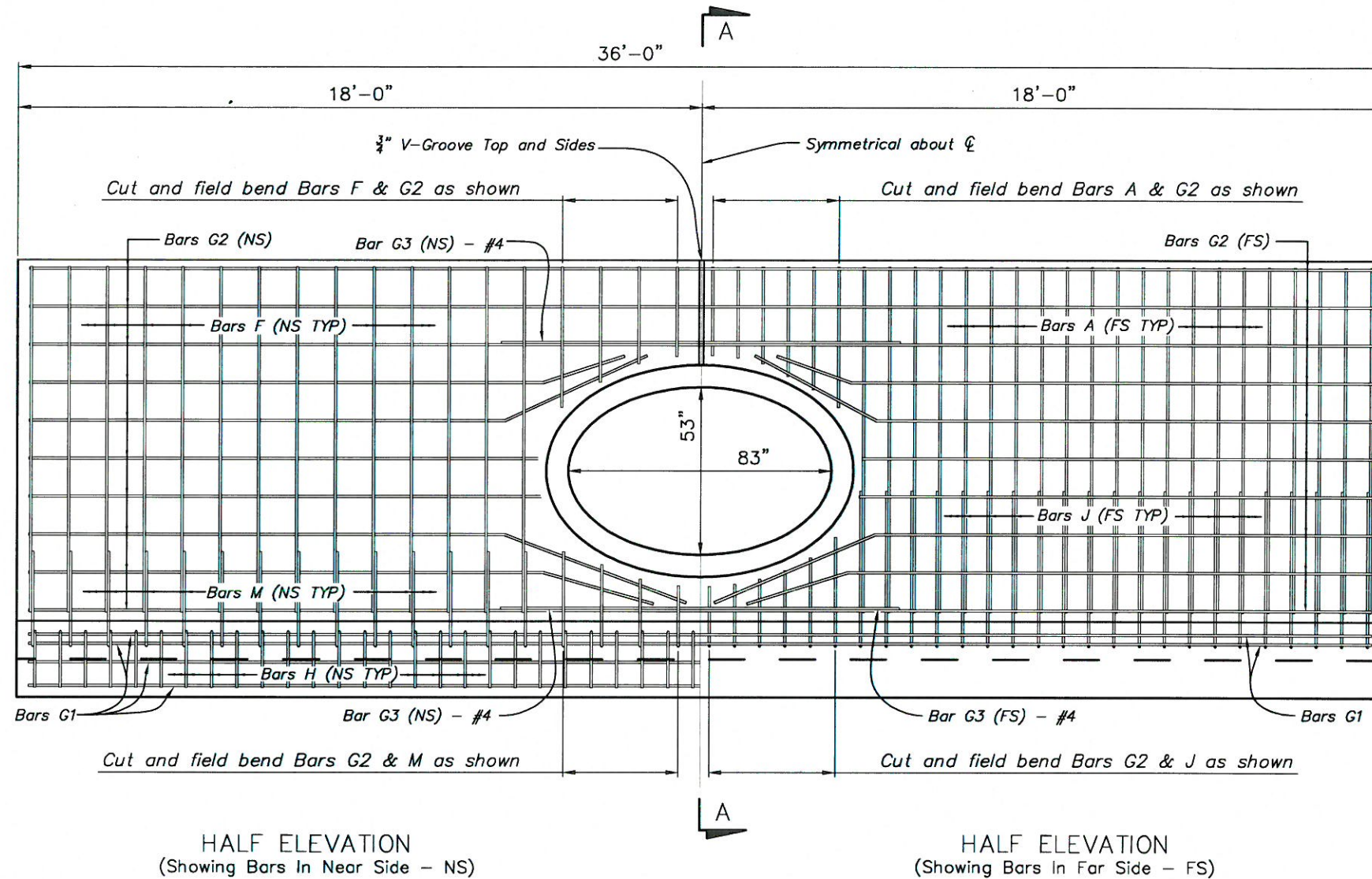
SEC. TOWN/RGE 30/34S/17E  
SCALE 1"=5'  
BY DATE  
GENS 06/20/13  
DESIGNED SML 03/15/16  
NO. 46449 SML 04/01/16  
CHECKED ADR 04/01/16  
STEVEN M. LANEY JR.  
FLORIDA P.E. #46449

Signature & Date

SHEET 15



BAYWEST CANAL  
BRADENTON, FLORIDA  
RETAINING WALL DETAILS



GENERAL NOTES:

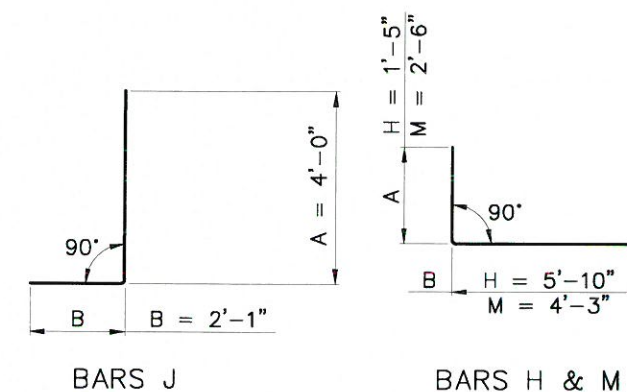
1. Designed according to FDOT Structures Manual (current edition).
2. Design includes 1.5' surcharge for pedestrian and vehicle live load effects.
3. Work this sheet with Index Nos. 255 and 6010.
4. Concrete Class IV ( $f'_c = 5500$  psi) without silica fume, metakaolin or ultrafine fly ash.
5. Reinforcing steel to be ASTM A615 Grade 60 steel.
6. Chamfer: All exposed edges and corners to be chamfered 3/4" unless otherwise shown.
7. Wall exposed face surface texture shall be Smooth.
8. Environmental Classification is Moderately Aggressive.
9. Minimum Soil Nominal Bearing Resistance = 3000 psf.
10. Foundation - Prepare the soil below the footing in accordance with the requirements for spread footings in Specification Section 455.
11. D<sub>soil</sub> is typical depth of soil and is used for design purposes only.
12. Basis of payment for cast-in-place construction shall be the estimated quantities tabulated. Concrete and reinforcing steel shall be paid for under the contract unit price for Class IV Concrete (Retaining Wall), CY.

BILL OF REINFORCING STEEL			
MARK	SIZE	NO. REQD	LENGTH
A	5	42	9'-4"
A*	5	12	2'-10" AVG
J	5	42	6'-1"
J*	5	12	4'-4" AVG
F	4	28	9'-4"
F*	4	8	3'-0" AVG
M	4	30	6'-10"
M*	4	6	6'-1" AVG
H	5	54	7'-3"
G1	4	16	35'-6"
G2	4	16	35'-6"
G2*	4	8	13'-6"
G3	4	4	12'-0"
* BARS TO BE FIELD CUT OR BENT			
ESTIMATED QUANTITIES			
ITEM	UNIT	RCP	
Class IV Concrete	CY	19.1	
Reinforcing Steel	LBS	2388	

REINFORCING STEEL BENDING DIAGRAMS

STRAIGHT BARS (uno):

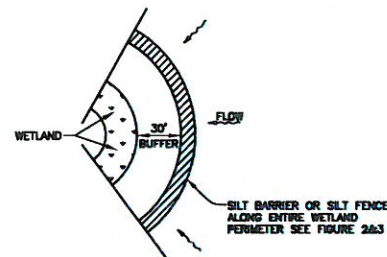
BARS A = 9'-4"      BARS G1 = 35'-6"  
BARS F = 9'-4"      BARS G2 = 35'-6"  
BARS G3 = 12'-0"



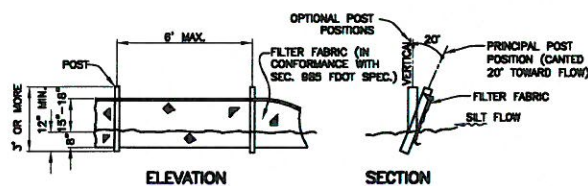
STEVEN M. LANIER, P.E.  
PROFESSIONAL ENGINEER  
FLORIDA  
No. 46449  
DATE: 07/20/15  
DESIGNED: SM, 08/15/16  
DRAWN: SM, 08/15/16  
CHECKED: ADP, 08/15/16  
STATE OF FLORIDA P.E. # 46449



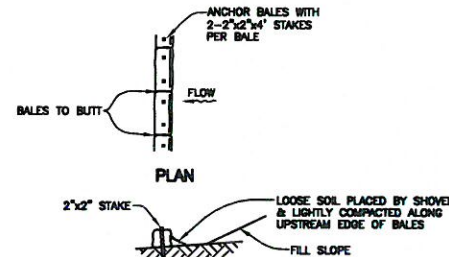
**BAYWEST CANAL  
BRADENTON, FLORIDA  
EROSION DETAILS**



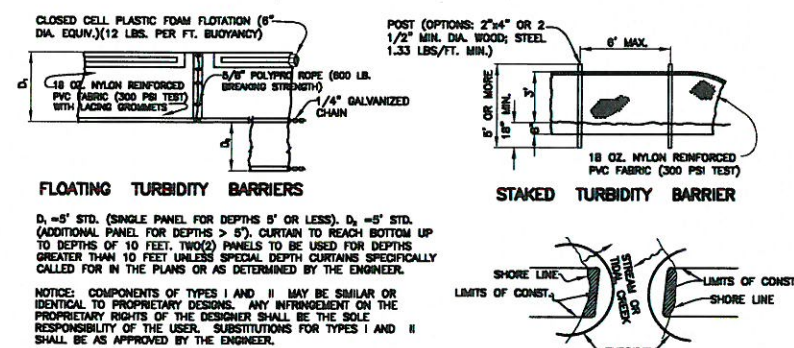
**WETLAND BUFFER**  
FIGURE 1



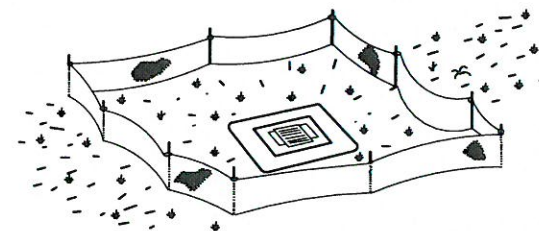
**TYPICAL SILT FENCE**  
FIGURE 2



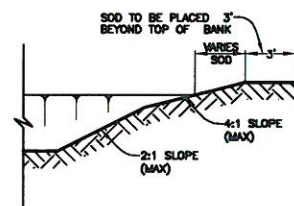
**TYPICAL BALE SILT BARRIER**  
FIGURE 3



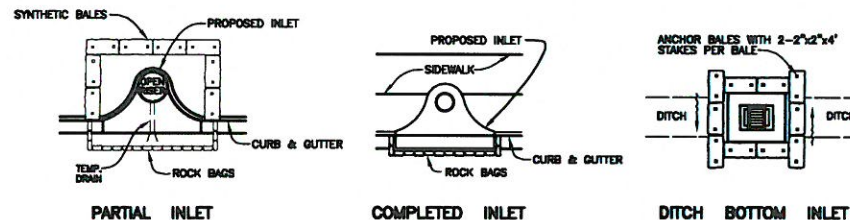
**TURBIDITY BARRIERS**  
FIGURE 4



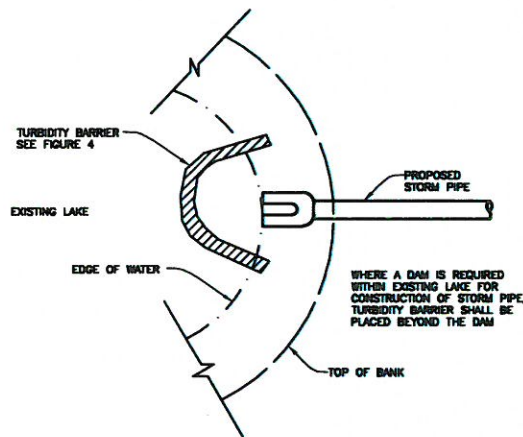
**TYPICAL SWALE SECTION**  
FIGURE 5



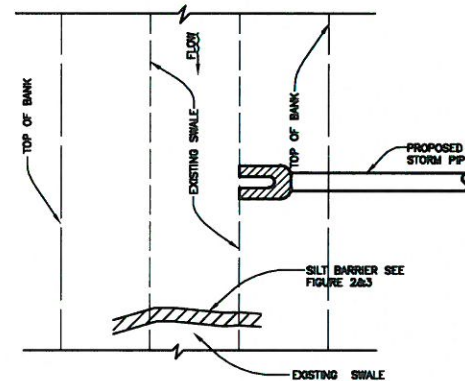
**TYPICAL RETENTION/DETENTION POND SECTION**  
FIGURE 6



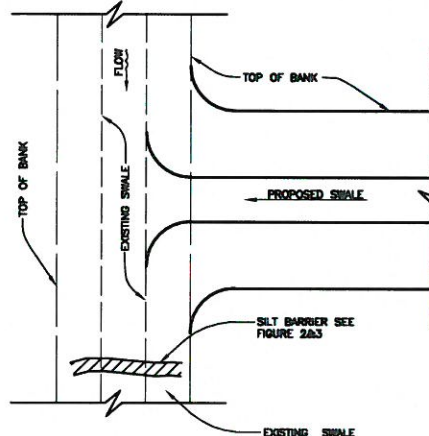
**SYNTHETIC BALE PROTECTION AROUND  
INLETS OR SIMILAR STRUCTURES**  
FIGURE 7



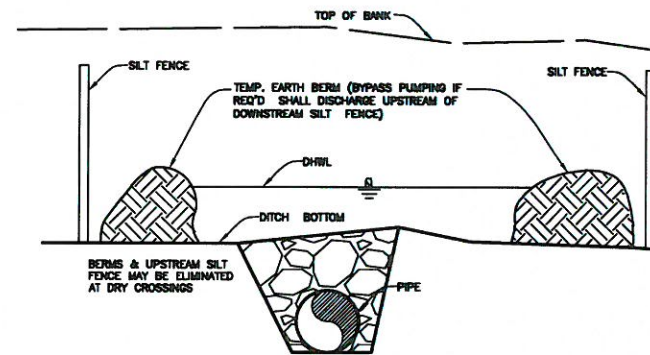
**TURBIDITY BARRIER AT CONNECTION OF  
STORM PIPE TO EXISTING LAKE**  
FIGURE 9



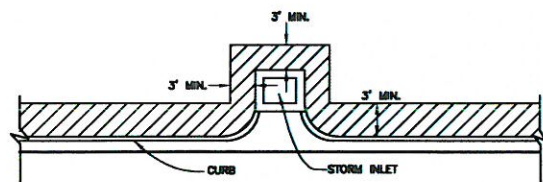
**SILT BARRIER AT CONNECTION OF  
STORM PIPE TO EXISTING SWALE**  
FIGURE 10



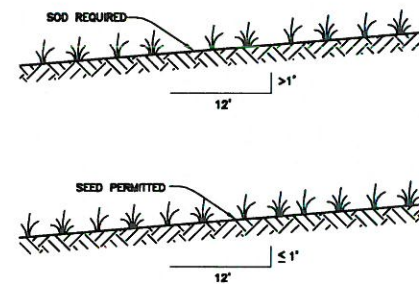
**SILT BARRIER AT CONNECTION  
OF SWALE TO EXISTING SWALE**  
FIGURE 11



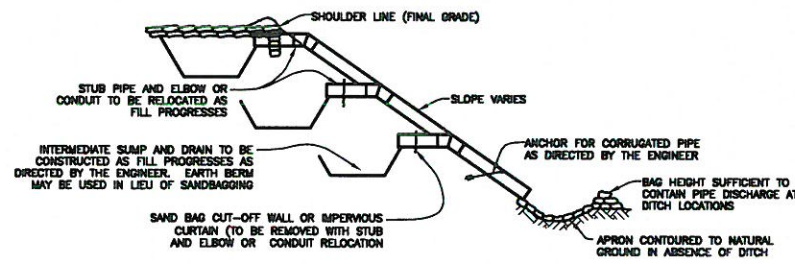
**UNDERGROUND PIPE CROSSING**  
FIGURE 12



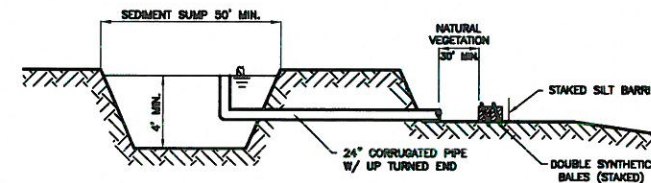
**SOD ALONG CURB  
AND AROUND INLET**  
FIGURE 14



**GRASS SLOPES**  
FIGURE 13



**SECTION AA  
TEMPORARY SLOPE DRAIN**  
FIGURE 15



**SEDIMENT SUMP SECTION**  
FIGURE 16

NOTE:  
REFERENCE THE FDOT DESIGN STANDARDS  
LATEST EDITION FOR ALL TEMPORARY  
EROSION CONTROL MEASURES.

NO.	REVISION	DESCRIPTION	BY	DATE
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PROJECT #	465-6044500
SURVEY #	000
SEC./TWN./RGE	30/34S/17E
SCALE	1"=30'
BY	DATE
SURVEYED	GFY 07/20/15
DESIGNED	JKP 09/15/15
DRAWN	JKP 10/20/15
CHECKED	BL 11/10/15
JOHN PARI, P.E.	
FLORIDA P.E. # 56368	
Signature & Date	2/2/17
SHEET	17