EMERALD COAST
UTILITIES AUTHORITY

A. ECUA Engineering Manual Incorporated by Reference

The ECUA Engineering Manual, dated December 18, 2014, along with Update #1 dated September 1, 2016 (hereinafter "Manual"), located at www.ecua.fl.gov, is hereby incorporated by reference into this Project's official contract documents as if fully set forth therein. It is the Contractor's responsibility to be knowledgeable of the Manual's contents and to construct the Project in accordance with the Manual. The Contractor shall provide its employees access to the Manual at all times, via Project site or office, via digital or paper format. In the event of a conflict between the Manual and the Plans, Contractor shall consult Engineer of Record on the appropriate resolution.

B. Additional Documents (to be completed by the Engineer of Record)

Does this Project have additional technical specifications or construction details that supercede the Manual listed above? ☐ Yes ☒ No . If yes, Contractor shall construct Project in accordance with said documents as listed and located below:

Document Name	Document Type		Location	
	Specifi-cation	Detail	Plans	Project Manual*
	☐	☐	☐	☐
	☐	☐	☐	☐
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*Project Manuals used only with ECUA CIP Projects

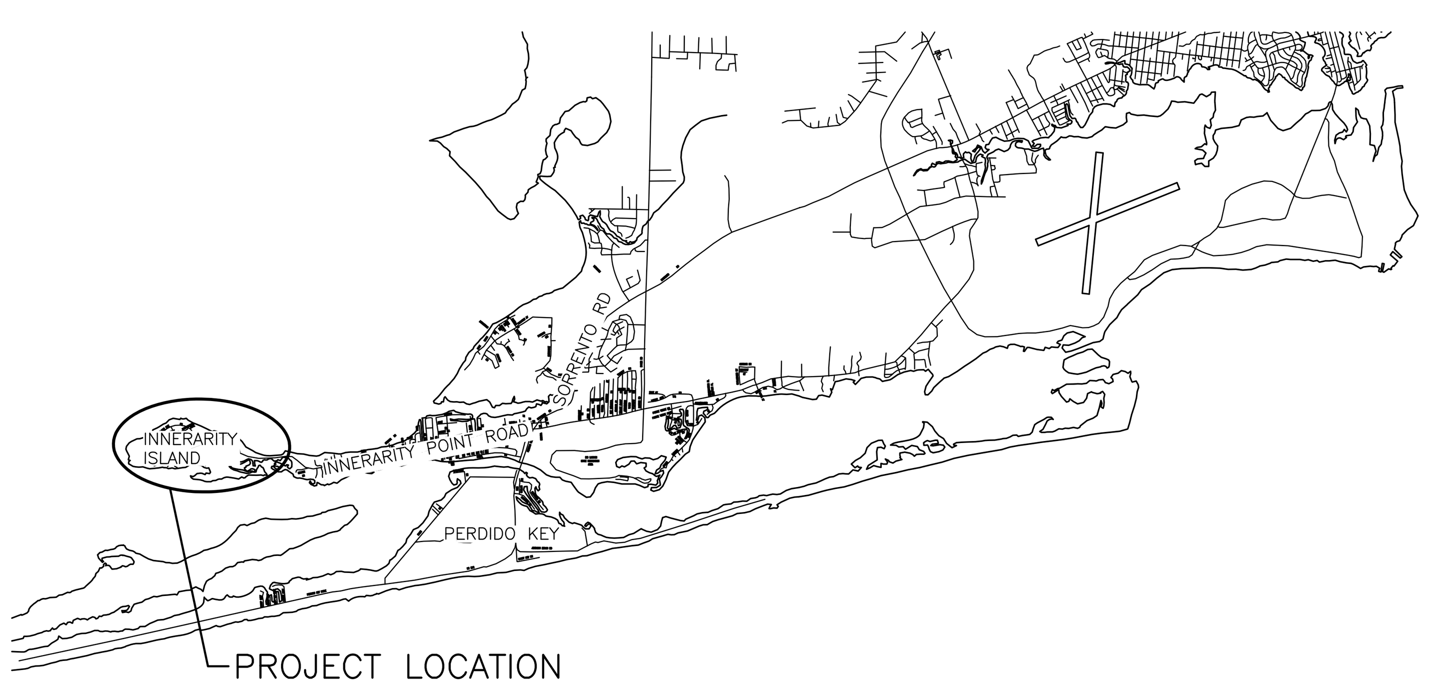
C. Engineer of Record Responsibilities

The Engineers of Record (EORs) that have affixed their seals and signatures on these plans warrant their portion of the plans have been designed in accordance with the Manual (unless otherwise directed by the ECUA Project Engineer). The EORs shall be knowledgeable of the Manual's contents and shall assume responsibility for its use on the Project.

INNERARITY ISLAND SEWER SYSTEM UPGRADES

PROJECT NO. CS 318T **JULY 2019** **BID NO. CC 2019-06**

FOR CONSTRUCTION SET



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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

KH-A PROJECT No. 2018-35

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

GENERAL NOTES:

1. THE OWNER INTENDS THAT THE CONTRACT DOCUMENTS WILL PROVIDE A COMPLETE AND FULLY FUNCTIONAL PROJECT. WHERE LABOR AND MATERIAL MAY BE REQUIRED TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL PROJECT BUT IS NOT FULLY SPECIFIED, DETAILED, OR SHOWN AS A CONSTRUCTION ITEM, THE CONTRACTOR SHALL PROVIDE THE REQUIRED MATERIAL OR LABOR TO MEET THE INTENT OF THE CONTRACT DOCUMENTS. THIS REQUIREMENT MAY ONLY BE CONSTRUED AS A REQUIREMENT TO COMPLETE OR MAKE FUNCTIONAL CONSTRUCTION ITEMS SHOWN IN OR ON THE CONTRACT DOCUMENTS.

2. THE LEGEND IS TYPICAL FOR ALL SHEETS. SOME ITEMS MAY NOT APPLY TO EACH SHEET.

3. ALL EXISTING FENCES, STORM DRAINS, PROPERTY CORNERS, SURVEY MONUMENTS, PAVEMENT, ROADS, SIDEWALKS, SIGNS OR ANY OTHER EXISTING OBJECTS OR STRUCTURES WHICH ARE NOT DESIGNATED FOR REMOVAL BUT ARE DAMAGED OR DESTROYED BY THE CONTRACTOR OR BY ANYONE FOR WHOM THE CONTRACTOR IS RESPONSIBLE ARE TO BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING IN KIND OR REPAIRING TO ORIGINAL CONDITION; MAILBOXES, DRIVEWAYS, DRIVEWAY CULVERTS, RETAINING WALLS, LANDSCAPING, ETC. THAT ARE DISTURBED, DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES.

4. THE CONTRACT DOCUMENTS AND SPECIFICATIONS FOR THIS PROJECT ARE AN INTEGRAL PART OF THE CONSTRUCTION. THE CONTRACTOR SHALL FULLY REVIEW AND FOLLOW ALL REQUIREMENTS OF THESE DOCUMENTS IN THE COMPLETION OF THE WORK. ALL CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE.

5. ABOVE GROUND FEATURES SHOWN WHICH MAY AFFECT CONSTRUCTION WERE TAKEN FROM THE BEST AVAILABLE INFORMATION AND FIELD SURVEYS. THE OWNER DOES NOT GUARANTEE THAT ALL PHYSICAL FEATURES OR ABOVE GROUND OBSTRUCTIONS AFFECTING CONSTRUCTION ARE SHOWN. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS/HER BID. THERE SHALL BE NO ADJUSTMENT OF THE CONTRACT PRICE FOR VISIBLE FEATURES AFFECTING CONSTRUCTION.

6. IN THE EVENT THAT ANY STANDARDS OR SPECIFICATIONS AS DESCRIBED HEREIN ARE IN CONFLICT WITH EACH OTHER, OR THAT SHOWN IN THE PLANS, THE MORE STRINGENT CRITERIA WILL APPLY. CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY AND IN WRITING SHOULD THE MORE STRINGENT CRITERIA BE UNCLEAR FOR ENGINEER'S INTERPRETATION OF THE MORE STRINGENT CRITERIA TO BE USED.

7. THE OWNER, OWNER'S REPRESENTATIVES AND INSPECTORS OF APPLICABLE GOVERNMENT AGENCIES HAVING JURISDICTION, SHALL, AT ALL TIMES, HAVE ACCESS TO THE WORK SITE WHEREVER AND WHENEVER IT IS IN PREPARATION OR PROGRESS. THE CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR SUCH ACCESS AND INSPECTIONS.

8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL REASONABLE AND PRUDENT PRECAUTIONS TO ENSURE THAT ALL COMPLETED WORK, MATERIALS AND EQUIPMENT STORED ON SITE ARE SAFE AND SECURE FROM UNAUTHORIZED ACCESS OR USE. SUCH PRECAUTIONS MAY INCLUDE INSTALLATION OF SIGNS, FENCES, OR POSTING OF SECURITY GUARDS.

9. CONSTRUCTION NOTES ON THE PLANS AND STATIONING IDENTIFIED ARE NONSPECIFIC AND APPROXIMATE AND ARE INTENDED TO SHOW GENERAL INTENT OF THE WORK. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS & LABOR TO PROVIDE A COMPLETE & FUNCTIONAL PROJECT AS IDENTIFIED ON THE PLANS.

10. THE CONTRACTOR SHALL COMPLY FULLY WITH ALL PERMIT REQUIREMENTS IMPOSED BY THE REGULATORY AUTHORITIES.

11. THE ENGINEER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF ALL TESTING RELATED TO CIVIL WORK.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF PRIVATELY (HOMEOWNER) OWNED UNDERGROUND UTILITIES SUCH AS SPRINKLER SYSTEMS, UNDER DRAINS, ETC. THAT ARE LOCATED WITHIN THE RIGHT-OF-WAY LINE AND/OR IN THE PATH OF CONSTRUCTION.

13. CONTRACTOR SHALL TAKE EXTREME CARE TO REMOVE ONLY TREES AND VEGETATION ABSOLUTELY NECESSARY FOR THE CONSTRUCTION OF THIS WORK. LANDSCAPE SHRUBS AND TREES REMOVED SHALL BE REPLANTED AFTER CONSTRUCTION , IF POSSIBLE. IF LANDSCAPE SHRUBS OR TREES CANNOT BE REPLANTED, THE CONTRACTOR SHALL PROVIDE NEW LANDSCAPE SHRUBS OR TREES EQUAL TO OR BETTER THAN EXISTING IN SIZE AND NATURE. THIS NOTE APPLIES TO ALL LANDSCAPE TREES AND SHRUBS, INCLUDING THOSE IN THE RIGHT-OF-WAY.

14. THE CONTRACTOR SHALL PREPARE AND DISTRIBUTE TO ALL HOMEOWNERS A NOTICE NOTIFYING THEM OF IMPENDING CONSTRUCTION AT LEAST ONE WEEK IN ADVANCE OF BEGINNING WORK. THE NOTICE SHALL INCLUDE THE RESPONSIBILITIES OF THE HOMEOWNER AND/OR BUSINESSES AND THE CONTRACTOR. THE NOTICE SHALL BE PREPARED BY THE CONTRACTOR AND MUST BE REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER PRIOR TO DISTRIBUTION.

15. ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

16. CONTRACTOR SHALL UTILIZE ECUA SOLID WASTE COLLECTION SERVICES FOR DISPOSAL OF ALL CONSTRUCTION AND DEMOLITION WASTE. CONTRACTOR SHALL PAY STANDARD FEES FOR DISPOSAL. CONTRACTOR SHALL REFER TO THE SPECIAL CONDITIONS SECTION OF THE SPECIFICATIONS FOR ADDITIONAL GUIDELINES.

17. CONTRACTOR SHALL VERIFY SIZE, TYPE, END ELEVATIONS AND SLOPES OF ALL CULVERTS TO BE DAMAGED OR REPLACED DURING THE COURSE OF CONSTRUCTION. CULVERTS AND MITERED END SECTIONS, OR HEADWALLS SHALL BE REPLACED WITH EQUIVALENT MATERIALS AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE PRE AND POST CULVERT ELEVATIONS, MATERIAL AND SIZE ON AS-BUILTS TO ENSURE COMPLIANCE.

18. IN LOCATIONS WHERE CONSTRUCTION IS SHOWN CROSSING EXISTING UTILITIES, CONTRACTOR SHALL USE SUE DATA OR POTHOLE EXISTING UTILITIES FOR LOCATION, SIZE AND DEPTH IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL USE POTHOLE INFORMATION TO PROVIDE GRADUAL LOWERING OF PROPOSED LINE BELOW EXISTING UTILITY. SEE DETAILS AND PLAN SHEETS FOR ADDITIONAL SEPARATION AND CROSSING REQUIREMENTS.

19. NOTIFY SUNSHINE STATE ONE CALL AT LEAST 48 HOURS PRIOR TO DIGGING IN THE RIGHT OF WAY.

20. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES IN ANY AREA THE CONTRACTOR SHALL DOCUMENT THE EXISTING CONDITIONS WITHIN THE RIGHT-OF-WAY THROUGH THE USE OF DIGITAL VIDEO. THE CONTRACTOR SHALL PRODUCE THREE (3) COPIES OF THE VIDEO. THE CONTRACTOR SHALL RETAIN ONE COPY OF THE VIDEO FOR HIS USE AND SHALL PROVIDE ONE COPY EACH TO THE OWNER AND THE ENGINEER, THE VIDEO FORMAT SHALL BE PROVIDED IN DVD.

21. ALL CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO CONSTRUCTION PLANS, TECHNICAL SPECIFICATIONS, AGREEMENT, ADDENDA, NOTICE TO PROCEED, GENERAL CONDITIONS AND MISCELLANEOUS AND SUPPLEMENTARY CONDITIONS, ANY DEVIATIONS TO ANY REQUIREMENT OF THE CONTRACT DOCUMENTS MUST BE APPROVED IN WRITING. THE CONTRACTOR SHALL FULLY REVIEW AND FOLLOW ALL REQUIREMENTS OF THESE DOCUMENTS IN THE COMPLETION OF THE WORK.

22. NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM EMERALD COAST UTILITIES AUTHORITY.

23. ALL FINAL CONSTRUCTION AND CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH ALL LOCAL, STATE, AND FEDERAL BUILDING AND/OR CONSTRUCTION CODES, RULES OR REQUIREMENTS AS APPLICABLE.

GROUND WATER DE-WATERING NOTES:

1. ALL DISCHARGE FROM ANY REQUIRED DE-WATERING OPERATIONS SHALL BE RESTRICTED AND MAINTAINED ON-SITE. PERCOLATION THROUGH TEMPORARY PONDS OR EVAPORATION ARE THE ONLY ALLOWABLE MEANS OF DISPOSAL. *ALTERNATIVELY THE CONTRACTOR, AT HIS EXPENSE, MAY PROVIDE TESTING OF GROUNDWATER PER FDEP GUIDELINES AND ACQUIRE A FDEP DISCHARGE PERMIT IF REQUIRED.*

PUBLIC RIGHTS OF WAY NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL PERMITS AND LICENSES NECESSARY TO WORK IN THE RIGHT-OF-WAY.

2. PRIOR TO PERFORMING ANY WORK WITHIN ANY RIGHT-OF-WAY, CONTRACTOR SHALL DEVELOP AND SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE LOCAL AGENCY HAVING JURISDICTION OVER SAID ROW FOR THEIR APPROVAL. THIS PLAN MUST MEET THE MINIMUM REQUIREMENTS AS OUTLINED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION AND THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS AND COMPLY WITH F.D.O.T. INDEX #600 LATEST EDITION AS APPLICABLE.

3. CONTRACTOR SHALL BE LIABLE FOR ALL DAMAGE TO, AND RESTORATION OF, ALL AREAS OUTSIDE OF RIGHT-OF-WAYS AND EASEMENTS, AT HIS EXPENSE.

4. PAVED SHOULDERS OR SWALES DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE. PAVEMENT SHALL BE PROTECTED OR REPAIRED AT THE CONTRACTOR'S EXPENSE IN ALL OTHER LOCATIONS. ALL CONCRETE DRIVEWAYS, CURBING OR DITCHING SHALL BE REPAIRED IN ACCORDANCE WITH ESCAMBIA COUNTY'S AND/OR F.D.O.T.'S REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES, RULES OR REGULATIONS AS APPLICABLE. ROAD CLOSURES SHALL BE KEPT AS SHORT AS POSSIBLE AND SHALL BE COORDINATED WITH THE ESCAMBIA COUNTY AND F.D.O.T. TEMPORARY ACCESS TO ALL DRIVEWAYS SHALL BE PROVIDED NO LATER THAN TWO (2) DAYS FROM INITIAL DISRUPTION. ESCAMBIA COUNTY AND F.D.O.T. SHALL BE NOTIFIED 72 HOURS IN ADVANCE BEFORE WORK COMMENCES ON THEIR RIGHT-OF-WAY. ALL WORK SHALL CONFORM TO THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION; AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CONSTRUCTION, LATEST EDITION, AND THE F.D.O.T. ROADWAY PLANS AND PREPARATION MANUAL, LATEST EDITION, AS AMENDED. NO ROADWAYS SHALL BE CLOSED OR LANE CLOSURES ALLOWED WITHOUT ADEQUATE NOTICE GIVEN AND PRIOR APPROVAL BY ESCAMBIA COUNTY AND/OR F.D.O.T.

6. ALL PAVEMENT CUTS SHALL BE SAW CUT. CONTRACTOR SHALL PROTECT EXISTING EDGES TO REMAIN.

PROJECT SAFETY NOTES:

1. SAFETY:
   - A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
   - B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA.
   - C. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF "THE STATE OF FLORIDA, MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS" SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
   - D. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
   - E. ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL ENSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
   - F. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
   - G.
   - B. THE CONTRACTOR SHALL BE SOLELY LIABLE FOR THE SAFETY OF THE WORK AND ANY AND ALL DAMAGES ARISING FROM THE CONSTRUCTION SHOWN ON THE CONSTRUCTION PLANS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ASSURING THAT THE CONSTRUCTION MATERIALS AND METHODS ARE COMPLIANT WITH ALL APPLICABLE LOCAL, STATE OR FEDERAL SAFETY CODES, RULES OR REQUIREMENTS.

SEWER UTILITY NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH E.C.U.A. STANDARD SPECIFICATIONS, LATEST EDITION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, PUBLIC CARRIERS, SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, AND TELEPHONE FACILITIES SUCH AS PAVEMENTS, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS, OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED THEREWITH THAT ARE ENCOUNTERED IN THE WORK IN ORDER THAT SUCH ITEMS MAY BE PROPERLY SUPPORTED, PROTECTED OR LOCATED.

3. ALL SEWER VALVE BOXES SHALL BE SET FLUSH IN CONCRETE COLLAR TO FINISH GRADE. ALL VALVE BOX LIDS SHALL HAVE LOCKING COVERS. ALL CONCRETE COLLARS SHALL BE CIRCULAR PRECAST MEMBER WITH A MINIMUM ANNULAR COVER OF 6 INCHES.

4. ALL BENDS, FITTINGS, AND COUPLINGS SHALL BE SUITABLY RESTRAINED AGAINST THRUST ON ALL NEW OR MODIFIED EXISTING PRESSURE PIPE. ALL FITTINGS ON PRESSURE PIPE SHALL UTILIZE UNI-FLANGE, OR APPROVED EQUAL RESTRAINT DEVICES. SEE RESTRAINT SCHEDULE.

5. ALL NEW SEWER MAINS SHALL HAVE A MINIMUM COVER OF 30 INCHES (36" MAXIMUM COVER), UNLESS OTHER WISE NOTED.

6. THE ECUA ENGINEER AND ASSIGNED CONSTRUCTION INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF PRESSURE AND LEAKAGE TESTS. THE PRESSURE TESTS SHALL BE PERFORMED IN ACCORDANCE WITH A.W.W.A. STANDARDS.

7. PLANS AND SPECIFICATIONS REQUIRE THAT BACKFILL BE PLACED ALONG SIDE OF AND OVER ALL UTILITIES. ECUA MAY REQUIRE THAT COMPACTION TESTS BE TAKEN TO VERIFY BACKFILL COMPACTION PER SPECIFICATIONS.

8. AT TIMES WHEN PIPE INSTALLATION IS NOT IN PROGRESS, THE OPEN ENDS OF THE PIPE SHALL BE CLOSED BY APPROVED MEANS AND SHALL REMAIN CLOSED UNTIL CONSTRUCTION OF THAT PARTICULAR SECTION IS RESUMED. NO OPEN TRENCHES WILL BE ALLOWED WHEN PIPE INSTALLATION IS NOT IN PROGRESS. THE TERMINAL JOINT MAY BE LEFT EXPOSED IN AN OPEN TRENCH PROVIDED ADEQUATE SAFETY BARRICADES ARE INSTALLED BY THE CONTRACTOR.

9. CONNECTIONS TO EXISTING SEWER FACILITIES SHALL BE COORDINATED WITH THE EMERALD COAST UTILITIES AUTHORITY (E.C.U.A.). THE CONTRACTOR SHALL PROVIDE 72 HOURS NOTICE TO E.C.U.A. AT (850)476-5110 PRIOR TO MAKING CONNECTIONS. A REPRESENTATIVE OF E.C.U.A. SHALL WITNESS ALL CONNECTIONS.

10. CONTRACTOR HAS THE OPTION TO USE JACK AND BORE AND OR OPEN-CUT PIPE INSTALLATION. CONTRACTOR IS TO INFORM ENGINEER OF RECORD OF METHOD USED AT EACH LOCATION.

11. THE EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AS TO SIZE, LOCATION, AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SIZE, TYPE, LOCATION, AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFYING THE INVOLVED UTILITY PROVIDERS TO MAKE ANY NECESSARY ARRANGEMENTS FOR RELOCATION, DISRUPTION OF SERVICE OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. THE RESPECTIVE UTILITY PROVIDERS SHALL RELOCATE UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY PROVIDERS DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED BY THE INVOLVED UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL CONFORM TO FLORIDA STATUTE CHAPTER 556 AND THE SUNSHINE STATE ONE-CALL OF FLORIDA.

13. LOW PRESSURE SEWER LINE SHALL BE ADJUSTED VERTICALLY TO ACCOMMODATE EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED CONSTRUCTION. CONTRACTOR SHALL UTILIZE FITTINGS TO ADJUST LINE IF GRADUALLY LOWERING OR LOWERING IN PLACE IS NOT POSSIBLE. NO BENDS GREATER THAN 45° WILL BE ALLOWED AND ALL FITTINGS SHALL BE RESTRAINED.

14. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL CODES, RULES AND REGULATIONS REGARDING UTILITY LOCATIONS. THE CONTRACTOR IS COMPLETELY AND SOLELY RESPONSIBLE FOR ALL DAMAGES TO ANY UTILITIES CAUSED AS A RESULT OF, OR BY, THE CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES ON THESE PLANS IS SHOWN IN AN APPROXIMATE WAY ONLY AND WAS TAKEN FROM LIMITED FIELD LOCATES AND THE BEST INFORMATION AVAILABLE. UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN ANY UNDERGROUND CONFLICT IS ENCOUNTERED. THE CONTRACTOR SHALL CONTACT GULF POWER AND AT&T TO SUPPORT OR RELOCATE EXISTING POLES DURING CONSTRUCTION IF NECESSARY. THE CONTRACTOR SHALL PAY THE RESPECTIVE COMPANY FOR THIS WORK. THE CONTRACTOR SHALL COORDINATE ALL OTHER UTILITY WORK OR CONNECTIONS WITH THE APPROPRIATE UTILITY COMPANIES. NOTIFY SUNSHINE UTILITIES AT 811, 48 HOURS PRIOR TO DIGGING WITHIN THE RIGHT-OF-WAY. CONTRACTOR IS RESPONSIBLE FOR CONTINUAL MAINTENANCE OF ALL UTILITY LOCATES, FLAGS, MARKINGS, ET CETERA THROUGH THE ENTIRE DURATION OF CONSTRUCTION.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE LOCATION AND CONNECTION OF ALL PUMP STATIONS LOCATED ON PRIVATE PROPERTY. THE CONTRACTOR SHALL UTILIZE A LICENSED PLUMBING CONTRACTOR AND A LICENSED ELECTRICAL CONTRACTOR FOR CONNECTING NEW PUMP STATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF LANDSCAPING AT EACH PUMP STATION LOCATION.

16. THE EXISTING GRAVITY SANITARY SEWER SYSTEM IN RUSSELL BAYOU TO BE CLEANED AS PART OF THIS CONTRACT.

GRINDER PUMP STATION INSTALLATION:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL INDIVIDUAL GRINDER PUMPS AT PARCELS INDICATED IN THE PROJECT PLANS. NOTE THAT THE LOCATION OF GRINDER PUMP STATIONS SHOWN ON THE PLANS ONLY INDICATES PARCELS RECEIVING STATIONS AND DOES NOT INDICATE LOCATION OF THE GRINDER PUMP STATION ON THE PARCEL.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE PROPERTY OWNER TO ACQUIRE THE RIGHT TO INSTALL THE SYSTEM ON THE PROPERTY, REACH A MUTUAL AGREEMENT ON THE LOCATION OF THE STATION WITH THE PROPERTY OWNER, PROVIDE LABOR AND MATERIAL FOR THE PLUMBING CONNECTIONS TO THE PROPERTY AND TO THE NEW LOW PRESSURE SEWER SYSTEM. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE LABOR AND MATERIALS REQUIRED TO PROVIDE POWER TO THE GRINDER PUMP STATION.

NO.	DATE	REVISIONS

EDWARD E. BOWLES No. 56636 STATE OF FLORIDA PROFESSIONAL ENGINEER 7/25/2019

EDWARD E. BOWLES
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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
GENERAL NOTES
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: NO SCALE
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C000
SHEET: 2 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

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INNERARITY ISLAND
LOW PRESSURE SEWER SYSTEM

RUSSELL BAYOU
FORCE MAIN RELOCATION/REPLACEMENT

RUSSELL BAYOU
LIFTSTATION REPLACEMENT

DEVELOPED RESIDENTIAL PARCEL

REVISIONS
NO. | DATE

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EDWARD E. BOWLES
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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

INNERARITY ISLAND
SEWER SYSTEM UPGRADES
OVERALL PROJECT MAP AND INDEX
ESCAMBIA COUNTY FLORIDA

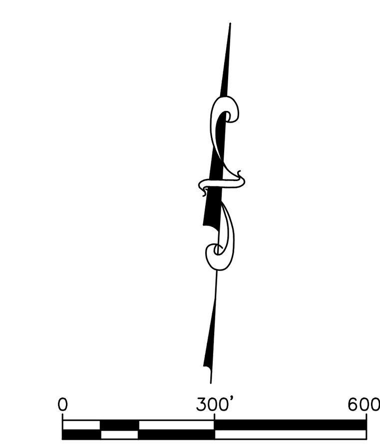
DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: AS SHOWN
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C001
SHEET: 3 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

DEVELOPED PARCELS TO HAVE GRINDER PUMPS INSTALLED				
16610	BLUE HERON CIR		5468	NORTH SHORE RD
16611	BLUE HERON CIR		5469	NORTH SHORE RD
16620	BLUE HERON CIR		5470	NORTH SHORE RD
16621	BLUE HERON CIR		5480	NORTH SHORE RD
16630	BLUE HERON CIR		5504	NORTH SHORE RD
16600	EGRET CIR		5505	NORTH SHORE RD
16601	EGRET CIR		5520	NORTH SHORE RD
16610	EGRET CIR		5523	NORTH SHORE RD
16621	EGRET CIR		5540	NORTH SHORE RD
5591	INNERARITY CIR		5548	NORTH SHORE RD
5593	INNERARITY CIR		5552	NORTH SHORE RD
5597	INNERARITY CIR		5553	NORTH SHORE RD
5603	INNERARITY CIR		5570	NORTH SHORE WAY
5605	INNERARITY CIR		5572	NORTH SHORE WAY
5607	INNERARITY CIR		5575	NORTH SHORE WAY
5609	INNERARITY CIR		5576	NORTH SHORE WAY
5610	INNERARITY CIR		5577	NORTH SHORE WAY
5611	INNERARITY CIR		5578	NORTH SHORE WAY
5612	INNERARITY CIR		5580	NORTH SHORE WAY
5613	INNERARITY CIR		5582	NORTH SHORE WAY
5614	INNERARITY CIR		5586	NORTH SHORE WAY
5615	INNERARITY CIR		5608	NORTH SHORE WAY
5616	INNERARITY CIR		5610	NORTH SHORE WAY
5620	INNERARITY CIR		5612	NORTH SHORE WAY
5623	INNERARITY CIR		5613	NORTH SHORE WAY
5624	INNERARITY CIR		5614	NORTH SHORE WAY
5652	INNERARITY CIR		5700	RED CEDAR ST
5654	INNERARITY CIR		5710	RED CEDAR ST
5656	INNERARITY CIR		5711	RED CEDAR ST
5660	INNERARITY CIR		5740	RED CEDAR ST
5665	INNERARITY CIR		5760	RED CEDAR ST
5670	INNERARITY CIR		5762	RED CEDAR ST
5677	INNERARITY CIR		5764	RED CEDAR ST
5680	INNERARITY CIR		5766	RED CEDAR ST
5690	INNERARITY CIR		5768	RED CEDAR ST
5711	INNERARITY LN		5781	RED CEDAR ST
16270	INNERARITY POINT RD		5794	RED CEDAR ST
16300	INNERARITY POINT RD		5796	RED CEDAR ST
16310	INNERARITY POINT RD		5798	RED CEDAR ST
16320	INNERARITY POINT RD		5800	RED CEDAR ST
16340	INNERARITY POINT RD		5801	RED CEDAR ST
16345	INNERARITY POINT RD		5806	RED CEDAR ST
16360	INNERARITY POINT RD		5810	RED CEDAR ST
16410	INNERARITY POINT RD		5811	RED CEDAR ST
16411	INNERARITY POINT RD		5830	RED CEDAR ST
16420	INNERARITY POINT RD		5840	RED CEDAR ST
16430	INNERARITY POINT RD		5846	RED CEDAR ST
16440	INNERARITY POINT RD		5850	RED CEDAR ST
16441	INNERARITY POINT RD		5920	RED CEDAR ST
16450	INNERARITY POINT RD		5930	RED CEDAR ST
16461	INNERARITY POINT RD		5950	RED CEDAR ST
16470	INNERARITY POINT RD		5970	RED CEDAR ST
16471	INNERARITY POINT RD		16600	SEASCAPE ST
16500	INNERARITY POINT RD		16601	SEASCAPE ST
16501	INNERARITY POINT RD		16631	SEASCAPE ST
16511	INNERARITY POINT RD		16640	SEASCAPE ST
16520	INNERARITY POINT RD		16641	SEASCAPE ST
16521	INNERARITY POINT RD		5700	SHORES CIR
16530	INNERARITY POINT RD		16252	NORTH SHORE DR
16531	INNERARITY POINT RD		16253	NORTH SHORE DR
16540	INNERARITY POINT RD		16262	NORTH SHORE DR
16541	INNERARITY POINT RD		16264	NORTH SHORE DR
16546	INNERARITY POINT RD		16265	NORTH SHORE DR
16550	INNERARITY POINT RD		16268	NORTH SHORE DR
16590	INNERARITY POINT RD		16270	NORTH SHORE DR
16600	INNERARITY POINT RD		16275	NORTH SHORE DR
16650	INNERARITY POINT RD		16278	NORTH SHORE DR
16660	INNERARITY POINT RD		16281	NORTH SHORE DR
16670	INNERARITY POINT RD		16282	NORTH SHORE DR
16751	INNERARITY POINT RD		16285	NORTH SHORE DR
16761	INNERARITY POINT RD		16286	NORTH SHORE DR
16403	NORTH SHORE CT		16288	NORTH SHORE DR
16405	NORTH SHORE CT		16289	NORTH SHORE DR
16406	NORTH SHORE CT		16290	NORTH SHORE DR
16407	NORTH SHORE CT		16293	NORTH SHORE DR
16410	NORTH SHORE CT		16297	NORTH SHORE DR
16366	NORTH SHORE DR		16298	NORTH SHORE DR
5303	NORTH SHORE RD		16301	NORTH SHORE DR
5408	NORTH SHORE RD		16302	NORTH SHORE DR
5421	NORTH SHORE RD		16305	NORTH SHORE DR
5428	NORTH SHORE RD		16306	NORTH SHORE DR
5430	NORTH SHORE RD		16309	NORTH SHORE DR
5432	NORTH SHORE RD		16310	NORTH SHORE DR
5434	NORTH SHORE RD		16317	NORTH SHORE DR
5437	NORTH SHORE RD		16318	NORTH SHORE DR
5442	NORTH SHORE RD		16322	NORTH SHORE DR
5444	NORTH SHORE RD		16326	NORTH SHORE DR
5446	NORTH SHORE RD		16330	NORTH SHORE DR
5448	NORTH SHORE RD		16334	NORTH SHORE DR
5450	NORTH SHORE RD		16340	NORTH SHORE DR
5454	NORTH SHORE RD		16342	NORTH SHORE DR
5458	NORTH SHORE RD		16346	NORTH SHORE DR
5460	NORTH SHORE RD		16353	NORTH SHORE DR
5464	NORTH SHORE RD		16354	NORTH SHORE DR
5466	NORTH SHORE RD		16359	NORTH SHORE DR
5467	NORTH SHORE RD		16366	NORTH SHORE DR

MAP OF PROJECT ADDRESS



PARCELS WITHOUT ADDRESSES	
REF #	TAX ACCOUNT #
1	104464672
2	104332118
3	104461006
4	104461001
5	104461005
6	104462300
7	104462316
8	104462375
9	104462400
10	104462512
11	104462506
12	104462554
13	104463198
14	104463286
15	104461875 – HOA
16	104461617
17	104461643
18	104461645
19	104461661
20	104461832
21	104461673
22	104461677
23	104461685
24	104464688
25	104464680 – HOA

NO. | DATE | REVISIONS

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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

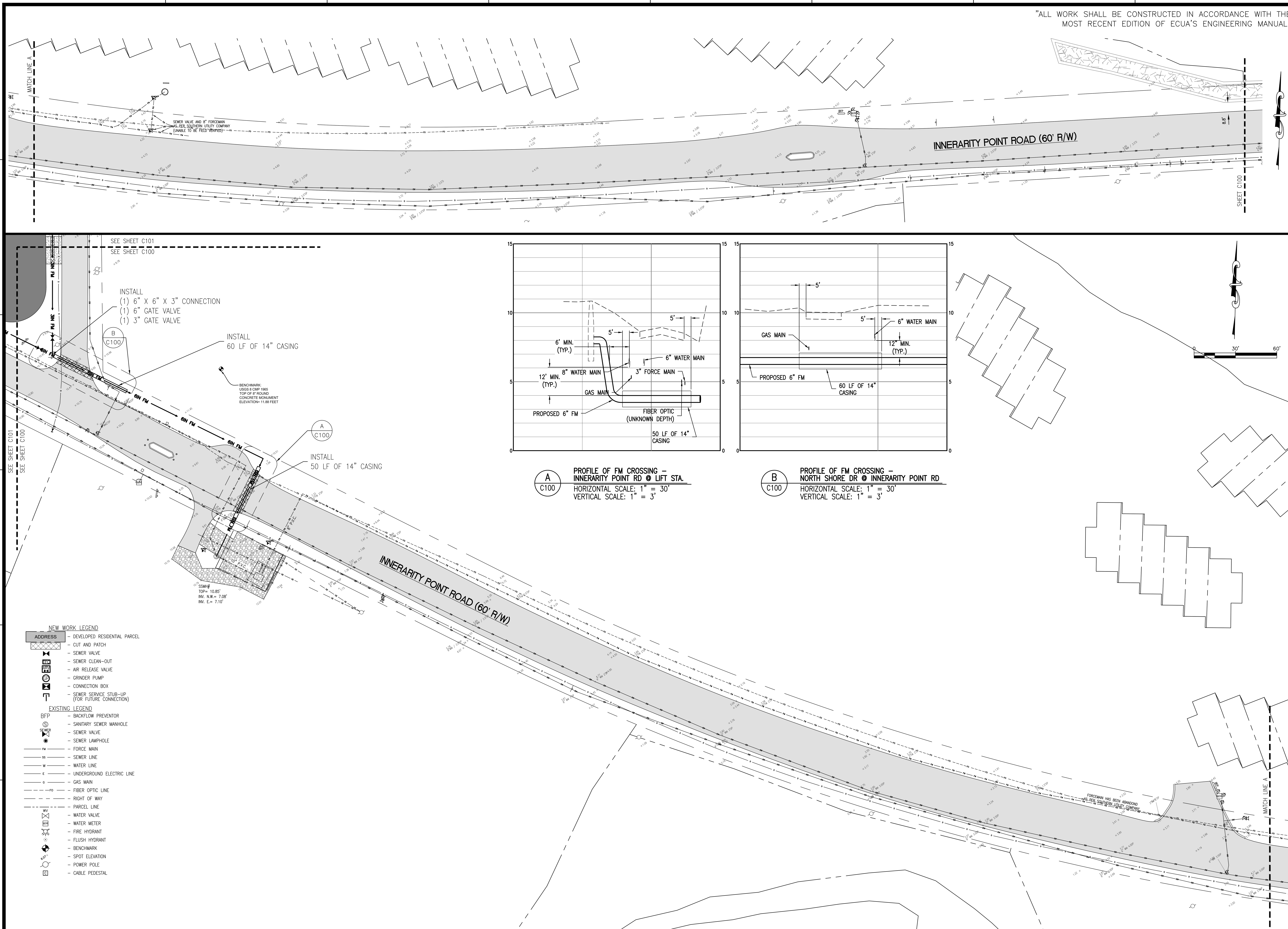
INNERARITY ISLAND SEWER SYSTEM UPGRADES

MAP OF PROJECT ADDRESS

ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: AS SHOWN
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C002
SHEET: 4 OF 66



REVISIONS

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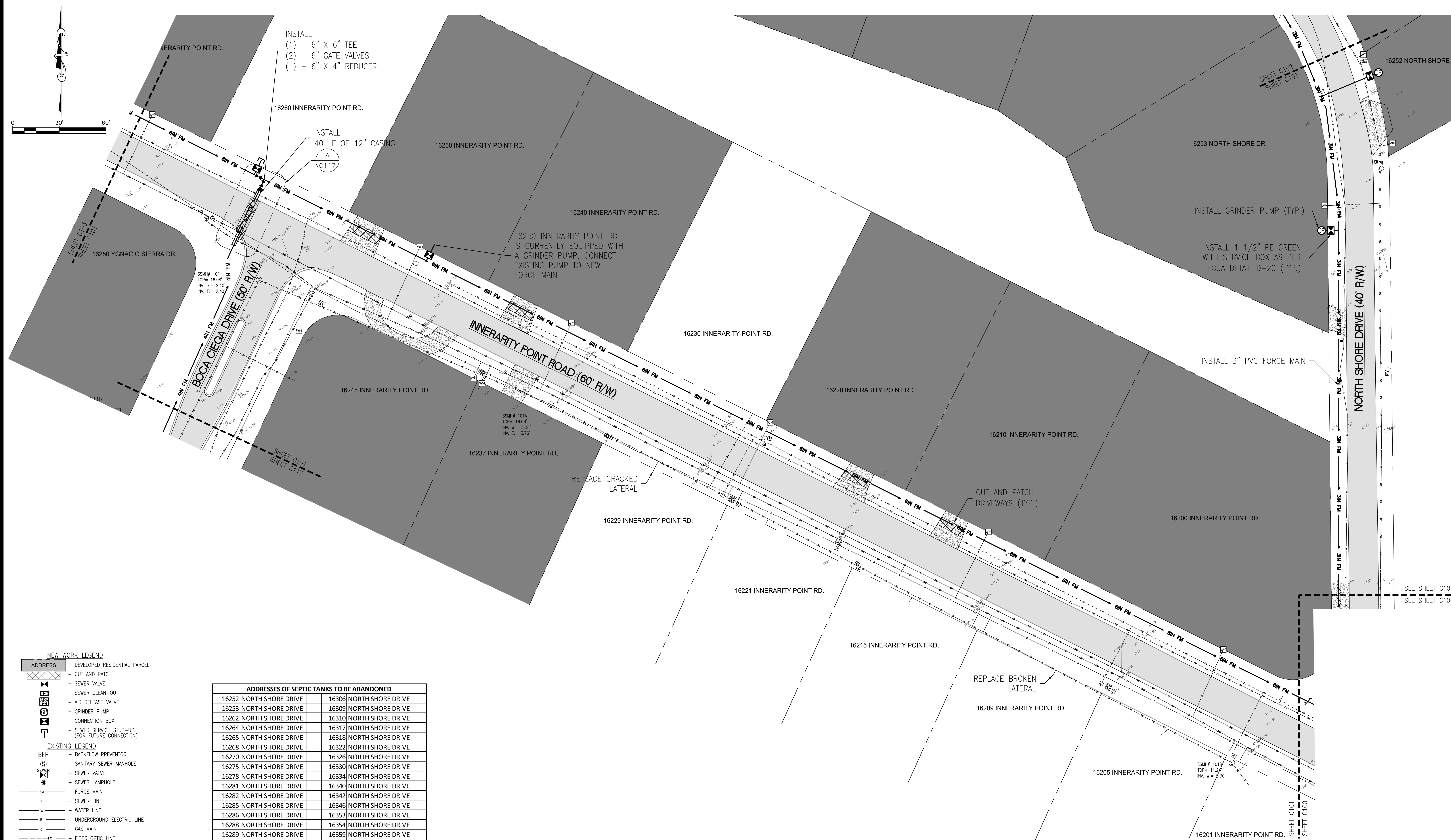
INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 30'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018–35
C100
SHEET: 5 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



NEW WORK LEGEND

- ADDRESS – DEVELOPED RESIDENTIAL PARCEL
- CUT AND PATCH
- SEWER VALVE
- SEWER CLEAN–OUT
- AIR RELEASE VALVE
- GRINDER PUMP
- CONNECTION BOX
- SEWER SERVICE STUB–UP (FOR FUTURE CONNECTION)

EXISTING LEGEND

- BFP – BACKFLOW PREVENTOR
- SANITARY SEWER MANHOLE
- SEWER VALVE
- SEWER LAMPHOLE
- FM – FORCE MAIN
- SS – SEWER LINE
- W – WATER LINE
- E – UNDERGROUND ELECTRIC LINE
- G – GAS MAIN
- FO – FIBER OPTIC LINE
- RIGHT OF WAY
- PARCEL LINE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- FLUSH HYDRANT
- BENCHMARK
- SPOT ELEVATION
- POWER POLE
- CABLE PEDESTAL

ADDRESSES OF SEPTIC TANKS TO BE ABANDONED				
16252	NORTH SHORE DRIVE		16306	NORTH SHORE DRIVE
16253	NORTH SHORE DRIVE		16309	NORTH SHORE DRIVE
16262	NORTH SHORE DRIVE		16310	NORTH SHORE DRIVE
16264	NORTH SHORE DRIVE		16317	NORTH SHORE DRIVE
16265	NORTH SHORE DRIVE		16318	NORTH SHORE DRIVE
16268	NORTH SHORE DRIVE		16322	NORTH SHORE DRIVE
16270	NORTH SHORE DRIVE		16326	NORTH SHORE DRIVE
16275	NORTH SHORE DRIVE		16330	NORTH SHORE DRIVE
16278	NORTH SHORE DRIVE		16334	NORTH SHORE DRIVE
16281	NORTH SHORE DRIVE		16340	NORTH SHORE DRIVE
16282	NORTH SHORE DRIVE		16342	NORTH SHORE DRIVE
16285	NORTH SHORE DRIVE		16346	NORTH SHORE DRIVE
16286	NORTH SHORE DRIVE		16353	NORTH SHORE DRIVE
16288	NORTH SHORE DRIVE		16354	NORTH SHORE DRIVE
16289	NORTH SHORE DRIVE		16359	NORTH SHORE DRIVE
16290	NORTH SHORE DRIVE		16366	NORTH SHORE DRIVE
16293	NORTH SHORE DRIVE		16270	INNERARITY POINT ROAD
16297	NORTH SHORE DRIVE		16300	INNERARITY POINT ROAD
16298	NORTH SHORE DRIVE		16310	INNERARITY POINT ROAD
16301	NORTH SHORE DRIVE		16320	INNERARITY POINT ROAD
16302	NORTH SHORE DRIVE		16340	INNERARITY POINT ROAD
16305	NORTH SHORE DRIVE		16360	INNERARITY POINT ROAD

* SEE SHEET C210 FOR SEPTIC TANK ABANDONMENT NOTES

NO.	DATE	REVISIONS

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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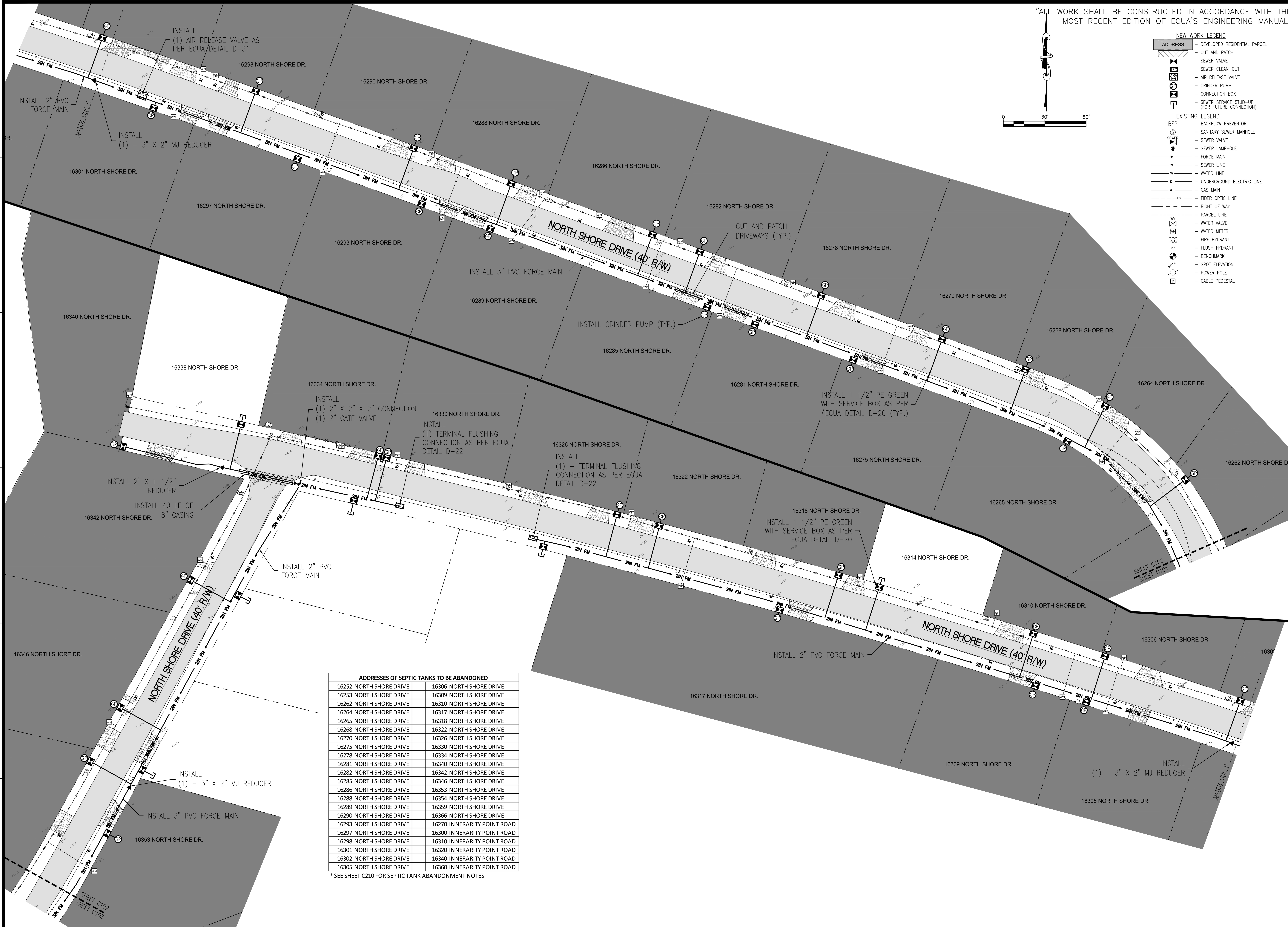
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018–35
C101
SHEET: 6 OF 66



ADDRESSES OF SEPTIC TANKS TO BE ABANDONED				
16252	NORTH SHORE DRIVE		16306	NORTH SHORE DRIVE
16253	NORTH SHORE DRIVE		16309	NORTH SHORE DRIVE
16262	NORTH SHORE DRIVE		16310	NORTH SHORE DRIVE
16264	NORTH SHORE DRIVE		16317	NORTH SHORE DRIVE
16265	NORTH SHORE DRIVE		16318	NORTH SHORE DRIVE
16268	NORTH SHORE DRIVE		16322	NORTH SHORE DRIVE
16270	NORTH SHORE DRIVE		16326	NORTH SHORE DRIVE
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16282	NORTH SHORE DRIVE		16342	NORTH SHORE DRIVE
16285	NORTH SHORE DRIVE		16346	NORTH SHORE DRIVE
16286	NORTH SHORE DRIVE		16353	NORTH SHORE DRIVE
16288	NORTH SHORE DRIVE		16354	NORTH SHORE DRIVE
16289	NORTH SHORE DRIVE		16359	NORTH SHORE DRIVE
16290	NORTH SHORE DRIVE		16366	NORTH SHORE DRIVE
16293	NORTH SHORE DRIVE		16270	INNERARITY POINT ROAD
16297	NORTH SHORE DRIVE		16300	INNERARITY POINT ROAD
16298	NORTH SHORE DRIVE		16310	INNERARITY POINT ROAD
16301	NORTH SHORE DRIVE		16320	INNERARITY POINT ROAD
16302	NORTH SHORE DRIVE		16340	INNERARITY POINT ROAD
16305	NORTH SHORE DRIVE		16360	INNERARITY POINT ROAD

* SEE SHEET C210 FOR SEPTIC TANK ABANDONMENT NOTES

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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SCALE: 1" = 30'
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BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C102
SHEET: 7 OF 66

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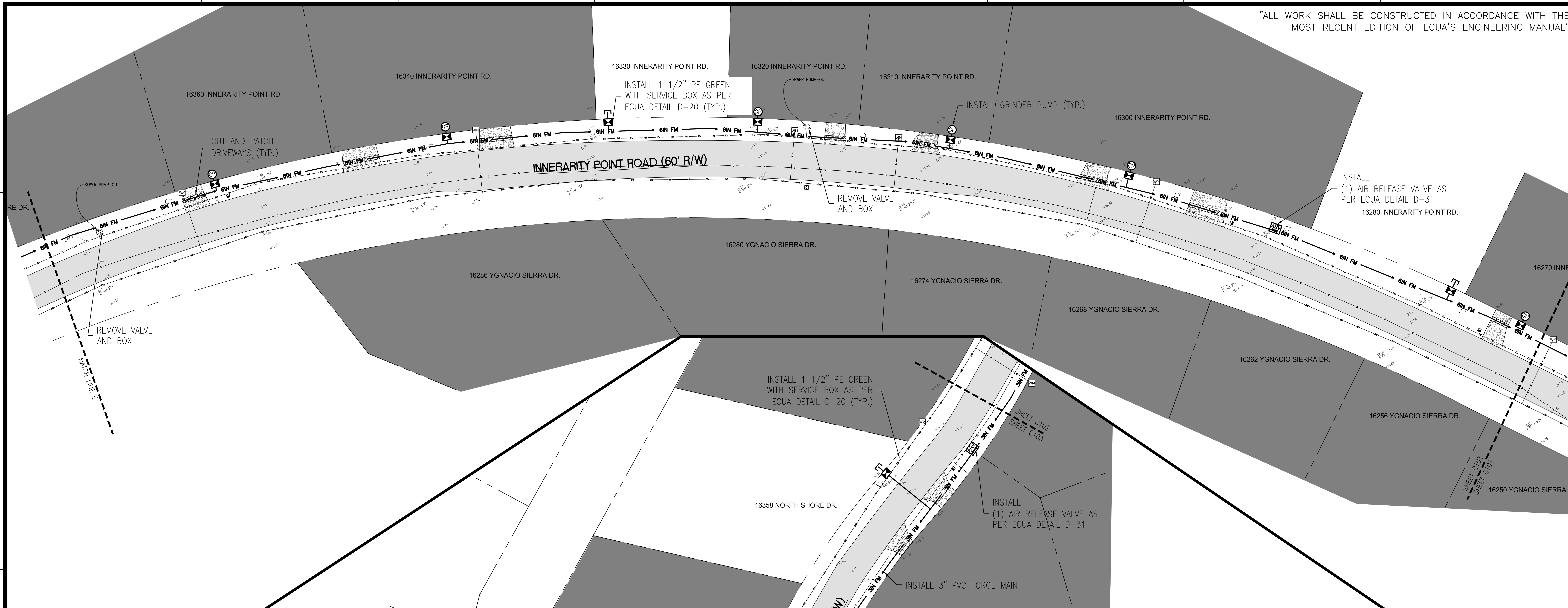

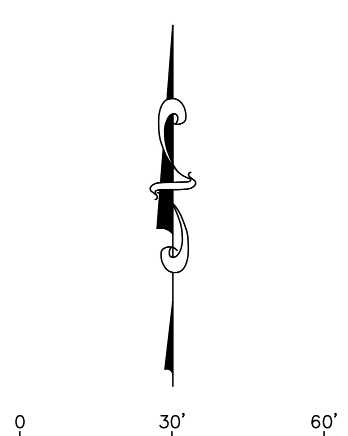

NEW WORK LEGEND

- ADDRESS – DEVELOPED RESIDENTIAL PARCEL
- CUT AND PATCH
- SEWER VALVE
- SEWER CLEAN-OUT
- AIR RELEASE VALVE
- GRINDER PUMP
- CONNECTION BOX
- SEWER SERVICE STUB-UP (FOR FUTURE CONNECTION)

EXISTING LEGEND

- BFP – BACKFLOW PREVENTOR
- SANITARY SEWER MANHOLE
- SEWER VALVE
- SEWER LAMPHOLE
- FORCE MAIN
- SEWER LINE
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- GAS MAIN
- FIBER OPTIC LINE
- RIGHT OF WAY
- PARCEL LINE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- FLUSH HYDRANT
- BENCHMARK
- SPOT ELEVATION
- POWER POLE
- CABLE PEDESTAL

ADDRESSES OF SEPTIC TANKS TO BE ABANDONED				
16252	NORTH SHORE DRIVE		16306	NORTH SHORE DRIVE
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16285	NORTH SHORE DRIVE		16346	NORTH SHORE DRIVE
16286	NORTH SHORE DRIVE		16353	NORTH SHORE DRIVE
16288	NORTH SHORE DRIVE		16354	NORTH SHORE DRIVE
16289	NORTH SHORE DRIVE		16359	NORTH SHORE DRIVE
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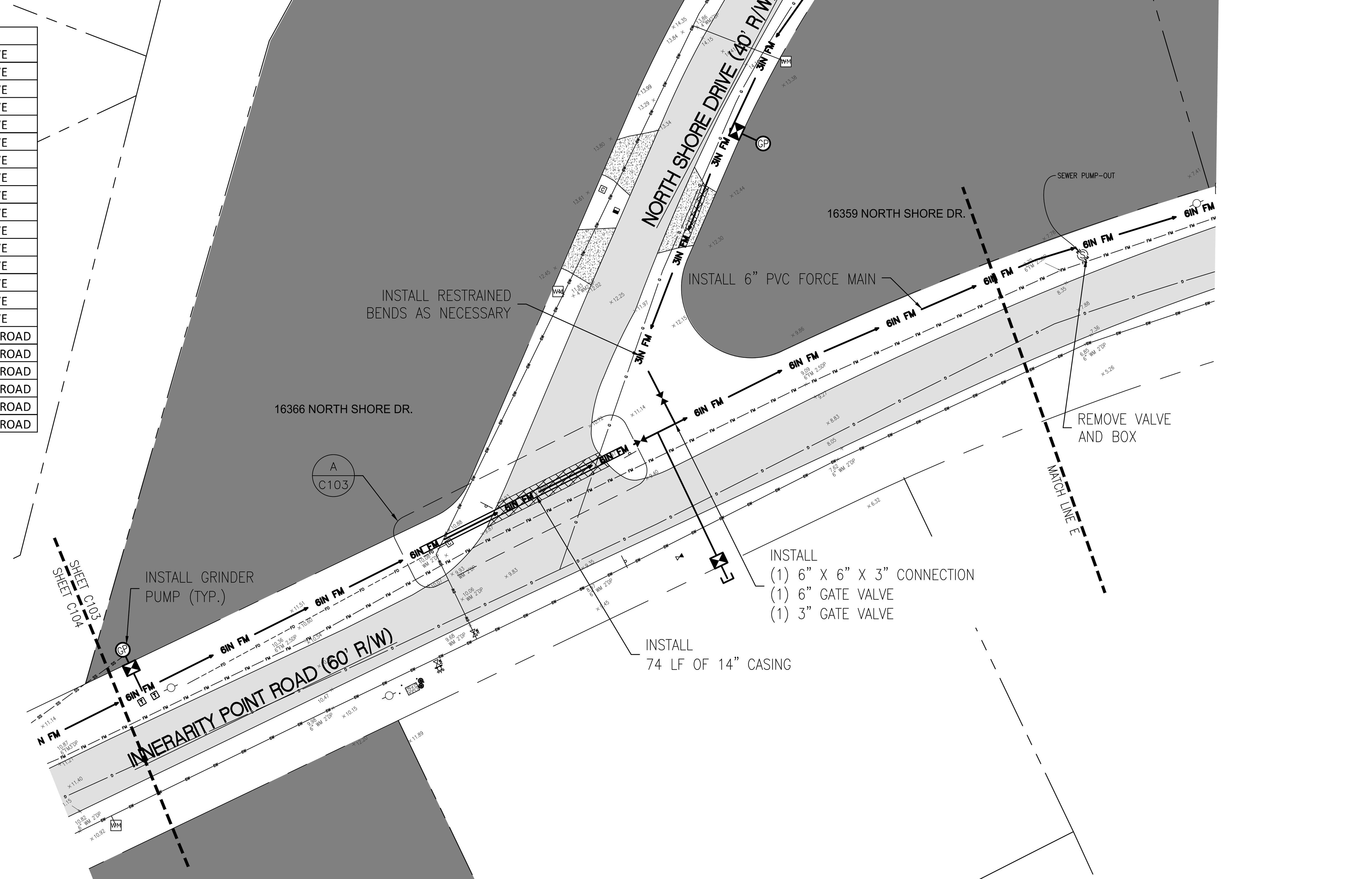
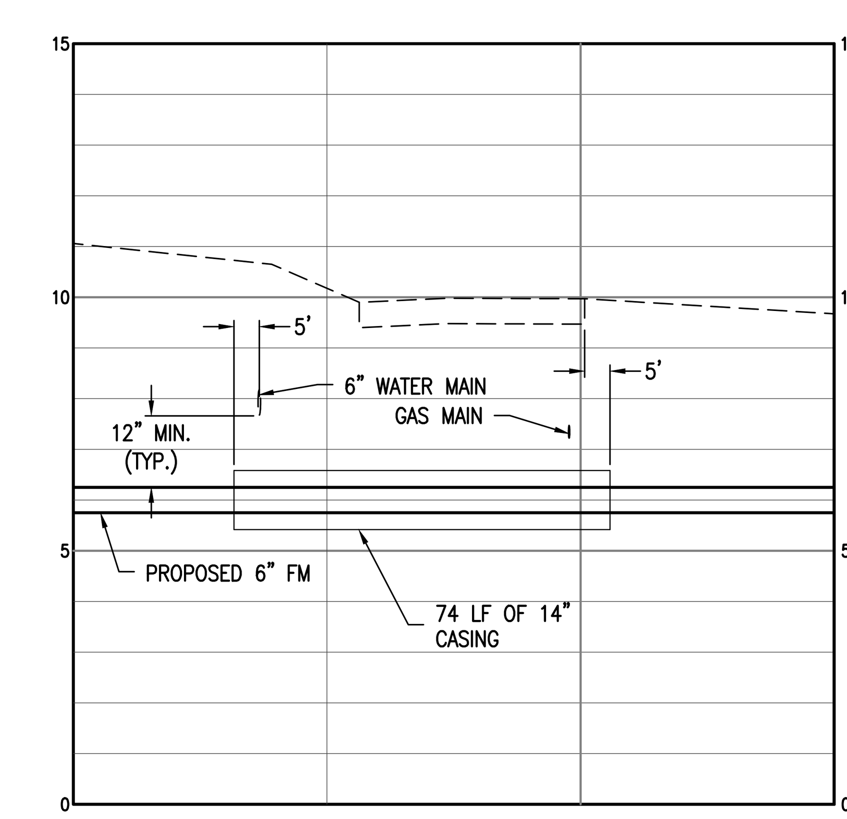
16302	NORTH SHORE DRIVE		16340	INNERARITY POINT ROAD
16305	NORTH SHORE DRIVE		16360	INNERARITY POINT ROAD

* SEE SHEET C210 FOR SEPTIC TANK ABANDONMENT NOTES





A
C103

PROFILE OF FM CROSSING – NORTH SHORE DR @ INNERARITY POINT RD
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

NO.	DATE	REVISIONS

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
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DATE: 2/19/2019
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FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C103
SHEET: 8 OF 66

S:\2018 Projects\2018-35 Innerarity Island Sewer\DWGS\CIVIL\2018-35_C1XX.dwg, Jul 23, 2019 – 8:31:46AM, priscilla

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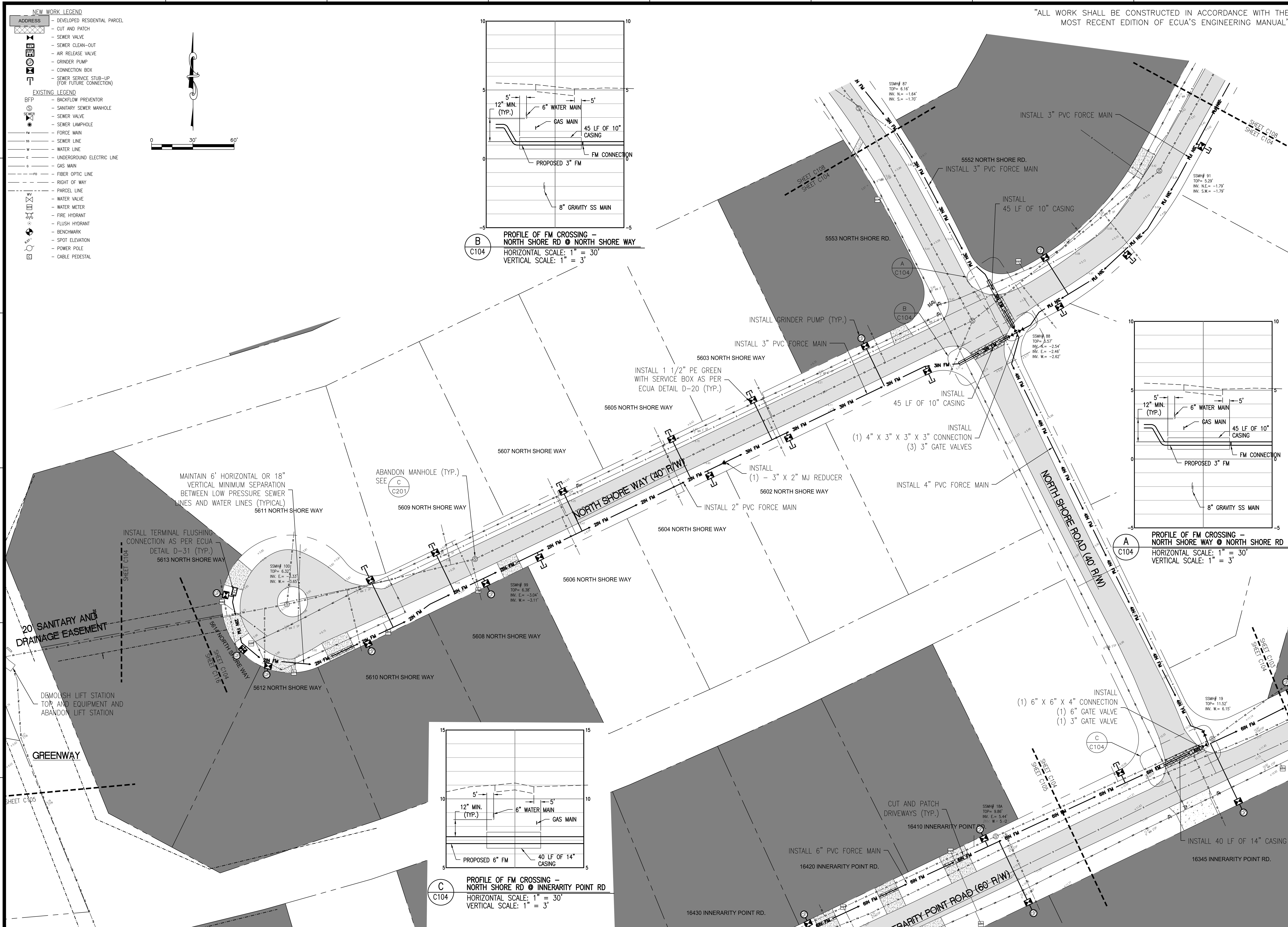

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PROJECT NO: 2018-35
C104
SHEET: 9 OF 66

S:\2018 Projects\2018-35 Innerarity Island Sewer\DWGS\CIVIL\2018-35_C1XX.dwg, Jul 23, 2019 - 8:32:11AM, priscilla

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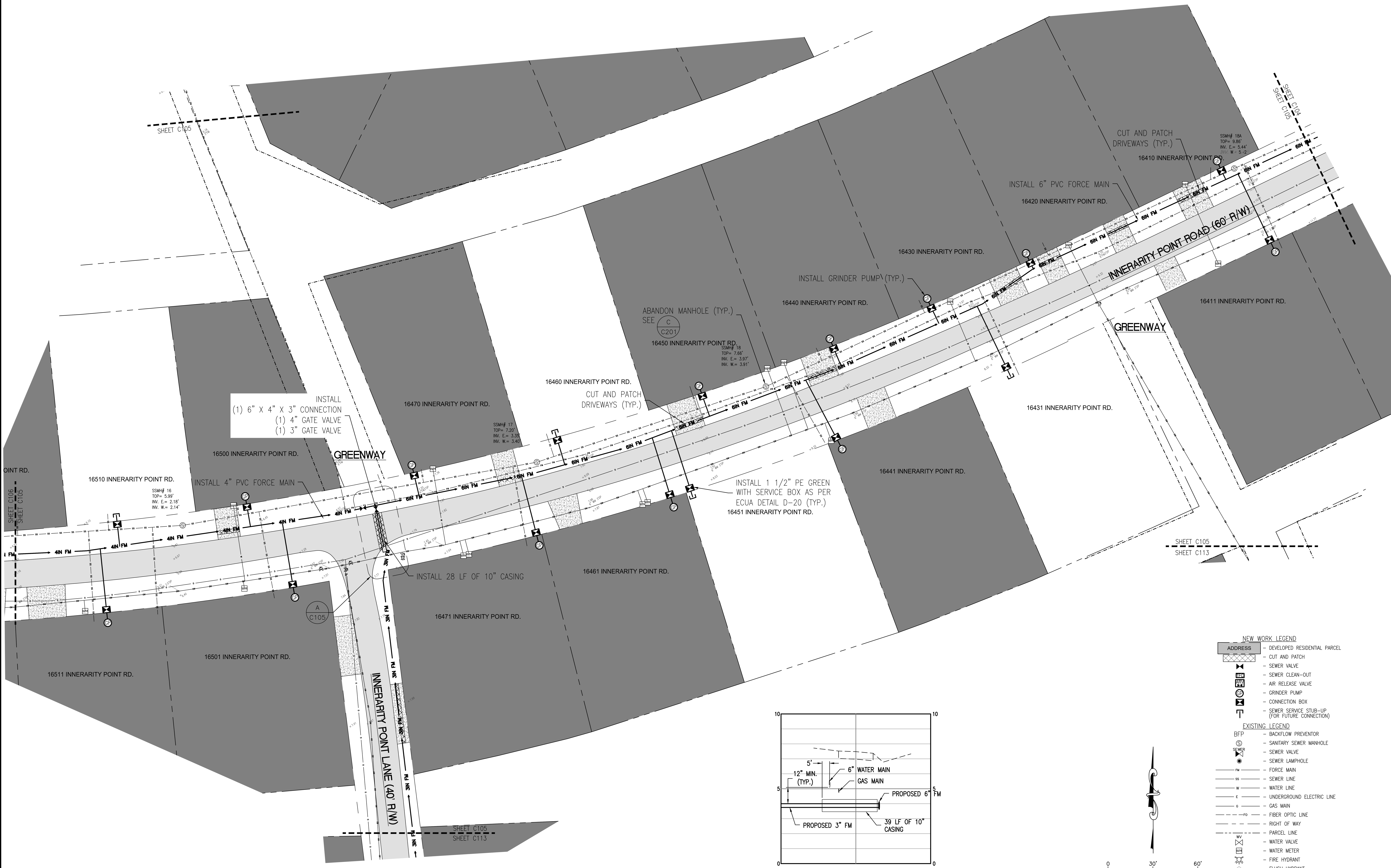

A C105 PROFILE OF FM CROSSING – INNERARITY POINT RD @ INNERARITY POINT LANE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

NEW WORK LEGEND

- ADDRESS – DEVELOPED RESIDENTIAL PARCEL
- CUT AND PATCH
- SEWER VALVE
- SEWER CLEAN-OUT
- AIR RELEASE VALVE
- GRINDER PUMP
- CONNECTION BOX
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EXISTING LEGEND

- BFP – BACKFLOW PREVENTOR
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- FM – FORCE MAIN
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- W – WATER LINE
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- G – GAS MAIN
- FO – FIBER OPTIC LINE
- RIGHT OF WAY
- PARCEL LINE
- WV – WATER VALVE
- WM – WATER METER
- FIRE HYDRANT
- FLUSH HYDRANT
- BENCHMARK
- 6.07 – SPOT ELEVATION
- POWER POLE
- C – CABLE PEDESTAL

0 30' 60'

NO.	DATE	REVISIONS

EDWARD E. BOWLES
FL. PE 56636

Kenneth Horne & Associates, Inc.
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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

DRAWN BY:	PC
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DATE:	2/19/2019
SCALE:	1" = 30'
FOR CONSTRUCTION	
BY: EBB	DATE: 7/25/2019
PROJECT NO:	2018–35
C105	
SHEET:	10 OF 66

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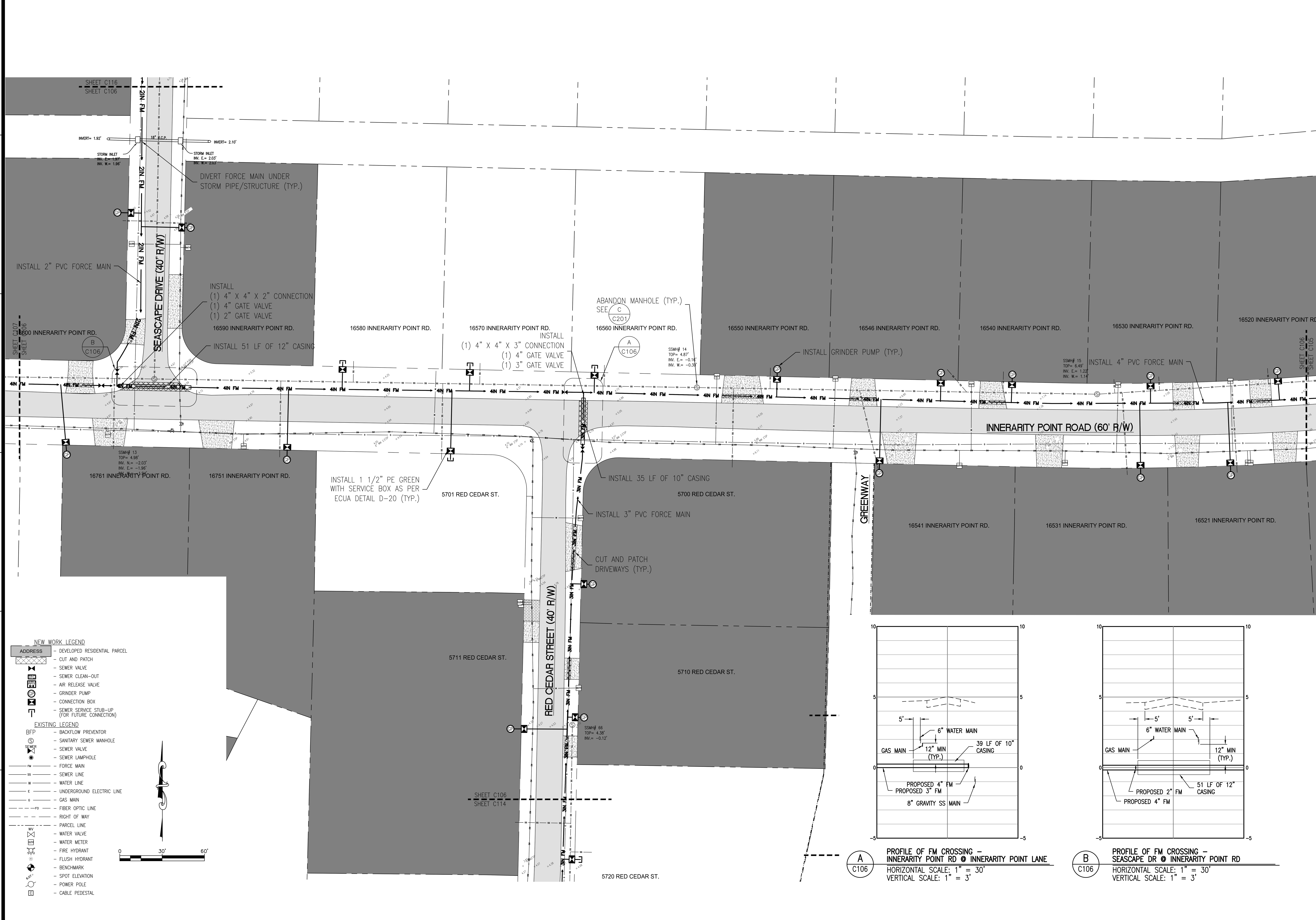

A C106 PROFILE OF FM CROSSING – INNERARITY POINT RD @ INNERARITY POINT LANE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

B C106 PROFILE OF FM CROSSING – SEASCAPE DR @ INNERARITY POINT RD
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

NO.	DATE	REVISIONS

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INNERARITY ISLAND SEWER SYSTEM UPGRADES
PLAN SHEET
ESCAMBIA COUNTY FLORIDA

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PROJECT NO: 2018-35
C106
SHEET: 11 OF 66

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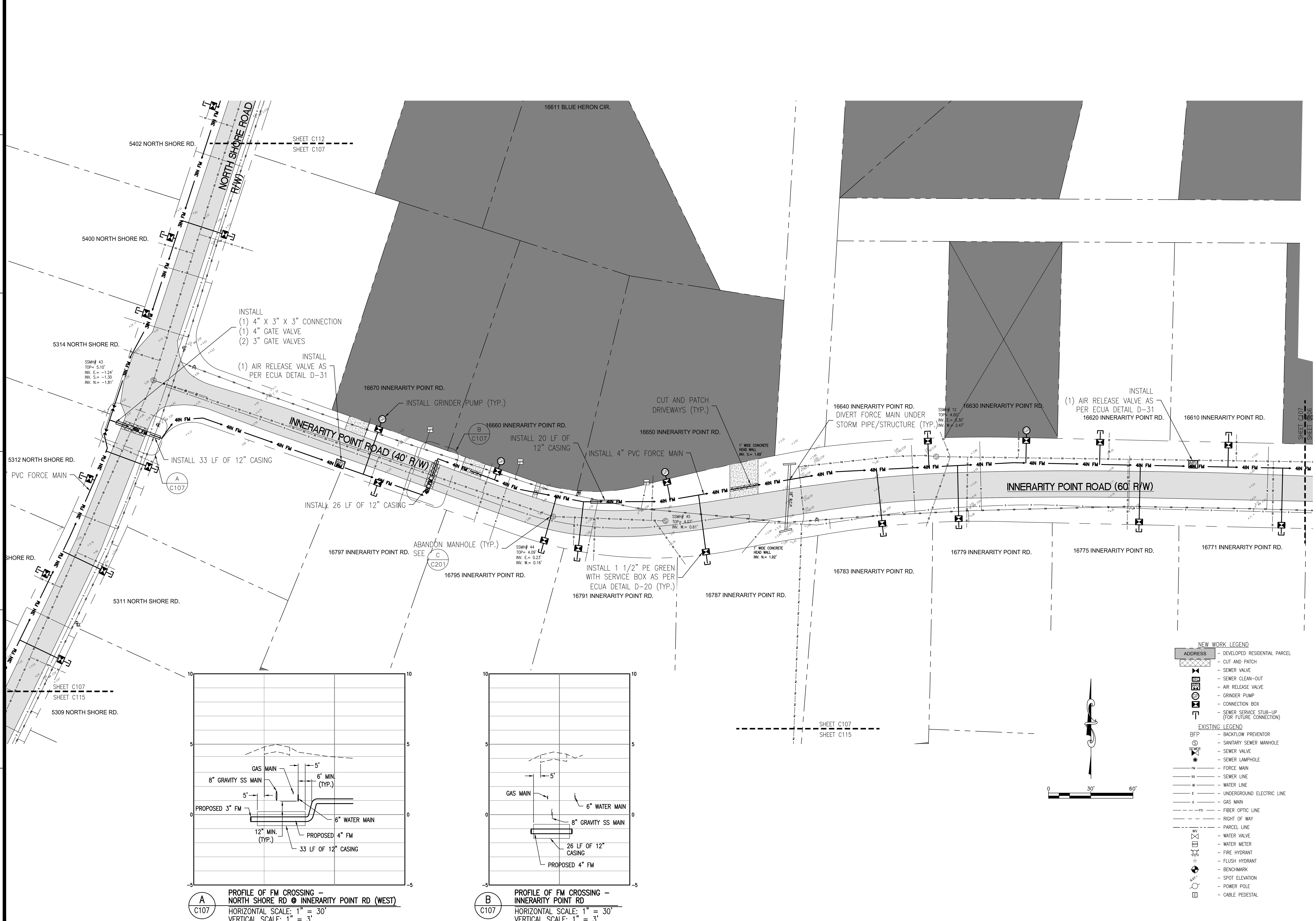

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INNERARITY ISLAND SEWER SYSTEM UPGRADES
PLAN SHEET
ESCAMBIA COUNTY FLORIDA

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SCALE: 1" = 30'
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PROJECT NO: 2018-35
C107
SHEET: 12 OF 66

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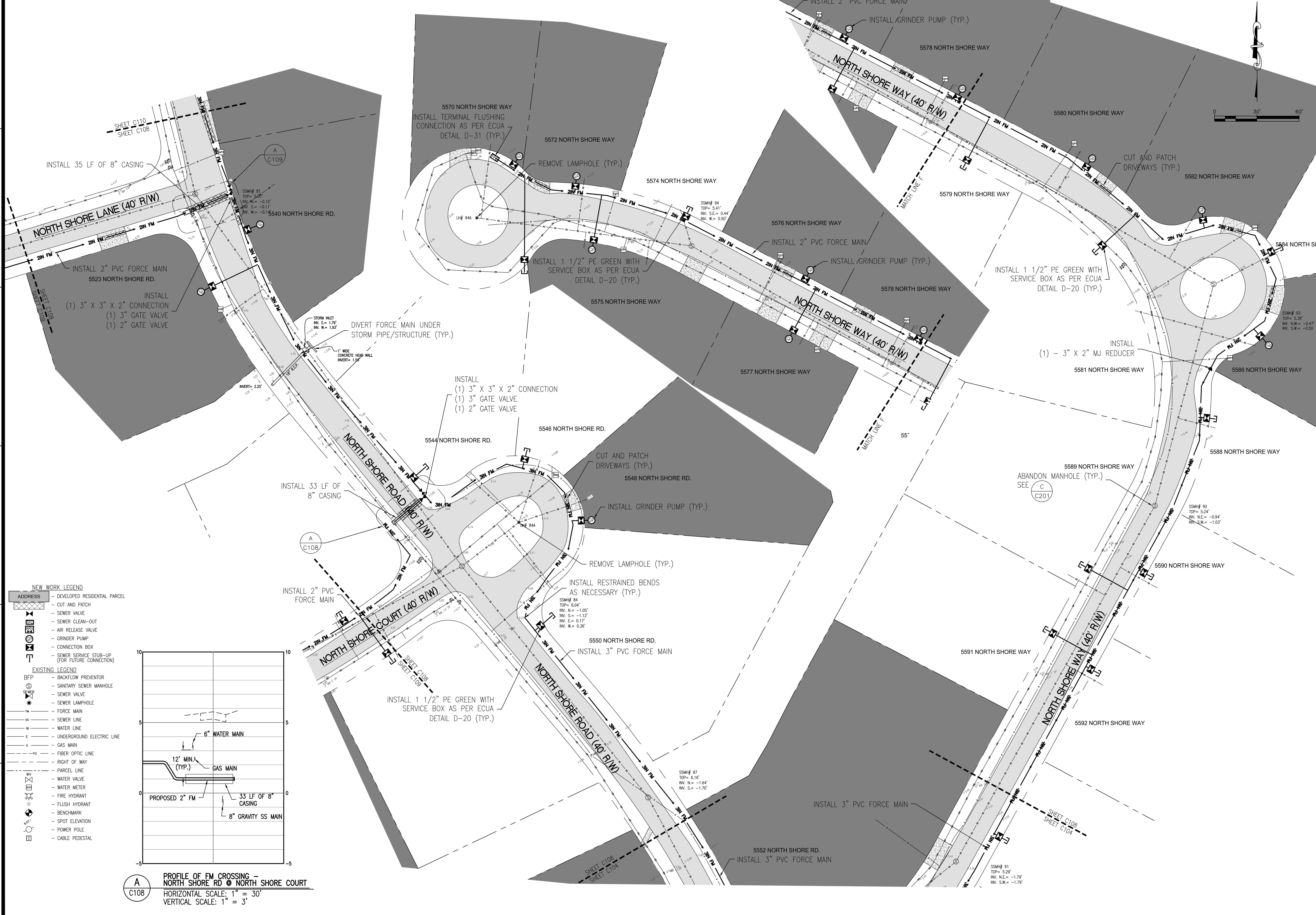

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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DATE: 2/19/2019
SCALE: 1" = 30'
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BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C108
SHEET: 13 OF 66

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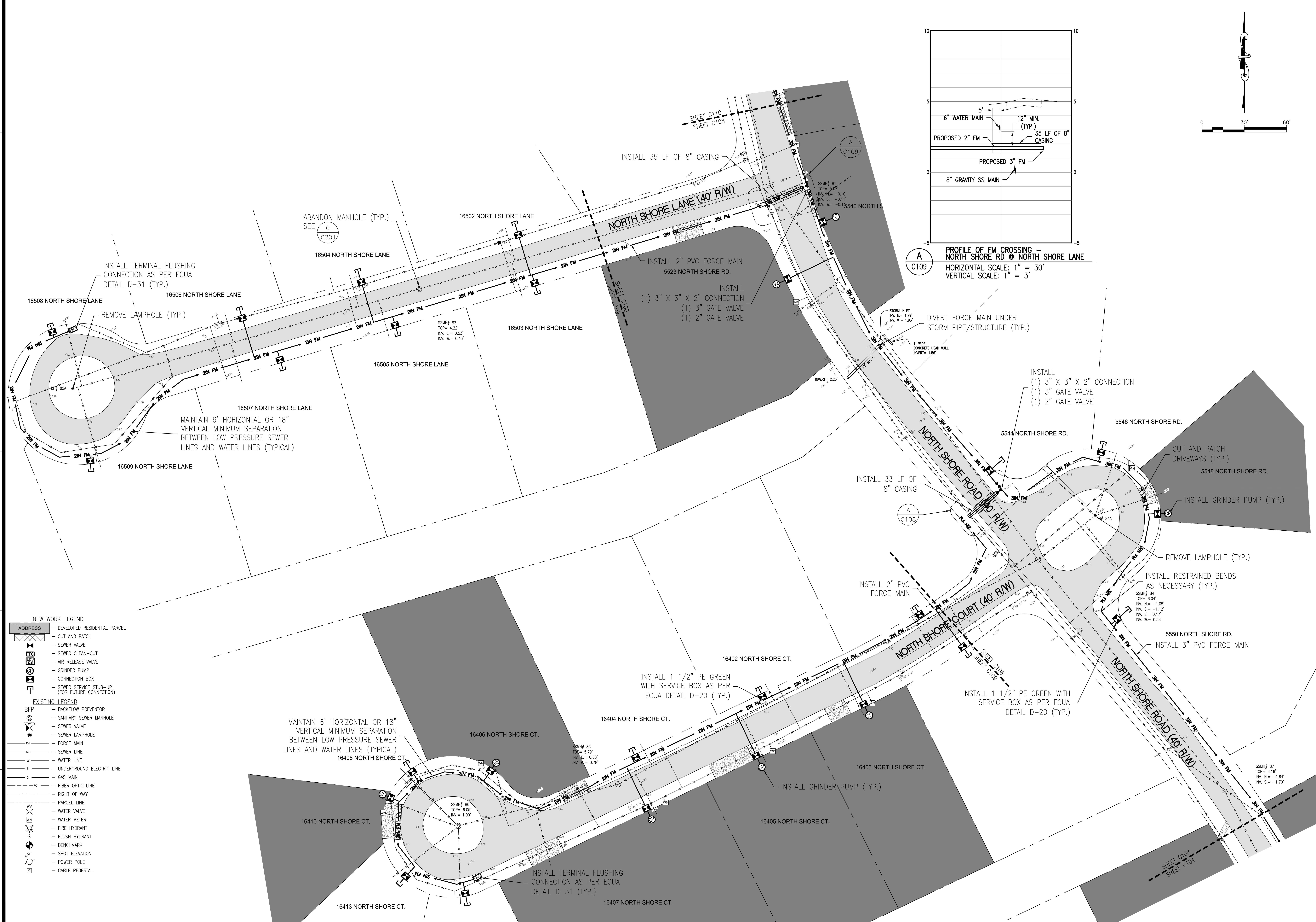

PROFILE OF FM CROSSING – NORTH SHORE RD @ NORTH SHORE LANE (A / C109)
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

NEW WORK LEGEND
- ADDRESS – DEVELOPED RESIDENTIAL PARCEL
- CUT AND PATCH
- SEWER VALVE
- SEWER CLEAN-OUT
- AIR RELEASE VALVE
- GRINDER PUMP
- CONNECTION BOX
- SEWER SERVICE STUB-UP (FOR FUTURE CONNECTION)

EXISTING LEGEND
- BFP – BACKFLOW PREVENTOR
- SANITARY SEWER MANHOLE
- SEWER VALVE
- SEWER LAMPHOLE
- FORCE MAIN
- SEWER LINE
- WATER LINE
- UNDERGROUND ELECTRIC LINE
- GAS MAIN
- FIBER OPTIC LINE
- RIGHT OF WAY
- PARCEL LINE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- FLUSH HYDRANT
- BENCHMARK
- SPOT ELEVATION
- POWER POLE
- CABLE PEDESTAL

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INNERARITY ISLAND SEWER SYSTEM UPGRADES
PLAN SHEET
ESCAMBIA COUNTY, FLORIDA

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DATE:	2/19/2019
SCALE:	1" = 30'
FOR CONSTRUCTION	BY: EBB DATE: 7/25/2019
PROJECT NO:	2018-35
	C109
SHEET:	14 OF 66

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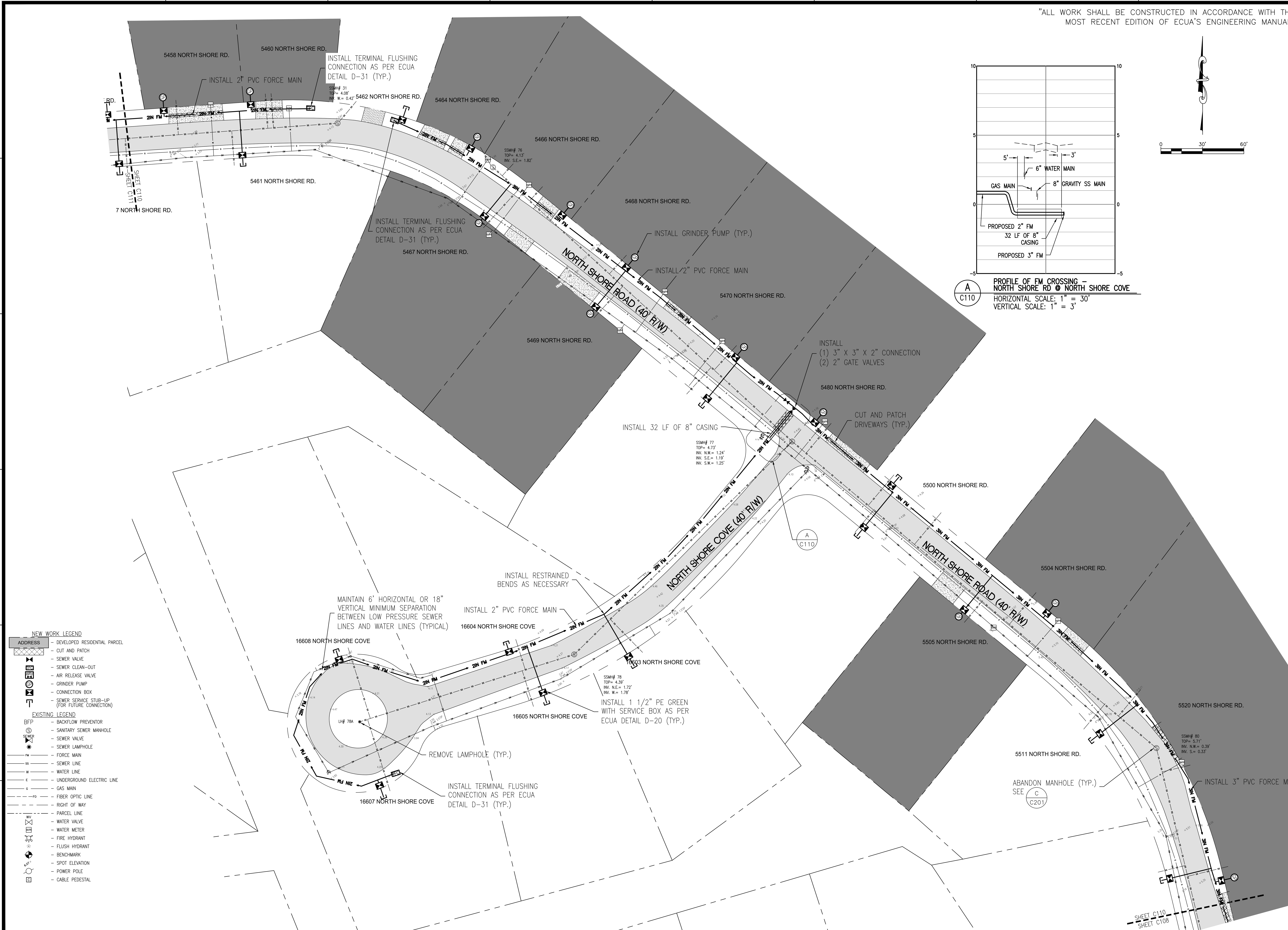

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INNERARITY ISLAND SEWER SYSTEM UPGRADES

PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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DATE: 2/19/2019
SCALE: 1" = 30'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C110
SHEET: 15 OF 66

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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DATE: 2/19/2019
SCALE: 1" = 30'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C111
SHEET: 16 OF 66

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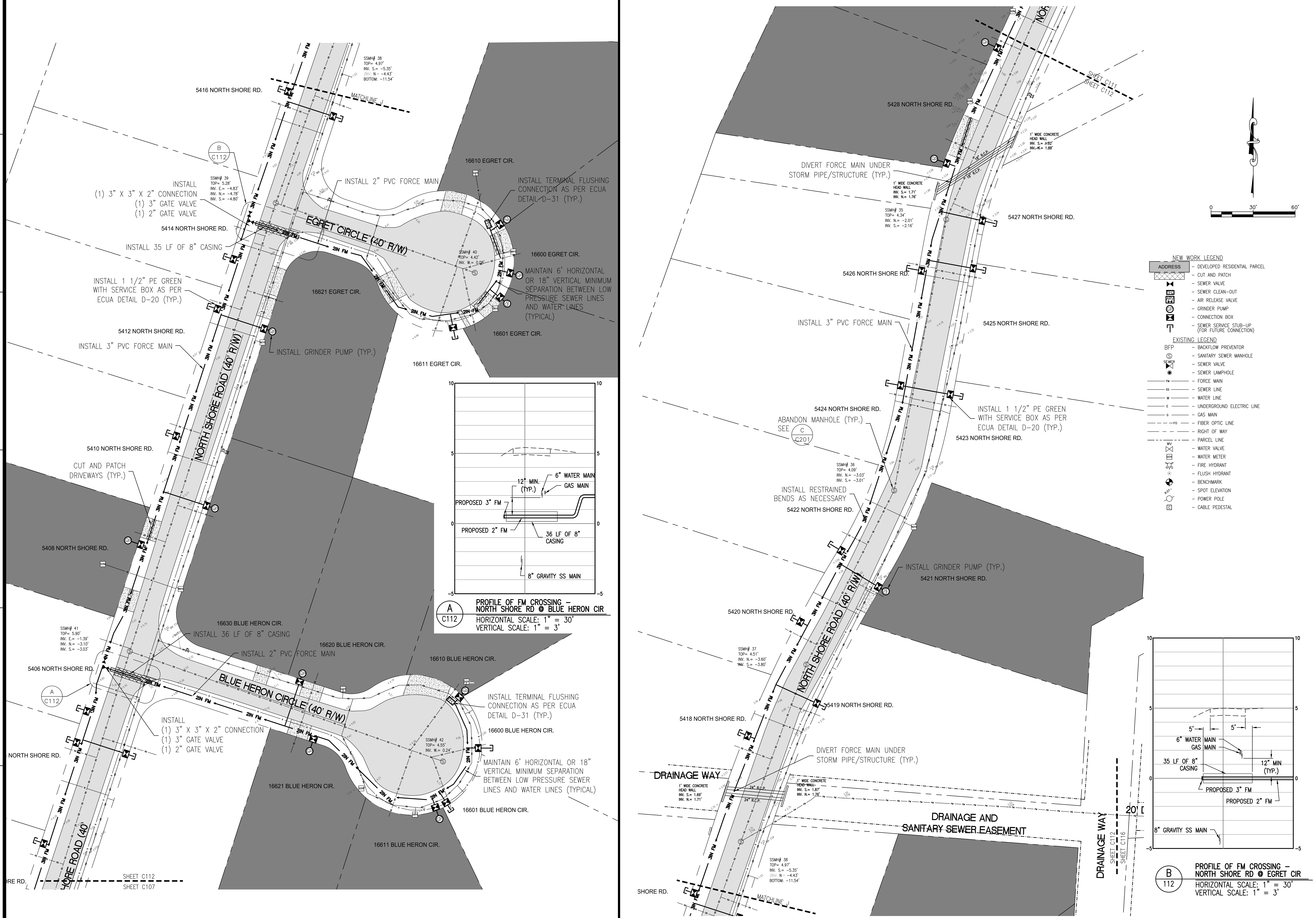

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET
ESCAMBIA COUNTY FLORIDA

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PROJECT NO: 2018-35
C112
SHEET: 17 OF 66

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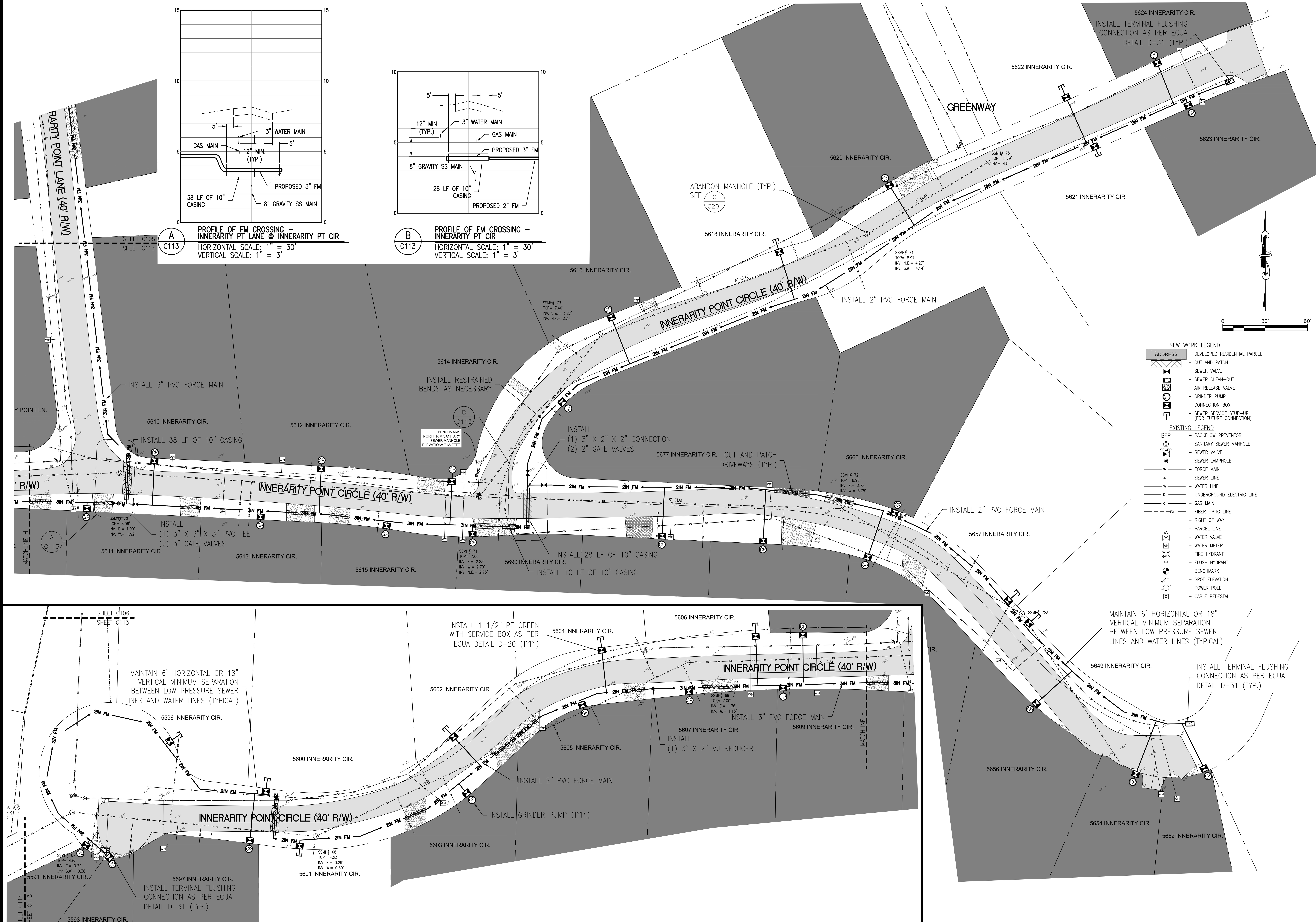

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INNERARITY ISLAND SEWER SYSTEM UPGRADES

PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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DATE: 2/19/2019
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BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C113
SHEET: 18 OF 66

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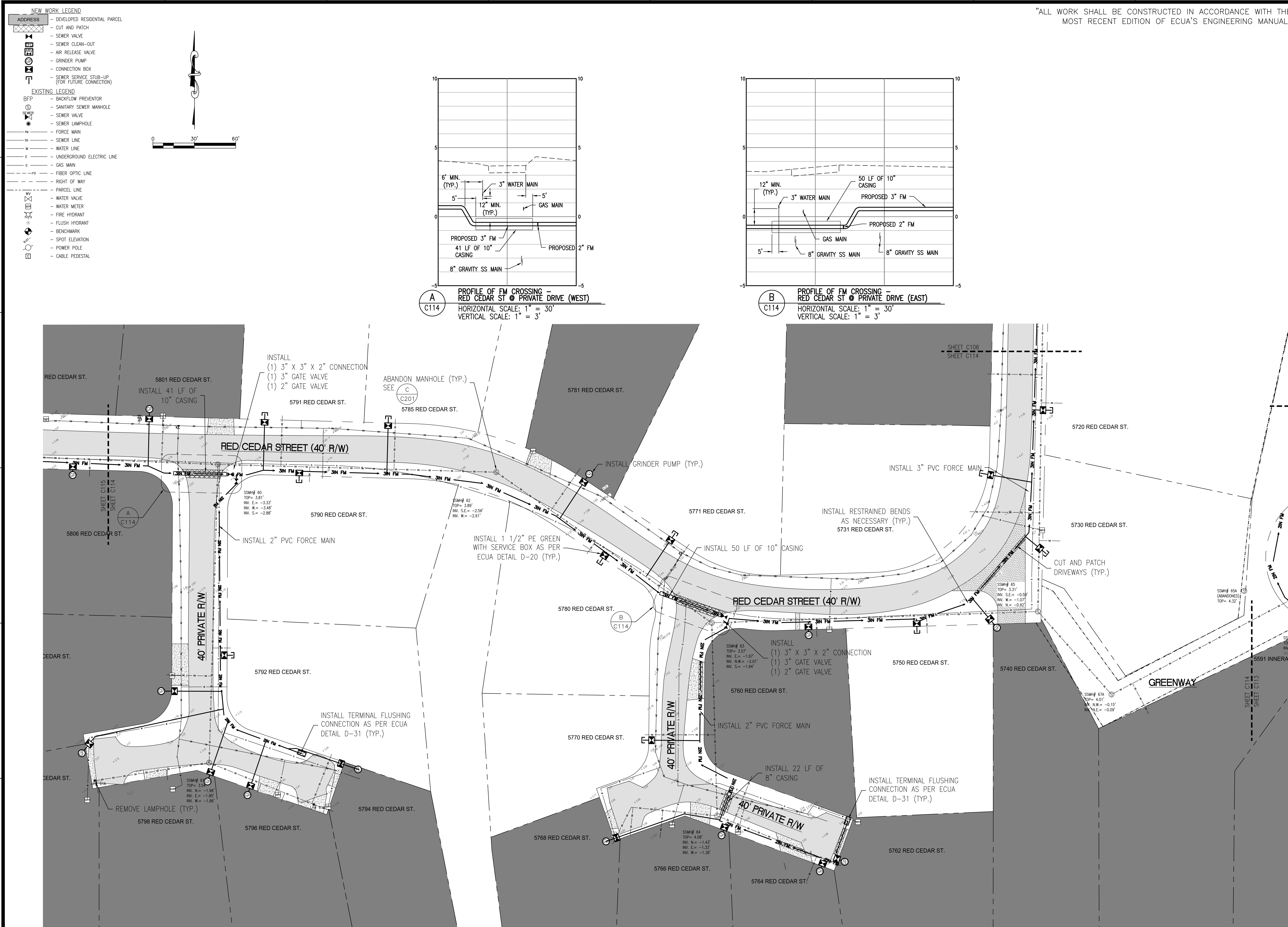

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PLAN SHEET
ESCAMBIA COUNTY FLORIDA

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PROJECT NO: 2018-35
C114
SHEET: 19 OF 66

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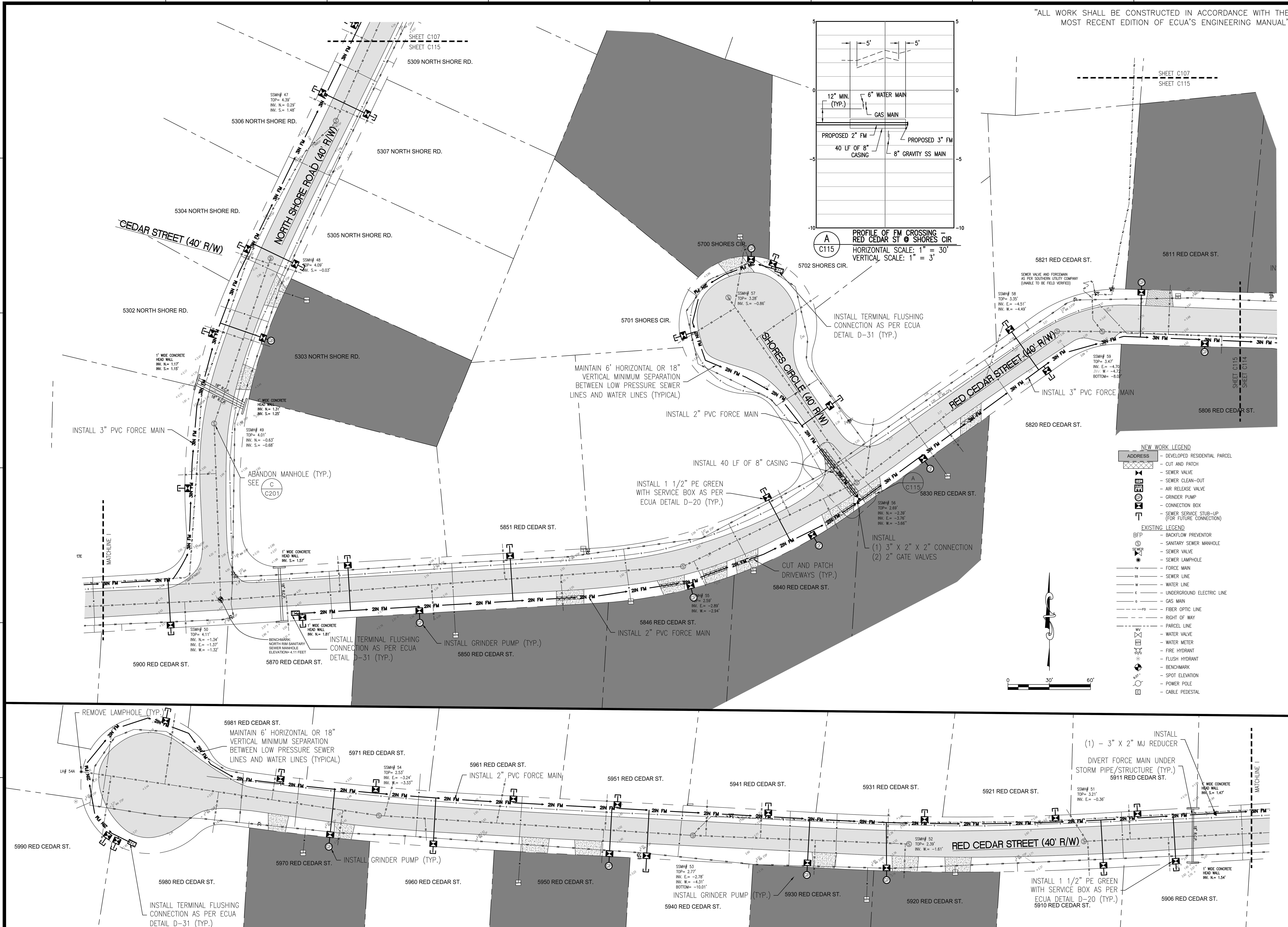

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INNERARITY ISLAND SEWER SYSTEM UPGRADES
PLAN SHEET

ESCAMBIA COUNTY FLORIDA

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PROJECT NO: 2018-35
C115
SHEET: 20 OF 66

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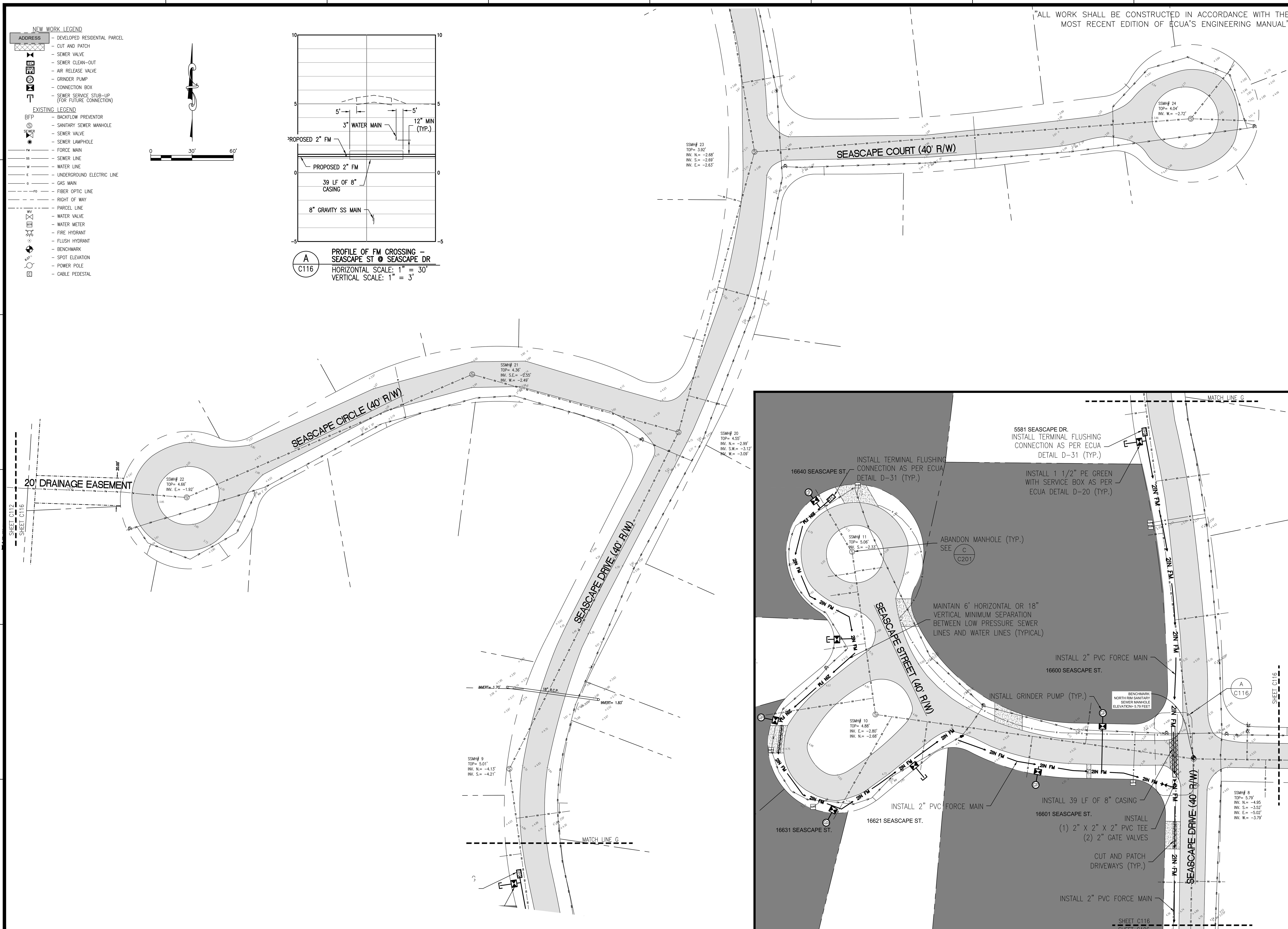

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PLAN SHEET
ESCAMBIA COUNTY FLORIDA

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FOR CONSTRUCTION
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C116
SHEET: 21 OF 66

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PROJECT NO: 2018-35
C117
SHEET: 22 OF 66

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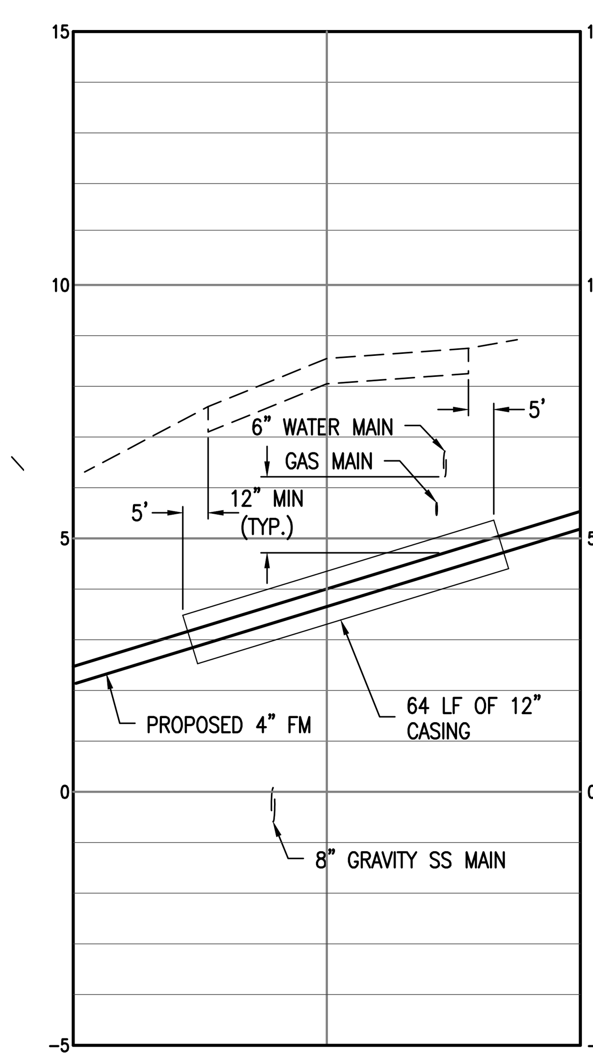

A
C118

PROFILE OF FM CROSSING – BOCA CIEGA DR @ BOCACCIO DR

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

NEW WORK LEGEND

- ADDRESS – DEVELOPED RESIDENTIAL PARCEL
- CUT AND PATCH
- SEWER VALVE
- TFC – SEWER CLEAN–OUT
- ARV – AIR RELEASE VALVE
- GP – GRINDER PUMP
- CONNECTION BOX
- SEWER SERVICE STUB–UP (FOR FUTURE CONNECTION)

EXISTING LEGEND

- BFP – BACKFLOW PREVENTOR
- S – SANITARY SEWER MANHOLE
- SEWER – SEWER VALVE
- SEWER LAMPHOLE
- FM – FORCE MAIN
- SS – SEWER LINE
- W – WATER LINE
- E – UNDERGROUND ELECTRIC LINE
- G – GAS MAIN
- FO – FIBER OPTIC LINE
- RIGHT OF WAY
- PARCEL LINE
- WV – WATER VALVE
- WM – WATER METER
- HYD – FIRE HYDRANT
- FLUSH HYDRANT
- BENCHMARK
- 6.07 – SPOT ELEVATION
- POWER POLE
- C – CABLE PEDESTAL

NO.	DATE	REVISIONS

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ESCAMBIA COUNTY FLORIDA

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C118
SHEET: 23 OF 66

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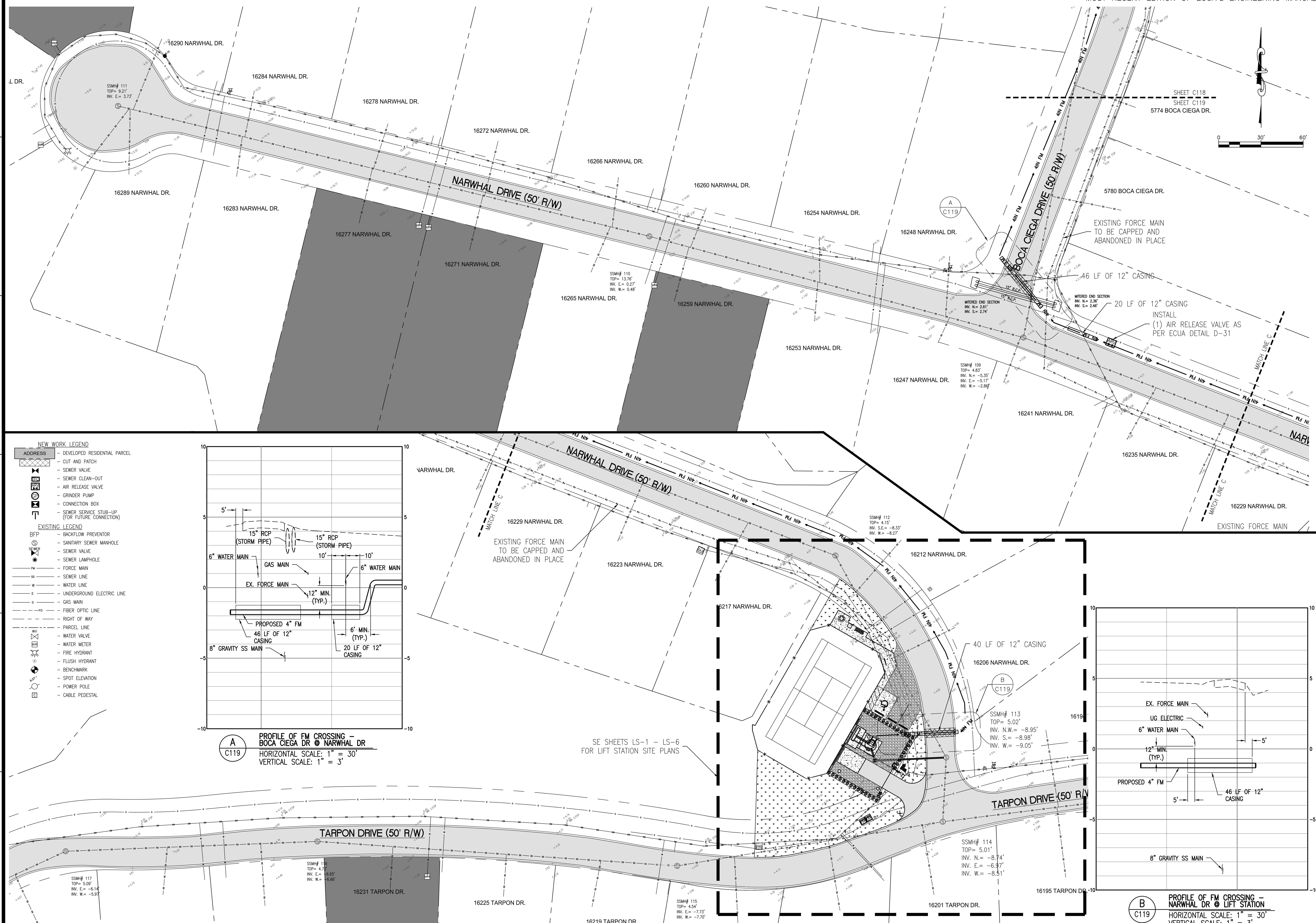

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PROJECT NO: 2018-35
C119
SHEET: 24 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

SEPTIC TANK ABANDONMENT

1. WHERE INDICATED, SEPTIC TANKS ARE TO BE REMOVED, GRINDER PUMP STATIONS INSTALLED AND CONNECTION PROVIDED TO THE LOW PRESSURE SEWER SYSTEM ON BEHALF OF THE HOMEOWNER.

2. SUCH CONNECTIONS SHALL NOT OCCUR UNTIL AFTER THE COLLECTION SYSTEM HAS BEEN COMPLETED, TESTED, AND CLEARED FOR SERVICE BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

3. WHEN PREPARING TO EXTEND THE CONNECTION BEYOND THE RIGHT-OF-WAY, NOTIFY THE HOMEOWNER AND THE ENGINEER A MINIMUM OF 48 HOURS PRIOR TO COMMENCING LATERAL INSTALLATION.

4. UPON COMPLETION OF LOW PRESSURE SYSTEM CONNECTION, COORDINATE WITH HOMEOWNER RELATIVE TO SCHEDULED DOWNTIME FOR REMOVAL OF SEPTIC TANK AND CONNECTION OF HOUSE PLUMBING TO NEWLY INSTALLED GRINDER PUMP STATION.

5. EXISTING SEPTIC SYSTEM SHALL BE PUMPED OUT, DISINFECTED, AND ABANDONED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF FLORIDA DEPARTMENT OF HEALTH, CHAPTER 64E-6, F.A.C., STANDARD FOR ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE APPLICABLE ABANDONMENT PERMITS AND TO PAY ANY FEE ASSOCIATED THEREWITH.

6. CONTRACTOR SHALL IMMEDIATELY RESTORE ALL AREAS DISTURBED IN THE PROCESS OF INSTALLATION AND SEPTIC TANK ABANDONMENT. THE CONTRACTOR SHALL REPAIR ANY INCIDENTAL DAMAGE TO PRIVATE PROPERTY RESULTING FROM LATERAL INSTALLATION AND SEPTIC TANK ABANDONMENT.

A.A.C. 64E-6.011 ABANDONMENT OF SYSTEMS.

(1) WHENEVER THE USE OF AN ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM IS DISCONTINUED FOLLOWING CONNECTION TO A SANITARY SEWER OR DISCONTINUING THE USE OF A SEPTIC TANK AND REPLACEMENT WITH ANOTHER SEPTIC TANK, THE SYSTEM SHALL BE ABANDONED WITHIN 90 DAYS AND ANY FURTHER USE OF THE SYSTEM FOR ANY PURPOSE SHALL BE PROHIBITED. HOWEVER, IF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION OR ITS DESIGNEE APPROVES THE USE OF THE RETENTION TANK WHERE THE TANK IS TO BECOME AN INTEGRAL PART OF A SANITARY SEWER SYSTEM OR STORMWATER MANAGEMENT SYSTEM, THE SEPTIC TANK NEED NOT BE ABANDONED.

(2) THE FOLLOWING ACTIONS SHALL BE TAKEN, IN THE ORDER LISTED, TO ABANDON AN ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM:

(a) PROPERTY OWNER OR AGENT SHALL APPLY FOR A PERMIT FROM THE DEPARTMENT TO ABANDON THE EXISTING ONSITE SEWAGE SYSTEM AND SUBMIT THE REQUIRED FEE. UPON RECEIVING A PERMIT:

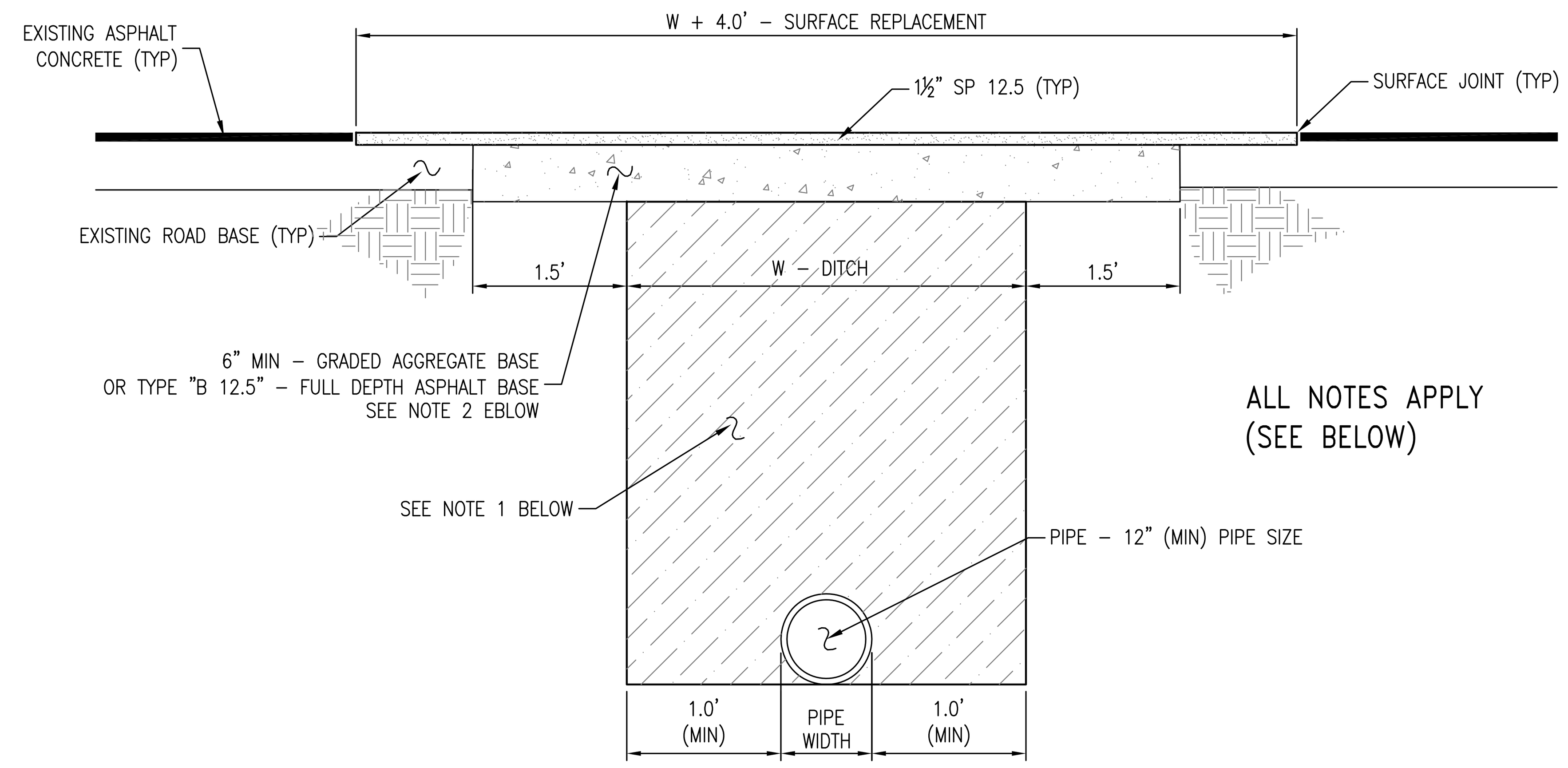
(b) THE TANK SHALL BE PUMPED OUT BY A PERMITTED SEPTAGE DISPOSAL COMPANY WHO SHALL PROVIDE A RECEIPT OR A WRITTEN CERTIFICATION TO THE DEPARTMENT. ALTERNATIVELY, IF THE TANK IS EMPTY AND DRY AT THE COMMENCEMENT OF THE ABANDONMENT, A WRITTEN STATEMENT TO THAT EFFECT BY THE SEPTAGE DISPOSAL COMPANY OR THE CONTRACTOR PERFORMING THE ABANDONMENT SHALL BE PROVIDED TO THE DEPARTMENT.

(c) THE BOTTOM OF THE TANK SHALL BE OPENED OR RUPTURED, OR THE ENTIRE TANK COLLAPSED SO AS TO PREVENT THE TANK FROM RETAINING WATER, AND

(d) THE TANK SHALL BE FILLED WITH CLEAN SAND OR OTHER SUITABLE MATERIAL, AND COMPLETELY COVERED WITH SOIL.

(e) AN INSPECTION OF THE SYSTEM ABANDONMENT SHALL BE CONDUCTED BY THE DEPARTMENT OR BY THE LOCAL UTILITY OR PLUMBING AUTHORITY PERFORMING THE SYSTEM ABANDONMENT

ESCAMBIA COUNTY PATCH DETAILS



ALL NOTES APPLY (SEE BELOW)

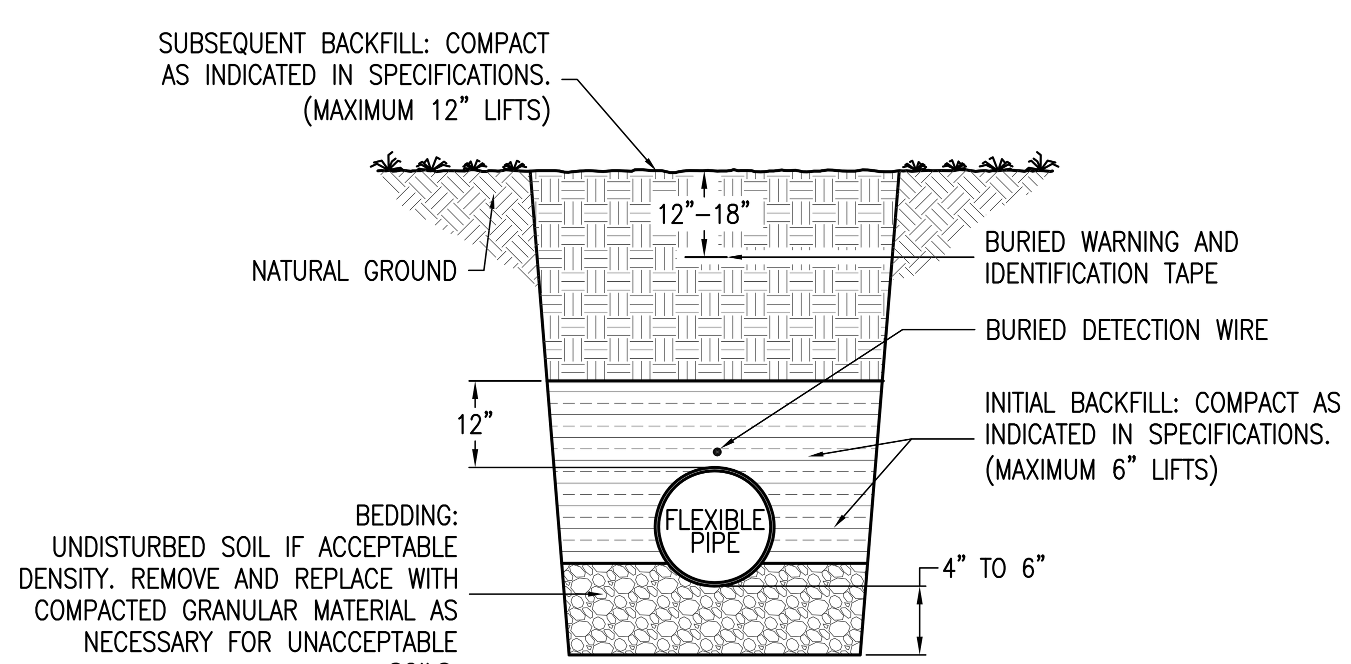
PAVED ROAD (LARGE PATCH) DETAIL

FOR PATCHES 24" WIDE OR GREATER

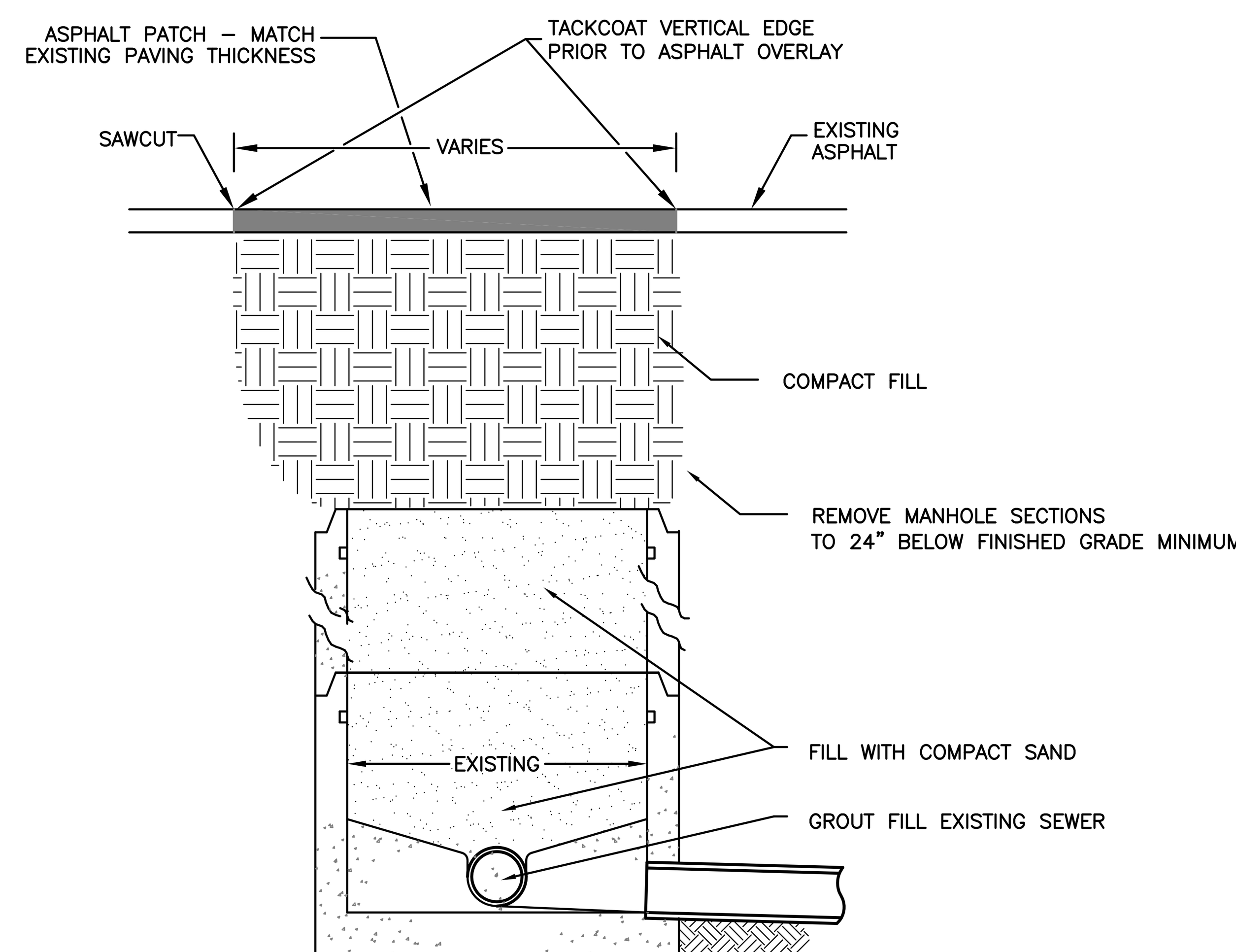
NOTES:

1. DIRT ROAD PATCH WORK SUB BASE MATERIAL SHALL BE PLACED IN NOT MORE THAN 8" LIFTS. EACH LAYER TO BE TAMPED TO A MINIMUM OF 40 LBR.
2. GRADED AGGREGATE BASE SHALL BE COMPACTED TO A MIN LBR 100.
3. ROAD CUTS SHALL BE MECHANICALLY SAW CUT TO FORM A SURFACE PAVEMENT JOINT AND TACK COATED ALONG THE FACE OF CUT JOINTS PRIOR TO ASPHALT PLACEMENT.

B / C201 ROADWAY PATCH DETAIL
N.T.S.

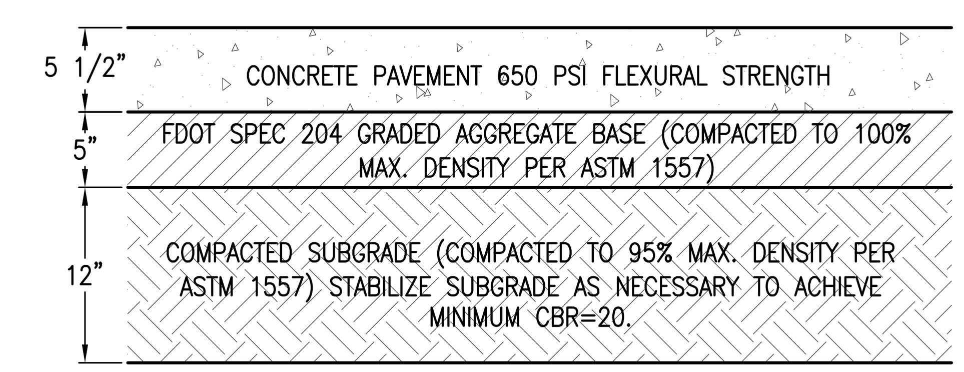


A / C201 FLEXIBLE PIPE BEDDING DETAIL
N.T.S.



NOTES:
1. ALL ABANDONED MANHOLES FOR THIS PROJECT SHALL DEMOLISHED OR REMOVED.

C / C201 ABANDON MANHOLE DETAIL
N.T.S.



D / C201 RESIDENTIAL CONCRETE DRIVEWAY SECTION
N.T.S.

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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

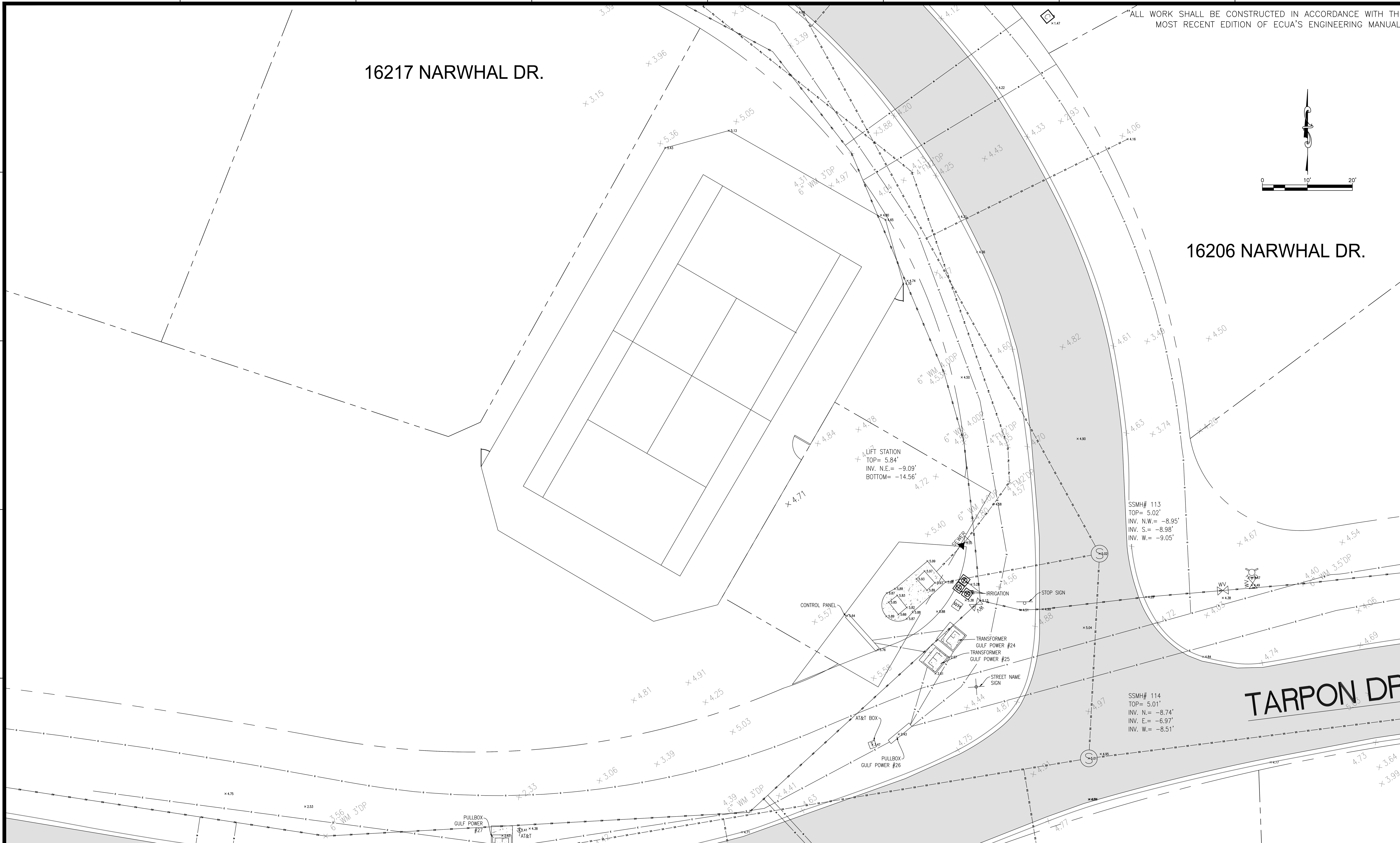
INNERARITY ISLAND
SEWER SYSTEM UPGRADES
LPSS DETAILS
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: N.T.S.
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
C201
SHEET: 25 OF 66

S:\2018 Projects\2018-35 Innerarity Island Sewer\DWGS\CIVIL\2018-35_C201.dwg, Jul 23, 2019 - 8:41:45AM, priscilla

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



1 LS-2 EXISTING CONDITIONS
1" = 10'

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
EXISTING CONDITIONS
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
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DATE: 2/19/2019
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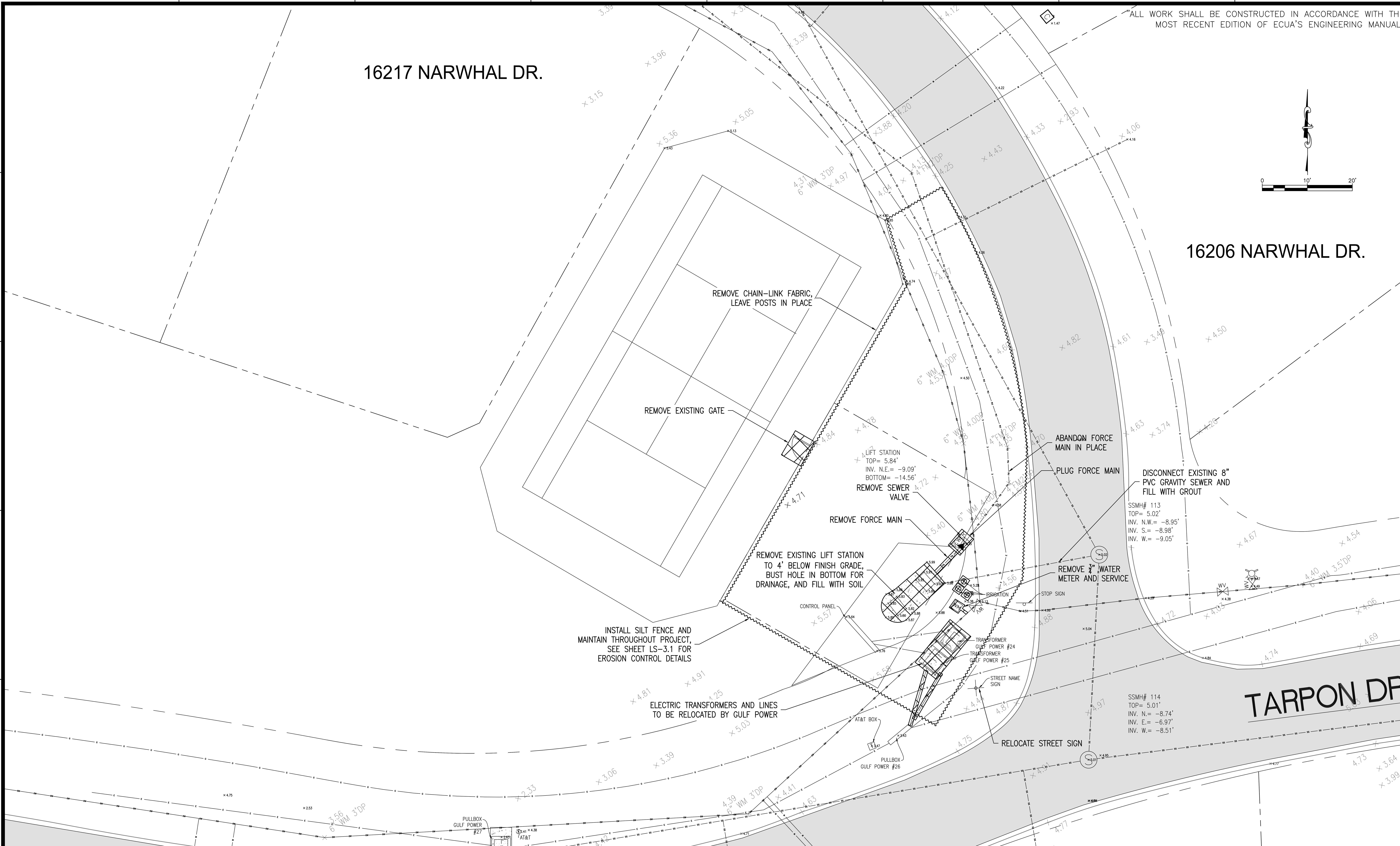
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-2
SHEET: 26 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



1 LS-3 DEMOLITION PLAN
1" = 10'

- TO BE REMOVED

NO.	DATE	REVISIONS

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
DEMOLITION PLAN
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 10'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-3
SHEET: 27 OF 66

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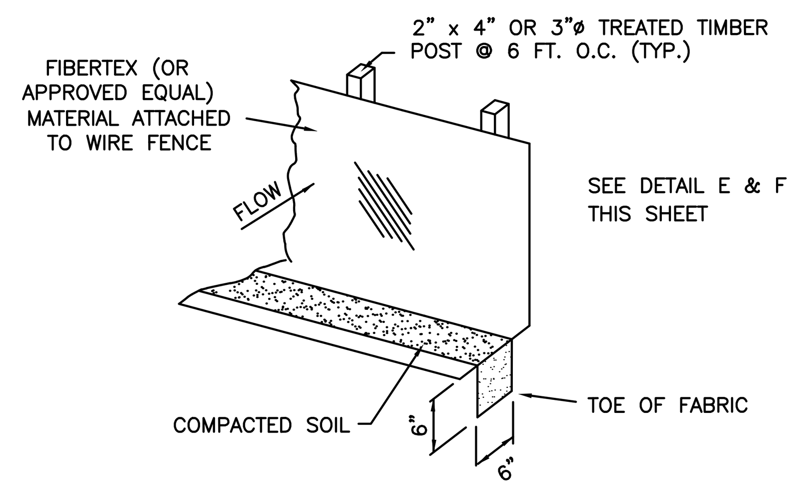
"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

STORMWATER POLLUTION PREVENTION PLAN GENERAL NOTES:

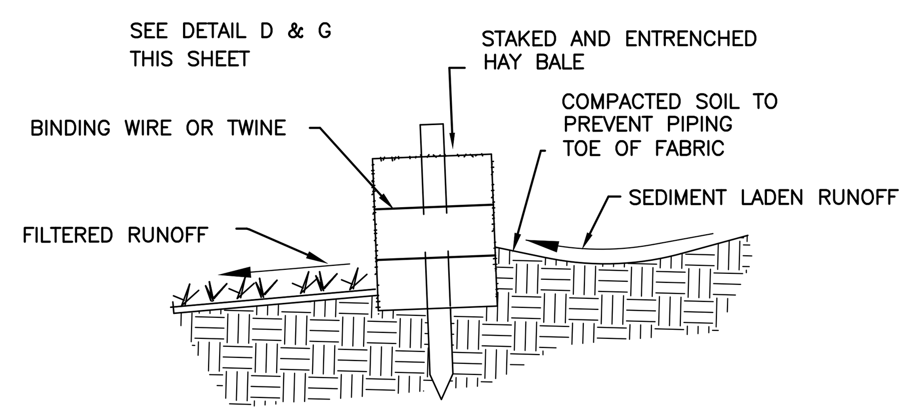
1. EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, SECTIONS 104, 570, 575 AND 980 TO 986.
3. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATION COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
4. SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS–OF–WAY WILL BE REMOVED IMMEDIATELY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
6. SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE NUMBER 2 (ABOVE).
7. THE SITE SHALL ALWAYS BE GRADED AND MAINTAINED SUCH THAT STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. AREAS USED FOR THE CONTRACTOR'S STAGING, INCLUDING BUT NOT LIMITED TO, TEMPORARY STORAGE OF STOCKPILED MATERIALS (E.G. CRUSHED STONE, QUARRY PROCESS STONE, SELECT FILL, EXCAVATED MATERIALS, ETC.), SHALL BE ENTIRELY PROTECTED BY A SILT FENCE ALONG THE LOW ELEVATION SIDE TO CONTROL SEDIMENT RUNOFF.
9. THE CONTRACTOR'S MEANS AND METHODS OF GROUNDWATER DEWATERING SHALL COMPLY WITH REGULATORY REQUIREMENTS FOR THE TEMPORARY DIVERSION OF GROUNDWATER AND ITS DISCHARGE, INCLUDING FDEP CHAPTER 62–621 "GENERAL PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON–CONTAMINATED SITE ACTIVITY".

EROSION AND SEDIMENTATION CONTROL NOTES

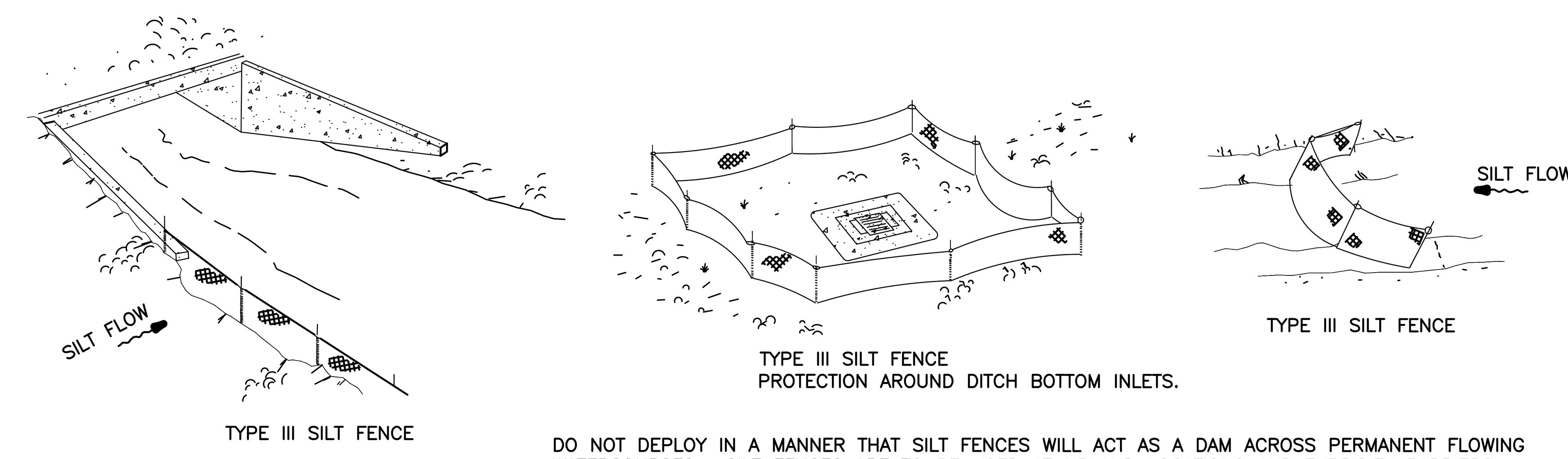
1. SILT FENCE SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT FENCES TIGHTLY ABUTTING ONE ANOTHER PRIOR TO EARTHWORK OPERATIONS.
2. THE SILT FENCE BARRIER SHALL BE ENTRENCHED AND BACK FILLED. A TRENCH SHALL BE EXCAVATED THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 6 INCHES. THE EXCAVATED SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
3. SILT FENCE BARRIERS SHALL BE SECURELY ANCHORED.
4. SILT FENCE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.
5. SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
6. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE, END RUNS AND UNDERCUTTING BENEATH FENCE.
7. NECESSARY REPAIRS TO SILT FENCE BARRIERS OR REPLACEMENT OF FENCE SHALL BE ACCOMPLISHED PROMPTLY.
8. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE–HALF OF THE HEIGHT OF THE BARRIER.
9. SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



A SILT FENCE DETAIL
N.T.S.

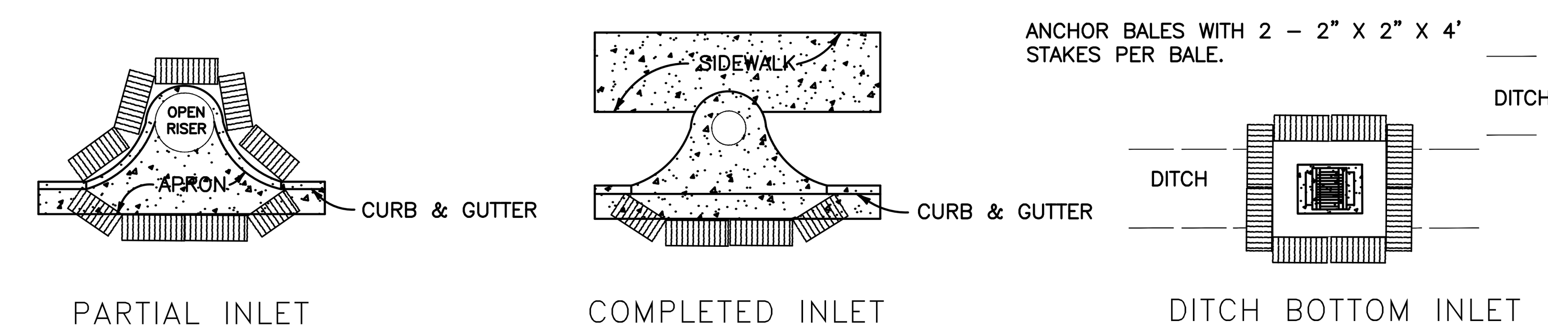


B DETAIL OF PROPERLY INSTALLED HAY BALE
N.T.S.



DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

C SILT FENCE APPLICATIONS
N.T.S.



D PROTECTION AROUND INLETS OR SMALLER STRUCTURES
N.T.S.

NO.	DATE	REVISIONS

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
EROSION CONTROL DETAILS
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 10'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

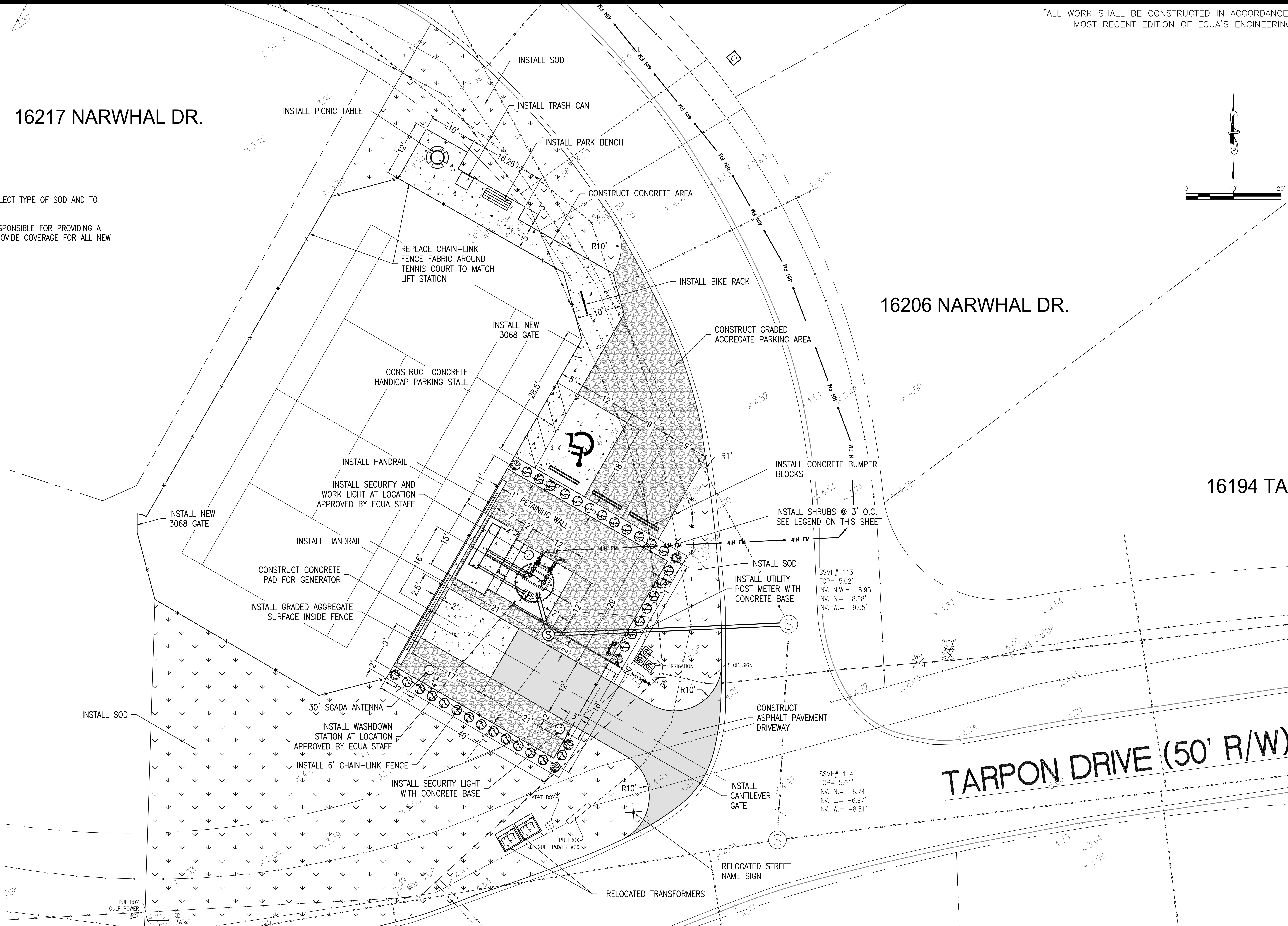
PROJECT NO: 2018–35
LS-3.1
SHEET: 28 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

NOTES:

1. LANDSCAPE CONTRACTOR TO SELECT TYPE OF SOD AND TO OBTAIN APPROVAL FROM THE HOA.

2. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A MANUAL SPRINKLER SYSTEM TO PROVIDE COVERAGE FOR ALL NEW SOD.



TENNIS COURT AMENITIES

QUANTITY	ITEM	MANUF.	DIMENSIONS	MATERIAL	COLOR	PRODUCT NUMBER	NOTES
1	PARK BENCH	BELSON	6'	ALUMINUM	BLACK	CBPB-6A1B-BK	SURFACE MOUNTED
1	PICNIC TABLE	TRADEWINDS	46"	STAINLESS STEEL	BLACK	HD-D051GS-BK	ADA ACCESSIBLE
1	BIKE RACK	BELSON	42 1/8" X36"	STAINLESS STEEL	BLACK	CBBR-5UR-BK	SURFACE MOUNTED
1	TRASH CAN	COMMERICIAL ZONE	18.5"X18.5"X42	HDPE/STONE	BLACK	720413	BLACK FAME/PEPPESTONE PANELS

SUGGESTED ITEMS, ALTERNATES ALLOWED AS APPROVED BY THE HOA

LANDSCAPE LEGEND

- 24" SWEET OLIVE SHRUB (OSMANTHUS AMERICANOS)
- 24" JAPANESE YEW SHRUB (TAXUS CUSPIDATA)

1 LS-4 LIFTSTATION SITE LAYOUT PLAN
1" = 10'

REVISIONS

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
LIFTSTATION SITE LAYOUT PLAN
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
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CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 10'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-4
SHEET: 29 OF 66

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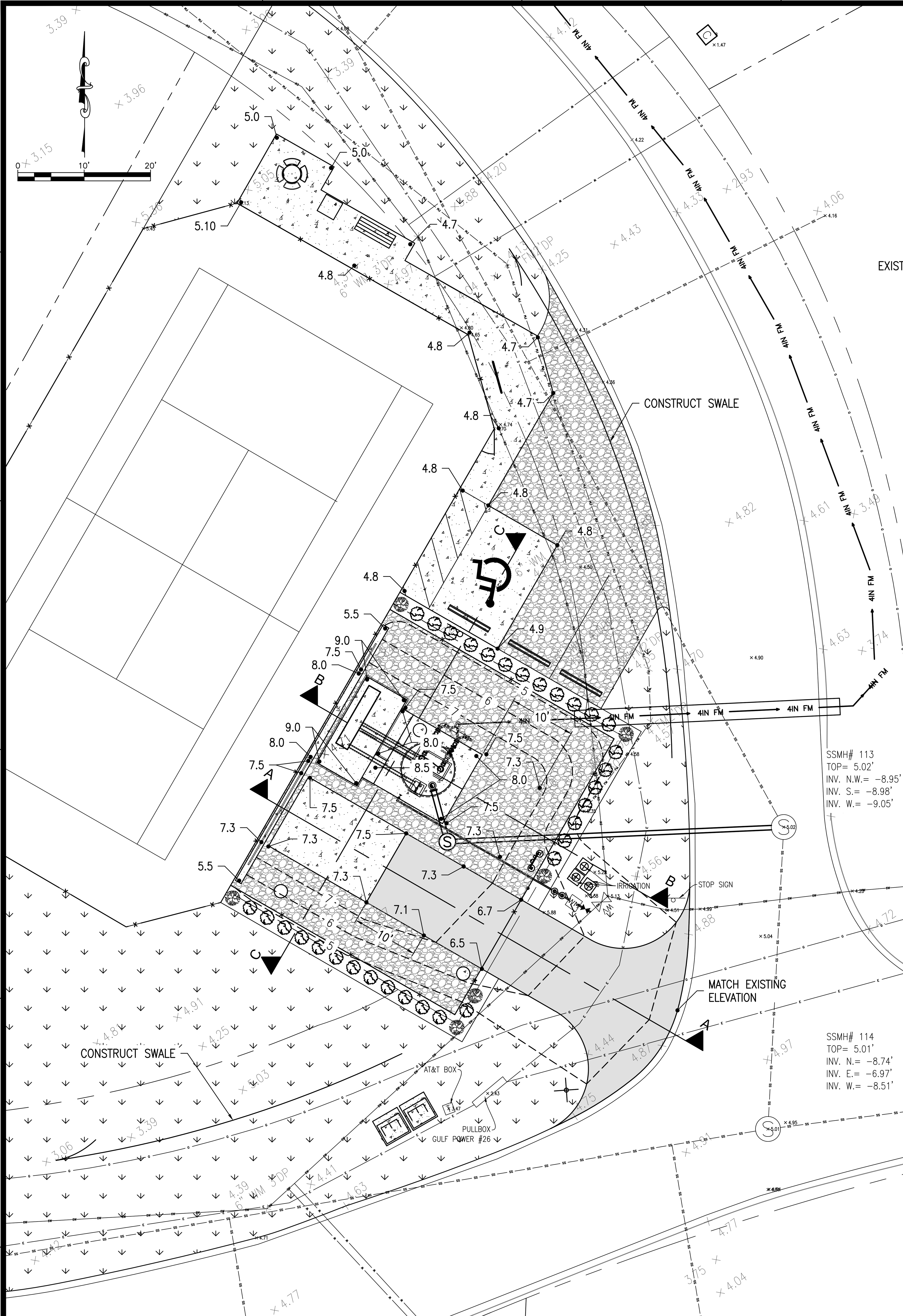
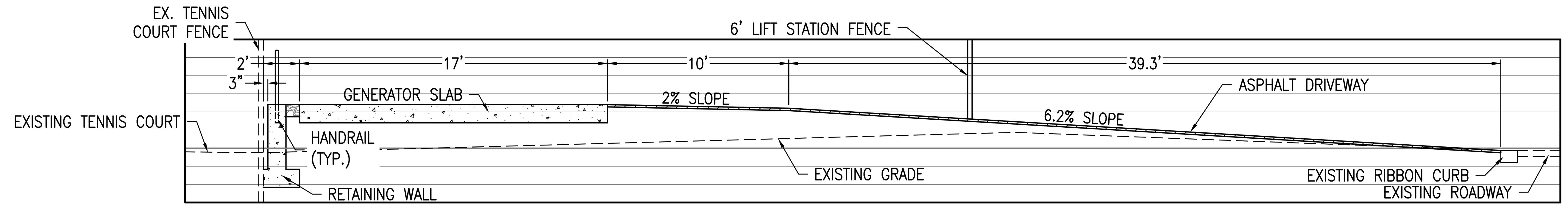
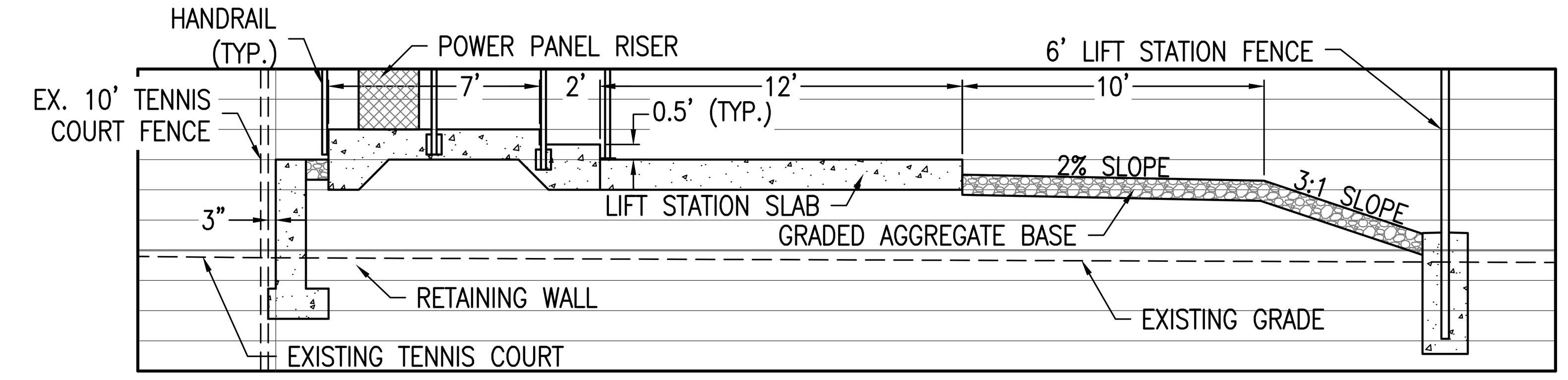


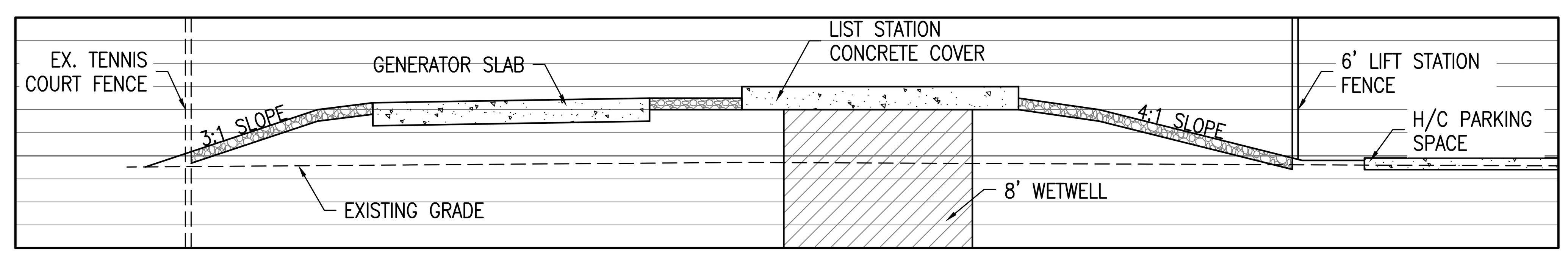
1 LS-4.1 LIFTSTATION SITE GRADING PLAN
1" = 10'



2 LS-4.1 SECTION "A-A"
1" = 5'



3 LS-4.1 SECTION "B-B"
1" = 5'



4 LS-4.1 SECTION "C-C"
1" = 5'

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
LIFTSTATION SITE GRADING PLAN
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
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DATE: 2/19/2019
SCALE: 1" = 10'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-4.1
SHEET: 30 OF 66

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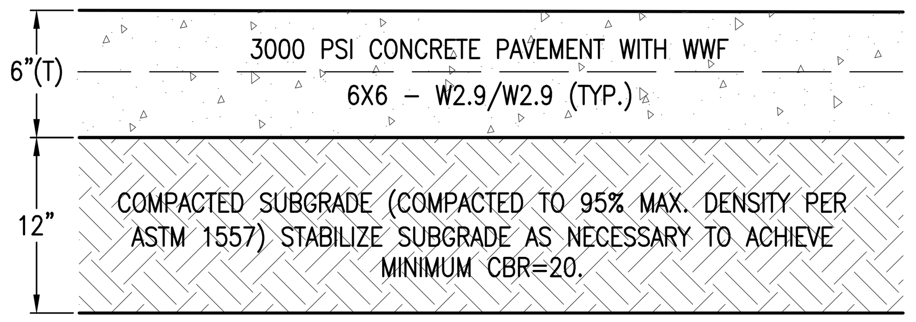
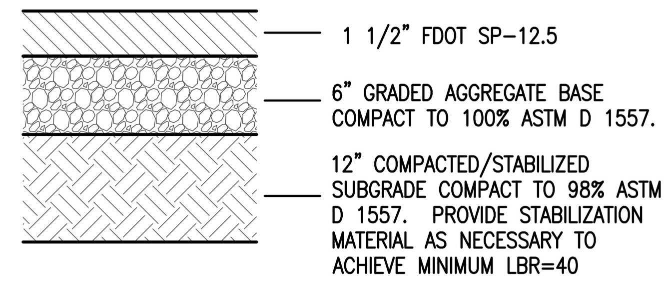
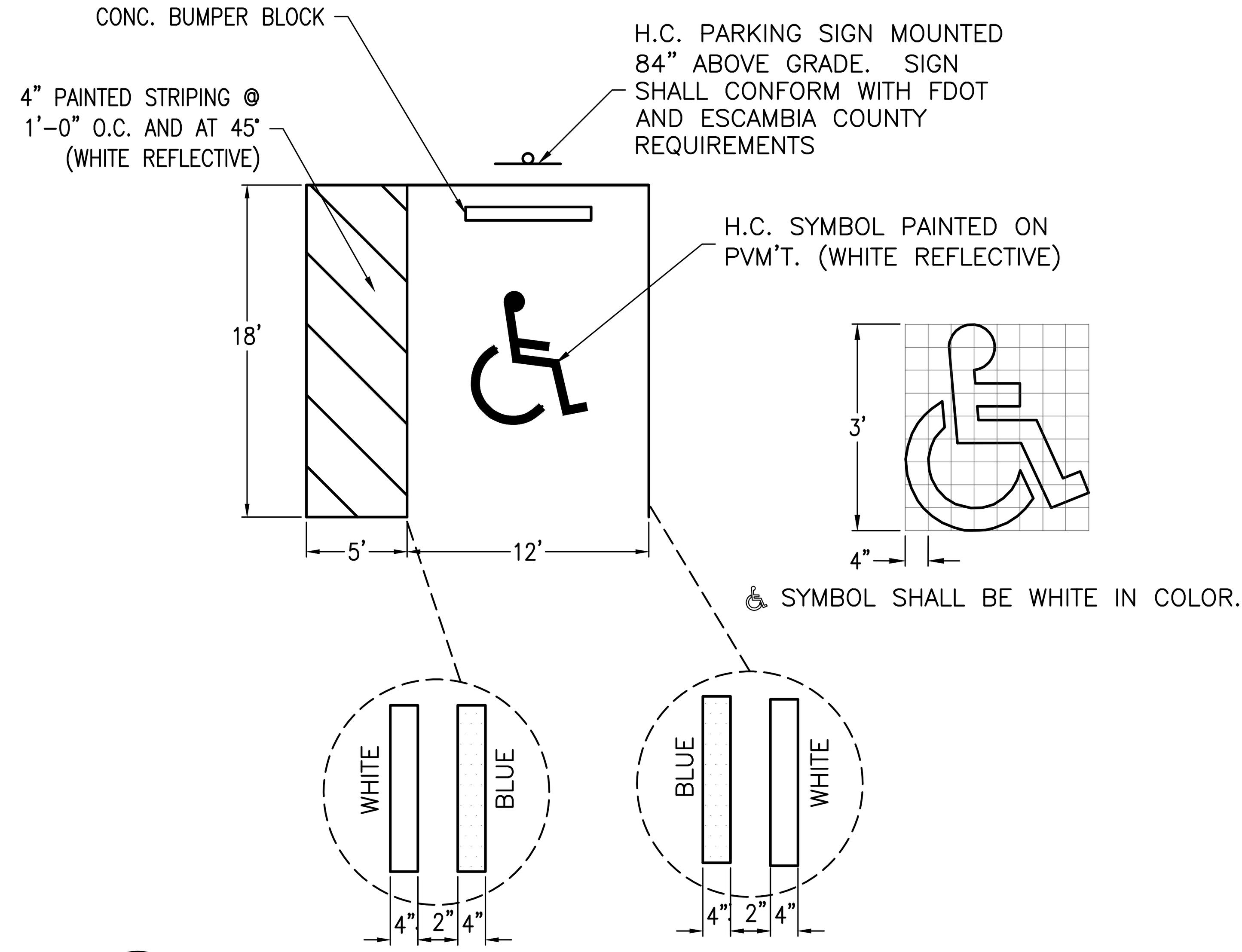


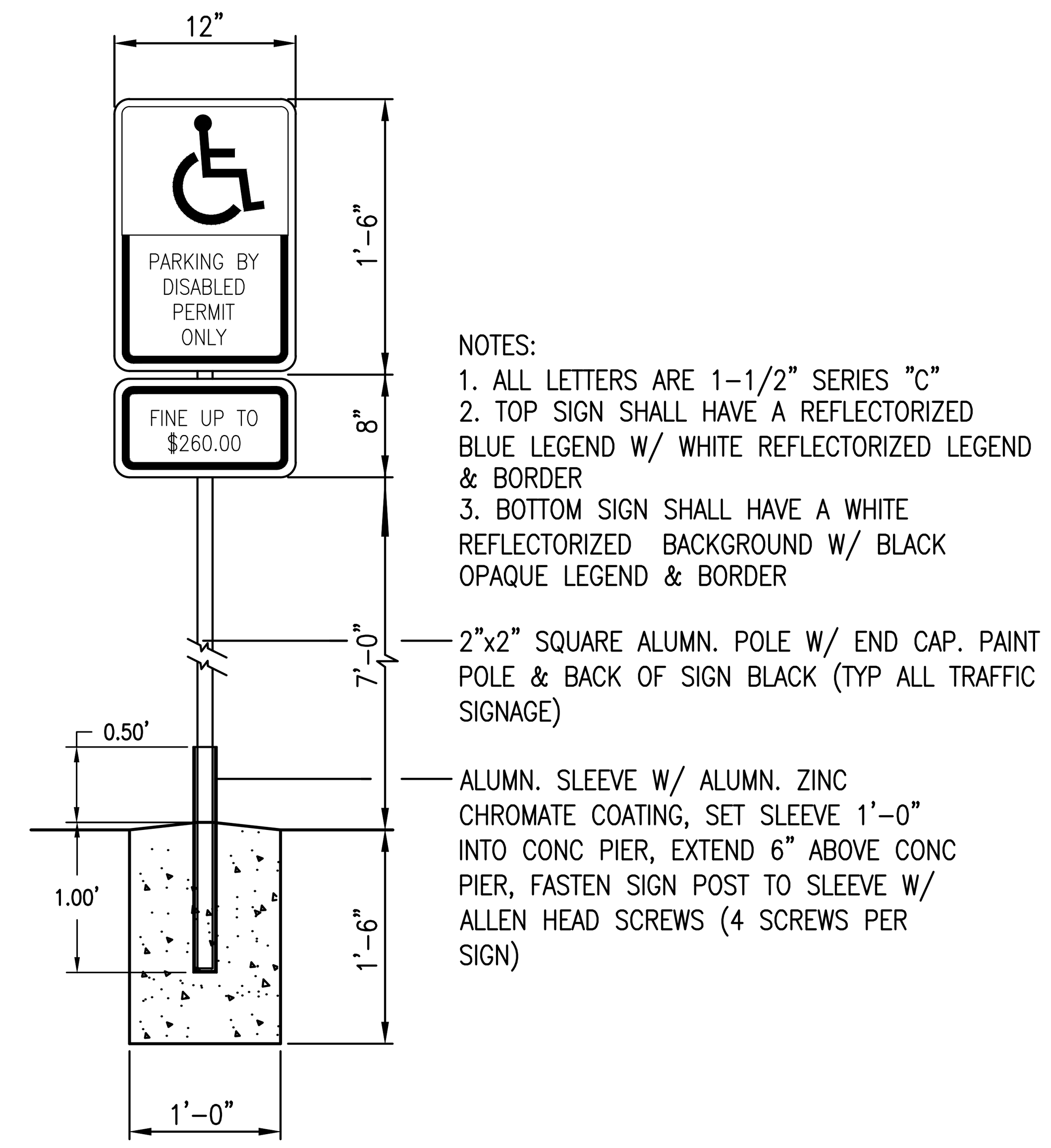
1 LS-4.2 CONCRETE PARKING AND PAD SECTION
N.T.S.



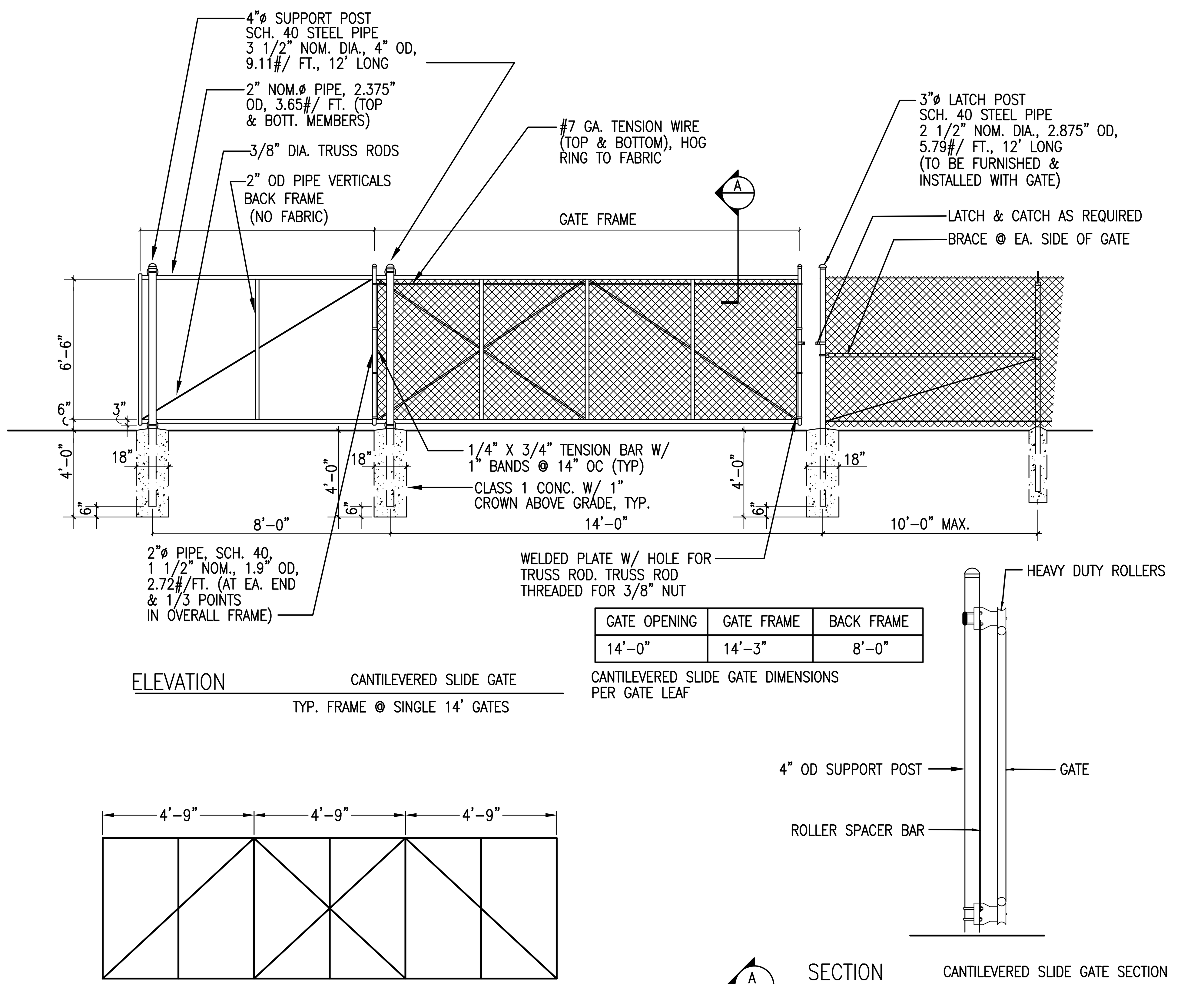
2 LS-4.2 ASPHALT DRIVEWAY SECTION
N.T.S.



3 LS-4.2 HANDICAPPED PARKING SPACE STRIPING DETAIL
N.T.S.



4 LS-4.2 HANDICAPPED SIGN DETAIL
N.T.S.



GATE OPENING	GATE FRAME	BACK FRAME
14'-0"	14'-3"	8'-0"

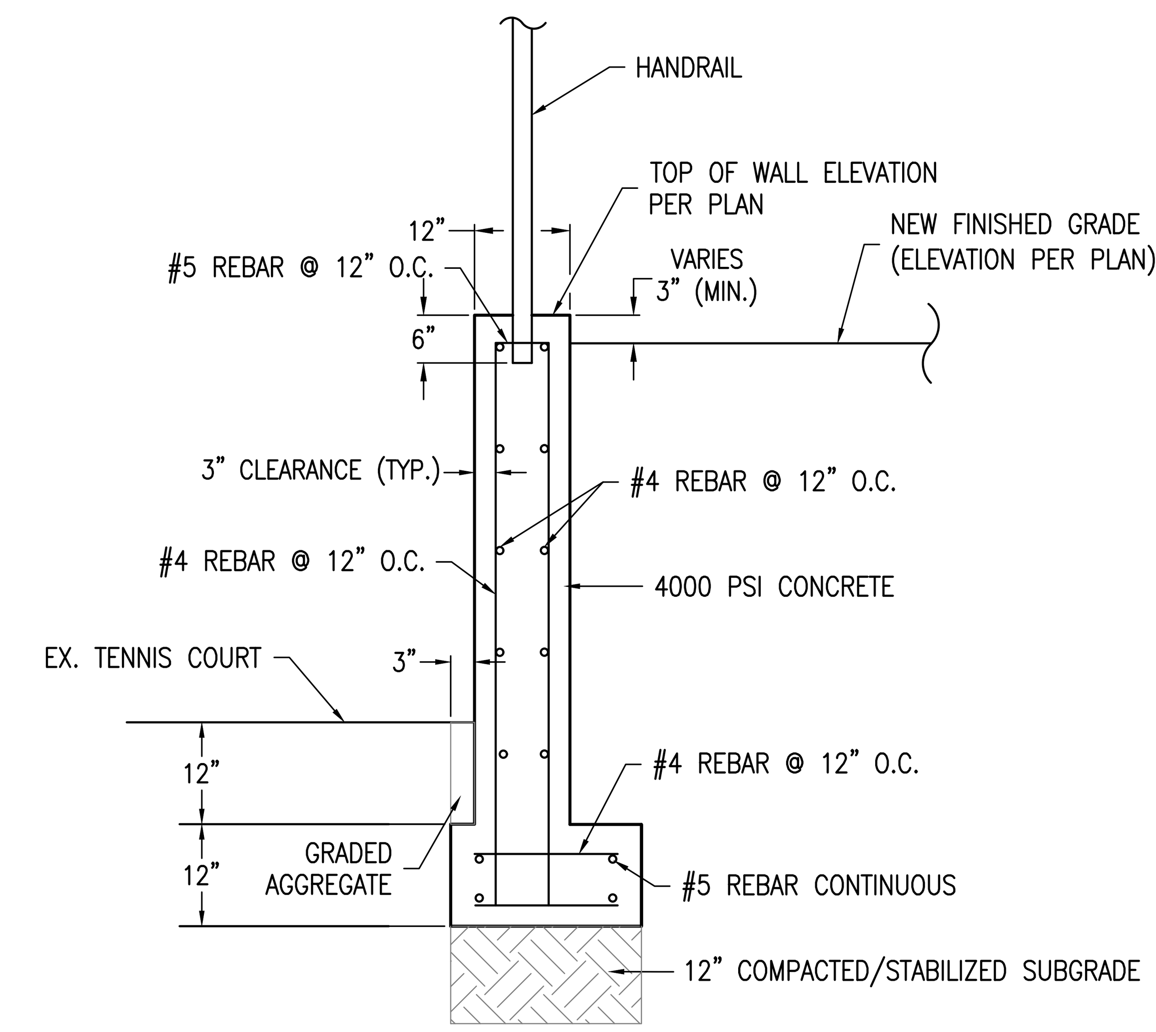
CANTILEVERED SLIDE GATE DIMENSIONS PER GATE LEAF

GATE FRAME DIAGRAM (PER GATE LEAF)
14'-0" GATE
SEE ELEVATION THIS SHEET FOR ADDITIONAL NOTES.
SEE PLANS FOR LOCATION.

A SECTION CANTILEVERED SLIDE GATE SECTION

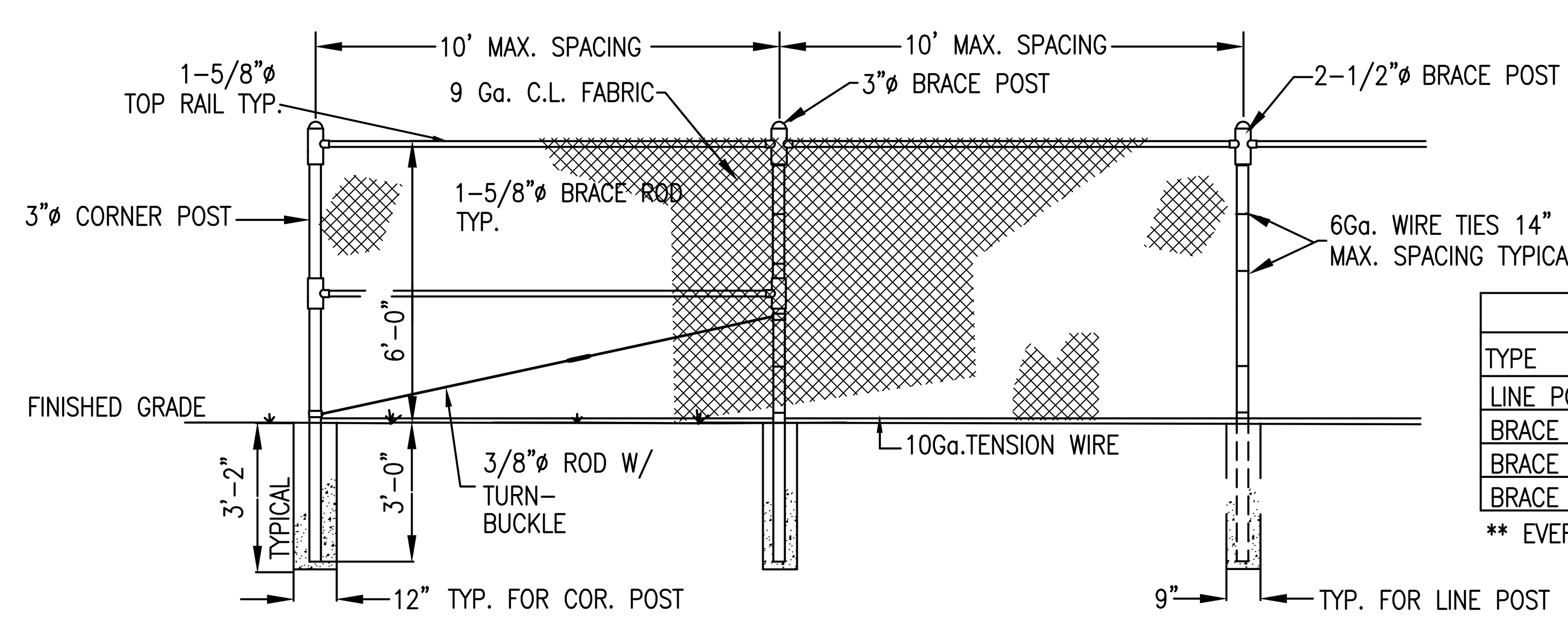
NOTE:
1. ALL FENCING ELEMENTS TO BE MANUFACTURERS STANDARD DARK GREEN COLOR.
2. GATE FRAMEWORK TO BE FABRICATED FROM 6061-T6 ALLOY ALUMINUM AS PER ECUA ENGINEERING MANUAL SECTION 2830 PART 2.4.1.1

5 LS-4.2 CANTILEVER SLIDE GATE DETAIL
N.T.S.



NOTE:
1. PRIOR TO CONSTRUCTION A SEPARATE BUILDING INSPECTION DEPARTMENT PERMIT(S) SHALL BE OBTAINED FOR ALL RETAINING WALL(S) HIGHER THAN 2 FEET.

7 LS-4.2 RETAINING WALL DETAIL
N.T.S.



FENCE POST SCHEDULE	
TYPE	SIZE
LINE POST	2-1/2"ø
BRACE POST**	3"ø
BRACE POST**	3"ø
BRACE POST**	3"ø

** EVERY 100'

6 LS-4.2 6' CHAIN-LINK FENCE DETAIL
N.T.S.

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INNERARITY ISLAND
SEWER SYSTEM UPGRADES
SITE DETAILS
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
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DATE: 2/19/2019
SCALE: N.T.S.
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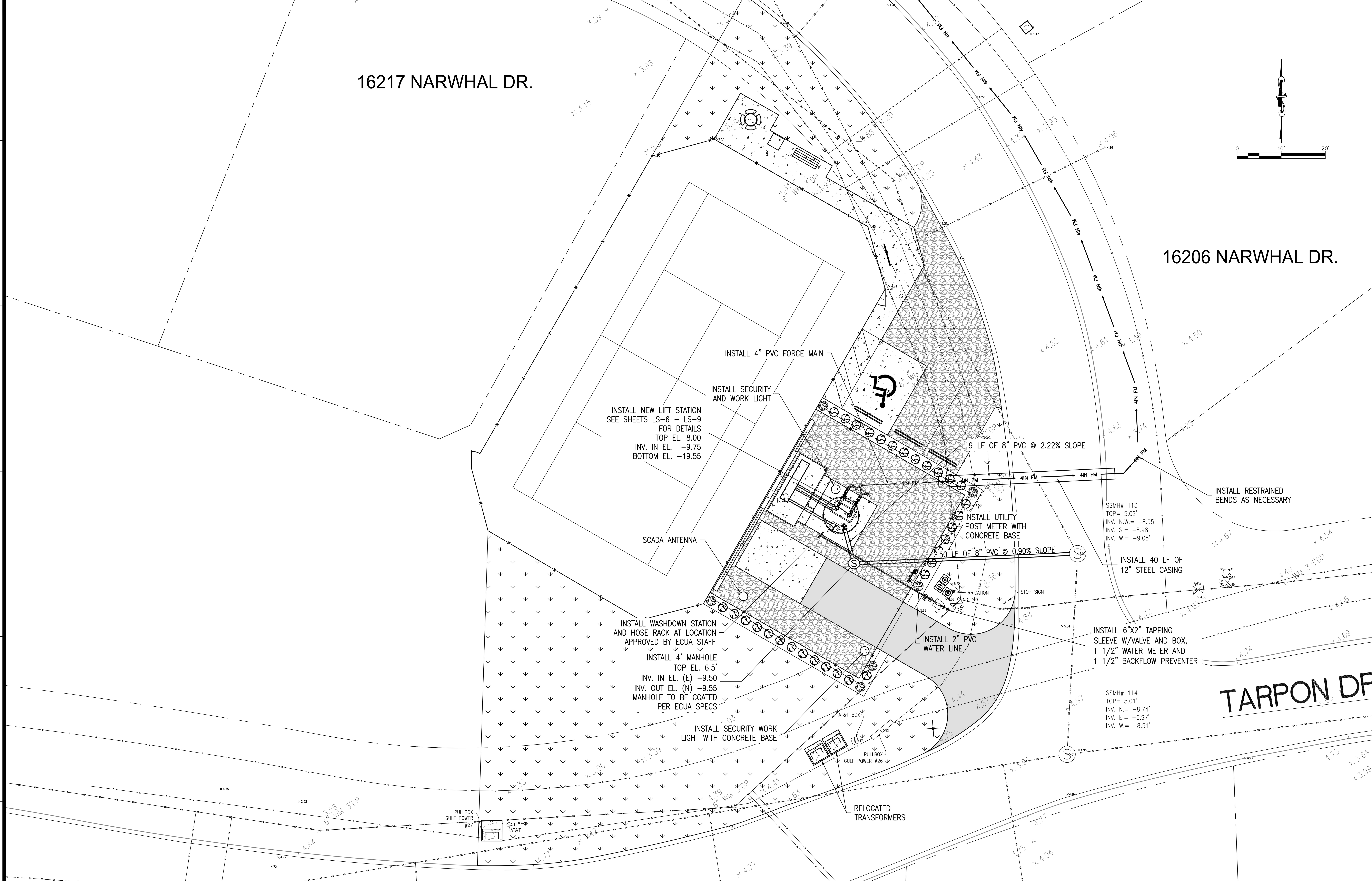
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-4.2
SHEET: 31 OF 66

S:\2018 Projects\2018-35 Innerarity Island Sewer\DWGS\CIVIL\2018-35_LS-4_LS SITE LAYOUT PLAN.dwg, Jul 23, 2019 - 8:38:24AM, priscilla

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



1 / LS-5 LIFTSTATION SITE UTILITY PLAN
1" = 10'

NO.	DATE	REVISIONS

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EDWARD E. BOWLES, P.E. No. 56636, STATE OF FLORIDA, PROFESSIONAL ENGINEER
EDWARD E. BOWLES
FL. PE 56636

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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

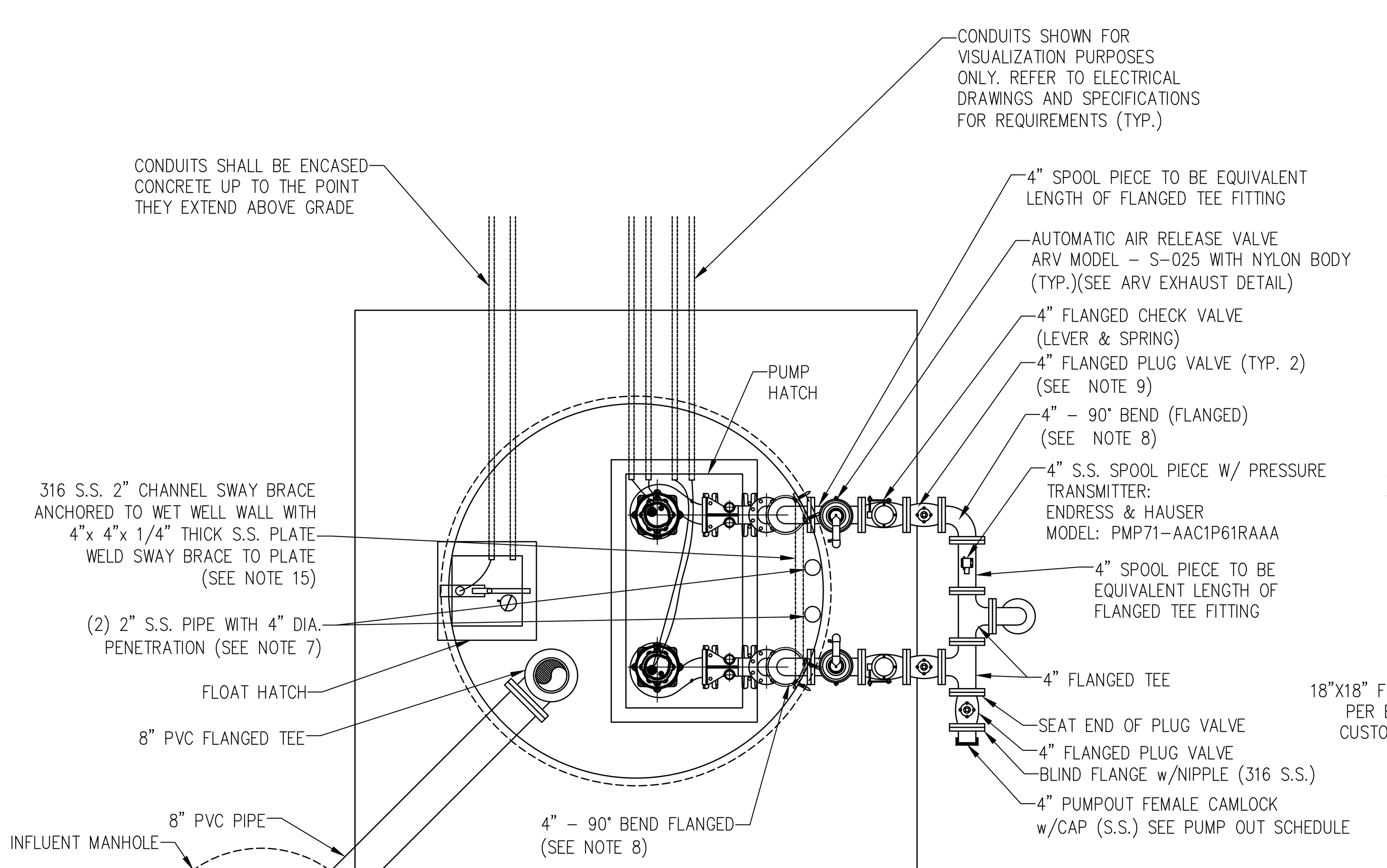
INNERARITY ISLAND
SEWER SYSTEM UPGRADES
LIFTSTATION SITE UTLITY PLAN
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 10'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

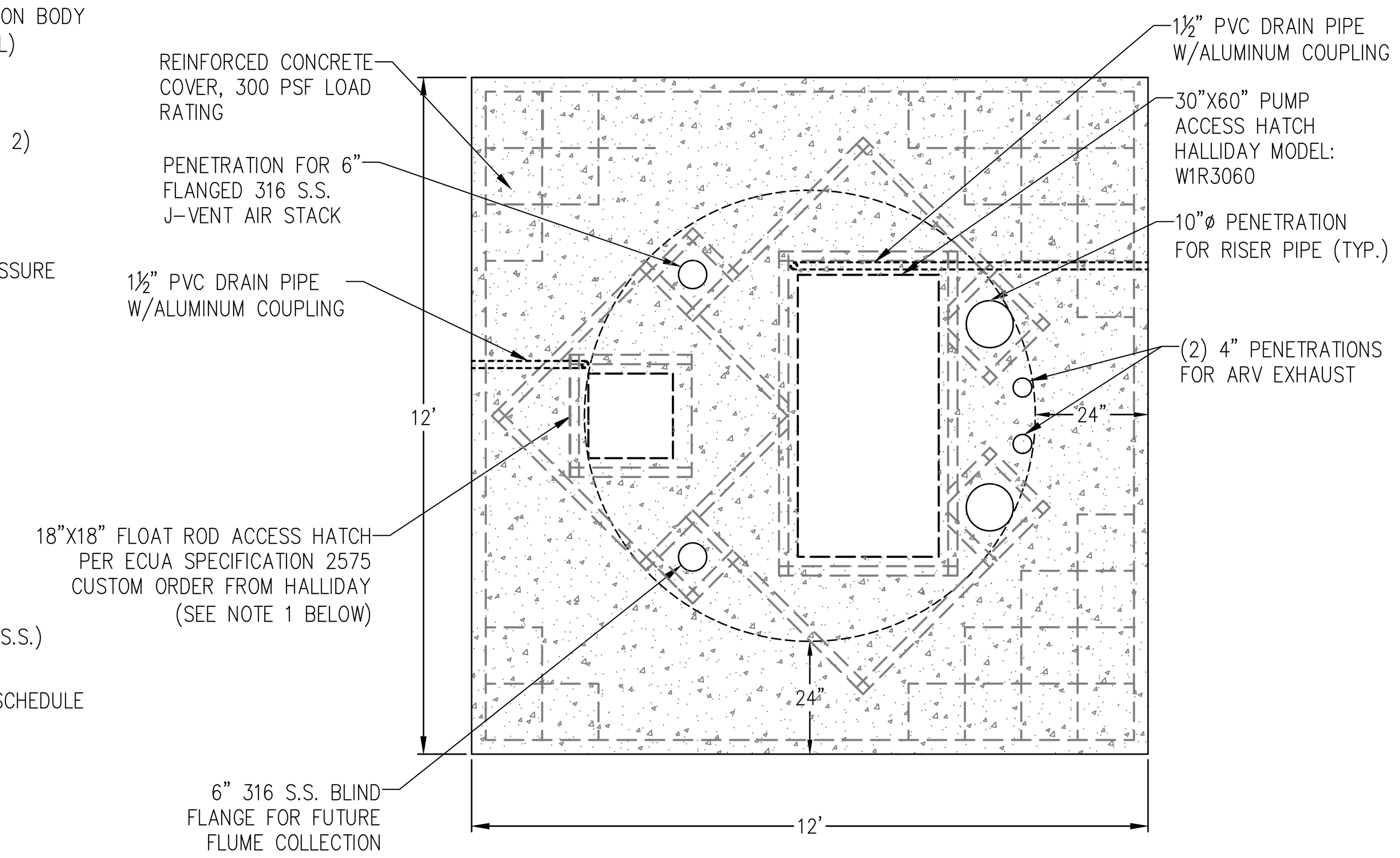
PROJECT NO: 2018-35
LS-5
SHEET: 32 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL."

PUMP OUT SCHEDULE	
DISCHARGE	CAMLOCK
4"	4"

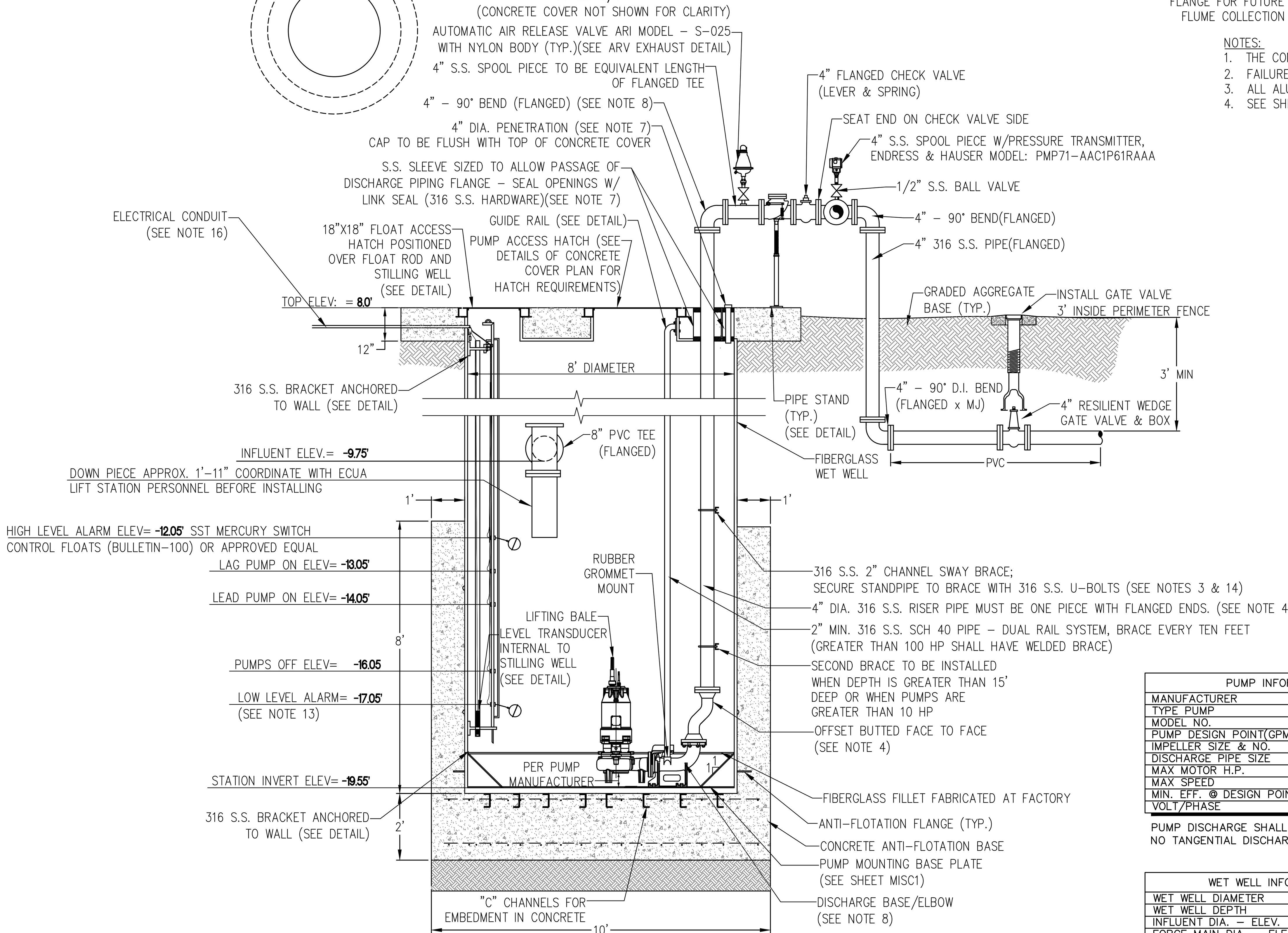


PLAN VIEW
SCALE: 3/8" = 1'
(CONCRETE COVER NOT SHOWN FOR CLARITY)



NOTES:
1. THE CONTRACTOR SHALL CONFIRM PUMP HATCH REQUIREMENTS WITH PUMP SUPPLIER.
2. FAILURE TO PROVIDE HATCHES AS SPECIFIED IN SECTION 2575 WILL RESULT IN ECUA'S REJECTION OF ACCESS HATCH.
3. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH A BITUMASTIC PAINT.
4. SEE SHEET MISC3 FOR CONCRETE DETAILS.

CONCRETE COVER PLAN
SCALE: 3/8" = 1'



WET WELL SECTION
(VIEW ROTATED FOR CLARITY)
SCALE: 3/8" = 1'

PUMP INFORMATION:	
MANUFACTURER	KSB/KRT
TYPE PUMP	SUBMERSIBLE
MODEL NO.	KRT F 80-250/7AXG-S
PUMP DESIGN POINT(GPM @ TDH)	125 GPM @ 63' MIN.
IMPELLER SIZE & NO.	8.268"
DISCHARGE PIPE SIZE	4"
MAX MOTOR H.P.	10
MAX SPEED	1750 RPM
MIN. EFF. @ DESIGN POINT	39.8%
VOLT/PHASE	230V/3PH

PUMP DISCHARGE SHALL BE CENTERLINE ONLY, NO TANGENTIAL DISCHARGE ALLOWED.

WET WELL INFORMATION:	
WET WELL DIAMETER	8'
WET WELL DEPTH	27.55'
INFLUENT DIA. – ELEV.	8" – -9.75'
FORCE MAIN DIA. – ELEV.	4"-4'
INVERT ELEV OF STATION	-19.55'
PUMPS OFF ELEV.	-16.05'
HIGH LEVEL ALARM ELEV.	-12.05'
TOP ELEV. OF STATION	8'

Lift Station Pump Selection Worksheet

This document shall be prepared by the Engineer of Record (EOR) and used to evaluate the three best pump options from ECUA's list of approved manufacturers for the project listed below. The pumps listed are not necessarily 'equal' with respect to overall performance, price, etc; however, they have been reviewed and approved by ECUA. These three pumps shall be listed on the plans in order to allow Bidders to price and use any of them on this project.

Project Name: Russell Bayou Lift Station Upgrade   Project CIP #: CS 318C

EOR/Company: Kenneth Horne & Associates (Edward E. Bowles, P.E.)

ECUA Project Manager: Keith Fell, P.E.   Design pump rate (gpm): 150   and TDH (feet): 32

Pump Property	Pump 'A'	Pump 'B'	Pump 'C'
Manufacturer/Model #	Hydromatic / S4MXP	KSB/KRT F 80-250/74XG-S	GRUNDFOS 4092.5
Supplier Company Name	Morrow Water Technology	Pump & Process Equip	Pump & Process Equip
Sales Rep Name	Tim Maloney	Jeb Smith	Will Auclair
Vortex or Non-clog*	Non-Clog	Vortex - Open	Vortex - Open
RPM*	1750	1750	1800
Impeller diameter (in.)*	8.13"	8.268"	8"
Duty point flow, head (gpm, ft)*	125gpm @ 63 ft H2O	125gpm @ 63 ft H2O	125gpm @ 63 ft H2O
Shutoff Head (ft)	74 ft	70ft	70.6
Shutoff head – Duty point head	11 ft	7 ft	7.6ft
Duty point efficiency (%)*	31.6	39.8	41.2
Duty Point Motor Size (HP)*	6.29	5.13	4.93
NOL motor size (HP)*	10	7.5	4
NOL Motor FLA Rating (Amps)	20	10.6	10
Voltage required (V)	230 3ph	230 3ph	230 3ph
Max. Impellor Size (in.)	9"	10 7/16"	10 7/16"
Max. Motor Size (HP)	15	10	6.5
Budget estimate for 3 pumps	$20,124	$24,000	$25,500
Delivery time (weeks)	4-6	Normally in stock 2-4 (16)	9-10

*Attach copy of system curve plotted on manufacturer's pump curve. Spreadsheet curves not allowed.

Approval of these pumps for use on this project:

Engineer of Record (EOR) — Date: 11/1/2018

ECUA Project Engineer — Date: 11/20/2018

ECUA Lift Station Staff — Date: 11-20-18

Revised Sep. 1. 2016

GENERAL LIFT STATION NOTES

1. THE LOCATION OF INFLUENT LINES, WATER SUPPLY, ETC. ARE DRAWN OUT OF ORIENTATION ON SECTIONAL VIEW FOR CLARITY. SEE PLAN VIEW FOR PROPER ORIENTATION.
2. ALL PENETRATIONS IN WET WELL WALL FOR PIPING, ELECTRICAL, ETC. SHALL BE SEALED & SLEEVED.
3. TO PROTECT RISER PIPE FROM SWAY BRACE, EITHER WRAP PIPE WITH RUBBER SHEETING OR INSERT ALL U-BOLTS THROUGH RUBBER HOSE.
4. PIPING WITHIN THE WET WELL SHALL BE FLANGED SCHEDULE 10 316 STAINLESS STEEL. INTERMEDIATE JOINTS SHALL BE WELDED. FITTINGS WITHIN THE WET WELL SHALL BE FLANGED 316 STAINLESS STEEL. ALL NUTS, BOLTS & ACCESSORIES WITHIN THE WET WELL SHALL BE 316 STAINLESS STEEL.
5. PIPE AND FITTINGS OUTSIDE OF THE WET WELL AND ABOVE GROUND SHALL BE 316 STAINLESS STEEL (FLANGED, SCHEDULE 10). ALL WELD-ON FLANGES SHALL BE 125# RF SOCKET- WELD FLANGE OR RF WELD NECK FLANGE (TYPE). ALL BOLTS, WASHERS AND NUTS SHALL BE 316 STAINLESS STEEL AND SHALL BE COATED WITH "NEVER SEIZE" COMPOUND.
6. THE ANNULAR SPACE BETWEEN CONCRETE COVER AND RISER PIPE SHALL BE SEALED WITH LINK SEAL.
7. PROVIDE 4" PENETRATION THROUGH CONCRETE TOP WITH CAPPED TOP AND OPEN END BOTTOM, CAPPED "FLUSH" WITH SURFACE.
8. INTERIOR SURFACES OF FITTINGS INDICATED, INCLUDING THE FLANGE MATING SURFACES, AS WELL AS THE PUMP IMPELLER, VOLUTE, AND BACKPLATE SHALL BE COATED WITH BELZONA 1321 CERAMIC S-METAL. (UNLESS OTHERWISE SPECIFIED BY OWNER)
9. PLUG VALVES SHALL HAVE AN ALLOWABLE FLOW CAPACITY EQUAL TO 100% OF THE ADJACENT PIPE AREA, AND SHALL ALLOW "PIGGING".
10. THE INTERIOR OF ALL VALVES SHALL BE COATED.
11. CONTRACTOR SHALL PROVIDE 2-3/4" CONDUITS (ONE FOR POWER AND ONE FOR SIGNAL) FOR FLOW METER (IF REQUIRED). CONTRACTOR SHALL TERMINATE WIRES IN OWNER PROVIDED ELECTRICAL CONTROL CABINET.
12. LOW LEVEL ALARM ELEV. TO BE SET IN COORDINATION WITH ECUA AND PUMP MANUFACTURER.
13. CONNECTION OF SWAY BRACE MOUNTING PLATE SHALL BE COORDINATED WITH PUMP MANUFACTURER.
14. A SECOND BRACE IS TO BE INSTALLED WHEN THE DEPTH OF WET WELL IS GREATER THAN 10' DEEP OR WHEN THE PUMPS ARE GREATER THAN 10 HP.
15. UNDERGROUND ELECTRICAL CONDUIT SHALL BE PER ELECTRICAL CODE. CONTRACTOR SHALL ACHIEVE THIS VIA THE USE OF METAL CONDUIT, OR SCHEDULE 80 PVC ENCASED IN CONCRETE, OR ALTERNATE METHOD AT THE ECUA'S APPROVAL TO MEET CODE.
16. FOR ALL SYSTEMS REQUIRING BRACES: PROVIDE MINIMUM OF THREE (3) 316 STAINLESS STEEL BRACES, EVENLY SPACED. ADD ADDITIONAL BRACES IF BRACE SPACING EXCEEDS 10'.

THIS SHEET CREATED BASED ON DESIGN DRAWING DS-3.1

NO.	DATE	REVISIONS

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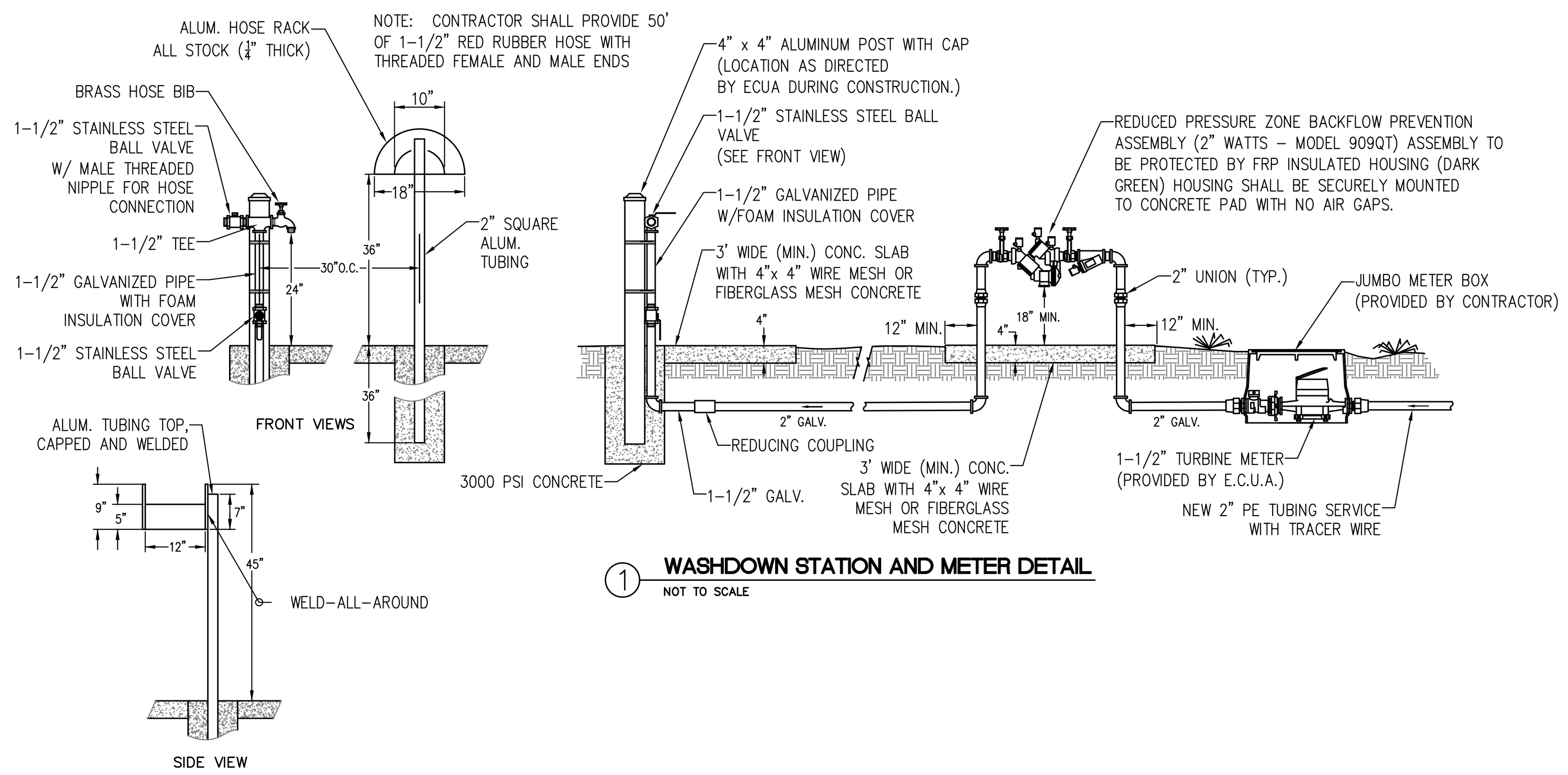
FL. CERTIFICATE OF AUTHORIZATION NO. 8268

INNERARITY ISLAND
SEWER SYSTEM UPGRADES
WETWELL, PUMPS AND PIPING
ESCAMBIA COUNTY FLORIDA

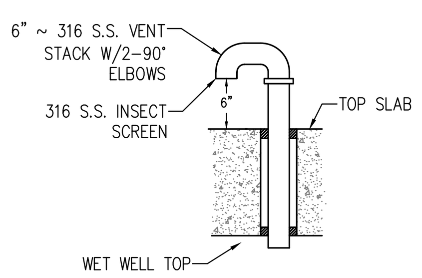
DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 3/8" = 1'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-6

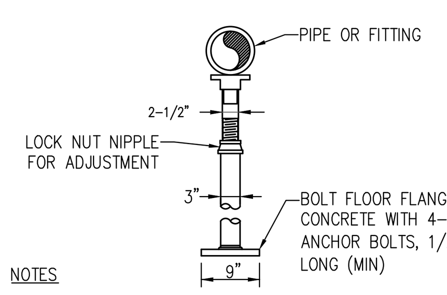
"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



1 **WASHDOWN STATION AND METER DETAIL**
NOT TO SCALE



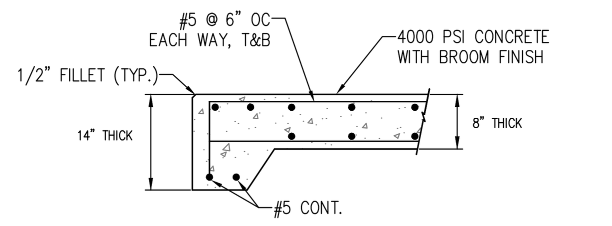
2 **J-VENT DETAIL**
NOT TO SCALE



NOTES

1. ADJUSTABLE PIPE SUPPORT "ANVIL FIGURE 265" OR EQUAL
2. ALL SUPPORT MATERIALS SHALL BE 316 S.S.
3. THE COMPONENTS OF THE VALVE SUPPORT SHALL BE ENLARGED AS APPROVED BY ECUA.
4. FIT A PIPE STAND FOR EACH DISCHARGE PIPE

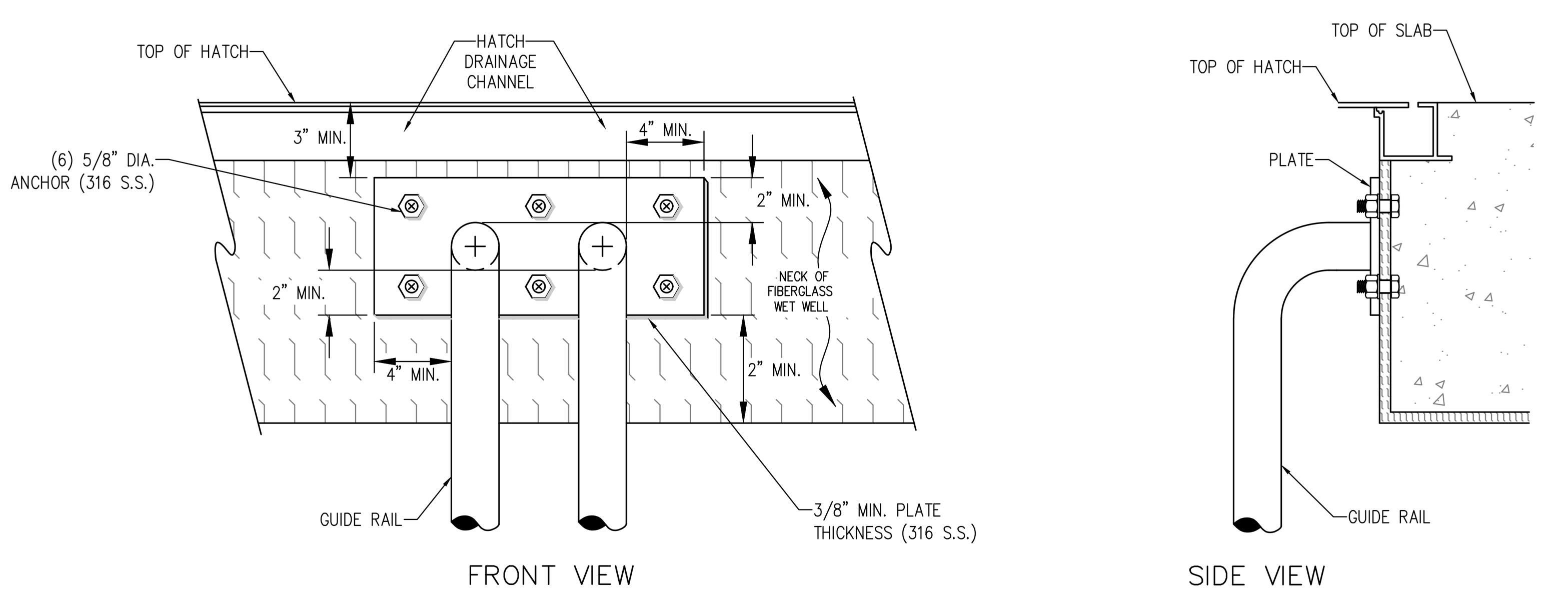
3 **ADJUSTABLE PIPE STAND DETAIL**
NOT TO SCALE



NOTES

1. PAD DIMENSIONS PER PLANS.
2. PROVIDE EXPANSION JOINTS AND CRACK RELIEF JOINTS PER ACI STANDARDS.
3. SEE MISC3 FOR ADDITIONAL DETAILS.

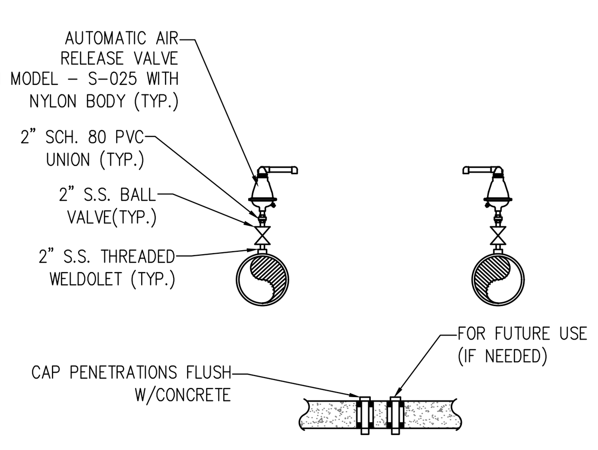
4 **GENERATOR PAD DETAIL**
NOT TO SCALE



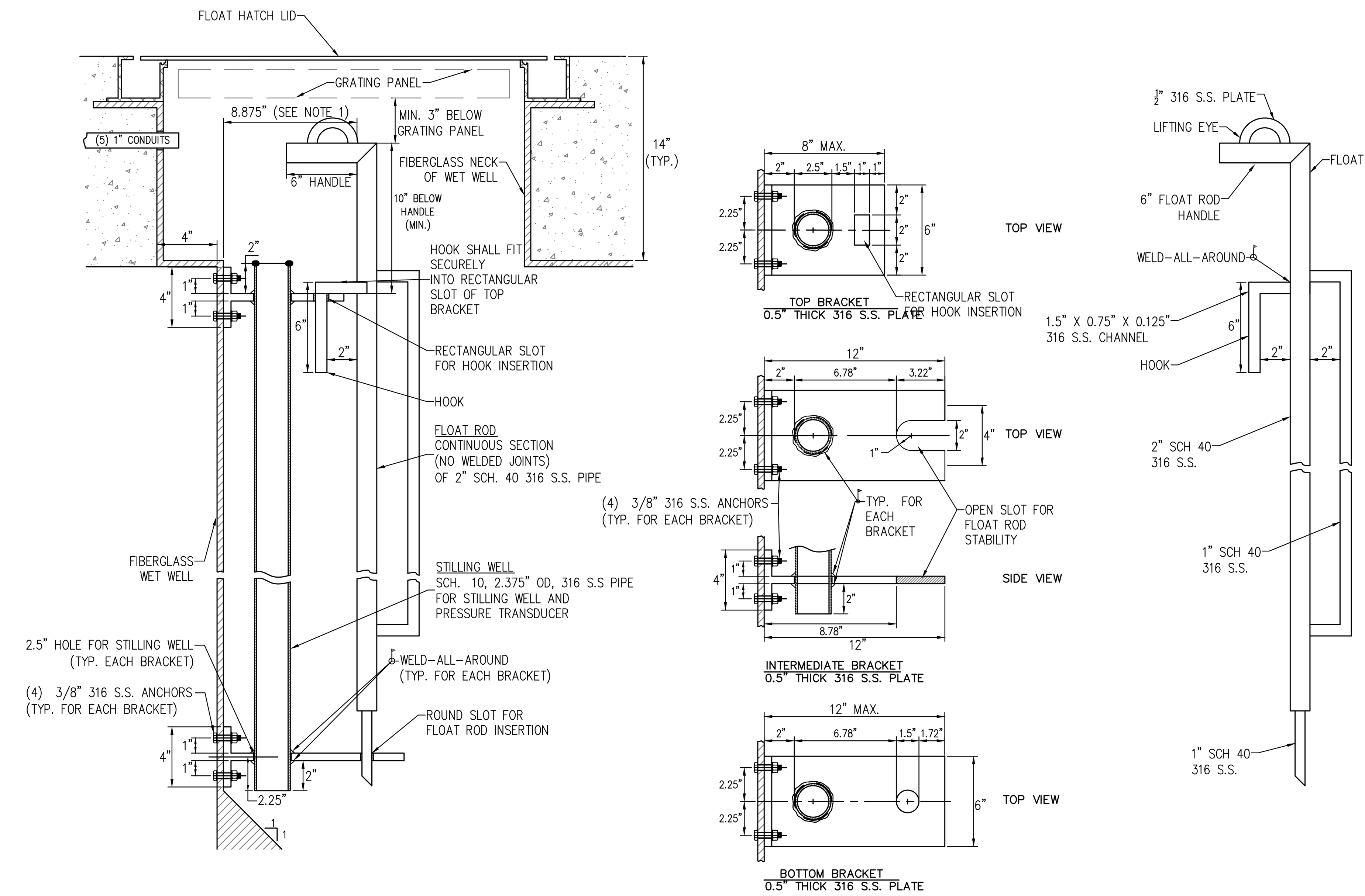
NOTES

1. REQUIRE SUBMITTAL FOR "STYLE" OF RAIL ATTACHMENT.
2. GUIDE RAILS TO BE 2" MIN. 316 S.S. WELDED OR BOLTED TO PLATE IN A MANNER ACCEPTABLE TO ECUA.

5 **GUIDE RAIL DETAIL**
NOT TO SCALE



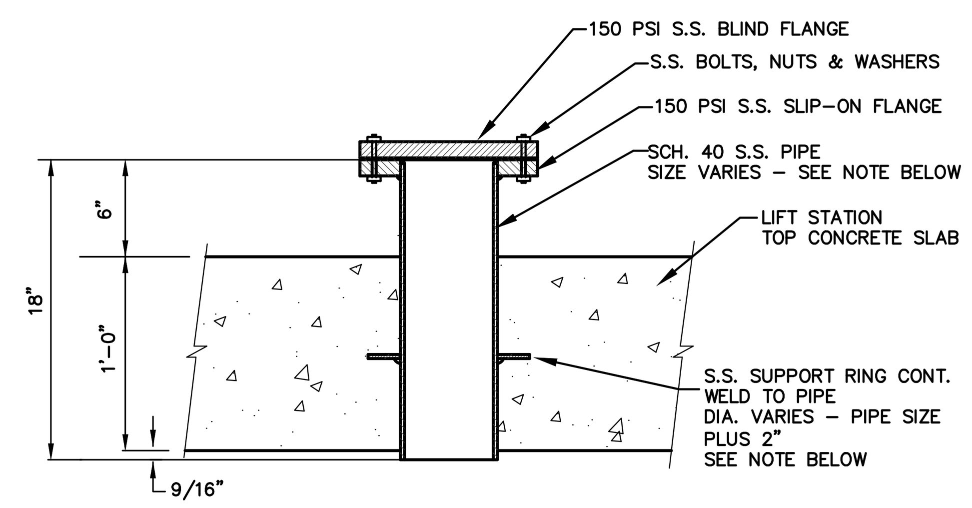
6 **ARV EXHAUST DETAIL**
NOT TO SCALE



NOTES

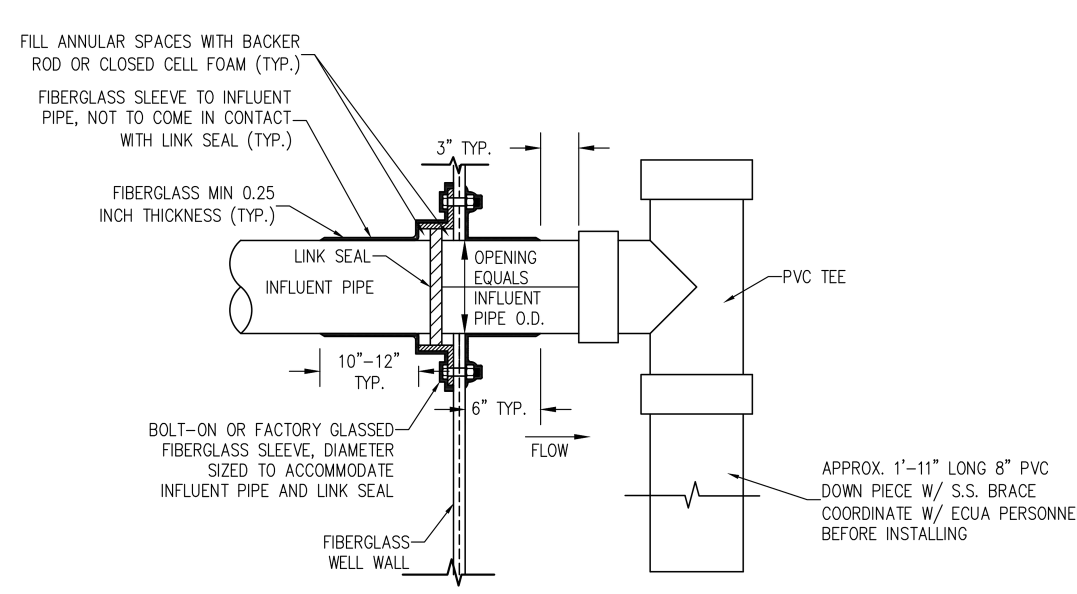
1. THE BRACKET DIMENSIONS PROVIDED WITH THIS DETAIL REQUIRE THE FIBERGLASS NECK (FOR HATCH) AND FLOAT ROD PLACEMENT TO BE POSITIONED PER THE DIMENSIONS SHOWN. SHOULD THE CONTRACTOR ALTER THE FIBERGLASS NECK AND FLOAT ROD PLACEMENT DIMENSIONS FROM WHAT IS SHOWN IN THIS DETAIL, THEN CONTRACTOR SHALL SUPPLY NEW BRACKET DRAWINGS WITH NEW DIMENSIONS AS PART OF SHOP DRAWING SUBMITTAL.

7 **MOUNTING BRACKETS FOR STILLING WELL AND FLOAT ROD**
NOT TO SCALE

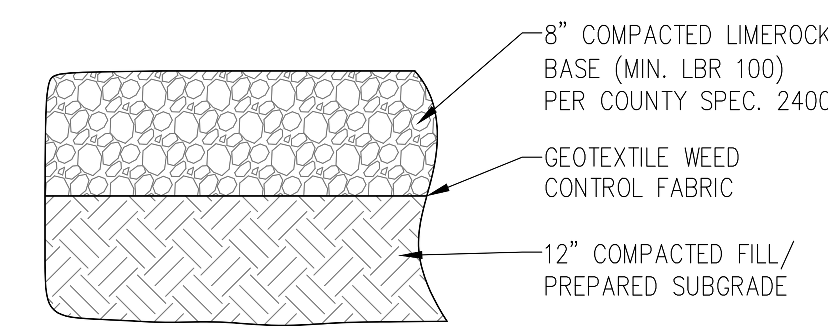


NOTE
1. 1 LOCATIONS – 2" PIPE FOR ARV DRAIN
2. 2 LOCATIONS – 6" FOR FUTURE FLUME COLLECTION & J-VENT AIRSTACK

8 **SLAB PENETRATION WITH BLIND FLANGE DETAIL**
NOT TO SCALE



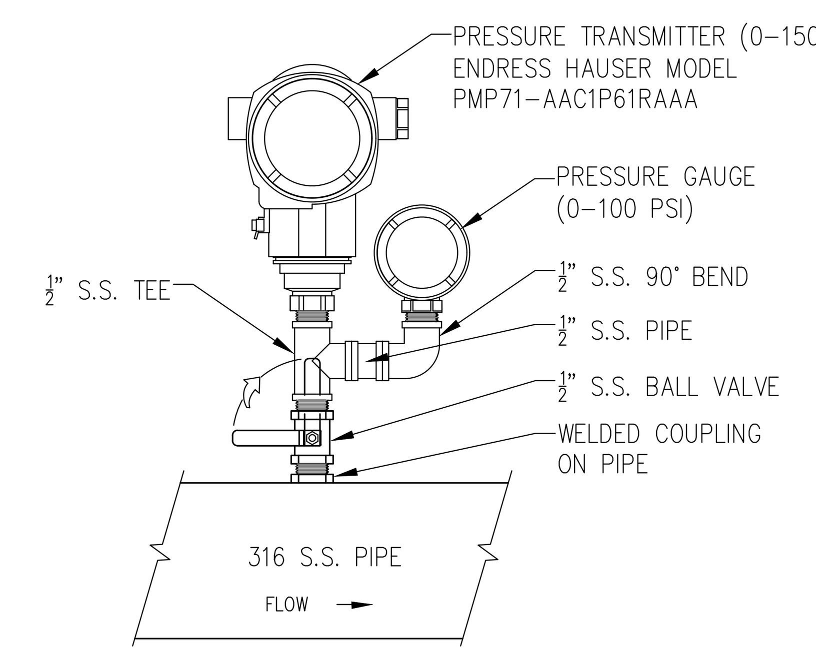
9 **INFLUENT PIPE DETAIL**
NOT TO SCALE



NOTES:

1. ALL DEPTHS ARE COMPACTED DEPTHS.
2. PREPARE SUBGRADE BY CLEARING AND GRUBBING, STRIPPING TOPSOIL AND PLACING GEOTEXTILE FABRIC.
3. FILL FOR LIFT STATION SITE SHALL BE SAND MECHANICALLY COMPACTED TO 95% MODIFIED PROCTOR DENSITY IN MAXIMUM 12-INCH LIFTS LOOSE MEASUREMENT TO ACHIEVE CORRECT GRADE.

10 **GRADED AGGREGATE BASE DETAIL**
NOT TO SCALE



11 **PRESSURE TRANSMITTER DETAIL**
NOT TO SCALE

THIS SHEET CREATED BASED ON DESIGN DRAWING DS-4 & DS-5

NO.	DATE	REVISIONS

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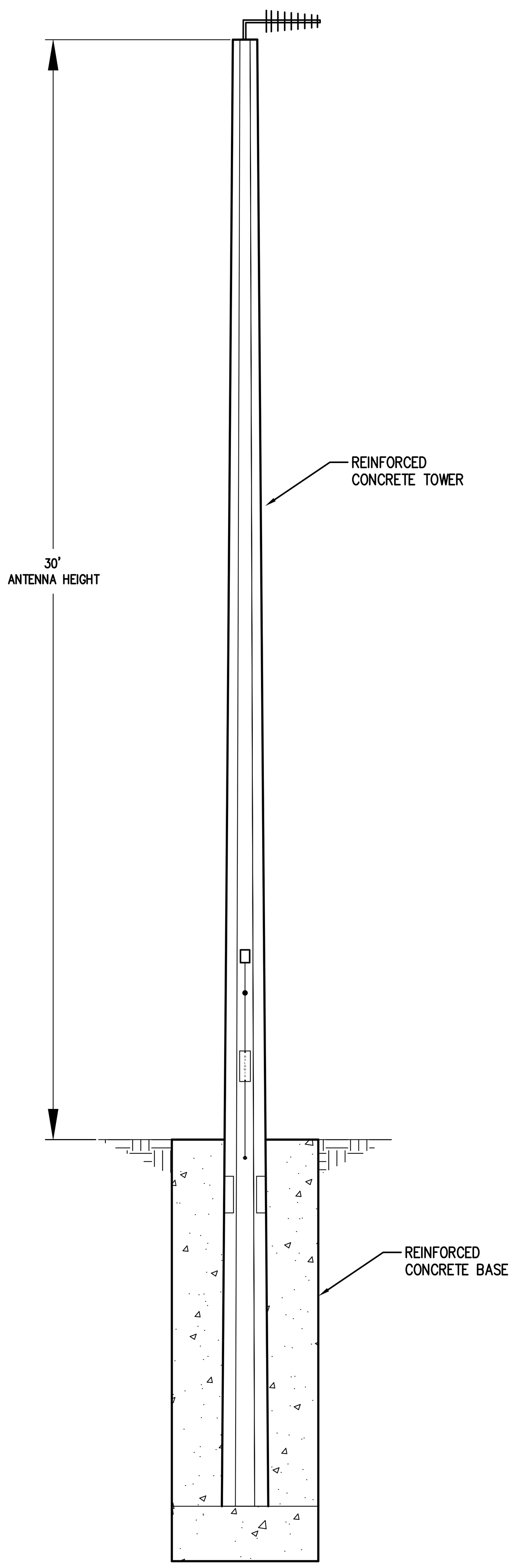
FL. CERTIFICATE OF AUTHORIZATION NO. 8268

INNERARITY ISLAND
SEWER SYSTEM UPGRADES
SITE-CIVIL-MECHANICAL DETAILS 1 & 2
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: N.T.S.
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-7/LS-8
SHEET: 34 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

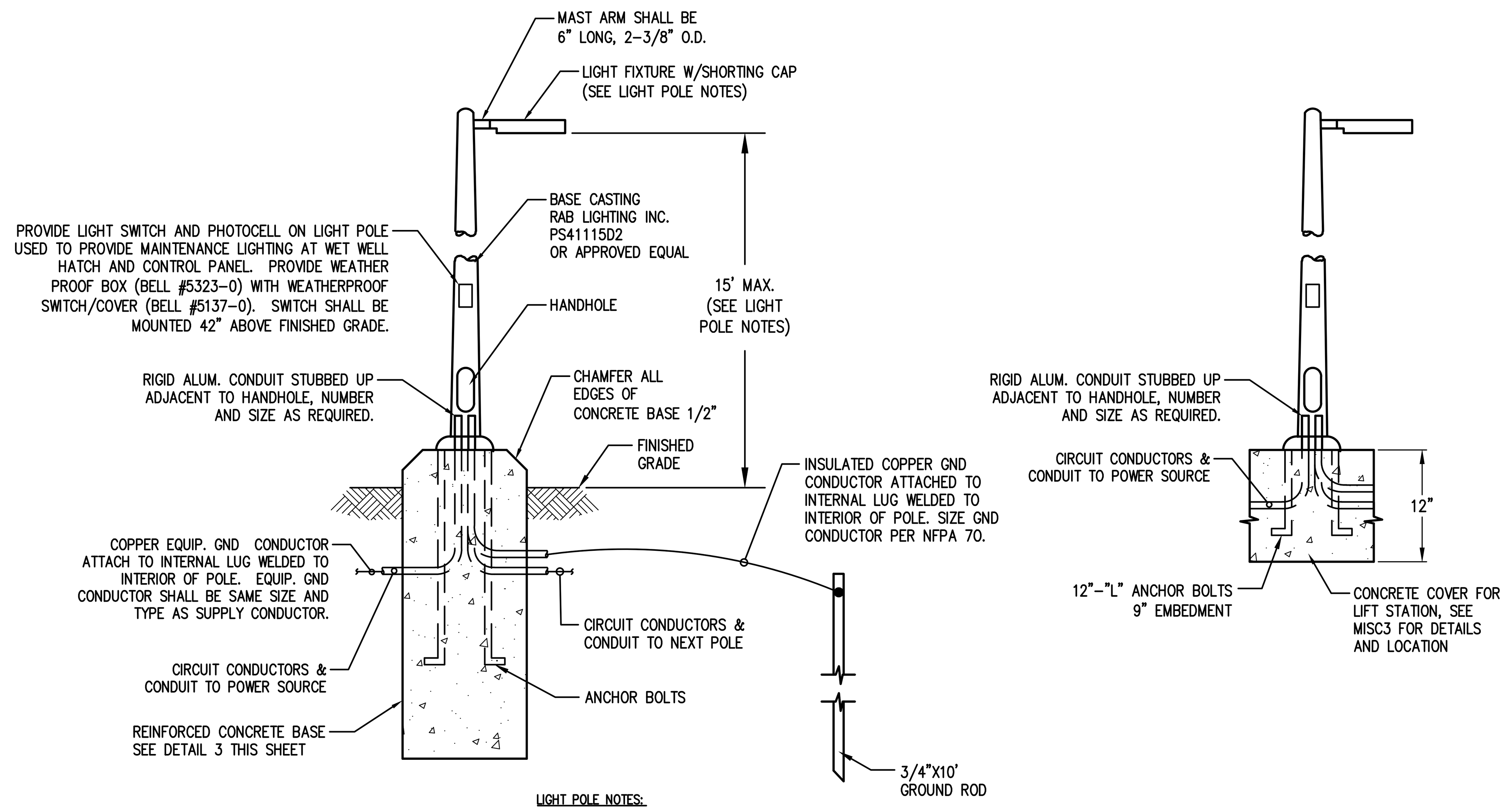


NOTES:

1. TOWER/BASE SHALL BE CONSTRUCTED PER DELEGATED ENGINEERING DOCUMENTS.
2. FOR WIND LOAD CALCULATIONS, ASSUME WIND SPEED OF 164 MPH, EXPOSURE "D" PER ASCE 7-10/FBC 2010 WIND DATA, AS WELL AS LOOSE, SANDY SOILS.

1 CONCRETE TOWER/BASE FOR SCADA ANTENNA

NOT TO SCALE



LIGHT POLE NOTES:

A. GATE LIGHT FIXTURE SHALL BE LED, (RAB, ALED13Y), 120V, WITH PHOTOCONTROL & SWITCH, POLE MOUNTED @ 42" (OR ENGINEER APPROVED EQUAL). WELL LIGHT FIXTURE SHALL BE LED, (RAB, ALED18Y), 120V, WITH PHOTOCONTROL & SWITCH, POLE MOUNTED @ 42" (OR ENGINEER APPROVED EQUAL).

B. REFER TO SPECIFICATIONS SECTION 16521 "EXTERIOR LIGHTING" FOR ADDITIONAL REQUIREMENTS.

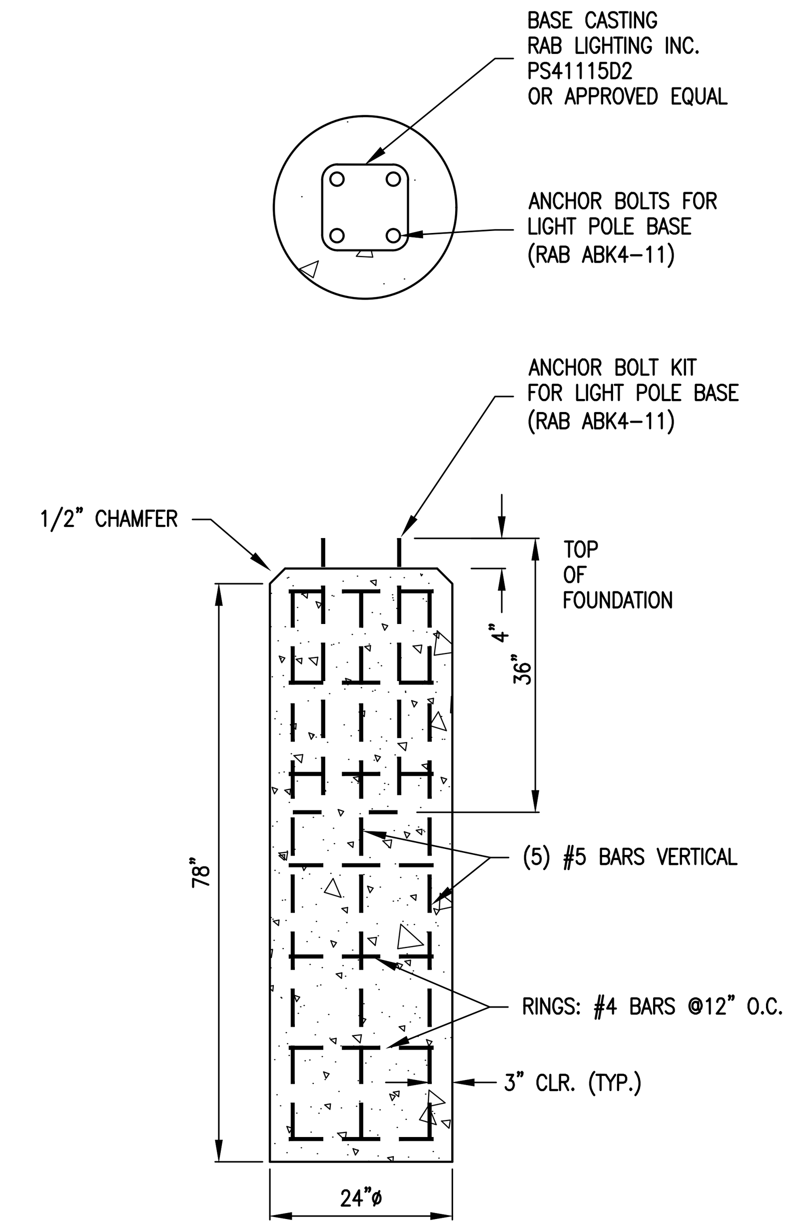
C. LIGHT FIXTURES SHALL BE MOUNTED AT 15'-0" (MAXIMUM) ABOVE FINISHED GRADE.

D. LIGHTING FIXTURE LAYOUT SHALL BE BASED UPON ACHIEVING 2 FOOT CANDLES (+/- 20%) AT THE FRONT OF THE CONTROL PANEL (WORK-PLANE OF 24" AFG) AND AT THE WET WELL ACCESS HATCH (WORKPLANE OF 0" AFG).

E. GENERAL SECURITY LIGHTING SHALL ENCOMPASS ACCESS GATE AND ALL PIPING/EQUIPMENT AT A MIN: AVERAGE 1, MAXIMUM 2 FOOT CANDLE (+/- 20%, AT WORKPLANE OF 0" AFG).

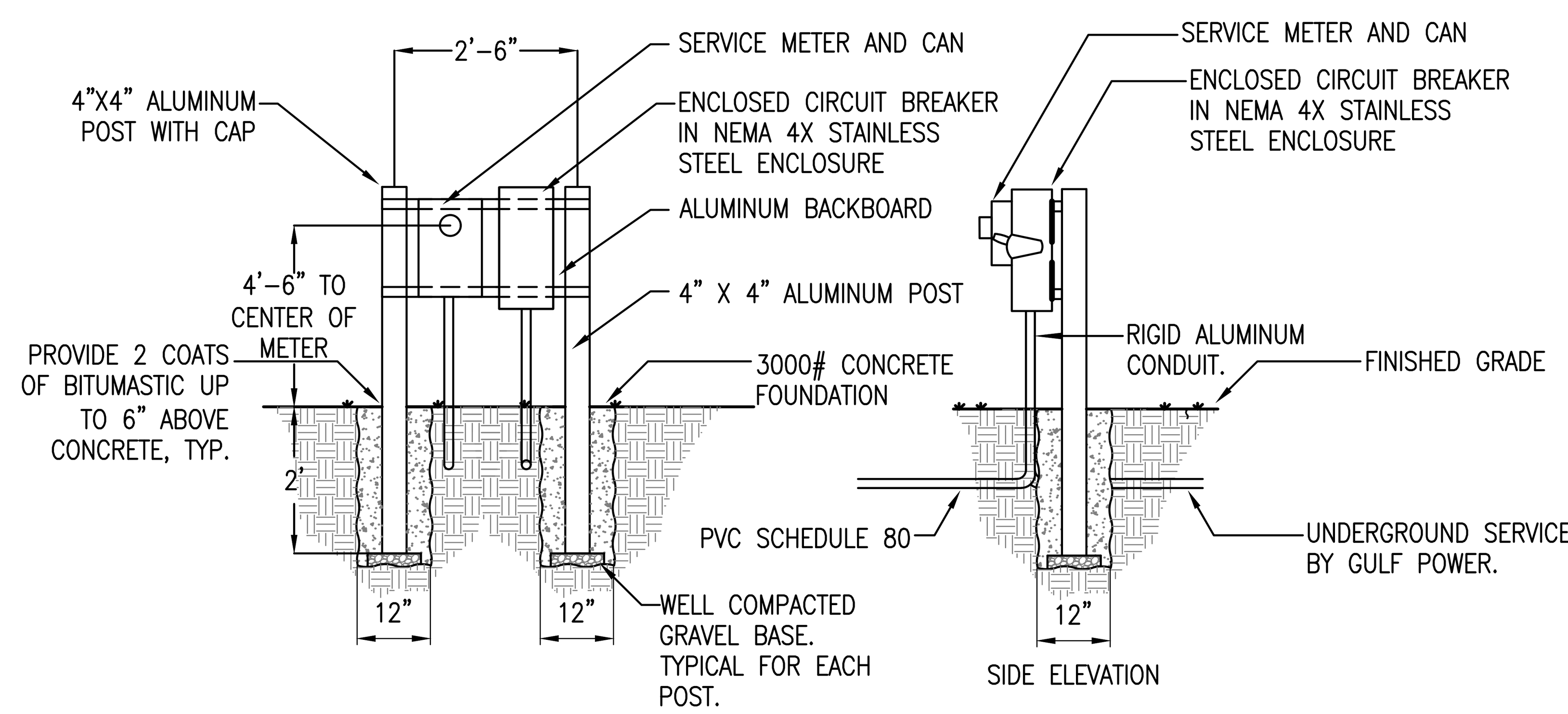
2 SECURITY AND WORK LIGHT DETAILS

NOT TO SCALE



3 CONCRETE BASE FOR WORK LIGHT DETAIL

(AS DESIGNED BY KH-A)
NOT TO SCALE



NOTES:

1. SUPPORT FRAME SHALL BE FABRICATED USING 4" SQUARE ALUMINUM POSTS.
2. SERVICE LATERAL CONDUIT SHALL BE 3" (MIN) SCHEDULE 80 PVC BELOW GRADE AND 3" (MIN) RIGID AL CONDUIT ABOVE GRADE. ANY REQUIREMENTS BY THE UTILITY COMPANY SHALL PREVAIL OVER THE REQUIREMENTS OUTLINED HERE AND SHALL BE COORDINATED BY THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.

4 UTILITY METER POST DETAIL

(AS DESIGNED BY DELL CONSULTING)
NOT TO SCALE

THIS SHEET CREATED BASED ON DESIGN DRAWING DS-6

NO.	DATE	REVISIONS

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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

INNERARITY ISLAND
SEWER SYSTEM UPGRADES
SITE-CIVIL-MECHANICAL DETAILS 3
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: N.T.S.
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-9
SHEET: 35 OF 66

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

EMERALD COAST UTILITIES AUTHORITY

EOR's Summary of Performance and Design Criteria for Contractor's Delegated Engineering Documents

This sheet acts as a summary only. Contractor is required to thoroughly examine the remainder of these plans as well as ECUA's Engineering Manual for all performance and design criteria, which as a whole, is considered sufficient for Contractor's use in bidding and coordinating professional design sevices for the development of Contractor's Delegated Engineering Documents.

Delegated Engineering Design	EOR Supplied Design Criteria	Applicable Design Standards	Provided By
Fiberglass Wet Well	Diameter (feet): 8' Depth (feet): 27.55'		Supplier
Pump Mounting Baseplate	See Wet Well dimensions above and List of Allowable Pumps on Pump Selection Worksheet	Plans and ECUA Engineering Manual	Engineer of Record
Anti-flotation Concrete Base	See Wet Well dimensions above		Engineer of Record
Concrete Cover	See Site Plan for cover dimensions	Plans and ECUA Engineering Manual	Engineer of Record
Control Panel Base	See Control Panel information above and Site Plan for location	Plans and ECUA Engineering Manual	Engineer of Record
Electrical Control Panels	Panel Layout: ☐ Abutting ☒ Linear Service Voltage: ☐ 480V ☒ 240V Starter Type: ☐ FVNR ☒ RVSS ☐ VFD	Plans, ECUA Engineering Manual, and ECUA Design Standard Drawings DS-1 through DS-35	Engineer of Record
Work/Security Light Poles and Bases	See Plans	Plans and ECUA Engineering Manual	Engineer of Record
Concrete Pole and Base for SCADA Antenna (if applicable)	Antenna Height (feet): 30'	Plans and ECUA Engineering Manual	Engineer of Record

THIS SHEET CREATED BASED ON DESIGN DRAWING DS-8

NO. DATE REVISIONS

EDWARD E. BOWLES FL. PE 56636

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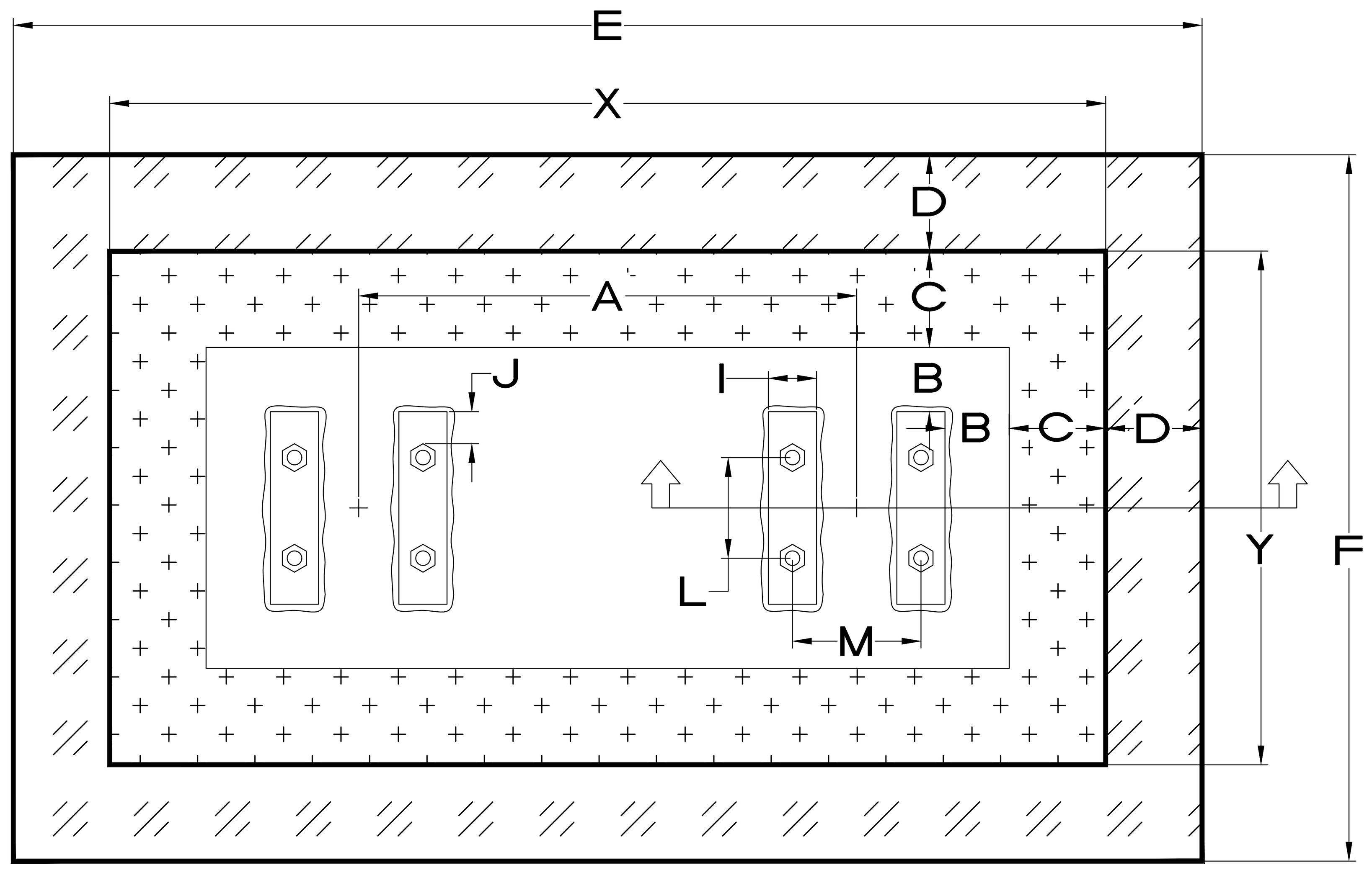
INNERARITY ISLAND
SEWER SYSTEM UPGRADES
D.E.D. DESIGN PERFORMANCE CRITERIA
ESCAMBIA COUNTY FLORIDA

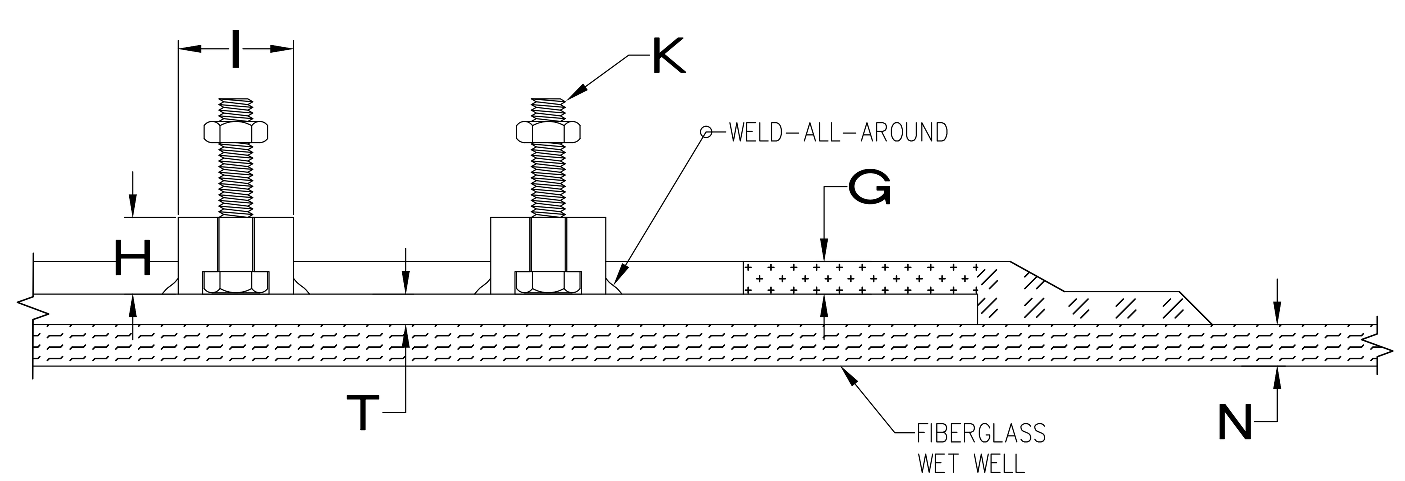
DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: N.T.S.
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
LS-10

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"



TOP VIEW



SECTION

BASEPLATE DETAIL

NOT TO SCALE

ITEM	*MANUFACTURER PROVIDED	ECUA MINIMUMS	ITEM DESCRIPTION/NOTES
T	XX	3/8 INCH THICK	316 S.S. BASEPLATE, SINGLE SHEET
X	XX	SEE NOTE 3	OVERALL BASEPLATE LENGTH, INCHES
Y	XX	SEE NOTE 3	OVERALL BASEPLATE WIDTH, INCHES
A	XX	SEE NOTE 3 & 7	CENTERLINE PUMP SPACING
B	XX	4 INCHES	CLEARANCE FROM BAR STOCK TO LAMINATION
C	XX	SEE NOTE 3	LAMINATION OVER S.S. BASEPLATE, INCHES
D	XX	SEE NOTE 3	LAMINATION OVER BOTTOM OF WETWELL, INCHES
E	XX	SEE NOTE 3	OVERALL LAMINATION LENGTH, INCHES
F	XX	SEE NOTE 3	OVERALL LAMINATION WIDTH, INCHES
G	XX	SEE NOTE 3	LAMINATION THICKNESS, INCHES
H	XX	2 INCHES	316 S.S. BAR STOCK THICKNESS
I	XX	3 INCHES	316 S.S. BAR STOCK WIDTH
J	XX	2 INCHES	END OF BAR STOCK TO EDGE OF BOLT HOLE
K	XX	SEE NOTE 3	ANCHOR BOLTS/NUTS, 316 S.S.
L	XX	SEE NOTE 3	BOLT SPACING IN BAR STOCK
M	XX	SEE NOTE 3	BAR STOCK SPACING
N	XX	SEE NOTE 3	WET WELL BOTTOM THICKNESS
	* SEE NOTE 3		

INSTRUCTIONS TO CONTRACTOR/SUPPLIERS ON HOW TO USE THIS BASEPLATE DETAIL

1. EACH STATION HAS THE POSSIBILITY FOR NUMEROUS COMBINATIONS OF SUPPLIERS FOR WETWELLS, PUMPS, BASE ELBOWS, ETC., TO INCLUDE VARYING LAYOUTS AND POSITIONING OF PUMPS, HATCHES, PIPING, ETC. ECUA HAS THEREFORE SUPPLIED ITS MINIMUM STANDARDS FOR A SINGLE BASEPLATE TO BE MOUNTED ON THE INSIDE BOTTOM OF FIBERGLASS WETWELLS TO ALLOW FOR SECURE AND LASTING ATTACHMENT OF BASE ELBOWS TO WET WELL BOTTOM.

2. SHOULD THE CONTRACTOR/SUPPLIERS DETERMINE ANY OF ECUA'S MINIMUM STANDARDS ARE INSUFFICIENT, THEN CONTRACTOR SHALL HAVE ENGINEERED CALCULATIONS PERFORMED AND MAKE RECOMMENDATIONS OF HIGHER STANDARDS.

3. THE CONTRACTOR/SUPPLIERS SHALL COMPLETE THIS DETAIL BY PROVIDING THEIR OWN DIMENSIONS AND OTHER REQUIREMENTS SPECIFIC TO EACH LIFT STATION PROJECT.

4. THE CALCULATIONS, DIMENSIONS, ETC. AS NOTED IN #1 AND #3 ABOVE SHALL BE PRESENTED IN THE WET WELL CALCULATIONS (SEE NOTE #5 BELOW) PERFORMED BY A P.E. (SEE SECTION 2577, ECUA ENGINEERING MANUAL). THIS DETAIL SHALL BE COMPLETED AND SUBMITTED IN THE FORM OF A SHOP DRAWING SUBMITTAL FOR REVIEW. THE COMPLETED DETAIL/SHOP DRAWINGS SHALL MATCH THE CALCULATIONS.

5. WET WELL CALCULATIONS SHALL HAVE A SECTION EXCLUSIVELY DEDICATED TO BASEPLATE DESIGN. THEY SHALL AT A MINIMUM, INCLUDE CALCULATIONS THAT PROVE THE BASEPLATE AND FASTENING SYSTEM DESIGNED (I.E. FIBERGLASS OVERLAY) IS SUFFICIENT WITH RESPECT TO ACCOMMODATING PUMP/PIPE WEIGHT, PUMP THRUST, LOCKED ROTOR CONDITIONS, ETC.

6. THE CONTRACTOR/SUPPLIER DESIGNED BASEPLATE SHALL BE COVERED UNDER THE 20 YEAR WARRANTY FOR FIBERGLASS WETWELLS. (SEE SECTION 2577, ECUA ENGINEERING MANUAL)

7. CONSULT THE INFORMATION BELOW WHEN DETERMINING PUMP SPACING:

RISER PIPE	CENTERLINE SPACING FOR RISER PIPING BASED ON ABOVE GROUND F.M. HEADER/FITTINGS MANIFOLD			**PUMP SPACING	
DIAMETER [IN.]	NO SPOOL PIECES	*8 IN. SPOOL PIECE	STANDARD TEE SPOOL PIECE	MIN. PER MANUFACTURER	DIMENSION 'A' FROM CHART
4	≈ 26 IN.	≈ 34 IN.	≈ 39 IN.	XX	XX
6	≈ 32 IN.	≈ 40 IN.	≈ 48 IN.	XX	XX
8	≈ 36 IN.	≈ 44 IN.	≈ 54 IN.	XX	XX

* 8 IN. MINIMUM ASSUMED FOR ACCESSIBILITY / MAINTENANCE
** SEE NOTE 3

THIS SHEET CREATED BASED ON DESIGN DRAWING MISC1

NO.	DATE	REVISIONS

EDWARD E. BOWLES
FL. PE 56636

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FL. CERTIFICATE OF AUTHORIZATION NO. 8268

INNERARITY ISLAND
SEWER SYSTEM UPGRADES
PUMP MOUNTING BASEPLATE DESIGN
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: N.T.S.

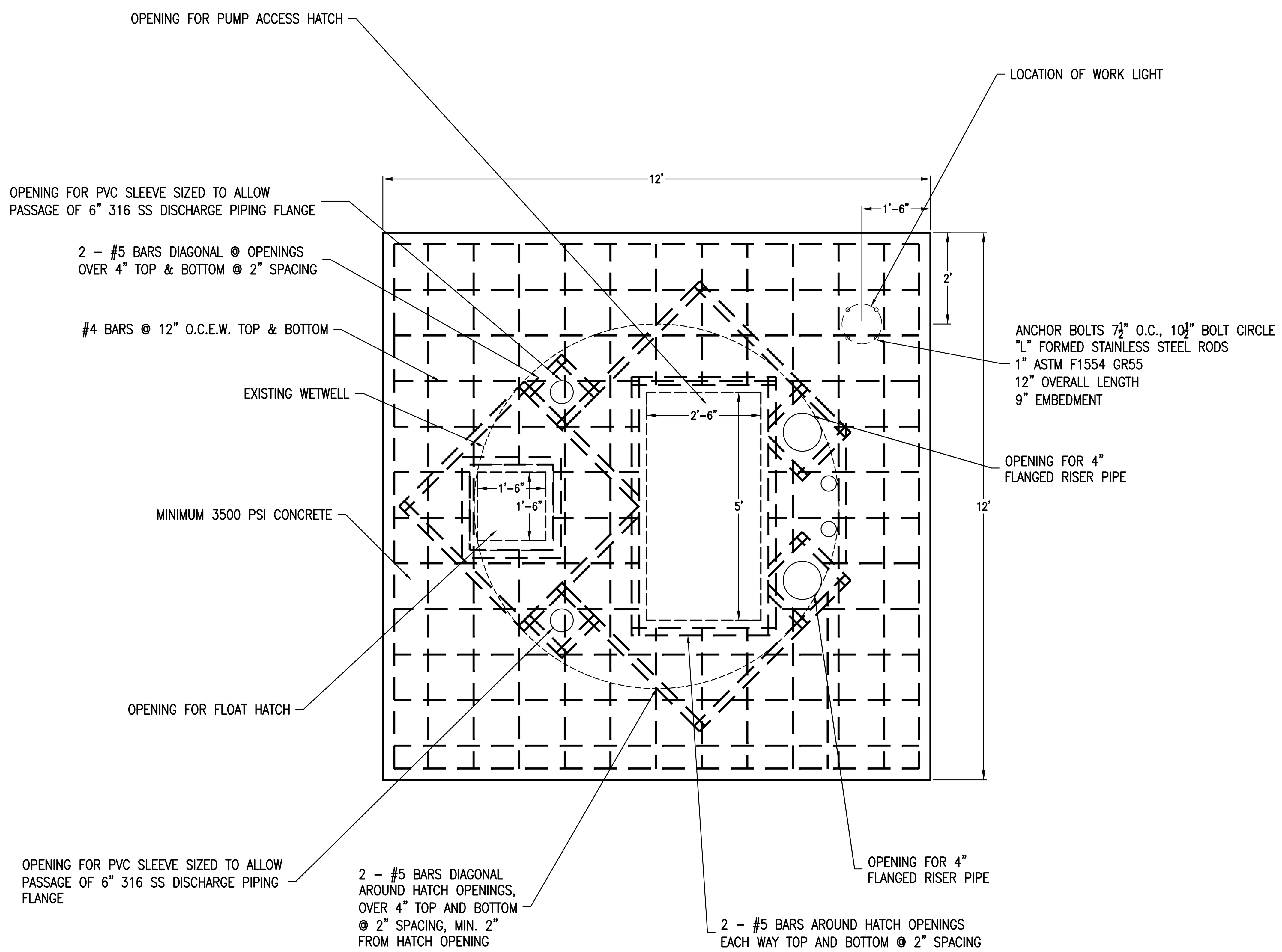
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018-35
MISC1
SHEET: 37 OF 66

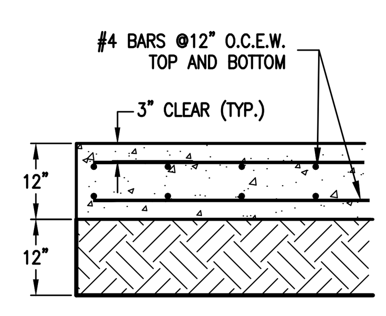
S:\2018 Projects\2018-35 Innerarity Island Sewer\DWGS\CIVIL\2018-35_LIFT STATION DETAILS.dwg, Jul 23, 2019 - 8:39:15AM, priscilla

"ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF ECUA'S ENGINEERING MANUAL"

– UPDATED ENTIRE SHEET

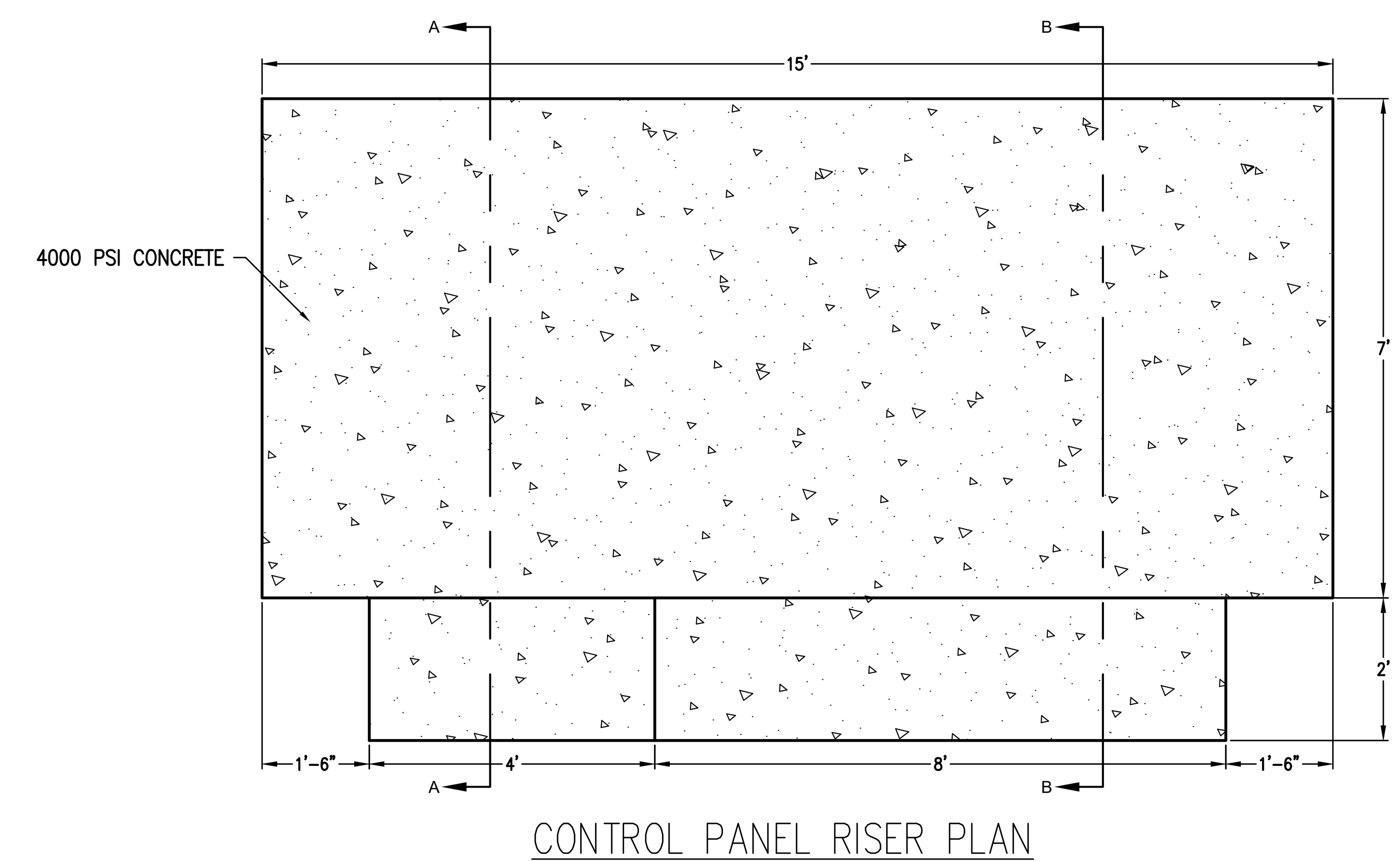


CONCRETE COVER PLAN
SCALE: 1/2" = 1'

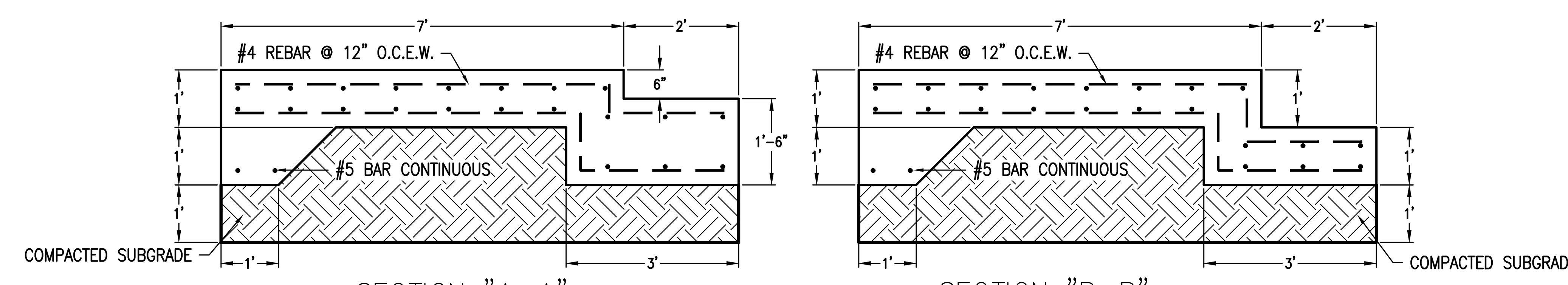


CONCRETE COVER SECTION
SCALE: 1/2" = 1'

1 MISC3 CONCRETE LIFT STATION COVER DETAILS



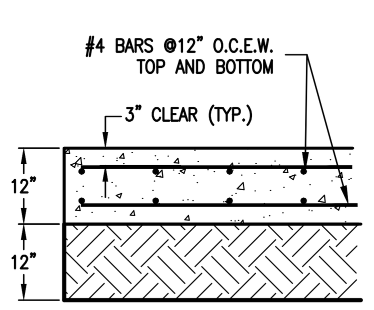
CONTROL PANEL RISER PLAN
SCALE: 1/2 = 1'



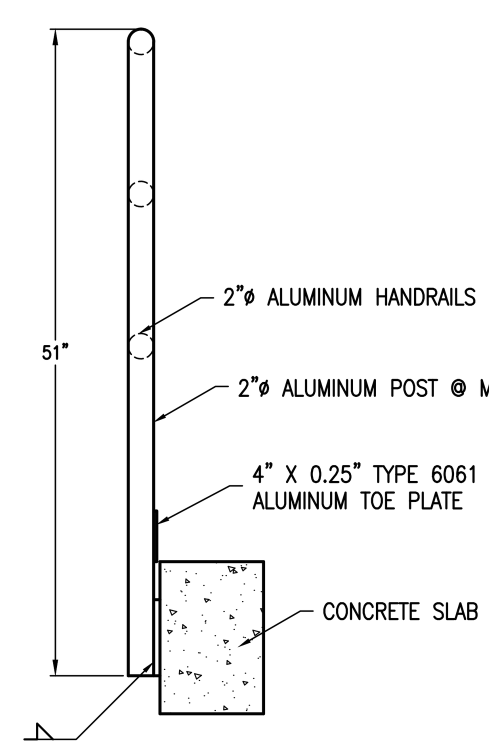
SECTION "A–A"
SCALE: 1/2" = 1'

SECTION "B–B"
SCALE: 1/2" = 1'

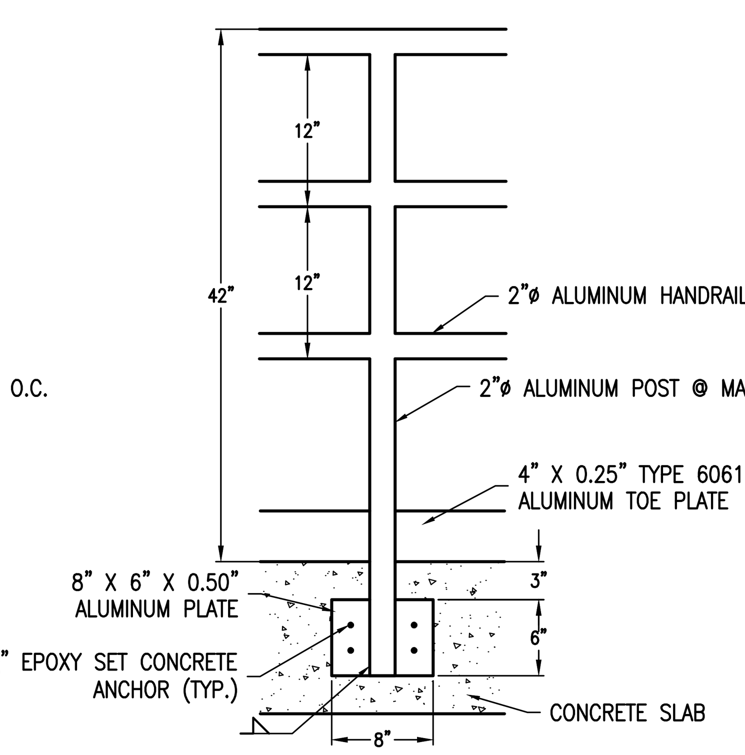
2 MISC3 CONTROL PANEL RISER DETAILS



3 MISC3 GENERATOR SLAB DETAILS
SCALE: 1/2" = 1'

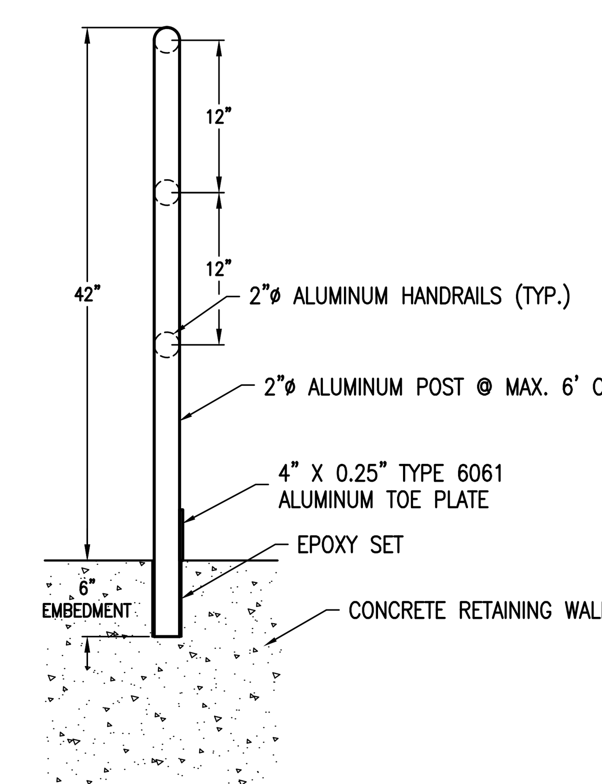


SIDE VIEW
SCALE: 1" = 1'



FRONT VIEW
SCALE: 1" = 1'

4 MISC3 MOUNTED HANDRAIL DETAILS



5 MISC3 EMBEDDED HANDRAIL DETAILS
SCALE: 1" = 1'

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SEWER SYSTEM UPGRADES
CONCRETE DETAILS
ESCAMBIA COUNTY FLORIDA

DRAWN BY: PC
DESIGNED BY: EB
CHECKED BY: EB
DATE: 2/19/2019
SCALE: 1" = 2'
FOR CONSTRUCTION
BY: EBB DATE: 7/25/2019

PROJECT NO: 2018–35
MISC3
SHEET: 38 OF 66