



SATELLITE LIFT STATION R&R 2021 GROUP 1 402-0019707

November 2020

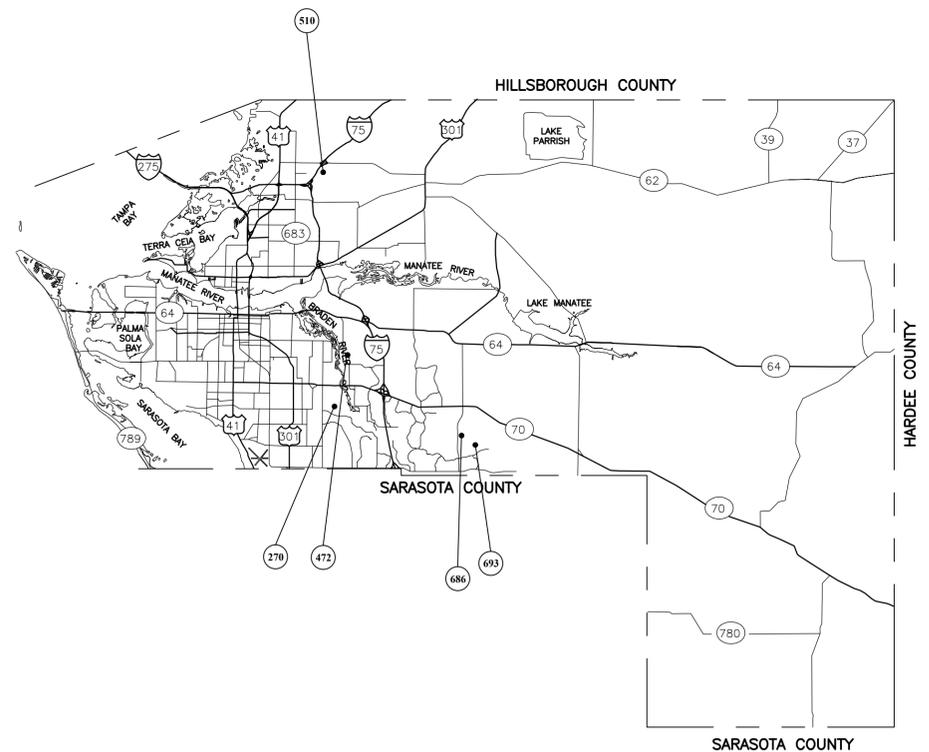
BID DOCUMENTS

L.S. NAME	RTU	ADDRESS	PROJECT JL NO.	INFLUENT MH
(*) SILVER LAKES	270	5238 60TH DR E, BRADENTON	402.5157980	PRIVATE
(*) BASHAW ELEMENTARY SCHOOL	472	3603 57TH ST E, BRADENTON	402.5157880	PRIVATE
(*) IMPERIAL LAKES	510	8208 LAKESIDE DR PL, PALMETTO	402.5158080	PRIVATE
(*) COUNTRY CLUB EAST 1	686	14295 PLAYERS DR, LAKEWOOD RANCH	402.5158180	PRIVATE
(*) COUNTRY CLUB EAST 2	693	15010 PLAYERS DR, LAKEWOOD RANCH	402.5158280	PRIVATE

(*) THE MANHOLE ADJACENT TO THE LIFT STATIONS IS PRIVATELY OWNED AND MAINTAINED AND CAN NOT BE UTILIZED FOR BYPASS PUMPING.

PROJECT DESCRIPTION

REHABILITATE SEWAGE LIFT STATIONS AND/OR MANHOLES TO REDUCE RISK TO PUBLIC HEALTH AND ENVIRONMENTAL POLLUTION. THE WORK SHALL CONSIST OF, BUT NOT LIMITED TO, WET WELL CLEANING, THE REPLACEMENT OF DISCHARGE PIPING, FITTINGS, VALVES, SWING CHECK VALVES, GUIDE RAILS, PIPE BRACINGS, BASE ELLS, AND/OR MOUNTING PLATES. WET WELL LINER MAY NEED TO BE INSTALLED, REPAIRED OR REPLACED. SEE INDIVIDUAL PLAN SHEETS FOR SPECIFIC REHABILITATION AND INSTALLATIONS REQUIREMENTS FOR EACH LIFT STATION.



NO.	SHEET
01	Cover
02	General Notes
03	Vicinity Maps
04	Silver Lakes, RTU 270
05	Bashaw Elementary School, RTU 472
06	Imperial Lakes, RTU 510
07	Country Club East 1, RTU 686
08	Country Club East 2, RTU 693
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Know what's below
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SATELLITE LIFT STATION R&R
2021 GROUP 1
COVER

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	402-0019707	
SURVEY #	-	
SEC./TWN./RGE	VARIES	
SCALE	N.T.S.	
	BY	DATE
SURVEYED	-	-
DESIGNED	JSS	08/2020
DRAWN	JSS	08/2020
CHECKED	JSS	09/2020



GENERAL

- 1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: ANTHONY BENITEZ, P.E. AND CAN BE REACHED AT 941.708.7450 x7333.
2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS.
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. 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.
5. 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.
6. 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.
7. 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.
8. 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

- 9. 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.
10. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
11. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
12. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

ENVIRONMENTAL

- 13. 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.
14. 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.
15. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOG, 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.
16. 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.
17. 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.
18. 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.
19. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
20. 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.
21. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

RIGHT-OF-WAY

- 22. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
23. 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.
24. 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.
25. 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.
26. 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.
27. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575.
28. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

UTILITIES

- 29. 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 EFFECT 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.
30. 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.
31. 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.
32. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY-PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY-PASS PUMPING PLAN PER SECTION 02720.
33. ALL WATER SERVICES TO BE INSTALLED OR MODIFIED ON PRIVATE PROPERTY SHALL REQUIRE A PLUMBING PERMIT;

- A. THE CONTRACTOR'S PLUMBER SHALL INSTALL A REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) EQUIPPED WITH A PRESSURE RELIEF VALVE AT THE POTABLE WATER METER WHENEVER ANY OF THE FOLLOWING CONDITIONS EXIST AT A PROPERTY:
• IN-GROUND IRRIGATION SYSTEM,
• SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),
• SWIMMING POOL,
• FIRE SPRINKLER SYSTEM,
• FLOOD ZONE DESIGNATION, (IF ONLY FLOOD ZONE; INSTALL DOUBLE CHECK BPA)
• PROPERTY THAT ABUTS OR INCLUDES A BODY OF WATER (INCLUDING RIVER, BAY, LAKE OR POND),
• SOLAR WATER HEATING SYSTEM,
• MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY.
B. A LICENSED PLUMBER SHALL INSTALL THE BPA'S IN ACCORDANCE WITH THE CURRENT FLORIDA PLUMBING CODE AND MANATEE COUNTY CODE OF ORDINANCES, AND SHALL SELECT A PRESSURE RELIEF VALVE WITH AN APPROPRIATE PRESSURE SET POINT TO PROTECT THE CUSTOMERS' PLUMBING AND NOT ALLOW EXCESSIVE LEAKAGE DUE TO SYSTEM SUPPLY PRESSURE. A PRESSURE REDUCING VALVE MAY BE NECESSARY UPSTREAM OF THE PRESSURE RELIEF VALVE, WHERE NORMAL SUPPLY PRESSURE EXCEEDS 80 PSI. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION CONTROL STAFF AS REQUIRED.
C. IF IN-GROUND IRRIGATION SYSTEM IS CONNECTED TO THE POTABLE WATER LINE, AN ADDITIONAL RP BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
D. VACUUM BREAKERS SHALL BE INSTALLED ON ALL HOSE BIBBS.
E. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED. CROSS CONNECTION STAFF SHALL DETERMINE WHICH PROPERTIES REQUIRE A BPA & TYPE TO BE INSTALLED.

RESTORATION

- 34. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
35. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
36. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
37. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.
38. 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.
39. 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 LIM 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.
40. 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

- 41. 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.
42. 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.
43. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
44. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
45. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
46. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
47. 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. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD.
48. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
49. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
50. ALL FITTINGS FOR PRESSURE CLASS-RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.
51. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.
52. 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.
53. 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.
54. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
55. ALL PENETRATIONS OF EXISTING STRUCTURES SHALL BE BY MECHANICAL ROTARY CORE DRILLING METHOD. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
56. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT-OFFS DURING WATER MAIN TIE-IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING INFORMATIONAL SIGNS IN THE NEIGHBORHOOD AT LEAST TWO DAYS (48 HRS) PRIOR TO THE WATER SHUT-OFF. REFERENCE SECTION 01580, PARAGRAPH 1.03 OF THE SPECIFICATIONS. WHEN FEASIBLE, "DOOR HANGERS" SHALL BE DELIVERED TO AFFECTED RESIDENCES AT LEAST TWO DAYS (48 HRS) PRIOR TO WATER SHUT-OFF. FOR LARGE PROJECTS WITH HUNDREDS OF HOMES AFFECTED, THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDIA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, SARASOTA HERALD TRIBUNE, WRBD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
57. ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE-INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.
58. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
59. WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" AND MANATEE COUNTY UTILITY STANDARDS UNLESS NOTED OTHERWISE ON THE PLANS.
60. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
61. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.15 AND/OR 1.16 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS 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 IN SECTION 1.15 AND/OR 1.16 SHALL BE STRICTLY ENFORCED. A COPY OF THESE SECTIONS CAN BE PROVIDED UPON REQUEST.
62. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED FORCE MAIN CUT AND PLUG POINTS. AS-BUILT DRAWINGS SHALL BE ANNOTATED EACH DAY AS THE WORK PROCEEDS AND SHALL BE AVAILABLE TO THE COUNTY PROJECT MANAGER AND/OR FIELD INSPECTOR FOR REVIEW ON AN ONGOING BASIS. AS-BUILT DRAWINGS SHALL PROVIDE THE HORIZONTAL AND VERTICAL INSTALLED LOCATION OF ALL NEW PIPELINE, FITTINGS, VALVES AND FORCE MAIN APPURTENANCES REFERENCED TO FIXED SURFACE FEATURES THAT ARE SHOWN ON THE CONSTRUCTION DRAWINGS AND/OR RIGHT-OF-WAY LINES, PROPERTY CORNERS OR OTHER SURVEYED POINTS. THE CONTRACTOR SHALL BE ABLE TO PRESENT THE RECORD DRAWINGS TO THE COUNTY PROJECT MANAGER AND/OR INSPECTOR ON DEMAND AS THE WORK PROGRESSES.
63. THE FOLLOWING IDENTIFIES THE QUALITY LEVEL OF EXISTING UTILITY LINEWORK ON PLANS.
LEVEL "A" -VISUALLY LOCATED OR SOFT DIGS (HORIZONTAL AND VERTICAL)
LEVEL "B" -DESIGNATED BY GPR OR FLAGGING (HORIZONTAL)
LEVEL "C" -SURFACE VISIBLE FEATURES SURVEY

EXISTING UTILITY LOCATIONS

LEVEL "D" -EXISTING RECORDS OR GIS REFERENCE 2010 EDITION OF FDOT UTILITY ACCOMMODATION MANUAL (UAM)

MAINTENANCE OF TRAFFIC

- 64. THE CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL PLAN (TCP) IMPLEMENTED. THE TCP SHALL BE PREPARED BY AN INDIVIDUAL CERTIFIED TO PREPARE A TCP IN THE STATE OF FLORIDA THAT MEETS OR EXCEEDS THE REQUIREMENTS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION (SERIES 600). ANY DEVIATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.
65. THE CONTRACTOR PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN (TCP). 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 TCP SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
66. THE CONTRACTOR SHALL USE, BUT ARE NOT LIMITED TO, FDOT INDICES 415, 600, 615, 616, AND 621. THE RECOMMENDED FDOT DESIGN STANDARD INDICES ARE CONCEPTUAL.
67. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY DRAINAGE. THERE WILL BE NO DIRECT PAY FOR THIS WORK. COSTS SHALL BE INCLUDED IN THE COST OF PIPE.
68. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.
69. THE CONTRACTOR WILL NOTIFY ALL EMERGENCY AND RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY 24 HOURS IN ADVANCE OF ANY PROPOSED LANE CLOSURES OR DETOURS.
70. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.
71. USE FDOT INDEX NO. 619 FOR TRAFFIC CONTROL MEASURES WHEN CONSTRUCTION EQUIPMENT IS DRIVEN ON OPEN TRAVEL LANES. THE REGULATORY SPEED IN WORK ZONES SHOULD BE AS CLOSE TO NORMAL CONDITIONS AS POSSIBLE, UNLESS NOTED ON THE TRAFFIC CONTROL PLANS.
72. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.
73. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.
74. ANY MOT ITEM NOT SPECIFICALLY LISTED UNDER A PARTICULAR PAY ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. THERE SHALL BE NO SEPARATE PAYMENT.
75. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER FDOT STANDARD INDEX 600.
76. ALL DETOURS, IF APPROVED BY THE COUNTY, SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D. LATEST EDITION) AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION (600 SERIES). ANY DETOUR RECOMMENDED BY THE CONTRACTOR MUST BE SUBMITTED TO THE COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

LEGEND
EXISTING
BENCH MARK
CONCRETE MONUMENT
IRON PIPE
IRON ROD
HUB
NAIL & DISK
ELEVATION
PARCEL ID NO.
PARCEL ID NO.
LOT NO.
GUY WIRE
POWER POLE
LIGHT POLE
MAIL BOX
SIGN
REFLECTOR
SPRINKLER
GAS MARKER
BACKFLOW PREVENTER
BLOW OFF VALVE
FIRE HYDRANT
WATER VALVE
AIR RELEASE VALVE
WATER METER
SANITARY SEWER MANHOLE
SANITARY SEWER CLEAN OUT
SOIL BORING LOCATION
TELEPHONE SERVICE BOX
UTILITY BOX
UTILITY RISER
FLOW DIRECTION
GRATE INLET
MITERED END SECTION
STORM SEWER MANHOLE
BUSH
TREE
OAK TREE
PALM TREE
PINE TREE
EDGE OF VEGETATION
CHAIN LINK FENCE
WOOD FENCE
BARBED WIRE FENCE
FORCE MAIN
POTABLE WATER
RECLAIMED WATER
SANITARY SEWER
STORM DRAIN
GAS LINE
OVERHEAD CHARTER
UNDERGROUND CHARTER
OVERHEAD ELECTRIC
UNDERGROUND ELECTRIC
OVERHEAD FRONTIER
UNDERGROUND FRONTIER
UNDERGROUND PRECO
UNDERGROUND FFL
OVERHEAD UTILITY
RAIL ROAD TRACKS
EDGE OF CONCRETE
EDGE OF ROAD
TOE OF SLOPE
TOP OF BANK
PROPERTY LINE
RIGHT OF WAY
ABBREVIATIONS
R/W RIGHT OF WAY
CONC CONCRETE
ASPH ASPHALT
DRWY DRIVEWAY
SWK SIDEWALK
EPK EDGE OF PAVEMENT
BOC BACK OF CURB

MANATEE COUNTY PUBLIC WORKS DEPT.
FRONTIER
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
TECO/PEOPLES GAS CO.
FLORIDA POWER & LIGHT
SARASOTA, FL 34240
1253 12TH AVENUE EAST
PALMETTO, FL 34221
GREG COKER
(941) 723-4430
DAN SHANAHAN
(941) 342-4011
EMERGENCY: 1-877-832-6911
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.
MANATEE COUNTY HEALTH DEPT.
410 6TH AVENUE EAST
BRADENTON, FL 34208
(941) 748-0747 EXT. 1355
FAX: (941) 750-9364
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
SARASOTA, FL 34240
STEVE LOPES
6750 FRUITVILLE ROAD
SARASOTA, FL 34240
(941) 377-3722
FAX: (941) 373-7660
FLORIDA GAS TRANSMISSION
7804 ANDERSON RD.
TAMPA FL 33634
CHAD HARRELL
PHONE: (813) 466-3327
E-mail: chad.harrell@usug.com
PEACE RIVER ELECTRIC COOPERATIVE, INC.
P.O. BOX 1310
WACHULA, FL 33873
KENDELL COKER
(863) 767-4660
kendell.coker@preco.coop

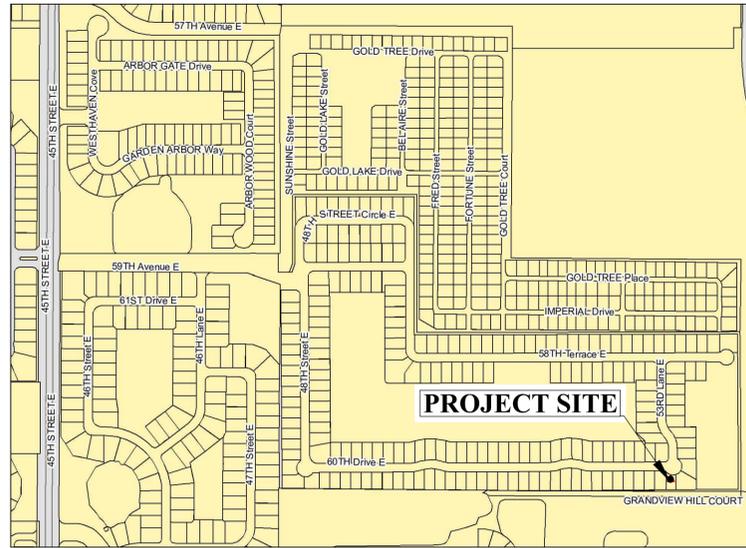
Table with 4 columns: NO., REVISION DESCRIPTION, BY, DATE. Contains multiple empty rows for revisions.

SATELLITE LIFT STATION R&R
2021 GROUP 1
GENERAL NOTES



Table with 2 columns: PROJECT #, SURVEY #, SEC./TWN./RGE, SCALE, SURVEYED, DESIGNED, CHECKED. Values include 402-0019707, VARIES, N.T.S., JSS, 08/2020, 09/2020.

Professional Engineer seal for John S. Shoun, No. 60923, State of Florida, License No. 10/21/2020.



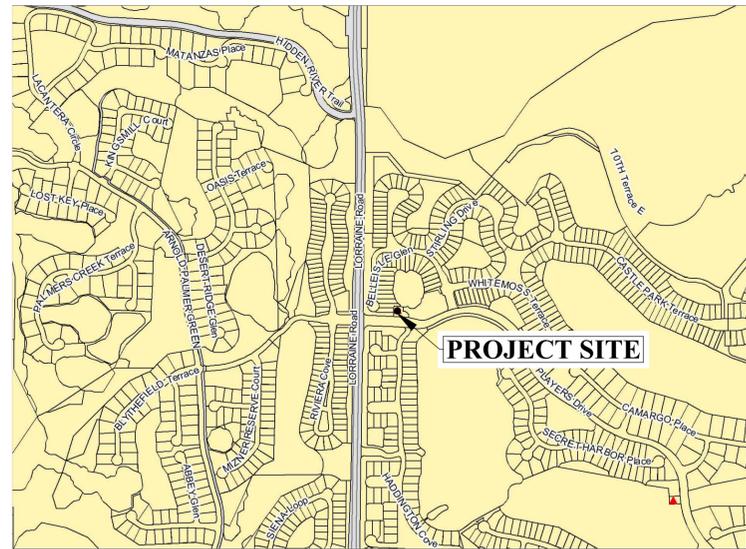
SILVER LAKES, RTU 270,
5238 60TH DR. E., BRADENTON



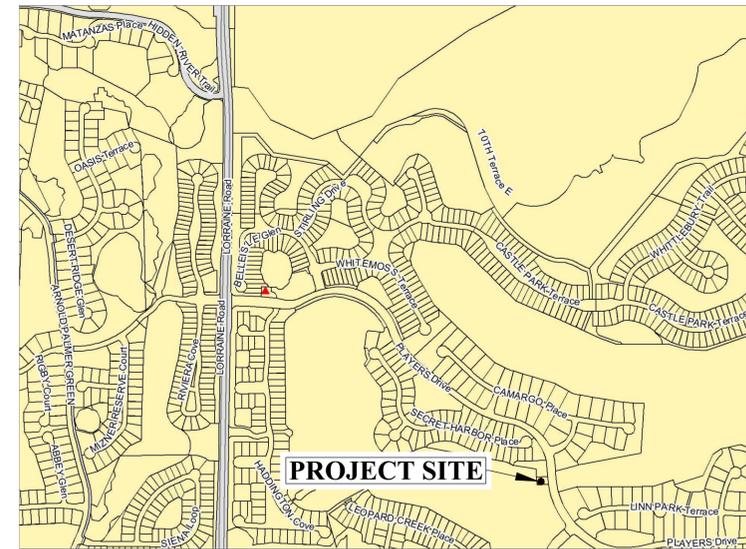
BASHAW ELEMENTARY SCHOOL, RTU 270,
3603 57TH ST. E., BRADENTON



IMPERIAL LAKES, RTU 510,
8546 COUNTLESS AVE. CIR., PALMETTO



COUNTRY CLUB EAST 1, RTU 686,
14295 PLAYERS DR., BRADENTON



COUNTRY CLUB EAST 2, RTU 693,
15010 PLAYERS DR., BRADENTON

NOTE(S):

1. LIFT STATION SITE VISITS MAY BE COORDINATED WITH NICK WAGNER, 941-792-8811 x5377.
2. ADDRESS FOR EACH VICINITY MAP HAS AN EMBEDDED LINK TO GOOGLE EARTH. HOVER AND CLICK ON LINK. (LINK MY NOT BE ACTIVE, IF THIS DOCUMENT WAS SCANNED TO A PDF).

NO.	REVISION DESCRIPTION	BY	DATE

SATELLITE LIFT STATION R&R 2021 GROUP 1 VICINITY MAPS



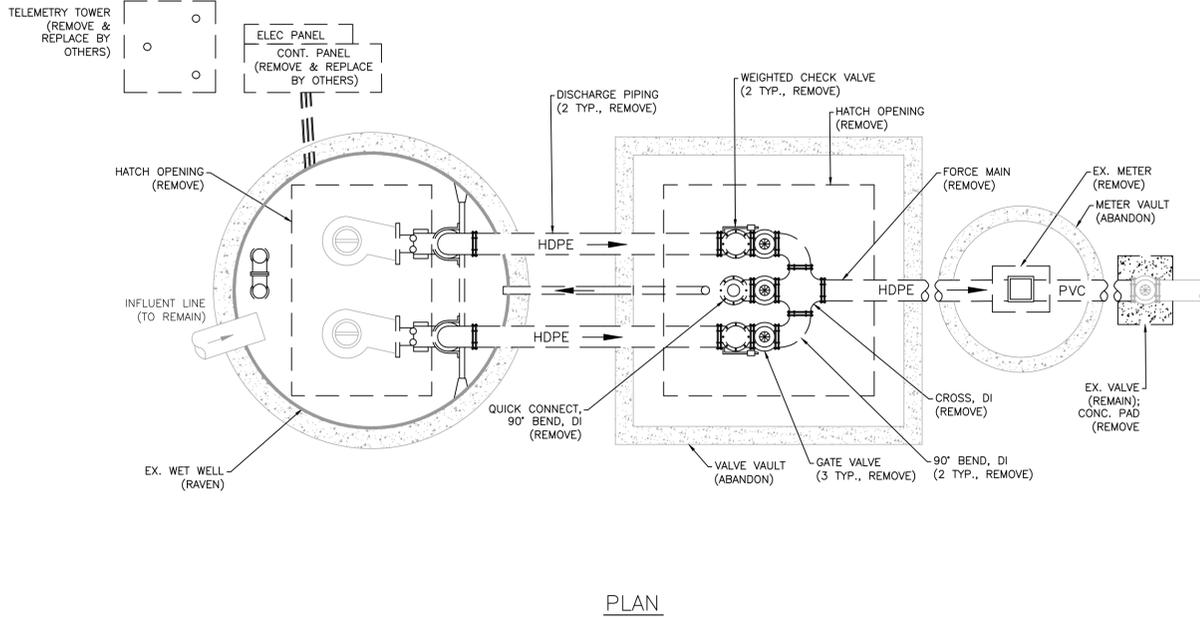
PROJECT #	402-0019707
SURVEY #	-
SEC./TWN./RGE	VARIES
SCALE	N.T.S.
SURVEYED	BY DATE
DESIGNED	JSS 08/2020
DRAWN	JSS 08/2020
CHECKED	JSS 09/2020

JOHN S. SHOUN, P.E.
 FLORIDA PROFESSIONAL ENGINEER
 No. 60923
 STATE OF FLORIDA
 10/27/2020
 PROFESSIONAL ENGINEER

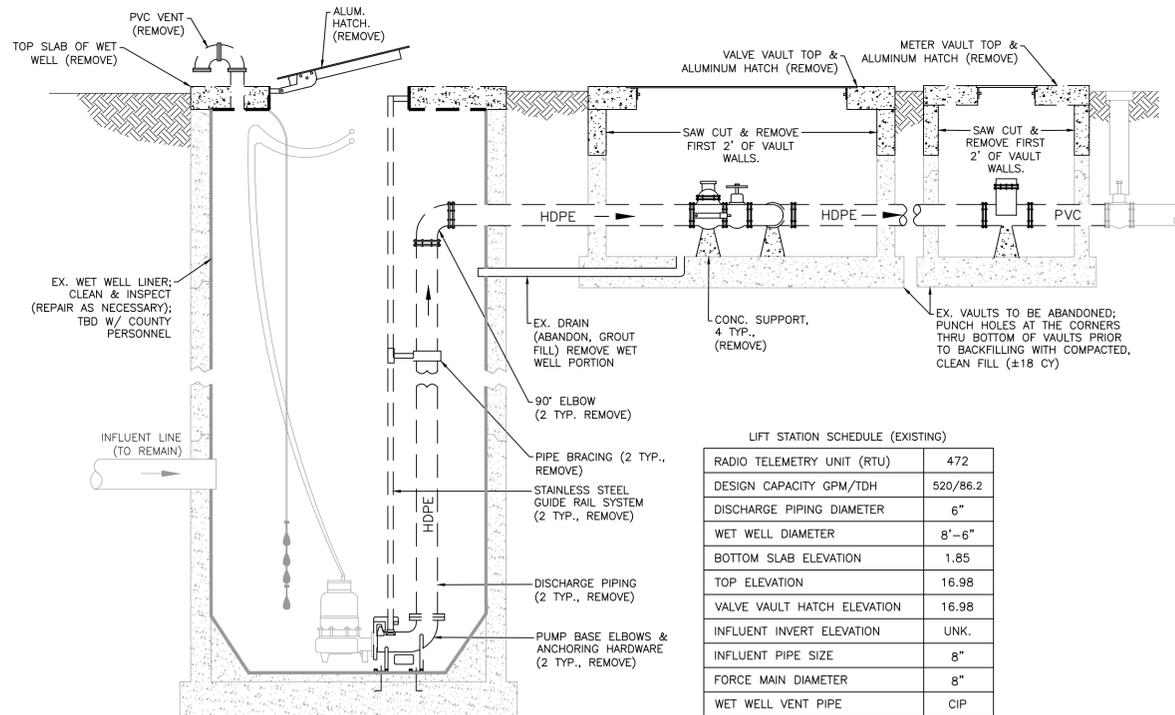
EXISTING

NOTES:

1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
2. THE CONTRACTOR/BIDDER SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR/BIDDER SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
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5. BY-PASS PUMPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



PLAN



ELEVATION

EX. 2 PUMP LIFT STATION

LIFT STATION SCHEDULE (EXISTING)

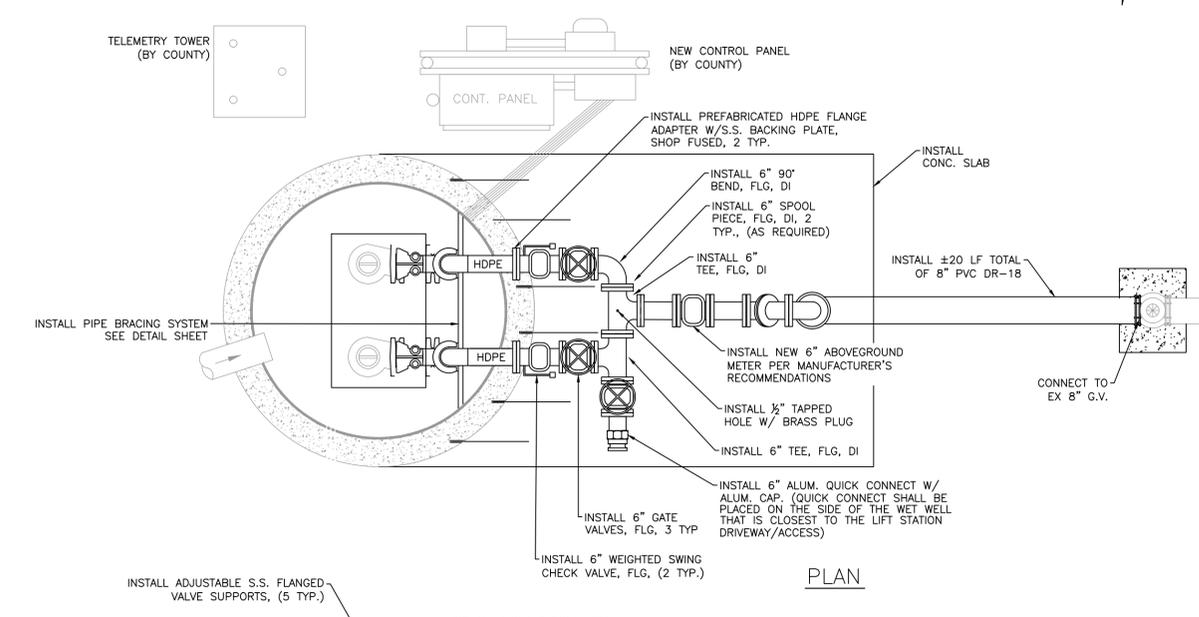
RADIO TELEMETRY UNIT (RTU)	472
DESIGN CAPACITY GPM/TDH	520/86.2
DISCHARGE PIPING DIAMETER	6"
WET WELL DIAMETER	8'-6"
BOTTOM SLAB ELEVATION	1.85
TOP ELEVATION	16.98
VALVE VAULT HATCH ELEVATION	16.98
INFLUENT INVERT ELEVATION	UNK.
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	8"
WET WELL VENT PIPE	CIP
ELECT. POWER, VOLTS/PH	230/3
EX. FORCE MAIN TIE	FM

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2020) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

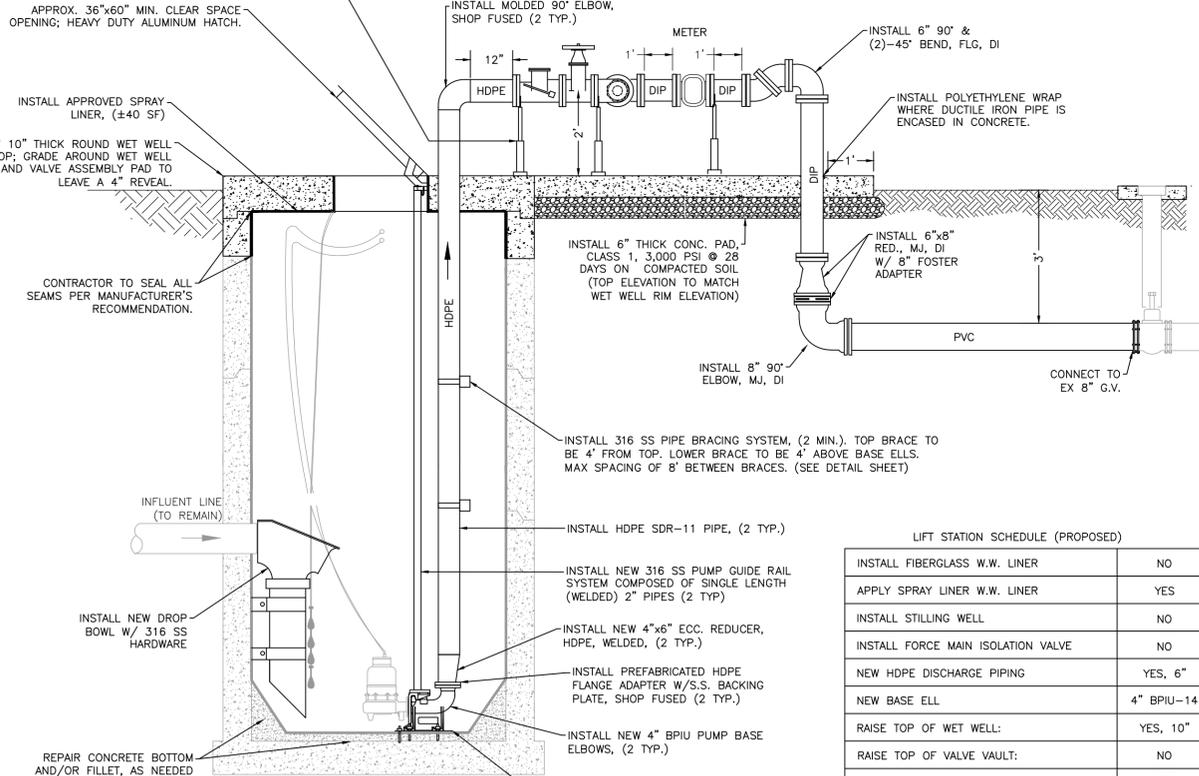
PROPOSED

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
2. THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAN 1/4" UNDER A TEN FOOT (10') STRAIGHTEDGE, NOT MORE THAN 1/8" ON A FIVE FOOT (5') TRANSVERSE SECTION. THE EDGE OF THE CONCRETE PAD SHALL BE CAREFULLY FINISHED WITH AN EDGING TOOL HAVING A RADIUS OF 1/2".
3. EXPANSION JOINT: EXPANSION JOINTS BETWEEN THE CONC. PAD AND THE WET WELL SHALL BE 1/2" MATERIAL AND SHALL MEET THE REQUIREMENTS OF AASHTO M153 OR AASHTO M213.
4. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR PAINTS. THE ABOVE GROUND VALVE ASSEMBLY & PIPING SHALL BE PAINTED, RUSTOLEUM 7538 HUNTER GREEN. CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT OVER-SPRAY OF PAINT ONTO THE CONCRETE SLAB.
5. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.



PLAN



ELEVATION

EX. 2 PUMP LIFT STATION

LIFT STATION SCHEDULE (PROPOSED)

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	NO
INSTALL FORCE MAIN ISOLATION VALVE	NO
NEW HDPE DISCHARGE PIPING	YES, 6"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	YES, 10"
RAISE TOP OF VALVE VAULT:	NO
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY, US-15	YES
UPGRADE / RELOCATE EX. WATER SERVICE ASSEMBLY	NO

NOTES:

1. WATER DISTRIBUTION IS PUBLIC.
2. SEWER COLLECTION IS PRIVATE.

NO.	REVISION DESCRIPTION	BY	DATE

**SATELLITE LIFT STATION R&R
2021 GROUP 1
BASHAW ELEMENTARY SCHOOL, RTU 472**



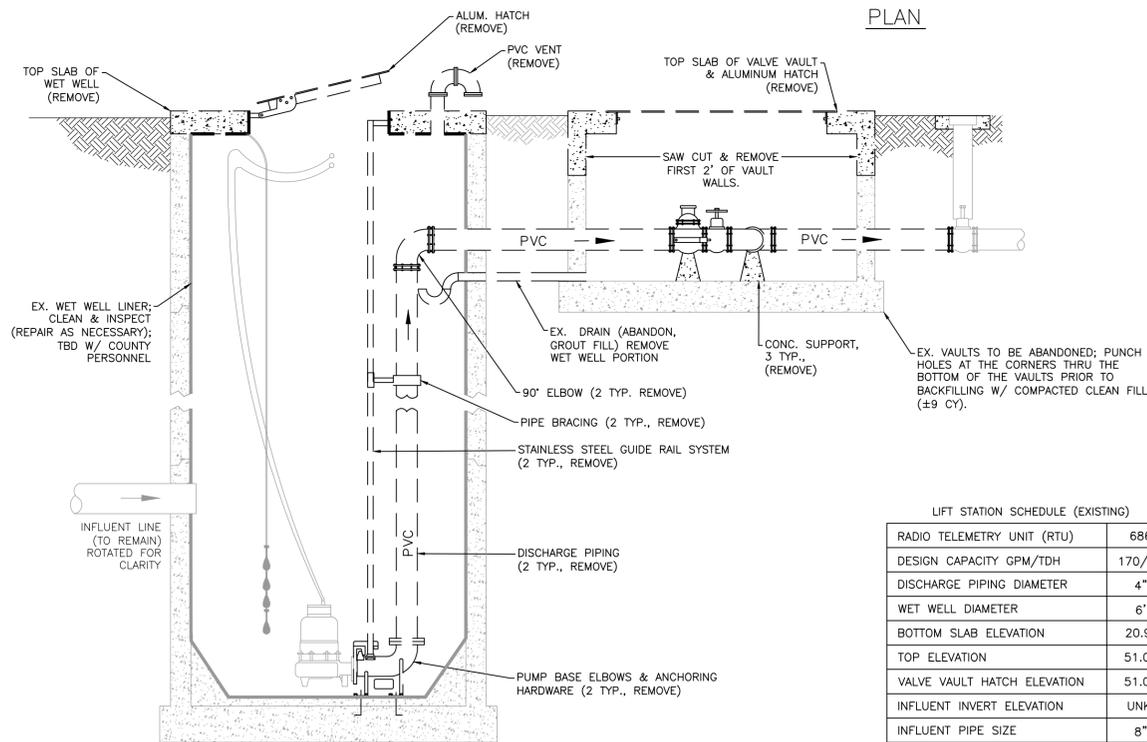
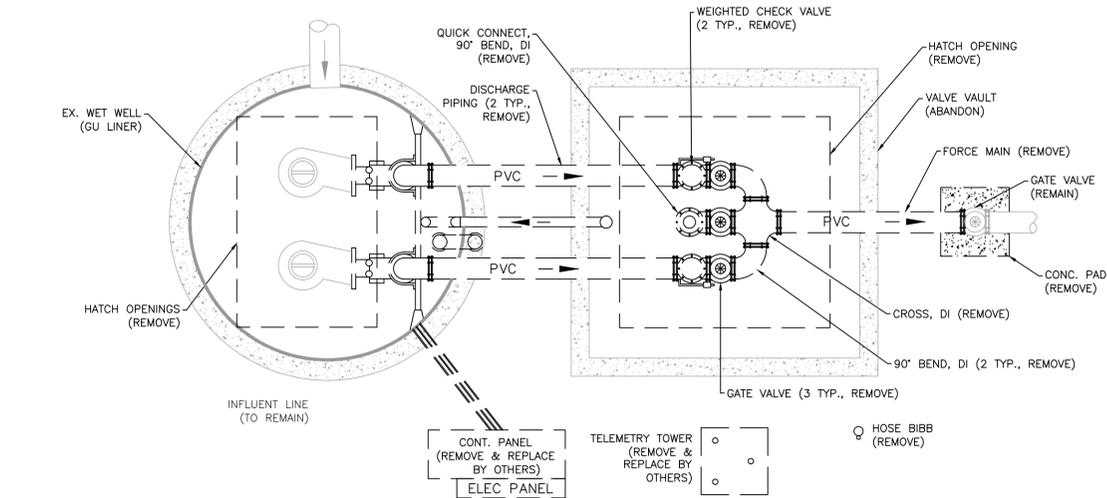
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

PROJECT #	402.5157880
SURVEY #	-
SEC./TWN./RGE	3/35/18
SCALE	N.T.S.
SURVEYED	-
DESIGNED	JSS 08/2020
DRAWN	JSS 08/2020
CHECKED	JSS 09/2020

JOHN S. SHOUIN
LICENSE
No. 60923
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Signature & Date

EXISTING

- NOTES:**
1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
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 6. MANATEE COUNTY GOVERNMENT WILL PROVIDE ONE (1) LIFT STATION SHUT-DOWN AT NO COST TO THE CONTRACTOR. ADDITIONAL SHUT-DOWNS WILL COST THE CONTRACTOR \$3,500 EACH, IF NEEDED.
 7. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
 8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



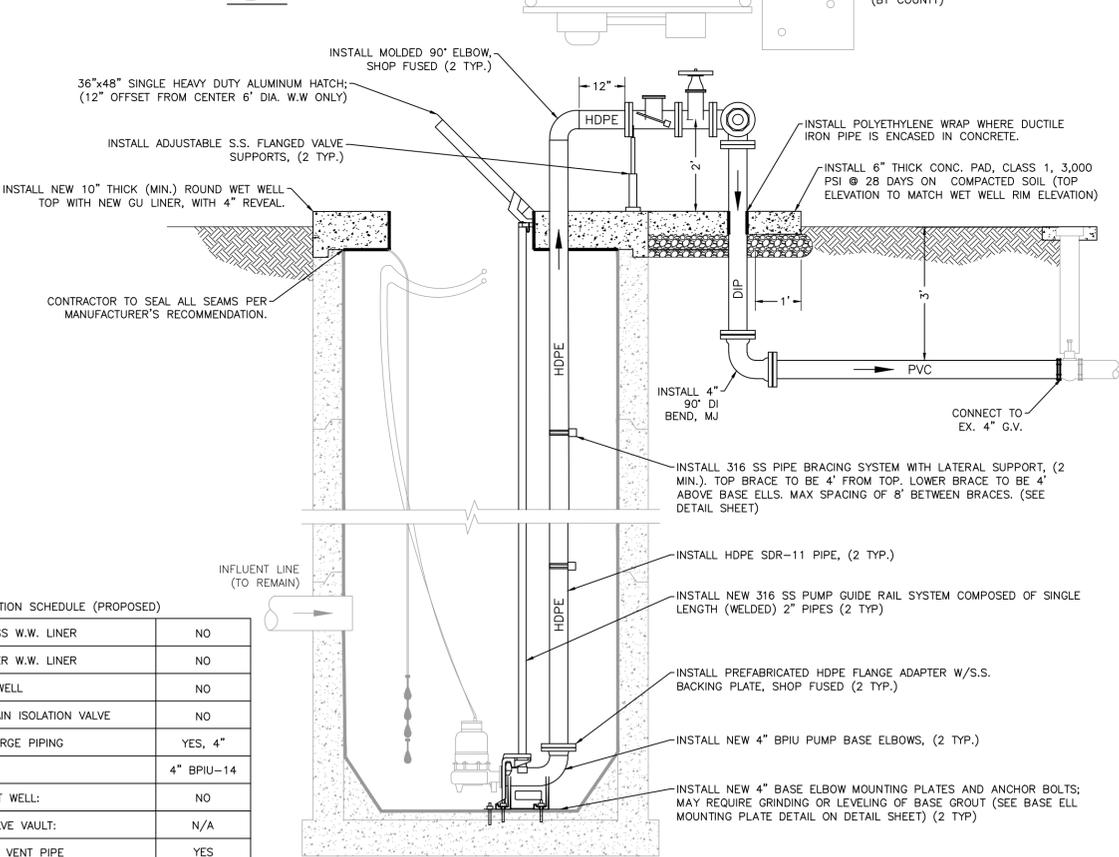
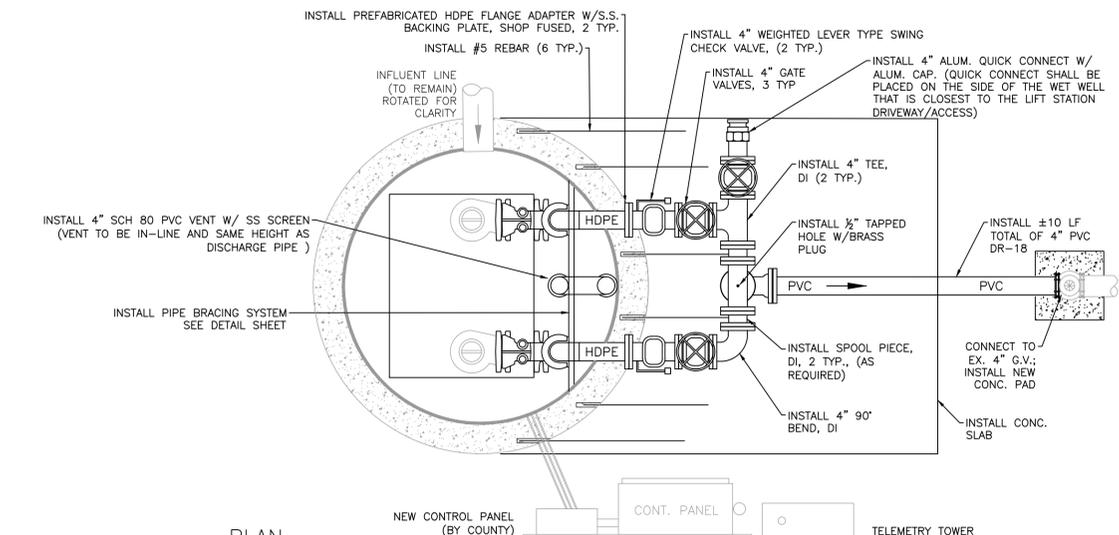
LIFT STATION SCHEDULE (EXISTING)

RADIO TELEMETRY UNIT (RTU)	686
DESIGN CAPACITY GPM/TDH	170/85
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	6"
BOTTOM SLAB ELEVATION	20.91
TOP ELEVATION	51.07
VALVE VAULT HATCH ELEVATION	51.07
INFLUENT INVERT ELEVATION	UNK.
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	4"
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS/PH	230/3
EX. FORCE MAIN TIE	MH

* INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2020) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN.

PROPOSED

- GENERAL NOTES:**
1. CONTRACTOR SHALL NOT BACKFILL OVER THE DISCHARGE PIPING UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE ENGINEER.
 2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS.
 3. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE VAULT EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF H & C SILICONE ACRYLIC CONCRETE STAIN PATIO GREEN, MANUFACTURED BY FLR PAINTS, INC.
 4. ALL EXISTING DUCTILE IRON PIPE AND/OR FITTINGS LABELED TO REMAIN IN THE VALVE VAULT SHALL BE COATED WITH A BITUMINOUS COATING.
 5. COAT THE EXTERIOR AND INTERIOR OF THE VALVE VAULT WALLS WITH TWO (2) COATS OF COAL TAR EPOXY.
 6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



LIFT STATION SCHEDULE (PROPOSED)

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	NO
INSTALL STILLING WELL	NO
INSTALL FORCE MAIN ISOLATION VALVE	NO
NEW HDPE DISCHARGE PIPING	YES, 4"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	NO
RAISE TOP OF VALVE VAULT:	N/A
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY, US-15	NO
UPGRADE / RELOCATE EX. WATER SERVICE ASSEMBLY	YES

- CONSTRUCTION NOTES:**
1. INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE VAULT ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
 2. DAMAGED EXISTING PROTECTIVE LINER(S) AND DETERIORATED WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO REMOVAL AND INSTALLATION OF CONCRETE REPAIR AND/OR INSTALLATION OF NEW PROTECTIVE LINER(S) AND/OR LINER REPAIR.
 3. UPGRADE AND/OR RELOCATE METER, BPA, & HOSE BIBB ASSEMBLY. FIELD THE METER/BPA SHALL BE RELOCATED AS CLOSE AS POSSIBLE TO THE FENCE; HOSE BIBB SHALL BE LOCATED NEAR THE WET WELL. LOCATE ALL ITEMS WITH MANATEE COUNTY PERSONNEL, (±40 LF).
 4. INSTALL WASHED SHELL & WEED BARRIER (±70 SY); GRADE THE AREA AROUND WET WELL TO ALLOW FOR POSITIVE DRAINAGE AWAY FROM LIFT STATION AND TO HAVE A 4" REVEAL ON THE WET WELL/VALVE ASSEMBLY PAD. COORDINATE WITH MANATEE COUNTY PERSONNEL.
 5. THE COUNTY SHALL RETAIN OWNERSHIP OF THE EXISTING VALVE ASSEMBLY AND EXISTING PUMP GUIDE RAILS. CONTRACTOR SHALL SET THESE ITEMS ASIDE AND COORDINATE WITH THE COUNTY FOR PICKUP.

- QUESTIONS:**
1. WATER DISTRIBUTION IS PRIVATE.
 2. SEWER COLLECTION IS PRIVATE.

NO.	REVISION DESCRIPTION	BY	DATE

**SATELLITE LIFT STATION R&R
2021 GROUP 1
COUNTY CLUB EAST 1, RTU 686**



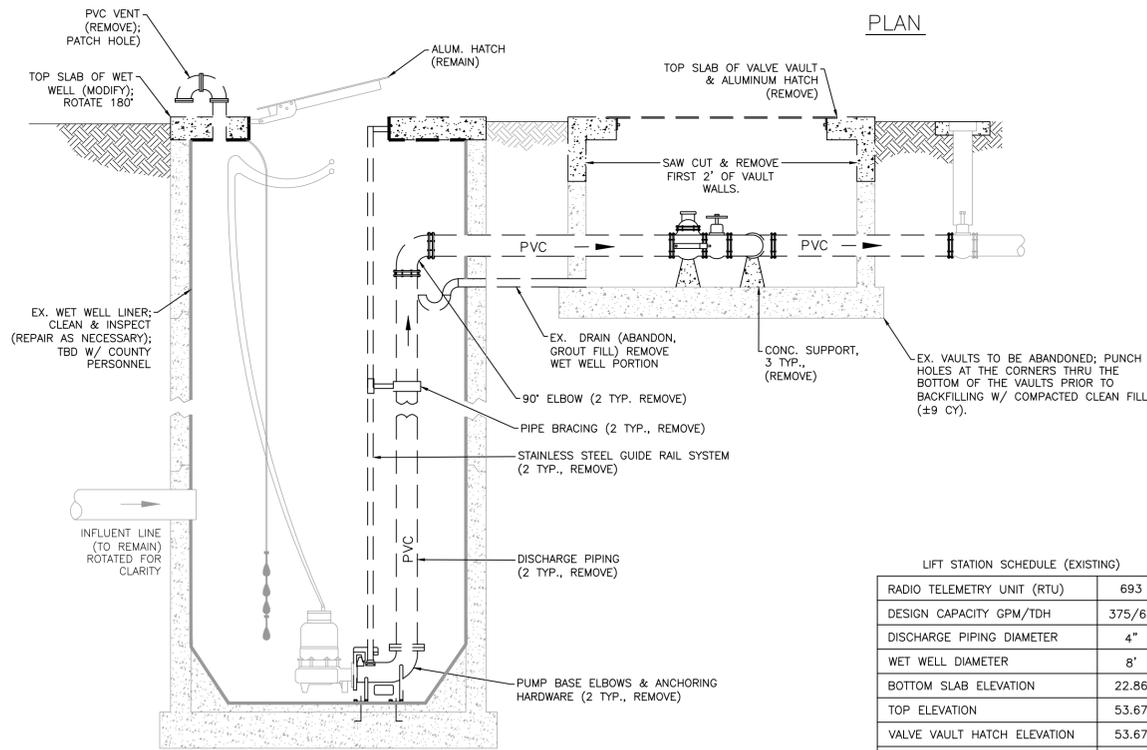
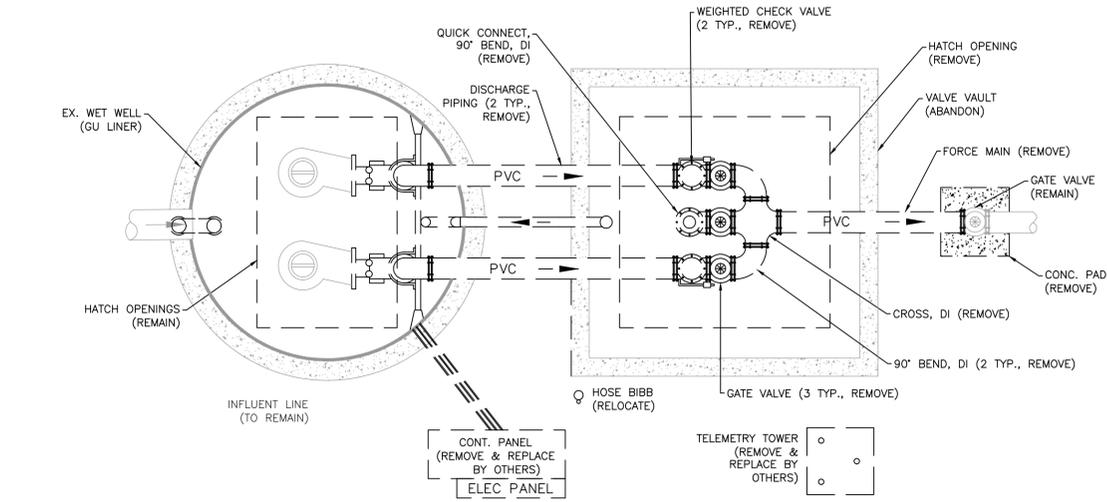
PROJECT #	402.5158180
SURVEY #	-
SEC./TWN./RGE	27/35/19
SCALE	N.T.S.
SURVEYED	-
DESIGNED	JSS 08/2020
DRAWN	JSS 08/2020
CHECKED	JSS 09/2020

JOHN S. SHOUN, P.E.
FLORIDA PROFESSIONAL ENGINEER
LICENSE NO. 60923
No. 60923
STATE OF FLORIDA
10/27/2020
PROFESSIONAL ENGINEER
Signature

EXISTING

NOTES:

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8. THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



EX. 2 PUMP LIFT STATION NTS

ELEVATION

EX. 2 PUMP LIFT STATION NTS

LIFT STATION SCHEDULE (EXISTING)

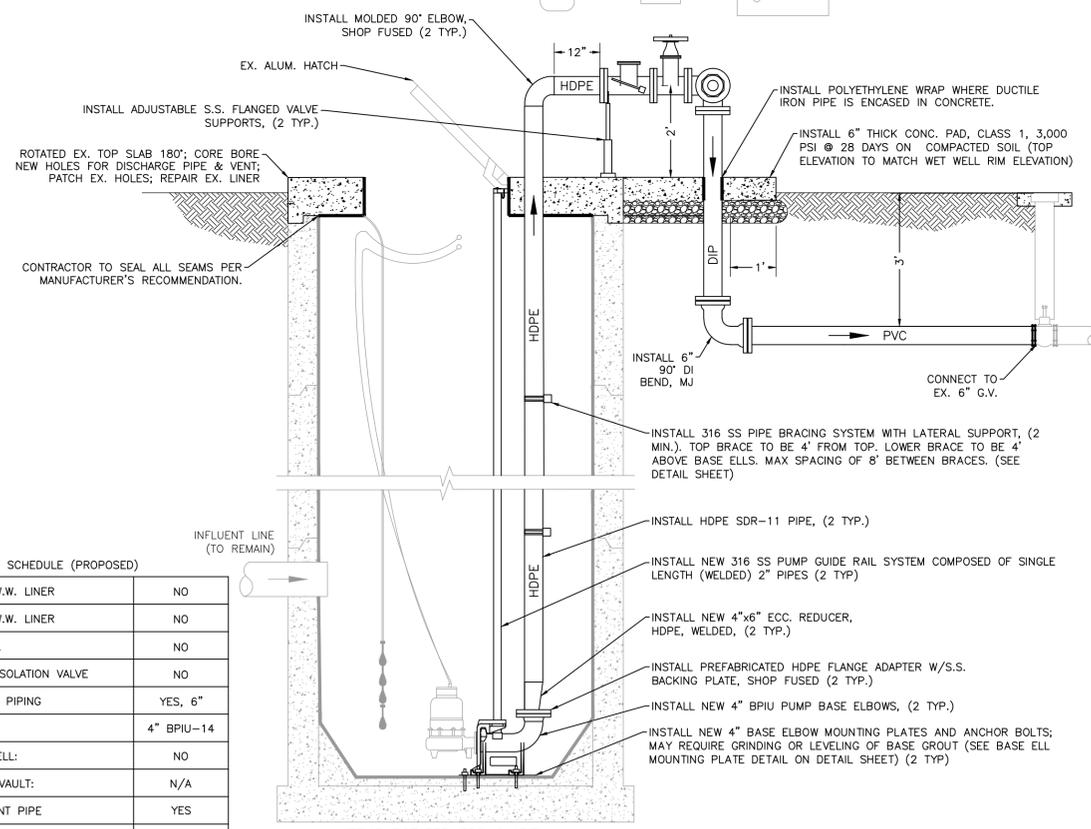
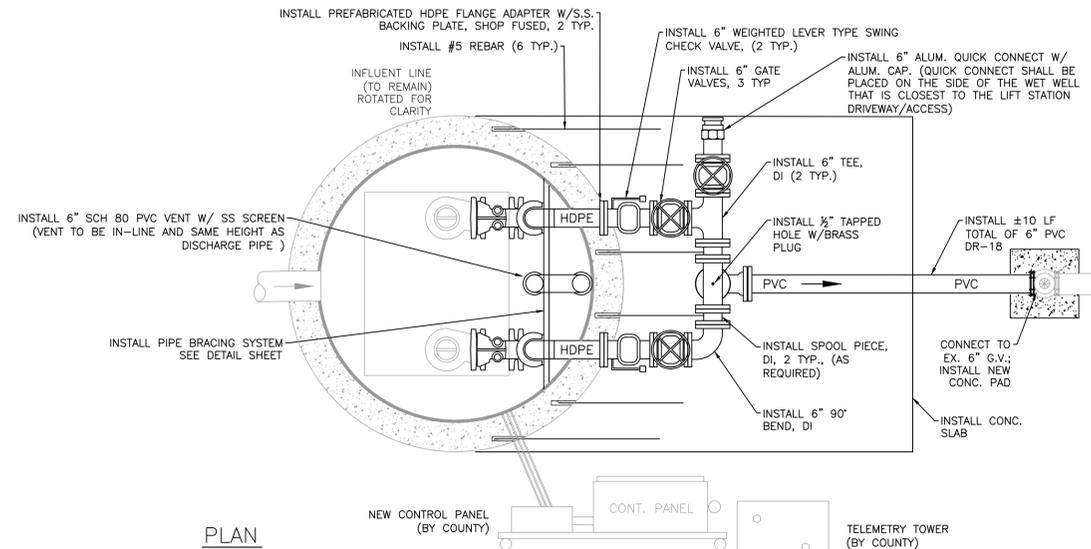
RADIO TELEMETRY UNIT (RTU)	693
DESIGN CAPACITY GPM/TDH	375/63
DISCHARGE PIPING DIAMETER	4"
WET WELL DIAMETER	8'
BOTTOM SLAB ELEVATION	22.86
TOP ELEVATION	53.67
VALVE VAULT HATCH ELEVATION	53.67
INFLUENT INVERT ELEVATION	UKN.
INFLUENT PIPE SIZE	8"
FORCE MAIN DIAMETER	6"
WET WELL VENT PIPE	PVC
ELECT. POWER, VOLTS/PH	230/3
EX. FORCE MAIN TIE	MH

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PROPOSED

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EX. 2 PUMP LIFT STATION NTS

LIFT STATION SCHEDULE (PROPOSED)

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	NO
INSTALL STILLING WELL	NO
INSTALL FORCE MAIN ISOLATION VALVE	NO
NEW HDPE DISCHARGE PIPING	YES, 6"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	NO
RAISE TOP OF VALVE VAULT:	N/A
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY, US-15	NO
UPGRADE / RELOCATE EX. WATER SERVICE ASSEMBLY	YES

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 2. SEWER COLLECTION IS PRIVATE.

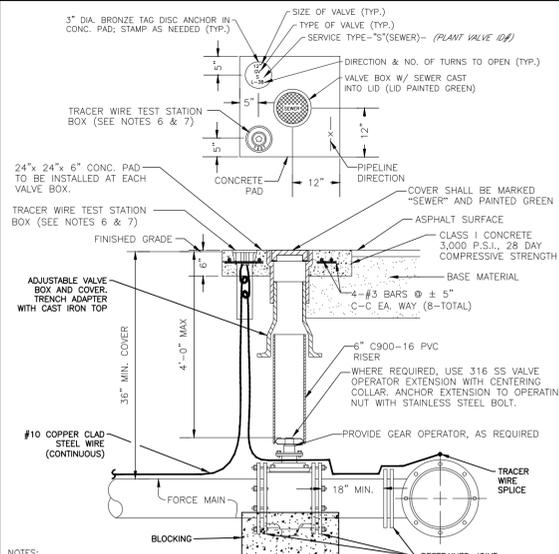
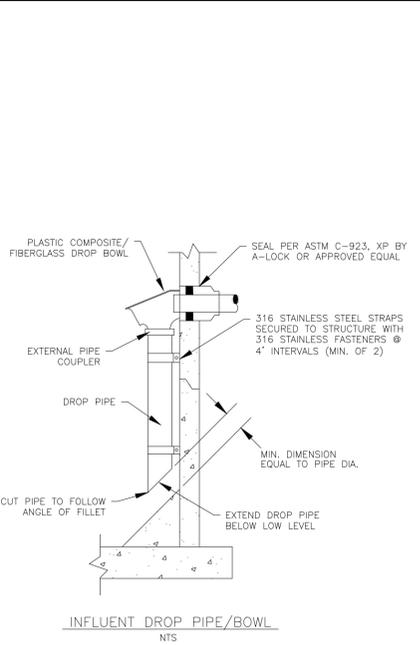
NO.	REVISION DESCRIPTION	BY	DATE

**SATELLITE LIFT STATION R&R
2021 GROUP 1
COUNTRY CLUB EAST 2, RTU 693**



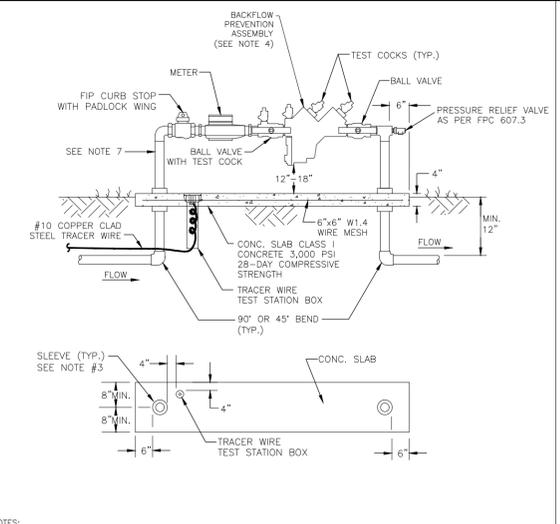
PROJECT #	402.5158280
SURVEY #	-
SEC./TWN./RGE	27/35/19
SCALE	N.T.S.
SURVEYED	-
DESIGNED	JSS 08/2020
DRAWN	JSS 08/2020
CHECKED	JSS 09/2020

JOHN S. SHOUN, P.E.
FLORIDA PROFESSIONAL ENGINEER
No. 60923
10/21/2020
STATE OF FLORIDA



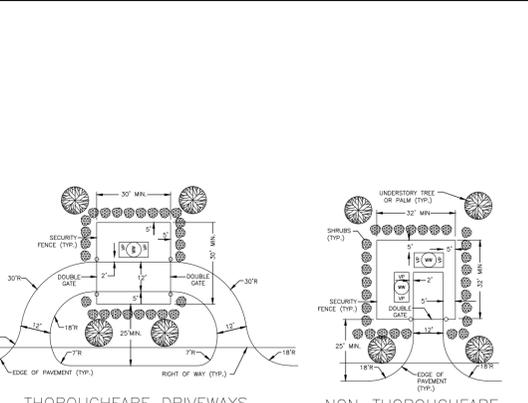
- NOTES:**
- "SV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A GREEN DISC WITH "SV" AND A 1/8" x 1/8" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
 - ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
 - VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS, CURBS OR GUTTERS.
 - PRECAST CONCRETE PADS AND THRUST BLOCKS SHALL NOT BE USED.
 - ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 - USE NON-TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE, WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE TRAFFIC RATED BOXES, WHERE POSSIBLE, LOCATE TRACER WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
 - TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY ON THOROUGHFARES, LOCAL ARTERIAL AND STATE ROADWAYS.
 - THE BRASS TAG SHALL HAVE A "PLANT VALVE ID# WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID# SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.
 - REFER TO SECTION 1.1.1 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		VALVE, BOX, COVER AND TAG	US-11
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



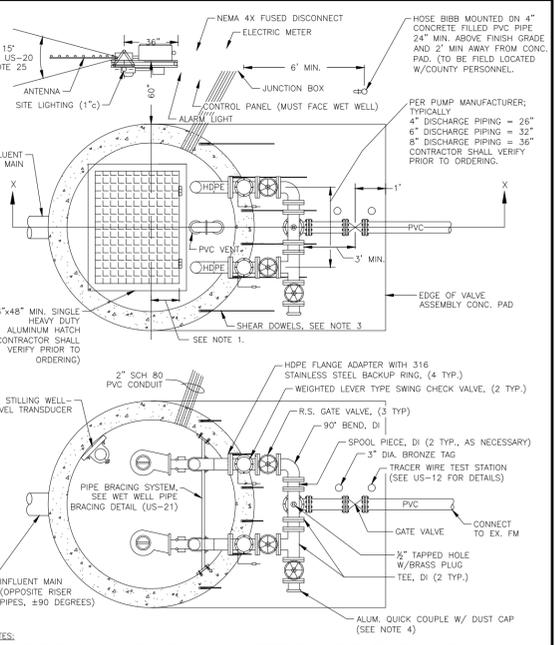
- NOTES:**
- BACKFLOW PREVENTION ASSEMBLY DEVICE MUST BE INSTALLED DOWNSTREAM OF METER, AS CLOSE TO METER AS POSSIBLE.
 - COPPER PIPE TYPE (1/2" OR 1") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
 - PIPES PASSING THROUGH OR ENCASED IN CONCRETE MUST BE PROPERLY PROTECTED AND SLEEVED.
 - THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2-31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES.
 - ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 - BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION.
 - PRESSURE REDUCING VALVE REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI.
 - 3' MIN. CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
 - THE WATER METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE LOCATED AT THE ROW LINE, THE BACKFLOW PREVENTION ASSEMBLY FOR PRIVATE LIFT STATIONS SHALL BE LOCATED ADJACENT TO THE ROW LINE OR WITHIN AN EASEMENT OUTSIDE OF THE FENCING.
 - SATELLITE LIFT STATIONS SHALL HAVE A 5/8-INCH WATER METER, WITH A 3/4-INCH REDUCED PRESSURE (RPZ) BACKFLOW PREVENTION ASSEMBLY, STATIONS WITH WELL DIAMETERS 12 FEET AND LARGER TO HAVE A 2-INCH METER AND RPZ BACKFLOW PREVENTION ASSEMBLY.
 - BACKFLOW PREVENTION ASSEMBLY USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		WATER METER & BACKFLOW PREVENTION ASSEMBLY FOR LIFT STATIONS	US-15
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



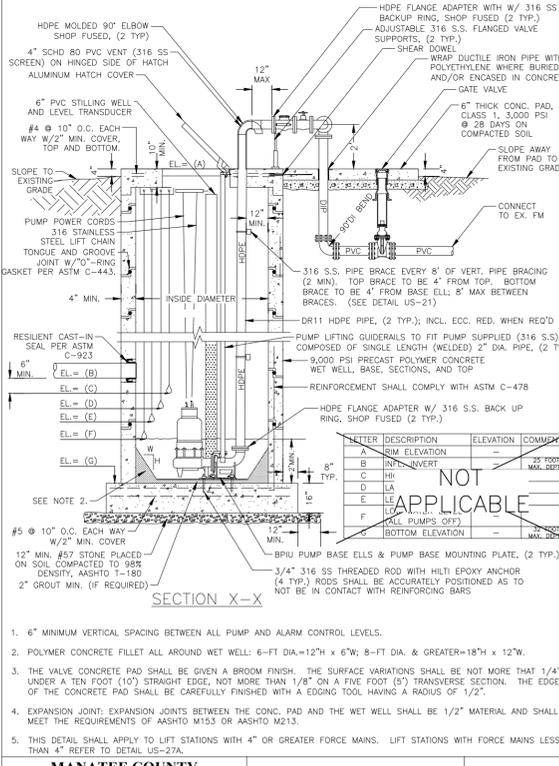
- NOTES:**
- A MINIMUM SETBACK OF 5 FT SHALL BE PROVIDED BETWEEN LIFT STATION STRUCTURES/EQUIPMENT/VALVE ASSEMBLY AND THE FENCE.
 - DRIVEWAY SHALL EXTEND UP TO OR BE EVEN WITH THE FURTHEST POINT OF THE WET WELL OR VALVE PAD.
 - LIFT STATION EASEMENT SHALL EXTEND A MINIMUM OF 15 FT BEYOND ALL FOUR SIDES OF THE LIFT STATION SECURITY FENCE.
 - OPTIONS FOR PLACEMENT OF WW & VALVE ASSEMBLY (IF NEEDED) ARE INDICATED FOR CLARITY.
 - A MINIMUM SETBACK OF 5 FT SHALL BE PROVIDED BETWEEN THE SHRUBS' BASE STEM AND THE LIFT STATION SECURITY FENCE.
 - A MINIMUM SETBACK OF 10 FT SHALL BE PROVIDED BETWEEN THE TRUNK OF SMALL TREES AND THE LIFT STATION SECURITY FENCE.
 - SPECIFIC LANDSCAPING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 1.1.3.11 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR THE ENTIRE LENGTH OF THE DRIVEWAY.
 - DRIVEWAY MATERIAL SHALL BE CONCRETE AND SHALL BE IN ACCORDANCE WITH MANATEE COUNTY HIGHWAY & TRAFFIC STANDARDS MANUAL FOR THE ENTIRE LENGTH OF THE DRIVEWAY.
 - DRIVEWAY WILL BE INSTALLED AT GRADE OF SHELL SURROUNDING WET WELL & VALVE ASSEMBLY.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		MINIMUM ACCESS/EGRESS AND LANDSCAPING REQUIREMENTS FOR LIFT STATIONS	US-16
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



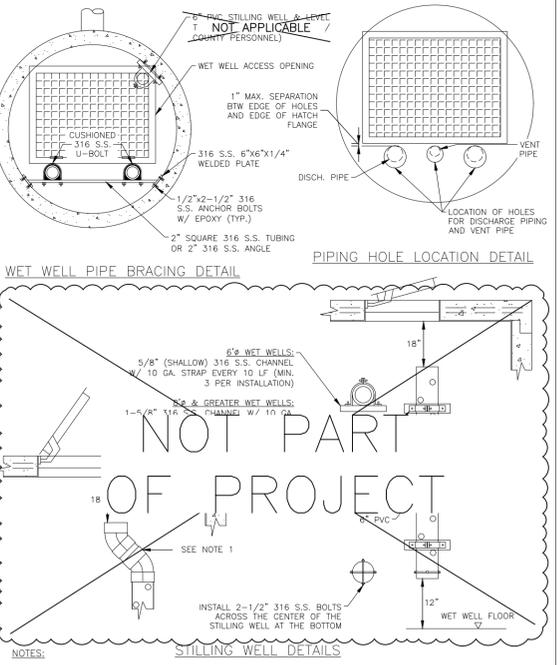
- NOTES:**
- FOR 6" DIA. WET WELLS, THE HINGED SIDE OF THE HATCH OPENING SHALL BE OFFSET 12" FROM CENTERLINE.
 - A FLOW METER SHALL BE INSTALLED UPSTREAM OF ISOLATION GATE VALVE FOR ALL LIFT STATIONS THAT RE-PUMP SEWAGE FROM OTHER LIFT STATIONS.
 - DRIVEWAY SHALL EXTEND UP TO OR BE EVEN WITH THE FURTHEST POINT OF THE WET WELL OR VALVE PAD.
 - LIFT STATION EASEMENT SHALL EXTEND A MINIMUM OF 15 FT BEYOND ALL FOUR SIDES OF THE LIFT STATION SECURITY FENCE.
 - A MINIMUM SETBACK OF 5 FT SHALL BE PROVIDED BETWEEN THE TRUNK OF SMALL TREES AND THE LIFT STATION SECURITY FENCE.
 - A MINIMUM SETBACK OF 10 FT SHALL BE PROVIDED BETWEEN THE TRUNK OF SMALL TREES AND THE LIFT STATION SECURITY FENCE.
 - SPECIFIC LANDSCAPING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 1.1.3.11 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR THE ENTIRE LENGTH OF THE DRIVEWAY.
 - DRIVEWAY MATERIAL SHALL BE CONCRETE AND SHALL BE IN ACCORDANCE WITH MANATEE COUNTY HIGHWAY & TRAFFIC STANDARDS MANUAL FOR THE ENTIRE LENGTH OF THE DRIVEWAY.
 - DRIVEWAY WILL BE INSTALLED AT GRADE OF SHELL SURROUNDING WET WELL & VALVE ASSEMBLY.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE LIFT STATION PLAN VIEW	US-18
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



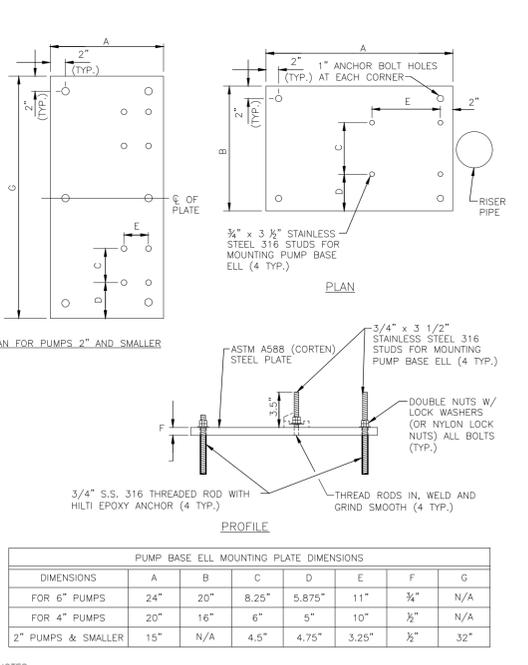
- GENERAL LIFT STATION NOTES:**
- ALL ACCESS COVERS SHALL BE ALUMINUM, WITH 316 STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BUTADIENIC EPOXY, TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS FOR WET WELL, FENCE GATE AND CONTROL PANELS OF PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY THE MANATEE COUNTY UTILITIES DEPARTMENT, UPON ACCEPTANCE.
 - INSTALL WET WELL VENT ON THE HINGED SIDE OF THE WET WELL HATCH COVER, BETWEEN DISCHARGE PIPING AND MATCH HEIGHT.
 - GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND ELEVATION IN ALL DIRECTIONS. A 4-INCH REVEAL SHALL BE PROVIDED AROUND THE STRUCTURES. SITE SHALL INCLUDE A WEED BARRIER FABRIC THAT IS COVERED WITH WASHED SHELL OR ROCK WITHIN 6" OF STATION PERIMETER. WEED BARRIER FABRIC SHALL BE COVERED WITH SHREDDED WOOD TYPE MULCH UNDER THE SHRUBS AND UP TO OUTSIDE OF THE FENCE. WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD TYPE MULCH SHALL BE USED UNDER THE TRUNK OF SMALL TREES AND A MINIMUM DISTANCE OF 3 FEET FROM THE TREE. SODDING OR SHREDDED WOOD-TYPE MULCH SHALL BE INSTALLED ON THE REMAINDER OF THE SITE TO THE EDGE OF THE EASEMENT.
 - ALL FORCE MAIN PIPING AND FITTINGS FROM THE PUMP BASE ELBOW IN THE WET WELL UP TO THE CHECK VALVE IN THE ABOVE GROUND VALVE ASSEMBLY, SHALL BE DR11 HDPE. THE HDPE FITTINGS SHALL BE MOLDED FITTINGS. ALL CONNECTIONS TO IRON BODIED FLANGE FITTINGS IN THE WET WELL (PUMP BASE ELLS) AND TO THE CHECK VALVES SHALL BE MADE USING HDPE FLANGE ADAPTERS WITH 316 STAINLESS STEEL BACKUP RINGS. ALL HDPE CONNECTIONS SHALL BE THERMALLY FUSED. ALL PIPING DOWNSTREAM OF THE VALVE ASSEMBLY TO THE FIRST BURIED FITTING SHALL BE DUCTILE IRON PIPE (CI-55), THEN PVC (DR18).
 - ALL PIPING BELOW GROUND SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS. GREEN-RAW SEWAGE; PURPLE-RECLAIMED; BLUE-POTABLE WATER.
 - ANCHORS & LIFTING DEVICES SHALL NOT PENETRATE THE WALLS OF THE WET WELL.
 - ALL TOP, SECTIONS, AND BASE SHALL BE PRECAST POLYMER CONCRETE, MIN. 8,000 PSI COMPRESSIVE STRENGTH. SEE PRECAST POLYMER CONCRETE SANITARY SEWER MANHOLE FOR TURBULENT FLOW DETAIL.
 - ALL ABOVE-GROUND METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS SHALL BE 316 STAINLESS STEEL. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY.
 - VERTICAL HDPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL BE BRANDED PER DETAIL US-21. THE PIPE SHALL BE CLAMPED TO A SINGLE LENGTH OF 2" 316 SS TUBING (OR 2" 316 SS ANGLE) INSTALLED HORIZONTALLY. THE TUBE SHALL HAVE 6"x6"x1/4" PLATES WELDED TO EACH END AND ATTACH TO THE WALL BY 316 SS ANCHORS. THE PIPE SHALL BE CLAMPED TO THE TUBING WITH 316 SS 1/2" CHANNELS W/ 1/2" BOLTS.
 - CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT FLOTATION.
 - TOP OF WET WELL AND VALVE ASSEMBLY SLAB SHALL BE AT THE SAME ELEVATION.
 - THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE ASSEMBLY PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH AT LEAST TWO COATS OF 100% SILICONE ACRYLIC CONCRETE STAIN, PATIO FINISH, MANUFACTURED BY FLR PAINTS, INC. ABOVE GROUND VALVE ASSEMBLY & PIPING SHALL BE PAINTED, RUSTOLEUM 7538 HINTER GREEN. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID OVER-SPRAY ON TO THE VALVE ASSEMBLY CONCRETE PAD.
 - FOR 5/8" WATER METER, PROVIDE POTABLE WATER SERVICE CONNECTION WITH 3/4" BRASS HOSE BIB. PROVIDE AN APPROVED BACKFLOW PREVENTION ASSEMBLY INSTALLED AT THE ROW. ALL WATER SERVICE PIPING FROM WATER METER TO BE TYPE "C" COPPER OR BRASS; 3/4" MIN. DIAMETER FOR 5/8" METER AND 2" MIN. DIAMETER PIPING FOR 2" METER.
 - LANDSCAPING SHALL BE IRRIGATED WITH NON-POTABLE WATER. A RAIN SENSOR SHALL BE FURNISHED AND INSTALLED.
 - HOSE BIB TO BE A MINIMUM OF 6 FEET FROM THE ELECTRICAL CONTROL PANEL, 24" ABOVE THE SURROUNDING FINISH GRADE, AND ANCHORED TO A 4" PVC CONCRETE FLEED PIPE. EXACT LOCATION TO BE DETERMINED IN THE FIELD W/COUNTY PERSONNEL.
 - WATER METER ASSEMBLY TO BE INSTALLED BY CONTRACTOR AS PART OF WATER SERVICE CONNECTION WITH FEES PAID BY THE DEVELOPER.
 - BASE AND FIRST WALL SECTION OF WET WELL SHALL BE MONOETHIC.
 - EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO CONSTRUCT WATER TIGHT STRUCTURES WITH NO VISIBLE LEAKS. COMPLETED STRUCTURES THAT ARE NOT WATER TIGHT AND/OR DO NOT MEET THE REQUIREMENTS OF ASTM C-443 WILL BE REJECTED.
 - FLEXIBLE GASKET CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM C-923 LATEST REVISION.
 - ALL GATE VALVES SHALL BE RESILIENT SEAT NON-RISING STEM TYPE IN ACCORDANCE WITH THESE STANDARDS.
 - ELECTRICAL SERVICE SHALL BE 3 PHASE MINIMUM, UNLESS THE ELECTRICAL UTILITY PROVIDES CORRESPONDENCE STATING THAT 3 PHASE SERVICE IS UNAVAILABLE.
 - ELECTRICAL CONDUIT SHALL BE RUN BY THE SHORTEST ROUTE POSSIBLE FROM THE ELECTRICAL SOURCE TO THE CONTROL PANEL AND FROM THE CONTROL PANEL TO THE LIFT STATION WET WELL.
 - A FLOW METER AND EMERGENCY BACKUP PUMP SHALL BE REQUIRED FOR ALL LIFT STATIONS THAT MEET THE CRITERIA LISTED IN SECTION 1.1.4.4 OF THE PUBLIC WORKS UTILITY STANDARDS MANUAL.
 - THE CONTROL PANEL, HOSE BIB, EMERGENCY BACKUP PUMP, FUEL STORAGE TANK AND ANTENNA SHALL NOT BE LOCATED BETWEEN THE WET WELL AND VALVE ASSEMBLY AND THE DRIVEWAY. THE PUMP SHALL NOT BE LOCATED WITHIN 25 FEET OF THE EDGE OF THE LIFT STATION EASEMENT AT THE ROW LINE.
 - THE ANTENNA FOR THE RADIO TELEMETRY UNIT REQUIRES DIRECT LINE-OF-SIGHT SIGNALING CAPABILITY TO THE UTILITIES DEPARTMENT'S OFFICE. THAT WILL RECEIVE THE SIGNAL. THERE SHALL BE AN UNOBSTRUCTED HORIZONTAL ANGLE OF FIFTEEN (15) DEGREES FROM THE ANTENNA MAST (7.5 DEGREES ON BOTH SIDES OF THE DIRECT LINE-OF-SIGHT ANGLE). NO TREE SHALL BE PLANTED WITHIN THE DESIGNATED UNOBSTRUCTED ANGLE FOR A TWENTY (20) FEET HORIZONTAL DISTANCE MEASURED FROM THE MAST. LANDSCAPE BUFFER PLANTINGS ARE TO BE FIELD ADJUSTED IN COORDINATION WITH THE LOCATION OF THE CONSTRUCTED TELEMETRY ANTENNA. THE ANTENNA TOWER/MAST SHALL BE TO THE LEFT OF THE CONTROL PANEL.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		LIFT STATION NOTES	US-20
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



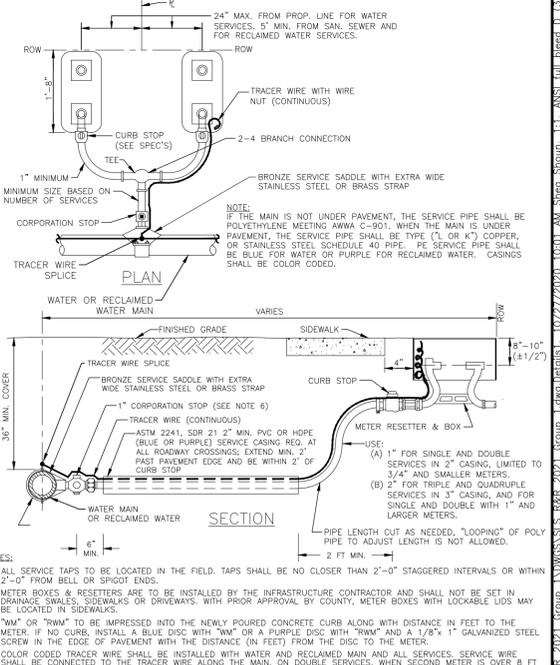
- NOTES:**
- FOR LARGER LIFT STATIONS, PROVISIONS SHALL BE MADE TO MAKE THE TOP OF THE STILLING WELL VISIBLE AND ACCESSIBLE FROM THE HATCH OPENING, I.E. 45° FITTINGS, ETC.
 - REFER TO STANDARD DETAILS US-18, US-19 & US-20 FOR LIFT STATION DETAILS.
 - NYLON LOCK NUTS SHALL NOT BE USED ON WEDGE ANCHORS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		LIFT STATION PIPE BRACING, & STILLING WELL DETAILS	US-21
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL



- NOTES:**
- INSTALL DOUBLE NUTS (OR NYLON LOCK NUTS) ON ALL EIGHT (8) THREADED RODS.
 - THE PLATE EDGES AND ALL HOLES SHALL BE GRIND SMOOTH TO REMOVE ALL BURRS.
 - DIMENSIONS "C" & "E" ARE FOR BARNY'S PUMPS, INC. BASE ELLS.
 - FOR PUMPS WITH A 2-INCH DISCHARGE OR LESS, A SINGLE BASE PLATE SHALL BE INSTALLED UNDER BOTH GRINDER PUMPS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		PUMP BASE ELL MOUNTING PLATE	US-22
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL

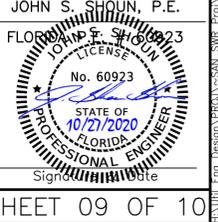


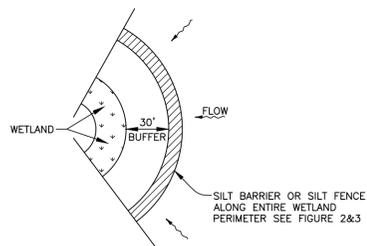
- NOTES:**
- ALL SERVICE TAPS TO BE LOCATED IN THE FIELD. TAPS SHALL BE NO CLOSER THAN 2'-0" STAGGERED INTERVALS OR WITHIN 2'-0" FROM BELL OR SPOOT ENDS.
 - METER BOXES & RESISTERS ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS, WITH PRIOR APPROVAL BY COUNTY. METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.
 - "W" OR "RW" TO BE IMPRESSED INTO THE NEWLY POURED CONCRETE CURB ALONG WITH DISTANCE IN FEET TO THE METER. IF NO CURB, INSTALL A BLUE DISC WITH "W" OR A PURPLE DISC WITH "RW" AND A 1/8" x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE DISTANCE (IN FEET) FROM THE DISC TO THE METER.
 - COLOR CODED TRACER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN ON DOUBLE SERVICES, WHEN SECOND SERVICE IS OVER 8 FT LONG, TWO TRACER WIRES SHALL BE INSTALLED, ONE FOR EACH METER.
 - WATER AND RECLAIMED WATER SERVICE LINES TO BE 5" MINIMUM FROM SEWER SERVICE PIPES.
 - FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE GATE VALVE W/BOX, LID & TAG.
 - WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE ROW IS ONE FOOT (CUL-DE-SAC W/MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW.
 - TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UW-19.
 - SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TYPICAL SERVICE CONNECTION	UW-21
REV. BY	DATE	February 25, 2020	DATE OF APPROVAL

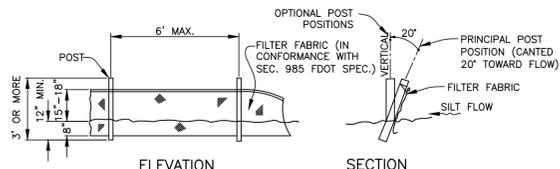
NO.	REVISION DESCRIPTION	BY	DATE	PROJECT #	402-0019707	DESIGNED	JSS	DATE	08/2020	DRAWN	JSS	DATE	08/2020	CHECKED	JSS	DATE	09/2020	SHEET	09 OF 10
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SATELLITE LIFT STATION R&R 2021 GROUP 1 DETAILS1



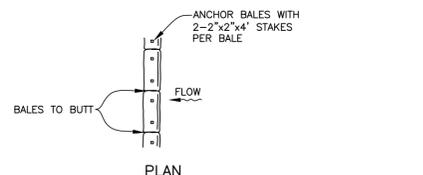


WETLAND BUFFER
FIGURE 1

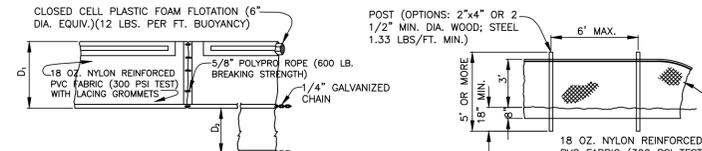


TYPICAL SILT FENCE
FIGURE 2

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).



TYPICAL BALE SILT BARRIER
FIGURE 3

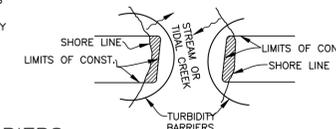


FLOATING TURBIDITY BARRIERS

STAKED TURBIDITY BARRIER

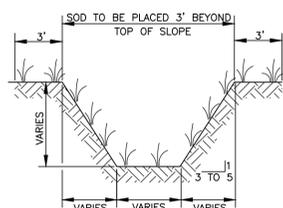
D₁ = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). D₂ = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5'). CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

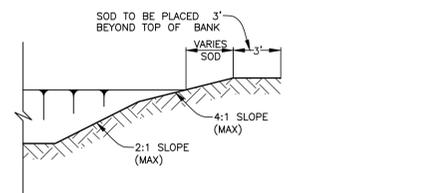


TURBIDITY BARRIERS

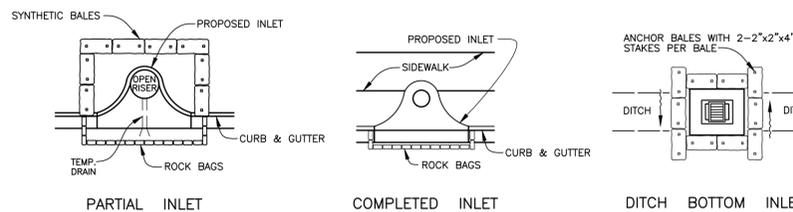
FIGURE 4



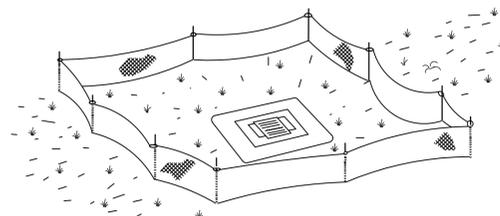
TYPICAL SWALE SECTION
FIGURE 5



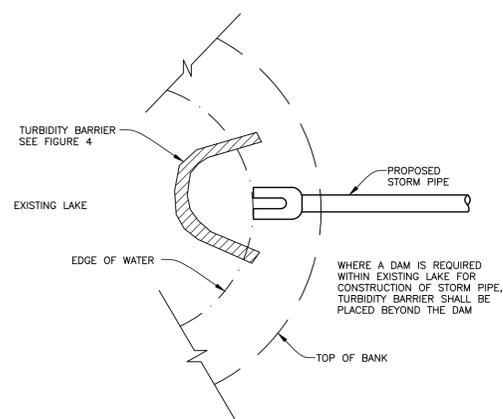
TYPICAL RETENTION/DETENTION POND SECTION
FIGURE 6



SYNTHETIC BALE PROTECTION AROUND
INLETS OR SIMILAR STRUCTURES
FIGURE 7

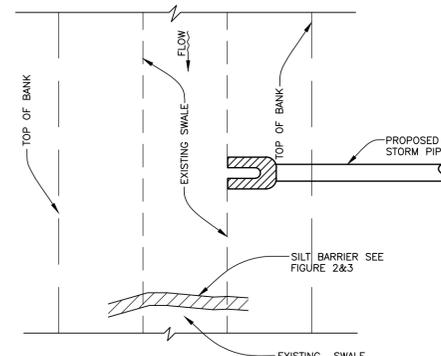


TYPE III SILT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS
STAKED SILT BARRIER OR SILT FENCE
PROTECTION AROUND DITCH BOTTOM INLETS
FIGURE 8

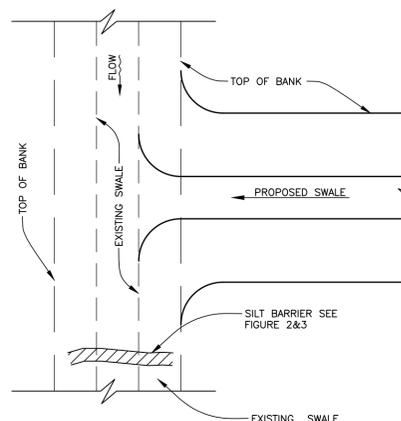


TURBIDITY BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING LAKE
FIGURE 9

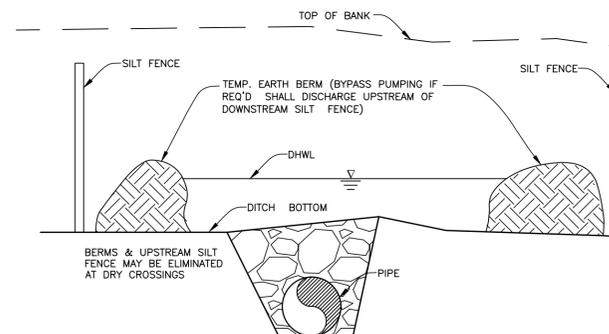
WHERE A DAM IS REQUIRED WITHIN EXISTING LAKE FOR CONSTRUCTION OF STORM PIPE, TURBIDITY BARRIER SHALL BE PLACED BEYOND THE DAM



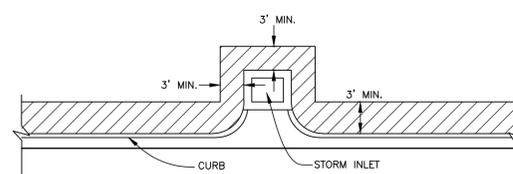
SILT BARRIER AT CONNECTION OF
STORM PIPE TO EXISTING SWALE
FIGURE 10



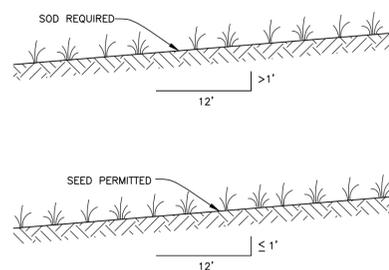
SILT BARRIER AT CONNECTION
OF SWALE TO EXISTING SWALE
FIGURE 11



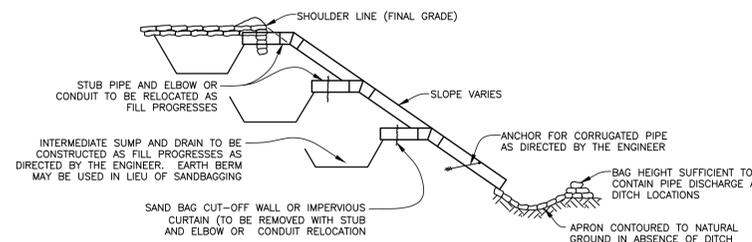
UNDERGROUND PIPE CROSSING
FIGURE 12



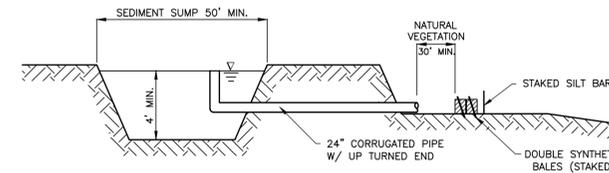
SOD ALONG CURB
AND AROUND INLET
FIGURE 14



GRASS SLOPES
FIGURE 13



SECTION AA
TEMPORARY SLOPE DRAIN
FIGURE 15



SEDIMENT SUMP SECTION
FIGURE 16

NOTE:
REFERENCE THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL, LATEST EDITION, FOR ALL TEMPORARY EROSION CONTROL MEASURES

NO.	REVISION DESCRIPTION	BY	DATE

SATELLITE LIFT STATION R&R
2021 GROUP 1
EROSION CONTROL



PROJECT #	402-0019707
SURVEY #	-
SEC./TWN./RGE	VARIES
SCALE	N.T.S.
SURVEYED	-
DESIGNED	JSS 08/2020
DRAWN	JSS 08/2020
CHECKED	JSS 09/2020

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