



# SATELLITE LIFT STATION R&R

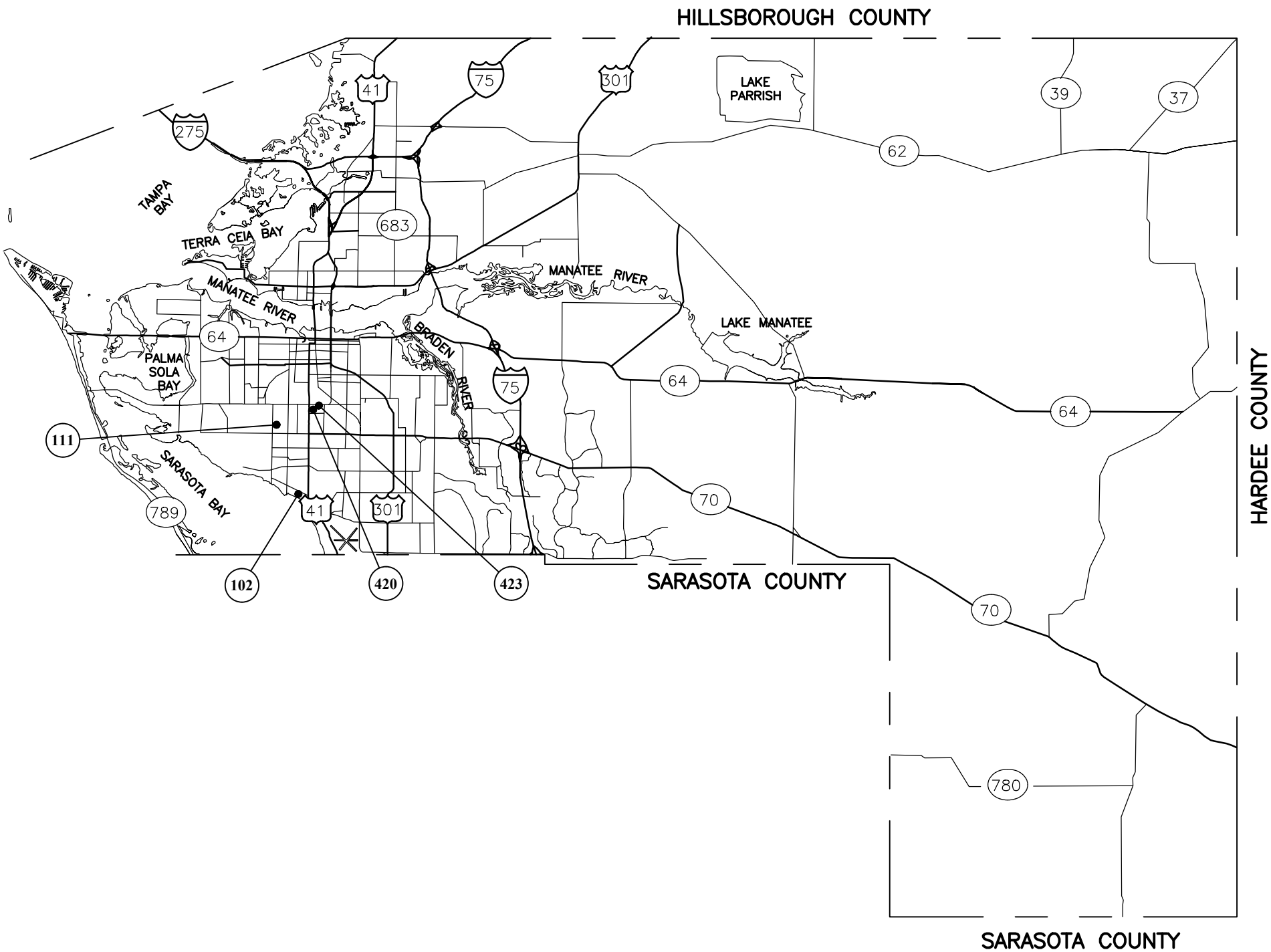
## 2023 GROUP 2

### 402-0019707 / 5001301

June 2023

BID PLANS

| L.S. NAME            | RTU | ADDRESS                         | PROJECT JL NO. | INFLUENT MH |
|----------------------|-----|---------------------------------|----------------|-------------|
| BAY DRIVE            | 102 | 2906 BAY DR., BRADENTON         | 402-5120481    | PUBLIC      |
| VICTORIA SQUARE EAST | 111 | 3421 51ST AVE DR. W., BRADENTON | 402-5120484    | PUBLIC      |
| CORTEZ PLAZA 2       | 420 | 1201 CORTEZ RD. W., BRADENTON   | 402-5120483    | PUBLIC      |
| CORTEZ PLAZA 5       | 423 | 697 CORTEZ RD. W., BRADENTON    | 402-5120482    | PUBLIC      |



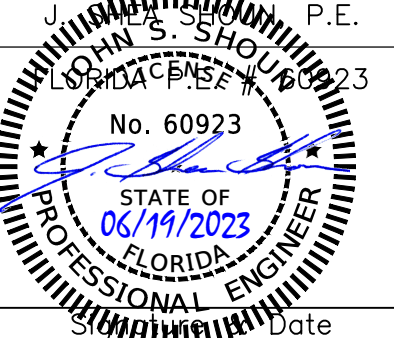
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#### PROJECT DESCRIPTION

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, UPGRADE OR FULL REPLACEMENT OF THE ELECTRICAL CONTROL EQUIPMENT, 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.



Know what's below  
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| NO.   | DATE                  | BY     | REVISION DESCRIPTION |
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| PROJECT #   | 402-0019707 / 5001301 |        |                      |
| SURVEY #  | NA                    |        |                      |
| SEC./TWN./RGE   | VARIES                |        |                      |
| SCALE   | N.T.S.                |        |                      |
|   | BY                    | DATE   |                      |
| SURVEYED  | NA                    | NA     |                      |
| DESIGNED  | JSS                   | 4/2023 |                      |
| DRAWN   | JKW                   | 4/2023 |                      |
| CHECKED   | JSS                   | -      |                      |
|  |                       |        |                      |
| SHEET 01 OF 11  |                       |        |                      |



## 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 ALLEVATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

## ENVIRONMENTAL

3. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN 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, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THESE 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 BARRIERS, 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 DICES 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**
1. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
  2. 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. ALL EXISTING FACILITIES IN THE PROJECT AREA SHALL REMAIN OPERATIONAL AND ACCESSIBLE BY COUNTY PERSONNEL AT ALL TIMES, I.E. VALVES, MANHOLE COVERS, ETC.
30. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY AFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
31. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER/RECLAIM/SEWER LINES, STORM DRAINS, OTHER 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 RE-INSTALL ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE COUNTY. ALL EXISTING AND PROPOSED VALVE COVERS, RIMS, ETC, SHALL BE BROUGHT TO FINAL GRADE OF THE PROJECT AREA.
32. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED, OR OFFERED BY AN EXISTING UTILITY, (I.E. FLORIDA POWER AND LIGHT) BEFORE UNDERGOING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ANY RELATED COSTS.
33. 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.
34. 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.

35. 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:
- SWIMMING POOL
  - IN-GROUND IRRIGATION SYSTEM OR UNDERGROUND SPRINKLERS,
  - SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),
  - PROPERTY THAT ABUTS A BODY OF WATER, INCLUDING RIVER, BAY, LAKE OR POND ON THE PROPERTY OR BORDERING THE PROPERTY,
  - FLOOD ZONE DESIGNATION, (IF ONLY FLOOD ZONE, INSTALL A DOUBLE CHECK BPA),
  - SOLAR WATER HEATING SYSTEM,
  - COMMERCIAL, INDUSTRIAL, MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY,
  - CROSS CONNECTION IS FOUND,
  - FOUNTAIN WITH A DEDICATED FILL PIPE,
  - FIRE SPRINKLER SYSTEM.
- B. A LICENSED PLUMBER SHALL INSTALL THE BPA'S IN ACCORDANCE WITH THE CURRENT FLORIDA PLUMBING CODE AND MANATEE COUNTY CODE OF ORDINANCES. IF A SMALLER PRESSURE RELIEF VALVE WITH AN APPROPRIATE PRESET SET POINT IS PROVIDED BY THE CUSTOMER'S 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 REDUCED PRESSURE (RP) BPA SHALL BE INSTALLED AT THE POINT OF CONNECTION.
- D. ALL BPA SHALL BE INSTALLED 4-5 FEET FROM THE EDGE OF DRIVEWAYS OR ANY OTHER ITEMS/FEATURES THE BPA MAY CREATE AN OBSTRUCTION.
- E. VACUUM BREAKERS SHALL BE INSTALLED ON ALL EXTERNAL HOSE BIBBS.
- F. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED. CROSS CONNECTION STAFF SHALL DETERMINE WHICH PROPERTIES REQUIRE A BPA AND TYPE OF BPA 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 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATION.
38. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE MANATEE COUNTY PUBLIC WORKS STANDARDS PART 1 HIGHWAY & TRAFFIC STANDARDS MANUAL DATED JUNE 2018, SECTION 3.7 DRIVEWAYS AND SECTION 3.8 SIDEWALKS AND/OR THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN AND THE F.D.O.T. DESIGN STANDARD. CONCRETE WITH A 3,000 PSI @ 28 DAYS SHALL BE USED.
39. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE THERE IS NO PASS, THE CONTRACTOR SHALL PLACE A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING. LIME ROCK BASE SHALL COME FROM AN APPROVED FOOT PIT.
40. ALL EXISTING SIGNING, THERMOPLASTIC PAVEMENT MARKINGS, ETC... SHALL BE RESTORED/PROVIDED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MUTCD, FDOT DESIGN STANDARDS AND THE MANATEE COUNTY PUBLIC WORKS DEPARTMENT HIGHWAY, TRAFFIC AND STORMWATER STANDARDS, AND/OR AS DIRECTED BY THE COUNTY.
41. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST. RESTORATION EFFORTS SHALL BE INCLUDED IN THE PROJECT SCHEDULING AND PHASING PLAN TO DEMONSTRATE HOW THE RESTORATION WILL BE ACHIEVED.

## CONSTRUCTION

42. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFLES POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
43. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEEPED DAILY AS PART OF DAILY CLEAN UP.
44. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
45. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES.
46. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
47. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
48. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD.
49. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
50. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
51. 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.
52. 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.
53. 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.
54. 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.
55. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.
56. 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.
57. 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 CONTRACT WORKERS ASSOCIATION WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE, BRADENTON HERALD, MANATEE COUNTY HERALD, SARASOTA HERALD TRIBUNE, WBFD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
58. 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 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.
59. 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.
60. 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.
61. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
62. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.15 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 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 1.15 CAN BE PROVIDED UPON REQUEST.
63. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED MAINS 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 ON DEMAND. THE CONTRACTOR SHALL PROVIDE THE LOCATION OF THE HORIZONTAL AND VERTICAL INSTALLED LOCATION OF ALL NEW PIPELINE FITTINGS, VALVES AND 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.

EXISTING UTILITY LOCATIONS

64. 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
  - LEVEL "D" -EXISTING RECORDS OR GIS
- REFERENCE 2010 EDITION OF FDOT UTILITY ACCOMMODATION MANUAL (UAM)

### MAINTENANCE OF TRAFFIC

59. 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.
66. 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.
67. 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.
68. 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.
69. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.
70. 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.
71. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.
72. 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.
73. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.
74. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.
75. 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.
76. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER FDOT STANDARD INDEX 600.
77. 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.

|      |  | EXISTING                 |  | LEGEND               |  | ABBREVIATIONS |                  |
|------|--|--------------------------|--|----------------------|--|---------------|------------------|
| CM   |  | BENCH MARK               |  | BUSH                 |  |               |                  |
|      |  | CONCRETE MONUMENT        |  | TREE                 |  |               |                  |
|      |  | IRON PIPE                |  | OAK TREE             |  | R/W           | RIGHT OF WAY     |
|      |  | IRON ROD                 |  | PALM TREE            |  | CONC          | CONCRETE         |
|      |  | HUB                      |  | PINE TREE            |  | ASPH          | ASPHALT          |
| PP   |  | NAIL & DISK              |  |                      |  | DRWAY         | DRIVEWAY         |
|      |  | ELEVATION                |  |                      |  | SWK           | SIDEWALK         |
|      |  | PARCEL ID NO.            |  |                      |  | EP            | EDGE OF PAVEMENT |
|      |  | PARCEL ID NO.            |  |                      |  | BOC           | BACK OF CURB     |
|      |  | LOT NO.                  |  |                      |  |               | FLOW ARROW       |
| REF  |  | GUY WIRE                 |  | CHAIN LINK FENCE     |  |               |                  |
|      |  | POWER POLE               |  | WOOD FENCE           |  |               |                  |
|      |  | LIGHT POLE               |  | BARBED WIRE FENCE    |  |               |                  |
|      |  | MAIL BOX                 |  | FORCE MAIN           |  |               |                  |
|      |  | SIGN                     |  | POTABLE WATER        |  |               |                  |
| FH   |  | REFLECTOR                |  | RECLAIMED WATER      |  |               |                  |
|      |  | SPRINKLER                |  | SANITARY SEWER       |  |               |                  |
|      |  | GAS MARKER               |  | STORM DRAIN          |  |               |                  |
|      |  | BACKFLOW PREVENTER       |  | GAS LINE             |  |               |                  |
|      |  | BLOW OFF VALVE           |  | OVERHEAD CHARTER     |  |               |                  |
| WV   |  | FIRE HYDRANT             |  | UNDERGROUND CHARTER  |  |               |                  |
|      |  | WATER VALVE              |  | OVERHEAD ELECTRIC    |  |               |                  |
|      |  | AIR RELEASE VALVE        |  | UNDERGROUND ELECTRIC |  |               |                  |
|      |  | WATER METER              |  | OVERHEAD FRONTIER    |  |               |                  |
|      |  | SANITARY SEWER MANHOLE   |  | UNDERGROUND FRONTIER |  |               |                  |
| WM   |  | SANITARY SEWER CLEAN OUT |  | UNDERGROUND PRECO    |  |               |                  |
|      |  | SOIL BORING LOCATION     |  | UNDERGROUND FPL      |  |               |                  |
|      |  | TELEPHONE SERVICE BOX    |  | OVERHEAD UTILITY     |  |               |                  |
|      |  | UTILITY BOX              |  | RAIL ROAD TRACKS     |  |               |                  |
|      |  | UTILITY RISER            |  | EDGE OF CONCRETE     |  |               |                  |
| SB#1 |  | FLOW DIRECTION           |  | EDGE OF ROAD         |  |               |                  |
|      |  | GRATE INLET              |  | TOE OF SLOPE         |  |               |                  |
|      |  | MITERED END SECTION      |  | TOP OF BANK          |  |               |                  |
|      |  | STORM SEWER MANHOLE      |  | PROPERTY LINE        |  |               |                  |
|      |  | RIGHT OF WAY             |  | RIGHT OF WAY         |  |               |                  |

## EMERGENCY CONTACTS

MANATEE COUNTY PUBLIC  
WORKS DEPT.  
1022 26TH AVENUE EAST  
BRADENTON, FL. 34208  
JIM RENNEBERG, P.E.  
(941) 708-7450 EXT. 7220  
FAX: (941) 708-7415

FRONTIER  
1701 RINGLING BLVD.  
SARASOTA, FL. 34236  
JOHN PLOTT  
(941) 906-6707  
FAX: (941) 906-6706  
John.Plott@ftr.com

SOUTHWEST FLORIDA WATER  
MANAGEMENT DISTRICT SARASOTA  
SERVICE OFFICE  
STEVE LOPES  
6750 FRUITVILLE ROAD  
SARASOTA, FL. 34240  
(941) 377-3722  
FAX: (941) 373-7660

DEPARTMENT OF ENVIRONMENTAL  
PROTECTION  
13051 N. TELECOM PKWY  
TEMPLE TERRACE, FL 33637  
ED WATSON  
PHONE: (813) 470-5875  
FAX: (813) 470-5993

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

FLORIDA POWER & LIGHT  
1253 12TH AVENUE EAST  
PALMETTO, FL 34221  
TODD BOLKEMA  
(941) 927-4262  
EMERGENCY: 1-800-4  
TODD.BOLKEMA@FPL.COM

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

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

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

ATMS  
2101 47TH TERRACE EAST  
BRADENTON, FL 34203  
VISHAL KAKKAD, P.E.  
(941) 749-3500 EXT. 7812  
FAX: (941) 749-3571  
vishal.kakkad@mvmantee.org

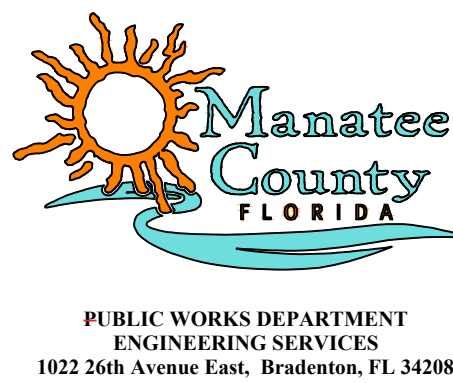
MANATEE COUNTY HEALTH DEPT  
410 6th AVENUE EAST  
BRADENTON, FL. 34208  
(941) 748-0747 EXT. 1355  
FAX: (941) 750-9364


PEACE RIVER ELECTRIC  
COOPERATIVE, INC.  
P.O. BOX 1310  
WACHULA, FL 33873  
KENDELL COKER  
(863) 767-4660  
kendell.coker@preco.coop

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

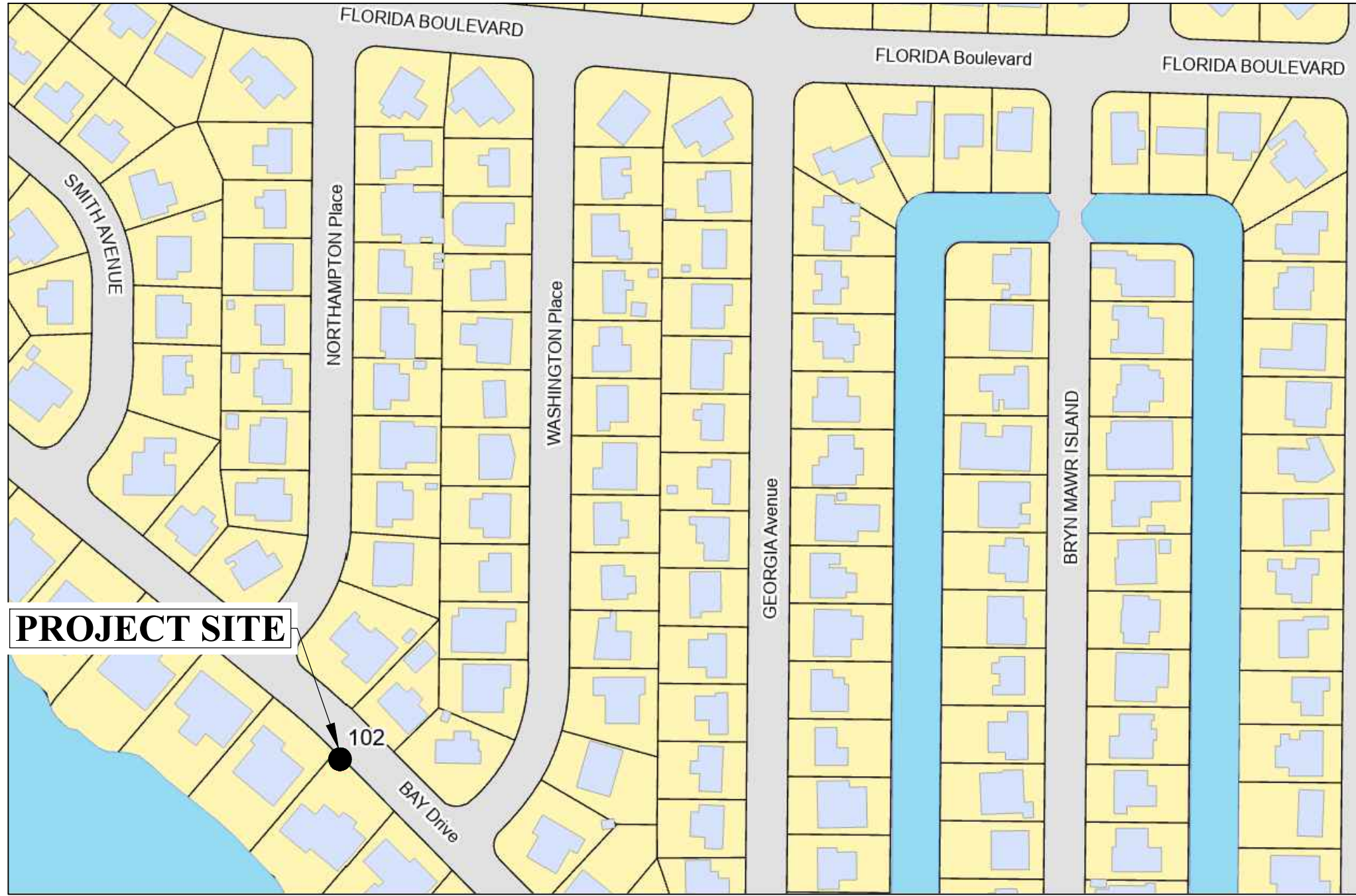
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**SATELLITE LIFT STATION R&R**  
**2023 GROUP 2**  
**GENERAL NOTES**



|               |     |                       |  |   |  |
|---------------|-----|-----------------------|--|---|--|
| PROJECT #     |     | 402-0019707 / 5001301 |  | J. SHEA SHOUN, P.E.   |  |
| SURVEY #      |     | NA                    |  |  |  |
| SEC./TWN./RGE |     | VARIES                |  |   |  |
| SCALE         |     | N.T.S.                |  |   |  |
|               | BY  | DATE                  |  |   |  |
| SURVEYED      | NA  | NA                    |  |   |  |
| DESIGNED      | JSS | 4/2/2023              |  |   |  |
| DRAWN         | JKW | 4/2/2023              |  |   |  |
| CHECKED       | JSS | -                     |  |   |  |
|               |     |                       |  | Date  |  |
| SHEET 02 OF 1 |     |                       |  |   |  |

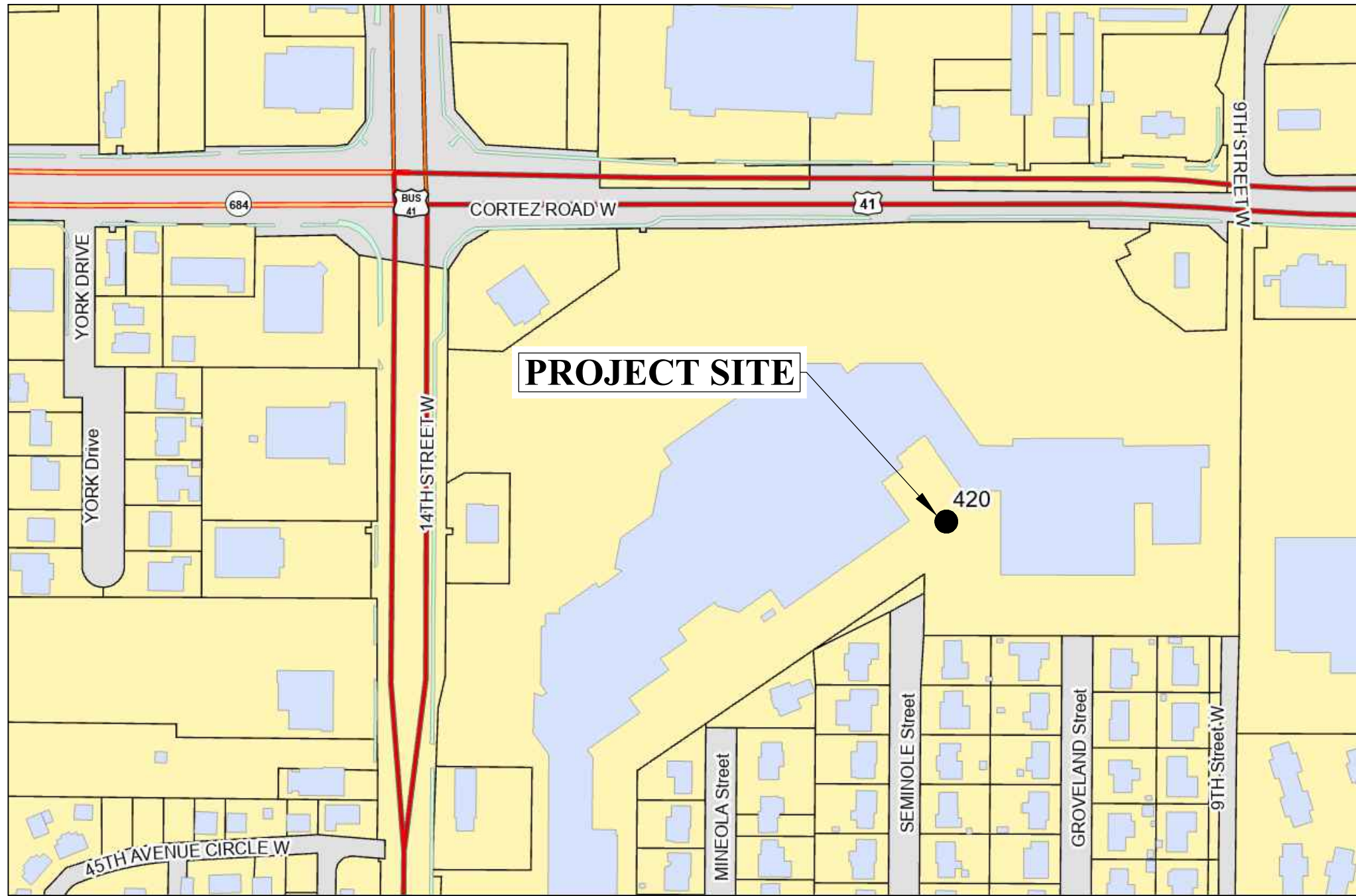




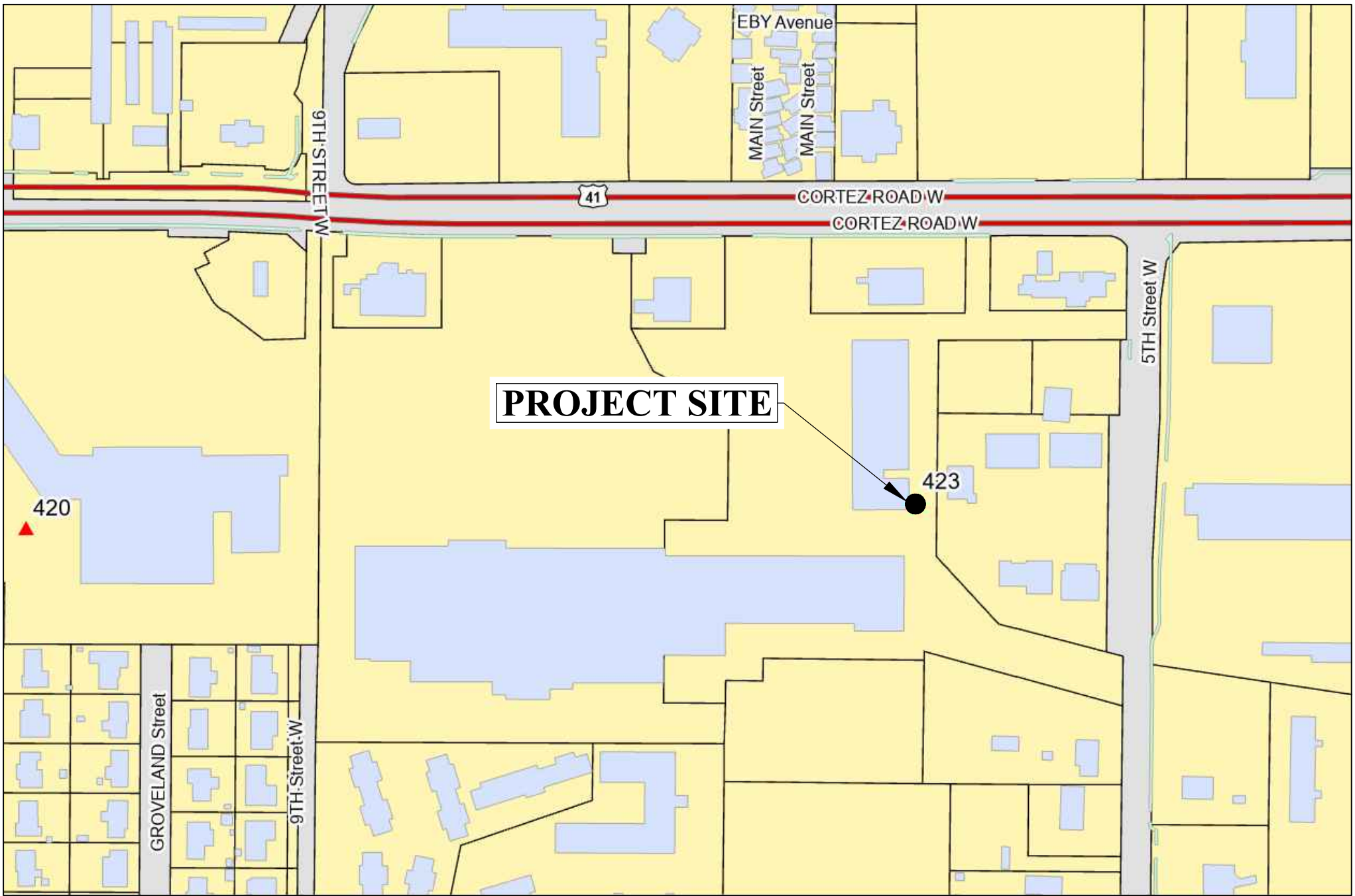
BAY DRIVE, RTU 102  
2906 BAY DRIVE, BRADENTON  
LAT: 27.420604° N  
LONG: -82.591661° W



VICTORIA SQUARE EAST, RTU 111,  
3421 51ST AVE. DR. W., BRADENTON  
LAT: 27.451008° N  
LONG: -82.593954° W



CORTEZ PLAZA-2, RTU 420,  
1201 CORTEZ RD. W, BRADENTON  
LAT: 27.46091° N  
LONG: -82.57269° W



CORTEZ PLAZA 5, RTU 423,  
697 CORTEZ RD. W. BRADENTON  
LAT: 27.461072° N  
LONG: -82.568233° W

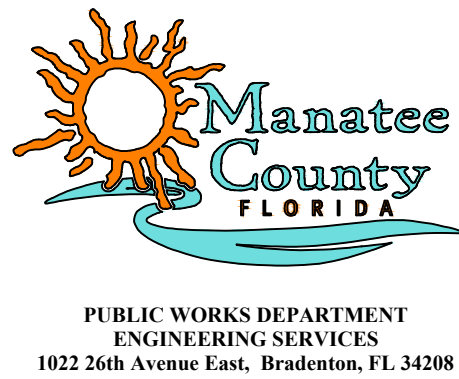
- NOTE(S):
1. LIFT STATION SITE VISITS MAY BE COORDINATED WITH ERIK GIBSON, 941-792-8811 x5377.
  2. DATA ON THE COUNTY'S UTILITY INFRASTRUCTURE MAY BE RESEARCHED AND VIEWED BY UTILIZING THE PUBLIC ACCESS TO THE COUNTY'S GIS SYSTEM. USE AN INTERNET BROWSER AND ENTER THE FOLLOWING URL, "https://www.mymanatee.org/gisapps/mobile/index.html?type=utilities-public".

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SATELLITE LIFT STATION R&R

2023 GROUP 2

VICINITY MAPS



|               |                       |
|---------------|-----------------------|
| PROJECT #     | 402-0019707 / 5001301 |
| SURVEY #      | NA                    |
| SEC./TWN./RGE | VARIES                |
| SCALE         | N.T.S.                |
| SURVEYED      | BY NA DATE NA         |
| DESIGNED      | JSS 4/2023            |
| DRAWN         | JKW 4/2023            |
| CHECKED       | JSS -                 |

J. SHEA SHOUN, P.E.

FLORIDA PROFESSIONAL ENGINEER

No. 60923

STATE OF FLORIDA

06/19/2023

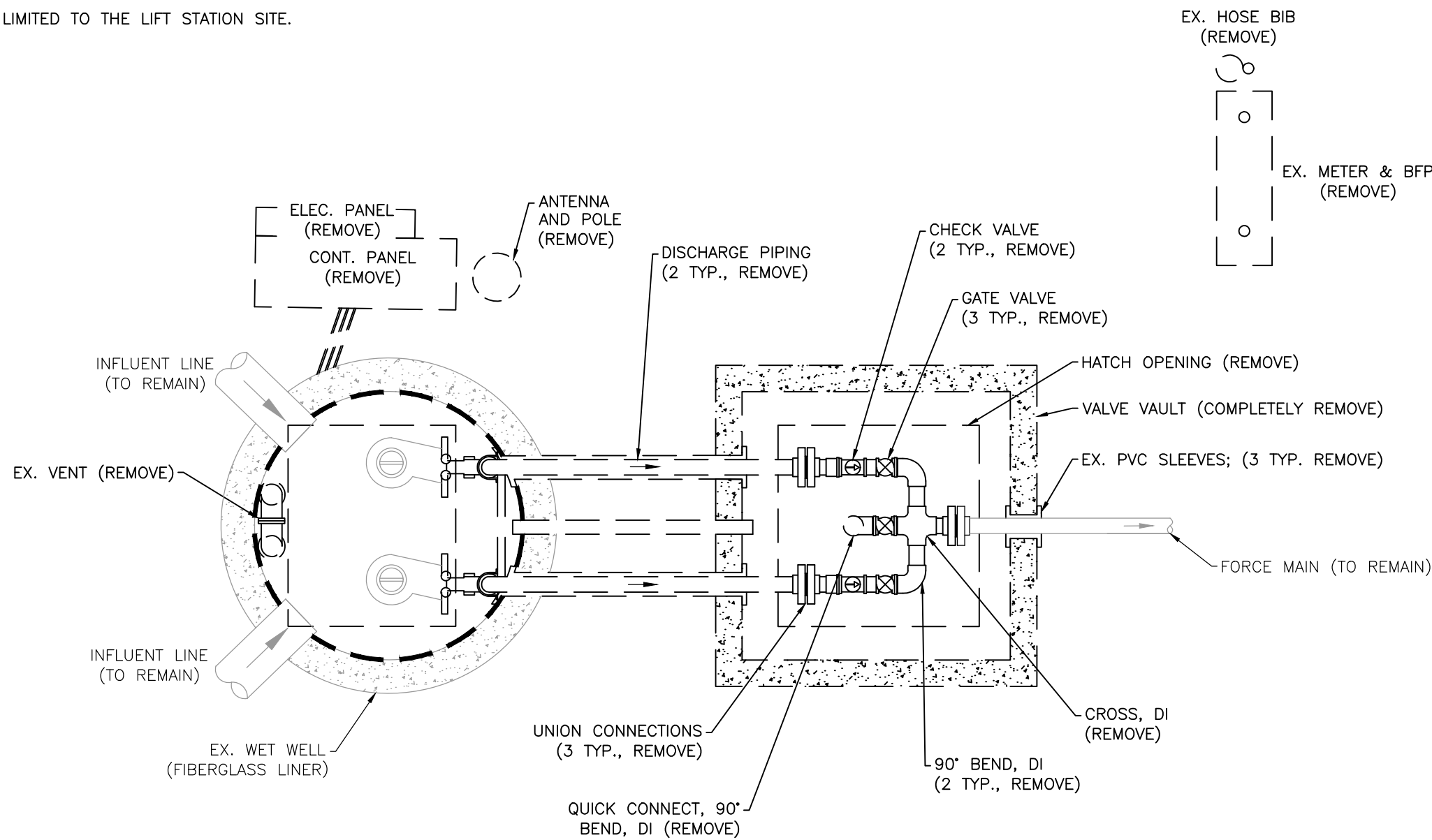
SHEET 03 OF 11



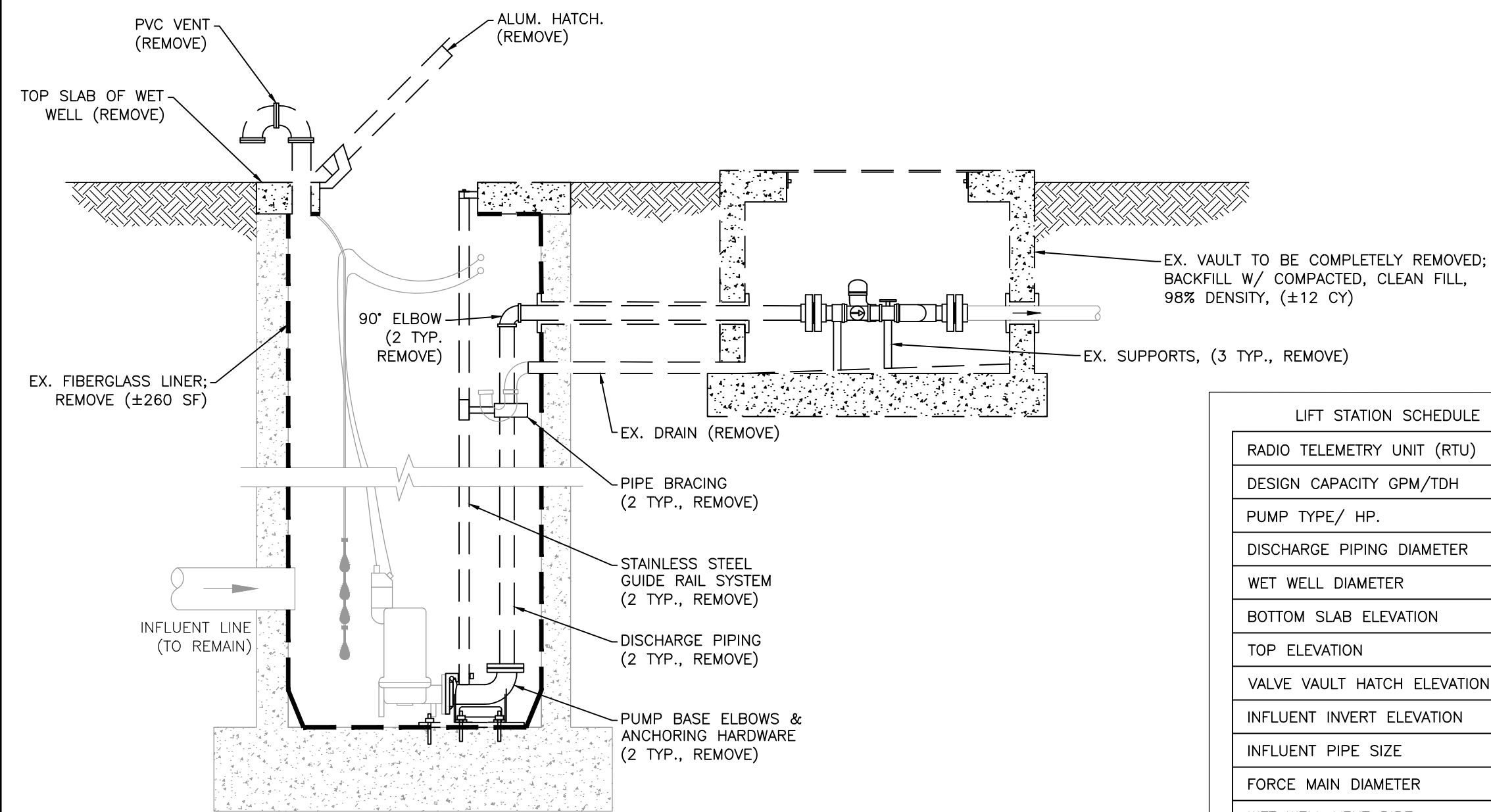
EXISTING

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. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
4. REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
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

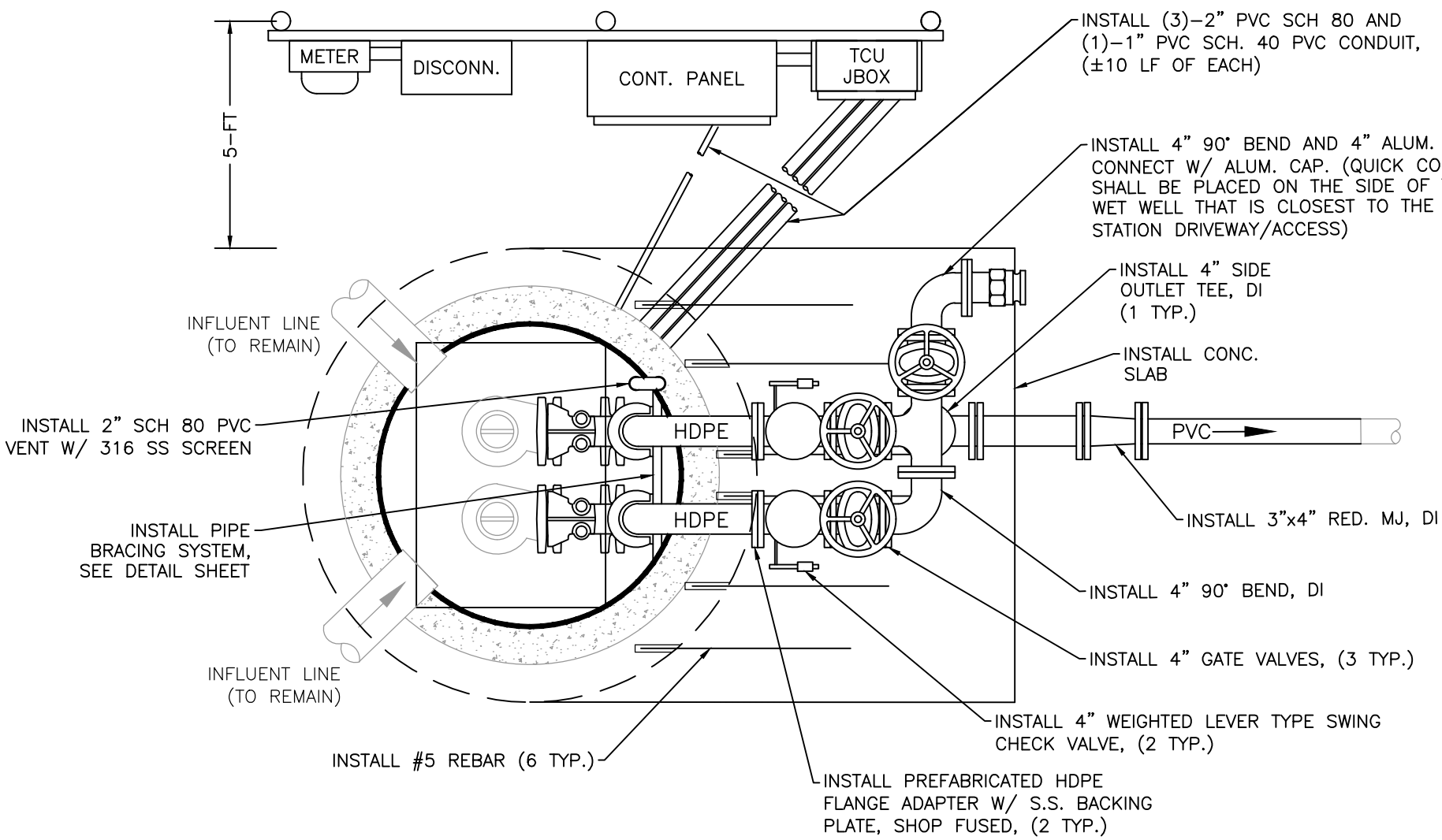


ITEMS ROTATED FOR CLARITY  
ELEVATION  
EX. 2 PUMP LIFT STATION  
NTS

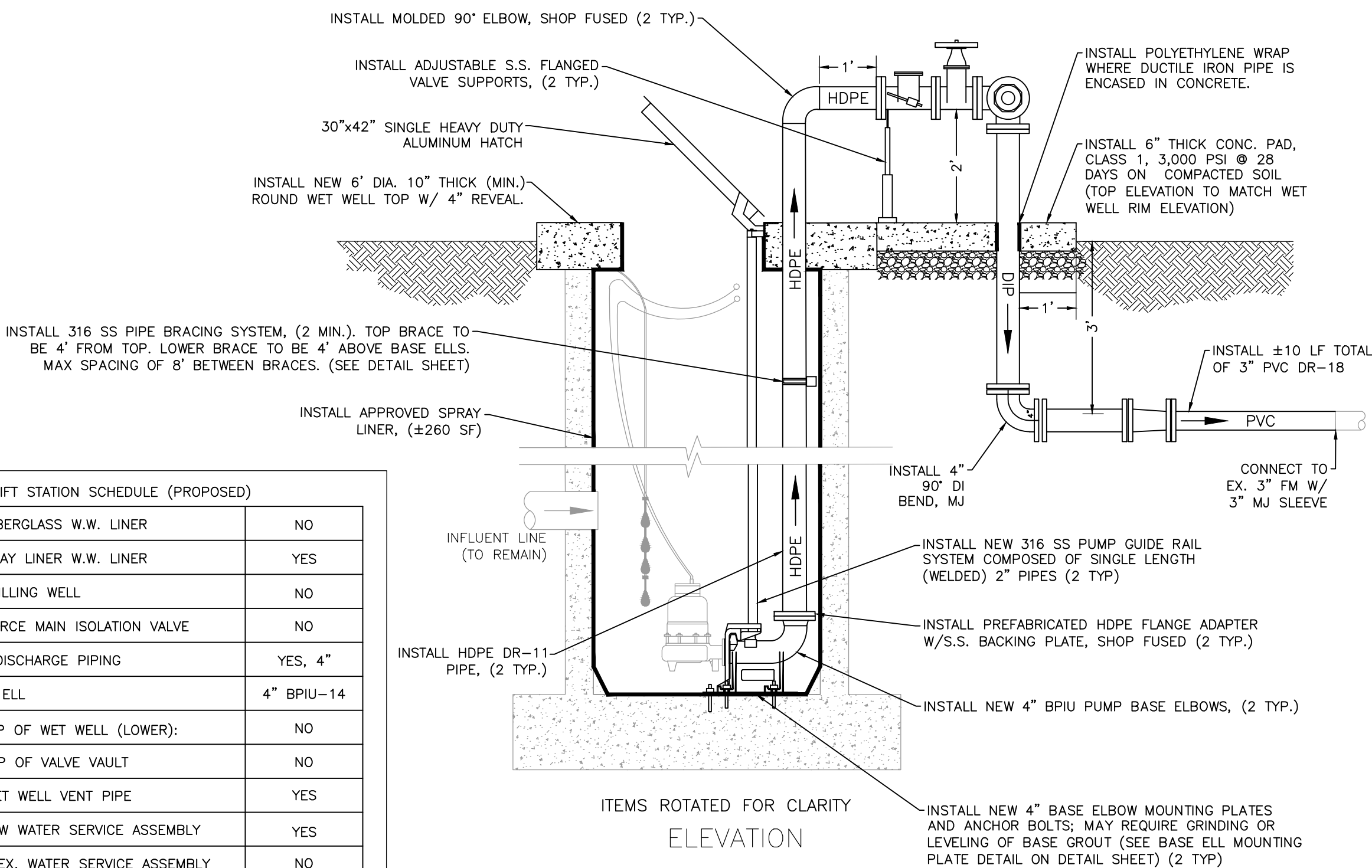
| LIFT STATION SCHEDULE (EXISTING)   |            |
|--|------------|
| RADIO TELEMETRY UNIT (RTU)   | 102        |
| DESIGN CAPACITY GPM/TDH  | 100/15     |
| PUMP TYPE/ HP.   | BARNES/1.5 |
| DISCHARGE PIPING DIAMETER  | 3"         |
| WET WELL DIAMETER  | 4'         |
| BOTTOM SLAB ELEVATION  | -9.50      |
| TOP ELEVATION  | 9.20       |
| VALVE VAULT HATCH ELEVATION  | 9.20       |
| INFLUENT INVERT ELEVATION  | -3.41      |
| INFLUENT PIPE SIZE   | 8" VCP     |
| FORCE MAIN DIAMETER  | 3"         |
| WET WELL VENT PIPE   | PVC        |
| ELECT. POWER, VOLTS/PH   | 230/1      |
| ELECT. SERVICE SIZE, AMPS  | 60         |
| EX. FORCEMAIN TIE-IN   | MH         |
| * INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2020) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN. |            |

GENERAL NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
2. THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAT 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 TO BE PAINTED.



PLAN



ITEMS ROTATED FOR CLARITY  
ELEVATION  
EX. 2 PUMP LIFT STATION  
NTS

SATELLITE LIFT STATION R&R  
2023 GROUP 2  
BAY DR, RTU 102

PROPOSED

CONSTRUCTION NOTES:

1. REMOVE AND INSTALL ALL NEW ONE-SIDED ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
2. A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL SHALL BE INCLUDED WITH THE CONTROL PANEL. THE TCU SHALL BE LOCATED WITHIN THE CONTROL PANEL ENCLOSURE.
3. INSTALL (2)-1½ to 3½ CONVERTER IN CONTROL PANEL.
4. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
5. INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
6. REPAIR CONCRETE WALLS, AS NEEDED, IN WET WELL, 2-INCH MIN. THICK OVER EXISTING REBAR. (±130 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
7. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
8. INSTALL A NEW 2-INCH WATER SERVICE AND 6"x2" TAPPING SADDLE; A STANDARD METER/BPA ASSEMBLY; AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA DIRECT BURY. THE EXISTING WATER MAIN IS LOCATED IN THE ROW ON THE SAME SIDE AS THE LIFT STATION SITE. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE FENCE / EASEMENT / RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL. (±15 LF).
9. REPLACE EXISTING WATER SERVICE SADDLE AND CORPORATION AT MAIN; INSTALL A BRASS PLUG IN CORPORATION STOP.
10. REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
11. THIS LIFT STATION IS LOCATED IN A FLOOD ZONE (AE) WITH A BASE FLOOD ELEVATION OF 9.0 NAVD. THE BASE OF ALL ELECTRICAL EQUIPMENT SHALL BE ABOVE THE FLOOD PROTECTION ELEVATION OF 10.0 NAVD. A FLOOD REVIEW & ELEVATION CERTIFICATE PREPARED BY A FLORIDA LICENSED SURVEYOR WILL BE REQUIRED.

FLOOD  
CERTIFICATE  
REQUIRED

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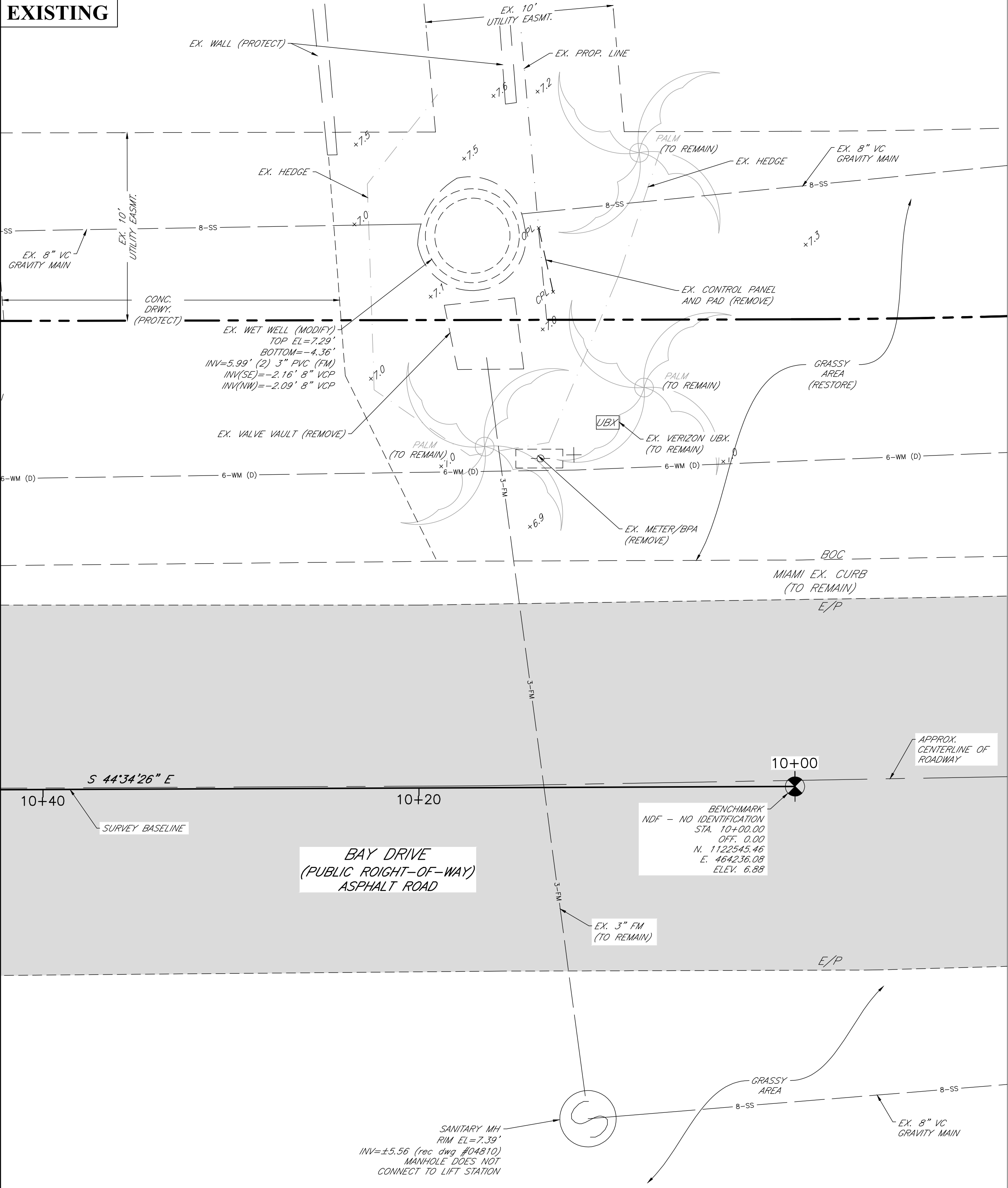


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|---------------|-------------|--------|--|
| PROJECT #     | 402-5120481 |        |  |
| SURVEY #      | NA          |        |  |
| SEC./TWN./RGE | 22/35/17    |        |  |
| SCALE         | N.T.S.      |        |  |
|               | BY          | DATE   |  |
| SURVEYED      | NA          | NA     |  |
| DESIGNED      | JSS         | 4/2023 |  |
| DRAWN         | JKW         | 4/2023 |  |
| CHECKED       | JSS         | —      |  |

|   |
|---|
| J. SHEA SHOUN, P.E.   |
| FLORIDA PROFESSIONAL ENGINEER<br>No. 60923<br>DATE 06/14/2023 |
| SHEET 04 OF 11  |



EXISTING



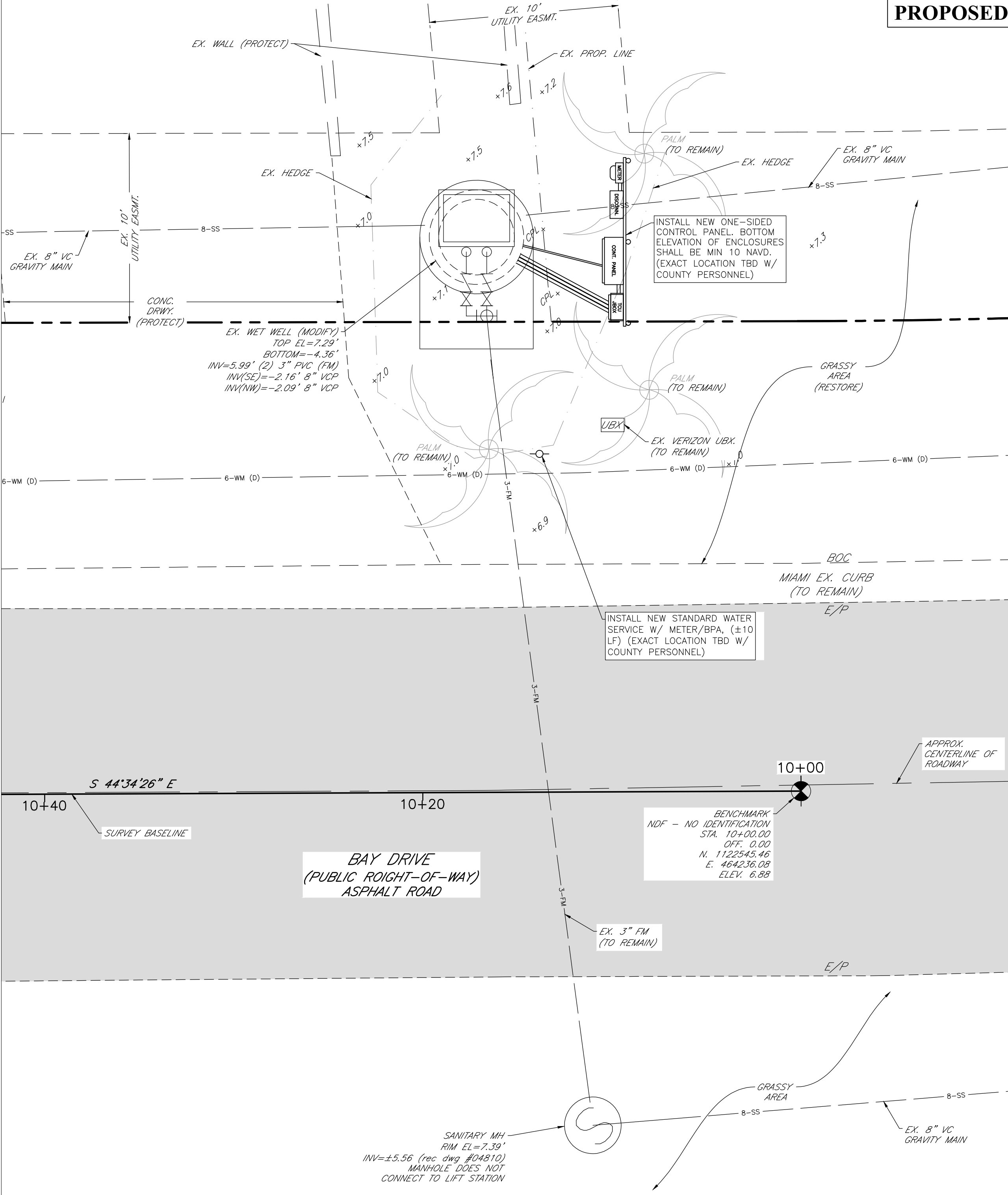
SITE PLAN CONSTRUCTION NOTES:

- GENERAL:
- ALL EXISTING UTILITIES SHOWN ARE CONSIDERED APPROXIMATE.
  - ALL EQUIPMENT, PIPING, ETC. SHALL BE WITHIN THE COUNTY RIGHT-OF-WAY AND/OR IN THE UTILITY EASEMENTS. NO WORK SHALL BE PERFORMED ON PRIVATE PROPERTY WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER & MANATEE COUNTY. IF NECESSARY, THE CONTRACTOR SHALL HIRE A LICENSED SURVEYOR TO STAKE OUT EXISTING EASEMENTS BOUNDARIES PRIOR TO COMMENCING WORK.
  - CONTRACTOR SHALL COORDINATE WITH COUNTY PERSONNEL PRIOR TO ALL INSTALLATIONS.
  - ALL NEW STRUCTURES, PIPING AND CONDUIT INSTALLED SHALL BE PROPERLY SHOWN ON THE REQUIRED RECORD DRAWINGS.
  - CONTRACTOR TO UTILIZE EXISTING FENCE/GATE OR INSTALL AND MAINTAIN 6-FT HIGH TEMPORARY SECURITY FENCE AND GATE(S) AROUND THE SITE AT THE CONTRACTOR EXPENSE. THE LIFT STATION SITE SHALL BE SECURED EACH DAY.
  - EXISTING PALM TREES TO REMAIN AND BE PROTECTED.
  - HEDGE MY BE REMOVED, BUT SHALL BE REPLACED IN KIND.

SURVEYOR'S NOTES:

- NORTH AND THE COORDINATES SHOWN HEREON ARE REFERENCED TO GRID NORTH, WEST ZONE OF THE FLORIDA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2011 UTILIZING CHC M7 GNSS RTK RECEIVERS AND A NETWORK SOLUTION PROVIDED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION FLORIDA PERMANENT REFERENCE NETWORK (FPRN). THE COORDINATES LISTED HEREON ARE GRID VALUES AND ARE LISTED IN FEET. NATIONAL GEODETIC SURVEY CONTROL STATION "GIS 080" (PID: AG9185) & "M062" (PID: AG9167) WERE UTILIZED AS CONTROL FOR THIS SURVEY.
- ELEVATIONS SHOWN ARE RELATIVE TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND ARE BASED ON MANATEE COUNTY VERTICAL CONTROL BENCHMARKS "136 88 02" (PUBLISHED ELEVATION 8.57') AND "136 88 04" (PUBLISHED ELEVATION 5.91'). ADD 1.00' TO THE PUBLISHED NAVD 1988 ELEVATIONS TO CONVERT TO NGVD 1929. THIS CONVERSION WAS DETERMINED BY USING NATIONAL GEODETIC SURVEY VERTCON.
- PARCEL LINES AND RIGHT OF WAYS LINES SHOWN HEREON ARE BASED ON FOUND MONUMENTATION, PLATS AND DEEDS OF RECORD CONTAINED IN THE OFFICIAL RECORDS OF MANATEE COUNTY, FLORIDA. THE PARCEL LINES AND RIGHT OF WAY LINE SHOWN HEREON ARE APPROXIMATE AND ARE SHOWN GRAPHICALLY AS AN AID FOR VISUAL REFERENCE.
- AN ABSTRACT OF TITLE WAS NOT PERFORMED BY OR NOR FURNISHED TO CIVILSURV DESIGN GROUP, INC. ANY EASEMENTS OR ENCUMBRANCES THAT MAY APPEAR AS A RESULT OF SAID ABSTRACT IS NOT CERTIFIED HEREON.
- THE ADJOINING OWNER INFORMATION SHOWN HEREON WERE TAKEN FROM THE MANATEE COUNTY TAX ROLLS.
- THIS ELECTRONIC DRAWING FILE IS NOT COMPLETE WITHOUT THE ACCOMPANYING SURVEYOR'S REPORT
- THE INTENDED DISPLAY SCALE OF THIS DRAWING IS 1"=20'.
- ABBREVIATIONS SHOWN HEREON ARE FROM MANATEE COUNTY.
- BASED UPON A GRAPHIC DETERMINATION THIS PROPERTY IS LOCATED IN FLOOD ZONE "AE" ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR MANATEE COUNTY FLORIDA; MAP NUMBER 12081C0312F, WITH AN EFFECTIVE DATE OF 08/10/2021. THE ABOVE STATEMENT AND THE GRAPHICAL REPRESENTATION OF THE ZONE(S) (IF SHOWN) ARE FOR INFORMATION PURPOSES ONLY, AND THE UNDERSIGNED ASSUMES NO LIABILITY FOR THE CORRECTNESS OF THE CITED MAP. ADDITIONALLY THE ABOVE STATEMENT DOES NOT REPRESENT THE OPINION OF THE UNDERSIGNED AS TO THE PROBABILITY OF FLOODING.

PROPOSED



| NO. | REVISION DESCRIPTION | BY | DATE |
|-----|----------------------|----|------|
|     |                      |    |      |
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SATELLITE LIFT STATION R&R

2023 GROUP 2

BAY DR, RTU 102 (SITE)



|               |                  |
|---------------|------------------|
| PROJECT #     | 402-5120481      |
| SURVEY #      | 19-TA002998AEJ   |
| SEC./TWN./RGE | 22/35/17         |
| SCALE         | SEE PLAN         |
| BY            | DATE             |
| SURVEYED      | CIVILSURV 5/2022 |
| DESIGNED      | JSS 4/2023       |
| DRAWN         | JKW 4/2023       |
| CHECKED       | JSS -            |

J. SHEA SHOUN, P.E.

FLORIDA LICENSE No. 60923

STATE OF FLORIDA

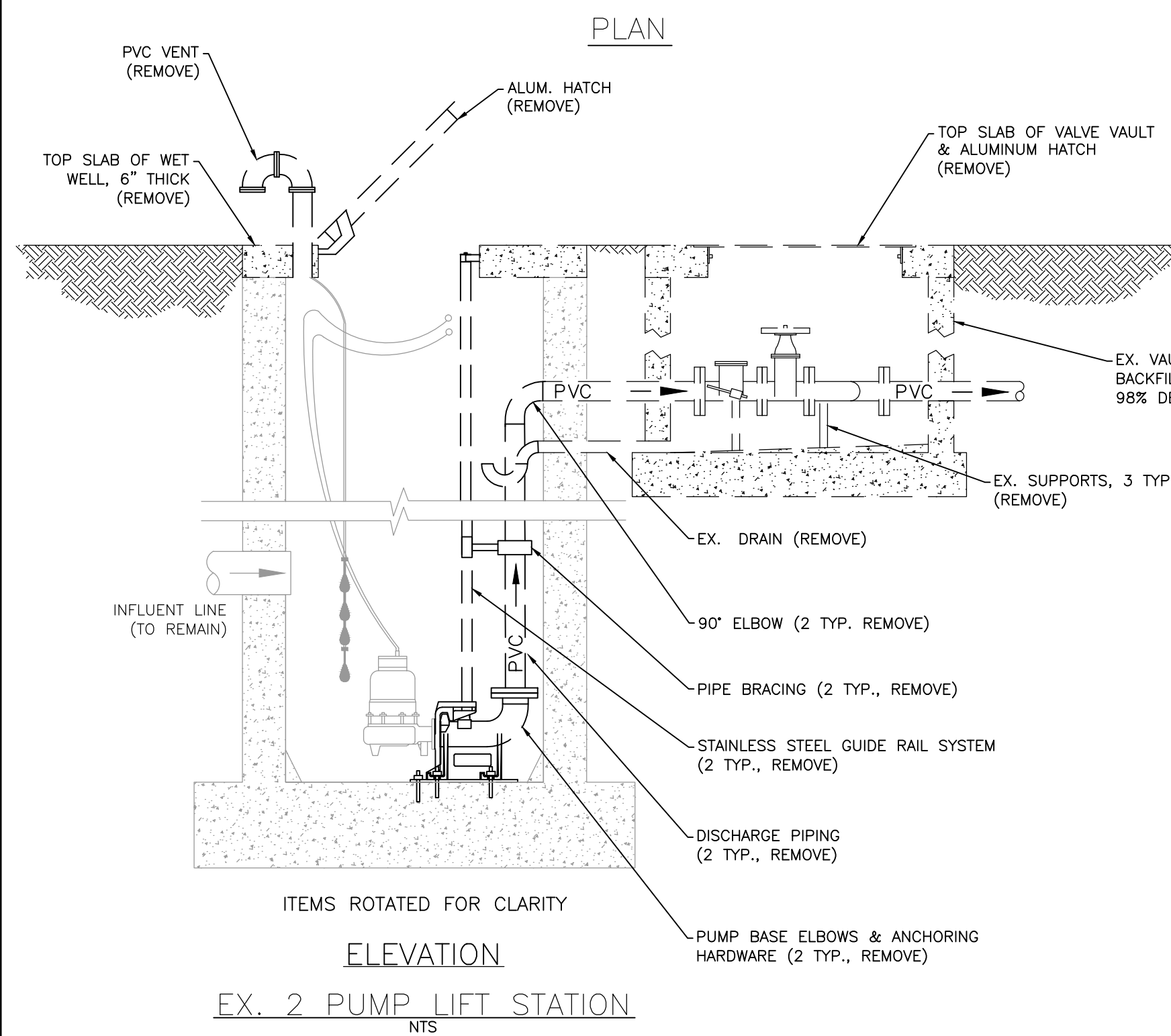
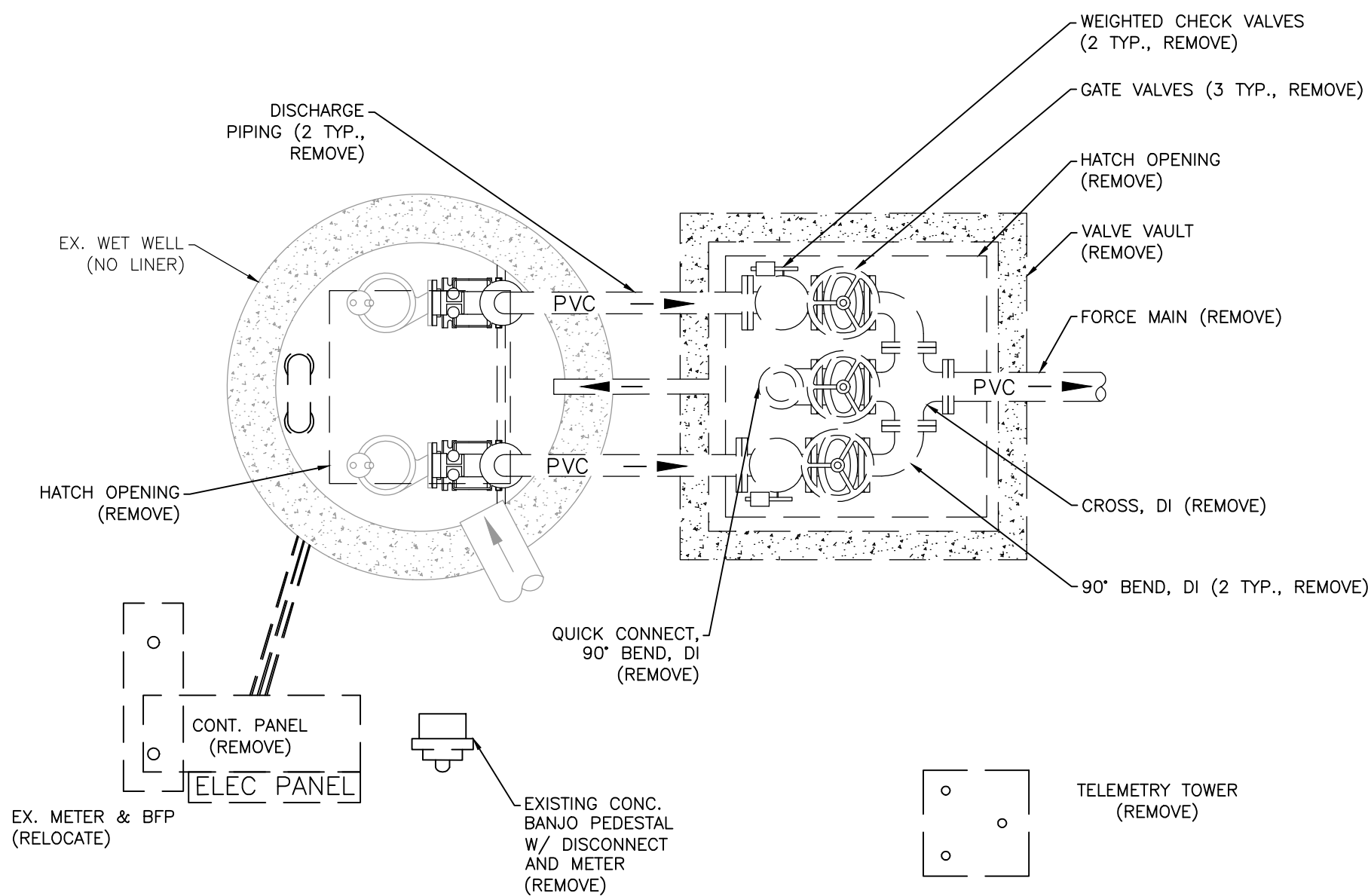
PROFESSIONAL ENGINEER

SIGNATURE



EXISTING

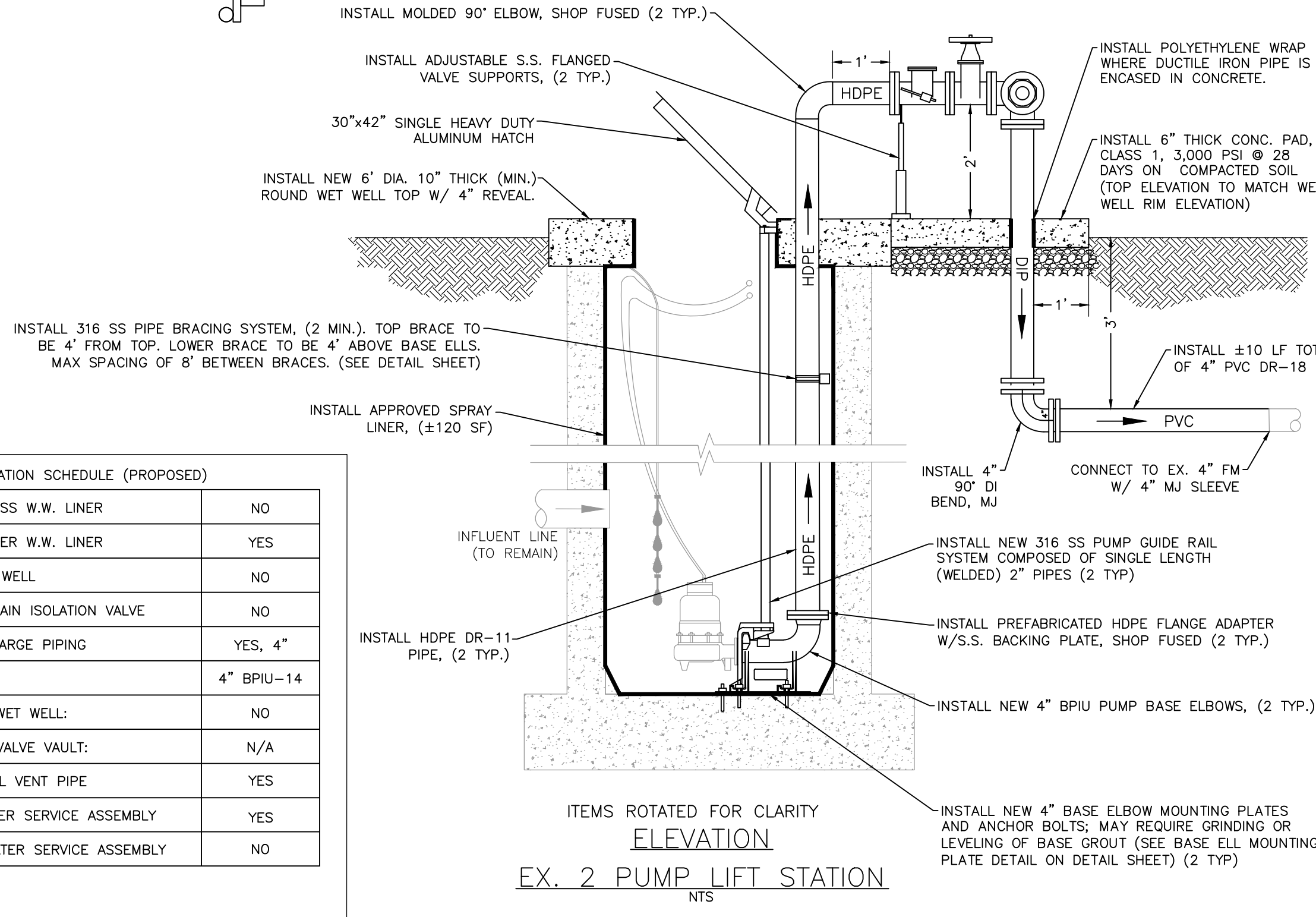
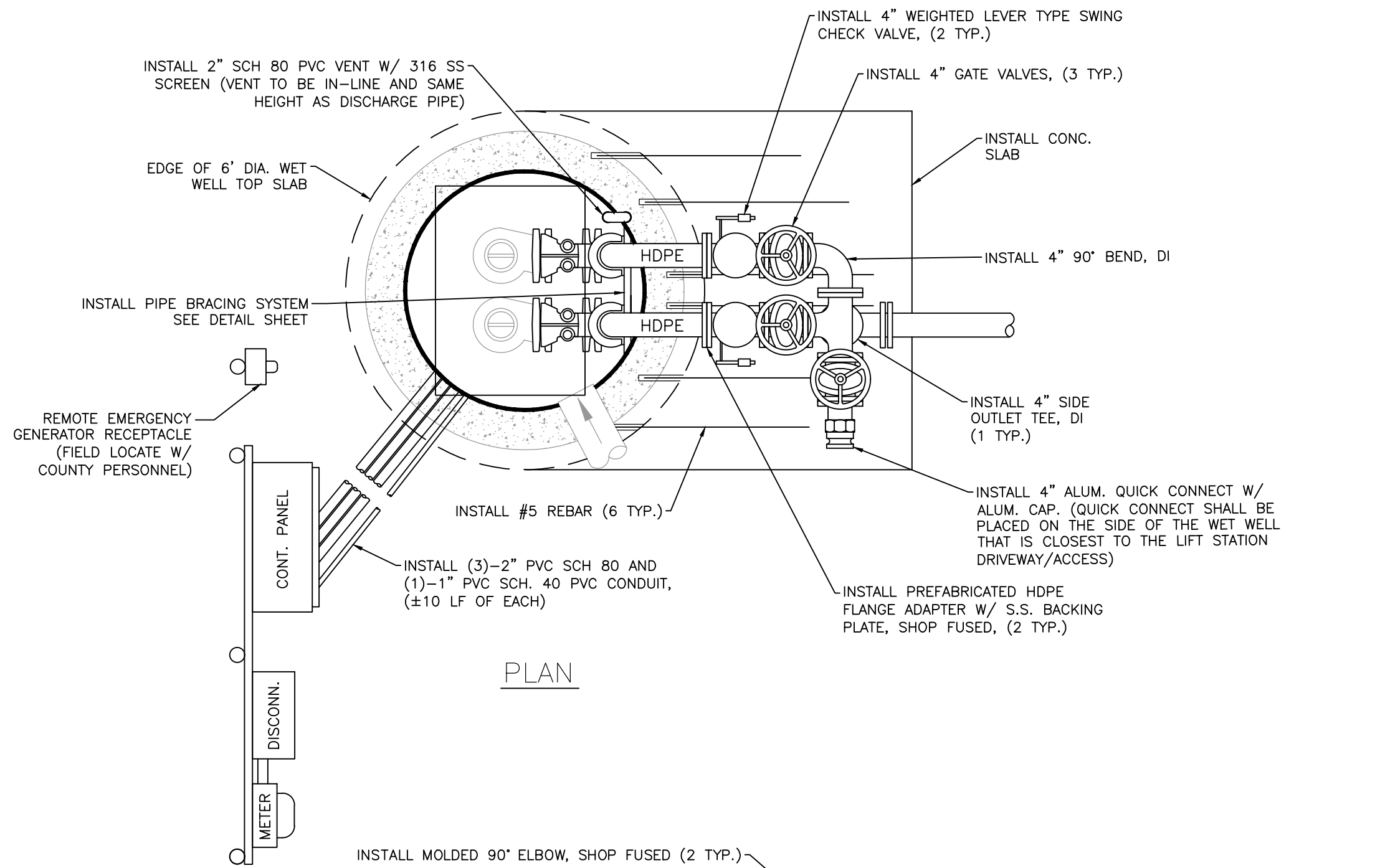
- NOTES:
1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
  2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
  3. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
  4. REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
  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.



| LIFT STATION SCHEDULE (EXISTING) |            |
|----------------------------------|------------|
| RADIO TELEMETRY UNIT (RTU)       | 111        |
| DESIGN CAPACITY GPM/TDH          | 150/20     |
| PUMP TYPE/ HP.                   | BARNES/2.8 |
| DISCHARGE PIPING DIAMETER        | 3"         |
| WET WELL DIAMETER                | 4'         |
| BOTTOM SLAB ELEVATION            | 8.87       |
| TOP ELEVATION                    | 16.37      |
| VALVE VAULT HATCH ELEVATION      | 16.37      |
| INFLUENT INVERT ELEVATION        | 11.78      |
| INFLUENT PIPE SIZE               | 8"         |
| FORCE MAIN DIAMETER              | 4"         |
| WET WELL VENT PIPE               | PVC        |
| ELECT. POWER, VOLTS/PH           | 230/1      |
| ELECT. SERVICE SIZE, AMPS        | 60         |
| EX. FORCEMAIN TIE-IN             | MH         |

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

- GENERAL NOTES:
1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
  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 TO BE PAINTED.



PROPOSED

- CONSTRUCTION NOTES:
1. INSTALL ±20 LF NEW ELECTRICAL SERVICE WITH CONDUIT. THE COUNTY WILL SUPPLY ANY REQUIRED HANDHOLES.
  2. REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A ONE-SIDED CONTROL PANEL FOLLOWING THE 2015 CONTROL PANEL LAYOUT, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL INTERNAL ELECTRONICS AND EQUIPMENT SHALL BE PER THE CURRENT COUNTY REQUIREMENTS. ALL EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
  3. INSTALL (2)-14 TO 3½ CONVERTER IN CONTROL PANEL.
  4. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584-2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
  5. SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE BASE AND ALL GROUNDING RODS. COUNTY SHALL INSTALL NEW TELEMETRY ANTENNA.
  6. INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
  7. REPAIR CONCRETE WALLS, AS NEEDED, IN WET WELL, 2-INCH MIN. THICK OVER EXISTING REBAR, (±60 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
  8. 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.
  9. INSTALL A NEW 2-INCH WATER SERVICE WITH A CUT-IN 2" TEE; A NEW STANDARD METER/BPA ASSEMBLY AND A 3/4-INCH HOSE BIBB ASSEMBLY PER COUNTY STANDARDS VIA DIRECT BURY. AN EXISTING 2 INCH WATER LINE IS LOCATED BEHIND THE BUILDINGS. THE METER/BPA SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE FENCE / EASEMENT / RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. ALL ITEMS SHALL BE FIELD LOCATE WITH MANATEE COUNTY PERSONNEL, (±60 LF).
  10. ABANDON EXISTING WATER SERVICE SADDLE AND CORPORATION AT MAIN; INSTALL A BRASS PLUG IN CORPORATION STOP.
  11. REGRADE SITE TO ALLOW FOR A POSITIVE DRAINAGE SLOPE AWAY FROM THE LIFT STATION AREA TOWARDS THE SURROUNDING DITCHES. MAXIMUM OF 1% SLOPE.
  12. REMOVE EXISTING CONCRETE BOLLARDS, (4 TYP.)
  13. REMOVE EXISTING FENCE COMPLETELY, INCLUDING ALL POSTS AND CONCRETE FOOTERS (±50 LF)

QUESTIONS / COMMENTS:

1. WATER DISTRIBUTION IS PUBLIC.
2. SEWER COLLECTION IS PUBLIC.
3. NEW FENCE BY COUNTY LIFT STATION STAFF

SATELLITE LIFT STATION R&R  
2023 GROUP 2  
VICTORIA SQUARE EAST, RTU111



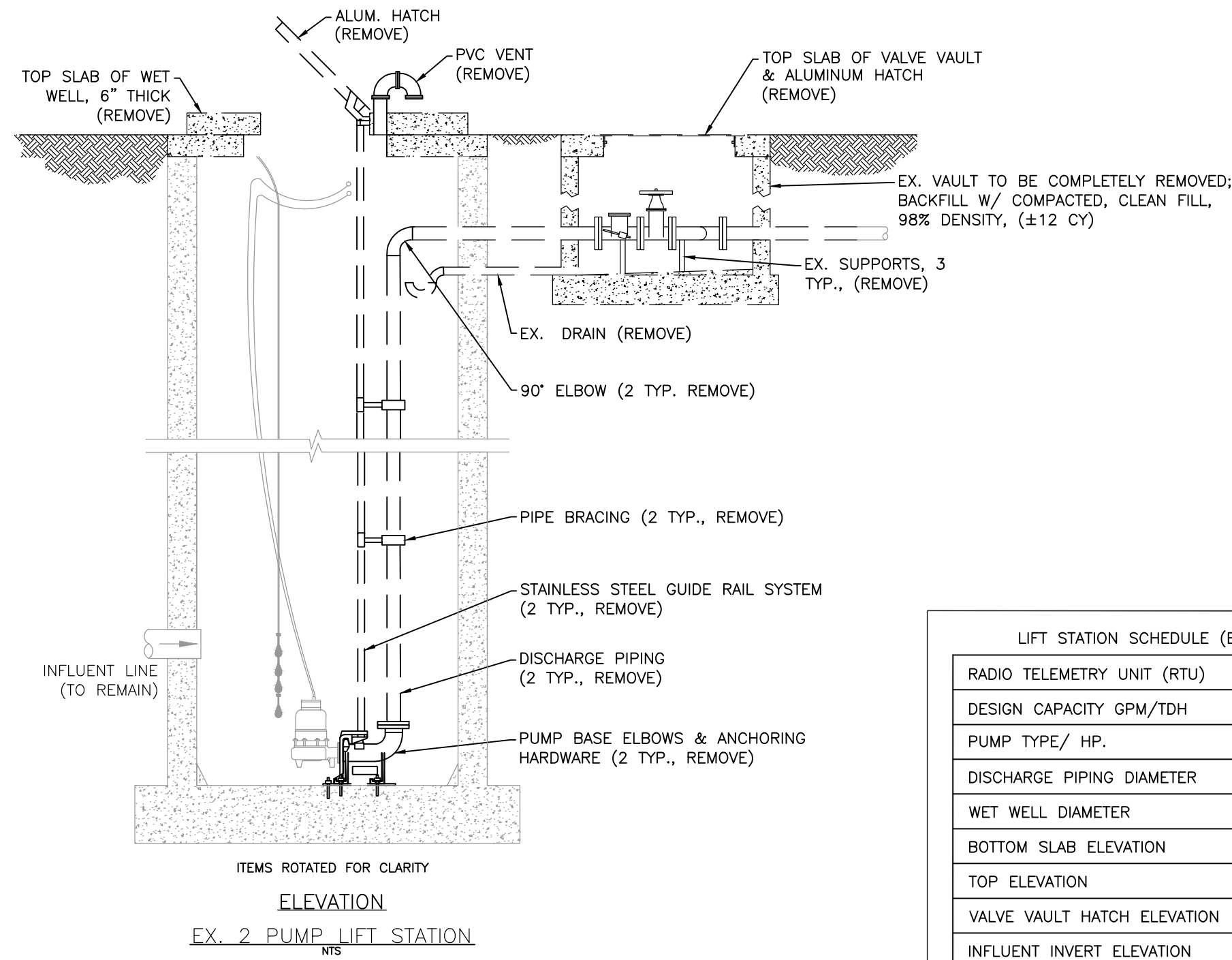
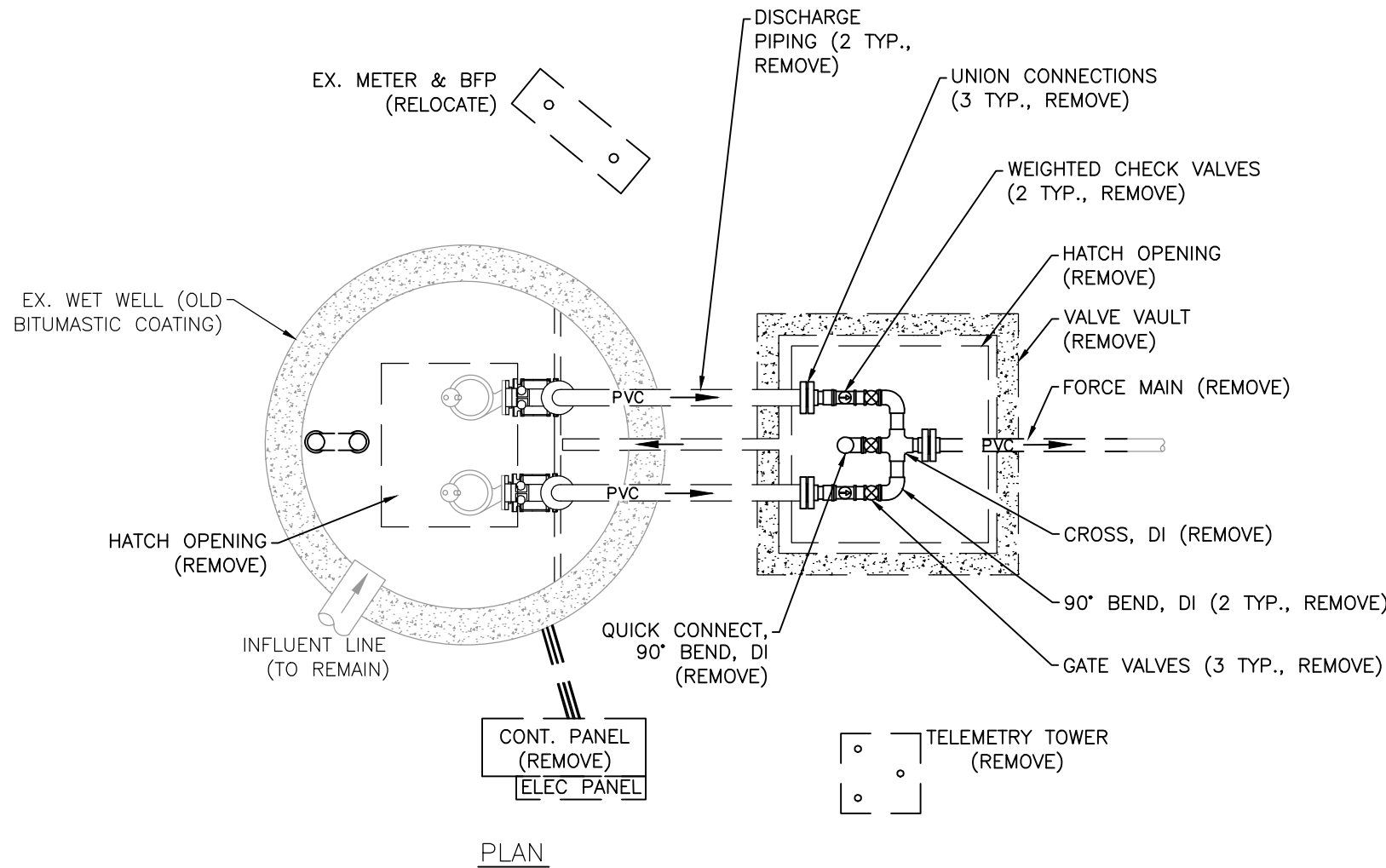
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|---------------|-------------|
| PROJECT #     | 402-5120484 |
| SURVEY #      | NA          |
| SEC./TWN./RGE | 10/35/17    |
| SCALE         | N.T.S.      |
| SURVEYED      | NA          |
| DESIGNED      | JSS         |
| DRAWN         | JKW         |
| CHECKED       | JSS         |

|                               |
|-------------------------------|
| J. SHEA SHOUN, P.E.           |
| FLORIDA PROFESSIONAL ENGINEER |
| No. 60923                     |
| DATE 06/19/2023               |
| STATE OF FLORIDA              |



EXISTING

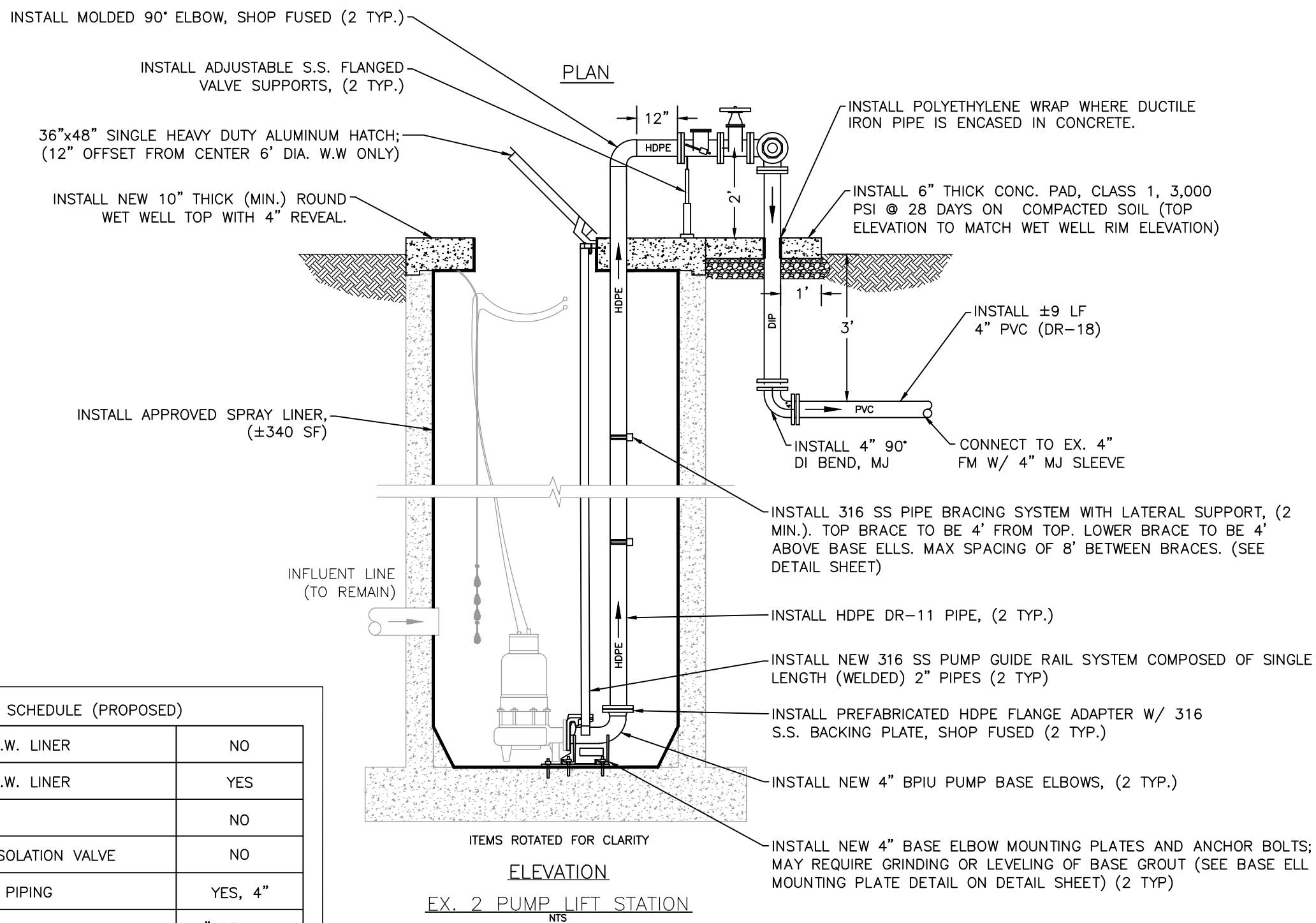
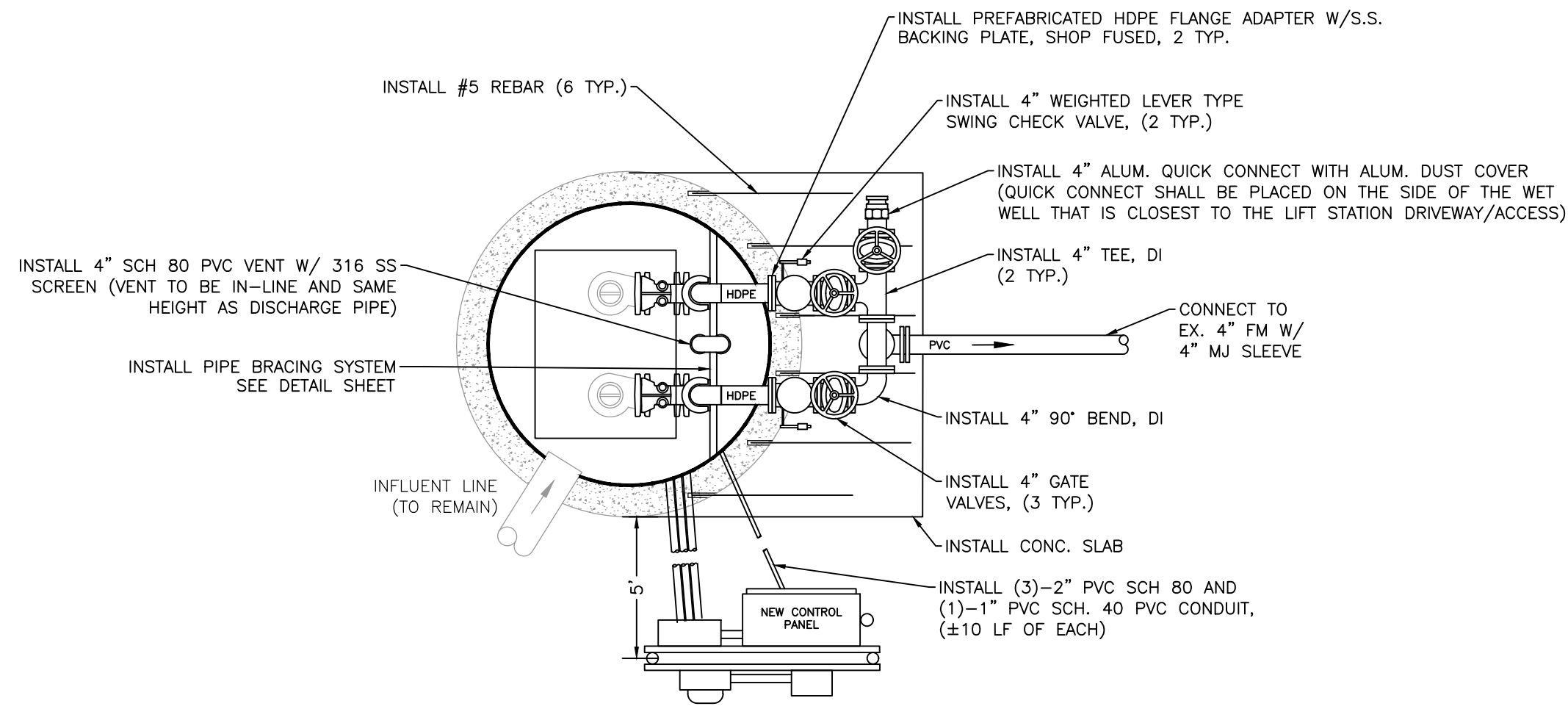
- NOTES:
- THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
  - CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
  - THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
  - REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
  - BY-PASS PUMPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - 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.
  - THE CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DAMAGED LANDSCAPING TO EXISTING OR DESIGN CONDITIONS.
  - THE WORK AREA IS LIMITED TO THE LIFT STATION SITE.



| LIFT STATION SCHEDULE (EXISTING)   |           |
|--|-----------|
| RADIO TELEMETRY UNIT (RTU)   | 420       |
| DESIGN CAPACITY GPM/TD   | 220/23    |
| PUMP TYPE/ HP.   | MYERS/1.5 |
| DISCHARGE PIPING DIAMETER  | 3"        |
| WET WELL DIAMETER  | 6'        |
| BOTTOM SLAB ELEVATION  | 2.38      |
| TOP ELEVATION  | 17.38     |
| VALVE VAULT HATCH ELEVATION  | 17.38     |
| INFLUENT INVERT ELEVATION  | 7.08      |
| INFLUENT PIPE SIZE   | 8" VCP    |
| FORCE MAIN DIAMETER  | 4"        |
| WET WELL VENT PIPE   | PVC, 6"   |
| ELECT. POWER, VOLTS/PH   | 480/3     |
| ELECT. SERVICE SIZE, AMPS  | 30        |
| EX. FORCEMAIN TIE-IN   | MH        |
| * INFORMATION TAKEN FROM LIFT STATION DATA FILE (LSINFO.XLS 2020) & RECORD DRAWINGS. DATUM OF ELEVATIONS IS UNKNOWN. |           |

GENERAL NOTES:

- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR.
- THE CONCRETE SHALL BE GIVEN A BROOM FINISH. THE SURFACE VARIATIONS SHALL BE NOT MORE THAT 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".
- 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.
- 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.
- ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM TO BE PAINTED.



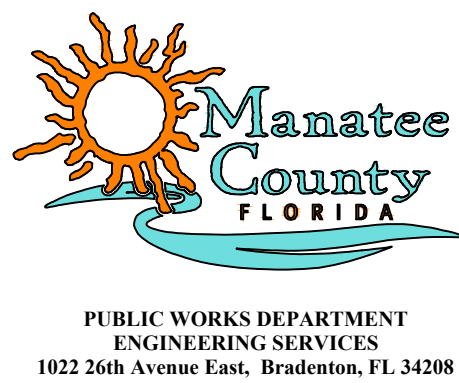
| LIFT STATION SCHEDULE (PROPOSED)    |            |
|-------------------------------------|------------|
| INSTALL FIBERGLASS W.W. LINER       | NO         |
| APPLY SPRAY LINER W.W. LINER        | YES        |
| INSTALL STILLING WELL               | NO         |
| INSTALL FORCE MAIN ISOLATION VALVE  | NO         |
| NEW HDPE DISCHARGE PIPING           | YES, 4"    |
| NEW BASE ELL                        | 4" BPIU-14 |
| MODIFY TOP OF WET WELL:             | NO         |
| MODIFY TOP OF VALVE VAULT:          | NO         |
| INSTALL WET WELL VENT PIPE          | YES        |
| INSTALL NEW WATER SERVICE ASSEMBLY  | NO         |
| RELOCATE EX. WATER SERVICE ASSEMBLY | YES        |

PROPOSED

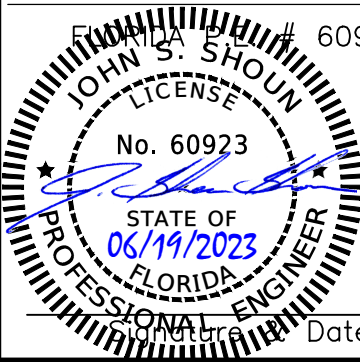
- CONSTRUCTION NOTES:
- INSTALL ±15 LF NEW ELECTRICAL SERVICE WITH CONDUIT. THE COUNTY WILL SUPPLY ANY REQUIRED HANDHOLES.
  - REMOVE AND INSTALL ALL NEW ELECTRICAL STRUCTURE (RACK), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, A METER CAN, AND A SAFETY SWITCH (DISCONNECT). ALL EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
  - A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL SHALL BE INCLUDED WITH THE CONTROL PANEL.
  - AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
  - SEPARATE THE TELEMETRY TOWER FROM CONCRETE BASE AND SET TO SIDE OF LIFT STATION SITE. CONTRACTOR SHALL REMOVE AND DISPOSE OF CONCRETE BASE AND ALL GROUNDING RODS. COUNTY SHALL INSTALL NEW TELEMETRY ANTENNA.
  - INSTALL #5 REBAR (6 TYP.) EPOXY EMBEDDED INTO THE WET WELL TOP 3-4 INCHES DEEP AND CAST 3-4 FEET INTO THE VALVE ASSEMBLY CONCRETE PAD TO ENSURE THE TOPS OF THE WET WELL AND VALVE ASSEMBLY PAD WILL REMAIN FLUSH.
  - REPAIR CONCRETE WALLS, AS NEEDED, IN WET WELL, 2-INCH MIN. THICK OVER EXISTING REBAR, (±170 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
  - WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
  - RELOCATE THE EXISTING METER, BPA, & HOSE BIBB ASSEMBLY. THE METER AND BPA SHALL BE RELOCATED AS CLOSE AS POSSIBLE TO THE FENCE / EASEMENT / RIGHT-OF-WAY LINE IN CLOSEST PROXIMITY TO THE WATER DISTRIBUTION MAIN. FIELD LOCATE WITH MANATEE COUNTY PERSONNEL, (±15 LF)
  - INSTALL WASHED SHELL & WEED BARRIER (±23 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.
  - REMOVE EXISTING (4)-BOLLARDS COMPLETELY AND INSTALL (6)-6"Ø STEEL BOLLARDS WITH PVC COVERS.

- QUESTIONS:
- WATER DISTRIBUTION IS PUBLIC.
  - SEWER COLLECTION IS PUBLIC.

SATELLITE LIFT STATION R&R  
2023 GROUP 2  
CORTEZ PLAZA-2, RTU 420



|               |             |                     |
|---------------|-------------|---------------------|
| PROJECT #     | 402-5120483 | J. SHEA SHOUN, P.E. |
| SURVEY #      | NA          | 60923               |
| SEC./TWN./RGE | 11/35/17    |                     |
| SCALE         | N.T.S.      |                     |
| SURVEYED      | NA          | DATE                |
| DESIGNED      | JSS         | 4/2023              |
| DRAWN         | JKW         | 4/2023              |
| CHECKED       | JSS         | -                   |

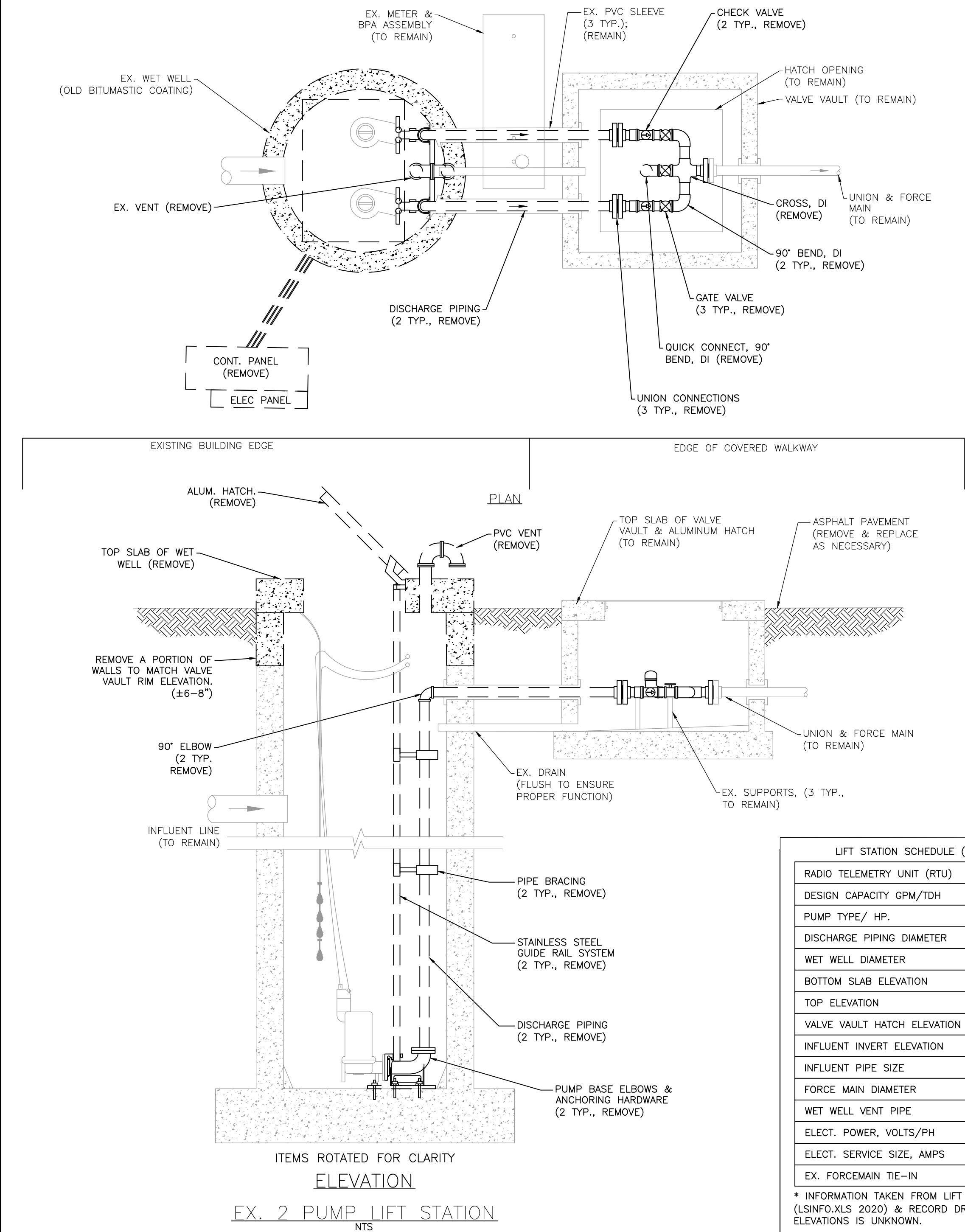




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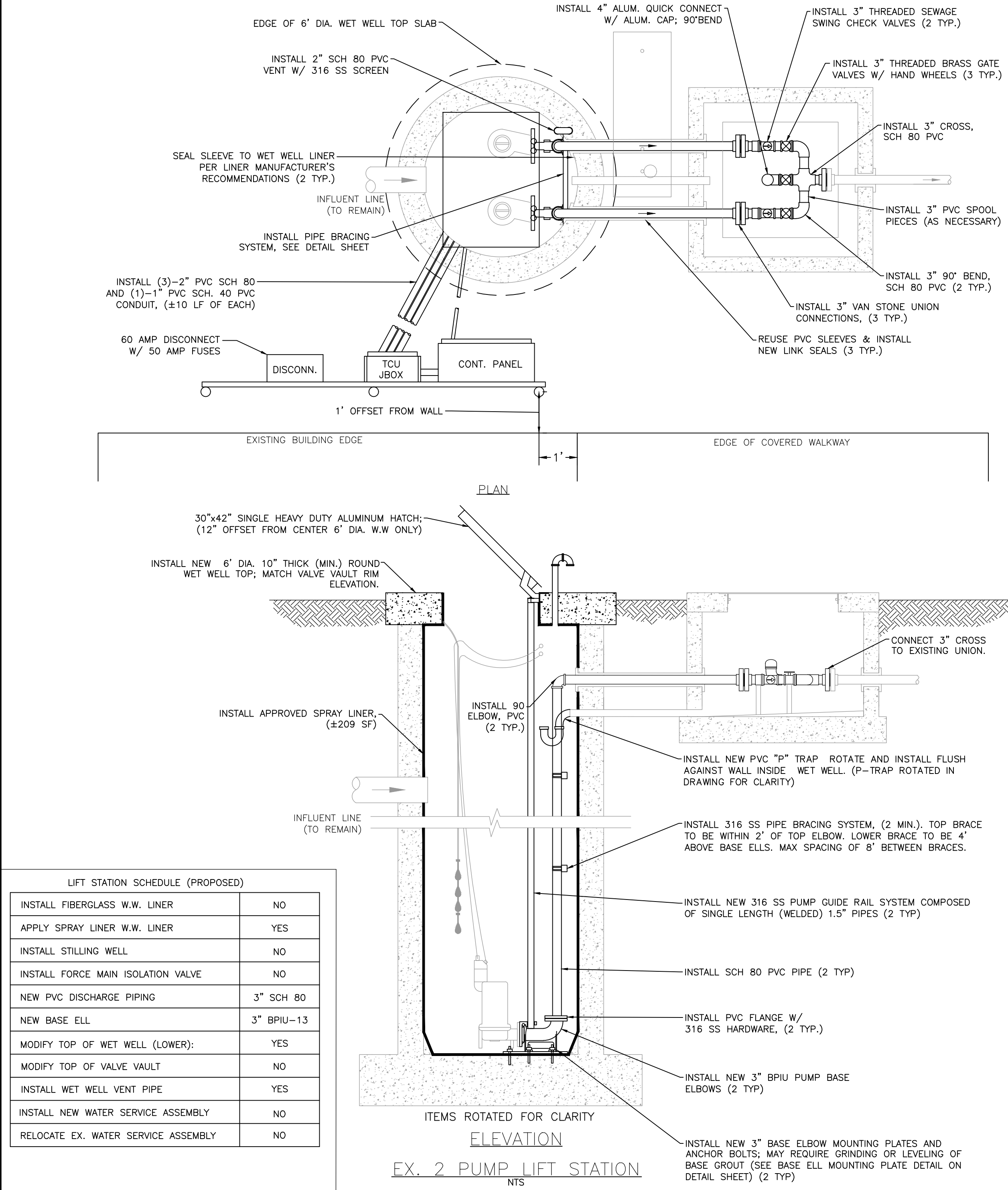
1. THE WET WELL AND VALVE VAULT CONFIGURATION SHOWN ON THESE GRAPHICS IS FOR IDENTIFICATION OF COMPONENTS TO BE REMOVED. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, CONFIGURATION, ETC. FOR ACCURACY.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.
3. THE CONTRACTOR SHALL DETERMINE THE DISCHARGE PIPING ELEVATIONS DURING THE SITE VISITS.
4. REMOVAL AND REINSTALLATION OF THE PUMPS DURING THE REHABILITATION SHALL BE DONE BY MANATEE COUNTY PERSONNEL IN COORDINATION WITH THE CONTRACTOR
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.



PROPOSED

GENERAL NOTES:

1. CONTRACTOR SHALL NOT BACKFILL OVER DISCHARGE PIPING UNTIL INSPECTOR HAS VISUALLY CHECKED IT FOR LEAKS DURING PUMP STARTUP OR PRESSURE TEST AS DIRECTED BY THE COUNTY.
2. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS. ALL HORIZONTAL AND VERTICAL DISTANCES AND MEASUREMENTS SHALL BE FIELD VERIFIED PRIOR TO ORDERING MATERIALS AND COMMENCING WORK. ALL MEASUREMENTS AND CALCULATIONS SHALL BE THE RESPONSIBILITY OF THE AWARDED CONTRACTOR
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.



CONSTRUCTION NOTES:

1. INSTALL ±10 LF NEW ELECTRICAL SERVICE WITH CONDUIT. THE COUNTY WILL SUPPLY ANY REQUIRED HANDHOLES.
2. ANY ELECTRICAL WIRING THAT IS INSTALLED BETWEEN THE LIFT STATION WET WELL AND VAULTS SHALL BE INSTALLED IN A CARRIER PIPE THAT IS STRAPPED TO THE STRUCTURE.
3. REMOVE AND INSTALL ALL NEW ONE-SIDED ELECTRICAL STRUCTURE (RACK) (OFFSET 1-FOOT FROM THE EXISTING WALL), A CONTROL PANEL, TCU ENCLOSURE, JUNCTION BOX ENCLOSURE, AND A SAFETY SWITCH (DISCONNECT). A NEW METER CAN IS NOT REQUIRED FOR THIS STATION. NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL. ALL EXISTING ELECTRICAL EQUIPMENT CONNECTED TO THE EXISTING CONTROL PANEL SHALL BE RE-ESTABLISHED TO THE NEW PANEL. THE NEW ELECTRICAL STRUCTURE SHALL BE FIELD LOCATED WITH MANATEE COUNTY PERSONNEL.
4. A TCU BUBBLER UNIT (RPT-001) SYSTEM PROVIDED AND INSTALLED BY DATA FLOW SYSTEMS (DFS) FOR WET WELL LEVEL CONTROL SHALL BE INCLUDED WITH THE CONTROL PANEL.
5. AN ELECTRICAL SYSTEM STUDY, ELECTRICAL STUDY ANALYSIS, AND PROPER LABELING IN COMPLIANCE WITH NFPA 70E "STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE" AND IEEE 1584 2018 "GUIDE FOR PERFORMING ARC FLASH HAZARDS CALCULATIONS" SHALL BE PROVIDED.
6. REMOVE AND REPLACE ADJACENT ASPHALT ROADWAY FROM AROUND THE WET WELL AND VALVE VAULT TO ALLOW FOR STRUCTURE REHAB AND PIPE INSTALLATION. THE ASPHALT ROADWAY SHALL MATCH EXISTING CONDITIONS, (±20 SY).
7. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING ASPHALT TO FIND EXISTING ELECTRICAL SERVICE.
8. WET WELL CONCRETE WALLS SHALL BE INSPECTED BY COUNTY PERSONNEL PRIOR TO INSTALLATION OF NEW SPRAY LINER AND/OR LINER REPAIR.
9. REPAIR CONCRETE WALLS, AS NEEDED, IN WET WELL, 2-INCH MIN. THICK OVER EXISTING REBAR, (±105 SF). ALL REPAIRS TO BE VERIFIED W/ COUNTY PERSONNEL PRIOR TO WORK.
10. ALL EXISTING BOLLARDS ARE TO REMAIN AND BE PROTECTED.

QUESTIONS:

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

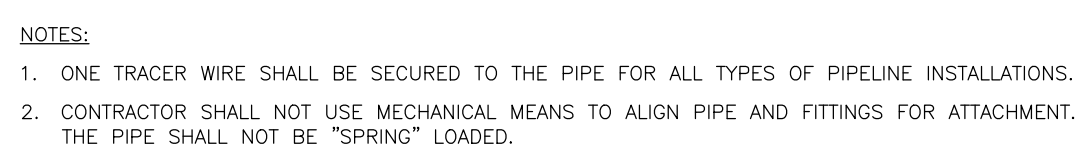
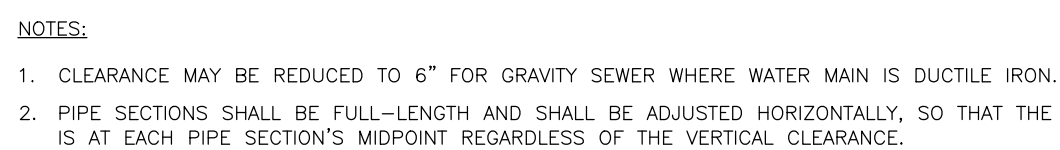
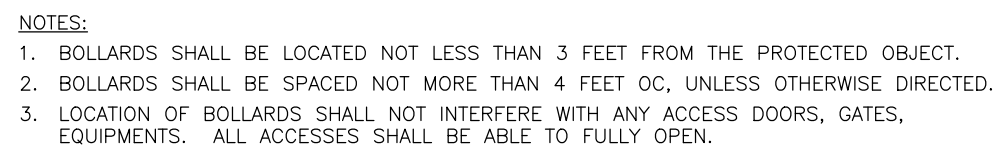
SATELLITE LIFT STATION R&R  
2023 GROUP 2  
CORTEZ PLAZA-5, RTU423



|               |             |
|---------------|-------------|
| PROJECT #     | 402-5120482 |
| SURVEY #      | NA          |
| SEC./TWN./RGE | 11/35/17    |
| SCALE         | N.T.S.      |
| SURVEYED      | NA          |
| DESIGNED      | JSS         |
| DRAWN         | JKW         |
| CHECKED       | JSS         |

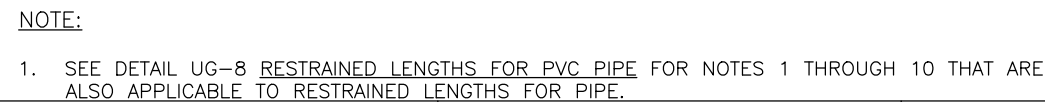
J. SHEA SHOUN, P.E.  
FLORIDA PROFESSIONAL ENGINEER  
No. 60923  
STATE OF FLORIDA  
06/11/2023  
SIGNED: [Signature]  
SHEET 08 OF 11





**NOTES:**

1. RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5' BENDS.
2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
4. PIPE SIZES ARE GIVEN IN INCHES.
5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
6. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
7. THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
9. ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.
10. ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.



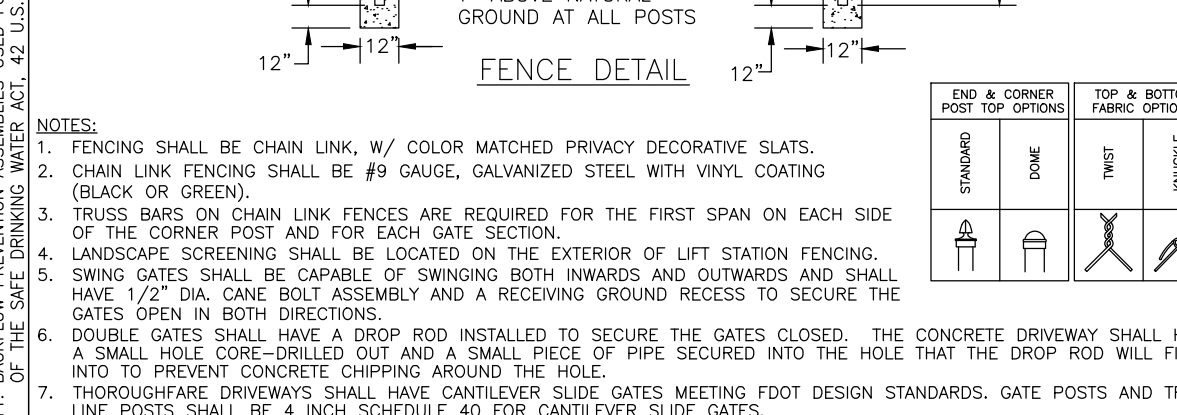
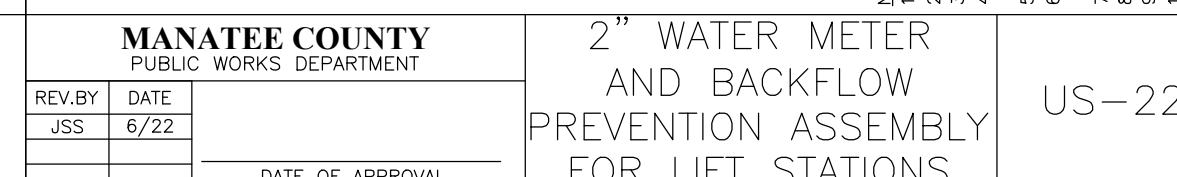
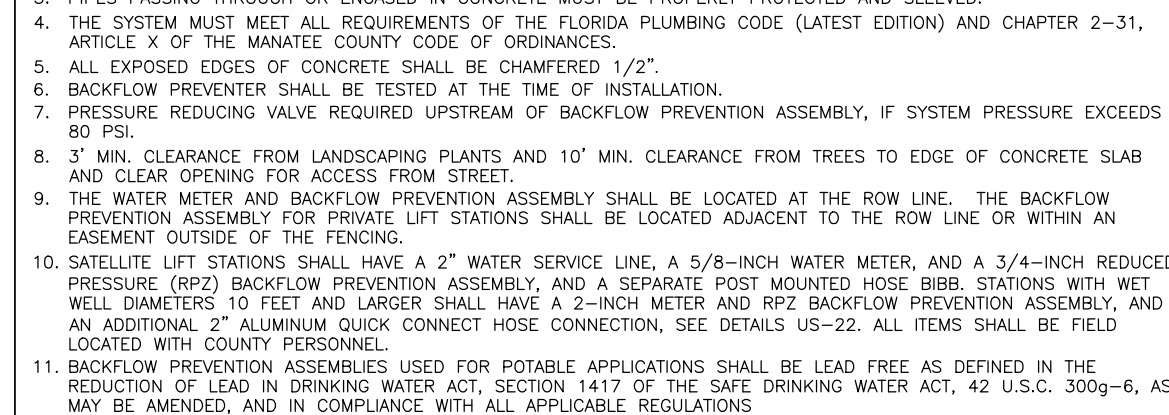
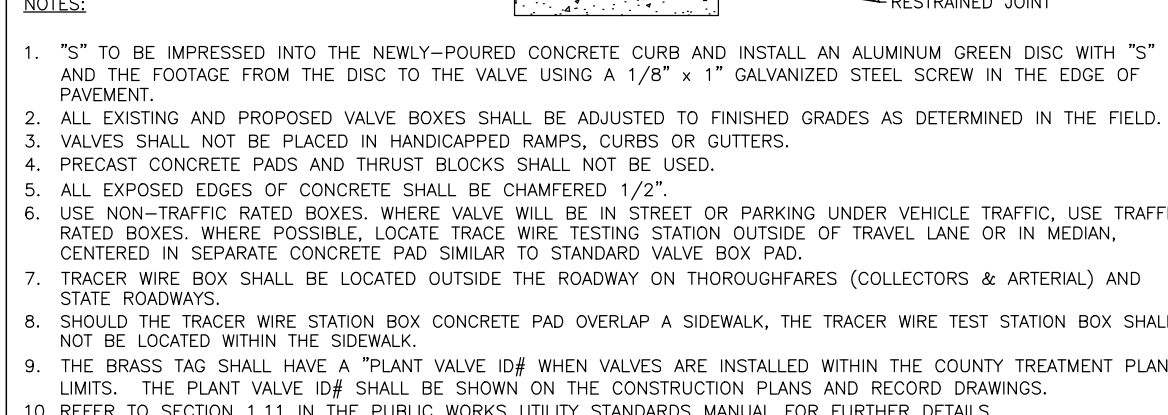
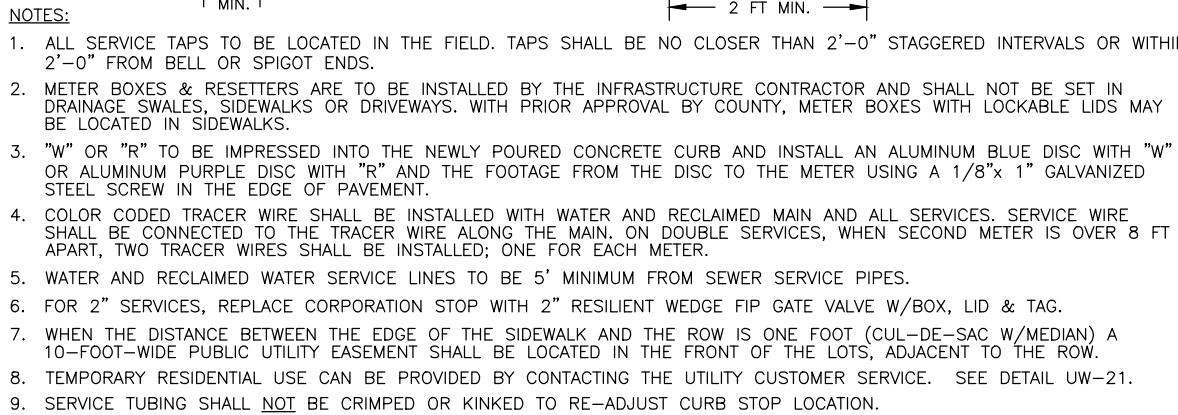
|                |        |
|----------------|--------|
| BOLLARD DETAIL | UG-BOL |
|----------------|--------|

TYPICAL NEW WATER & SEWER LINE CROSSING UG-2

|                                   |      |
|-----------------------------------|------|
| HDPE TO PVC OR<br>BL PIPE ADAPTER | UG-6 |
|-----------------------------------|------|

|                 |      |
|-----------------|------|
| LENGTHS FOR PVC | UG-8 |
|-----------------|------|

|                               |       |
|-------------------------------|-------|
| RESTRAINED<br>LENGTH FOR PIPE | UG-10 |
|-------------------------------|-------|

TYPICAL SERVICE | LIW 23

|             |       |
|-------------|-------|
| VALVE, BOX, | US 14 |
|-------------|-------|

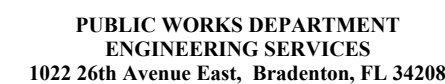
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|--|-------|
| 07/8 WATER METER & BACKFLOW PREVENTION | US 21 |
|--|-------|

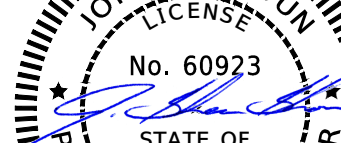
AND BACKFLOW | USC-22SECURITY FENCING | US 24[illegible]

# SATELLITE LIFT STATION R&R

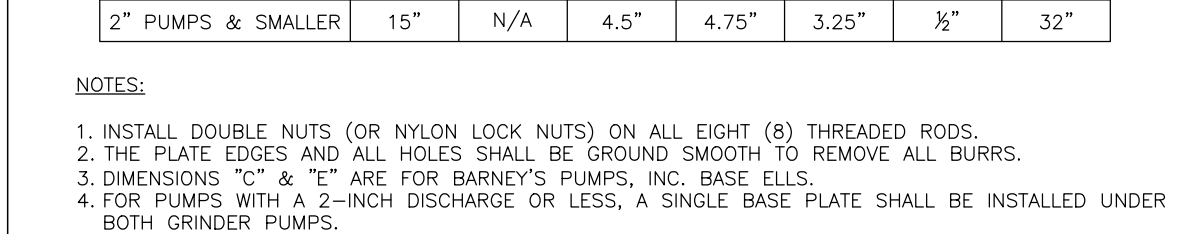
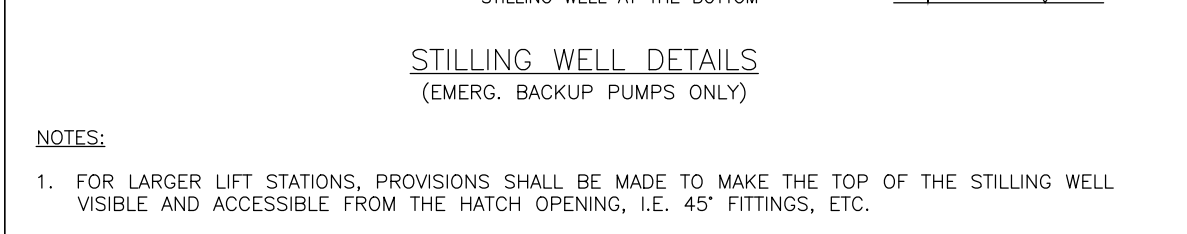
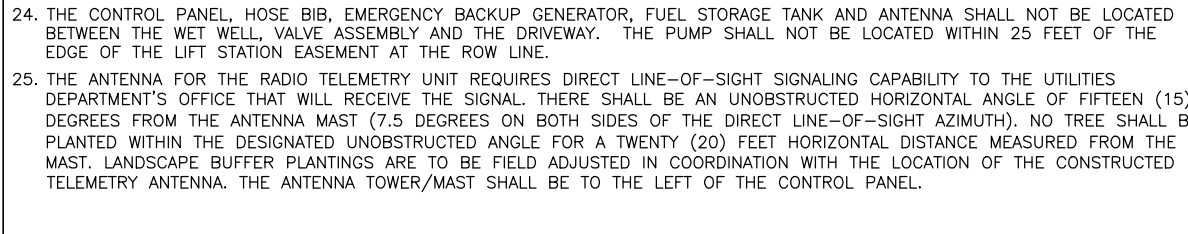
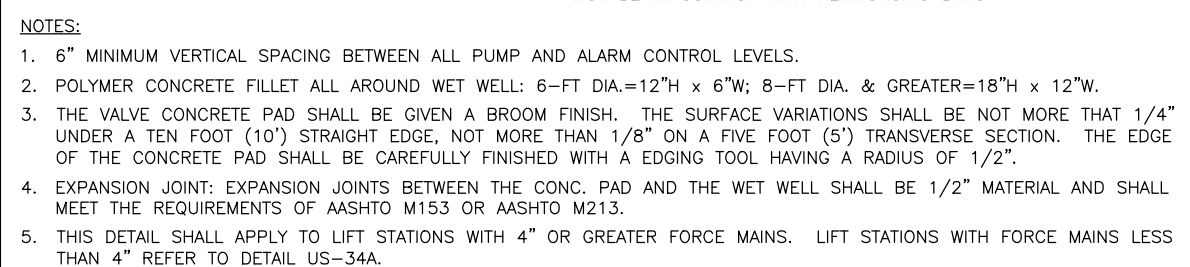
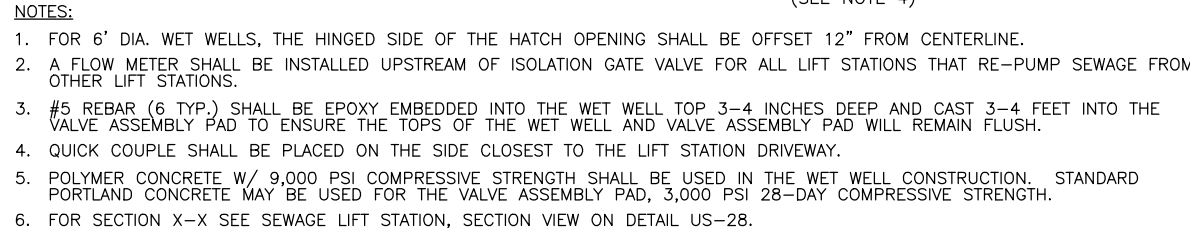
## 2023 GROUP 2

### DETAILS 1

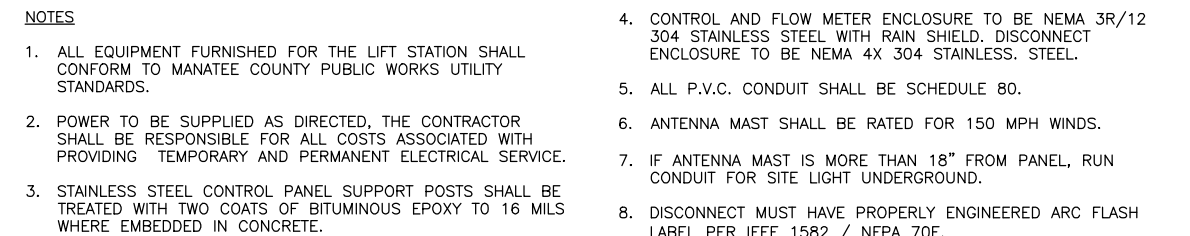


|               |     |                       |  |   |  |
|---------------|-----|-----------------------|--|---|--|
| PROJECT #     |     | 402-0019707 / 5001301 |  | J. SHEA SHOUN, P.E.   |  |
| SURVEY #      |     | NA                    |  |  |  |
| SEC./TWN./RGE |     | VARIES                |  |   |  |
| SCALE         |     | N.T.S                 |  |   |  |
|               | BY  | DATE                  |  |   |  |
| SURVEYED      | NA  | NA                    |  |   |  |
| DESIGNED      | JSS | 4/2023                |  |   |  |
| DRAWN         | KJW | 4/2023                |  |   |  |
| CHECKED       | JSS | -                     |  | Signature _____ Date _____<br>SHEET 09 OF   |  |

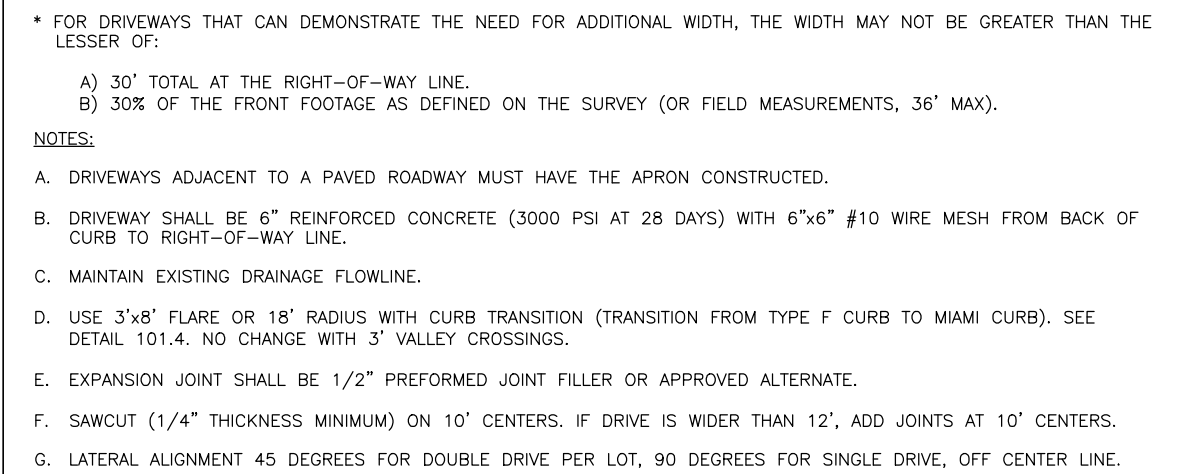
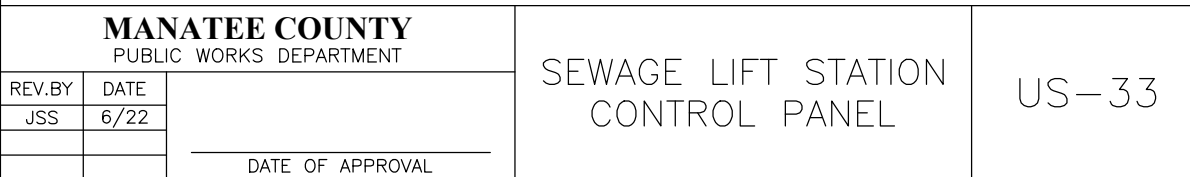




|                                  |       |
|----------------------------------|-------|
| SEWAGE LIFT STATION<br>PLAN VIEW | US-26 |
|----------------------------------|-------|



|   |       |
|---|-------|
| SEWAGE LIFT STATION<br>METER & ELECTRICAL | US-32 |
|---|-------|



|              |       |
|--------------|-------|
| URBAN DRIVES | 101.3 |
|--------------|-------|




[illegible]

**SATELLITE LIFT STATION R&R**

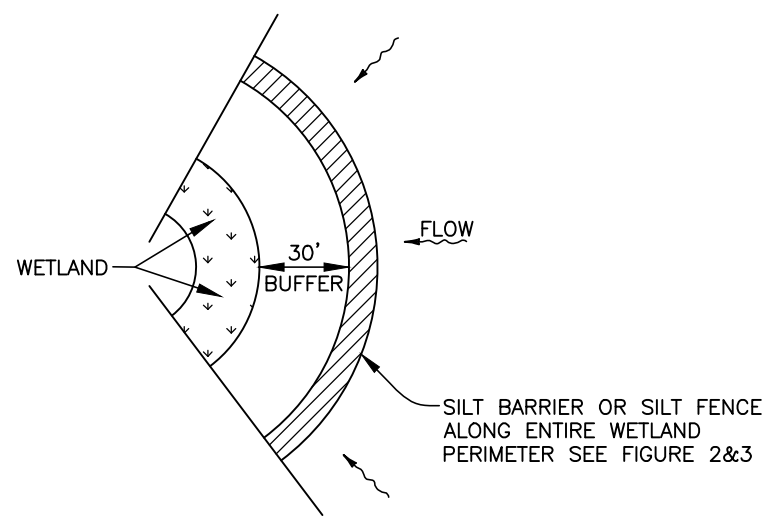
**2023 GROUP 2**

**DETAILS 2**

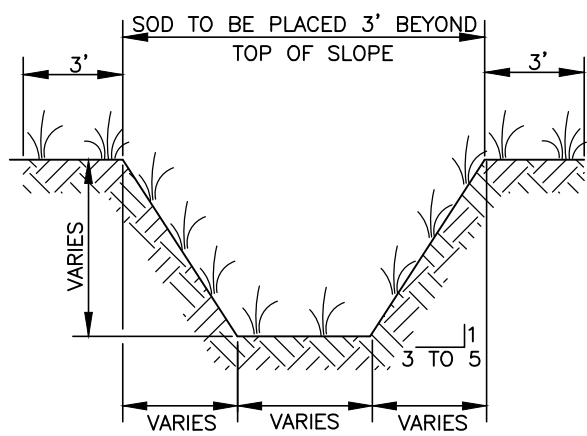


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|----------------|-----|------------------------|--|---|--|
| PROJECT #      |     | 402-0019707 / 5001.301 |  | J. SHEA SHOUN, P.E.   |  |
| SURVEY #       |     | NA                     |  |  |  |
| SEC./TWN./RGE  |     | VARIES                 |  |  |  |
| SCALE          |     | N.T.S                  |  |  |  |
|                | BY  | DATE                   |  |   |  |
| SURVEYED       | NA  | NA                     |  |   |  |
| DESIGNED       | JSS | 4/2023                 |  |   |  |
| DRAWN          | JKW | 4/2023                 |  |   |  |
| CHECKED        | JSS | -                      |  |   |  |
|                |     |                        |  | SIGNED _____ Date _____   |  |
| SHEET 10 OF 11 |     |                        |  |   |  |

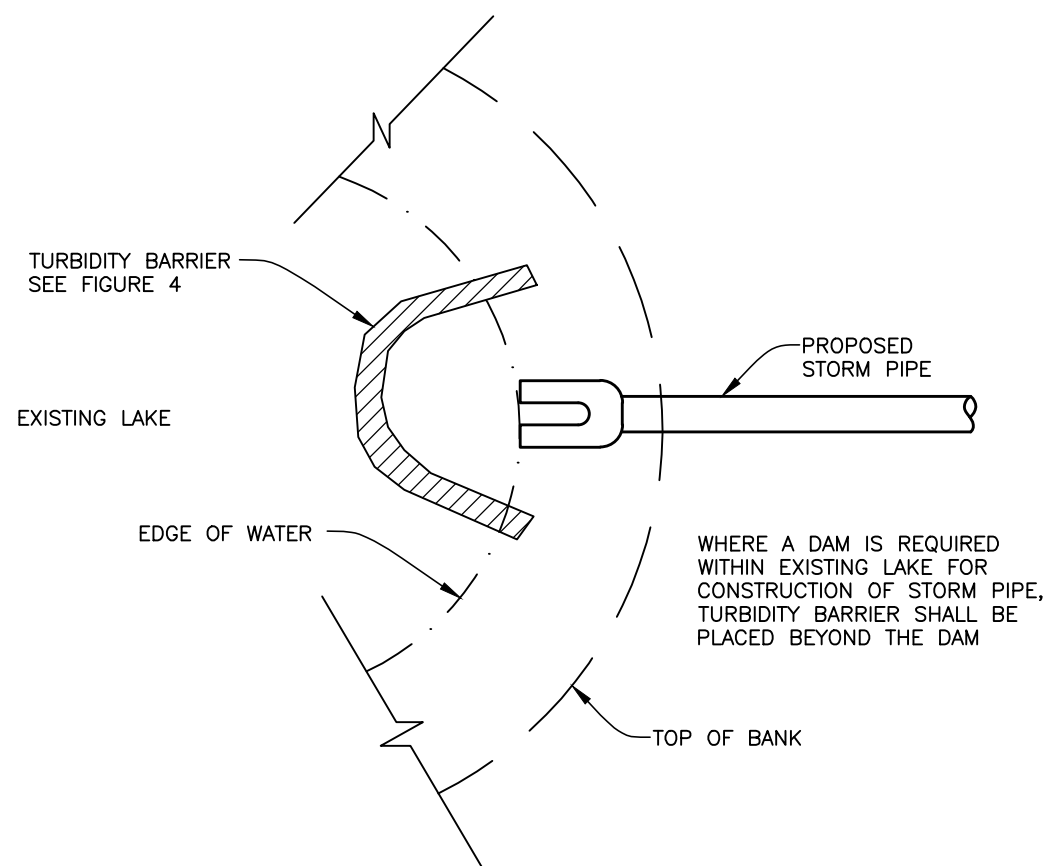




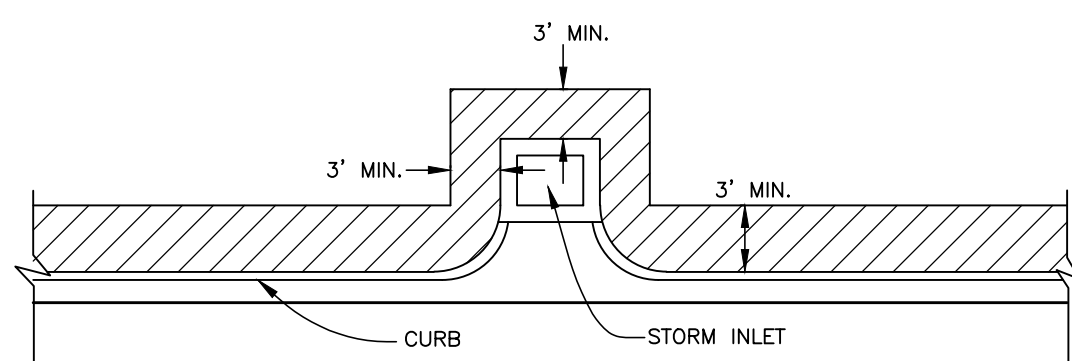
WETLAND BUFFER  
FIGURE 1



TYPICAL SWALE SECTION  
FIGURE 5

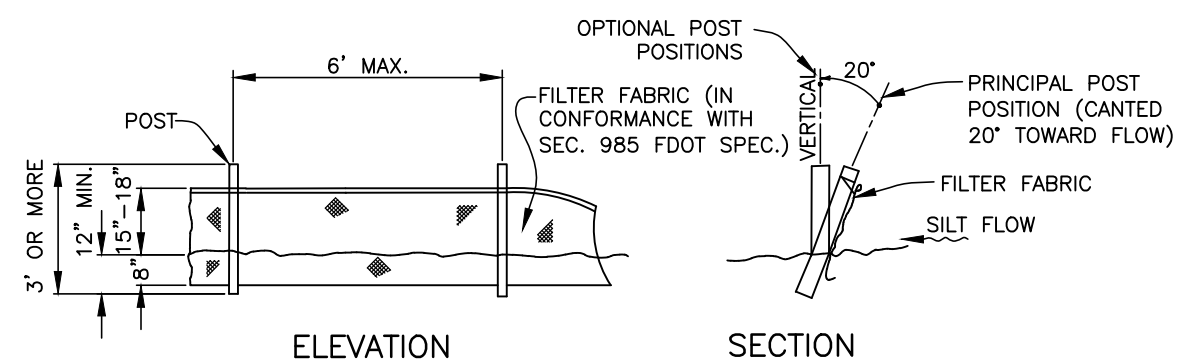


TURBIDITY BARRIER AT CONNECTION OF  
STORM PIPE TO EXISTING LAKE  
FIGURE 9



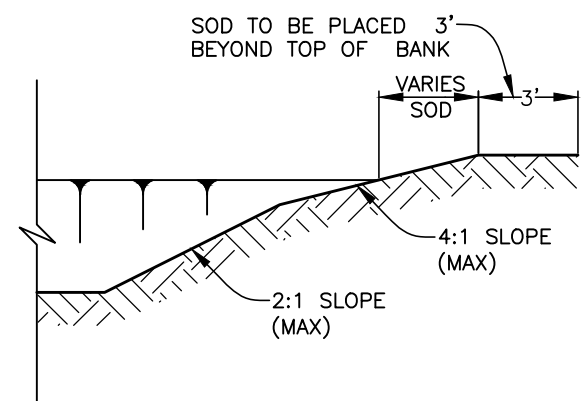
SOD ALONG CURB  
AND AROUND INLET  
FIGURE 14

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

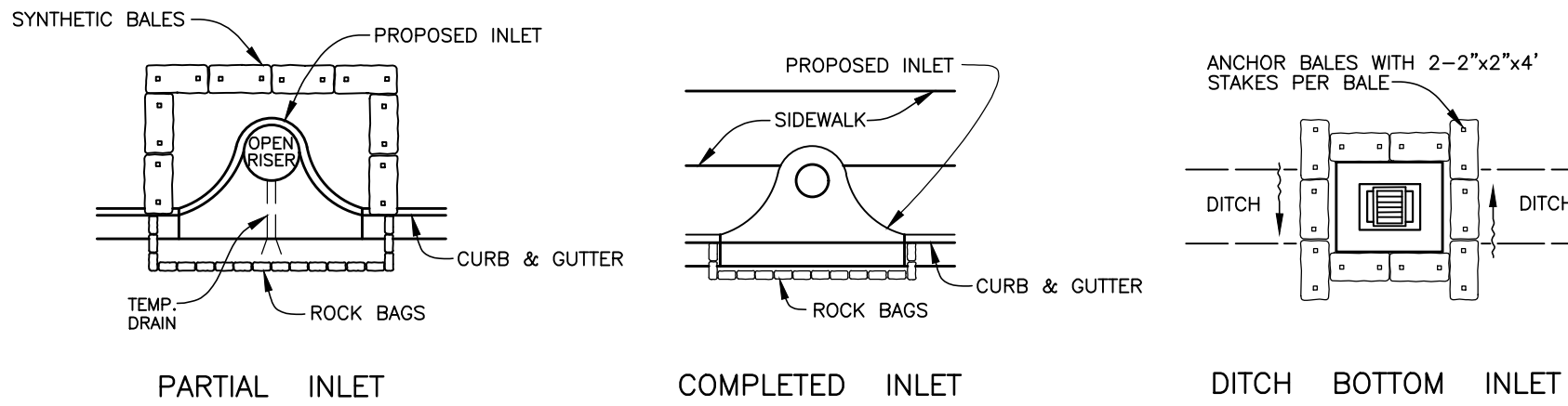


NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

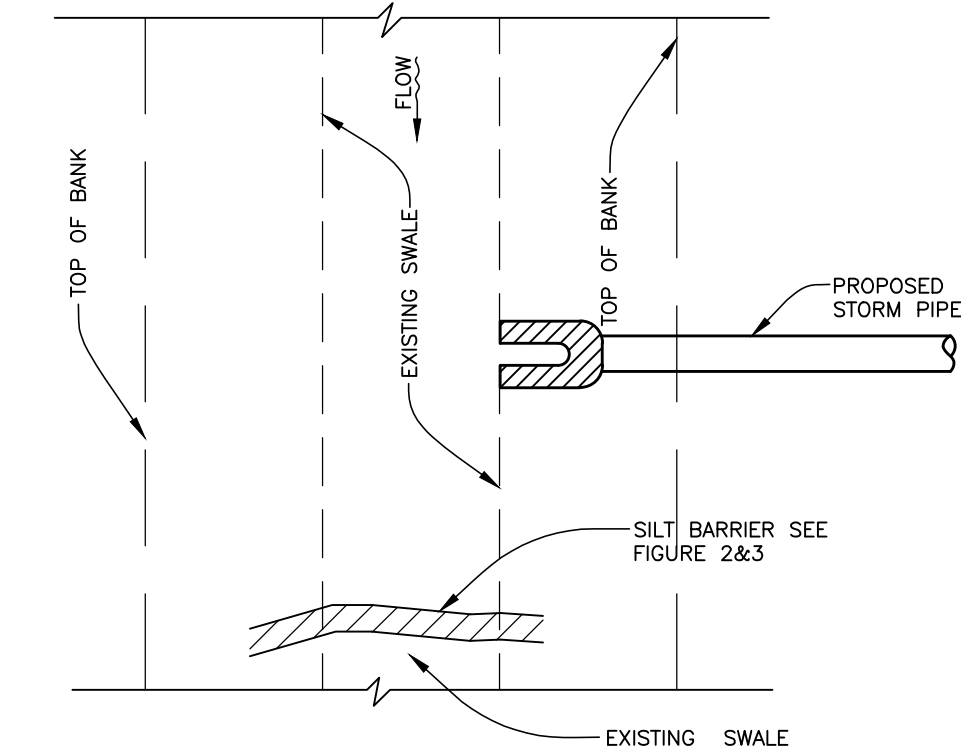
TYPICAL SILT FENCE  
FIGURE 2



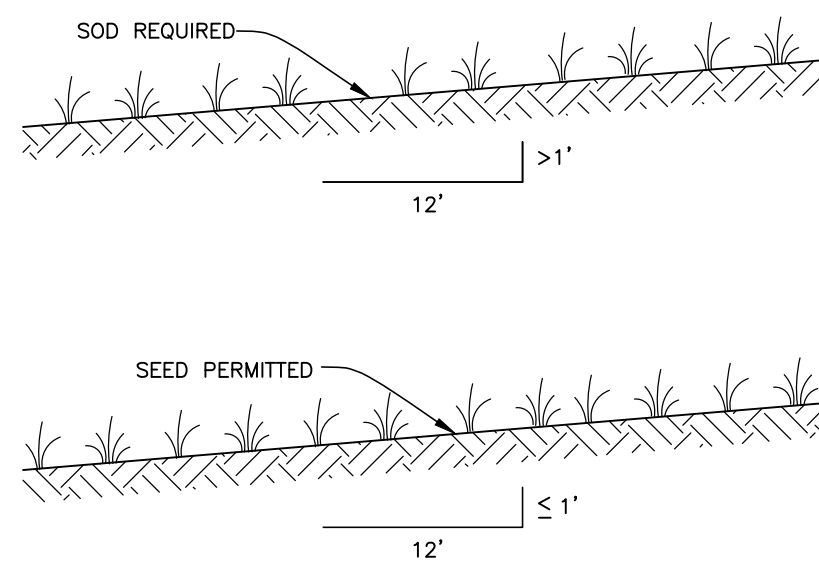
TYPICAL RETENTION/DETENTION POND SECTION  
FIGURE 6



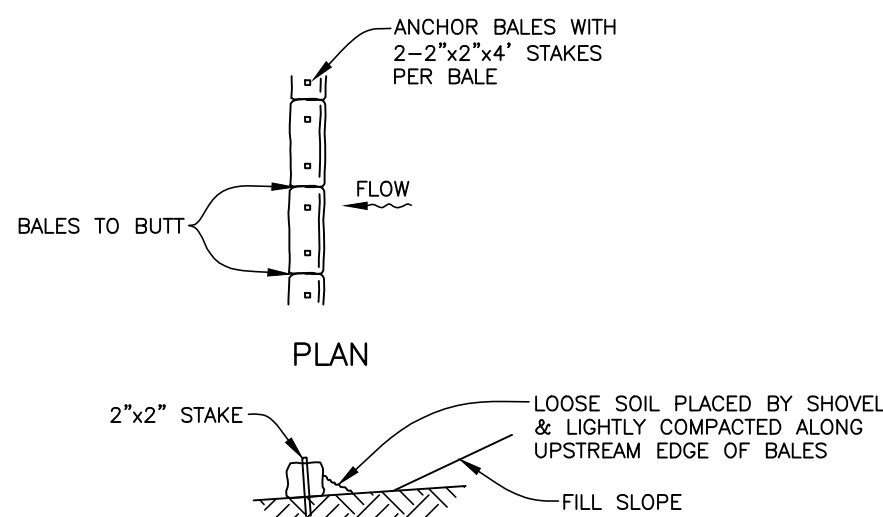
SYNTHETIC BALE PROTECTION AROUND  
INLETS OR SIMILAR STRUCTURES  
FIGURE 7



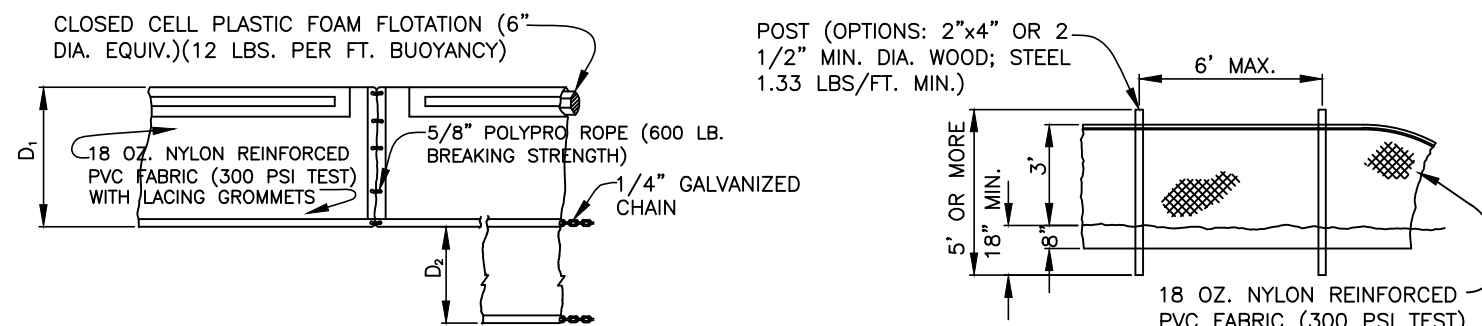
SILT BARRIER AT CONNECTION OF  
STORM PIPE TO EXISTING SWALE  
FIGURE 10



GRASS SLOPES  
FIGURE 13



TYPICAL BALE SILT BARRIER  
FIGURE 3

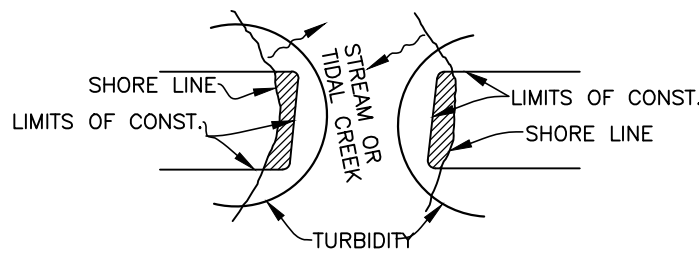


FLOATING TURBIDITY BARRIERS

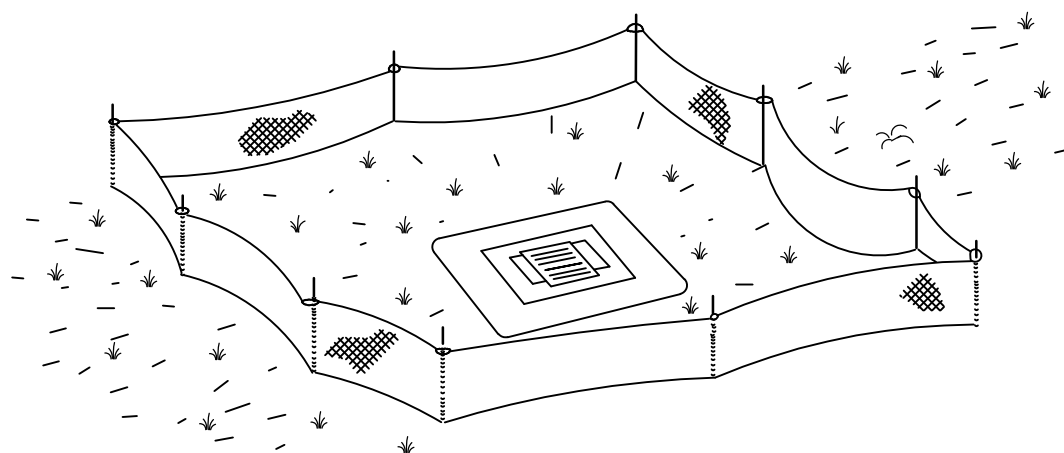
STAKED TURBIDITY BARRIER

D<sub>1</sub> = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). D<sub>2</sub> = 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.

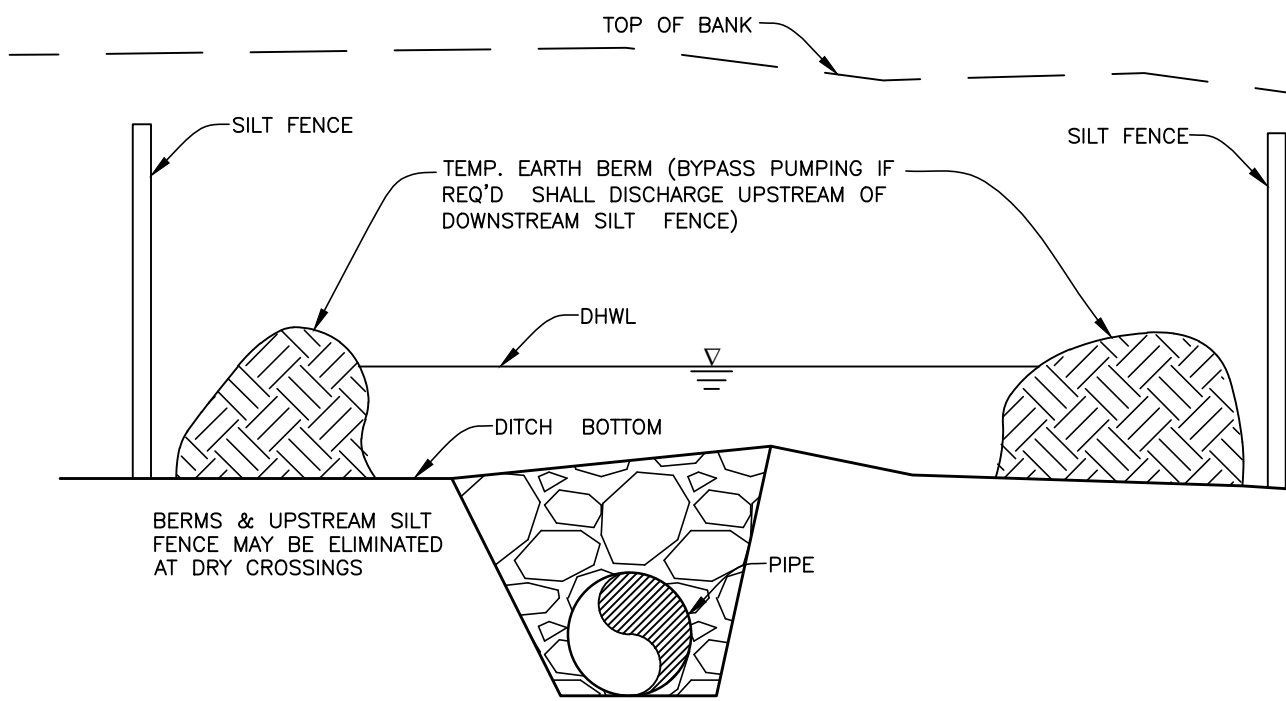


TURBIDITY BARRIERS  
FIGURE 4

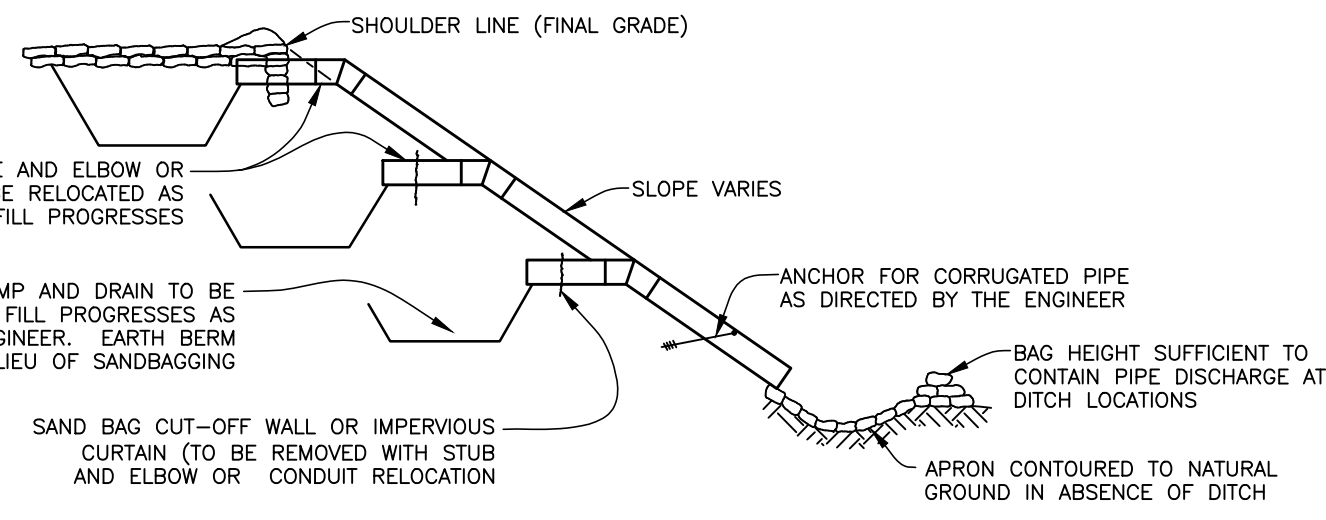


TYPE III SILT FENCE PROTECTION  
AROUND DITCH BOTTOM INLETS

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



UNDERGROUND PIPE CROSSING  
FIGURE 12

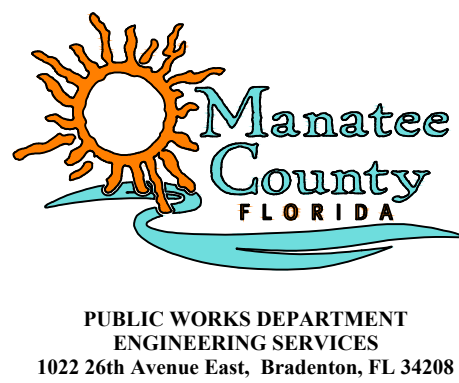


SECTION AA  
TEMPORARY SLOPE DRAIN  
FIGURE 15

# SATELLITE LIFT STATION R&R

## 2023 GROUP 2

# EROSION CONTROL DETAILS



|               |                       |
|---------------|-----------------------|
| PROJECT #     | 402-0019707 / 5001301 |
| SURVEY #      | NA                    |
| SEC./TWN./RGE | VARIES                |
| SCALE         | N.T.S.                |
| SURVEYED      | NA                    |
| DESIGNED      | JSS                   |
| DRAWN         | JKW                   |
| CHECKED       | JSS                   |

|                       |
|-----------------------|
| J. SHEA SHOUN, P.E.   |
| 60923                 |
| STATE OF FLORIDA      |
| PROFESSIONAL ENGINEER |
| DATE                  |