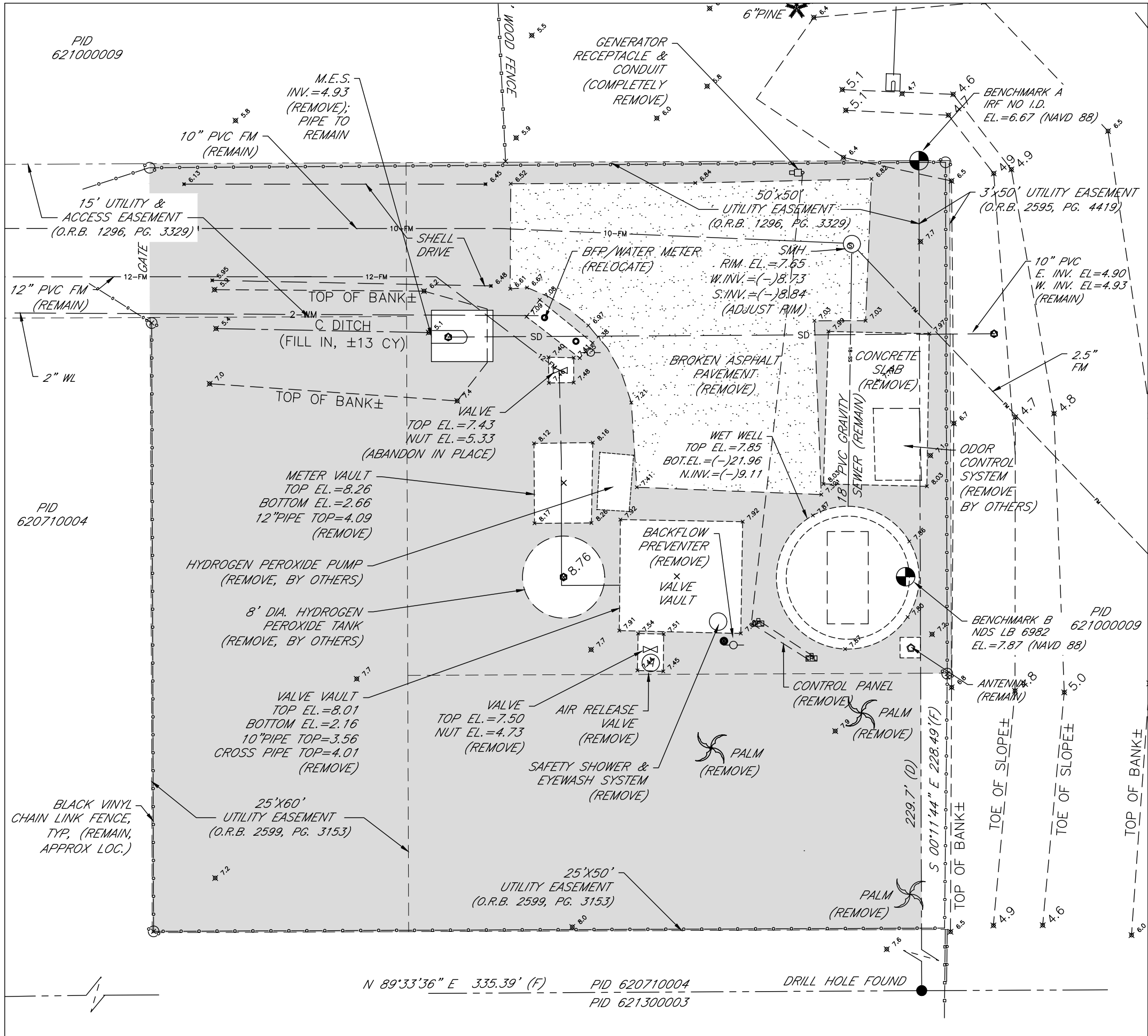


\\S:\P\RD_Engineering_Shera\UHI_Eng_Design\PROJ\N-SAN_SWR_Proj\San_Swr - LS Upgrades\LS N1H (R&R - Backup Pump)\DWG\active-N1H_Rehab & Pump.dwg,3 E-SITE PLAN, 8/11/2017 10:31 AM Shera Shoun, 1:1, ANSI full bleed B (17.00 x 11.00 inches)



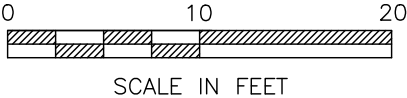
CONTRACTOR SHALL REFERENCE SECTION 11215 OF THE PROJECT SPECIFICATION FOR ADDITIONAL RECORD DRAWING REQUIREMENTS.

GENERAL NOTES:
1. ELEVATIONS ARE BASED ON N.A.V.D. 1988 DATUM, MANATEE COUNTY BENCH MARK "CONNECTICUT" (PID DM6244), PUBLISHED ELEVATION OF 10.73 FEET.



ORIGINAL SHEET SIZE: 11"X17"

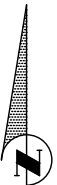
SATELLITE LIFT STATION R&R
SLS N1H REHAB & EMERGENCY BACKUP PUMP
SITE PLAN EXISTING CONDITIONS



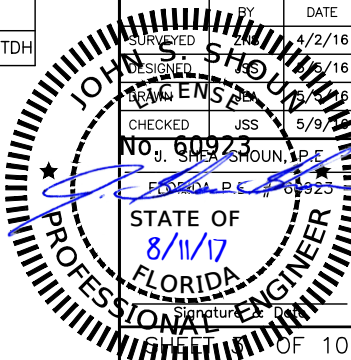
N1H	
ITEM	VALUE
RTU	513
STREET ADDRESS	12220 US 41 NORTH
CITY	PALMETTO
FIRE DISTRICT	NORTH RIVER
NUMBER OF PUMPS	3
HORSE POWER/PUMP DESIGN	20
PHASE	3
VOLTS	230
MODEL OF MAIN BREAKER	SD KAL36200
FLOOD ZONE	AE
TOP OF WET WELL EL.	7.85 NAVD
SERVICE AMPERAGE	200
PUMP OPERATING POINT	500 GPM / 65.8 TDH

NO.	DATE	BY	REVISION DESCRIPTION
1	8/11/17	JSS	UPDATED TABLE - AMPERAGE

PROJECT #	402-5138380
SURVEY #	00-44134
SEC./TWN./RGE	18/33/18
SCALE	SEE PLAN
BY	DATE
SURVEYED	4/2/16
DESIGNED	5/6/16
DRAWN	5/5/16
CHECKED	5/9/16
J. SHERA SHOUN, P.E.	
STATE OF FLORIDA	
PROFESSIONAL ENGINEER	
Signature	



Know what's below.
Call before you dig.



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.

METER BOX (COMPLETELY REMOVE; BACKFILL W/ CLEAN & COMPACTED FILL, (±7 CY))

PLAN

ELEVATION

EXISTING
3 PUMP LIFT STATION
NTS

LIFT STATION SCHEDULE (EXISTING)

LIFT STATION NAME	LS NTH
RADIO TELEMETRY UNIT (RTU)	513
WET WELL DIAMETER	12'
DISCHARGE PIPING DIA. (WW)	8"
DISCHARGE PIPING DIA. (VAULTS)	6"/12"
FORCE MAIN DIAMETER	12"
INFLUENT PIPE SIZE	18"
INFLUENT INVERT ELEVATION	-8.10
BOTTOM SLAB ELEVATION	-17.78
WET WELL HATCH ELEVATION	7.85
VALVE VAULT HATCH ELEVATION	7.92
WET WELL VENT PIPE	YES/8" PVC
L.S. DESIGN CAPACITY gpm/TDH	500/65.8
DISCHARGE PIPING PROFILE	STANDARD
CONCRETE RISER ON TOP OF WW	NO
MAGNETIC FLOW METER	N/A
POWER SUPPLY, VOLTAGE/PHASE	230/3
POWER SUPPLY, AMPERAGE	200

PROPOSED

INSTALL FIBERGLASS W.W. LINER	NO
APPLY SPRAY LINER W.W. LINER	YES
INSTALL STILLING WELL	YES
INSTALL FORCE MAIN G.V.	YES
NEW HDPE PIPING IN W.W.	YES, 8"
NEW BASE ELL	4" BPIU-14
RAISE TOP OF WET WELL:	NO
RAISE TOP OF VALVE VAULT:	NA
INSTALL WET WELL VENT PIPE	YES
INSTALL NEW WATER SERVICE ASSEMBLY, US-15	NO
RELOCATE EX. WATER SERVICE ASSEMBLY	YES

GENERAL NOTES:

1. CONTRACTOR SHALL NOT BACKFILL OVER ELECTROFUSED COUPLINGS 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.
3. ALL 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 A EDGING TOOL HAVING A RADIUS OF 1/2".
4. 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.
5. 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.
6. ALL PAINTING SHALL BE INCLUDED IN THE BID ITEM, MISCELLANEOUS WORK.

INSTALL NEW ABOVEGROUND METER PER MANUFACTURER'S RECOMMENDATIONS

CONNECT 12" DIP TO PROP. GATE VALVE

INSTALL 90° 12"x 8" RED. ELBOW, DI (ABOVE)

INSTALL SPOOL PIECE, DI, 2 TYP., (AS REQUIRED)

INSTALL CONC. SLAB

INSTALL 8" TEE, DI

INSTALL 8" CROSS, DI

INSTALL 1/2" TAPPED HOLE W/BRASS PLUG

INSTALL 8" GATE VALVES, 5 TYP

INSTALL 8" TEE, DI

INSTALL 8" WEIGHTED SWING CHECK VALVE, (3 TYP.)

INSTALL PIPE BRACING SYSTEM SEE DETAIL SHEET

INSTALL 6" ALUM. QUICK CONNECT. W/ ALUM. CAP

INSTALL 2" SCH. 80 PVC CONDUIT, 4 TYP. (±40 LF)

INSTALL MOLDED 90° ELBOW, SHOP FUSED (2 TYP.)

APPROX. 36"x109" MIN. CLEAR SPACE OPENING; (3)-SINGLE HEAVY DUTY ALUMINUM HATCH. BILCO OR APPROVED EQUAL

INSTALL ADJUSTABLE S.S. FLANGED VALVE SUPPORTS, (7 TYP.)

NEW ROUND WET WELL TOP w/ DURAPLATE PROTECTIVE LINER

GRADE AROUND WET WELL AND VALVE ASSEMBLY PAD TO LEAVE A 4" REVEAL.

REPAIR DAMAGED EX. DURAPLATE LINER, AS NEEDED, PER MANUFACTURER'S RECOMMEND. PROVIDE COPY TO COUNTY. ALL REPAIRS SHALL BE VERIFIED WITH COUNTY PERSONNEL PRIOR TO COMMENCING WORK.

INSTALL 90° 12"x 8" RED. ELBOW, DI (ABOVE)

INSTALL POLYETHYLENE WRAP WHERE DUCTILE IRON PIPE IS ENCASED IN CONCRETE.

INSTALL 12" 90° ELBOW, MJ, DI (BELOW)

CONNECT TO PROP. GATE VALVE

INSTALL 6" THICK CONC. PAD, CLASS 1, 3,000 PSI @ 28 DAYS ON COMPACTED SOIL (TOP ELEVATION TO MATCH WET WELL RIM ELEVATION)

SUCTION LINE FROM EMERG. BACKUP PUMP (TO BE FIELD ADJUSTED)

CONCRETE REPAIR, AS NEEDED

INSTALL 316 SS PIPE BRACING SYSTEM, (2 MIN.). TOP BRACE TO BE 4' FROM TOP. LOWER BRACE TO BE 4' ABOVE BASE ELLS. MAX SPACING OF 8' BETWEEN BRACES. (SEE DETAIL SHEET)

INSTALL HDPE SDR-11 PIPE, (3 TYP.)

INSTALL NEW 316 SS PUMP GUIDE RAIL SYSTEM COMPOSED OF SINGLE LENGTH (WELDED) 2" PIPES (3 TYP)

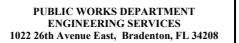
INSTALL PREFABRICATED HDPE FLANGE ADAPTER W/S.S. BACKING PLATE, SHOP FUSED (3 TYP.)

INSTALL NEW 8"x4" ECC. REDUCER, DI, (3 TYP.)

INSTALL NEW 4" BPIU PUMP BASE ELBOWS, (3 TYP.)

INSTALL NEW 4" BASE ELBOW MOUNTING PLATES AND ANCHOR BOLTS; MAY REQUIRE GRINDING OR LEVELING OF BASE GROUT (SEE BASE ELL MOUNTING PLATE DETAIL ON DETAIL SHEET) (3 TYP)

*** DISTANCE IS PER METER MANUF. SPECIFICATIONS TO ENSURE ACCURACY OF METER.**



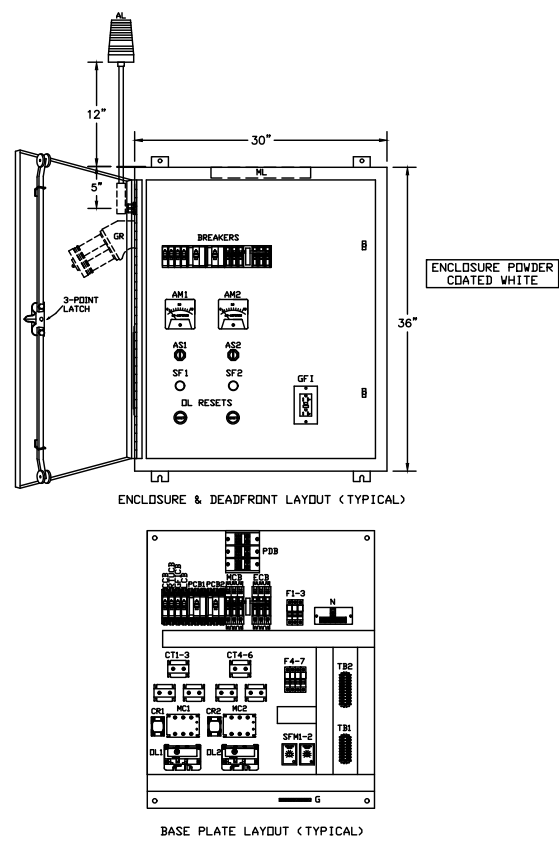
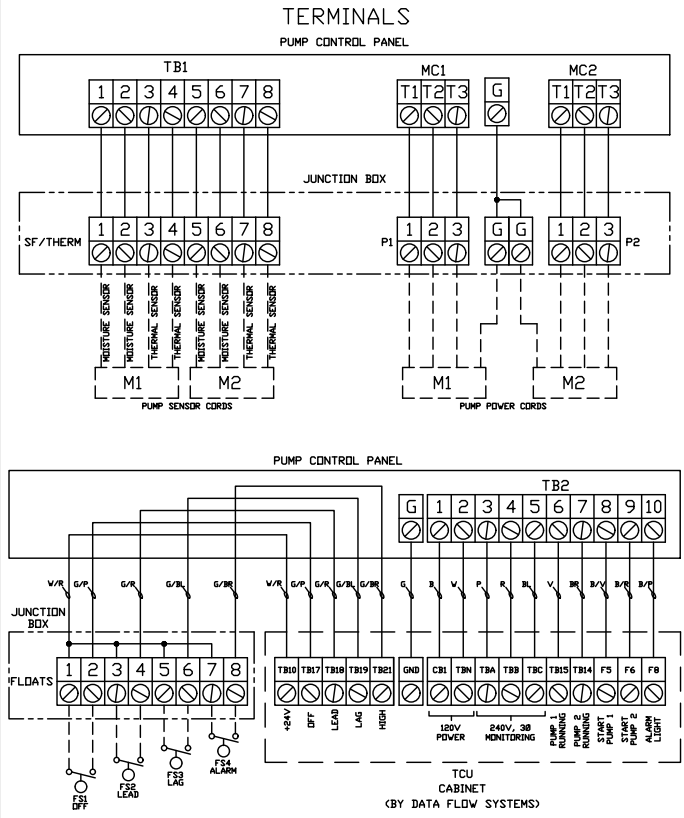
**SATELLITE LIFT STATION R&R
SLS N1H REHAB & EMERGENCY BACKUP PUMP
LS N1H, RTU 513**

NO.	PLAN REVISIONS	REVISION DESCRIPTION	BY	DATE
1			JSS	8/11/17

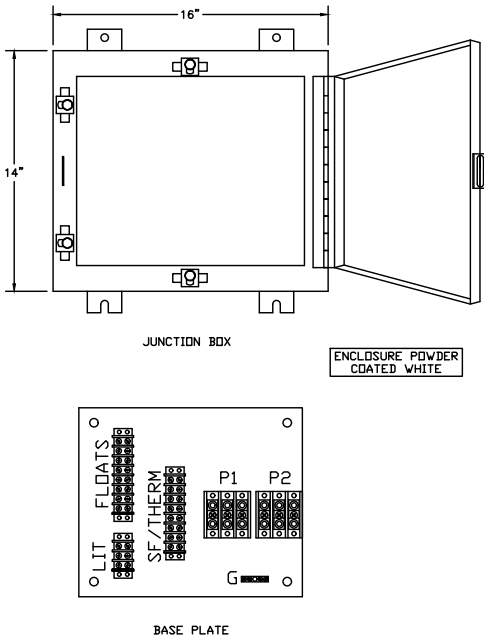
PROJECT #	402-5138380
SURVEY #	00-44134
SEC./TWN./RGE	18/33/18
SECTION	SEE PLAN
DRAWN BY	JSS
CHECKED BY	JSS
DATE	5/5/16
DATE	5/9/16
J.S. SCHA SKOLM, P.E.	
STATE OF FLORIDA ENGINEER'S SEAL	
Signature & Date	

SHEET 5 OF 10

SHEET 5 OF 10



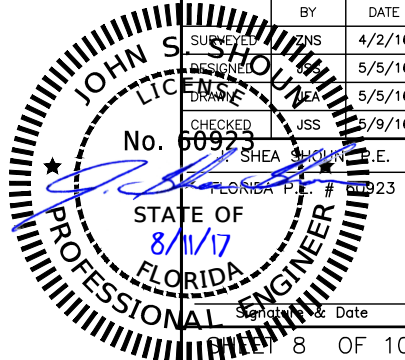
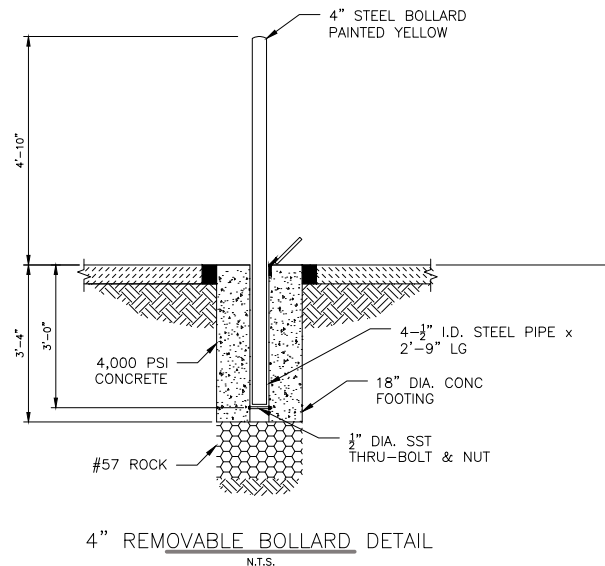
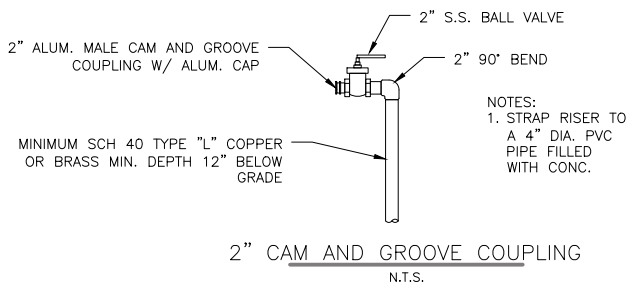
JUNCTION BOX BILL			OF MATERIALS
QTY.	ABBR.	DESCRIPTION	MANUFACTURER, PART#
1	ENC	ENCLOSURE, 304SS N4X (WHITE)	CUSTOM EQUIPMENT, 14X16X8-WHT-MANCO
2		8-POINT TERMINAL BLOCK	IDEAL, 89-208
1		3-POINT TERMINAL BLOCK	IDEAL, 89-203
2		PUMP TERMINAL BLOCK	MARATHON, 1323572
1	G	GROUND BAR	EATON, GBK5



MANATEE COUNTY		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27C
PUBLIC WORKS DEPARTMENT			
REV. BY	DATE		
DATE OF APPROVAL			

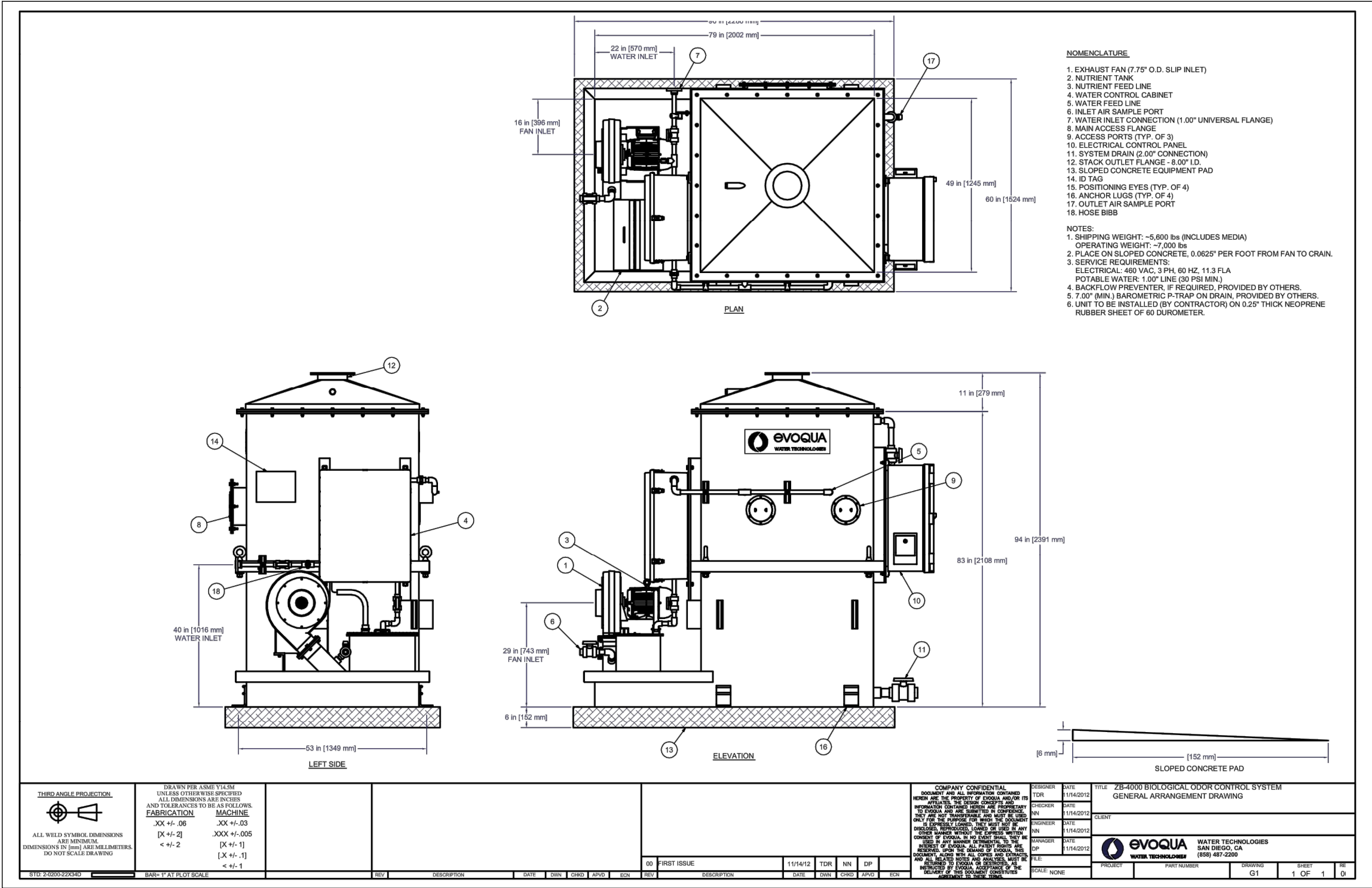
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27D
REV. BY	DATE		
DATE OF APPROVAL			

MANATEE COUNTY		SEWAGE PUMP STATION CONTROL PANEL (230V)	US-27E
PUBLIC WORKS DEPARTMENT			
REV. BY	DATE		
DATE OF APPROVAL			



SATELLITE LIFT STATION R&R SLS N1H REHAB & EMERGENCY BACKUP PUMP DETAILS

I:\P\RD_Engineering_Short\URI_Eng_Design\PROJ\SS-SAN_SWR_Proj\San_Swr - LS Upgrades\LS NTH (R&R - Backup Pump)\DWG\SS-active\NTH Rehab & Pump.dwg,9 DODR DETAILS, 8/11/2017 10:32 AM Shee Shoun, 1:1, ANSI full bleed B (17.00 x 11.00 inches)



ODOR CONTROL EQUIPMENT DETAIL
(BY OTHERS; FOR REFERENCE)
N.T.S.

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

ORIGINAL SHEET SIZE: 11"X17"

SATELLITE LIFT STATION R&R
SLS N1H REHAB & EMERGENCY BACKUP PUMP
DETAILS

NO.	REVISION DESCRIPTION	BY	DATE
1	CURRENT DETAIL FROM EVOQUA	JSS	8/11/17

PROJECT #	402-5138380
SURVEY #	00-44134
SEC./TWN./RGE	18/33/18
SCALE	SEE PLAN
BY	DATE
SURVEYED	TNS 4/2/16
DESIGNED	JSS 5/5/16
DRAWN	JSS 5/5/16
CHECKED	JSS 5/9/16
DESIGNED BY	SHEA SHOUN, P.E.
FLORIDA P.E. #	60923

John S. Shoun
Professional Engineer
No. 60923
STATE OF FLORIDA
8/11/17

Signature & Date

9 OF 10