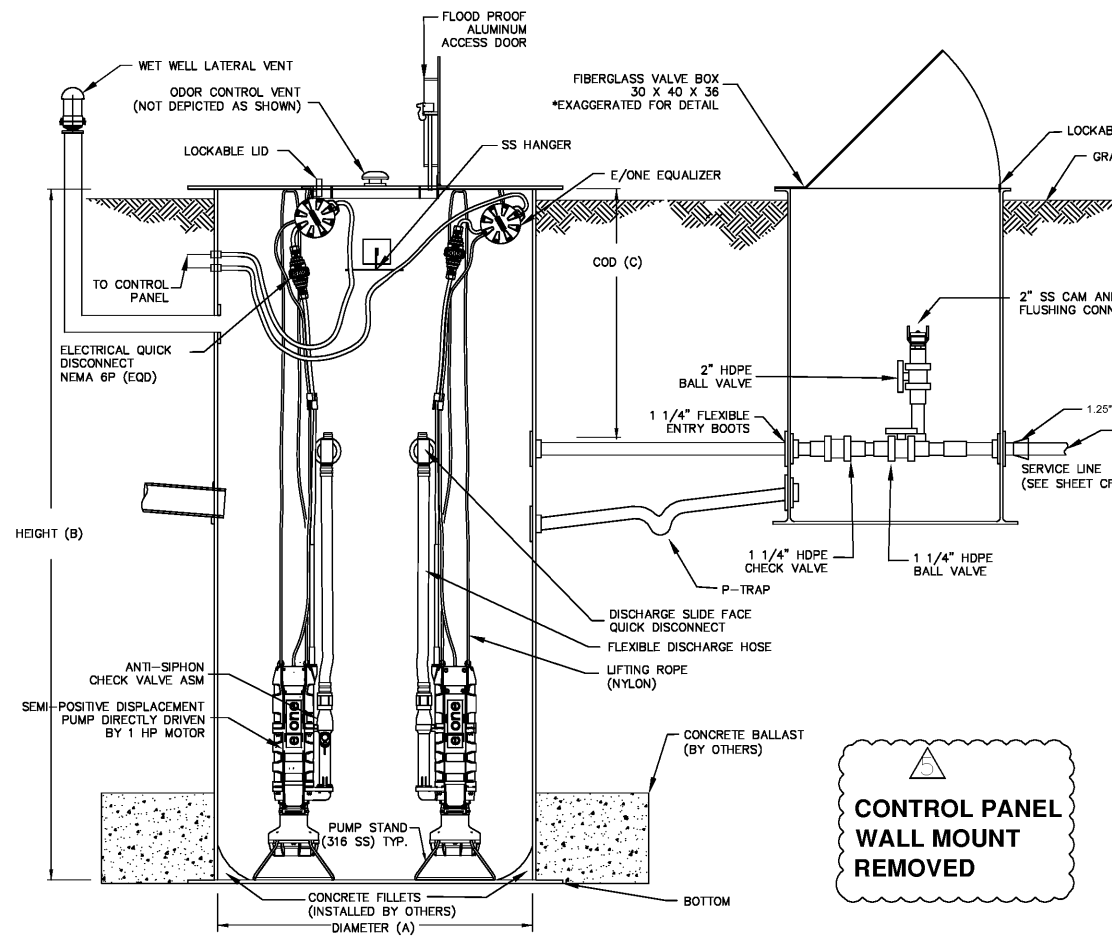


User: PFE04816 G:\PROJECTS\100060192 - CF - Micco Rd & US-1\10 CAD\CF09.8 BREVARD COUNTY PUBLIC WORKS NOTES.dwg



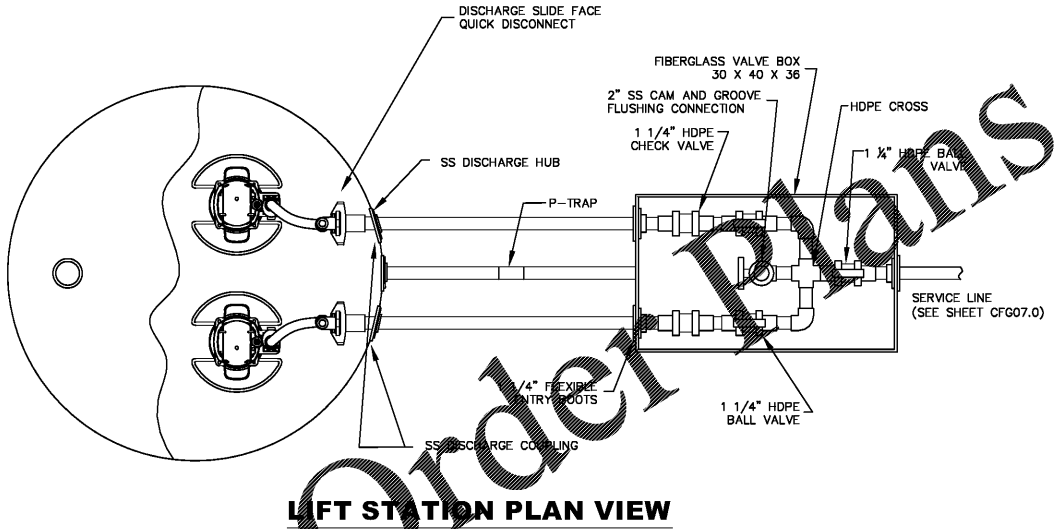
LIFT STATION SECTION VIEW

*NOTE VIEWS EXAGGERATED FOR DETAIL N.T.S.

PLAN VIEW ALUMINUM COVER

DUPLEX CONTROL PANEL: CONTROL PANEL SHALL BE ASSEMBLED AND BUILT BY A UL508A CERTIFIED MANUFACTURE FACILITY. THE ENCLOSURE SHALL BE NEMA 4X FIBERGLASS WITH PADLOCKABLE DRAW LATCHES. THE FOLLOWING COMPONENTS SHALL BE MOUNTED THROUGH THE ENCLOSURE: RED ALARM BEACON (LIGHT) ALARM HORN GENERATOR RECEPTACLE WITH WEATHERPROOF COVER ALARM SILENCE PUSHBUTTON THE BACKPANEL SHALL BE FABRICATED FROM 0.125 MARINE ALLOY ALUMINUM. ALL COMPONENTS SHALL BE MOUNTED BY MACHINED STAINLESS STEEL SCREWS. THE FOLLOWING COMPONENTS SHALL BE MOUNTED TO BACKPANEL: MOTOR CONTACTORS VOLTAGE MONITOR FOR SINGLE PHASE MOTORS OR PHASE MONITOR FOR THREE PHASE MOTORS CONTROL TRANSFORMER FOR 480 VOLT SILENCE RELAY DUPLEX ALTERNATOR TERMINALS FOR FIELD CONNECTIONS TERMINALS FOR MOTOR CONNECTIONS FOR SINGLE PHASE MOTORS GROUNDING LUGS THE INNERDOOR SHALL BE FABRICATED FROM 0.063 MARINE ALLOY ALUMINUM. THE INNER DOOR SHALL HAVE A CONTINUOUS ALUMINUM PIANO HINGE. THE FOLLOWING COMPONENTS SHALL BE MOUNTED THROUGH THE INNERDOOR: MAIN CIRCUIT BREAKER EMERGENCY CIRCUIT BREAKER MECHANICAL INTERLOCK FOR EMERGENCY AND MAIN BREAKERS SHORT CIRCUIT PROTECTORS CONTROL CIRCUIT BREAKER SEAL FAILURE INDICATOR LIGHTS HAND-OFF-AUTO SELECTOR SWITCHES PUMP RUN INDICATOR LIGHTS POWER OFF LIGHTS LEASE METER (NON-RESETTABLE) GROUNDING CONVENIENCE OUTLET MISCELLANEOUS ALL WIRING ON THE BACKPANEL SHALL BE CONTAINED WITHIN THE WIRING DUCT. ALL WIRING BETWEEN THE INNERDOOR AND THE BACKPANEL SHALL BE CONTAINED WITH A PLASTIC SPIRAL WRAP. EACH WIRE SHALL HAVE A WIRE NUMBER AT EACH END TO CORRESPOND TO THE AS-BUILT DRAWING FOR FIELD TROUBLESHOOTING. THE CONTROL PANEL SHALL BE ASSEMBLED BY A UL508A CERTIFIED MANUFACTURING FACILITY. ANY VARIATIONS TO THIS PLAN SHALL BE SUBMITTED TO FJ NUGENT & ASSOCIATES TO CONFIRM THAT THE PROPOSED CHANGE DOES NOT CREATE AN EQUIPMENT CONFLICT. COMPONENT SPECIFICATIONS: ALL CIRCUIT BREAKERS SHALL BE MOLDED THERMAL MAGNETIC. THE MECHANICAL INTERLOCK SHALL PREVENT THE NORMAL AND EMERGENCY MAIN BREAKERS BEING ENERGIZED AT THE SAME TIME. AN EMERGENCY GENERATOR RECEPTACLE SHALL BE SUPPLIED IN ACCORDANCE WITH DEP STANDARDS. THE GENERATOR RECEPTACLE SHALL BE ADEQUATELY SIZED TO MEET THE EQUIPMENT OPERATING CONDITIONS. NEUTRAL TO BE SUPPLIED FOR BOTH 230 VOLT 3 PHASE OR 230 VOLT SINGLE PHASE POWER. ALL MOTOR SHORT CIRCUIT PROTECTION DEVICES MUST PROVIDE FOR UNDERVOLTAGE RELEASE AND CLASS 1 OVERLOAD PROTECTION ON ALL THREE PHASES. VISIBLE TRIP INDICATION, TEST, AND RESET CAPABILITY MUST BE PROVIDED WITHOUT OPENING INNER DOOR. OPEN FRAME, ACROSS THE LINE, CONTRACTORS SHALL BE RATED PER IEC STANDARDS AND PROPERLY SIZED PER THE MOTOR REQUIREMENTS. CONTRACTOR SHALL PROVIDE FOR SAFE TOUCH POWER AND CONTROL TERMINALS. LIGHTNING ARRESTOR SHALL MEET OR EXCEED THE REQUIREMENTS OF ANSI/JEE AND SHALL BE SUPPLIED BE INSTALLED BY ELECTRICIAN AND MOUNTED ON THE BOTTOM SIDE OF THE SWITCH DISCONNECT AHEAD OF THE PUMP CONTROL PANEL. A VOLTAGE MONITOR SHALL BE SUPPLIED FOR SINGLE PHASE SERVICE. A PHASE MONITOR SHALL BE SUPPLIED FOR THREE PHASE SERVICE. A GREEN PILOT LIGHT SHALL BE SUPPLIED FOR EACH MOTOR. THE PILOT LIGHT SHALL ILLUMINATE EACH TIME THE MOTOR IS CALLED TO RUN. EACH PUMP SHALL HAVE AN ELAPSED TIME METER TO RECORD THE ACCUMULATED RUN TIME. THE ETM SHALL BE 2\"/>

CONTROL PANEL WALL MOUNT REMOVED

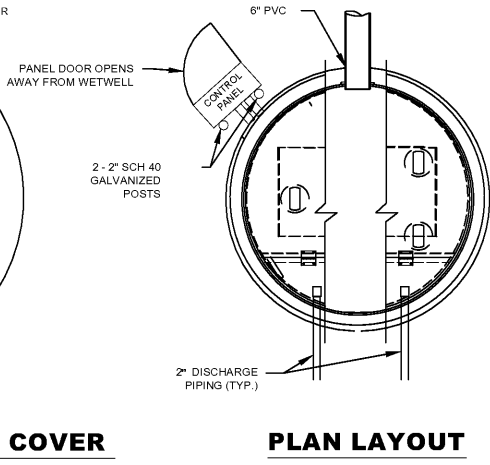


LIFT STATION PLAN VIEW

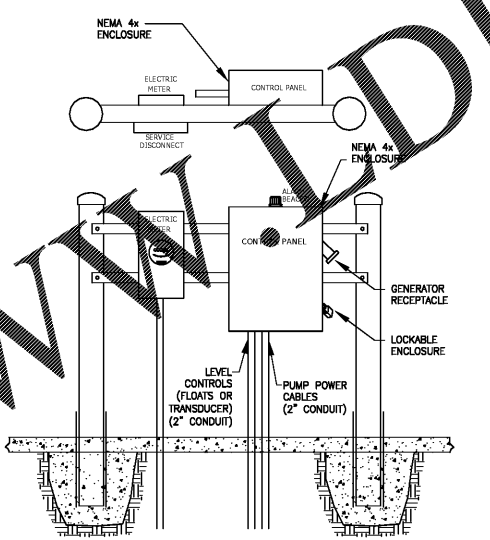
BASIN INSTALLATION INSTRUCTIONS:
 1. INSPECT ALL MATERIALS SUPPLIED TO ENSURE THERE ARE NO DAMAGES DUE TO SHIPPING PRIOR TO INSTALLATION.
 2. EXCAVATE HOLE LARGE ENOUGH TO ACCOMMODATE BASIN, UNDERGROUND PIPING, BACKFILL MATERIAL, AND ADEQUATE WORKING SPACE.
 3. PREPARE THE BOTTOM OF THE EXCAVATED HOLE WITH 6\"/>

FASTENERS AND APPURTENANCES: ALL FASTENERS, LIFTING CABLES, FLOAT CABLE BRACKET, HINGES, AND APPURTENANCES SHALL BE MADE OF 304SS MINIMUM.
 • A 304SS SLIDE/LATCH ASSEMBLY SHALL BE PROVIDED FOR HOLDING THE DOORS OPEN ON THE WET WELL AND VALVE BOX.
 • SLIDE RAILS SHALL BE MADE OF SCH 40 304SS PIPE.
 • PUMP LIFTING CABLES/CHAINS SHALL BE 304SS.
 • PUMP LIFTING BALES SHALL BE MADE OF 304SS.
EXECUTION: INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATIONS IN THE LOCATIONS SHOWN ON THE DRAWINGS.
 CERTIFIED ELECTRICIAN SHALL MOUNT CONTROL PANEL AND CONNECT POWER SERVICE TO PANEL PRIOR TO STARTUP AND FACTORY RFP SITE VISIT.
 THE PUMP CONTACTORS AND PUMPS SHALL BE CHECKED FOR PROPER OPERATION AND ENSURE THAT ALL LEVEL CONTROLS ARE IN ACCORDANCE WITH THE PLANS AND FULLY FUNCTIONING.
 PUMP STATION SHALL BE VENTED PER MANUFACTURE'S RECOMMENDATIONS.

PLAN VIEW ALUMINUM COVER



PLAN LAYOUT



CONTROL PANEL RACK MOUNT

THE TERMINAL STRIP SHALL OPEN A CONTACT TO DE-ENERGIZE THE APPROPRIATE MOTOR UPON A HIGH TEMPERATURE WITHIN THE MOTOR. A 15 AMP GFI DUPLEX RECEPTACLE SHALL BE SUPPLIED AND MOUNTED ON THE INNERDOOR. GROUND LUGS SHALL BE SUPPLIED AND APPROPRIATELY SIZED FOR EACH MOTOR AND FOR SERVICE ENTRANCE. NAMEPLATES FOR THE INNERDOOR AND BACK PANEL SHALL BE OF A GRAPHIC DESIGN, SPECIFICALLY DEPICTING THE INTENT FOR EACH DEVICE. ELECTRICAL NOTES:
 1. DISCONNECT IS REQUIRED WITHIN SIGHT OR 50' MAX FROM PANEL LOCATION.
 2. COORDINATE ALL ELECTRICAL WORK PRIOR TO CONSTRUCTION.
 3. PANEL SHALL BE MANUFACTURED TO UNDERWRITERS'S LABORATORIES STANDARDS AND LABELED ACCORDINGLY.
 4. EACH FLEXIBLE CABLE SHALL BE PROVIDED WITH A WATERTIGHT SEAL AND SEPARATE STRAIN RELIEF.
 5. ELECTRICAL EQUIPMENT EXPOSED TO WEATHER SHALL MEET THE REQUIREMENTS OF WEATHERPROOF EQUIPMENT NEMA 4X.
 6. A 110VOLT POWER RECEPTACLE WITH GROUND FAULT INTERRUPTION (GFI) PROTECTION SHALL BE AVAILABLE TO FACILITATE MAINTENANCE EITHER INSIDE THE CONTROL PANEL OR WITHIN 25 FEET OF CONTROL PANEL.
 7. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
 8. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS WITH APPROPRIATE MATERIAL.
 9. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT.
 10. NEUTRAL TO BE SUPPLIED FOR SINGLE PHASE AND THREE PHASE POWER.
 11. ELECTRICAL EQUIPMENT SHALL BE INSTALLED ABOVE THE 100-YEAR FLOOD ELEVATION (WHERE APPLICABLE).
CONTROL PANEL & GENERAL PERFORMANCE SPECIFICATIONS:
 1. REFER TO ELECTRICAL PLANS FOR LIFT STATION WIRING DIAGRAM AND CONTROL PANEL DETAIL. EXACT PANEL TYPE AND DESIGN WITH WIRING DIAGRAM SHALL BE PROVIDED BY MANUFACTURE'S AUTHORIZED REPRESENTATIVE.
 2. LIFT STATION ELECTRICAL SHOP DRAWINGS SHALL BE SUBMITTED SIGNED/SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
 3. SERVICE DESIGN SHALL BE COORDINATED AND PROVIDED BY THE CONTRACTOR WITH THEIR ELECTRICAL CONTRACTOR AND FPL. THE ELECTRICAL SITE CONTRACTOR SHALL COORDINATE ANY BUILDING ELECTRICAL SERVICE CONSIDERATIONS WITH THE LIFTSTATION POWER AT THEIR AND FPL'S DISCRETION.
 4. PANEL SHALL BE ENGINEERED IN THE MANNER TO MEET THE FDEP SEWER PERMIT PANEL REQUIREMENTS. CONTRACTOR SHALL COORDINATE.
 • BREVARD COUNTY UTILITIES PORTABLE GENERATOR RECEPTACLE
 • BREVARD COUNTY FLUSHING CONNECTION IN VALVE BOX - CONTRACTOR SHALL VERIFY
 5. PANEL SHALL BE WARRANTED BY SUPPLIER UNDER THEIR STANDARD CONTRACT

LIFT STATION SCHEDULE

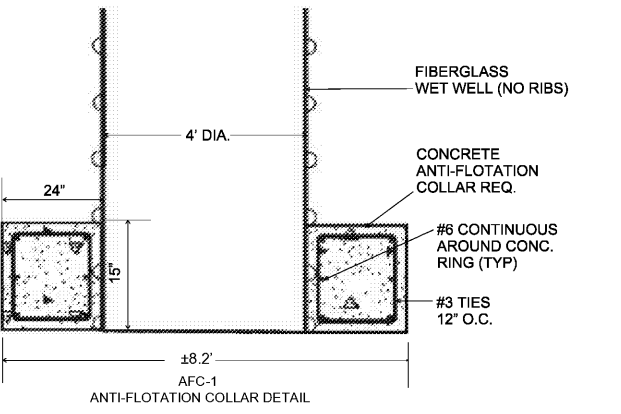
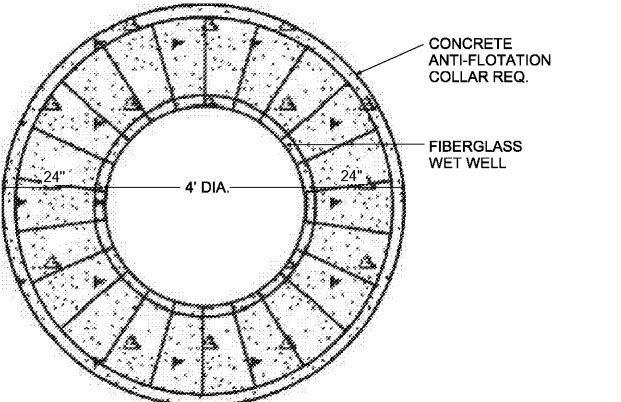
| | | |
|---|-----------------|---|
| H | INLET PIPE SIZE | <input type="checkbox"/> 4" <input checked="" type="checkbox"/> 6" <input type="checkbox"/> 8" <input type="checkbox"/> OTHER |
| I | INLET PIPE TYPE | <input type="checkbox"/> SCH-40 <input checked="" type="checkbox"/> SDR-35 |
| J | INLET TYPE | <input checked="" type="checkbox"/> GROMMET <input type="checkbox"/> CAULKING HUB <input type="checkbox"/> OTHER |
| K | VALVE BOX | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |
| L | VALVE BOX PIPE | <input type="checkbox"/> SCH-40 <input type="checkbox"/> SCH-80 <input checked="" type="checkbox"/> HDPE SDR11 |
| M | VENT TYPE | <input type="checkbox"/> STANDARD MUSHROOM VENT <input checked="" type="checkbox"/> ODOR CONTROL VENT (CARBON FILTER) |

LIFT STATION SIZE CHART

| DIAMETER (A) | HEIGHT (B) | COVER OVER DISCHARGE (C) |
|---|---|---|
| <input type="checkbox"/> 36" | <input checked="" type="checkbox"/> 84" | <input type="checkbox"/> 18" |
| <input checked="" type="checkbox"/> 48" | <input type="checkbox"/> 102" | <input type="checkbox"/> 24" |
| <input type="checkbox"/> 60" | <input type="checkbox"/> 108" | <input type="checkbox"/> 30" |
| <input type="checkbox"/> 72" | <input type="checkbox"/> 114" | <input checked="" type="checkbox"/> 36" |
| <input type="checkbox"/> OTHER | <input type="checkbox"/> 120" | <input type="checkbox"/> 48" |
| | <input type="checkbox"/> 126" | <input type="checkbox"/> OTHER |
| | <input type="checkbox"/> 132" | |
| | <input type="checkbox"/> 138" | |
| | <input type="checkbox"/> 144" | |
| | <input type="checkbox"/> OTHER | |

PUMP INFO

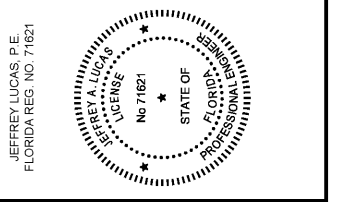
| | |
|---------------------|-----------|
| HORSEPOWER | 1.0 HP |
| VOLTAGE AND PHASE | 230V 1PH |
| MT | 1725 |
| MANUFACTURE | E-ONE |
| MODEL# | U SERIES |
| IMPELLER DIAMETER | 32 mm |
| PUMP DISCHARGE SIZE | 1.00 INCH |



NOTICE TO CONTRACTOR
 CONTRACTOR TO PROVIDE ANTI-FLOTATION COLLAR PER DETAIL AFC-1 WHERE SEASONAL HIGHS WATERABLE EXISTS AT THE LIFT STATION LOCATED 15 FEET OR LESS FROM GRADE.

GENERAL NOTES AND MAINTENANCE:

- CONTRACTOR SHALL ENSURE THE LIFT STATION LID IS ADJUSTED AS NECESSARY TO FINISHED GRADE AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR TO COORDINATE WITH MANUFACTURE'S REPRESENTATIVE ON WARRANTY INFORMATION.
- LIFT STATION IS INTENDED TO BE PRIVATELY OWNED AND MAINTAINED BY OWNER.
- MAINTENANCE PROVIDER SHALL PROVIDE A DECAL WITH THE FOLLOWING INFORMATION:
 LIFT STATION EMERGENCY CONTACT:
 CUMBERLAND FARMS MAINTENANCE
 (XXX) XXX-XXXX
- CONTRACTOR TO AFFIX EMERGENCY CONTACT DECAL ON OR NEAR THE CONTROL PANEL EXTERIOR DOOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY POWER (AS NECESSARY) TO RUN LIFT STATION IF PERMANENT POWER IS NOT ESTABLISHED PRIOR TO USE FOR TESTING.
- SITE & ELECTRICAL CONTRACTOR(S) TO COORDINATE WITH FPL (OR ELECTRICAL PROVIDER) ON PROVIDING PERMANENT POWER TO LIFTSTATION AND DETERMINATION OF ITS LOCATION (I.E. FED FROM BLDG OR STAND ALONE METER PANEL).
- AN AUTHORIZED MANUFACTURE'S REPRESENTATIVE (FJ NUGENT & ASSOCIATES) SHALL BE ONSITE DURING TESTING AND INSTALLATION.
- CONTRACTOR SHALL PROVIDE SIGNED & SEALED CALCULATIONS PRIOR TO PRODUCT PROCUREMENT AT TIME OF SHOP DRAWINGS.



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| Rev | Date | Description | By | Check | Appr | Submittal |
|-----|----------|-------------------------|----|-------|------|-----------|
| 1 | 11/17/18 | BREVARD COUNTY COMMENTS | CP | FA | | |
| 2 | 12/10/18 | BREVARD COUNTY COMMENTS | CP | FA | | |
| 3 | 03/04/19 | BREVARD COUNTY COMMENTS | CP | JA | | |
| 4 | 03/24/19 | BREVARD COUNTY COMMENTS | CP | JA | | |
| 5 | 09/30/19 | PER CLIENT COMMENTS | CP | JA | | |

FOR PERMITTING \$0

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 LOCAL OFFICE: 7175 MURRELL ROAD MELBOURNE, FL 32940
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Project Title:
MICCO ROAD & US-1 BREVARD COUNTY, FL
 100060192

LIFT STATION DETAILS

| Scale | Designed | Drawn | Checked | Authorized |
|-------|----------|-------|---------|------------|
| | JL | DF | | |

Original Size: ARCH D
 Drawing Number: **CFG09.6**

INTENDED SUPPLY VENDOR
 FJ NUGENT & ASSOCIATES
 411 WYLLY AVE
 SANFORD, FL 32773
 (407)936-1139
 HOWARD@NUGENTCO.COM