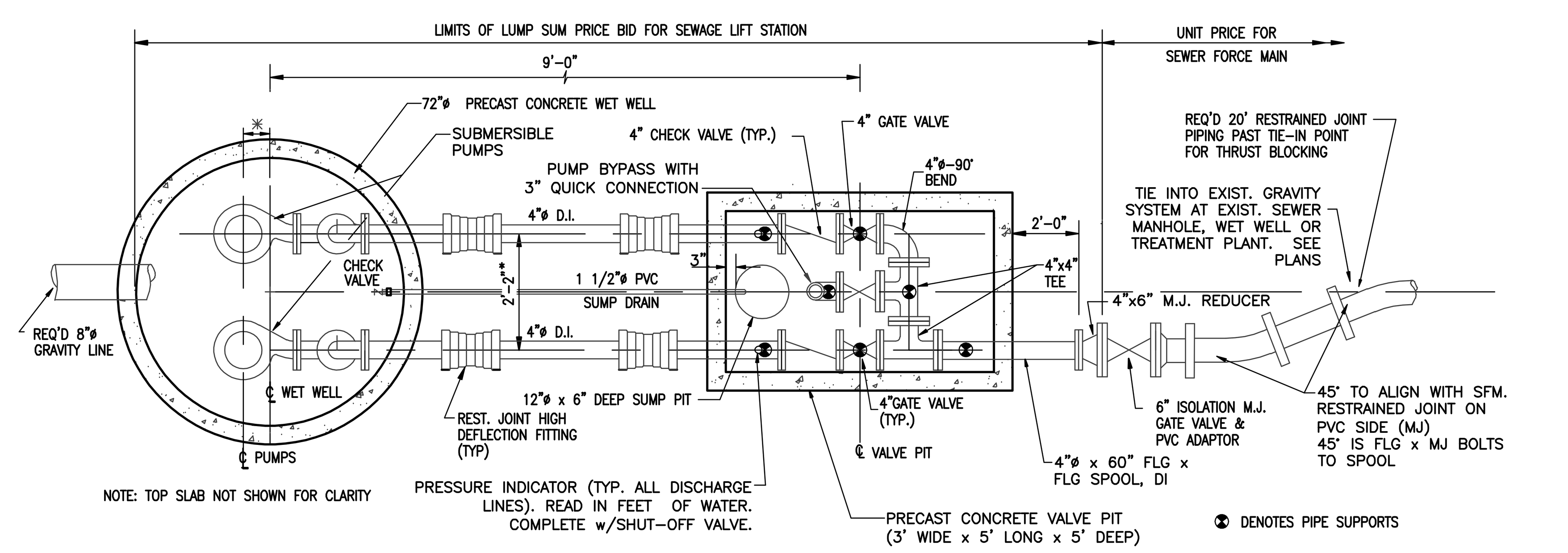
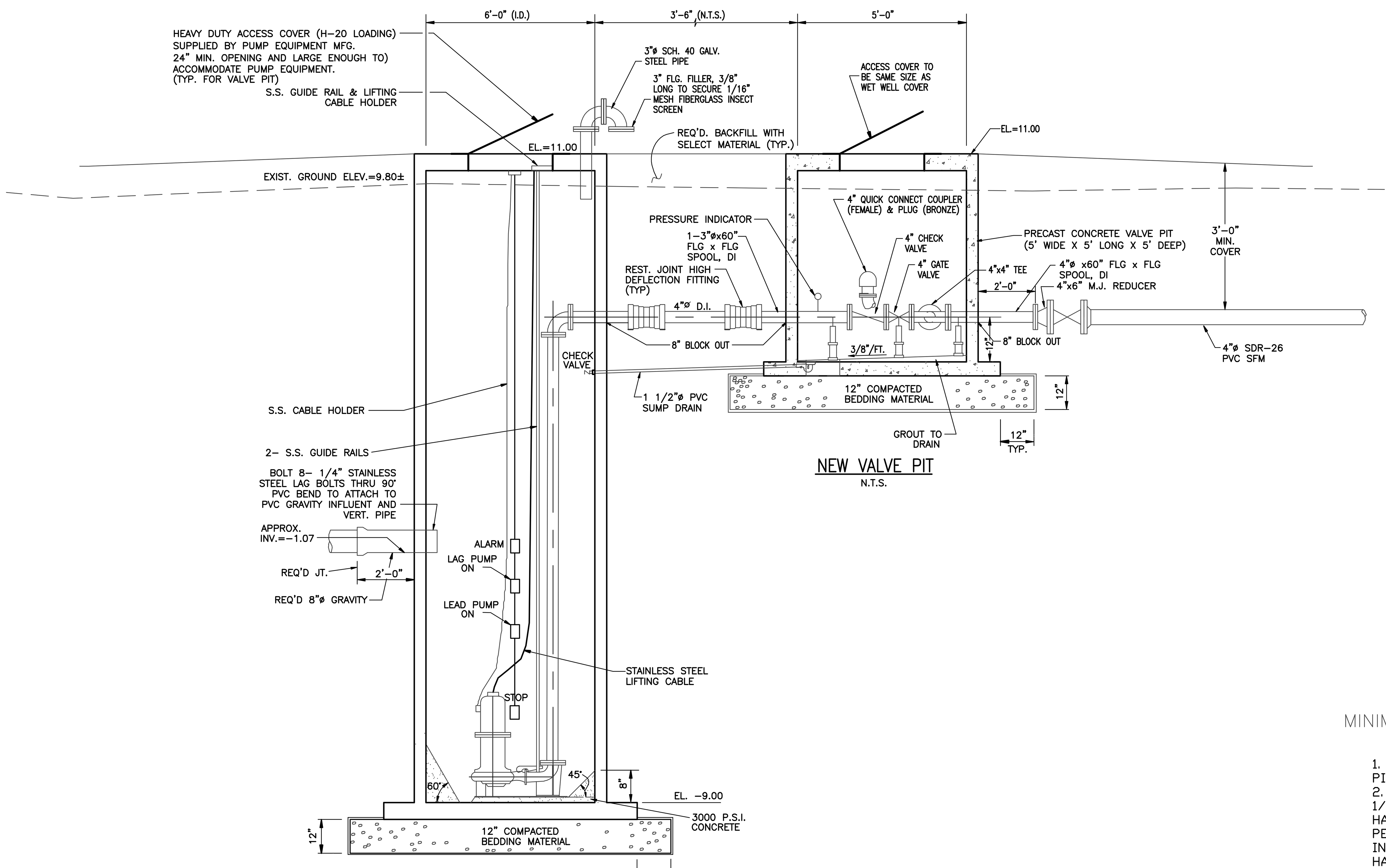


ACCESS FRAME AND COVER DIMENSIONS SHALL ACCOMODATE PUMP EQUIPMENT AND REQUIREMENTS OF CITY OF SLIDELL

SECTIONAL PLAN
N.T.S.



NEW WET WELL
N.T.S.

NEW VALVE PIT
N.T.S.

△ PUMPING STATION DATA TABLE	
NUMBER OF PUMPS	2
DESIGN CAPACITY PER PUMP G.P.M.	124
TOTAL DYNAMIC HEAD, FT.	49.4
MIN. EFF. AT DESIGN CAPACITY, %	37
VOLTS	230
PHASE	3
DESIGN SPEED, MAX. R.P.M.	1,750
MAX. HORSEPOWER PER PUMP	6.2
MAX. SOLIDS, INCHES	3
IMPELLER SIZE, INCHES	8.78
LIN. FT. OF 4" SDR-26 PVC SFM	3027

PUMP CONTROL SETTINGS	
ALARM SIGNAL ON	EL. -1.0
LAG PUMP ON	EL. -3.0
LEAD PUMP ON	EL. -5.5
PUMP(S) OFF (STOP)	EL. -7.0
BOTTOM OF WET WELL	EL. -9.0

△ RECOMMENDED PUMP TO MEET SPECIFICATIONS ABOVE:
GORMAN-RUPP 6.2 HP SUBMERSIBLE PUMP MODEL NO. JSV1V3GEX6.2 WITH 8.78" IMPELLER.

CONTROL PANEL:

1. 230V 3ø DUPLEX NEMA 4R + SCHEMATICS OF MOTOR CONTROLS & MISC. 110-115V CONTROLS.

MINIMUM WET WELL AND VALVE PIT SPECIFICATIONS

1. MINIMUM DISTANCE OF 4 FEET BETWEEN INFLUENT PIPE INVERT AND WET WELL FLOOR.
2. THE WET WELL AND VALVE PIT COVERS SHALL BE 1/4" ALUMINUM FLOOR PLATES WITH STAINLESS STEEL HARDWARE. COVERS SHALL BE DESIGNED FOR 300 POUNDS PER SQUARE FOOT LOADING AND SEALED TO ELIMINATE INFILTRATION. EACH COVER SHALL INCLUDE A LOCKING HASP FOR PADLOCK.
3. THE WET WELL SHALL HAVE A STAINLESS STEEL BRACKET WITH 6 HOOKS. THE PUMP CABLES AND FLOAT CORDS ARE TO BE ARRANGED SO THAT:
   - A. THEY DO NOT EXTEND THROUGH THE DIRECT FLOW OF ANY INFLUENT PIPE.
   - B. A PUMP MAY BE PULLED WITHOUT INTERFERENCE FROM THE FLOAT CORDS.
   - C. THEY ARE NEAT AND SERVICEABLE.
4. THE WET WELL SHALL BE VENTED AND SCREENED.
5. A HOSE BIB SHALL BE INSTALLED NEAR THE WET WELL THAT IS PROTECTED FROM FREEZING TEMPERATURES.
6. WET WELL SHALL BE COATED WITH POLYMER LINING SYSTEMS (EPOXY AND POLYURETHANE TYPE SYSTEMS) CITY APPROVED PRODUCTS INCLUDE TNEMEC POLY SPEC TUF-REZ PRODUCT, THE WARREN 100% SOLIDS SYSTEM, RAVEN LINING SYSTEMS, SPRAYROQ, SPECTRASHIELD, OR EQUAL IF APPROVED BY SLIDELL ENGINEERING DEPT. PRIOR TO WORK. THE FINISHED SYSTEM SHALL PROVIDE 250 MILS MINIMUM COVERAGE. DURING APPLICATION, A WET FILM THICKNESS GUAGE SHALL BE USED TO ENSURE A MONOLITHIC COATING AND UNIFORM THICKNESS.

MINIMUM PUMP SPECIFICATIONS

1. ALL STATIONS MUST BE DUPLEX TYPE.
2. ALL PUMPS SHALL PASS MINIMUM 3" SOLIDS.
3. THE PUMPS SHALL BE FREE STANDING, NON-CLOG VARIETY AND USE A 90 DEGREE ELBOW FOR VERTICAL DISCHARGING.
4. THE PUMPS MUST BE EQUIPPED WITH DOUBLE SEALS
5. DISCHARGE PIPE SHALL BE DUCTILE IRON. SIZE SHALL BE DETERMINED BY PUMP DESIGN AND CAPACITY.
6. A GATE VALVE AND A CHECK VALVE SHALL BE INSTALLED ON EACH DISCHARGE PIPE LOCATED ABOVE GROUND. CHECK VALVE TO BE SWING ARM TYPE.
7. 3 PHASE ELECTRICITY IS REQUIRED. USE 3 PHASE-230 VOLTS.
8. PUMP AND FLOAT CORDS SHALL BE OF SUFFICIENT LENGTH TO REACH CONTROL PANEL.
9. MOTOR THERMAL OVERLOADS SHALL BE WIRED TO CONTROLLER.
10. THE PUMPS SHALL BE SIZED AND SPECIFIED BY A REGISTERED ENGINEER.
11. EACH PUMP SHALL BE EQUIPPED WITH 3/8" STAINLESS STEEL CABLE WITH A STAINLESS STEEL PULLING EYE ON BOTH ENDS.
12. ACCEPTABLE PUMP MANUFACTURERS: HYDROMATIC, GORMAN RUPP, OR FLYGT.
13. ALL BOLTS SHALL BE STAINLESS STEEL.

MINIMUM ELECTRICAL SPECIFICATIONS

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST N.E.C.
2. ELECTRICAL SERVICE SHALL CONFORM TO CLECO STANDARDS, EITHER UNDERGROUND OR OVERHEAD.
3. METER, HEAVY DUTY DISCONNECT, AND PUMP CONTROLLER SHALL BE INSTALLED ON GALVANIZED IRON SUPPORTS. TWO 4" MINIMUM CONDUIT POSTS NORMALLY SET TO 48" DEEP WITH CEMENT SHALL SERVE AS POSTS. CROSS MEMBERS SHALL BE GALVANIZED UNI-STRUT 1-7/16" THICK. EACH STATION WILL REQUIRED A MINIMUM OF THREE 2-1/2" CONDUITS INTO THE WET WELL. ONE 2-1/2" CONDUIT FOR EACH PUMP CORD AND ONE 2-1/2" CONDUIT FOR FLOATS. A SEAL OFF FITTING SHALL BE INSTALLED ON THE CONDUITS MIDWAY BETWEEN BOTTOM OF CONTROL PANEL AND THE GROUND. SEAL OFF FITTINGS MUST BE PLIABLE "DUCTSEAL" OR ENGINEER APPROVED EQUAL. ALL CONDUIT ABOVE GROUND SHALL BE GALVANIZED RIGID. ALL CONDUIT BELOW GRADE SHALL BE SCHEDULE 80 P.V.C.
4. ALL ELECTRICAL PENETRATIONS INTO THE WET WELL SHALL BE SEALED AGAINST INFILTRATION.
5. A WEATHERPROOF GFI 110V RECEPTACLE MUST BE INSTALLED. ON THE CONTROL PANEL.

MINIMUM CONTROL PANEL FEATURES

1. LIGHTNING ARRESTOR (3 PHASE PREFERABLE).
2. 3 PHASE OR 1 PHASE VOLTAGE MONITOR.
3. ELAPSED TIME METERS (ONE FOR EACH PUMP).
4. 120 VOLT GFI WORK RECEPTACLE MOUNTED ON HINGED INTERIOR DEAD FRONT.
5. SURGE CAPACITORS.
6. PANEL SHALL HAVE STAINLESS STEEL BUTTERFLY CLASPS AND CAPABLE OF ACCEPTING A MASTER PADLOCK.
7. ENCLOSURE SHALL BE NEMA 4X STAINLESS. MINIMUM CLEARANCE OF 4" FROM BOTTOM OF ENCLOSURE SHALL BE PROVIDED FOR WIRE CONNECTIONS. WIRING SHALL BE RUN IN RACEWAY DUCTS WITH 1" MINIMUM CLEARANCE. PROVIDE CLIPBOARD HOLDER ON INSIDE OF ENCLOSURE DOOR.
8. HINGED INTERIOR DEAD FRONT.
9. "MANUAL -OFF- AUTOMATIC" CONTROLLER.
10. RUNNING PILOT LIGHTS.
11. HIGH WATER ALARM PILOT LIGHT.
12. AUTOMATIC MOTOR ALTERNATION.
13. PILOT LIGHT INDICATORS FOR EACH LEVEL INPUT.
14. FURNISH AND INSTALL EXTERIOR COMMON ALARM LIGHT MOUNTED THROUGH SIDE WALL OF CONTROL PANEL EXTENDING 24" ABOVE TOP OF CONTROL PANEL.
15. CLASS 10, AMBIENT COMPENSATED OVERLOAD, AND SINGLE PHASE PROTECTION.
16. MANUAL SWITCH TO SELECT EITHER PUMP LEAD OR ALTERNATE.
17. LAG MOTOR START AT LEAD MOTOR LEVEL IF LEAD MOTOR FAILS.
18. FIELD ADJUSTABLE TIME DELAY START ON LAG MOTOR AFTER POWER FAILURES.
19. THE DUPLEX CONTROLLER SHALL BE SOLID STATE AND EASILY REPLACEABLE. CONVENTIONAL RELAY AND TIMER CONSTRUCTION OR P/C CONTROL WILL NOT BE ACCEPTABLE.
20. PROVIDE PUMP OVERLOAD FAILURE LIGHT ON FACE OF PANEL.
21. NEMA RATED MOTOR STARTERS & BREAKERS SHALL BE SQUARE "D" BRAND.
22. BOTTOM OF CONTROL PANEL MUST BE AT 13 FEET MSL OR HIGHER.

TYPICAL OPERATION PROCEDURES

1. FURNISH EXTERIOR COMMON ALARM LIGHT FOR FIELD MOUNTING. OFF IN NORMAL OPERATION AND FLASHES BRIGHT ON ALARM.
2. ALL PAPERWORK RELATED TO THE LIFT STATION, PUMPS, CONTROLS ETC. ARE TO BE PROVIDED TO UTILITY COMPANY.
3. A LIGHT SHALL BE INSTALLED ON A SEPERATE POLE THAT ILLUMINATES THE CONTROL PANEL AND WET WELL.
4. LIFT STATION SHALL HAVE A MIN. 12' WIDE 6" PCC WITH FIBERMESH DRIVEWAY (SEE PAVING SPEC SHEETS C8 & C9) INSTALLED AND SHALL HAVE A SECURITY FENCE. CONSULT OWNER FOR FENCE TYPE/STYLE. (INSTALL TEMPORARY GRAVEL DRIVE DURING PHASE 1 CONSTRUCTION)

SCALE: NTS

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ST. TAMMANY PARISH SHERIFF'S OFFICE

BROWNSWITCH ROAD
SLIDELL, LOUISIANA

CONSTRUCTION DOCUMENTS

SEWER LIFT STATION

Sheet Number:
C8

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