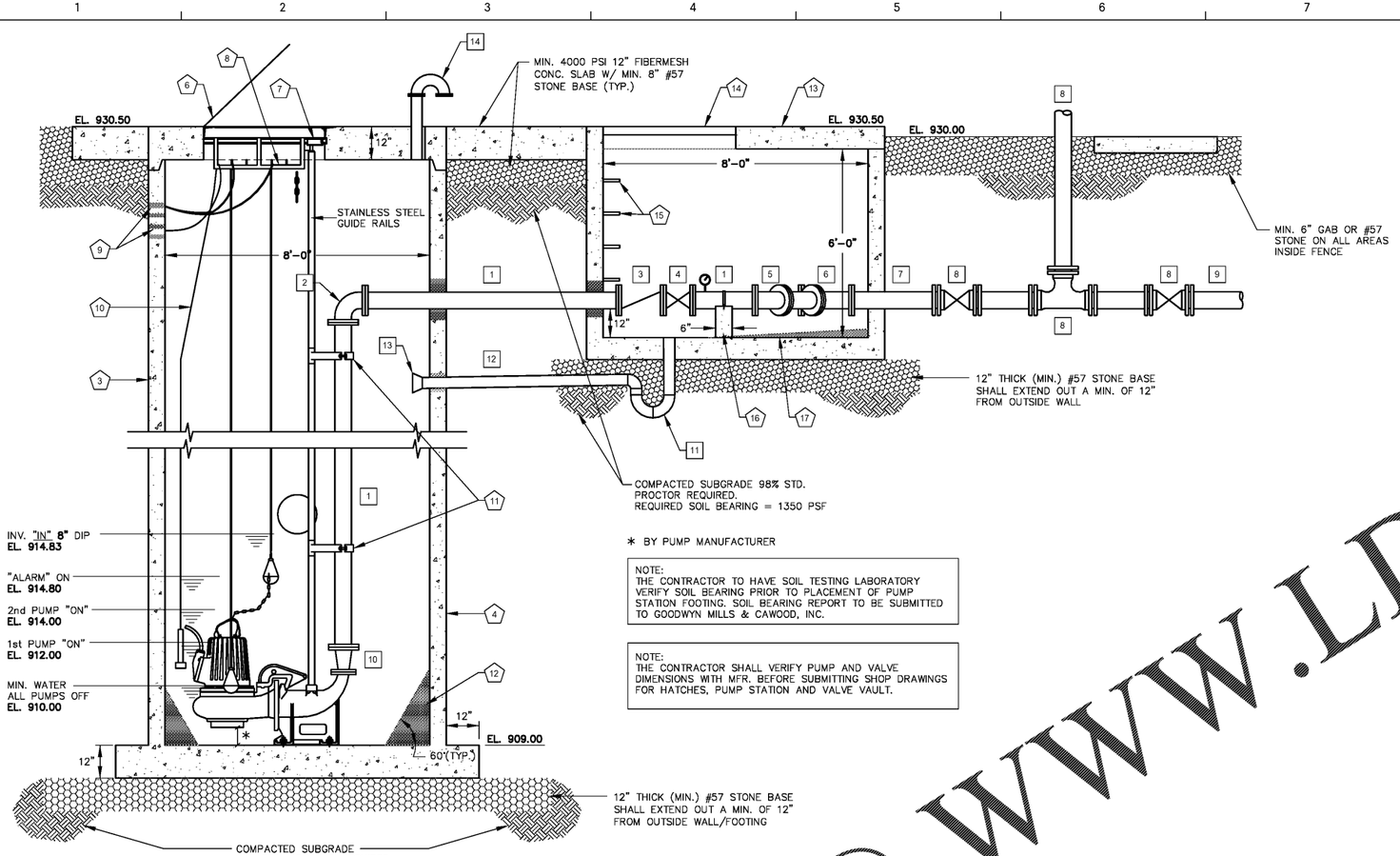


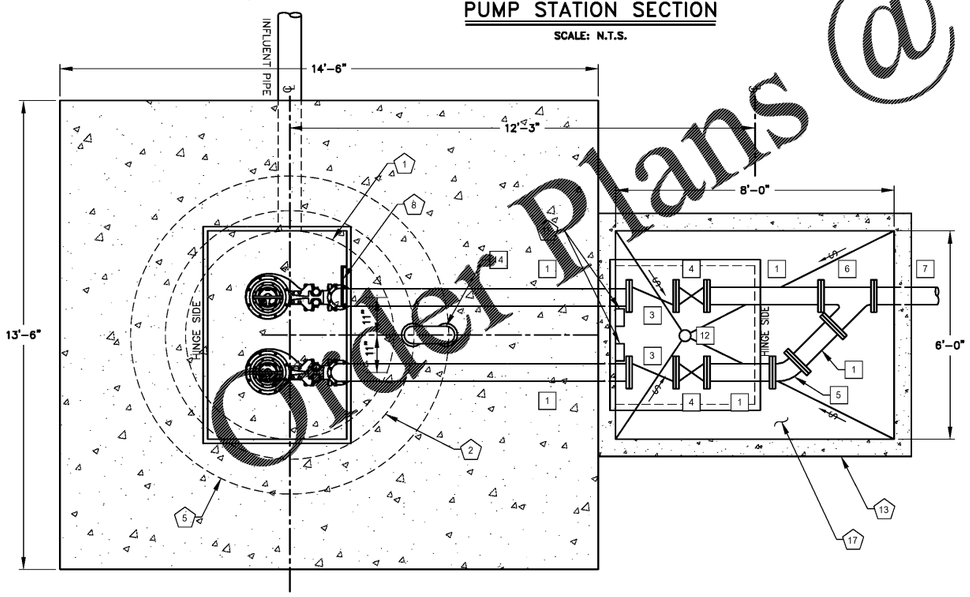
* BY PUMP MANUFACTURER

NOTE:
THE CONTRACTOR TO HAVE SOIL TESTING LABORATORY VERIFY SOIL BEARING PRIOR TO PLACEMENT OF PUMP STATION FOOTING. SOIL BEARING REPORT TO BE SUBMITTED TO GOODWYN MILLS & CAWOOD, INC.

NOTE:
THE CONTRACTOR SHALL VERIFY PUMP AND VALVE DIMENSIONS WITH MFR. BEFORE SUBMITTING SHOP DRAWINGS FOR HATCHES, PUMP STATION AND VALVE VAULT.

PUMP STATION SECTION

SCALE: N.T.S.



TOP VIEW PUMP STATION

SCALE: N.T.S.

GENERAL NOTES:

1. THE CONTRACTOR SHALL FURNISH THREE (3) SPARE FUSES FOR EACH FUSE SIZE.
2. THE CONTRACTOR SHALL PROVIDE ONE (1) SPARE PRESSURE TRANSDUCER LEVEL SENSOR & CABLE AS SPECIFIED.
3. UPON INSTALLATION, ALL PUMPS SHALL BE CHECKED BY A MANUFACTURER'S REPRESENTATIVE FOR PROPER ROTATION, PUMPING CAPACITY, AMPERAGE DRAW, LACK OF VIBRATION, AND OTHER CHECKS AS MAY BE DEEMED NECESSARY TO ASSURE PROPER OPERATION. ALL SUBMERSIBLE PUMPS SHALL BE PULLED OUT OF, AND REINSTALLED IN THE PUMP STATION IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER TO ASSURE PROPER CLEARANCES FOR EASY REMOVAL OF THE PUMPS FOR MAINTENANCE.
4. PUMP STATIONS SHALL BE PROVIDED WITH A HIGH LEVEL ALARM BELL, BUZZER, OR HORN, RED ALARM LIGHT, ETC. SEE SECTION 11310 FOR A COMPLETE LIST OF REQUIRED ACCESSORIES. ALL METAL ACCESSORIES SHALL BE STAINLESS STEEL.
5. THE PUMP STATION SHALL BE PROVIDED WITH SECURITY LIGHTING.
6. THE AREA SURROUNDING THE PUMP STATION SHALL BE GRADED TO PROVIDE A MINIMUM OF 0.5% SLOPE AWAY FROM THE STATION IN ALL DIRECTIONS.
7. WATER METER SHALL BE SUPPLIED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.
8. UNPAVED AREAS INSIDE THE FENCED PUMP STATION AREA AND ONE FOOT OUTSIDE FENCED AREA SHALL BE COVERED WITH A MINIMUM OF SIX INCHES (6") OF GAB OR GDOT #57 STONE.
9. THE CONTRACTOR SHALL FURNISH TO THE OWNER A (1) ONE YEAR WARRANTY ON THE PUMP STATION.
10. THE CONTRACTOR SHALL FURNISH TO THE OWNER, FIVE (5) SETS OF OPERATION AND MAINTENANCE MANUALS AND "AS-BUILT" DRAWINGS TO INCLUDE, AS A MINIMUM, THE FORCE MAIN LAYOUT, AIR VACUUM RELIEF VALVES, FITTINGS LOCATION & DETAILS, DETAILED WIRING SCHEMATICS, AND A LIST OF NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE CONTRACTOR, EACH EQUIPMENT REPRESENTATIVE AND THE DESIGN ENGINEER, BEFORE FINAL INSPECTION.

PUMP STATION NOTES:

1. THE DESIGN AND LAYOUT OF THIS SUBMERSIBLE PUMP STATION IS BASED ON SUBMERSIBLE PUMPS MANUFACTURED BY FLYGT A XYLEM BRAND. (NOTE: If other submersible pumps are listed as acceptable to the OWNER and/or if an alternate submersible pump is proposed, the Contractor shall bear the cost of redesign and resubmittal required by an alternate pump selection.)
   FLYGT MODEL: NP 3153 SH 3-276; 23 HP; IMP. DIA. 158mm SUBMERSIBLE PUMPS (2 REQ'D) DESIGN PUMPING RATE = 220 GPM @ 117 ft. TDH (HAZEN-WILLIAMS C=140)
3. THESE SUBMERSIBLE PUMPS ARE DESIGNED FOR SIMPLEX OPERATION. (I.E. ONE PUMP OPERATING ALONE SHALL BE CAPABLE OF HANDLING THE DESIGN FLOW(S)). THE PUMP STATION CONTROLS WILL ALLOW DUPLEX OPERATION OF THE STATION (I.E. LEAD PUMP "ON", LAG PUMP "ON", HIGH WATER ALARM LEVEL AND ALTERNATING OF THE LEAD PUMP).
4. ALL PIPING AND FITTINGS 4"Ø AND GREATER ARE TO BE DUCTILE IRON PIPE. ALL PIPING AND FITTINGS LESS THAN 4"Ø ARE TO BE STAINLESS STEEL.
5. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, GUIDE RAILS, VALVES, FITTINGS AND EQUIPMENT FOR A COMPLETELY OPERABLE PUMP STATION AS REQUIRED BY THESE PLANS AND REFERENCED SPECIFICATIONS.
6. ANCHOR VALVES AND FITTINGS IN THE VALVE VAULT TO CONCRETE SUPPORTS WITH STAINLESS STEEL STRAPS (1/8" THICK MIN.).
7. PROVIDE 1 MIX-FLUSH VALVE.

PUMP STATION & VALVE VAULT DETAILS: #

1. 8' Ø WETWELL
2. PUMP STATION WITH 12" TOP SLAB DESIGNED FOR H-20 LOADING
3. 8' Ø PRECAST RISER SECTION WITH 9" THICK WALLS
4. STANDARD PRECAST BASE SECTION. CONTRACTOR TO SUBMIT REBAR DESIGN AND LAYOUT IF A PRECAST BASE WILL NOT BE USED.
5. PUMP STATION FOOTING OUTLINE
6. 48" X 72" ALUMINUM ACCESS HATCHES WITH SAFE-HATCH ACCESS COVERS DESIGNED FOR H-20 LOADING
7. UPPER GUIDE BAR BRACKET
8. CABLE HOLDER
9. CONTROL & POWER CABLES FROM CONTROL PANEL
10. PRESSURE TRANSDUCER LEVEL SENSOR & CABLE
11. INTERMEDIATE STAINLESS STEEL GUIDE BAR BRACKET (USE FOR STAINLESS STEEL GUIDE BARS OVER 20 FT. LONG)
12. GROUT FILL (SEE PUMP REQUIREMENTS)
13. 6' x 8' PRECAST CONCRETE VALVE VAULT & TOP DESIGNED FOR H-20 LOADING
14. 48" x 48" ALUMINUM ACCESS HATCH DESIGNED FOR H-20 LOADING
15. STANDARD MANHOLE STEPS @ 15" O.C. STAGGERED
16. 6" T x 1' W x 1' H CONC. PIER (2 REQ'D.) STAINLESS STEEL STRAP PIPE TO PIER
17. GROUT VALVE VAULT FLOOR TO DRAIN TO 4"Ø DRAIN (AS REQUIRED)

VALVE NOTES:

1. CHECK VALVES SHALL BE XYLEM FLYGT HDL BALL CHECK VALVE OR APPROVED EQUAL.
2. PLUG VALVES SHALL BE DRESSER X-CENTRIC, DEZURIK, ACF OR APPROVED EQUAL.

PIPING AND FITTING SCHEDULE: #

1. 6" Ø PC 350 DIP (FL x FL) w/ 0-160 PSI PRESSURE GAUGE
2. 6" Ø FL 90° BEND
3. 6" Ø FL CHECK VALVE
4. 6" Ø FL HANDWHEEL OPERATED PLUG VALVE
5. 6" Ø 45° FL BEND
6. 6" x 6" WYE (FL x FL)
7. 6" Ø PC 350 DIP (FL x MJ)
8. SEE EMERGENCY QUICK CONNECT DETAIL S-0024
9. 6" Ø PC 350 DIP FORCE
10. 6" x 4" FL REDUCER
11. 4" Ø VALVE VAULT DRAIN WITH P-TRAP
12. 4" PC 350 DIP
13. 4" RED VALVE TIDEFLEX CHECK VALVE
14. 4" Ø (MIN.) PC 350 DIP VENT PIPE W/ STAINLESS STEEL VENT SCREEN

NOTE:

1. ALL PIPE CONNECTIONS IN THE PUMP STATION AND THE VALVE VAULT ARE TO BE FLANGE TO FLANGE. NO UNIFLANGE CONNECTIONS ARE ALLOWED.
2. ALL FLANGE-FLANGE CONNECTIONS ARE TO USE STAINLESS STEEL BOLTS.
3. ALL PIPE & FITTINGS SHALL BE PROTECTO 401 LINED OR APPROVED EQUAL.
4. ALL OF THE AFOREMENTIONED INFORMATION SHALL BE CONSIDERED THE BASIS OF THE DESIGN OF THIS PUMP STATION. ANY DEVIATIONS FROM THIS BASIS OF DESIGN MUST FIRST BE APPROVED BY THE OWNER.

PUMP STATION AND PUMP SIZING BASED ON XYLEM INC. FLYGT SUBMERSIBLE PUMPS. SEE FLYGT STANDARD DETAIL SHEET FOR ADDITIONAL PUMP DETAILS.

FLYGT a xylem brand

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SANITARY SEWER
COWETA COUNTY WATER AND SEWERAGE AUTHORITY

CATL190025

GEORGIA REGISTERED No. 24141 PROFESSIONAL 10-18-19 ENGINEER TIMOTHY G. BLAYDES

PETE ROAD PUMP STATION SECTION & DETAILS

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