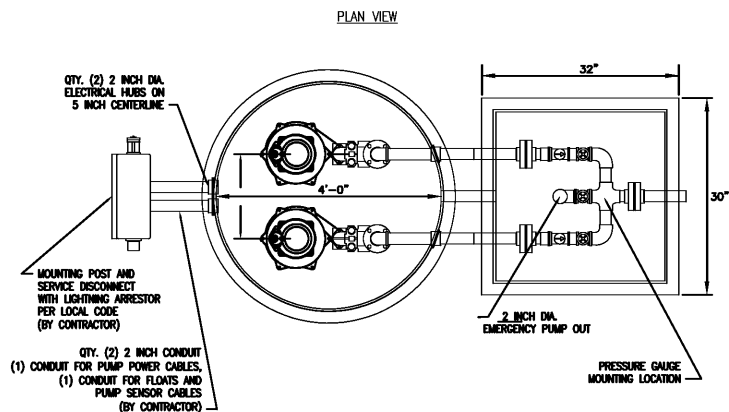
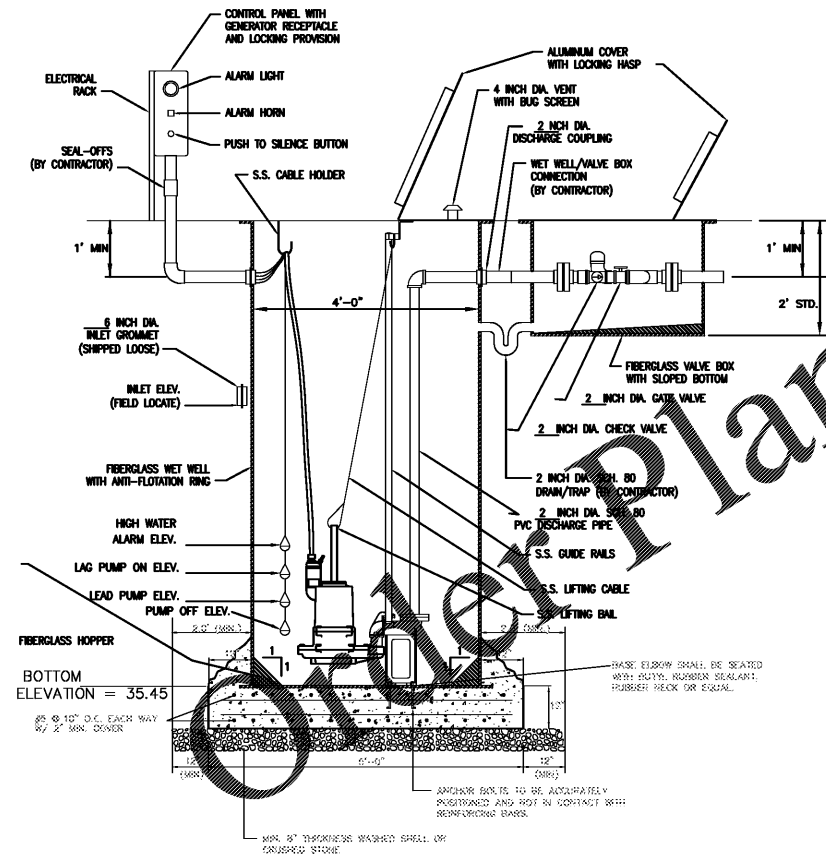


WET WELL/VALVE BOX LAYOUT



PUMP SPECIFICATIONS	
PUMPS REQUIRED	2
MANUFACTURER	HYDRAMATIC
MODEL NUMBER	HPS
PUMP SIZE	2.0"
CAPACITY EACH (GPM)	30
TOTAL HEAD (FEET)	58.4' (AGAINST 16" FORCE MAIN)
IMPELLER DIAMETER	4.75"
MOTOR HP REQUIRED	2
SPEED (RPM)	3500
ELECTRICAL	230/1

SECTION VIEW



ELEVATIONS:	
INV. IN	40.20
ALARM	39.7
BOTH PUMPS ON	39.2
LEAD PUMP ON	38.70
BOTH PUMPS OFF	37.45

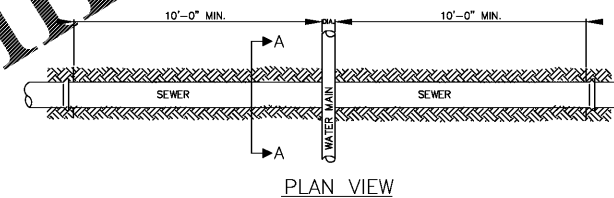
RIM ELEVATION = 43.90 (.5' ABOVE SURROUNDING GRADES)
DISCHARGE ELEVATION = 42.40

LIFT STATION PLAN & DETAILS

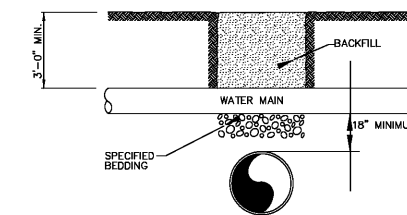
NTS

WATER & SEWER CONSTRUCTION NOTES:

- ALL PROPOSED IMPROVEMENTS TO THE SITE TO BE STAKED IN THE FIELD BY OR UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR.
- PRIOR TO THE SCHEDULING OF ANY UNDERGROUND UTILITY PRESSURE TESTS, CONTRACTOR SHALL HAVE OBTAINED ALL NECESSARY FIELD DATA REQUIRED FOR THE PRODUCTION OF RECORD DRAWINGS. RECORD DRAWINGS TO INCLUDE LOCATIONAL INFORMATION ON ABANDONED WATER AND SEWER SERVICES AS WELL AS FUNCTIONAL SERVICES.
- CONTRACTOR TO PROVIDE THE ENGINEER OF RECORD WITH REPRODUCIBLE AS-BUILT DRAWINGS SHOWING ALL IMPROVEMENT LOCATIONS AND ELEVATIONS AS REQUIRED BY M.C.P.W.D. CONTRACTOR TO LEAVE EXPOSED ALL PIPE BENDS OF 45 OR GREATER, TEES, CROSSES, REDUCERS AND PRESSURE PIPING EVERY 200' (OR ALTERNATE LOT LINES, WHICHEVER IS CLOSER). AS AN ALTERNATE TO LEAVING EXPOSED PIPING AND FITTINGS, THE CONTRACTOR, AT HIS OPTION, MAY PLACE A VERTICAL LENGTH OF 3/4" MINIMUM P.V.C. OVER THE PIPING OR FITTINGS SO THAT THESE LOCATIONS MAY BE VERIFIED BY SURVEY CREWS.
- ALL PROPOSED CONSTRUCTION IS TO MEET OR EXCEED LATEST APPLICABLE MANATEE COUNTY CONSTRUCTION STANDARDS AND TO CONFORM TO ENGINEERS SPECIFICATIONS. PROPOSED OFFSITE POTABLE WATER & SANITARY SEWER SHALL BE PUBLICLY OWNED AND OPERATED.
- THE CONTRACTOR IS TO COORDINATE THE LOCATION AND ELEVATION OF ALL F.P.L., G.T.E. AND IRRIGATION SERVICE SLEEVES WITH RESPECTIVE AGENCY PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS TO ASSURE HIMSELF THAT ALL UNDERGROUND UTILITIES AND STORM SEWER IS CONSTRUCTED, TESTED AND OPERATIONAL PRIOR TO ANY ROADWAY CONSTRUCTION.
- ALL PROPOSED ELECTRICAL AND COMMUNICATION SERVICES ARE TO BE LOCATED UNDERGROUND AS DIRECTED BY RESPECTIVE AGENCY.
- WATERMAIN WHERE LOCATED UNDER PAVEMENT TO BE ENCASED IN CLASS 160, SDR-26 PVC OR TO BE C-900 PVC AT CONTRACTOR'S OPTION. WATER SERVICES WHERE LOCATED UNDER PAVEMENT TO BE ENCASED IN CLASS 160, SDR-26 PVC. (3" MIN.)
- ALL UTILITIES AND/OR DRAINAGE SHOWN AS EXISTING ARE TO BE FIELD VERIFIED FOR LOCATION AND ELEVATION PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY "SUNSHINE STATE ONE-CALL" (800) 432-4770, EX-T1, 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION FOR POSSIBLE UTILITY LOCATIONS NOT SHOWN.
- ALL BIDDERS ARE HEREBY ADVISED THAT ALL EXCAVATION ON THIS PROJECT MUST COMPLY WITH FLORIDA STATUTE 90-96 "TRENCH SAFETY ACT", AND THAT THE COSTS OF COMPLIANCE IS TO BE INCLUDED IN HIS BASE BID. THE BIDDER SHALL INDICATE ON THE BID FORM THE COST ASSOCIATED WITH COMPLIANCE.
- WATER SERVICES TO BE MARKED BY CURB WITH A BLUE DISC THAT HAS THE FOOTAGE FROM THE BACK OF CURB TO THE CENTER OF THE METER BOX OR IF NO CURB, A BLUE DISC IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE CENTER OF THE METER BOX.
- ALL PIPING SHALL BE COLOR CODED IN ACCORDANCE WITH MANATEE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS:
GREEN: RAW SEWAGE
PURPLE: EFFLUENT
BLUE: POTABLE WATER
- AS-BUILT INFORMATION TO COMPLY WITH MANATEE COUNTY STANDARDS.
- ALL POTABLE WATER, SANITARY SEWER & LIFT STATION CONSTRUCTION SHALL MEET OR EXCEED THE LATEST REVISION OF MANATEE COUNTY STANDARDS. BE PRIVATELY MAINTAINED.
- MINIMUM 12" VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN EXISTING WATER MAIN & PROPOSED FORCE MAIN
- METER SHALL BE SMALLER THAN THREE (3) INCHES MUST BE KEPT CLEAR OF ALL OBSTRUCTION, INCLUDING VEGETATION, FOR A RADIUS OF THREE (3) FEET. METERS THREE (3) INCHES AND LARGER MUST BE KEPT CLEAR OF ALL OBSTRUCTION FOR A RADIUS OF TEN (10) FEET.



PLAN VIEW



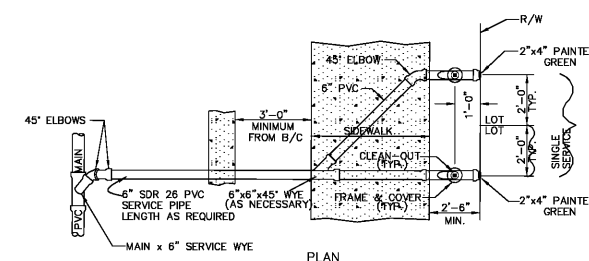
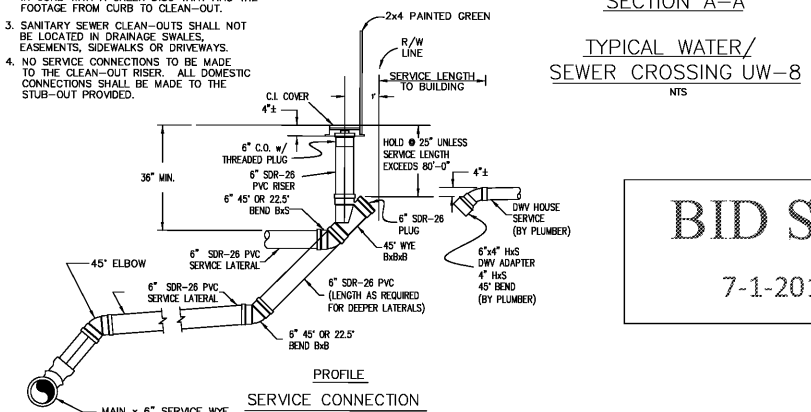
SECTION A-A

TYPICAL WATER/SEWER CROSSING UW-8

BID SET
7-1-2019

NOTES:

- RUBBER DONUTS ARE NOT TO BE USED.
- SANITARY SEWER SERVICES TO BE MARKED IN CURB WITH A GREEN DISC THAT HAS THE FOOTAGE FROM CURB TO CLEAN-OUT.
- SANITARY SEWER CLEAN-OUTS SHALL NOT BE LOCATED IN DRAINAGE SWALES, EASEMENTS, SIDEWALKS OR DRIVEWAYS.
- NO SERVICE CONNECTIONS TO BE MADE TO THE CLEAN-OUT RISER. ALL DOMESTIC CONNECTIONS SHALL BE MADE TO THE STUB-OUT PROVIDED.



SINGLE AND DOUBLE SERVICE CONNECTION DETAILS (US-17)

NTS

HOUGH ENGINEERING, INC.
CONSULTING ENGINEERS
1771 MANATEE AVE. W. BRADENTON FLORIDA 34205
PHONE : (941) 747-4838 • FAX : (941) 747-4072



DATE	DESCRIPTION
06/07/2019	MODIFIED FOR IMPROVED

DATE	DESCRIPTION
07/17/2019	REVISED FOR
07/17/2019	REVISED FOR

TASK	DATE	DESCRIPTION
DESIGN	07/17/2019	DESIGN
DRAWING	07/17/2019	DRAWING
REVISION	07/17/2019	REVISION

PROJECT NO. SEP-01
SECTION: 32, TOWNSHIP: 38S, RANGE: 19E
MANATEE COUNTY, FLORIDA

DATE	DESCRIPTION
07/17/2019	REVISED FOR