

2021 SUMMARY OF MAJOR CHANGES

Highlighted sections are additions, strikethroughs are deletions

EFFECTIVE 4/1/20

1) SUBMERSIBLE WASTEWATER PUMPING STATIONS – SECTION 433

III.5 MATERIALS

III.5.3.1 Piping within **and external** of the wet well shall be 316 stainless steel: flanged, schedule 40. Butt-welding of any piping (except for the emergency suction pipe in the wet well) is not allowed. All bolts, washers and nuts shall be 316 stainless steel, threaded bolts and nuts shall be coated with “Never Seize” type coating.

~~III.5.3.2 Pipe outside of the wet well and above ground shall be 316 stainless steel, (schedule 40, one-piece construction all bolts, washers and nuts shall be 316 stainless steel, threaded bolts and nuts shall be coated with “Never Seize” type coating.~~

EFFECTIVE 4/10/20

IV.7. SOLID HANDLING PUMP CONSTRUCTION (WET-PIT AND DRY-PIT PUMPS)

IV.7.1 IMPELLER

The impeller shall be dynamically balanced and securely locked to the shaft by means of a key and self-locking bolt or nut. ~~(25% chrome cast iron with leading edges hardened to RC 60).~~

IV.7.2 MECHANICAL SEALS (UPPER AND LOWER SEALS)

The top seal may be either carbon-ceramic, tungsten carbide or silicon carbide material. ~~Adjustable wearing rings shall be provided for all pumps 25 HP and larger.~~

IV.7.5 MOTORS 1800 RPM

Cable sizing shall conform to NEC requirements. The cable shall enter the pump(s) through a heavy-duty ~~stainless steel~~ **cast iron** assembly with grommet. An epoxy seal may be added to this cable entrance assembly to improve water tightness. The system used shall ensure a watertight submersible seal. The cable shall terminate in a junction chamber. Junction chamber shall be sealed from the motor by a compression seal.

EFFECTIVE 4/1/20

2) IN-LINE BOOSTER WASTEWATER PUMPING STATIONS – SECTION 435

III.4 MATERIALS

~~III.4.3.1 Piping within the in-line booster station site shall be flanged 316 stainless steel, (schedule 40, one-piece construction with no butt welds with exception of pump-out pipe). Fittings shall be flanged 316 stainless steel. All nuts, bolts and accessories within shall be 316 stainless steel.~~

III.4.3.2 Pipe and fittings above ground shall be 316 stainless steel (flanged, schedule 10 with no butt welds). All bolts, washers, and nuts shall be 316 stainless steel, threaded and shall be coated with "Never Seize" type coating.

III.4.3.3. All piping within the in line booster station site shall be 316 stainless steel: flanged, schedule 40. Butt welding of any piping (except for the emergency suction pipes, if applicable) is not allowed. All bolts, washers and nuts shall be 316 stainless steel, threaded and shall be coated with "Never Seize" type coating.

EFFECTIVE 4/10/20

3) VACUUM PODS

Lined concrete vacuum pods have been approved for use within driveways and unpaved areas. Concrete pods shall not be used in roadways or heavy traffic loading areas. Details posted to JEA.com

Plate S-52. Material for venting to candy cane changed from DWV Schedule 40 to Schedule 40.

EFFECTIVE 4/13/20

4) EXCAVATION AND EARTHWORK – SECTION 408

XII. 3.7 COMPACTION OF BACKFILL FOR PIPE TRENCHES:

Pipe backfill densities of ~~at least~~ 100% of the Standard Proctor maximum density as determined by AASHTO T99, Method C shall be required except where the cover height 1) below the bottom of base under asphalt pavement, 2) below concrete pavement, or 3) below unpaved ground, exceeds 15 inches, then pipe backfill densities of at least 95% of the Standard Proctor maximum density (as determined by AASHTO T99, Method C) shall be required.

EFFECTIVE 4/10/20

5) SUBMERSIBLE WASTEWATER PUMPING STATION – SECTION 433

IV.7.1. IMPELLER

The impeller casing shall have well-rounded water passages and smooth interior surfaces free from cracks, porosity, blowholes, or other irregularities. The impeller shall be a semi-open or enclosed one-piece casting with not more than two non-clog passages and must pass a minimum 3 inch solid (unless written approval from JEA's Pump Station Committee). Screw impellers are not acceptable. The interior water passages shall have uniform sections and smooth surfaces and shall be free from cracks and porosity. The impeller shall be dynamically balanced and securely locked to the shaft by means of a key and self-locking bolt or nut. ~~(25% chrome cast iron with leading edges hardened to RC 60)~~

IV.7.2 MECHANICAL SEALS (UPPER AND LOWER SEALS)

Pumps shall have mechanical seals, which shall require neither maintenance nor adjustment and shall be readily accessible for inspection and replacement. The seals shall not rely upon the pumped media for lubrication and shall not be damaged if the pump is run un-submerged for extended periods while pumping under load. Mechanical seals shall be solid hard faced, (not laminated type). The bottom seal shall be tungsten carbide or silicon carbide material. The top seal may be either carbon-ceramic, tungsten carbide or silicon carbide material. ~~Adjustable wearing rings shall be provided for all pumps 25 HP and larger.~~

IV.7.5 MOTORS 1800 RPM

..... The cable shall enter the pump(s) through a heavy-duty ~~stainless steel~~ cast iron assembly with grommet. An epoxy seal may be added to this cable entrance assembly to improve water tightness. The system used shall ensure a watertight submersible seal. The cable shall terminate in a junction chamber. Junction chamber shall be sealed from the motor by a compression seal.