

Sewerage District No. 1 of Tangipahoa Parish

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Standard Specifications Acceptance of Sewerage Improvements

[Effective 21 March 2017]

* [Amended 20 December 2017]

Sanitary Sewer Improvements – PRIOR TO CONSTRUCTION

1. Construction plans showing the following:
 - a. **Sanitary Sewer Collection System** layout on 24x36 drawing at 1"=20' scale (or larger) indicating:
 - (1) SS Main layout with each SSMH identified by a number/letter designation.
 - (2) Length (in LF) of each SS main segment – 400 LF max.
 - (3) Slope of each SS main segment – 8"SS=0.4% (min.); 12"SS=0.25% (min.)
 - (4) Service lines to each lot – service laterals serving each lot located ideally 10' downstream of the center of each lot; 1 EA 4" cleanout per lot (located 1' from street R/W).
 - (5) SSMH – 3.7' (min.) depth; Rim elevation; invert elev. (in); invert elev. (out); 0.05' (min.) between Inv (in) and Inv (out); generally SSMH rim should be 0.1' above natural grade or flush with pavement grade as applicable.
 - (6) If development exceeds 300 lots; design of SS mains verifying 8" diameter SS is adequate.
 - (7) Grease trap(s) and hot water required at dumpster waste line(s), and at restaurant(s).
 - (8) Final Plat.
 - (9) Indication/dedication of Utility Servitude(s) on Final Plat if applicable to SS layout.
 - b. **Sanitary Sewerage Pumping Station(s):**
 - (1) Dedicated Lift Station site including survey (typically 30'x30')
 - (2) Site Plan on 24x36 drawing at 1"=10' (or larger) including:
 - (a) Wet well diameter.
 - (b) Valve Pit location/diameter.
 - (c) Fencing/access from dedicated street.
 - (d) Location of electric service pole.
 - (e) Influent SS Main.
 - (f) Force Main diameter, orientation, and discharge direction (PVC SDR 26 piping preferred if the force main is located entirely within the development; PE SDR-11 required on parish/state right-of-ways).
 - (g) Lift Station site access road with 6" thick limestone surfacing.
 - (h) 4'x8' *future* Emergency Electric Generator location.

b. Sanitary Sewerage Pumping Station(s) – continued

(3) Detail Sheet on 24x36 drawing indicating:

(a) Elevations of Wet well/valve pit – wet well top elevation; wet well invert elevation; influent SS main invert elevation; valve pit top elevation (and invert elevation); natl. grade elev. adjacent to wet well/valve pit.

(b) Details of Wet well/valve pit construction – cylindrical precast concrete wet well and valve pit including 24x36 lockable aluminum access hatch cast in a 6" thick PCC (removable) top on wet well and same on valve pit; wet well base typically 12" thick PCC with 6" thick limestone subbase; 60 degree grouted wet well invert; recommended float switch elevations

(c) Pumping equipment details – duplex submersible (Zoeller preferred manufacturer); operating conditions using "gallons per minute" & "total dynamic head"; rated horsepower; impeller diameter; operating rpm; electrical service needed.

(i) A third (spare) submersible pump shall be provided, which cost shall be deducted from the "capacity fees".

* (ii) Pumping equipment with horsepower **greater than 5.0HP** shall be provided with 3-phase electric service

(d) All materials (including connectors) shall be stainless steel.

(e) Lifting rails shall be 2" diameter (minimum).

(f) The Control Panel shall conform with TPSD1 standard configuration.

(g) Each pump shall include an hour meter feature incorporated into the Control Panel.

(h) Each station shall include an amperage overload alarm feature incorporated into the Control Panel.

(i) Compatibility with TPSD1 remote monitoring shall be incorporated into the features of the lift station.

(4) Engineering Design shall include "Lift Station Design" details; 10 year projected flow rates; 2½:1 to 4:1 peak factor. If pumping to a downstream collection system or lift station, evaluate impact of "new" wastewater flow to downstream (existing) lift station. Cost of upgrading downstream lift station(s), if any, shall be the responsibility of the developer, and shall be credited towards any "capacity fees".

c. **Wastewater Treatment:**

(1) TPSD1 prefers that the development tie-in to an existing TPSD1 WWTP facility.

(2) Contact TPSD1 General Manager and Operations Manager to determine (a) which TPSD1 WWTP will receive the "new" wastewater, and (b) if existing WWTP will need upgrading to accommodate the proposed wastewater flows.

(3) Cost of upgrading the TPSD1 existing WWTP, if any, shall be the responsibility of the developer, and shall be credited towards any "capacity fees".

ACCEPTANCE by TPSD1 OF SEWERAGE IMPROVEMENTS

1. Written certification from design engineer to TPSD1 that the Sanitary Sewer System is complete in accordance with approved construction plans and with TPSD1 specifications.

2. “As-built” drawings including **actual** SSMH invert elevations and rim elevations, as well as **actual** Lift Station elevations, and the exact location of the wet well, etc. on the dedicated Lift Station site by a survey certified by a licensed surveyor in the State of Louisiana.

3. “Wye Record” drawing indicating the location of every SS wye relative to the upstream (or downstream manhole). A SS wye should typically be placed 10’ downstream from the center of each lot, and terminated with a cleanout 1’ inside of the property line (i.e., 1’ from the edge of the R/W).

4. At a time mutually convenient to the TPSD1 Operations Manager (Gene Myers), the installing contractor, and the design engineer, the following field tests should be undertaken (all sludge and mud should be removed from the system prior to inspections commencing):

(a) Exfiltration tests for each manhole – each manhole should be plugged, filled with potable water, and re-inspected after a min. of 4 hours. At no point in the new portion of the gravity sewer shall the leakage of ground water into the system exceed the infiltration maximum of 100 gallons/inch/mile/day for heads to ten feet (10’). For example, a test for 8” SS main, 1,000 LF, shall be placed under a static head of 10’, with maximum allowable exfiltration leakage calculated as follows:

$$8" \times 100 \text{ gal./inch/mile/day} \times \frac{1000 \text{ LF}}{5280 \text{ LF per mile}} = 151.5 \text{ gallons per day max. allow. leakage}$$

(b) Pulling a mandrel from manhole to manhole without resistance.

(c) “Lamping” of the sewer mains. This entails physically sighting the mains between every manhole. The sewer main should be clearly visible between manholes without noting any “belly” in the line, or any “egg-shaping” of the laid pipe.

5. Provide three (3) sets of shop drawings on all LIFT STATION pumping equipment.

6. Provide electrical AS-BUILTS on the Lift Station.

7. Provide LDH permit.

8. **WARRANTY**

(a) The Developer shall provide a WRITTEN EXTENDED guarantee that (i) the Lift Station, and (ii) the Sewerage Collection Systems and all associated equipment is warranted to be free from defects in design, material and workmanship for a period of **TWO (2) years from the date of acceptance by TPSD1.**

(b) Warranties and guarantees by the suppliers of various components in lieu of a single source responsibility by the Manufacturer will not be accepted.

(c) The Lift Station pump Manufacturer shall assume prime responsibility for the guarantee of the pumping equipment.

(d) In the event a component fails to perform as specified or is proven defective in service during the two-year warranty period, the Manufacturer shall provide a replacement part, including expedited shipping, without cost to TPSD1. TPSD1 shall provide labor as may be required to replace, repair or modify major components such as the station structure, pumps, pump motors, main piping manifold, etc.

(e) The replacement or repair (including cost of parts and labor) of those items normally consumed in service, such as pump seals, fluorescent tubes, oil, grease, etc., may be considered as part of routine maintenance and station upkeep.

(f) It is not intended that the Manufacturer assume responsibility for contingent liabilities or consequential damages of any nature resulting from defects in design, material, workmanship or delays in delivery, replacement or otherwise.