

## **Grinder Pump Stations**

The manufacturer shall furnish complete factory-built and tested grinder pump station(s) each consisting of grinder pumps suitably mounted in a tank constructed of fiberglass or high density polyethylene (HDPE), electrical quick disconnect (NEMA 6P), pump removal system, shut-off valve and check valve within the basin, NEMA 4X alarm panel with the option of remote monitoring, and all necessary wiring and controls. The pump, tank and panel shall be listed with the Underwriters Laboratories (UL) as a complete station. No third party testing to UL Standard will not be allowed.

The pump(s) shall bear the seal of NSF International. Third-party testing to NSF standard is not acceptable. The pump(s) shall be a semi-progressive cavity style pump. It shall be capable of reducing all components in normal domestic sewage, including a reasonable amount of "foreign objects", such as paper, wood, glass, wipes, rubber and the like, to finely-divided particles which will pass freely through the pump and the 1-1/4" diameter stainless steel discharge piping. The pump(s) shall be capable of delivering 15 GPM against a rated TDH of 0 feet. 11 GPM against a rated TDH of 92 feet and 7.8 GPM against a rated TDH of 185 feet. The pumps must be capable of operating at a negative total dynamic head without overloading the motor(s). The pump shall have redundant run features.

The alarm panel shall include a NEMA 4X, UL listed alarm panel suitable for wall or pole mounting. It shall include a generator receptacle w/ auto transfer capability. The supply cable between the pump and alarm panel shall not be spliced. The appropriate length of cable shall be installed w/ ample supply cable for settling loops. The cables conduit shall be sealed in the panel using duct sealant at alarm panel penetration. All alarm panel penetrations shall be through the bottom of the panel. Back or side penetrations are not allowed.

Installation shall have a factor trained / authorized service center provider within 60 miles of Queensbury and 24 hour emergency capabilities. Startup shall be scheduled with manufacturer's certified technician and all paperwork shall be filed with the Town of Queensbury Wastewater Department.

## **Pressure Lateral Sewer Pipe and Fittings**

Discharge piping shall be HDPE SDR 11 1-1/4-inch for simplex stations and 1-1/2-inch for duplex stations. Pipe shall have a 304 or 316 stainless steel curb stop/check valve/cleanout assembly placed at the approximate Right of Way/Easement line. An arch style cast iron curb box with a stainless steel rod to the curb stop shall be provided. The curb box shall be equipped with a cap labeled "sewer". Transition between pipe and curb stop/check valve/clean out assembly shall be by plastic w/ insert or brass w/ SS insert compression adapters. Connections between pipes shall be a fusion weld or thermocouplers. Pipe shall be laid with some slack and have 5' of cover. Installation of tracer wire recommended.