History of Grinder Pump Program

"Pressure sewers using grinder pumps were first adopted early in the 1970's by a few visionary engineers and regulatory agencies who, faced with the virtually insurmountable problems posed by the helter-skelter adoption of septic tanks in the suburbs, felt that the potential gains justified the risk of being a pioneer.

It has taken three decades, corresponding to nearly 60% of this author's working life, for pressure sewers to begin to take their proper place within the public health engineering field. For indeed today there are hundreds of thousands of grinder pumps in routine daily operation in projects ranging in size from a single pump to many with thousands of pumps. The skeptics have been pleasantly surprised as decades of operating experience pile up with O&M costs equal to or less than original estimates.

Even with general adoption in every state and a new generation of consulting engineers who don't even remember when there weren't pressure sewers, there are still a few applications and variations which are not generally considered. These include more general application of trenchless technology, indoor installations, use as a weapon in the fight against infiltration and inflow, application in flat land, and as an excellent stop gap measure to fight waterfront pollution one house at a time by re-siting absorption fields *"up, up and away!"* from the water's edge."

"The "Secret" Life of Pressure Sewers" By: R. Paul Farrell Consulting Engineer Niskayuna, NY, USA



Brentwood Water Services 1750 General George Patton Dr Brentwood, TN 37027

> Phone: 615-371-0080 Fax: 615-371-2225

www.brentwood-tn.org



Brentwood Water Services

Sewage Grinder Pump Program

Grinder Pump Maintenance Program

Frequently Asked Questions

Purpose

The purpose of this brochure is to define the requirements of the builder, developer, homeowner, and The City, pertaining to the installation and maintenance of individual residential grinder pump sewer systems.

What is a Residential Sewage Grinder Pump System?

Traditionally sewer service to a house is provided by a "gravity" line. This means that the drain lines from the house flow down pipes to the public "gravity" sewer main. When this method of sewer service is unavailable due to any number of reasons, a "low pressure sewer" is often installed to provide sewer service to homes. This method of sewer service requires the use of sewage grinder pumps to pump sewage from the house out to the public sewer. The public sewer line in this case is typically a low pressure force main meaning the sewage in the line does not flow by gravity but is pumped through the line by the individual grinder pumps.

Why does the City operate a grinder pump maintenance program?

The City operates a grinder pump maintenance program because the use of a residential grinder pumps requires additional ongoing maintenance compared to traditional gravity sewer service and also because well maintained grinder pumps help the public sewer system operate better and more efficiently.

Please contact Brentwood Water Services if you have any other questions at 371-0080.

What is the process for installing a grinder pump system?

Once a residential development, which includes a low pressure grinder pump sewer system, has been fully approved by The City, the developer or homeowner is required to pay a \$1900 "Grinder Pump Maintence / Replacement Fee" for each individual residential lot with such sewer service and sign a grinder pump maintenance program agreement. As part of obtaining a building permit, the current sewer tap fee (\$5000) must also be paid.

The builder / owner is then required to install the grinder pump system according to the current City of Brentwood sewer specifications. The specifications include: pump type, tank type, control panel and electrical disconnect, electrical conduit, p.v.c. piping, tank depth and location.

The grinder pump system is inspected twice during installation by the Sewer Department's inspector. The first is an underground inspection, the second is a final electrical / practical inspection before a "certificate of occupancy" is issued.

What are the various parts of a grinder pump system?

A residential grinder pump system includes a grinder pump installed within a basin buried in the yard. The sewer drain from the house is plumbed into this basin. The grinder pump pumps out of this basin into typically a 1 ½" service line that runs out to the public sewer main near the road. Just prior to the connection to the public sewer main, a check valve and ball valve assembly is installed typically near the R.O.W. An electrical control panel and disconnect box are typically installed on the exterior of the house near the grinder pump basin.

Who owns the grinder pump and how is it maintained?

Ownership of the grinder pump system including the pump, tank, electrical controls, and all piping & valves from the house to the public sewer main is by the homeowner. Once installation of the system is approved, the City will provide a maintenance program following the first year of operation. During the first year; the Builder, Plumber, Distributor, or the Manufacturer will be responsible for all repair & maintenance associated with the grinder pump system.

One year after the date on the "certificate of occupancy" or date of approval by City staff, the City of Brentwood's Water Services Department will provide a program for all repair & maintenance of the grinder pump sewer system. However, the homeowner is responsible for damage incurred from subsequent construction or otherwise altering the system or access to it.

What are the service fees and how do I call for service?

The City charges a service call fee of \$35 regular business hours, and \$60 nights, weekends, and holidays. There is no charge for parts or labor.

For service calls please call the City of Brentwood Water Services Department at 371-0080 during regular business hours and 371-0160 during nonbusiness hours.