

**TRIVIEW METROPOLITAN DISTRICT
RESOLUTION NO. 06-2017**

**A RESOLUTION ESTABLISHING A POLICY REGARDING
WASTEWATER PRIVATE PUMP SYSTEMS AND REQUIRING NOTICE
THAT SUCH SYSTEMS ARE INSTALLED AT A HOME SITE IN THE
TRIVIEW METROPOLITAN DISTRICT**

WHEREAS, Triview recognizes that under certain conditions gravity wastewater services to certain lots in a development are not feasible; and

WHEREAS, under specified conditions private pump systems may be used; and

WHEREAS, when private pump systems are allowed notice must be provided so that future landowners of the property have knowledge of the existence of the system as well as Triview having notice that such system exists; and

WHEREAS, such system present dangers not present in gravity wastewater systems; and

WHEREAS, property owners are solely responsible for all maintenance and liability of such systems and must release and hold harmless all governmental entities from any and all liability associated with such systems; and

WHEREAS, such systems must be designed and constructed pursuant to specific guidelines and must have safeguards to warn of any malfunctions.


**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF THE
TRIVIEW METROPOLITAN DISTRICT THAT:**

Section 1. Private Pump Systems. The Board of Triview Metropolitan District hereby determines that private pump systems for wastewater systems may be allowed in circumstances where gravity wastewater systems are not feasible. Such systems shall be designed and constructed pursuant to criteria contained in attached Exhibit "A" entitled "Design Criteria for Private Pump Systems" which exhibit is incorporated herein by reference and fully adopted as if set forth in full in this Resolution.

Section 2. Notices. Notices must be executed by the property owner which notices contain waivers of liability and indemnification and which shall be recorded in the records of El Paso County with a copy provided to the Triview Metropolitan District. Exemplars of the required notice are contained in Exhibit "A" attached hereto.

PASSED AND RESOLVED by the Board of Triview Metropolitan District, El Paso County, Colorado, this 8th day of August, 2015 by a vote of 5 for and 0 against.

TRIVIEW METROPOLITAN DISTRICT


President

ATTEST:

Secretary

Design Criteria For Private Pump Systems

1.0 Design Criteria for Private Pump Systems

Private Pump Systems may be used when a conventional gravity Wastewater System is not feasible. Private Pump Systems pump into a Pressurized Wastewater Service Line. See Section 1.0.B for Pressurized Wastewater Service Line design criteria. This criteria applies when and if a Private Pump Station serves an entire house and is located outside the physical structure of the residence or commercial property. However, all private pump station even if within the actual lot owner's structure must sign the *Notice of Private Wastewater Pump System*

If the vertical design of the Wastewater Main is at an elevation that may prohibit gravity Wastewater service to certain lots of a development, then the Design Engineer shall submit a drawing that shows the elevation of the Wastewater Service Line stub.

Following the installation of a Private Pump System, a *Notice of Private Wastewater Pump System* (located at the end of this Chapter) shall be recorded with the County Clerk and Recorder's Office and a copy provided to Triview Metropolitan District. Due to the inability of Private Pump Systems to pump for extended periods of time, swimming pools shall not discharge to Private Pump Systems.

1.0.A Private Pump System Design

The manufacturer shall supply system design, layout, and sizing information for pumps and Pressurized Wastewater Service Lines. Two copies of the design must be submitted with the Construction Plans and specifications.

Triview Metropolitan District accepts E/One products for Private Pump Systems. Equivalent systems can be submitted for review and may be approved on a case by case basis as long as it meets the requirements listed below.

The Private Pump System shall include the following features at a minimum:

1.0.A.1 Pump Reservoir

The pump reservoir shall be sized to contain a minimum of one half day of wastewater generation using the average daily design flow.

For example, a single family residence shall have enough volume in the pump reservoir to contain:

$$(1 \text{ unit}) \times (2.5 \text{ persons/unit}) \times (65 \text{ gal/person/day}) \times (0.5 \text{ Day}) = 81.25 \text{ gal}$$

The wastewater generation for commercial applications will be reviewed on a case by case basis.

The pump reservoir shall also include a level sensor for automatic operation of the pump, a vent, and a check valve on the pump discharge to prevent backflow when the pump is off.

1.0.A.2 Grinder Pump

The Private Pump System shall be equipped with 1 grinder pump for residential applications and 2 grinder pumps for commercial applications.

1.0.A.3 Anti-Flotation Collar

The Contractor shall determine where an anti-flotation collar is required. Anti-flotation collars shall be designed to counteract buoyancy forces that may be encountered in wet conditions. The collar shall be made of concrete. Where required, the size of the collar shall be designed by the Contractor in accordance with the manufacturer's recommendations.

1.0.A.4 Pump Reservoir Backfill

The pump reservoir shall be backfilled in accordance with Triview Metropolitan District Standards and Specifications, using backfill material consistent with the materials specified therein. If the Inspector determines the native soils are not appropriate as a foundation material for the pump reservoir, then foundation material per Triview Metropolitan District Standards and Specifications, shall be provided by the Contractor. The foundation material shall be placed with a minimum thickness of 6 inches and extending 6 inches beyond the outside edge of the pump reservoir, or as determined by the Triview Metropolitan District Inspector.

1.0.A.5 Electric Panel

All electric panels shall have the capacity to be connected to an alternate power source (generator or other) in the event of an extended power outage.

1.0.A.6 Control Panel

A control panel shall be included to allow manual operation of the pump.

1.0.A.7 Alarm Panel

Each Private Pump System shall be equipped with an alarm panel that is capable of notifying the resident when Wastewater in the pump reservoir reaches the high water level alarm set point.

1.0.A.8 Installation and Maintenance

Installation and maintenance must be performed by a manufacturer certified plumber according to the requirements of the manufacturer. Contact the manufacturer for a list of approved plumbers in Monument and the surrounding areas.

1.0.B Pressurized Wastewater Service Lines

Pressurized Wastewater Service Lines may discharge to a gravity Wastewater Main or a Pressurized Wastewater Main. A Pressurized Wastewater Service Line shall not connect to a Public Force Main.

Pressurized Wastewater Service Lines may be constructed of DR11 HDPE or solvent welded SCH 40 PVC, although HDPE is preferred. The Pressurized

Wastewater Service Line shall be sized by the manufacturer and installed with tracer wire per Triview Metropolitan District Standards and Specifications. The minimum diameter for a Pressurized Wastewater Service Line shall be 1.25 inches.

1.0.B.1 Horizontal and Vertical Alignment

The horizontal and vertical separation criteria shall meet the requirements of Triview Metropolitan District Standards and Specifications. The Pressurized Wastewater Service Line shall have a minimum of 6 feet of cover.

1.0.B.2 Connecting to a Gravity Wastewater Main

Pressurized Wastewater Service Lines may be connected to a gravity Wastewater Main with a saddle tap. The connection shall be a minimum of 5 feet from a manhole.

1.0.B.3 Connecting to a Pressurized Wastewater Main

Pressurized Wastewater Service Lines may be connected to other Pressurized Wastewater Service Lines using a tee connection. Everything downstream of that connection will be called a Pressurized Wastewater Main. Other connections may be approved by Triview Metropolitan District on a case by case basis. These connections will be designed by the Design Engineer.

When Pressurized Wastewater Service Lines are connected to a Pressurized Wastewater Main, curb stop valves and check valves shall be provided at the property line of each Pressurized Wastewater Service Lines. Valves shall be mechanically joined to the Pressurized Wastewater Service Line.

2.0 Pressurized Wastewater Main

When 2 or more Pressurized Wastewater Service Lines are combined from different properties, it shall become a Pressurized Wastewater Main and it will be owned, operated, and maintained by Triview Metropolitan District. The horizontal location of the Pressurized Wastewater Main shall correspond to the location of gravity Wastewater Mains shown in Triview Metropolitan District Standards and Specifications,

2.0.A Sizing

Pressurized Wastewater Mains will be sized by Design Engineer based on the flow characteristics of the connecting Private Pump Systems. Sizing should ensure low detention times to minimize septic conditions and hydrogen sulfide (H₂S) generation. Future connections in the area shall be taken into consideration during sizing.

2.0.B Air Relief Valves and Drain Valves on Pressurized Wastewater Mains

Air and vacuum relief valves shall be located by the Design Engineer as necessary along the Pressurized Wastewater Main. Air and vacuum relief valves shall be located in a manhole no smaller than 4 feet in diameter or in a vault.

Drain Valves shall also be located by the Design Engineer at low points along the Pressurized Wastewater Main to facilitate draining, repair, or maintenance of the line.

2.0.C Cleanouts

Cleanouts shall be installed for the purpose of flushing the Pressurized Wastewater Main. Cleanouts shall be designed by the manufacturer and placed in the following locations:

- the upstream end of a Pressurized Wastewater Main
- where a Pressurized Wastewater Main connects with another Pressurized Wastewater Main
- every 1,000 feet

2.0.D Connection to the Gravity Wastewater System

Pressurized Wastewater Mains shall connect to the gravity Wastewater System at a manhole.

2.0.E Installation

Installation of a Pressurized Wastewater Main must be performed by a Private Pump System manufacturer-certified plumber.

2.0.F Hydrostatic Testing

Pressurized Wastewater Mains shall be hydrostatic pressure tested for at least 1 hour at 1.5 times working pressure, but not less than 50 psi. There shall be no loss of pressure during the test. Leakage may be determined by loss-of-pressure, soap solution, chemical indicator, or another method approved by Triview Metropolitan District.

The curb stop for each Pressurized Wastewater Service Line shall be closed during the test to prevent damage to upstream appurtenances. Any other fixtures, devices, or accessories connected to the Combined Pressurized Wastewater Service Line that would be damaged if subjected to the specified test pressure shall be protected during the test. If any leaks are found, they shall be repaired and the test restarted.

Forms: Notice of Private Wastewater Pump System

This Notice of Private Wastewater Pump System ("Notice"), dated _____, 20__, the receipt of which is acknowledged upon execution of this Notice by _____, as the present owner(s) of Lot(s) _____, El Paso County, Colorado, as reflected on the plat recorded at reception number _____ whose address is _____ with the Clerk and Recorder of El Paso County, Colorado (hereinafter referred to as the "Property" or the "land").

All parties who now have, or who may hereafter acquire, an interest in the Property, or any portion thereof, are hereby notified that the Private Wastewater Pump System, which services the Property, is privately owned by the owner(s) of the Property, or any portion thereof, and the ownership of such system shall continue to run with the land upon the sale of other transfer of all or any portion of the Property.

The Private Wastewater Pump System, for purposes of this notice, shall include, but is not limited to, all wastewater service lines and pipes, valves, conduits, pump reservoir, mechanical devices (including the pump and all appurtenances), control panels and any other items which are necessary, in order to enable wastewater to be transferred from the Property to a wastewater main owned and maintained by Triview Metropolitan District, a Colorado Special District.

Owner(s) of the Property are collectively responsible for all matters regarding the Private Wastewater Pump System, including, but not limited to all repairs, maintenance, and complying with all applicable federal and state laws, the Code of the Town of Monument, and all applicable rules and regulations. The Owner(s) hereby agrees to release, discharge, indemnify and hold harmless Triview Metropolitan District, the Triview Metropolitan District Board Members, and Triview Metropolitan District's officers, directors, employees and agents, from and against any and all liability for any damages, injuries to the person or property of the undersigned or any third party, causes of action, demands, or actions of whatsoever kind or nature, including all claims and demands for unpaid labor or material relating to the construction of said facilities, that may arise out of, or are related in any way to, the Private Wastewater Pump System. Nothing contained herein requires the owner(s) of the Property to be responsible for any Triview Metropolitan District wastewater mains, lift stations, or its other appurtenances.

This Notice shall be deemed to run with the land and touch and concern the land.

Executed as of the date first written above.

Signed:

STATE OF COLORADO)

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COUNTY OF EL PASO)

By:

The foregoing instrument was acknowledged before me this _____ day of _____, 20__ by

Witness my hand and official seal.

Notary Public:

My Commission Expires: