LAGRANGE COUNTY REGIONAL UTILITY DISTRICT

GUIDELINES FOR INSTALLATION OF SEWER FROM SEWER MAIN TO A GRINDER PUMP UNIT

***An excavation or right-of-way dig permit must be obtained from the County Highway Department.**

The following are the steps that a customer needs to follow for a brand-new connection to the District's collection system:

Contact the District for a site visit. You will need to mark the proposed grinder location on the property and our staff will come out and determine what type of pump is needed; a single or a double. The pump will need to be ordered by the owner or contractor from a vendor. The District does not take orders for or sell grinder pumps. Information on grinder pumps will be provided with this document.

Bring a copy of your site plan to the District office, at 116 E Wayne Street, LaGrange, to obtain a Construction Release. Include a way to identify the property, i.e., address, parcel number, property owner name(s). Also include the location where you intend to have the grinder station installed.

At this time, you will need to pay your connection fee, (price dependent upon your service area), and a $70.00 inspection permit fee.

The District's staff will provide the following documents:

- **Dedication of Equipment Document** – This will turnover the ownership of the grinder pump station to the District. The District will then take full responsibility for maintaining and replacing the unit as needed.
- **An Easement Document** – This will allow the District's staff access to the property to maintain the grinder pump station. Once the document has been completed it will be recorded with the county recorder.

Without these documents the District cannot maintain your grinder pump.

Your contractor will need to contact the District at **260-499-6349** at least **twenty-four (24) hours** in advance for inspection of the installation of the grinder pump. The connection from the grinder pump to the District's line must be completed by a licensed plumber. Homeowners are not allowed to make the connection to the Low-Pressure Force Main.

Please remember to call before you dig. Call 811. They will contact everyone to have all public utilities located within 48 working hours of calling 811. Private utilities are the responsibility of the homeowner or contractor to get those located. Ex: propane line from the tank to the house or electric lines that run to remote locations on the property.

***All new connections shall be made solely at the expense of the property owner.**

Connection Procedures: Pressure Connection and Grinder Pump

Pressure Connection:

1. Connection of the pressure lateral to the sewer main shall be performed using a saddle type of connection for SDR (9-11) pipe. The connection will be a live tap.
2. The saddle, the SDR pressure lateral, and the grinder pumps must be installed by a State of Indiana Licensed Plumber.
3. A ball valve curb stop will be installed as close as possible to the saddle on the main, out of the roadway, but in the county right of way. The curb stop will be a stainless-steel style Lateral Kit available from E one or equal to, (detail available).
4. The pressure discharge pipe shall be an HDPE- SDR (9-11) and be of 1¼" diameter.
5. Two tracer wires shall be installed and connected into the main line tracer, also connected to, and through the curb stop and to the grinder pump connection and terminated just below the control panel. In a ¾" conduit fastened to the 4x4 post.
6. All fittings to connect the pressure discharge line to the grinder pump shall be of the same material as the discharge pipe or stainless steel. There will be no PVC schedule 40 or 80 allowed on the pressure discharge connection. The connection to the grinder shall be into the 1¼" stainless steel female NPT.

Grinder Pump:

The required grinder pump shall be a positive displacement E-One, (DHO71) for standard single residential sewage producing structure. The tank material for the (DH071) grinder pump shall be HDPE construction with double corrugated outer and smooth inner wall with a FRP lid. A commercial or industrial application may require a specific model of pump and should have prior approval by the General Manager of the District.

Alarm/Disconnect Panel:

Each grinder pump station shall include a NEMA 4X, UL listed, alarm/disconnect panel suitable for mounting on 4"x4" pressure treated post. The NEMA 4X enclosure shall be manufactured of thermoplastic to assure corrosion resistance. The enclosure shall include a hinged lid, backer pad, and a lockable cover, such as a Vynckier Model (#VJ1210HWPL2).

The power supply shall be 220-volt single phase with ground. Each pump core shall have in the panel one 15-amp, double pole breaker for the power circuit and one 15-amp pole circuit breaker for the alarm circuit. The panel shall contain terminal blocks, integral power bus, and a complete alarm circuit. Each panel shall include a push to run switch and redundant start control.

Lugs for attaching alligator clips shall be furnished at the bottom (pump side) of the fuse in the panel.

The alarm/disconnect panel shall include a visual alarm sequence as follows:

1. When liquid level in the sewage wet- well raises above the alarm level, visual alarms will be activated.
2. Visual alarm remains illuminated until sewage in wet-well returns to normal operating level.

Cable:

The power cable shall be completely conduit encased to the alarm panel.

Pump Installation:

When installing the tank, you must excavate a hole to a depth so that the removable cover extends above the finished grade line marked on the grinder pump. The hole

depth needs to be over excavated to allow a minimum of 6-inch bed of clean crushed stone 1/8” – 3/4"diameter in size. The grade shall slope away from the unit. The diameter of the hole must be large enough to allow for at least (1) yard of concrete ballast on the grinder pump.

If the soils are found to be marshy or unstable when excavating for the grinder pump, then the aggregate bedding should be increased to a compacted 12” depth.

A precast concrete ballast is required to prevent floatation of the unit. During the pouring of the ballast, the unit should be leveled and the wet well filled with water (up to the inlet) prior to concrete placement to prevent shifting of the unit. The concrete must be manually vibrated to ensure there are no voids.

The contractor shall install a 6’ extension from the 4” inlet of the grinder pump of Schedule 40 pipe. There shall be a 90-degree DWV tee on the end of the extension with and a clean out to the surface of the same pipe and size. This is to allow connection of the 4” line at the bottom of the tee for the gravity lateral to the home or sewer producing structure.

The pump control panel shall be installed on a pressure treated 4”x4” post and at a panel height of 3’ above the green turtle back lid and facing the control panel. All conduit chases entering the control panel shall be sealed and airtight to prevent moisture or condensation. All electrical connections shall be performed in accordance with National Electrical Code requirements, and all local and national regulations.

<u>Electrical Supply</u>:

1. The owner must obtain a building permit from the County Building Department. An inspection of the completed installation must be performed by the County Building Department before the electrical power supply company can energize the installed pumping system. The electrical primaries are to be installed by the owner’s contractor.
2. A new electrical supply must be built from either the overhead transformer or from the ground transformer that is available to supply the grinder pump. The owner’s contractor will be responsible for installing the new primary to service

entrance pedestal in accordance with the requirements of the electrical provider.

3. The primary leads will be in conduit and feed into a meter base approved by the electrical provider or a Siemens (100A) Ringless type Meter Socket (SUAT417-XPQG), or approved equivalent.
4. The electrical supply shall feed into a Heavy Duty, Se Rated, Fused NEMA 3R disconnect with S/N Kit and lockable in the on position. Fuses shall be (20) amp for single pump disconnects.
5. The meter base and the fusible disconnect shall be mounted on a Service panel of two 4”x4” posts with 2”x4” backers made of pressure treated lumber (details available).
6. The electrical wire shall be a minimum of a #10 underground rated single wire for each line of a 220-volt single phase service w/ground. All wire shall be run along the county road right of way in conduit and then straight into the grinder control panel following the pressure lateral from the grinder pump. If the grinder feed wire or pressure line should not be able to be run in an existing county or municipal easement, the owner will be responsible for procuring the needed easement. The easement will be granted to LCRUD for the purpose of service and repair that may be needed, at the cost of the owner.
7. The power supply wire shall be run into the control panel encased totally in conduit and will be sealed to prevent moisture and condensation from forming in the panel.