

INTRODUCTION

The following is detailed information for the contractor concerning installation specifications. Also included in this section is a Building Lateral Checklist you must follow. Attached are drawings you may reference; they depict typically constructed lateral connections.

SEWER LATERAL INSTALLATION SPECIFICATIONS

1. Lateral Pipe Materials: Building and Street laterals shall be one of the following:
 - a. Polyvinyl chloride (PVC) pipe and fittings conforming to ASTM Specification D-3034, The PVC pipe shall be non-pressure rated and specifically manufactured for underground (buried) sanitary sewers. The pipe may be "SDR-26" (heavy wall) or "SDR 35" (standard thickness) Polyvinyl Chloride (PVC) Sewer Pipe and Fittings". All pipes and fittings shall be suitable for buried gravity sewer service. Provisions shall be made for contraction and expansion at each joint with a rubber ring. The bell shall consist of an integral wall section stiffened with two PVC retainer rings which securely lock the solid cross-section ring into position. Minimum "Pipe Stiffness" (F/Y) at five percent (5%) deflection shall be 46 PSI when tested in accordance with ASTM Specification D-2412.
 - b. Cast Iron (medium weight) bell and spigot pipe and fittings meeting ASTM A 74 material standards may be used as an alternate to PVC non pressure pipe. All testing bedding and backfill standards shall be in accordance with the manufacturers requirements and village specifications.
 - c. Sewer laterals shall not be installed in the same trench as water lines. A separate trench that is located a minimum of (5) feet horizontally and 18 inches vertically away from a water main or service is required. If the sewer lateral cannot be located away from the water service due to existing conditions, the sewer lateral material specifications must meet potable water standards and be suitable for sanitary wastewater. The material must be pressure rated, PVC, C-900 pipe or Ductile Iron, Class 50, sewer pipe. All installation standards of this specification apply.

(see Sewer Use Law for more details).
2. Joints: All joints and connections shall be made water-tight. Joints for all pipe shall be push up type. Gaskets shall be made of neoprene rubber, and gasket lubricant shall be bland, flax-base, non-toxic material, and shall not chemically attack the gasket material. Assembly shall include the insertion of the spigot end of the pipe into the full depth of the hub itself, following the manufacturer's recommended procedures. Materials shall be kept completely clean and free of debris when assembling the joint. All joints shall be of the type provided with the approved material.
3. Fittings: All push-on fittings shall be of the same manufacturer as the pipe. Fittings used for connections to the public sewer and existing house sanitary lines shall be solid sleeve couplings. 90 degree bends in the sewer laterals shall not be allowed. All bends (45 / 22-1/2 degree) should be minimized and made with the appropriate fittings.
4. Clean-Outs: Cleanouts shall be installed at any point where the building lateral turns 90°. Clean-outs are recommended where slopes are minimal and the lateral length is greater than 100 feet. A minimum of one clean out is recommended in all building laterals.

5. Traps: A 4-inch House Trap and Vent is recommended for all sewer lateral connections. Vents should be installed a minimum of 24" above grade and away from any windows. The purpose of house traps is to prevent sewer gas from entering the drain, waste, and vent system at the house. The trap requirement shall be waived in situations where installing a trap is not feasible and every fixture in the building has an individual trap.
6. Trenching and Backfill: All excavations required for the installation of a street or building lateral shall be open trench method unless otherwise approved by the Superintendent. Pipe laying and backfilling, regardless of pipe material used, shall be performed in general accordance with paragraphs 3 through 6 of ASTM Specifications C-12. No backfill shall be placed until the pipe has been inspected for grade, tested and approved by the Superintendent. (see Sewer Use Law).
7. Bedding, Pipe Zone Material: The pipe zone is defined as extending vertically from the trench bottom to a minimum of 12" above the pipe as shown in the typical trench detail. It contains the bedding material; above it is the general backfill.

All pipe bedding shall be placed with a minimum of 6" below the pipe and 12" above the pipe, installed in 6" lifts with bedding installed and compacted to the springline of the pipe prior to inspection and testing by the Superintendent. Native on-site material may be used for pipe bedding provided that it is well graded, free of deleterious material, contains no rocks larger than 2" and does not contain excessive moisture. If no such material is available then cushion sand bedding and / or graded 1 & 2 stone shall be used.
8. Taps: "Y" type fittings (Tapping Saddles) must be used for taps on sewer mains. "T" type fittings are not permitted. Taps into the Village's sewer mains must have prior approval from the Village Superintendent.
9. Cover: The sewer lateral shall have a minimum of 4 feet, 6 inches of cover over the top of the pipe at all points unless otherwise approved by the Superintendent.
10. Testing: All gravity sewers shall be tested for integrity in one of the following ways:

Hydrostatic testing as per IPC 312.6 by plugging the end of the sewer pipe at the point of connection to the public sewer, loading a minimum of 10' of head at the highest point of the sewer and holding this pressure for a minimum of 15 minutes with no loss of water. This test shall be conducted when the pipe is backfilled to the spring -line but prior to backfilling of the trench.

Contact the Village Wastewater Superintendent at 263-9854 to schedule an inspection.

Low pressure air test following Uni-Bell's Recommended Practice for Low Pressure Air Testing of Installed Sewer Pipe (UNI-B-6). Minimum time allowable for a air pressure decrease of 3.5 psi to 2.5 psi in 4" pipe is 4 minutes. 6" pipe minimum allowable time to decrease from 3.5 psi to 2.5 psi is 7 min. This test shall be conducted after backfilling is complete. See Sewer Use Law.
11. Decommissioning of Existing Septic Systems: At the time of the connection of the building sewer to the public sewer any existing septic tank, cesspool or similar wastewater facility shall be cleaned of septage by a licensed hauler and filled with clean sand, bank-run gravel or removed and properly disposed. The connection to the private system shall be broken and both ends of the break shall be plugged. See Sewer Use Law. A bill of lading from the licensed hauler will be necessary as part of the lateral reimbursement plan.
12. Restoration: All restoration is the responsibility of the property owner and the contractor. This includes any driveway repair, sidewalk repair, lawn restoration, etc.