

Tree Roots vs. Sanitary Sewer Lines

Root Growth in Pipes:

Roots require oxygen to grow, they do not grow in pipes that are full of water or where high ground water conditions prevail. Roots thrive in the warm, moist nutrient rich atmosphere above the water surface inside sanitary sewers.

The flow of warm water inside the sanitary sewer service pipe causes water vapor to escape to the cold soil surrounding the pipe. Tree roots are attached to the water vapor leaving the pipe and they follow the vapor trail to the source of the moisture, which are usually cracks or loose joints in the sewer pipe.

Upon reaching the crack or pipe joint, tree routes will penetrate the opening to reach the nutrients and moisture inside the pipe. This phenomenon continues in winter even though trees appear to be dormant.

Problems Caused by Roots Inside Sewers:

Once inside the pipe, roots will continue to grow and if not disturbed, they will completely fill the pipe with multiple hairlike root masses at each point of entry. The root mass inside the pipe becomes matted with grease, tissue paper, and other debris discharged from the residence or business.

Homeowners will notice the first signs of a slow flowing drainage system by hearing gurgling noises from toilet bowls and observing wet areas around floor drains after completing the laundry. A complete blockage will occur if no remedial action is taken to remove the roots/blockage.

As roots continue to grow, they expand and exert considerable pressure at the crack or joint where they entered the pipe. The force exerted by the root growth will break the pipe and may result in total collapse of the pipe. Severe root intrusion and pipes that are structurally damaged, will require replacement.

Tree Roots in Sewers:

Tree roots growing inside sewer pipes are generally the most expensive sewer maintenance item experienced by Township residents. Roots from trees growing on private property and on parkways throughout the Township are responsible for many of the sanitary sewer service backups and damaged sewer pipes.

Home owners should be aware of the location of their sewer service and refrain from planting certain types of trees and hedges near the sewer liners.

Types of Trees Responsible:

Various species of trees have different water requirements. Trees that have a high water demand characteristics have root systems capable of following water vapor escaping from leaking pipes and will exploit the source inside the pipe. The top six species of trees to exploit the moisture inside sewer pipes are Poplar , Willow ,Elm ,Ash ,Birch and Sycamore

Other trees and woody shrubs commonly associated with sewer root problems are: Maple, Cottonwood, Russian Olive , Apple, Pear, Lilac Honeysuckle and Chokecherry.

Root Spread:

During drought conditions and in winter, tree roots travel long distances in search of moisture. As a general rule, tree roots will extend up to 2.5 times the height of the tree, and some species of trees may have roots extending five to seven times the height of the tree.

Tree Roots vs. Sanitary Sewer Lines

Who is responsible?

Property owners have the responsibility to maintain the lateral from the property line to the home or structure. This includes maintenance of broken or plugged lines, root removal, or any other related problems, as well as the operation of sewer system connections and laterals.

Repair, backups or blockages in laterals extending on private property are the responsibility of the owner to whose property is served by the lateral.

It is important to note that sump pumps **MAY NOT** be connected to the sanitary sewer system.

When Calling For A Plumber

There are several choices of plumbers. It's a good idea to get price quotes from more than one plumber so you can compare rates. There are many other things to keep in mind once you do select a plumber:

- Most plumbers will charge extra for nights, weekends, and holidays.
- Ask the plumber if his work is *guaranteed and for how long*.
- Let the plumber know if you have any large trees over your sanitary service line and any history of sanitary sewer problems.
- If you have a long sanitary service line (100 feet or more) you need to ask the plumber if his equipment will be adequate to rod the service line especially if tree roots are involved. A "sewer rod" is a device used to push into an obstruction and break it up or force it out.

The plumber must rod from the clean out all the way to the sanitary sewer main, and from the vent into the house to effectively clean the service line. To effectively clean the sanitary sewer service line, the plumber should use a 4-to-6 inch expanding cutting bit.

What does normal maintenance mean?

The customer is responsible for all normal maintenance of the sanitary sewer service line on private property as well as in the township right-of-way. So the question is: what does normal maintenance mean?

Normal maintenance is the removal of materials that are flushed, dropped or inserted down the sanitary service line — including toys, baby diapers, construction debris, and tree roots that require less than

two roddings per year by a licensed plumber.

All problems on private property are the sole responsibility of the customer. If the plumber is unable to restore service and feels the blockage is in the right-of-way, the customer needs to contact the Public Works Department at 610-933-9179 while the plumber is still on site, and a representative will be dispatched immediately.

If the blockage is determined to be in the right-of-way and the plumber can't get through, the township will determine whether another plumber will be contacted at the township's expense or an excavation will be initiated.

When Calling For A Plumber:

There are several choices of plumbers. It's a good idea to get price quotes from more than one (1) plumber so you can compare the rates. Keep in mind that most plumbers will charge extra for nights, weekends, and holidays. Ask the plumber if his work is guaranteed and for how long. Let the plumber know if you have any large trees over your sanitary service line and any history of sanitary sewer problems. If you have a long sanitary service line (100' or more) you need to ask the plumber if his equipment will be adequate to rod the service line especially if tree roots are involved. The plumber must rod from the clean out all the way to the sanitary sewer main, and from the vent into the house to effectively clean the service line. To effectively clean the sanitary sewer service line, the plumber should use a 4" to 6" expanding cutting bit.

Customer Responsibilities:

The customer is responsible for all normal maintenance of the sanitary sewer service line on private property as well as in the Township right-of-way.

Question: What does normal maintenance mean?

Answer: Normal maintenance is the removal of materials that are flushed or dropped/inserted down the sanitary service line (including toys, baby diapers, etc.), construction debris, and tree roots (that require less than two roddings per year by an experienced/licensed plumber that is in the right-of-way/easement). All problems on private property are the sole responsibility of the customer. If the plumber is unable to restore service and feels that the blockage is in the right-of-way, the customer needs to contact the Public Works Department while the plumber is still on site, and a representative will be dispatched immediately. If the blockage is determined to be in the right-of-way and the plumber can't get through, the Township will determine whether another plumber will be contacted at the Township's expense or an excavation will be initiated.