

SEWER LATERAL AND TREE ROOT CONFLICTS

ENGINEERING DEPARTMENT ❖ FORESTRY DIVISION

Sewer pipes may become partially or completely blocked for various reasons. Tree roots are often blamed for damaging sewer pipes and then blocking them. However, root growth into a sewer only occurs where the sewer has first been damaged by other factors. In addition, studies show that roots from shrubbery planted around the house are the culprits more often than tree roots.

This damage can be due to poor original construction, the aging and cracking of sewer pipes, soil settlement and the subsequent separation of pipe sections, and the failure of pipe grout joints. Roots *do not* cause this damage. When small, exploratory tree roots come in contact with a leaking or partially collapsed sewer pipe, they are stimulated to grow vigorously, often growing into the damaged pipe. The air, moisture, and nutrients available to tree roots from damaged sewer pipe stimulate rapid root growth.



The stationary presence of the roots in the pipe can become a point at which sewage solids may begin to accumulate. The combination of roots and solid wastes can develop into a partial or complete blockage of the pipe.

The following list describes some of the treatments to correct blockage problems in defective sewer laterals which contain tree roots:

- **Root Cutting/Hydro-Jetting:** Plumbing contractors have special equipment for removing obstructions from within a sewer lateral. In the case of tree roots, cutting or hydro-jetting alone is not a long-term solution to the problem. Roots will usually re-grow into the favorable environment of the damaged pipe.
- **Chemical Root Inhibitors:** Some plumbing contractors can supply chemicals that kill roots and prevent re-growth into damaged sewer pipes. Expanding foam that fills the entire inside of the pipe when applied is best. The foam kills all the roots inside the pipe, as well as roots in the soil surrounding the damaged area of the pipe. In addition to killing roots inside and around the pipe, the foam impregnates the surface of the pipe with a root inhibitor, creating a chemical barrier.
- **Sewer Pipe Liners:** Sometimes it is possible to repair the damaged pipe itself, without excavating, through use of a cast-in-place liner. This system is inserted into the sewer lateral and essentially creates a new pipe inside of the damaged pipe. Lining is a long-term solution and generally has a minimum 50-year life expectancy.
- **Replacement of Damaged Sewer Laterals:** This is another long-term method of correcting a defective sewer lateral to prevent future root growth and blockage. In cases of extensive collapse or damage of sewer lateral pipes, this is likely to be the only effective solution.

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