

Misc. Sanitary Sewer Lining Project Fact Sheet

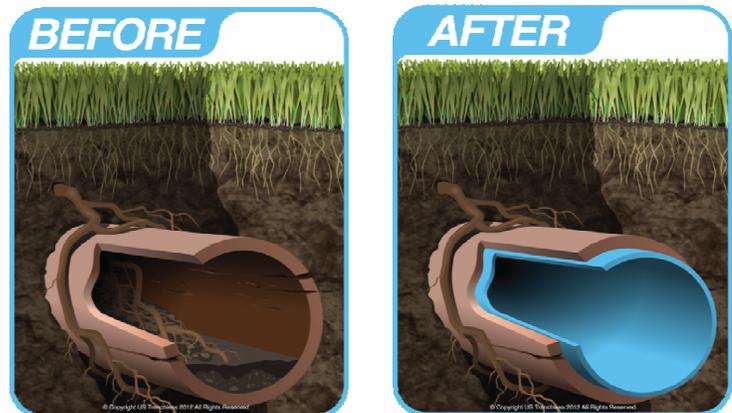
Sewer Lining Program Overview

Sewer pipelines have a finite life span and, at times, need to be repaired or replaced. That is why the City of Springfield has established a proactive sewer rehabilitation program that focuses on addressing those pipelines most in need of repair.

The program is important for a number of reasons. As a sewer main begins to reach the end of its useful life, it may deteriorate past the point that it can structurally support the loads imposed on it. This can lead to a line collapse, which may disrupt sewer service for residents and businesses or cause damage to the road above.

What is CIPP?

The cured-in-place pipe (CIPP) lining process involves the insertion of a resin-saturated flexible lining into an existing sewer pipe. The lining looks like a very large sock or flexible tube. Air or water under pressure is forced into the tube, which turns the lining inside out and causes it to expand to fit tightly against the existing sewer walls. Hot air or water is circulated through the tube to harden the resin. When the curing process is complete, a new “pipe-within-a-pipe” has been created, eliminating cracks and holes that allow rainwater and roots to enter the sewer and cause operational problems such as stoppages and overflows.



Source: US Trenchless 2012

What happens during the CIPP process?

First, the sewer is prepared for lining. This includes removing roots, sediment, and grease from the sewer and cutting out intruding connections. The sewer is then inspected using closed circuit television (CCTV) and the locations of connections from homes and other properties noted. Manholes are also inspected. Like many other forms of pipe rehabilitation/replacement, CIPP requires bypass pumping, which reroutes sewer flow around the segment being worked on during installation.

What are the benefits of CIPP?

In comparison to traditional open-cut construction, CIPP allows for rehabilitation of pipes without disturbance to surface structures or other utilities. CIPP can be completed on a shorter schedule, and generally costs much less. The finished product has a 50-year design life, the same as that of a brand new pipe.

**For questions about this project, please contact the City of Springfield
Engineering Department at 937-324-7311.**

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How were the pipelines to be rehabilitated determined?

The City regularly inspects the sewer system to assess condition and identify pipelines in need of repair. The City has an asset database to help prioritize those pipes needing attention based on factors including condition and age. In this project area (see Public Comment Sheet), some sewer connections are inactive because the homes have been demolished. After the sewer has been lined, the inactive laterals will not be reinstated, thus keeping groundwater out of the sewer system.

What can I expect during the installation?

Work will take place within the road right of way and dedicated sewer easements. The contractor will need to gain access to the sewer main through the manholes. Bypass pumps and piping will be set up to convey the sewer flow around the pipeline segments being worked on. Traffic control consisting of cones, barricades, and signage will direct traffic around the work areas.

Will my property be adversely impacted by this construction?

One of the advantages of trenchless sewer rehabilitation is that it is less disruptive than traditional open-cut construction. Much of the work occurs inside the pipe and directly above in the road right of way. Therefore, minimal disturbance to homeowners' yards is expected. At some locations, the contractor may need access to the sewer cleanout of individual connections.

How will this affect my daily routine?

There will be additional construction traffic and some noise. In some cases residents may also be asked to temporarily reduce water use (usually no longer than a day). Due to the traffic control, you may experience minor delays in getting around the actual area of installation. Traffic control will be in place and emergency vehicles will always have access. The contractor will also ensure that homeowners and businesses have access to their driveways.

Why are there pipes on the street?

The pipes and pumps located above ground are part of the bypassing system for conveying sewer flows around the work area. In order to safely and effectively work in the pipeline, the sewer flows are pumped out of the system from a manhole upstream of the work area and then returned to a downstream manhole. The pipes and pumps are temporary and will be removed once the work is complete in that area.

How will this project affect my sewer bill?

The cost of this project is about \$1.5 million. This project will have no material impacts on Springfield's sewer rates. However, reducing inflow and infiltration (I & I) can lower the costs the City pays for electricity and treatment at its Wastewater Treatment Plant.

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