What’s that odor?
The sewer pipe is being replaced with Cured-In-Place Pipe (CIPP)

What is CIPP?
CIPP is a method used to replace damaged or deteriorated sewer pipe without rigging up the existing pipe or disrupting roads, driveways, sidewalks, or landscaping. Since 1971, CIPP has been used to safely reduce construction time, costs, and disruptions in sewer service, while minimizing the impact on homes, businesses, traffic, and the environment.

CIPP Installation Process
The process involves installing a resin-saturated felt tube into an existing sewer pipe. Once in place, the tube is inflated to fit tightly inside the original pipe and cured or hardened to create a new plastic pipe within the old pipe. During the process, a steam cloud coming from a 6-foot (minimum) vent stack at a manhole may be visible in the air and will dissipate quickly when the process is complete.

What is that odor and why can I smell it inside my house?
On occasion, there may be a "glue like" odor during the curing process that arises from the styrene component in the resin used in CIPP. Once the CIPP is fully cured or hardened, the odor will be eliminated.

If you detect an odor in your home, it is likely entering through the pipe that connects your home to the public sewer main. A "U" shaped pipe called a P-trap is located at all drains/plumbing fixtures and is designed to keep sewer gas and other vapors out of your home or building. Floor drains/plumbing fixtures may dry out at the P-trap and allow sewer vapors to enter your home or building.

See reverse to learn more about styrene odors
What can I do to prevent or eliminate the odor?

Pour ½ gallon of water into all plumbing fixtures and drains to fill your P-traps prior to the start of the project. If you smell the odor in your home, ventilate the area by opening windows and doors. Adding more water to the P-traps and using a fan may help eliminate the smell faster. If the odor persists after ventilating, contact the project superintendent.

What is Styrene?

Styrene is a clear, colorless liquid that is synthesized for commercial use from petroleum and natural gas by-products. Styrene also occurs naturally in the environment and is an inherent component in small concentrations of many commonly consumed foods and beverages, such as coffee, strawberries, and cinnamon.

Styrene is frequently used for thermoplastics, and also latex and thermosets

Source: Styrene Information and Research Center

<table>
<thead>
<tr>
<th>LATEX 8%</th>
<th>THERMOPLASTICS 85%</th>
<th>THERMOSETS 7%</th>
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<tbody>
<tr>
<td>Home Products</td>
<td>Used in insulation, common household appliances, and toys.</td>
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<tr>
<td>Car Parts &amp; Tires</td>
<td>Enables better fuel efficiency and safety through lighter part weight and tire design.</td>
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<tr>
<td>Food Packaging</td>
<td>Helps keep food fresh, hygienic, and at desired temperatures.</td>
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<tr>
<td>Electronic Components</td>
<td>Houses the workings of components of electrical devices and secures products for shipping.</td>
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<tr>
<td>Safety Products</td>
<td>Used in personal safety products such as bicycle helmets, children’s car seats, and water flotation devices.</td>
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<tr>
<td>Composite Materials</td>
<td>Enables production of equipment that converts wind and sunlight into energy, storage tanks that do not allow gasoline or other fluids to leak, recreational “fiberglass” boats and many other products.</td>
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Why is the odor so strong?

Styrene has a very intense, distinctive odor and is detectable by the human nose at very low concentrations (0.1 parts per million). The presence of a styrene odor does not necessarily indicate a dangerous level.

Question: Is the odor harmful to my family and me?

For the general population in normal circumstances, measured environmental styrene concentrations from CIPP in the air are at levels too low to cause health effects. However, short-term exposure may cause eye irritation, headache, and discomfort. The EPA guideline for such an airborne concentration would list this as an Acute Exposure Guideline Level -1. EPA defines this as the airborne concentration of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic, non-sensory effects. In most cases, however, the effects are reversible upon leaving the area of exposure.

To learn more about:
- **CIPP** visit NASSCO.org
- **Styrene** visit styrene.org, nassco.org, youknow styrene.org, epa.gov