

Glenwood Creston Drainage Improvement Project

Pipe Rehabilitation

There are several methods used to rehabilitate existing pipes in place. For this project, the most likely solution is cured in place pipe (CIPP) lining. CIPP rehabilitation involves cleaning the pipe, placing a polymer liner along length of the pipe, inflating the liner against the interior walls of the pipe, and curing the pipe in place. This process restores the structural integrity of the pipe, eliminates leaks and infiltration which can cause sinkholes in surrounding areas. The life expectancy of a rehabilitated pipe is 50+ years. The City of Raleigh uses a specialized ultraviolet curing process that avoids release of any chemicals to environmentally sensitive surface waters.



Photo credit: YouTube video linked below

For more technical information on how the lining process works, please see the following video on YouTube:

- <https://youtu.be/CpclcAcCexw>

Benefits of Pipe Rehabilitation

- Reduced impact to above ground features (trees, landscaping, fences, driveways, foundations, etc.)
- Reduced construction time
- Lower cost compared to open trench replacement

Below are selected screenshots from pipe video that has been collected in association with the investigation of the condition of existing pipes along the project corridor.



Sediment/deteriorated corrugated metal pipe



Rusted corrugated metal pipe bottom



Offset pipe joints