

Aging Stormwater Infrastructure

Pigeon House Branch Watershed Study

Condition Inspections

Pigeon House watershed contains some of the City's oldest stormwater infrastructure, dating back to the late 1800's.

Over 20 miles of stormwater pipes were inspected for the watershed study using pole camera and video crawler technology. Visual inspection was conducted for 23 culverts, with several of those recommended for further structural inspection.

These inspections focused on infrastructure on City property and in City rights-of-way.

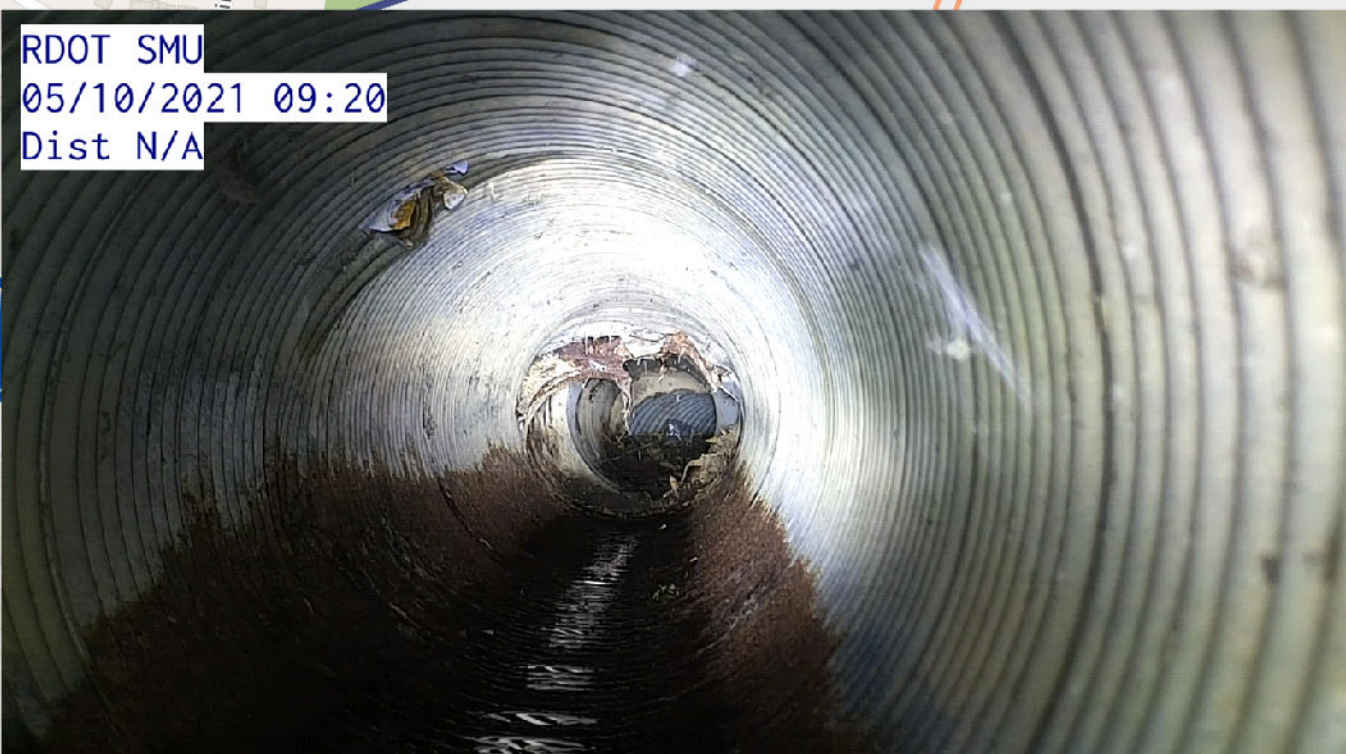
Rehabilitation of Stormwater Infrastructure

Approximately 10% of the pipes inspected in the Pigeon House watershed were found to be in poor condition. Some pipe repairs have already been completed. The City is planning for future repairs or replacement of the remaining pipes in poor condition.

Where possible, trenchless techniques that cause minimal disturbance to the ground surface, such as pipe lining, are being used to renew the pipes.



Stone Culvert



Corrugated Metal Pipe - Poor Condition



Vitrified Clay Pipe - Poor Condition

Trenchless Repair

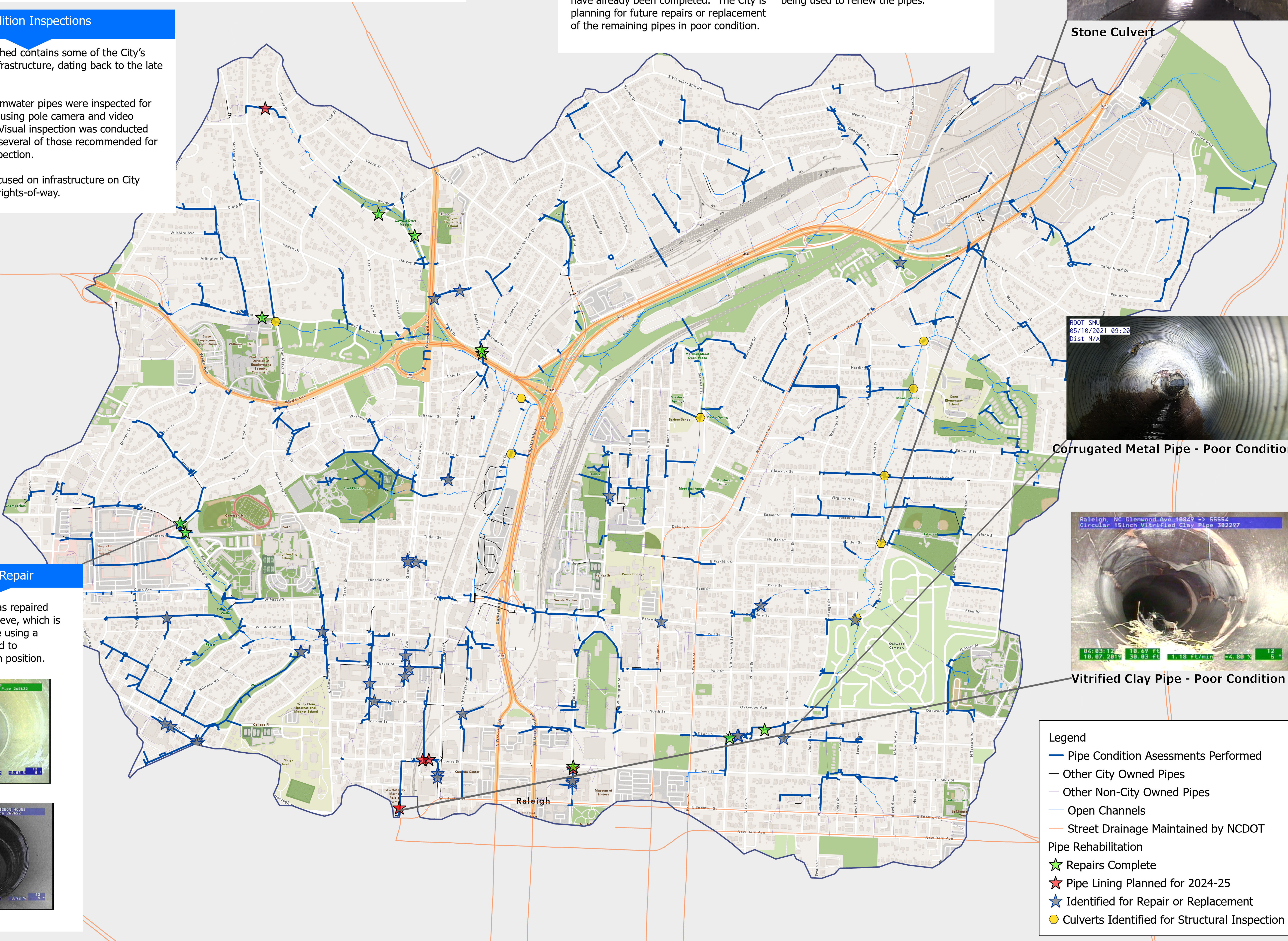
A hole in this pipe was repaired with a Quick-Lock sleeve, which is inserted into the pipe using a crawler and expanded to permanently lock it in position.



Before



After



- Legend
- Pipe Condition Assessments Performed
 - Other City Owned Pipes
 - Other Non-City Owned Pipes
 - Open Channels
 - Street Drainage Maintained by NCDOT
- Pipe Rehabilitation
- ★ Repairs Complete
 - ★ Pipe Lining Planned for 2024-25
 - ★ Identified for Repair or Replacement
 - Culverts Identified for Structural Inspection