

## CASE STUDY

# TRENCHLESS STORMWATER PIPE REHABILITATION IN GWINNETT COUNTY, GA

**County looking for high-priority stormwater rehabilitation solutions.**

### THE CHALLENGE

Gwinnett County, Georgia makes up a substantial portion of the Atlanta metropolitan area. So, when the county felt it was time to repair its high-priority stormwater pipes and infrastructure, it needed to work with specialists who could get the job done quickly and efficiently. Gwinnett County chose Vortex Services for this project because of the team's pipe rehabilitation prowess and reasonable bid. This contract job, which has four one-year renewal options, focused on repairing or rehabilitating about 77,000 linear feet (LF) of 15"-132" diameter stormwater pipes. Additionally, the contract included erosion control measures (head walls, inlet tops, and structures) and manhole structure rehabilitation work. Vortex Services also subcontracted the Dickerson Group for the landscaping work and road and driveway restoration portions of this project.

### THE SOLUTION

To kick off the project in August 2019, the Vortex Services team CCTV inspected and cleaned all 77,000 LF of the stormwater lines to determine their current condition. Next, the crew utilized cured-in-place pipe (CIPP) to repair the majority of the lines (about 64,000 LF), restoring the assets' structural integrity. The team then spin-cast 7,600 LF of the piping with Quadex® GeoKrete® structural geopolymer, effectively reinforcing the structures and protecting them from groundwater infiltration and corrosion. An additional 5,000 LF of stormwater pipes that were in a more deteriorated state required open cut pipe replacement.

Throughout this project, the county's jobsites posed several challenges for the Vortex Services team. First, the crew had to contend with access issues including backyard easements and surrounding trees that required removal. They also had to obtain the appropriate Georgia Department of Transportation permits and encroachment permits from Gwinnett County.



### PROJECT SNAPSHOT

#### PROJECT OWNER

Gwinnett County

#### CONTRACTOR

Vortex Services – Southeast Division

#### PROBLEM

Gwinnett County required rehabilitation services for 77,000 LF of its 15"-132" diameter stormwater piping as well as manhole rehabilitation and erosion control measure work (head walls, inlet tops, and structures).

#### SOLUTION

CCTV inspected and cleaned all 77,000 LF of stormwater lines, used CIPP to repair 64,000 LF, and then spin-cast 7,600 LF with Quadex® GeoKrete® geopolymer to structurally reinforce the assets. Also performed open cut pipe replacement on 5,000 LF of piping that was more seriously deteriorated.

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### THE RESULTS

Despite these difficulties, the crew completed the job both on time and within budget. Gwinnett County has been pleased with the team's quality of work. With these critical assets restored to full capacity, the county will not have to contend with flood-related erosion, sinkholes, and other environmental damage that can result from damaged stormwater infrastructure.