

**CASE
STUDY**



**PROJECT
SNAPSHOT**

PROJECT OWNER

City of Columbia

CONTRACTOR

Vortex Services – Southeast Division

PROBLEM

Columbia needed to investigate the condition of 80,245 LF of its stormwater sewer system that included 86 known points of no connectivity between assets.

SOLUTION

CCTV inspected 80,245 LF of stormwater piping, which varied in size from 12" to 72" in diameter, and mechanically cleaned about 21,625 LF.

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Stormwater Sewer Investigation and Cleaning in Columbia, SC

CITY SEARCHING FOR DETAILED CONDITION ASSESSMENT OF ITS CHALLENGING STORMWATER PIPING

THE CHALLENGE

The City of Columbia, South Carolina struggled to get a sense of Watershed 88 (WS88), a section of its stormwater piping that included 86 known points of no connectivity between assets. The city hired Vortex Services to investigate approximately 80,245 linear feet (LF) of WS88's stormwater sewer with the goals of better understanding gaps in its stormwater system and determining the best way to rehabilitate this infrastructure.

THE SOLUTION

To start off, the Vortex Services team ran initial CCTV inspections of all 80,245 LF of stormwater piping, which varied in size from 12" to 72" in diameter. These inspections enabled the crew to note the exact locations of the areas lacking connections and the maintenance condition of each pipe segment. During the assessments, the crew discovered collapsed pipes and areas of clogged pipe. About 21,625 LF of the lines required mechanical cleaning services to rid them of debris and allow the team to perform more detailed inspections.

THE RESULTS

The crew completed this investigatory project in just four weeks, staying within the city's time constraints and set budget. Through these CCTV investigations, the Vortex Services team gathered and analyzed a rich set of data that was used to put together unique rehabilitation recommendations. These recommendations included the use of cured-in-place pipe (CIPP), open cut pipe replacement, and structural manhole repair to rehabilitate Columbia's stormwater assets in WS88. With these detailed findings, the city can rest assured that it has the information necessary to address its infrastructure issues head on.