

## CASE STUDY

# SANITARY SEWER MANHOLE REHABILITATION IN THE CITY OF COVINGTON, GA

**City searching for trenchless manhole rehabilitation solutions.**

### THE CHALLENGE

The City of Covington, Georgia makes up part of the Atlanta metropolitan area. In 2022, several of Covington's aging stone and brick manholes collapsed, creating sinkholes and alerting city officials of the need for sewer rehabilitation. Later that year, Covington contracted RDJE, Inc., a full-service construction contractor based in Newnan, Georgia, for a variety of rehabilitation services who then reached out to Vortex Lining Services (VLS) to carry out cementitious lining and other restoration services on 231 of the city's manholes.

### THE SOLUTION

The VLS team began the rehabilitation process in October 2022, starting out by cleaning each manhole and clearing them of debris. The manholes ranged from 24" to 60" in diameter and varied from 1.5 to 20 VF each; together, these structures added up to a total of 1,330 VF. Next, the crew repaired



**VORTEX**  
services



### PROJECT SNAPSHOT

#### PROJECT OWNER

City of Covington

#### CONTRACTOR

RDJE, Inc.

#### SUBCONTRACTOR

Vortex Lining Services

#### PROBLEM

Covington had 231 aging stone and brick manholes that were deteriorated to the point that they required rehabilitation.

#### SOLUTION

After cleaning the manholes, the crew repaired the benches and inverts in each of them, with some requiring a complete rebuild. They then spray-applied the assets with QM-1s Restore® cement-based mortar to restore their structural integrity. To repair 182 manholes that were experiencing ground infiltration, the squad used Quadex® Quad-Plug® fast setting waterstop and Hyperform® rapid-set patching material. The team also utilized I&I Guard®-PRF fast curing foam grout to seal and secure the manholes experiencing high-flow infiltration. Lastly, they further sealed the frame and cover of three particularly damaged structures.

#### CONTACT

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### VORTEX PRODUCTS USED



- QM-1s Restore®
- Quad-Plug®
- Hyperform®
- I & I Guard®-PRF

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the benches and inverts in each of the manholes, some of which required a complete rebuild. The team then spray-applied the assets with QM-1s Restore® cement-based mortar to structurally restore them. To repair the 182 manholes that were experiencing ground infiltration, the VLS squad used Quadex® Quad-Plug® fast setting waterstop and Hyperform® rapid-set patching material, further securing the structures. The crew also utilized I & I Guard®-PRF fast curing foam grout to seal and secure manholes experiencing high-flow infiltration. To finish up, they further sealed the frame and cover of three particularly damaged manholes.

### THE RESULTS

The VLS crew finished up this manhole project on time and within Covington's budget in June 2023. The city was happy with the work completed and, because this project was just the first year of a multi-year rehabilitation contract, Covington even asked the VLS team to come back and rebid for the next year of the contract (late 2023-2024).



## IMPACT

1

Rehabilitated the manholes via trenchless methods instead of dig and replace so that the crew was at each manhole for a few hours without causing any major traffic disruptions.

2

Finished this manhole job on time and within Covington's budget in June 2023.

3

Covington was happy with the work completed and because this project was just the first year of a multi-year rehabilitation contract, the city asked the VLS team to rebid for the next year of the contract (late 2023-2024).