

PROJECT OVERVIEW

The Florida Department of Transportation (FDOT) is the owner of a storm sewer system that runs approximately 1,600 linear feet near the intersection of Florida State Hwy 50 and Country Lane in Orlando, FL. The first 1,200 linear feet of reinforced concrete pipe (RCP) had an inner diameter of 60 inches, while the remaining 400 linear feet had an inner diameter of 66 inches. The storm sewer ended in the lake situated within the grounds of the Country Club of Orlando. As part of the project, the general contractor needed to build a new head wall at the lake outlet.

SOLUTION

The project was started in late February of 2014. While the general contractor installed a new headwall at the outlet of the lake, the pipe rehabilitation crew began work on the full length of the RCP. Each section was set up to bypass over a distance of two or three manholes to create a safe working environment for the installation crew.

Once safe, the pipe was pressure washed, cleaned and inspected. The pipe joints were then hand-repaired with GeoSpray mortar as required by the engineering design. In addition to hand repair of the joints, the crew worked to stop active water infiltration that was present throughout the length of the pipe.

After each section was prepared and the joints were sealed, two passes of the GeoSpray lining were applied using the centrifugal spray casting method to create the desired thickness of 1.5 inches. One key benefit of the application method is that all materials and equipment can easily fit through a standard 24-inch manhole, allowing the rehabilitation to be completed without excavation or an access hole being dug on-site.

RESULTS

The GeoSpray liner cured quickly so that by-pass of the pipe could be removed in under three hours. Because of the high frequency of storms in central Florida during spring afternoons, the rapid curing time of GeoSpray mortar allowed the contractor to take advantage of small construction time windows between rain events.

PROJECT DETAILS

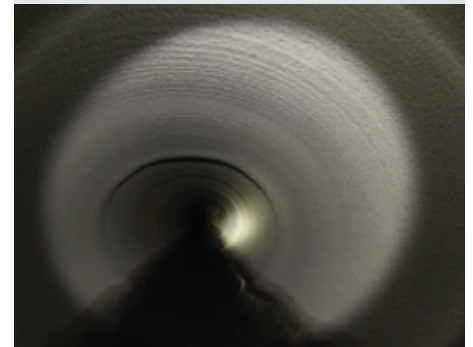
Location: Country Lane, Orlando, FL

Application: Storm Sewer Rehabilitation

Client: Florida DOT, District 5

Installation: April 2014

Contractor: Inland Pipe Rehab



Completed GeoSpray mortar liner as part of a 1600 linear feet storm sewer system project.



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CASE STUDY: Storm Sewer Rehabilitation Orlando, FL



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Applying GeoSpray mortar to joints that are infiltrating.



In the process of the lining application



Completed GeoSpray mortar liner.



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