



OVERALL CREEK INTERCEPTOR REPLACEMENT PHASE II Nashville, Tennessee

Original Contract: \$7,998,655
Change Orders:
Final Amount: \$7,781,519
Contract Time: 510 days
Project Start: 6/2006
Project Completion: 12/2007

OWNER

Harpeth Valley Utilities District
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ENGINEER

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PROJECT DESCRIPTION

To serve the growing suburban population of western Davidson County, the Harpeth Valley Utility District contracted W.L. Hailey & Company, Inc. to construct the Overall Creek Interceptor Replacement, Phase II project. Following years of rapid growth in portion of the suburban Nashville, the existing sanitary sewers became over-loaded and unable to support the continued growth. The Overall Creek Interceptor project provides a new, deep, large diameter sewer to take these sanitary flows and deliver them to HVUD wastewater treatment facility.

As special challenges, this new deep sewer, in a trench carefully excavated within the limestone bedrock formation, closely parallels not only the existing sewer, but also a 48 inch water transmission main which services the greater HVUD service area as well as supplying water to other utility owners beyond. This close proximity and numerous under-crossings by the new sewer of the existing sewer, and especially the 48 inch water main required considerable care in controlled blasting and mechanical rock removal. Additional challenges lay in controlling inflows of groundwater from Overall Creek nearby.

The deepest section and major road crossing on this project were constructed by tunneling methods, which Hailey self-performed. These included a 1400 lf tunnel which was mined with our Jarva Mark VIII hard rock Tunnel Boring Machine (TBM) with an 8.5' diameter bore. Following mining, 60 inch FRP sewer pipe was installed within the tunnel and grouted into place. An additional 200 lf of tunnel was constructed by conventional hand drill/blast methods.

In total this project includes 1900 lf of 60" FRP sewer pipe and 8,000 lf of 48" FRP sewer pipe, along with FRP sewer manholes and numerous small diameter sewer interconnections.

