

Clairborne Run Sewer Fredericksburg, VA



PROJECT OVERVIEW AND CHALLENGES

Bradshaw completed microtunneling 190' of 60" steel casing under CSX tracks in Fredericksburg, VA for a 42" DIP gravity sewer as part of an Infrastructure Program just north of abandoned SR-218 along Claiborne Run. The Stafford County DPU contracted Timmons Group and W.C. Spratt, Inc. to construct the project, with Bradshaw being selected as microtunneling subcontractor. The 60" MTBM used was an AVN-1200 model developed by Herrenknecht. Tunnel depths ranged from 18' to 35' below the surface, with the alignment passing beneath the water table through clayey sands, silty sands and poorly graded sands. Challenges included tunneling underneath the CSX tracks without causing settlement, tunneling underneath two 4.5" fiberoptic lines, and tunneling in a potential floodplain, requiring extensive equipment protective measures.



PROJECT INFORMATION - 584

OWNER:

The Stafford County
Dept. of Public Utilities
Christopher Conners
540-658-4232
cconners@staffordcountyva.gov

ENGINEER:

Timmons Group
504-200-6500

CONTRACTOR:

W.C. Spratt, Inc.

COMPLETION DATE:

12/28/2018

GEOLOGY:

Clayey Sands, Silty Sands, & Poorly Graded Sand

EXCAVATION METHOD:

Herrenknecht AVN-1200 MTBM

MINING DIMENSIONS:

190' x 60" Ø

FINAL LINING:

42" Ductile Iron Pipe

FOR MORE INFORMATION:

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Refer to Project 584