

## 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