

## Sewer Improvements at Fenwick Road and Essex Avenue Fairfax County, VA



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction installed 1,800' of 12" vitrified clay pipe to increase sewer capacity in two neighborhoods in Fairfax County, VA. The line was installed by pilot tube microtunneling through clay, silt, and sand. Due to some cobbles that were encountered, and several existing utilities, Bradshaw was required to perform some of the sewer installation by Open-Cut. There was also a previously unidentified storm sewer box culvert that necessitated a design change to a twin siphon. Thanks to the wide range of experience of the management team, Bradshaw was able to adapt installation methods in order to complete the project with minimal impact to the surrounding community.



### PROJECT INFORMATION - 472

**OWNER:**

Fairfax County DPWES  
Matthew J. Doyle  
Senior Project Engineer  
Construction Management Division  
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**ENGINEER:**

CH2M HILL  
Emad Farouz, PE, D.GE  
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**CONTRACTOR:**

Bradshaw Construction Corporation

**CONTRACT VALUE:**

\$2,317,196

**COMPLETION DATE:**

9/30/2009

**GEOLOGY:**

Clay, Silt, Sand, Cobbles

**EXCAVATION METHOD:**

Akkerman GBM 110  
16" Ø Pilot Tube- Auger

**MINING DIMENSIONS:**

1,800' x 16" Ø

**FINAL LINING:**

Pilot Tube Microtunneling  
12" No-Dig VCP

**FOR MORE INFORMATION:**

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Refer to Project 472