Project Profile: MICROTUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

CSX Transportation Howard St. Tunnel, Camden St. Drain Replacement

Baltimore, MD

PROJECT OVERVIEW AND CHALLENGES

Bradshaw completed this high profile project in downtown Baltimore, MD as part of a design-build team. An existing storm drain located in the invert of the Howard Street CSX Rail Tunnel had been the cause of frequent flooding. This project replaced that 48” storm with a larger, deeper siphon drain which eliminated the flooding and allows CSX to increase the depth of the existing tunnel to gain freight capacity through the area. A total of three tunnels were mined out of a 26' diameter by 55’ deep shaft. Microtunneling was used for the Siphon, which was a two-pass tunnel of 74” steel casing for a 60” FRP storm drain. The Siphon tunnel spanned 122’ under Howard Street which finished at the footing of the Convention Center, where it reconnects to the existing storm network. The subsurface conditions consisted of poorly graded sand with silt and gravel, which required extensive grouting prior to tunnel excavation.

PROJECT INFORMATION - 576

OWNER:
CSX Transportation

ENGINEER:
McMillen Jacobs Associates
Joe Shrank
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shrank@mcmjac.com

CONTRACTOR:
Clark Construction Group, LLC

COMPLETION DATE:
5/19/2018

GEOLOGY:
Very Dense Alluvial Sand & Gravel

EXCAVATION METHOD:
Herrenknecht AVN-1500 MTBM

MINING DIMENSIONS:
122' x 74" Ø

FINAL LINING:
60" Fiberglass Reinforced Pipe

FOR MORE INFORMATION:
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Refer to Project 576