Project Profile: SHAFT CONSTRUCTION

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Hillen/Ashburton Plant Bypass Pipeline
Baltimore, MD



PROJECT OVERVIEW AND CHALLENGES

Bradshaw constructed a 48 foot ID x 40 feet deep shaft over an existing 96” sanitary sewer. Bradshaw used the New Austrian Tunneling Method (NATM) to install and support the shaft. The ground conditions were silt, sand (micaceous residual) soils with gneiss boulders. A cast in place concrete junction chamber was built in the shaft to tie in the existing sewer with a new 66” PCCP sewer. The principal challenges on the project were the extremely limited work area, close proximity to existing structures and the no blast requirement for removing car size boulders.





PROJECT INFORMATION - 412

OWNER:
Baltimore City Department of Public Works
(410) 396-3310

ENGINEER:
Whitman, Requardt & Associates
Chris Thompson
(443) 224-1735

CONTRACTOR:
Metra Industries

COMPLETION DATE:
2/23/2004

GEOLOGY:
Residual Soils - micaceous silt, sand and boulders

EXCAVATION METHOD:
New Austrian Tunneling Method (NATM)

MINING DIMENSIONS:
48'Ø x 40' Deep

FINAL LINING:
NATM (reinforced shotcrete)

FOR MORE INFORMATION:
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Refer to Project 412