Project Profile: SHAFT CONSTRUCTION

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

Fullerton Water Transmission Main Section I

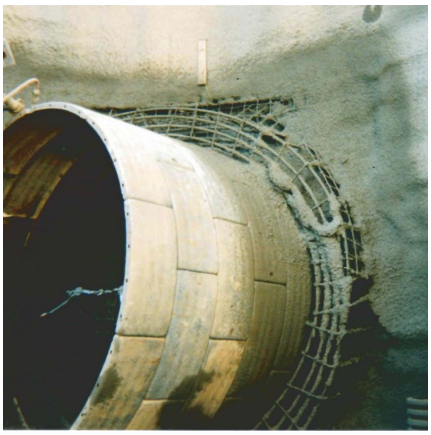
Fullerton, MD



PROJECT OVERVIEW AND CHALLENGES

Bradshaw constructed an elliptical shaped shaft with the dimensions of 73 feet x 42 feet x 35 feet deep using the New Austrian Tunnel Method (NATM). The ground conditions were silt, sand and gravel. The shaft was used to install 1,700’ of TBM tunnel for an 84 inch steel water main and to construct a triple 84 inch butterfly valve vault. The principal challenge of the project was to install an open shaft without internal support struts so the 4' thick valve wall pours could be done without construction joints. An additional challenge was the short stand up time of ground when using the NATM method of sprayed shotcrete supports.





PROJECT INFORMATION - 308

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

ENGINEER:
Rummel, Klepper, & Kahl
Robert J. Halbert
(410) 728-2900

CONTRACTOR:
Corman Construction, Inc.

COMPLETION DATE:
8/4/1997

GEOLOGY:
Alluvial silt, sand and gravel

EXCAVATION METHOD:
NATM

MINING DIMENSIONS:
73' x 42' x 35VF

FINAL LINING:
NATM Sprayed Shotcrete

FOR MORE INFORMATION:
Lester Bradshaw, Jr., President
(410) 970-8300
lester.bradshaw@bradshawcc.com
Refer to Project 308