Project Profile: MICROTUNNELING

BRADSHAW CONSTRUCTION CORPORATION
TUNNELING SPECIALISTS

NW Precinct Utility Infrastructure
Athens, GA

PROJECT OVERVIEW AND CHALLENGES

As part of a new chiller plant and distribution network, the University of Georgia had to install two 20" chilled water pipelines under the busy intersection of Baxter and Lumpkin Streets on campus. The design called for a single 59" steel casing to house both lines. Trenchless construction by microtunneling was specified to reduce impacts to the surface traffic and buried existing utilities and to minimize the potential for over excavation and resulting settlement. Bradshaw Construction jacked the casing behind a slurry microtunneling machine with no settlement. More clayey soils were encountered than anticipated, requiring extra efforts at the separation plant including adding special polymers to the drilling fluid. The 20" pipelines were pushed into the casing simultaneously; held together by specially designed casing spacers, then backfilled with flowable fill.

PROJECT INFORMATION - 496

OWNER:
University of Georgia
Bob White
(706) 542-1934

ENGINEER:
RMF Engineering, Inc.
Vance Nall
(410) 576-0505

CONTRACTOR:
Mann Mechanical Company, Inc.

COMPLETION DATE:
8/31/2010

GEOLOGY:
Mostly clay with some sand

EXCAVATION METHOD:
Herrenknecht AVN-1200 MTBM

MINING DIMENSIONS:
236' x 59" Ø

FINAL LINING:
Twin 20" Restrained Joint Ductile Iron Pipe

FOR MORE INFORMATION:
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Refer to Project 496