

Virginia General Assembly Building Pedestrian Tunnel Richmond, VA



PROJECT OVERVIEW AND CHALLENGES

Construction for the new Virginia General Assembly Building in Richmond, included a pedestrian tunnel under 9th Street to connect a new parking garage. Bradshaw proposed a SEM tunnel for the passage that was accepted by the Owner. The tunnel excavation was 21.08' wide x 15.10 high and excavated by header & bench under 12' of cover. Groundwater was about 22' below the pavement. 4 dewatering wells were used to lower the groundwater near invert. Reinforced shotcrete was used for initial & final lining with a water barrier of PVC below springline & spray-on waterproofing above springline sandwiched between shotcrete applications. The alignment crossed under 16 existing utilities including a 16" clay pipe sewer running through the shotcrete roof initial lining. Settlement in 9th Street ranged from 0.04 to 0.09 feet with no damage to existing utilities.



PROJECT INFORMATION - 592

OWNER:

State of Virginia
Department of General Services

ENGINEER:

Aldea Services
Robert Goodfellow
301-355-9703
rgoodfellow@aldeaservices.com

CONTRACTOR:

Gilbane Construction Co.

COMPLETION DATE:

9/1/2019

GEOLOGY:

Alluvial sand & gravel below
groundwater

EXCAVATION METHOD:

SEM

MINING DIMENSIONS:

21.08' W x 15.10' H

FINAL LINING:

Reinforced shotcrete

FOR MORE INFORMATION:

Eric Eisold, Executive VP
410-970-8300
eeisold@bradshawcc.com
Refer to Project 592