

## Children's Hospital of Richmond Pavilion Richmond, VA



### PROJECT OVERVIEW AND CHALLENGES

As part of a design/build project, Bradshaw Construction constructed two utility tunnels for the extension to the Children's Hospital of Richmond. Excavation for the first tunnel consisted of 132 inch diameter liner plate with 96 inch reinforced concrete pipe as final lining. The ground conditions were lean clays overlaid with gravely sand in the crown. The second tunnel was for 96 inch liner plate for a 66 inch reinforced concrete pipe through fill, sand, and clay. Tunnel access was particularly challenging. Both tunnels connected to existing underground basement structures which required excavation through buried shoring systems and partial demolition of existing building walls at the connection points.



### PROJECT INFORMATION - 528

#### OWNER:

Virginia Commonwealth University  
Health Systems (Jones Lang LaSalle  
Americas, Inc.)  
Bryant Wilson  
(804) 828-9264  
bryant.wilson@am.jll.com

#### ENGINEER:

HKS, Inc.  
Michail Cochran  
(804) 644-8400  
MCochran@HKSInc.com

#### CONTRACTOR:

Skanska USA Building, Inc.

#### COMPLETION DATE:

7/2/2014

#### GEOLOGY:

Lean Clay with Sand & Sandy Fat  
Clay

#### EXCAVATION METHOD:

Hand Mine

#### MINING DIMENSIONS:

82' x 132"Ø & 98' x 96" Ø

#### FINAL LINING:

96" Reinforced Concrete Pipe with  
Liner Plate Supports  
66" Reinforced Concrete Pipe with  
Liner Plate Supports

#### FOR MORE INFORMATION:

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Refer to Project 528