



Above: The Smithsonian Castle as it appears today. The building in the foreground with the pyramids on the roof is the Sacker Gallery, which connects to the Freer Gallery by an underground gallery.

At Right: Construction of the 56 foot deep 3-story underground structure adjacent to the pre-nineteenth century historical landmark buildings required special protective measures.



Smithsonian Museum South Quadrangle Development

Washington, DC

The Smithsonian is composed of sixteen museums and galleries, the National Zoo and numerous research facilities in the United States and abroad. Nine Smithsonian museums are located on the National Mall between the Washington Monument and the Capitol.

Mueser Rutledge Consulting Engineers (MRCE) was the Geotechnical Engineer and Foundation Consultant to the Architect and Structural Engineer for a three-story underground structure connecting three historical buildings of the Smithsonian Institution. Construction of the 56 foot deep structure adjacent to the pre-nineteenth century historical landmark buildings required special protective measures. In addition to the underground structure design, MRCE developed structural underpinning plans for the adjacent Smithsonian Castle and Freer Art Gallery buildings and protection of other existing structures to enable tunnels to connect to the new underground museum. The slurry walls were supported with earth anchors and designed for minimal movement effecting adjacent buildings. MRCE provided field inspection services to the Government Services Administration.