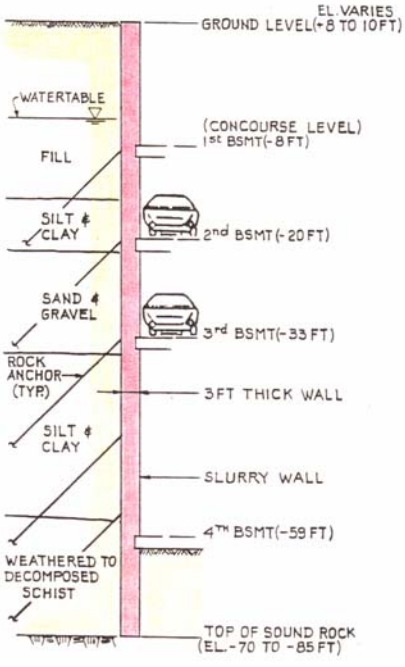


*Left: Slurry Wall Section Drawing. Center: Completed building. Top right: Slurry wall. Lower Right: Installation of Slurry Wall Reinforcing Cage.*

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## Ronald Reagan Building and International Trade Center
## D & 13th, 14th Streets

*Washington, D.C.*

The Ronald Reagan Building was the final structure built in the Federal Triangle and completed the Federal Government's 40-year program to develop the area. This $700 million project was one of the first Design/Build/Operate projects in D.C. completed for the Federal Government.

Mueser Rutledge Consulting Engineers (MRCE) designed the slurry wall and temporary excavation support systems, and provided consultation, including constructibility, cutoff into rock, and effect of construction phasing on utilities and adjacent structures. One of MRCE's tasks was to review groundwater seepage into an adjacent tunnel to be built into the basement slurry walls. MRCE investigated sources of groundwater and recommended chemical/cement grouting to eliminate infiltration of water into the adjacent connecting structure. Involved in both design and field installation of the grouting program, MRCE made adaptations to the program due to obstructions, adjacent structures, and newly installed utilities in the area.

MRCE also supervised slurry wall and tieback inspection and monitoring data. Subsequently, the firm designed temporary excavation supports for a pump station, Commerce Tunnel crossing 14th Street, and the underground Hemicycle structure, all outside of the deep slurry wall basement.

The perimeter basement wall encompasses an 8-acre site in downtown D.C., and it is the largest excavation in the Capital District for a 4-level underground garage built with the slurry wall construction technique. The slurry wall lies along the approximately 2640-linear-foot perimeter and serves as the permanent basement wall. The slurry wall, together with 1455 temporary rock tiebacks, provided perimeter support during excavation and construction of the building's interior footings.