

Federal Reserve Building Excavations

Washington, DC, USA

Keller provides dewatering and water treatment for the renovation and expansion of historical buildings in downtown DC.



The project

Constructed in the 1930s, the Marriner S. Eccles Building (Eccles Building) and the Federal Reserve Board East Building (FRB East) are adjacent to the National Mall and house the Federal Reserve Board headquarters and the US Public Health Service, respectively. Due to their aging infrastructure, both structures underwent renovations and expansion. Part of the project included a 60-foot excavation at the FRB East Building and a 27-foot excavation at the Eccles Building to house up to three levels of underground parking and other amenities.

The challenge

Due to the proximity to the Potomac River, groundwater was encountered between 8 ft and 10 ft from the existing site grade, and bedrock was encountered between 46 ft and 67 ft across the site.

The solution

Keller was contracted to provide dewatering to keep the planned excavations dry. To do this, Keller installed 34 dewatering wells up to 60 ft deep through mud rotary drilling and a 5000-ft perimeter collection header. Drilling fluids and spoils were contained and properly disposed of off-site. The dewatering wells were modified and lowered as the excavation progressed.

Upon collecting groundwater, there was a concern about the potential contamination due to volatile organic compounds and suspended solids from sumping operations. Therefore, Keller was also contracted to provide water treatment and installed 250 GPM and 500 GPM treatment systems, including two 18,000-gallon weir tanks, duplex transfer pump skids, duplex bag filter skids, and four 10,000-lb. media vessels with granular activated carbon. Technicians were on site 24/7 to monitor operations and maintenance as required.

Project facts

Owner(s)

United States Federal Reserve

Keller business unit(s)

Keller

Main contractor(s)

Gilbane, Balfour Beatty

Engineer(s)

Keller

Solutions

Groundwater control and dewatering

Markets

Institutional

Techniques

Dewatering
Groundwater treatment

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