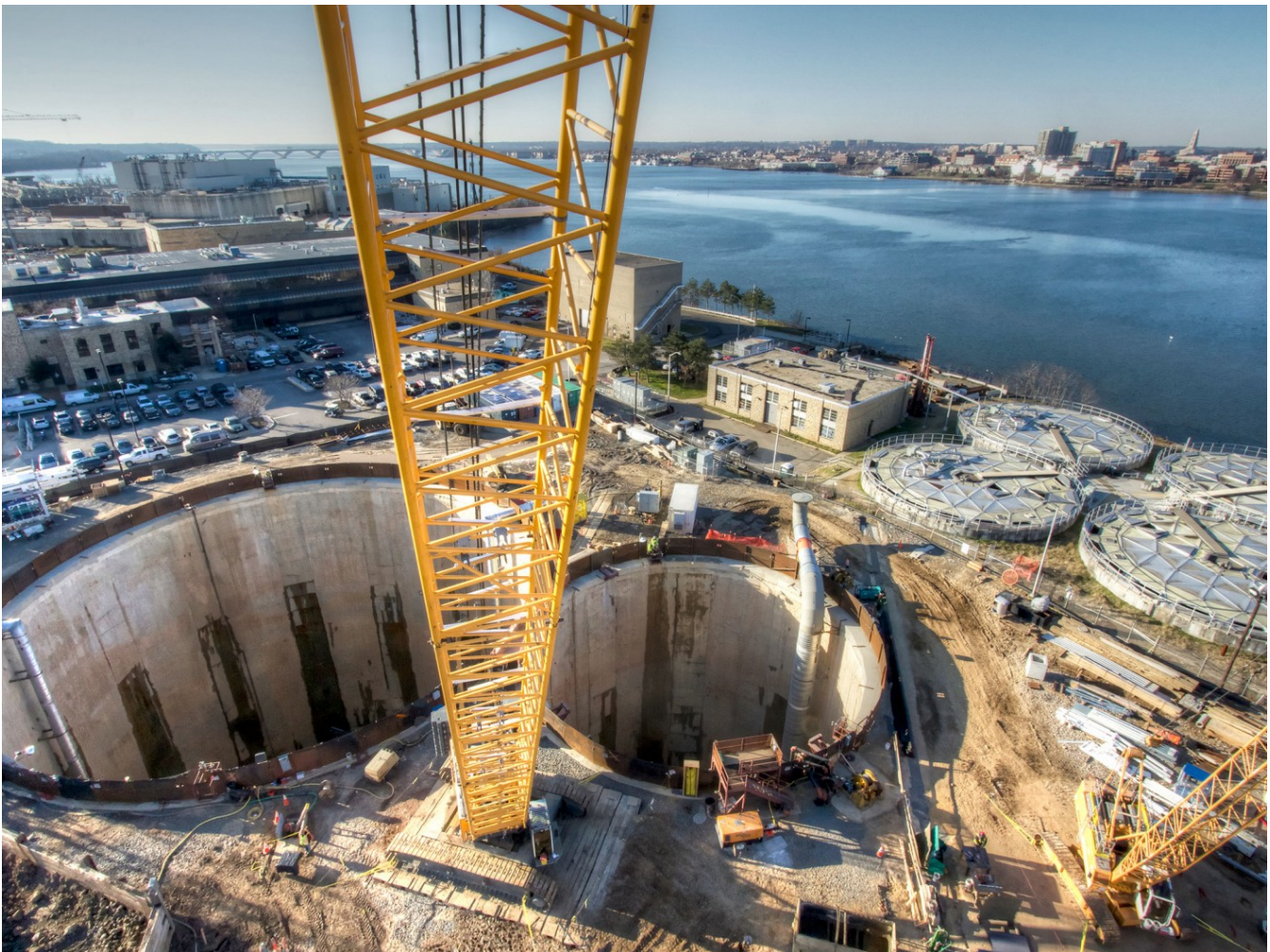


DC Clean Rivers Project - Blue Plains Tunnel

Washington, DC

Reinforced Diaphragm Slurry Walls provided initial support during shaft excavation and also formed part of the permanent structure.



The project

The DC Clean Rivers Project Division A - Blue Plains Tunnel is one of several contracts that comprise the overall Long Term Control Plan (LTCP) of DC Water, which consists of a network of new tunnels, sewers, and diversion structures designed to capture overflows to Rock Creek, and the Anacostia and Potomac rivers for treatment at the Blue Plains Advanced Waste Water Treatment Plant.

The challenge

DC Water is in the process of implementing its LTCP to meet requirements established by the US Environmental Protection Agency for pollution control and reduction of combined sewer overflows into nearby waterways.

The solution

Keller was contracted to design and install 5 reinforced concrete slurry diaphragm wall shafts along the tunnel alignment. The slurry walls provided initial support during shaft excavation and also formed part of the permanent structure. Two of the shafts were combined in a figure-8 configuration, consisting of a 76 foot diameter screening shaft and a 132 foot diameter dewatering shaft approximately 170 to 190 feet deep. These two shafts also served as the main access point for the tunnel construction. Soil conditions included fill, alluvium, and very stiff to hard silt and clays.

Project facts

Owner(s)

DC Water

Keller business unit(s)

Keller

Main contractor(s)

Traylor-Skanska-JayDee JV

Solutions

Excavation support

Markets

Infrastructure
Tunnels and shafts

Techniques

Diaphragm walls

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