

Project:

Chickamauga Lock

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Location:

Chattanooga, Tennessee

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Owner:

The Tennessee Valley Authority.

General:

C.J. Mahan Construction

Description:

The new 110' x 600' Chickamauga Lock is being constructed by the Nashville District, U.S. Army Corps of Engineers. Chickamauga Lock, which is located 7 miles upstream of Chattanooga, Tennessee, is owned by the Tennessee Valley Authority and operated by the U.S. Army Corps of Engineers.

The work included traditional cellular cofferdam construction for the riverward and downstream sides of the structure. The landward side, however, included pre-cast lift-in sections founded on drilled shafts and filled with tremie and cast-in-place concrete. This lift-in cofferdam wall was integrated into the permanent landward lock wall. The cellular and lift-in cofferdam walls met to form a watertight cofferdam system which was pumped dry and inspected. The cofferdam was constructed on a limestone foundation and included a grout curtain.

The Judy Company did the grout curtain and finished the installation of 37 and 10 and strands anchors. The Judy Company provided drawings, assemblies, fabrication, installation and testing of Post-tensioning system for spillway bays 1 through 5. The anchor system consisted of 6 anchors per bay for a total of 30 units with average length of 75 ft.

The anchors were installed in the 6 bays shown in the picture.