

PROJECT DESCRIPTION

NY Rt. 252 over Genesee River Bridge Shoring



Location:
Rochester, New
York

Client:
Ferraro Pile &
Shoring, Inc.

Client Contact:
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Sheetpile Cofferdam for Pier 1 with Pier 2 Cofferdam Installation across the Genesee River

The New York State Department of Transportation (DOT) designed a new, wider bridge for Route 252 (Jefferson Road) over the Genesee River such that it would be built in two phases. The first phase required construction of two new piers in the river and a deck over the piers. The second phase included demolition of the existing bridge and piers, extension of the two new piers and a new deck in place of the existing bridge. DOT designed a pile foundation to support the new piers. The bases of the new piers are below the riverbed.

MMCE designed shoring to support the excavation for the new pier construction. The shoring consists of 50-foot long sheet piles driven into the riverbed and two levels of horizontal bracing (struts and wales). The shoring design considered the unbalanced earth pressures from the sloping river bottom, the river current, seepage beneath the cofferdams (the contractor dewatered the interior of the cofferdams for pile driving and concrete placement), the pier construction sequence and the soft clay deposit beneath the river. The design also considered the connection between the two phases so that the contractor could construct continuous bridge piers.