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# Railroad Bridge #222.2 over Sugar Creek Fayette County, Ohio

The West Central Ohio Port Authority (WESTCO) replaced the bridge carrying the former DT&I tracks over Sugar Creek in Jeffersonville in Fayette County, Ohio with a new modern steel structure. The bridge inspection in 2007 noted that the aging timber structure, a ten-span bridge supported by timber piles driven into the ground and streambed, had developed problems and it had insufficient capacity for current loads.

Temporary repairs were made in late 2007 to extend its use with a 5 mph speed limit.

#### Completion Dates

Design: 2008

Construction: 2008

#### Project Cost

\$615,000

WESTCO selected Jones Stuckey Ltd., Inc., partnered with Cooke Consulting Group, to provide engineering and construction management services on the project. Using plans from a similar bridge replaced in 2007, the design was accelerated and the environmental permitting process was streamlined so the replacement could be done as soon as practical – before the busy harvest season. The completed bridge complies with current AREMA specifications.

The new bridge is a five-span steel structure with the same overall length as the previous bridge, but shifted 24 feet south to avoid conflicts between new and existing foundations and to center the bridge over the streambed. The deck is supported by four stringers so that the thickness of the superstructure can be minimized for passage of floodwaters beneath the bridge. Piles are galvanized for long life and the superstructure is constructed using weathering steel that develops a protective patina and does not need to be painted. The new bridge is more than adequate for FRA Class 2 (25 mph) operations on the line.

W.M. Brode Co. of Newcomerstown, Ohio was selected by WESTCO as the prime construction contractor. A 30 day track outage option was given to the contractor. 23 days were utilized by the contractor to build the south abutment and to set the superstructure, thereby reducing the track outage for the Indiana & Ohio Railway Company (IORY), the operator on the line. The remainder of the work was “under traffic”.

The project was partly financed with a grant of \$250,000 and a low interest loan of \$292,000 from the Ohio Rail Development Commission. The IORY contributed detour costs to the project.

