

Project to Replace Century-Old Railroad Bridge Wraps Up

So what do you do with an old railroad bridge?

Opened in 1899 when William McKinley was president, the White River Freight Railroad Bridge spanned the muddy water of the White River in far southern Greene County, near Linton, Ind. Over the decades, it handled steam locomotives, passenger and sleeper cars, troop trains, materials of war, and countless loads of coal and grain. By 2014, it was one of the oldest railroad bridges in Indiana at 115 years old.

But it had become a bottleneck. The bridge piers needed critical repairs, and the truss steel was aging. Because the bridge supports and superstructure couldn't handle modern freight speeds and loads, trains had to slow to 10 mph during crossing and railcars were restricted to 263,000 pounds. This meant that the Indiana Rail Road Company (INRD) couldn't run its trains as fast or as full – which increased shipping costs.



The original White River Freight Railroad Bridge, which opened when William McKinley was president, was functional for 115 years.

The writing was on the wall: In less than 10 years, the bridge would have been closed to all rail traffic.

But INRD wasn't waiting. INDOT's Rail Office oversaw a \$13.8 million project to replace the venerable structure. The funding mix included an \$8.25 million Transportation Investment Generating Economic Recovery (TIGER) grant from the Federal Railroad Administration (FRA) and \$5 million from INRD. INDOT chipped in \$600,000. OCCI Inc., a Fulton, Mo., company, handled construction while INDOT provided project oversight.



OCCI began work in July 2014; by May 2015, the majority of work in preparation for removing and replacing the old bridge spans had been completed. OCCI workers had driven hollow steel tubes into the bottom of the White River to support a temporary access pier adjacent to the existing bridge. OCCI would use two huge cranes on the temporary pier to remove the old truss spans and install the new through-plate girder spans across four

The elevated approach to the new bridge awaits installation of the through-plate girder bridge spans, in right foreground. The old bridge superstructure is in right background.

rehabilitated bridge piers.

The bridge was closed at 12:45 a.m. May 13, when the last train had rumbled across. One minute later, crews from OCCI marched onto the bridge and began pulling up track. Their goal was to complete the bridge replacement in less than a week.



Construction cranes lift the new through plate girder bridge spans into place on rebuilt bridge piers.

“They had only six days to get the new bridge and realigned track re-opened to rail traffic,” said Rail Project Manager Tom Rueschhoff. “Within one day’s time, they had all the old timber bridge supports cut out and removed, and had installed new precast concrete girders on 24 of the 26 new spans on the north and south approaches to the river bridge.”

OCCI used heavy cranes to lift the old bridge spans and superstructure out of the way while subcontractors pulled up track and re-graded the approaches. Before the end of the second day, workers had lifted three new 150-foot through-plate girder bridge spans – each weighing 230 tons – into place across the White River. Crews aligned and leveled the new spans, then replaced 1,400 feet of the track on the north approach and 750 feet of track on the south approach.

The new 1,271-foot-long replacement bridge was reopened at 7 a.m. May 19. The FRA will do a final site inspection Aug. 6. A ribbon-cutting event is planned for Aug. 20. (More information and photos about the project are available on the bridge [webpage](#).)

The new White River bridge will enable trains to travel 40 mph and can support today’s standard of 286,000 pounds for fully loaded railcars. Most importantly, it will allow railroad shippers to maximize their capacity and provide lower shipping costs.

And just like the structure it replaced, the new bridge is designed to last at least 100 years.

“By working on this project, you really get a sense of the history this old railroad bridge has seen. Steam engines once traveled across the White River during the bridge’s early days of service. It is interesting to think what the train engines may be like when this bridge is in need of replacement more than a century from now,” Rueschhoff said.



The new bridge span awaits installation of rails.

“We certainly expect that the new bridge will provide uninterrupted service while supporting Indiana jobs for generations to come,” he said.

The work of the old bridge isn’t quite finished yet. OCCI has neatly removed and safely stockpiled specified sections of the old steel trusses. Engineers from Purdue University and the Rose-Hulman Institute of Technology have identified specific joints, eyebars, and other sections of the truss structure for their research departments to examine. Perhaps the data provided from these sections of the century-old steel structure will now be used to teach the next generation of railroad bridge designers and builders.

And that’s a fitting end for an old railroad bridge.