

## CASE STUDY



### PROJECT DETAILS

**Project Name:**

I-44 Meramec River  
Bridge Replacement

**Location:**

St. Louis, Missouri

**General Contractor:**

KCI Construction  
Company

**Product Manufacturer:**

County Materials  
Corporation

**Date:**

2018 - 2021

**Key Products:**

Prestressed Concrete  
Girders and Deck Panels,  
and Specially Designed  
Precast Box Culvert and  
End Section

## Meramec River Bridge Replacement and Installation of New Pedestrian Bridge

**Solutions:** Prestressed concrete bridge girders meet increased traffic loads, and provide long-lasting strength and reduced life cycle costs.

In St. Louis, MO the Meramec River connects the communities of Kirkwood, Fenton, and Sunset Hills through Interstate 44. Many bridges connecting to the corridor needed significant renovation and rebuilding due to increasing traffic demands and old age. The interchange doesn't operate as effectively as is needed, so in addition to basic updates, the Missouri Department of Transportation (MoDOT) is implementing some changes on how traffic enters and exits I-44.

The construction of a separate bridge with two entrance ramps (I-270 and Watson Road) and one exit ramp (Soccer Park) will now cross the river from the westbound lanes. To further accommodate traffic, another lane will be added to the eastbound I-44 bridge over the Meramec to allow for a dedicated exit lane. There will also be changes implemented to make curved ramps a little easier to navigate.

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Additionally, throughout the corridor several improvements are taking place because portions of reinforcing steel bridge girders are starting to rust and deteriorate. These elements will be replaced and updated with concrete girders in addition to the traffic flow updates to serve the residents of St. Louis.

County Materials Corporation was tasked with manufacturing and delivering an impressive 205 prestress concrete bridge girders of varying lengths for the bridge replacement and 11,716 SQYD of deck panels. The company's Bonne Terre, MO operation manufactured and delivered 109 girders and all of the deck panels, while the Salem, IL facility supplied 96 girders. The deck panels will be used on the eastbound and westbound bridges as well as a new ramp bridge on I-270 to westbound I-44. KCI Construction Company is installing the prestress components. The long-lasting strength of prestressed concrete will keep residents of St. Louis County safe for years to come, and the life cycle costs ensure the best value for taxpayers.

Of the girders delivered to the site, 18 of them will be used for a shared-use path. The idea for the pedestrian walkway bridge originated after MoDOT and the Great Rivers Greenway invited residents of the Kirkwood, Fenton, and Sunset Hills communities to an open house about the project to discuss how to create pedestrian connections for walkers, runners, and bikers. MoDOT, through funding by neighboring municipalities and a park grant, is creating the shared

use pathway across the river to connect the existing trail network over the Meramec River. This safe and accessible walkway will connect the Meramec Greenway, parks, trails, businesses, and neighborhoods including possible trailheads with amenities such as restrooms, benches, and parking.

The Meramec River Bridge Replacement started in fall of 2018 and is expected to be completed in 2021. County Materials Corporation began delivery in April 2020.



*The long-lasting strength of prestressed concrete will keep residents of St. Louis County safe for years to come.*