

## US 54 Canadian River

Logan, NM

### Project Description

The New Mexico Department of Transportation (NMDOT) replaced the existing US 54 steel deck truss bridge over the Canadian River south of Logan, New Mexico. The US 54 corridor is a main trucking corridor from Chicago to El Paso with over 50% truck traffic. US 54 also provides access to Ute Lake State Park, the second largest lake in New Mexico, which is popular with water and fishing enthusiasts. An alignment study and preliminary engineering for the new crossing was started in 2011 with public input reviewing eight different alignments and six structure types. The preferred alternative selected was a new offset eastern alignment of US 54 with a new three-span, cast-in-place segmental bridge, built in balanced-cantilever with form travelers. A cast-in-place segmental structure type was selected to minimize impacts to the Canadian River and wetlands, with a long span design that can be constructed primarily from above with limited access in the deep ravine. The bridge measures 43'-0" in width, with a span configuration of 200' -325'-210' along a constant horizontal curve. The box girder depth varies from 18'-0" at the piers to 8'-0" at mid-span and abutments. The new bridge is New Mexico's first cast-in-place segmental bridge and first segmental construction since the Big I Project (I-25 and I-40 Interchange) in Albuquerque.

### Owner

New Mexico Department of Transportation

### Contractor

Malcolm International

### Designer

Jacobs

### Our Role

McNary Bergeron provided construction engineering for Malcolm International for the bridge construction. McNary Bergeron also provided longitudinal and transverse construction analysis, integrated segment shop drawings, geometry control, PT calculations, erection manuals, and technical support for the project.

### Total Contract Value

\$20.7 million

### Timeline

2018 - 2020

### Construction Method and Specifications

- Cast-in-place segmental
- Balanced cantilever with form travelers

