

I-80 at US 30 Interchange Reconstruction



PROJECT DESCRIPTION

Ciorba Group prepared design plans and specifications for the reconstruction of the I-80 at US 30 interchange. The improvements were necessary to address existing and future safety and capacity deficiencies at the interchange.

Work at the interchange involved reconstructing and re-aligning all of the ramps to meet current geometric standards. Additional capacity improvements included reconstructing and widening to three lanes the I-80 mainline pavement from Gougar Road to US 30. Plans were also prepared to reconstruct and widen US 30 within the interchange limits. These improvements were necessary to create new intersections with the re-aligned interchange ramps and provide additional auxiliary lanes on US 30.

Other improvements included a bicycle path on US 30, new traffic signals at the re-aligned ramp/US 30 intersections, new traffic surveillance equipment, and a new high mast lighting system for the interchange. Plans and specifications for the new high mast lighting were prepared as a separate, earlier contract due to the rapidly deteriorating condition of the existing high mast lighting. A new storm sewer system was designed for the interchange, US 30 and the I-80 mainline.

Stormwater runoff rates and volumes were mitigated by providing in-line detention for sensitive outlets via oversized pipes for the I-80 mainline system, wetland detention basins in the infield areas of the I-80 at US 30 interchange, and regrading drainage ditches along the outside lanes of I-80.

The project included replacing and widening the bridge deck of the 630-foot-long dual curved structures carrying I-80 over US 30, the Metra Rock Island District Line, and Hickory Creek. In addition to the widening, these curved nine span bridges were designed so that the first three spans on east are replaced with three continuous spans. The two bridges substructure layout was modified to accommodate the widening of US 30.

The project required the use of curved steel plate girder and complex bridge analysis and design. Ciorba also completed plans for the replacement of the existing Old Plank Trail Bridge over I-80 with a new pedestrian/bike bridge. The Old Plank Trail is an 18-mile long highly traveled path. Coordination with the Will County Forest Preserve District was required during design to minimize impacts to the trail during construction.

LOCATION

Will County, IL

CLIENT

Illinois Department of Transportation,
District One

CONTACT

Ms. Kimberly Harvey, PE
Bureau of Design
847.705.4269

CONSTRUCTION COST

\$53 Million

PROJECT TEAM

Project Manager
Duane O’Laughlin, PE
Project Engineer
Eric Spina, PE
Lead Structural Engineer
Salvatore Di Bernardo, PE, SE
Senior Structural Engineer
Brett Sauter, PE, SE
Lead Water Resources Engineer
Tony Wolff, PE, CFM
Lead Lighting Engineer
Joseph Vondra, PE, LC
QA/QC Engineer
Mark Johnson, PE, PTOE

SCOPE OF SERVICE

► Final Design

