

**Chicago to Quad Cities
Passenger Rail Project
Grade Crossing Design**

Illinois DOT - Various Locations



Project Description

The project provides Program Management along with planning and preliminary engineering services for the Illinois Department of Transportation to implement passenger rail service on the Chicago to Iowa City corridor within the State of Illinois project limits. The Chicago-Iowa City Passenger Rail Service Development Program of Iowa and Illinois will establish passenger rail service between Chicago, the Quad Cities, Illinois and Iowa City, Iowa, 219.5 miles. The service will be hosted by BNSF Railway (BNSF) and Iowa Interstate Railroad (IAIS), and be operated by Amtrak. New stations will be established at Geneseo and Moline, Illinois (serving the Quad Cities); and Iowa City, Iowa. The service will be part of the Midwest Regional Rail Initiative (MWRRI) designated by the Secretary of Transportation as a high-speed rail corridor in 1992.

The initial Chicago-Iowa City passenger-train service will consist of two roundtrip trains daily, operating at a maximum speed of 79 mph. Ridership is estimated by Amtrak at 246,800 passengers in the Program's opening year, and 447,000 passengers per year by 2045.

The alignment of the route is suited to high-speed passenger-train operation, and had previously hosted passenger trains exceeded 100-mph. Station access to major traffic sources such as the University of Iowa, and travel patterns are all favorable to high initial ridership. The States envision future increases in maximum speed to 110 mph, increases in frequency of trains, and extension of the service to Omaha, Nebraska.

Project teams provided engineering services for the highway portion of the project focusing on the highway-rail grade crossings that need improvement to accommodate passenger rail service while safely accounting for the flow of vehicular traffic. As part of the Preliminary Engineering process, Designers are preparing Warrant 9 analysis where required, and Preliminary Engineering drawings for all at-grade crossings within the corridor. Design teams are focusing on completing 72 "30% concept level" plans and reports for grade crossings. Many crossings will require development of multiple alternative designs that will be reviewed and analyzed for safety, cost, and performance.



Scope & Services
Preliminary Engineering
Client Name & Address
Illinois DOT
69 W. Washington St., Ste. 2100
Chicago, IL 60602