

US 20 / MCLEAN BOULEVARD INTERCHANGE

ILLINOIS DEPARTMENT OF TRANSPORTATION



CHALLENGE

Alleviate long delays, long lines and traffic safety issues at a 45-year-old interchange on a key arterial route in Elgin, Illinois.

Traffic using the interchange of US 20 and McLean Boulevard had grown to levels exceeding the capacity of the ramp intersections with McLean Boulevard. This caused long delays and long lines on the westbound exit ramp and on McLean Boulevard.

The Illinois Department of Transportation asked HLR to design improvements to the interchange to alleviate traffic congestion, and maximize the use of the existing highway right-of-way, working within the constraints of the urban setting.

RESULTS

The proposed interchange will alleviate current traffic flow problems by:

- Combining all interchange traffic into one intersection, eliminating congestion between ramp intersections
- Reducing delays and shortening lines of stopped vehicles on ramps and McLean Boulevard
- Eliminating stopped ramp traffic interfering with free flowing traffic on US 20
- Enhancing traffic flow through neighboring intersections

Final engineering and construction await future funding.

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I URBAN HIGHWAY

SOLUTION

To help determine needed improvements, IDOT brought in HLR to provide Phase I engineering design of a reconfigured interchange as well as interim improvements that can be built without removing the existing bridges. HLR conducted the engineering analyses including geometric design of alternate interchange types, traffic flow modeling, and intersection/interchange design studies.

In addition, HLR provided the preliminary bridge design (T.S.& L. plan), Location Drainage Study, storm water management analysis, construction staging, and preliminary right-of-way plans.

Public involvement activities included informational mailings to adjoining residents and business owners, and an informational meeting with a neighborhood association.

Elements designed include:

- A proposed single point urban interchange
- A proposed bridge design allowing the widening of McLean Boulevard
- Proposed improvements to neighboring intersections along McLean Boulevard at Lillian Street and at Fleetwood Drive
- Improved coordination between signal-controlled intersections
- Proposed interim improvements to be built immediately at a moderate cost to alleviate traffic congestion while leaving the existing bridges in place
- Staged construction to keep lanes open to traffic



US 20/MCLEAN BOULEVARD INTERCHANGE RECONFIGURATION