

RANDALL ROAD (IL 64 TO IL 38)

KANE COUNTY DIVISION OF TRANSPORTATION



CHALLENGE

Reduce traffic congestion, improve traffic safety, alleviate chronic roadway flooding along a Strategic Regional Arterial route.

Randall Road, in the St. Charles area, is a heavily traveled four-lane arterial route. IL Route 64 and IL Route 38 are also regional arteries carrying significant volumes of traffic.

The distance between the two state routes is at its shortest along Randall Road. Drivers use this route to move from one to the other, causing:

- Daily traffic congestion and long delays
- Frequency of collisions at Randall Road and IL 64 exceeding statewide averages

The Kane County Division of Transportation brought in HLR to develop a plan to improve traffic flow and traffic safety. The project included Randall Road from north of Dean Street to south of Bricher Road.

RESULTS

The project started in fall 2005 and was complete in fall 2007.

Benefits of the project will include:

- Enhanced traffic flow
- Significant reduction in flooding potential
- Improved storm sewer conveyance
- Improved traffic safety
- Improved pedestrian and bicycle safety

CONSTRUCTION BUDGET
\$15.5 Million

SOLUTION

HLR started the Phase I engineering with an analysis of collision reports and a projection of future traffic demand along the route. Engineering analyses included traffic flow and intersection traffic capacity analyses, design of intersection geometry, Location Drainage Study, and storm water management analysis and design. Preliminary work also included environmental analysis and agency coordination, a public hearing and property owner meetings.

HLR coordinated extensively with the City of St. Charles and County to establish a feasible storm water storage site location in a heavily urbanized area. A hydrologic routing model was used to incorporate a stormwater storage facility and storm sewer that reduced roadway and adjacent property flooding, and optimized the reduction of outflow from the project and off-site areas. To gain project approval, HLR coordinated with regulatory agencies including:

- IDOT for Federal funding and State route improvements
- Illinois Commerce Commission and Union Pacific Railroad for railroad crossing improvements
- Kane County Stormwater Management Commission for stormwater drainage improvements
- US Army Corps of Engineers for wetland and Waters of the US issues
- IDNR for biological and natural resource issues
- IDNR-Office of Water Resources for coordination and submittals for the Dam Safety Permit

HLR also provided Phase II detailed engineering design for the first stage of the project – Randall Road from Dean Street to Oak Street. Plans, specifications and estimates were provided, including a detailed traffic management plan to keep traffic lanes open during construction.

Improvements designed include:

- Additional through-traffic lanes from IL 64 to IL 38
- Dual left turn lanes at major intersections
- Comprehensive storm sewer collection and conveyance system
- Widened railroad crossing with upgraded crossing protection
- An 8-foot wide multi-use path parallel to Randall Road
- New traffic signals with pedestrian push buttons and crosswalks
- Bike path underpass under Randall Road north of Dean Street
- Improvements to coordination between signal-controlled intersections