

**I-35/80 AND DOUGLAS AVENUE INTERCHANGE
URBANDALE, IOWA
2002**

PROJECT SPONSOR:

City of Urbandale, Iowa
Iowa Department of Transportation

CONTACT:

Dave McKay, City Engineer
City of Urbandale
(515) 278-3950

IMPROVEMENT COST: \$11.7 million

PROJECT AWARDS:

- 2003 - National Award for Excellence in Concrete Pavement
- 2006 - ACEC Honor Award in the Transportation Category

PROJECT DESCRIPTION: The Douglas Avenue Interchange Project reconstructed and reconfigured the existing diamond interchange to a partial cloverleaf design to eliminate delays caused by the left turn movements at a diamond interchange. The new bridge was constructed nearly 6 ft. higher than the existing structure that had been hit several times in the past by interstate traffic. Douglas Avenue was modified from a two-lane rural section to a four-lane urban section with additional deceleration lanes for the loop ramps. The project also included the addition of auxiliary lanes on Interstate-35/80 between Douglas Avenue and Hickman Road. The southbound exit ramp at Hickman Road was modified to operate with the new southbound auxiliary lane and the northbound entrance ramp at Hickman Road was reconstructed as a two-lane ramp. This project was developed to coincide with the City of Urbandale's Douglas Avenue Improvements east and west of the interchange. The design used two mechanically stabilized earth walls to lessen impacts to adjacent properties.



I-35/80 Douglas Avenue Interchange - Continued

A multi-use trail was constructed as part of the interchange project as well. This facility provides pedestrian access through the interchange with two reinforced box culverts under the ramps and a pedestrian lane on the bridge over I-35/80 resulting in a trail free of conflicts with vehicular traffic. This trail meets all Americans with Disabilities Act guidelines.

PROJECT ACCOMPLISHMENTS:

Snyder & Associates, Inc. prepared an Interchange Modification Justification Report and Environmental Assessment pursuant to Federal and State regulations. In addition, RISE and ICAAP funding applications were completed resulting in \$2,000,000 for the City of Urbandale's contribution toward the project.

Snyder & Associates, Inc. designed the interchange to function with the new auxiliary lanes on I-35/80 today as well as a future 10-lane cross-section. Grading and right-of-way acquisition for the future cross-section was performed as part of this project.



Snyder & Associates, Inc. coordinated a cooperative effort between the Iowa Department of Transportation, the City of Urbandale, and Living History Farms to solve the borrow needs of the project. This project provided a unique opportunity for a borrow area to supply the needed fill for the project and assist the Living History Farms in their endeavor to construct a pond on the property consistent with their long term plans. The Farms has experienced flooding frequently in the past that diminishes their ability to operate much of

the facility. The pond serves as a detention facility, lessening the frequency of downstream flooding and improving water quality and stream habitat.

The construction associated with the interchange and Douglas Avenue improvements was staged to provide uninterrupted use of Douglas Avenue despite the large difference between the existing and proposed grades. This was particularly important as the City of Urbandale's Fire Station #2 and a number of businesses tied to trucking such as the United States Postal Service's Bulk Mail Center and the Pilot Travel Center are located in the project area.

