

Marquette Interchange

	Marquette Interchange	I-81
Project Type	reconstruction of an elevated highway interchange	existing elevated highway - TBD
Interstate Highway?	yes (I-794, I-43 and I-94)	yes
Through Traffic?	yes	yes
Vehicles /day	300,000 for full interchange	100,000
Project Length	n/a	1.4 mi.
Context	downtown	downtown
City	Milwaukee, WI	Syracuse, NY
Population	602,000	140,658
Timeline	planning and design 1996-2002; construction 2003-2008	unknown
Cost	\$810 million for interchange	unknown

Project Location



This project involved the complete reconstruction of the interchange of I-94, I-794, and I-43 in downtown Milwaukee, the “Marquette Interchange.” The interchange was aging, and had an outdated design that did not function well for high traffic volumes merging and weaving at high speeds. In addition, the physical presence of the elevated interchange resulted in negative noise, aesthetic, and pedestrian circulation impacts on the surrounding neighborhood, exacerbated by past urban renewal activities that eliminated the urban fabric in the interchange area.



An EIS was conducted that focused on the involvement of surrounding neighborhoods, with the goal of developing a “community sensitive design.” While the interchange is still a massive presence in the area, its design is considered more attractive, and connectivity of the street network was repaired.

What was the decision-making process?

The State DOT-led effort included an EIS, which produced a general design concept for the interchange. A “Community Sensitive Design Task Force” was established in 2002, near the end of the highway design process, to provide input on design features. The project established neighborhood committees to consider design features within each area. Each of these groups had a representative on an advisory committee for the project, which also included representatives from local businesses and government agencies. The work of the community sensitive design committees occurred in a relatively short, six month time frame, after the major decisions about the interchange’s structure had been made by Wisconsin DOT (WDOT) and FHWA. Among the primary goals of the neighborhood committees were to make the reconstructed interchange more visually appealing, less of a

barrier, and more pedestrian-friendly at ground level. Visualization tools were helpful for exploring some of the design options with the task force. Final design and construction proceeded without significant delays starting in 2003, and the interchange was complete in 2008.



Highway structures emphasized clean lines and light/bright colors

What were the outcomes?

The project has just been completed, and is functioning well for traffic. However, it is premature to determine if the design enhancements will have the desired outcome of reducing the barrier effect and improving the pedestrian environment. The design process, coupled with visualization tools used by the WDOT, was appreciated by the community, and resulted in a successful collaboration.

Are there parallels to *The I-81 Challenge*?

The Marquette Interchange is comparable to the interchange of I-81 and I-690, which is likely to be a major element of any significant investment on I-81 through downtown Syracuse. The design and construction techniques used in the Marquette Interchange reconstruction could be considered for the 81/690 interchange, especially in light of the similar climate conditions.

What can we learn from this project?

Traffic Circulation and Urban Mobility: In this case, major alterations of the city's freeway network were not considered, as the project focused primarily on the redevelopment of a safe and functional high speed highway interchange.

Economic Development/Urban Design: The design included narrower concrete piers and decorative features applied to the interchange structure to reduce the aesthetic impact of the interchange. Because the project was completed recently, it remains to be seen if the new interchange will create a more appealing place for economic investment.

Political/Public Process: The design of a high speed interstate interchange will by necessity be dominated by engineering concerns, to assure a safe and functional system. The public engagement primarily occurred in later stages of the project design, after key decisions on the interchange alignment were made based on engineering factors. However, the task force seemed to have worked well?



Murals on underpasses illustrate local history

For More Information:

<http://www.mchange.org/page.jsp?&key=csd>