

I-94 / US-24: Reconstruction and Tied Arch Bridge

Context

The project location was I-94 from Beech Daly Road to Pelham Road and US-24 from Van Born Road to Ecorse Road in Wayne County.

Purpose and Description

The project involved reconstructing a portion of I-94 and US-24 in the city of Taylor. An additional objective was to improve the interchange at I-94 and US-24 to eliminate the left hand entrances and exits along with rehabilitating the ramps and bridges.



Public Engagement

MDOT partnered with the city of Taylor, Telegraph Tomorrow Group, and the Detroit Regional Gateway Advisory Groups on the project. The city of Taylor, along with the Detroit Regional Gateway Advisory Group, helped to pay for the difference in cost of the modified tied arch bridge (\$1.5 million). The city of Taylor also participated in placing landscaping and decorative lighting for the project.

Challenges

One challenge was to enhance the interchange to improve safety. The solution was to reconstruct the interchange using a single point urban interchange (SPUI), a new interchange design. The new design provided for safe entering and exiting of traffic. An advantage of the SPUI is that it would allow for over 80 acres of excess property that could be redeveloped. An additional challenge was making the new interchange aesthetically pleasing. The solution was to place a modified tied arch bridge instead of the traditional bridge. The modified tied arch bridge not only improves the aesthetics of the area, but it also helped to meet the underclearance requirement on US-24.

Context Sensitive Solutions Approach

During the scoping of the project, the Taylor TSC met with the city of Taylor concerning the project. At that time the city expressed concerns on the interchange and its aesthetics to the community. During the scoping process, MDOT studied alternate interchange designs and alternate bridge types. Based on the studies and value engineering process, the decision was made to go with the modified tied arch bridge and the single point urban interchange.

Outcome

The project meets the objectives of the federal and state requirements. The roadways will be safer, the aesthetics of the area will be greatly increased, and the residents adjacent to the freeway will have a greater buffer between them and the freeway.

Funding

The total cost of the project was \$64 million. The city of Taylor contributed \$3 million and the Detroit Regional Gateway Advisory Council contributed \$1.5 million.

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