

MICHIGAN (CBS DETROIT) – The Michigan Department of Transportation has been awarded a \$1 million Accelerated Innovation Deployment grant by the United States Department of Transportation for the ongoing replacement of the Second Avenue overpass above I-94 in Detroit.



Here's what the new Second Avenue bridge over I-94 will resemble after completion. (Credit: MDOT)

Over the next 18 months, the Michigan Department of Transportation will be replacing the bridge that was originally constructed in 1954.

The AID grant is legislatively authorized within the Technology and Innovation Deployment Program. The new structure aligns with the construction goals of promoting state-of-the-art technologies, elevated performance standards, and new business practices that result in improved safety, faster construction, reduced congestion, and improved quality.

“These funds will help support Michigan and our other state partners to deliver more resilient roads, bridges and highways for the traveling public,” said Federal Highway Administrator Nicole R. Nason. “These grants being awarded will help advance innovative transportation solutions to improve safety and mobility on roads throughout Michigan and the entire country.”

The new Second Avenue bridge will be the first network tied-arch bridge in the state of Michigan. “Network” refers to the numerous cables that will be crossed from the top of the arch to the part of the structure supporting traffic. MDOT

chose this design because of improved vertical clearance for freeway traffic below and because it eliminates the need for increasing the grade on a residential section of Second Avenue. The skeleton of the network tied-arch structure will be constructed in a Wayne State parking lot while the bridge foundation and abutment walls are constructed along the freeway. The simultaneous construction will save time and limit impacts on I-94 traffic. In winter 2020-2021, it is expected that the skeleton arch will be rolled into place using self-propelled modular transports. Once in place, the bridge deck will be cast and the structure will be finished in place.

“Midtown Detroit congratulates MDOT on the innovation grant that will support a unique, signature bridge connecting Wayne State University and the Tech Town district,” said Sue Mosey, executive director of Midtown Detroit Inc. “This attractive and cost-effective design complements the numerous other progressive construction projects in our area.” In addition, since the new design clear spans both the existing and future I-94 configuration, there is no need for a center pier that would interfere with the freeway modernization project on I-94 set to begin later this decade.

The grant must be used for the innovative aspects of the bridge. The cost of the network tied-arch is estimated at \$8 million, which includes steel and fabrication costs, cast-in-place concrete tie girder, and other structural elements. The replacement cost of the Second Avenue overpass is \$25.5 million.

This bridge replacement is part of the I-94 modernization project in Detroit that involves rebuilding 7 miles of freeway and replacing more than 60 bridges between Conner Road and I-96. Follow the I-94 modernization project on the web at <https://I94Detroit.org> or follow on Facebook at www.facebook.com/I94Detroit or on Twitter at www.twitter.com/I94Detroit.