



HARTFORD (WHITE RIVER JUNCTION) I-91 BRIDGES (Hartford IM 091-2(79) project)

Project Location: Town of Hartford in Windsor County on Interstate 91 over Route 5 in White River Junction approximately one half mile north of the junction of I-91 and I-89.

Project Purpose: The purpose of this project is to replace the existing bridges that carry Interstate 91 north and southbound over US Route 5 in Hartford, safely, efficiently and with the least possible impact to road users and the surrounding community. The structures were built in 1966. Age, weather and use have taken a toll on the concrete deck, beams and abutments of the two bridges. Two new bridges will be built during the 2015 construction season.

PROJECT MILESTONES

- Preliminary Plans April 2014
Permitting August 2014
Right-of-Way Complete August 2014
Final Design October 2014
Contract Award March 2015
Target Construction Schedule 2015

Accelerated Bridge Program (ABP): The Hartford I-91 Bridges Project has been assigned to the Vermont Agency of Transportation (VTrans) Accelerated Bridge Program, an approach that delivers projects faster, often using innovative techniques and always in collaboration with local communities.

By reducing the time it takes to construct a new bridge, VTrans has been able to save money spent on design, utility and ROW impacts, and road closures as well as minimize disruption to travelers and commerce. The ABP encourages streamlining, standardizing design and plan preparation while exploring innovative contracting and construction techniques.

Partnership is a hallmark of the ABP program – with contractors, innovators from other states and local communities. To date, 12 bridges have been rebuilt using the ABP since the program was established in 2012, with 13 planned in 2014.



A Vermont First!

LATERAL SLIDE CONSTRUCTION

A construction method known as a lateral slide, will be used to replace the I-91 Hartford Bridges for the first time in Vermont. The slide will take place over two weekends, one for each bridge, but there will be a lot going on at the bridge site before the new bridges are slid into place. Here's how the project will work.

In the spring of 2015, construction will begin under the existing highway bridges. A new foundation (piers and abutments) or substructure will be built for each bridge. In addition, the replacement superstructure (bridge deck and support beams) will be constructed on temporary supports right next to the existing highway bridges. Both I-91 bridges will remain in service while construction is going on underneath and next to the bridges. Travel lanes on US Route 5 will be reduced from three lanes to two, but traffic will still flow in both directions throughout construction.

Once the new foundation and decks are constructed, the lateral, or sideways slide, can begin. VTrans will close

a portion of the Interstate and reroute traffic onto the established detour route. Then the contractor will remove the existing bridge and slide the new superstructure into place on top of the substructure by physically pushing or pulling the bridge into place along lubricated rails.

One bridge, either the northbound or southbound bridge, will be moved at a time. This will require a short closure period of I-91 over one weekend while the bridge is moved into place. The other bridge will remain open while the slide is occurring. Once securely in position, the bridge will be reopened to traffic. The lateral slide will be repeated for the second bridge on another weekend. Traffic on I-91 will resume in both directions when the both bridges have been installed.

The lateral slide method was chosen because it will cause the least possible impact to the road users and the surrounding community.



Step 1: Construct superstructure next to existing bridges



Step 2: Detour traffic and demolish the existing bridge



Step 3: Slide the new superstructure into place and reopen the bridge

BETTER ROUTE FOR BIKES & PEDESTRIANS

Besides building new highway bridges, VTrans is working with the Town of Hartford to improve the roadway environment for bicyclists and pedestrians along US Route 5. The span of the interstate bridges will be designed to accommodate a future 5' sidewalk and 5' grass buffer along US Route 5.

DETOUR ROUTE

Road closures and detours for this project will be limited to two weekends. The detour routes are still under investigation and not yet finalized.

During construction there will be some changes to the I-91 southbound onramp that may become a permanent fixture. Potential bicycle and pedestrians improvements are still being reviewed.