



VT 14 BRIDGE PROJECT, EAST MONTPELIER (BRIDGE 68)

Project Location: Village of East Montpelier in Washington County at the junction of VT Route 14 and US Route 2.

Project Purpose: The purpose of this project is to replace the VT 14 bridge over the Winooski River in the village of East Montpelier, Vermont and to make improvements in the vicinity of the bridge on US 2. Built in 1938, the bridge is in deteriorated condition and its design requires an update to meet current standards.

The new bridge will be wider, with a third lane and traffic signal added to aid left turns onto US 2 as well as onto the bridge from US2. Sidewalks on the bridge as well as along Route 2 will be constructed.

Besides building a new bridge, the Vermont Agency of Transportation will widen the approach roads (on VT 14 and US 2) as well as add a left turn lane on US 2 to ease movements onto the bridge. Currently, the underlying base of the existing US 2 roadway contains rigid concrete pavement slabs that effect the performance of the pavement riding surface. This rigid concrete will be removed within the project limits as part of the project. About 900 feet of US 2 will be resurfaced also as part of the bridge reconstruction project.

Minor utility work is anticipated. Overhead lines will be relocated in the vicinity of the bridge and will ultimately be routed underground in the vicinity of the US2/VT14 intersection.

Traffic volumes, impacts on local businesses, residents and regional travelers are key considerations of how of the Agency will approach the project. Plans for replacing the bridge are underway as the state seeks state of the art accelerated construction techniques to reduce the impact to the traveling public.

vt14emontpelier.vtransprojects.vermont.gov

Project Hotline: 802-272-1248

PROJECT MILESTONES

Preliminary Planning

Fall/Winter 2014

Construction Manager/General Contractor selected

Winter 2015

Right-of-Way negotiations begin

Spring 2015

Project advertised

Fall/Winter 2017

Target Construction Schedule

2018



HOW WILL THE NEW BRIDGE BE BUILT?

There are many details that still need to be worked out however VTrans plans to use two innovative techniques to build the replacement bridge. Both will accelerate the time needed to construct the bridge, once construction begins in 2018.

1. Lateral slide construction

This is a technique in which a new bridge is built right next to the existing bridge. Once the new sub structure and bridge super structure are ready, the existing bridge will be demolished and the new superstructure “slid into place” on the new foundations. Next year VTrans will execute its first lateral slide project on two I-91 highway bridges in White River Junction.



Lateral slide construction.

2. Construction Manager/General Contractor

Typically bridges are designed by engineers. Contractors bid on the design made by others and the bridge is built according to the specs developed by the designer. Or, in recent years, an engineer and construction contractor team may be tapped to build a bridge through a “design/build” method in which the team proposes its own approach to building the bridge.

In the Construction Manager/General Contractor approach the Agency works with a selected contractor **during** the design process, utilizing the contractor’s expertise on constructability and pricing. This allows the VTrans to be an active participant during the design process and to make informed decisions on design options based on the contractor’s expertise.

A BIT OF HISTORY...

Bridge 68 is a steel beam structure with ornamental concrete railings, constructed in 1936, and considered a contributing structure in the East Montpelier Historic District. The ornamental concrete railing with hexagonal balusters is indicative of 1930s bridge design across Vermont.



Railing on the VT 14 bridge shows signs of deterioration.

and most designs incorporated some form of ornamental detail. Balustrades with urn-shaped balusters, in use by department engineers as early as 1917 and popular by the mid-1920s, were included on standard plans for the T-beam, I-beam, and deck-plate girder bridges in 1929. Designers often used these railings for bridges in village centers.”



The railing on the new bridge will be concrete, with recessed panels that mimic “windows” in the railing. The style of the new railing is sensitive to history - to the current bridge and its location within the East Montpelier Village Historic District.

Vermont historian Robert McCullough, an expert on the construction of the state’s bridges, wrote in his book, *A History of Vermont Bridges*, “State engineers included various types of railings and lamps as part of standard plans,