



RICHFORD-SUTTON, PQ BRIDGE 3

BHF 0814(1)

REHABILITATION OF BRIDGE NO. 3 ON VT105A, OVER THE MISSISQUOI RIVER BETWEEN RICHFORD, VT AND SUTTON, QUEBEC.

Project Milestones

Preliminary Plans

September 28, 2016

Permitting

July 5, 2017

Final Design

July 18, 2017

Right-of-Way Clear

April 10, 2017

Bid Advertisement

November 1, 2017

Contract Award

Winter 2018

Target Construction Schedule

Spring 2018 - Fall 2018

Closures

April 23, 2018 - October 1, 2018

Project Location: Bridge 3 is located on VT 105A over the Missisquoi River directly on the United States and Canadian border between Richford, VT in Franklin Country and Sutton, Province of Quebec.

The Richford-Sutton Bridge 3 project will rehabilitate the existing bridge over the Missisquoi River, which has deteriorating components in the deck, superstructure, and substructure elements. The existing bridge is a two-span structure built in 1929, with the first span being a 51-ft steel rolled beam structure and the second span being a 151-ft steel truss. The bridge spans over the border between the United States and Canada, with approximately 80% in the United States and 20% in Canada. The existing approach span has substantial corrosion to the metal grid deck, rusting of the beams, and concrete cracking in the skeletal abutment. The truss span also has significant deterioration of the metal grid deck, as well as truss components with section loss in need of repair or replacement. Currently the bridge is posted for a weight limit of 5 tons.

VTrans evaluated alternatives for rehabilitation or replacement of the bridge in an engineering study completed in October 2015. The study assessed the proposed design criteria for the bridge and roadway alignment, right of way impacts, hydraulics and historical and archaeological resources. Several alternatives were considered for this project including no action, deck replacement, superstructure replacement, and full bridge replacement both on and off alignment. Given the historical significance of the truss and the limited truck traffic utilizing the structure, the engineering study recommended a bridge rehabilitation project preserving the existing truss span.

The rehabilitation project will consist of the replacement of the entire approach span with a new partial-filled grid deck system supported by new steel rolled beams. A new abutment on piles will also be installed at the south end of the bridge. The existing truss span will be rehabilitated with a new partial-filled grid deck system and new steel members will replace significantly deteriorated members. The remaining truss will be cleaned and painted. The rehabilitation will also include substructure repair work to the existing pier and abutment at the north end of the bridge. The bridge will have two, ten-foot travel lanes with new bridge rail to improve the safety on the bridge.

Bridge Construction is anticipated to begin in April 2018. During construction the bridge will be closed to traffic and detoured around the project.



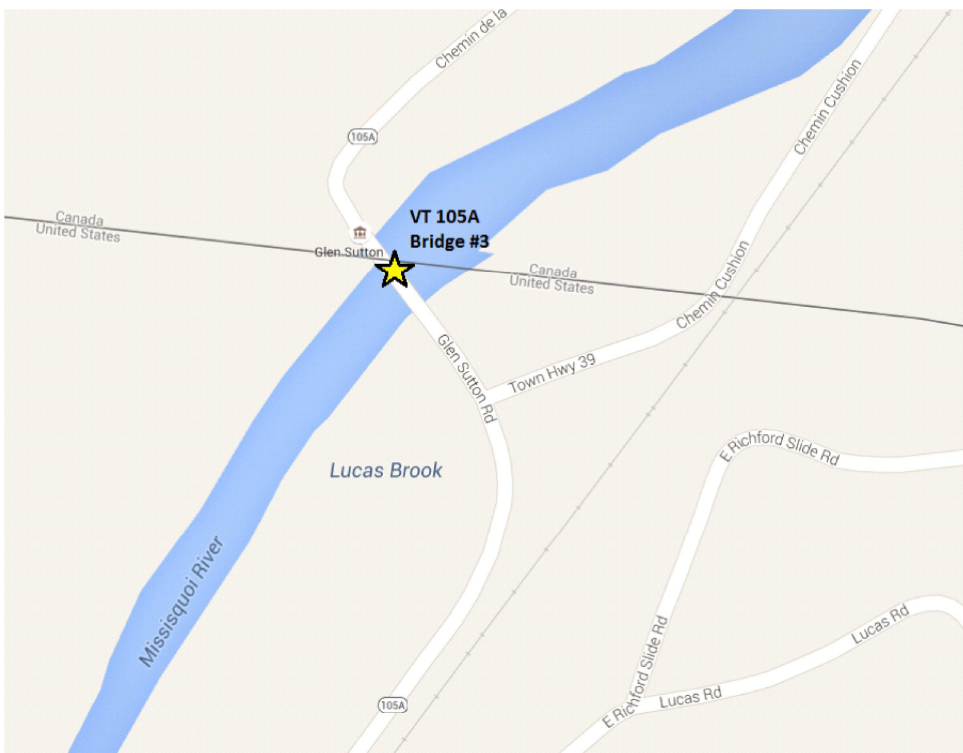
Existing Bridge Elevation View



Poor Condition of Abutment #1



Deterioration of the Approach Span Beams



Detour Route: Traffic will be detoured during the bridge construction closure period. Traffic will be detoured utilizing state owned roads that will direct traffic to utilize VT 105 and VT 139 to the Richford-Abercorn border crossing in Richford, VT on VT 139.

Closures:

- VT-105A will be closed at Bridge 3 over MISSISQUOI RIVER for 24 weeks between April 23, 2018 and October 1, 2018.

Contact Information

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Technical Documents

<https://outside.vermont.gov/agency/VTRANS/external/Projects/Structures/Forms/AllItems.aspx?RootFolder=%2Fagency%2FVTRANS%2Fexternal%2FProjects%2FStructures%2F10C222&FolderCTID=0x01200074B2F1F49FDD30448D18FC55BFA5E40000AFA5164EB50FC64DBB5A49CE09B9CF7BB76E6BF6%2D131E%2D402C%2D8A14%2D1CC5431F80E2%7D>