



Cambridge

TH 3 (Irish Settlement Rd) Bridge 28

Cambridge BRO 1448(39)

Project Location: Town of Cambridge in Lamoille County on Irish Settlement Road over Seymour River. The bridge is located approximately 0.1 miles west of the intersection of Irish Settlement Rd and Pleasant Valley Rd.

The Cambridge TH 3 (Irish Settlement Rd) Bridge 28 project will replace the existing bridge, which has a substandard width, approach and bridge railing, does not have adequate hydraulic capacity and is considered structurally deficient, with a new bridge that meets current design standards. The existing Cambridge TH 3 Bridge 28 is a single span cast in place deck on rolled steel beams constructed in 1919. The bridge structure is 30-feet in length and 14.3-feet wide. The bridge superstructure (deck and beams) components are in poor condition.

VTrans evaluated alternatives for replacement of Cambridge TH 3 Bridge 28 in an engineering study completed in September 2012. 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 including no action, repair and rehabilitation, superstructure replacement and full bridge replacement. Given the age of the structure and existing structural and geometric deficiencies, the engineering study recommended full bridge replacement using Accelerated Bridge Construction (ABC) methods with an offsite detour.

The new bridge will be a Precast Pre-stressed Concrete NEXT Beam Bridge supported on a pile foundation, which has a relatively short construction period and comparatively low construction and maintenance costs. The new bridge will be 57-feet in length and 25-feet wide including two 9-foot travel lanes and two 2-foot shoulders. The new bridge will feature a 3 rail box beam bridge rail with a box beam approach rails terminating beyond the bridge.

The bridge will be constructed during the summer of 2015 using ABC methods, which will expedite construction and reduce disturbance to the public. There will be an allowable 28 day road closure with temporary single lane closures prior to and following the bridge closure period.

PROJECT MILESTONES

Preliminary Plans

July 2013

Permitting

November 2014

Final Design

July 2014

Right-of-Way Complete

May 2014

Bid Advertisement

September 2014

Contract Award

November 2014

Target Construction Schedule

June 2015– August 2015



Looking East



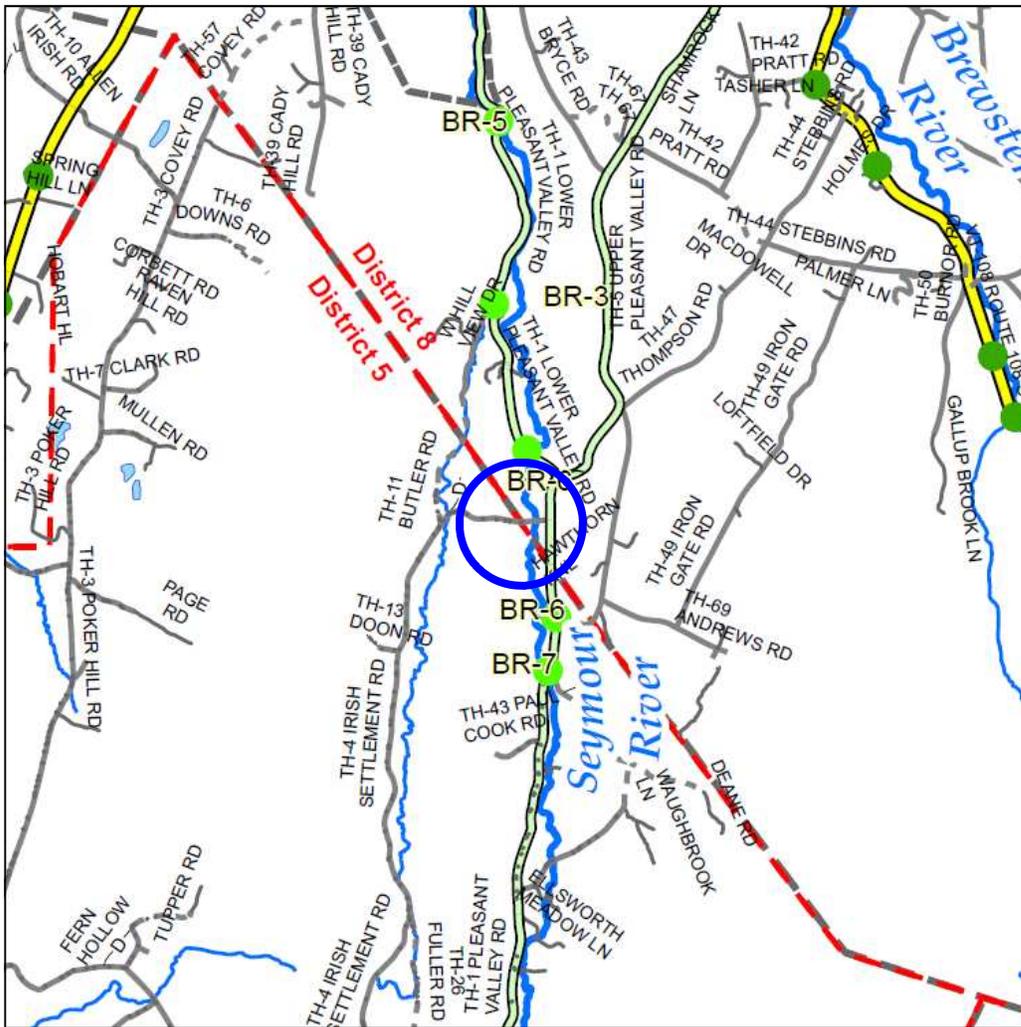
Target Construction Schedule: Construction activities will take place beginning in late June 2015. The allowable bridge closure period is one 4 week period between June 22, 2015 through August 21, 2015. The contractor will choose the four week bridge closure period based on their schedule. The contract completion date is September 4, 2015.

Contractor: TBD

Cost: TBD

VTrans Project Manager: Kristin Higgins, P.E.

Detour Route: The detour route will be the responsibility of the Town of Cambridge.



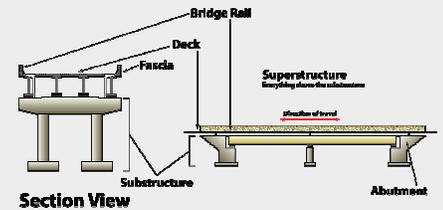
Bridge Location Map



Irish Settlement Road looking West



Irish Settlement Road Looking East



Generic Bridge Element Description



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