Project Factsheet March 2015

Accelerated Bridge Program
VTRANS

Poultney

VT Route 140 (FAS Route 138/Town Highway 2) Bridge 2

Poultney BF 0138(12)

Project Location: Town of Poultney in Rutland County on VT Route 140 over the Finel Hollow Brook. The bridge is located approximately 2.2 miles east of the intersection of VT Route 30 and VT Route 140.

The Poultney Bridge 2 project will replace the existing bridge, which is in fair condition with a new concrete arch or frame on the existing horizontal alignment. The existing bridge has substandard width, horizontal and vertical alignments, bridge railing and is hydraulically inadequate. The new bridge will meet Vermont State Design Standards for all of these features with the exception of the horizontal alignment. The substandard horizontal alignment will remain substandard, due to the site constraints. The existing bridge is a single-span concrete T-beam bridge constructed in 1900. Bridge 2 is 31-feet in length and has a deck, superstructure, and substructure that are in fair condition.

VTrans evaluated alternatives for rehabilitation or replacement of the bridge in an engineering study completed in December 2014. 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, superstructure replacement, and full bridge replacement with either a new bridge or a new concrete arch or frame. Given the site characteristics, and age and condition of the structure, the engineering study recommended a full bridge replacement with a concrete arch or frame.

The new bridge will be a prefabricated arch or frame, to reduce onsite construction time. Prefabricated structures have comparatively low construction and maintenance costs. Since exposed bedrock is present, a cast-in-place sub-footing will be poured in order to provide a level surface to erect the prefabricated structure. The new arch or frame will have a span of 32-feet in order to meet minimum hydraulic standards. There will be two 9-foot travel lanes with 3-foot shoulders over the structure. The roadway will feature w-beam rail through the project area.

The bridge will be constructed with ABC methods, which 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.

Benefits of Accelerated Bridge Construction:

- Reduced design and construction duration
- Reduced road user cost
- Safer for workers and traveling public
- Increased strength and quality of bridge components
- Eliminates need for temporary bridge construction
- Improved product quality
- Reduced impacts to:
  - Environmental Resources
  - Utilities
  - Right-of-Way

Looking east over the bridge

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Target Construction Schedule: Construction activities will take place beginning in April 2017 and last one construction season.

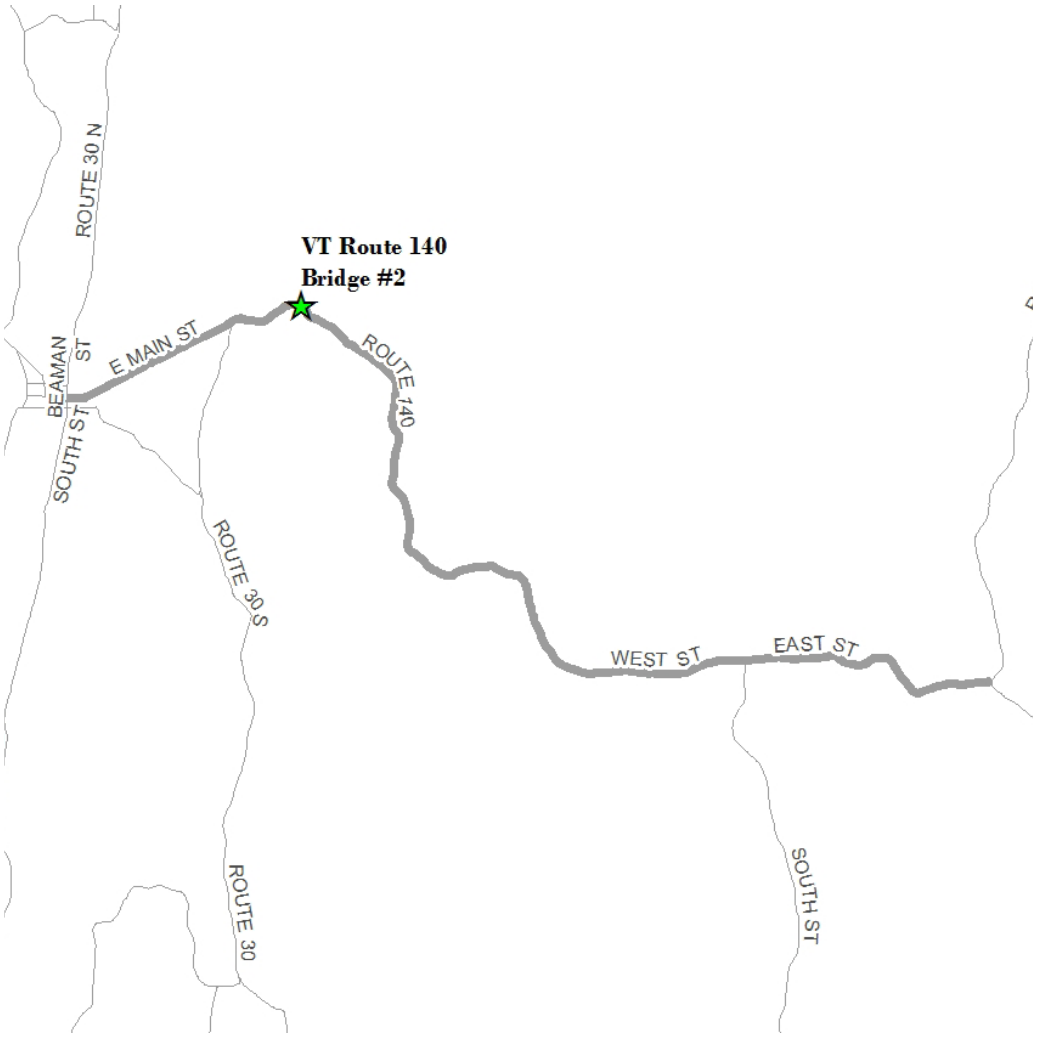
Contractor: TBD

Estimated Total Project Cost: $1,269,450.00

VTrans Project Manager: Robert Young

VTrans Resident Engineer: Unknown at this time

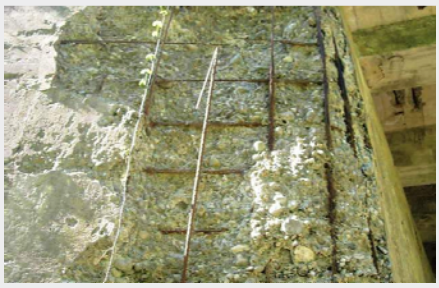
Traffic Maintenance: The bridge will be closed for four weeks, and traffic will be maintained on an offsite detour. The town is responsible for choosing and signing the detour route.



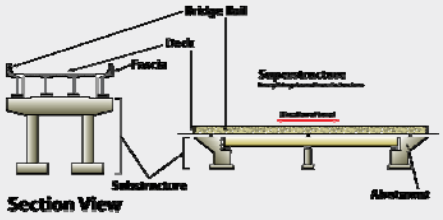
Bridge Location Map

T-beam Deterioration

Deck Deterioration



Abutment/Wingwall Deterioration



Generic Bridge Element Description

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