



P.O. Box 508, Barton, Vermont 05822 – Phone: (802) 525-9506 – Fax (802) 525-4616

CPM Schedule
Vermont Agency of Transportation
Bridge No. 8 replacement
Barton BRO 1449 (31)
Roaring Brook Road
Barton, VT 05822

Introduction / Description

The Barton BRO 1449 (31) project is a bridge replacement project and part of the VAOT Accelerated Bridge Program (ABP), aiming to minimize the impact to the community and traveling public by reducing the road closure time to a minimum. In this case, there are 28 days in which the bridge can be closed to traffic.

The project involves the removal of Bridge No. 8 (a rural minor collector bridge) and portions of its foundation and includes replacement of the existing structure with a new substructure, superstructure and related roadway and channel work. Bridge No. 8 will be replaced with a precast structure spanning 42'-feet over Roaring Brook on new integral abutments along the same alignment. Bridge No. 8 is located in the town of Barton on Roaring Brook Road (VT Town Highway #2), approximately 0.767 miles easterly of the Glover/Barton town line and extending approximately 500 feet to the end.

Preconstruction Activities: March 2015 – May 2015

Activities conducted during this timeframe will consist of planning and preparing for the project including submittal of fabrication and construction drawings, any required permits and applications and all other project submittals required. A pre-construction meeting will be held which will open discussions with the Agency of Transportation which will designate a Resident Engineer for the project.

The following are lists of anticipated material suppliers and subcontractors performing work for the project:

Major Material Suppliers:

- JP Carrara – Supply Precast concrete NEXT beams and abutments
- Carroll Concrete – Supply ReadyMix Concrete
- Kingdom Gravel – Supply aggregate materials
- Scougal Rubber - Elastomeric bearing pads



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Major Subcontractors:

- AD Rossi – Installation of membrane
- Nicom – Installation of expansion joint
- VT Recreational Surfacing & Fencing – Installation of guardrail
- ECI, Inc. – Asphalt paving
- L&D Safety Markings – Installation of paving markings
- HB Fleming – Supply and install of H-Piles
- Garrity Asphalt Reclaiming – Cold planning of existing asphalt
- Crane Service – Undecided at this time
- Tri-state Highway Services, Inc. – Removal and installation of traffic signs

Pre-closure Activities: June 2015 – July 17, 2015

Activities during this time frame will consist of equipment, field offices and crew mobilization to the site, survey and layout work, project demarcation fencing and erosion control measure installation per approved EPSC plan, installation of traffic control signage and other miscellaneous project set up activities.

Once project set-up activities are complete crews will begin installing debris containment measures under the bridge. Detour signage will be placed on specified locations as coordinated with the Town of Barton and approved traffic plans. A pre-closure meeting will be held with VTrans representatives and the contractor. JP Sicard personnel will be available for any public meetings or progress meetings to be held for the project.

Bridge Closure Period Activities: July 27, 2015 – August 20, 2015

Crews will install road closed barriers as per the approved traffic plan. Once containment measures are in place crews will begin the demolition and removal of existing bridge, guard railing, curbs, and pavement within the project limits. Saw cutting of concrete will be performed as necessary and once completed an excavator will remove the existing superstructure and associated reinforcing steel and abutments to the specified elevations. Once removal of all debris requiring containment in place is removed, containment will be removed and removal of approaches will commence.

Properly functioning water diversions will occur for excavation and/or slope work around abutments and foundations. Rip rap will be situated on slopes and excavations to specific elevations will occur and driving of steel piles will commence. Once all pile driving is completed and excavations are ready for abutments, the precast abutments will be installed and post tensioned. Rapid set concrete will be placed



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within pile cavities and cured. Once concrete has achieved required strength as confirmed through testing, back filling of slopes will occur.

The three (3) NEXT beams will be placed with crane(s) and the forming for closure, flange pours and curbing will be installed. Rapid set concrete will be placed for flange and closure pours, allowed to cure and tested for strength. Once cure time is met, forms will be removed and final backfilling around abutments will commence. Approach slabs will then be placed and the forming for the curb will be finished. The curb pour will commence once all anchor bolts have been installed per specifications, and once cured to required strength the forms will be removed and bridge rail will be installed.

The 8"-inch undrain pipe will be installed with the underdrain flushing basin per specifications. Sheet membrane and Silane water repellent will be applied per specifications and required base pavement will be installed. Once cured the roadway temporary line marking will be applied. Traffic signs will be removed and replaced per project requirements. Once all required traffic markings and signs have been installed per plan the road will be opened.

Post-closure Activities: August 20, 2015 - September 2015

Residential driveway abutting project area will be constructed with mailbox. Final top coat of asphalt will be installed with traffic line paint per specifications and asphaltic plug joints will be installed. All restoration work required per plan will be completed and crews will mobilize off-site.

Tasks over 12 hours in BCP:

The baseline schedule includes a few tasks that duration exceeds 12 hours. These tasks include installation of piles, forming of abutment closure pours, excavation and dense grade placement on approaches, and bridge curb forming. These tasks require a longer duration than 12 hours.

Anticipated crew size and working hours:

Crew size will vary depending on the staging and sequence of the project and required activities. In addition to any subcontractor personnel, JP Sicard will have approximately 5-10 employees on-site at a given time during this project. The baseline schedule is created based on working daylight hours Monday through Saturday.

Concerns/potential issues or conflicts:

Driving the steel H-piles and setting abutments around them will require very accurate site layout and survey work. The contractor will take every effort during site layout to ensure perfect alignment between driven steel piles and the precast abutments.



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Cure times and strength requirements to be met for rapid set and grout will affect the closure period. Contractor will ensure suppliers mix of rapid set concrete meet requirements and arrive on-site in a timely manner. Concrete samples will be properly collected and tested.

Ensuring proper rigging and crane pad construction for cranes and the associated picking and placing of precast concrete will be required to conduct those activities effectively and on-time.

Proper and effective coordination with subcontractors and suppliers will be critical due to the limited bridge closure period. Deliveries required for the project will be scheduled to arrive on-site at scheduled intervals as to not cause any delays.

J.P. Sicard Inc. would prefer to construct the project earlier than shown in the baseline schedule. Precast lead times have affected the schedule as shown. If the opportunity arises to start earlier JPS would elect to do so.