

STATE OF VERMONT

Agency of Transportation

MEMORANDUM

TO: Todd Lawley, Town of Newfane Selectboard Chair

FROM: Jennifer Fitch, P.E., PIIT Project Manager
Via Cory Burrall, P.E., Design Engineer



DATE: July 7, 2015

SUBJECT: Newfane BF 0106(6), Bridge 12 over the Rock River

OVERVIEW

Starting at 10:30 AM and continuing to approximately 12:00 PM on June 29, 2015, VTrans representatives met with the Town of Newfane Selectboard and citizens from Newfane and Williamsville to discuss the replacement of Bridge 12 over the Rock River on FAS Route 106 (Depot Road/ TH-2).

Representing the Vermont Agency of Transportation:

Jennifer Fitch, P.E.	Scoping Project Manager
Cory Burrall, P.E.	Design Engineer
Mario Dupigny-Giroux, P.E.	Traffic Safety Engineer
Judith Ehrlich	Historic Preservation Officer

Representing the Windham Regional Commission:

Matt Mann	Senior Transportation Planner
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PRESENTATION

The meeting was formally called to order by the Selectboard and began with an overview of the proposed bridge replacement project which includes a full bridge replacement of the historic arch structure on-alignment while maintaining traffic on an offsite detour for a period of roughly 20 weeks. This was followed by a summary of design considerations for determining if the future bridge structure should be widened to accommodate two-lanes or remain one-lane with alternating traffic. Topic areas included current and projected traffic volumes, emergency response, sight distance and safety, truck turning movements, winter maintenance and cost. State representatives recommended a two-lane structure.

The chair of the Selectboard opened the meeting to questions and comments. The following is a summary of the key points discussed during the meeting:

Traffic Calming and Intersection Configuration- Williamsville residents noted that the one-lane bridges in the town help to slow traffic down and are the only means for traffic calming. These participants felt that a two-lane structure would encourage the traveling public to drive faster and that maintaining a one-lane structure will help keep speeds reasonable. VTrans Traffic Engineer discussed the T-intersection at the end of the bridge with Grimes and Dover Road and how this condition naturally slows traffic. Several additional traffic calming alternatives were discussed:

- Portable speed detectors and traffic signals were suggested but the consensus of the group appeared that electronic devices would take away from the historic and quaint appeal of the location;
- Several Williamsville residents recommended a 3-way stop on Grimes Hill Road, Dover Road, and Depot Road;
- Install better traffic signs;
- More police enforcement;
- Faded pavement markings should be restriped, including centerlines and edge lines;
- State representatives said they would work with the Town of Newfane on the traffic calming solutions and the intersection configuration during the design phase.

Sight Distance and Safety: The original bridge structure featured a 36" tall solid concrete bridge rail. Over the years, the bridge has been repaved reducing the bridge rail to 18" height creating an unsafe condition for drivers and pedestrians alike. To meet safety standards, the new bridge will feature a 42" tall historic concrete combination rail. This will obstruct sight distance for vehicles turning onto the bridge from Grimes Hill and Dover Road creating an unsafe condition and increasing the risk for rear end and head on collisions. Two accidents of this nature have been documented by the Agency between 2008 and 2014. The VTrans Safety Engineer determined that more accidents are expected to occur with a one-lane bridge structure.

Williamsville residents shared their preference for the single lane bridge structure in town. They believe that structures help reduce the speed of vehicles in the area, as well as keep an overall historically quaint appeal of the area. There appeared to be differing opinions on how well these bridges contributed to traffic safety and effect on accidents. VTrans representatives will look into accident data at these locations to determine how safe and efficient these structures are operating.

Bridge Railing- One major point of discussion revolved around the bridge railing that would be installed on the new bridge. In order for the railing to meet state and federal guidelines for vehicle and pedestrians, the new rail will need to be 42" high. Due to the increased height of the rail, there are some significant safety concerns due to the obstructed sight-lines, especially if a one-lane bridge remains with alternating traffic.

- A full height concrete railing was opposed by the majority of the group since it would significantly obstruct the view of vehicles approaching the bridge;

- Residents and the Selectboard appeared open to the idea of the concrete/ steel combination rail since it would not present such obstructed views as the full height concrete railing;
- One concern regarding the concrete/ steel combination rail was that the standard requires a full height concrete end section. Is there an alternative solution to the full height concrete end section, such as moving it further onto or off the bridge to improve sightlines or possibly eliminate it all together? *Answer: VTrans Historic Preservation Officer will work with the Town of Newfane on possible solutions, as well as other historic features they would like incorporated with the railing and the bridge.*

Truck Traffic- Although truck traffic across the bridge is low at 3.9%, the current turning radius at the intersection of Depot, Grimes and Dover road is insufficient. Service vehicles often ride the bridge rail when making turning movements. The Town of Newfane has asked the Agency to improve the turning radius to accommodate service and emergency vehicles. A two-lane structure will more easily accommodate truck turning movements due to the wider width of the bridge allowing for more room. However, VTrans will make improvements to the turning radius regardless of which option is selected by the Town of Newfane. Matt Mann expressed concerns about the potential conflict for large trucks turning into the opposing lane of traffic when making turning movements. *Follow-up: VTrans will utilize a program called AutoTurn to examine turning movements for a school bus and the longest truck known as a WB 67 and provide this information to the Town.*

Right-Of- Way- Due to the archaeological and historical significance of the project location, a major hurdle will be acquiring any Right-Of-Way at the bridge site and limiting the impacts to the area. This process takes time and is largely the reason why the bridge is not slated for construction until 2020.

- The property owner at the Wingwall #4 corner of the bridge indicated that he would like to see a two-lane bridge replacement in order to provide a more modern bridge for the location and bring it up to current standards. He indicated that if a one-lane replacement was decided, the State/ Town would have a hard time acquiring Right-Of-Way from him.
- What is the process if unable to obtain Right-Of-Way? *Answer: Since the bridge structure is owned by the Town of Newfane, the Town will be responsible for condemnation. If the Town proves necessity, then easements will be granted and the property owner can continue to negotiate a settlement alongside the project development and construction.*

Federal Participation- Another concern from the group was that if a one-lane bridge replacement was chosen as the alternative, will there be federal aid available since the new bridge would not be meeting all federal regulations? *Answer: Yes, in accordance with Vermont State Standards, town highway bridges can retain a narrow width if the future bridge structure is the same width or wider than the current bridge structure.*

Wider, One-Lane Bridge Replacement- Much of the discussion at the meeting revolved around a replacement structure that was one-lane versus a wider structure that could accommodate two-lanes of traffic. The State has recommended that a two-lane structure be chosen as the replacement to accommodate the volume of vehicles that the bridge handles, which is already at the maximum of a one-lane structure. Two-way traffic would also help improve safety at the bridge since it would reduce potential collisions resulting from alternating one-way traffic. It was also made clear that the replacement structure is intended for a life expectancy of 80-100 years and that the state will not be coming back to widen the structure to accommodate any growing needs in the future. Despite all of this, there was an overwhelming consensus from Williamsville residents in attendance that the bridge remains a one-way structure to maintain the historic appeal, reduce vehicle speed through the area, and uphold the quaint village appearance while several Newfane Selectboard members and VTrans preferred a two-lane bridge structure. A compromise was suggested that a wider structure meeting VT State Standards replace the existing narrow arch, but the Town stripe it for one-way traffic with a 3-way stop. This would improve the safety of the bridge by widening it as well as other improvements including truck turning movements, winter maintenance practices, emergency management, etc., as well as introduce some traffic calming with the stop conditions. In addition the Town could utilize two-lanes of traffic across the bridge in an emergency situation if VT 30 was ever closed. This option also allows the Town the flexibility of striping the structure for two-lanes of traffic in the future if deemed necessary.

FOLLOW UP ITEMS

1. VTrans Historic Preservation Officer to work with Town on bridge railing, as well as other historic features to incorporate into the replacement structure.
2. VTrans to look into additional accident data on one-way structures in the surrounding area.
3. VTrans to model bridge intersection for truck turning movements to check for any potential issues.
4. VTrans to provide Town with updated layouts and typical sections for a proposed wider structure with line striping for one-way traffic.

NEXT STEPS

The Town of Newfane needs to provide the Agency with their preference for the bridge replacement project on or before Tuesday, September 1, 2015 in order to remain in the bridge program. The Agency also offered to attend another public meeting to aid in this effort.