

**State of Vermont
PDD/Structures Design Section**

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Agency of Transportation

July 1, 2014

Jack Johnson, Chair
c/o Jane Cushman, Admin. Assistant
Town of Chelsea
P.O. Box 266
Chelsea, VT 05038

Rita Seto, Transportation Planner
Two Rivers-Ottauquechee Regional Commission
128 King Farm Road
Woodstock, VT 05091

Re: **Chelsea BHF 0169(9), VT Route 110, Bridge 9**
Chelsea BHF 0169(10), VT Route 110, Bridge 11

Dear Mr. Johnson and Ms. Seto,

A Regional Concerns Meeting for the above-referenced projects was held on March 18, 2013 to present several alternatives to the public. Representatives from the town of Chelsea attended the meeting as well as several adjacent property owners and other members of the public (see attached attendance sheet). The purpose of this letter is to inform you of the decisions that have been made and how we plan to advance this project after receiving this public input.

At the Regional Concerns Meeting, VTrans made a recommendation to replace the superstructures (beams and deck) on both projects since the existing abutments are in satisfactory condition. Multiple methods of maintaining traffic were presented with a recommendation made to close the bridge for a short period of time while the reconstruction work is underway. The detour on State-owned roads would be 50 miles end to end. The end to end distance is the distance from one end of the bridge to the other end measured along the detour route. A local bypass route that locals and emergency responders could use to circumvent the bridge closure is also available that would add 4.8 miles to the through route distance and would result in an end to end distance of 6.4 miles.

The decision to recommend a short-term closure was primarily based on the desire to expedite the project development process to allow construction to take place sooner. A bridge closure typically minimizes impacts to adjacent property owners and environmental resources

and therefore can be expedited due to the smaller scope. A short project delivery time was considered very important since it is impossible to anticipate when conditions will worsen and require an emergency closure in the event that public safety is compromised in any way. Additional details of the recommended scope of work and an evaluation of other alternatives considered is included in the original Scoping Reports which are available for viewing at:

<https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/12C150>
<https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/12C152>

There was a lot of good discussion and many valid comments made at the meeting (see attached meeting notes). There was some discussion on the bridge closure and how it would impact the community but when the other methods to maintain traffic were discussed, it appeared most attendees understood that they would have negative consequences as well. The major topic discussed was whether to include a raised sidewalk on the new bridge decks. VTrans stated that since there were no sidewalks on the bridges or leading to the bridges, bicycle and pedestrian traffic would best be accommodated in the shoulders of the bridge. This topic was debated at several different times throughout the meeting. Some attendees felt that the presence of a school nearby was justification for a raised sidewalk.

A meeting was held with VTrans upper management in July 2013 to discuss the comments received at this meeting and to decide on the best way to proceed. As a result of that meeting, the decision was made to include raised sidewalks on the bridge deck on both bridges. Revised Scoping Reports were developed with this latest directive and are available at the link provided above.

In the near future we will be submitting Conceptual plans for both of these projects based on the recommendation provided in the revised Scoping Reports. We anticipate holding another public meeting during the design phase of the project to keep the public informed about this project and to work out additional details related to the bridge closure.

If you have any questions, comments or concerns please feel free to contact me at the above address or by email at chris.williams@state.vt.us or by phone at (802) 828-0051.

Sincerely,



Christopher P. Williams, P.E.
Structures Senior Project Manager

Attachments

cc: Tammy Ellis - DTA #4 (via email)
Jackie Cassino - VAOT Planning Coordinator (via email)
Kristin Higgins – Design Project Manager (via email)
Wayne Symonds – Structures Program Manager (via email)
Kevin Marshia – Assist. Director of Highway Dept.

ALTERNATIVES PRESENTATION MEETING - ATTENDANCE SHEET

Project: Chelsea BHF 0169(9) & (10)	Meeting Date: Monday, March 18, 2013
Description: VT Route 110, Bridge 9 over the First Branch of the White River, and VT Route 110, Bridge 11 over South Washington Brook	Location: Town Office PO Box 66 Chelsea, VT 05038

Name	Company	Phone	E-Mail
CHRIS WILLIAMS	VT. AOT	828-0051	CHRIS.WILLIAMS@STATE.VT.US
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Steve Fallicker	NA	685-3861	—
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John Upham	Fire Dept	685 2253	jupham6w@blue.net
J. Ro. Hut	CHC	685-7717	
Frank Keene	Keenes Parafe	685 4828	
Anne Carroll	Chelsea Animal Hospital	685-3232	annemc@sver.net
Rhoda Ackerman	DD Farm	685 4582	
Maurice McCullough		685-4513	
Shirley Santon		685-4575	
Joe Spinella	Res. Chelsea School Bus	685-4452	jspinella@charter.net
Emily Betts Newman	Abottle	685-4839	chapliver10@gmail.com

Name	Company	Phone	E-Mail
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Jack Johnson			
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Rogers Besswell	for Besswell		
John Carter		685-3448	
Kathryn Myers			
Tim Carter			
Rick Newman		685-4839	
Roy Hayward			

Alternatives Presentation Meeting Notes

Chelsea BHF 0169(9), 12C150

Chelsea BHF 0169(10), 12C152

Meeting Date: March 18, 2013

Chris Williams and Gary Sweeny representing Vt. AOT

Chris presented the power point for the project including the highlights of the Accelerated Bridge Construction Program (ABC), Accelerated project delivery, the PIIT team, and then alternatives, pictures, drawings, costs, deficiencies, and traffic maintenance. The power point can be viewed in folder on the Z: drive. The recommended alternative for both projects is replacement of superstructure and deck without a sidewalk, with a combination rail (S-352), and a hybrid phasing approach to maintaining traffic.

Following the presentation, the following discussions were heard:

- Question was raised about how we get daily and hourly traffic volumes. **Our traffic group gets the raw data from counting devices on the road and determines these numbers from standard methods. Devices used have the ability to distinguish directional information.**
- **Clarified that hydraulic capacity is a reference to water passing under the bridge in the river.**
- Did we count pedestrians? **No, but they and bicyclists are considered in the solutions analyzed. We are aware that there are many pedestrians, many of them kids. We do not distinguish ages of pedestrians, strollers, etc.**
- Were any studies done on accidents at this location? **No.**
- Is there a distinct separation between traffic and pedestrians if there are no sidewalks? **There will be a white line marking the division between traffic and shoulder.**
- Are sight distance considerations stopping us from replacing the sidewalk and could there be a sidewalk? **No, and there could be a sidewalk, but new foundation would be required due to the width of the deck required.**
- A comment was made that a raised sidewalk feels safer.
- What about plowing? **In our proposed configuration, the lane would be plowed normally and the shoulder would be plowed with the wing.**
- It was stated that the town does maintain the sidewalk on bridge 9 in the winter with a snowblower, usually a day late, but the sidewalk on bridge 11 is not maintained in the winter.
- It was stated that there are cantilevered sidewalks on bridges in the US, and why couldn't we do that here? **It could be done, however, it would still mean new foundation work, and new walk space on each end.**

- A statement was made from the audience that widening the deck would induce drivers to increase speed. **Chris stated that from a safety point of view, narrower is worse.**
- It was stated that there are steel plates under the pavement, full width on bridge 9. **We knew this, although weren't sure that it was full width.**
- Would the proposed bridge be ADA accessible? **Yes, there is no step or barrier, and the slopes generally usually meet ADA requirements.**
- Question about hydraulics – **it was explained that raising the bridge dramatically would be required to meet hydraulics – not feasible.**
- It was stated that the sports fields on both ends of town generate a lot of kid pedestrian traffic.
- It was stated that when large trucks approach the bridges from both directions at the same time, sometimes one stops and waits for the other. If we widen slightly without sidewalk, trucks may not stop and may make it less safe for pedestrians. If we put in wider pavement at same level, trucks will take it all when passing through.
- What about a sidewalk on the other side? **Then two crossings required for the kids traveling to and from fields.**
- **CW mentioned that we have done many other bridges without sidewalks.**
- It was stated again that Chelsea wants and needs sidewalks for the kids.
- How much is added to bridge if sidewalk added? **We would add a 5 ft. sidewalk in addition to the lane and 3 ft. shoulder.**
- Back to hydraulics, why not lower the river? **To do that, we would have to address buried utilities, water, sewer, and deal with ANR, who may not let us do it at all. Also, may not be effective.**
- Would a full replacement be the easiest way to add sidewalk? **It wouldn't be the easiest way, but it could work.**
- Why not build a 4-12-12-4? **It would increase speed through town and affect the character of the town. Would exceed Vermont State Standards.**
- What service life is given for each option? **80 years for full replacement, 40 years for deck replacement.**
- Why not 2-10-10-2 and add cantilever sidewalk to that? **Same answer as before – abutment work, approach work.**
- Why would the temporary bridge be on the west side? **It's slightly better than the east side. On the east side are aerial, buried utilities, and Creamery Rd.**
- What about foot traffic? **We have not addressed foot traffic during the project.**
- What about a temporary foot bridge? **It would be an expenditure of \$60,000 for a few weeks.**
- Can the Town sign bypasses? **Yes.**
- What about emergency vehicles? **They can use bypasses.**
- What is the minimum legal width? **It is 8.5 ft.**
- Is there footing work required for the proposed option? **No.**
- If the first phase is 3 days, what is the second phase? **About one month. In phase one the contractor would be allowed 24/7, but not in phase 2.**

- Why are we not replacing the abutments? **The substructures are rated 7. We hope to get 40-50 more years out of the abutments.**
- Have we done a project in this manner before? **No, we have not done it exactly this way before.**
- Will both bridges 9 and 11 be done at the same time? **At this time, we are advancing the two separately. We may combine them later.**
- Could we do another closure for phase 2? **We could.**
- On bridge 9, the railing creates a visibility problem when pulling out of Creamery Rd. onto VT 110. **Understood. You can see as you approach the stop, but trying to look along the rail is difficult for any rail. This is partly the reason we would like to minimize crosswalks here. A three foot shoulder will allow better sight distance.**
- It was suggested by a member of the public that no left turn be allowed coming off Creamery Rd onto VT 110.
- Can we keep the ornamental lights? **Yes, we will require a written contract for maintenance and power from the Town.**
- There were additional comments advocating for wider lane/shoulder room, including on approach.
- More comments advocating for “more room”.
- **Chris stated that it sounds like some are asking for 4-10-10-4.**
- Does the State guarantee 40 years life? **No, we make no guarantees.**
- If in 20 years the bridge needs to be replaced, does the Town have to rebuild? **No.**
- Is there a local share of cost? **No.**
- Will there be additional chance for community input? **This is the community input.**
- One person stated that we should do the full replacement. The cost is less than twice the proposed option, for less than twice the cost. **We could, but maintenance of traffic would be difficult. We wouldn't be able to do a three day closure.**
- Is the sidewalk part of the historic component? **The State historic staff wants to know the Town's position on the sidewalk.**
- What would the cost of a pedestrian bridge? **About \$50,000-\$60,000.**
- Moving on to Bridge 11—
- A comment was made that the existing pedestrian approach from the south is inadequate – crossing the road near the Health Ctr needs to be made safer. Also, the 3 ft. shoulder feels inadequate.
- The State should consider a separate foot bridge, away from the bridge on the east side. **Same issues as at bridge 9.**
- Why not use 0-10-10-6? **Then we would have an inadequate shoulder on one side-affects bikes.**
- Could we do 4-10-10-4? **We could look at it.**
- What does hydraulically inadequate mean? **It refers to the waterway under the bridge. Inadequate means that the waterway is not adequate to meet our standard for passing flood flows beneath the bridge.**

- Why not build a temporary bridge on the west side? **We don't want to use a temporary bridge, plus we have 4f property, which is sensitive for disturbance, and ROW would be an issue on both sides.**
- Will the community have some notice before the closure? **We will give months of notice.**
- What year will project be constructed? **We don't know yet. Assume 3-5 years.**
- How do you know what the cost is if you don't know the year of construction? **We have a lot of historical data on costs. Also, this cost estimate is very early – it's very rough.**
- Do we think that bridge 9 will last another 3 years? **We are confident that our inspectors are keeping a close eye on the conditions at these bridges, but we want to keep these projects moving before we have to worry about closing them.**
- Will the hybrid option be a faster construction project? **Yes, faster than full replacement.**
- Is a 4-10-10-4 configuration available in precast? **Yes. We can cast any width, but if much wider than the existing, then the foundation becomes very complicated.**
- Would we end up with huge boulders in the water? **No, we don't anticipate much work in the water since we want to keep the present abutments.**
- Could we use a precast superstructure in lieu of PBUs? **Yes, but the skew, depth, and weight would have to be considered.**
- It was stated that the sidewalk on bridge 11 is not cleared in the winter.
- The cantilever sidewalk idea came back once more. **Our response is that it is possible, but still requires earthwork in the approaches and some kind of work at the abutments, like retaining walls.**