

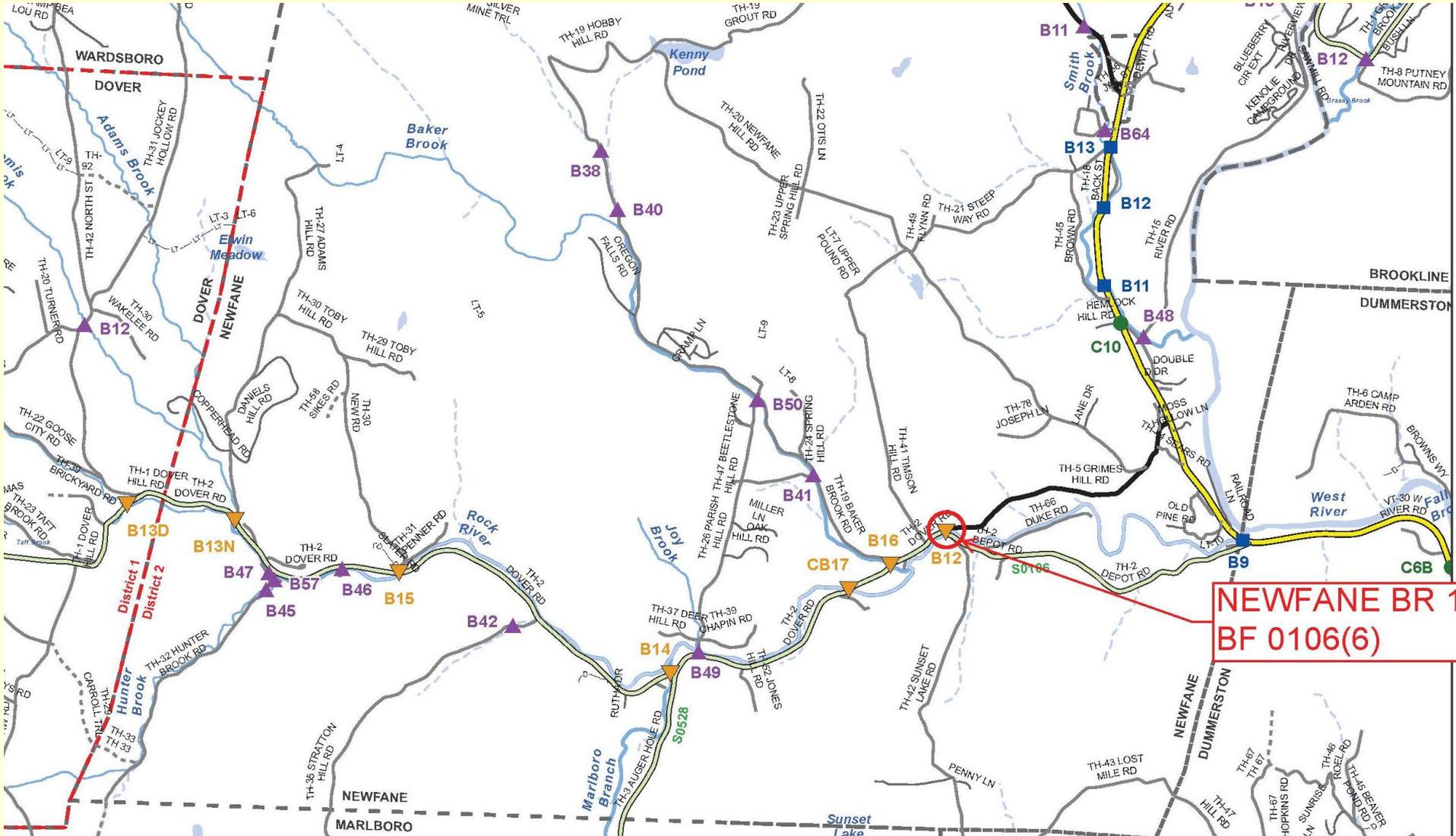
Newfane BF 0106(6) Bridge 12 on Depot Road (FAS 106) over Rock River Public Presentation



**Presented by
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August 27, 2014

PROJECT LOCATION



Meeting Outline

- Existing bridge background information
- Alternatives discussion
- Next Steps

Phases of Development

Project
Funded

Project
Defined

Contract
Award

Project Definition

Project Design

Construction

Identify resources &
constraints

Evaluate alternatives

Public Participation

Build Consensus

- Quantify areas of impact

- Environmental permits

- Develop plans, estimate and specifications

Background Information

- The structure is owned and maintained by the Town
- Depot road is a Federal Aid Secondary (FAS) Highway
- Functionally labeled as a Rural Major Collector
- Existing bridge is a solid-spandrel, concrete arch
- Span length = 100 feet (clear span of 76 feet +/-)
- Bridge Width = 17.6 feet (curb-curb)
- The bridge was built in 1908 (rehab in 1934 and 1964)

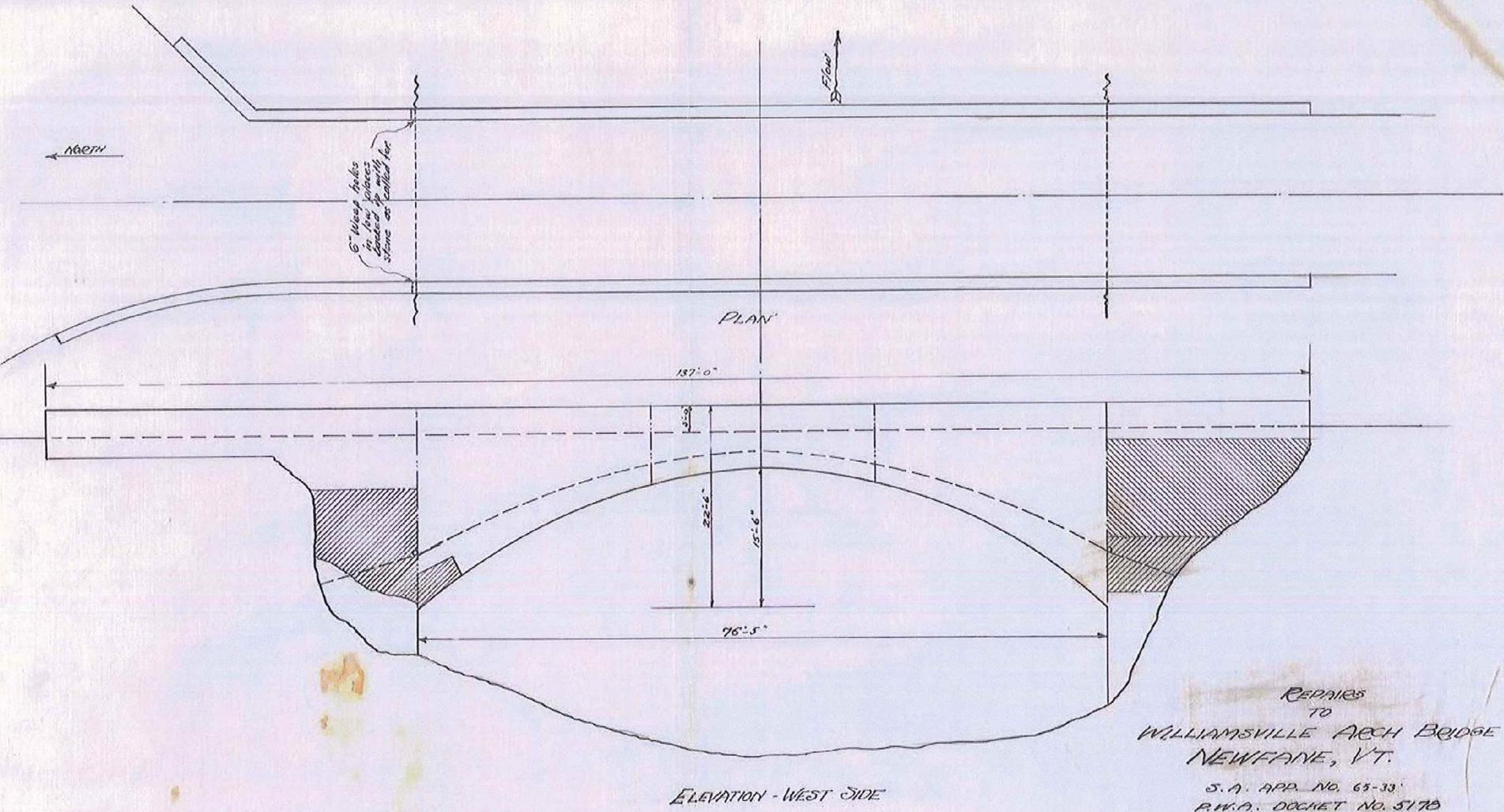
Traffic Data

	“Current Year” 2017	“Design Year” 2037
Average Annual Daily Traffic	1,500	1,600
Design Hourly Volume	170	180
Average Daily Truck Traffic	65	110
%Trucks	3.9	6.0

Historic Information

- Built in 1908 by Crosby & Parker from Brattleboro
- Draft Reinforced Concrete Arch Preservation Plan developed in Sep 2012 (not final yet)
- Bridge was included in the Plan under Category 1 meaning the preferred method of treatment is preservation
- Bridge is gateway to the Williamsville Historic District
- Project will require a Section 4(F) evaluation
- All alternatives including no build, rehabilitation, replacement and bypass need to be evaluated

Original Arch Sketch



ESTIMATED QUANTITIES

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Surveyed by
 Designed by
 Drawn by A. Skelton Aug 10, 64
 Traced by A. Skelton Aug 20, 64
 Checked by A.D. Th. & H.G.B.
 Series No. 2 of 2 Sheets

EXISTING BRIDGE DEFICIENCIES

- **The bridge is rated 4 (poor) by the Bridge Inspection team and is on a 12 month inspection cycle (reduced from the usual 24 month cycle)**
- **The structure has severe deterioration and delamination throughout**
- **The spandrel walls and arch ring are severely deteriorated where they connect**
- **The spandrel walls, which function as bridge railing, are too low and lack the strength required to properly protect an errant vehicle**
- **The load capacity can not be calculated**

Looking East over Bridge



05.14.2014

Looking West over Bridge



Bridge Approach from East



Bridge Approach from South



Deteriorated Bridge Railing



05.14.2014

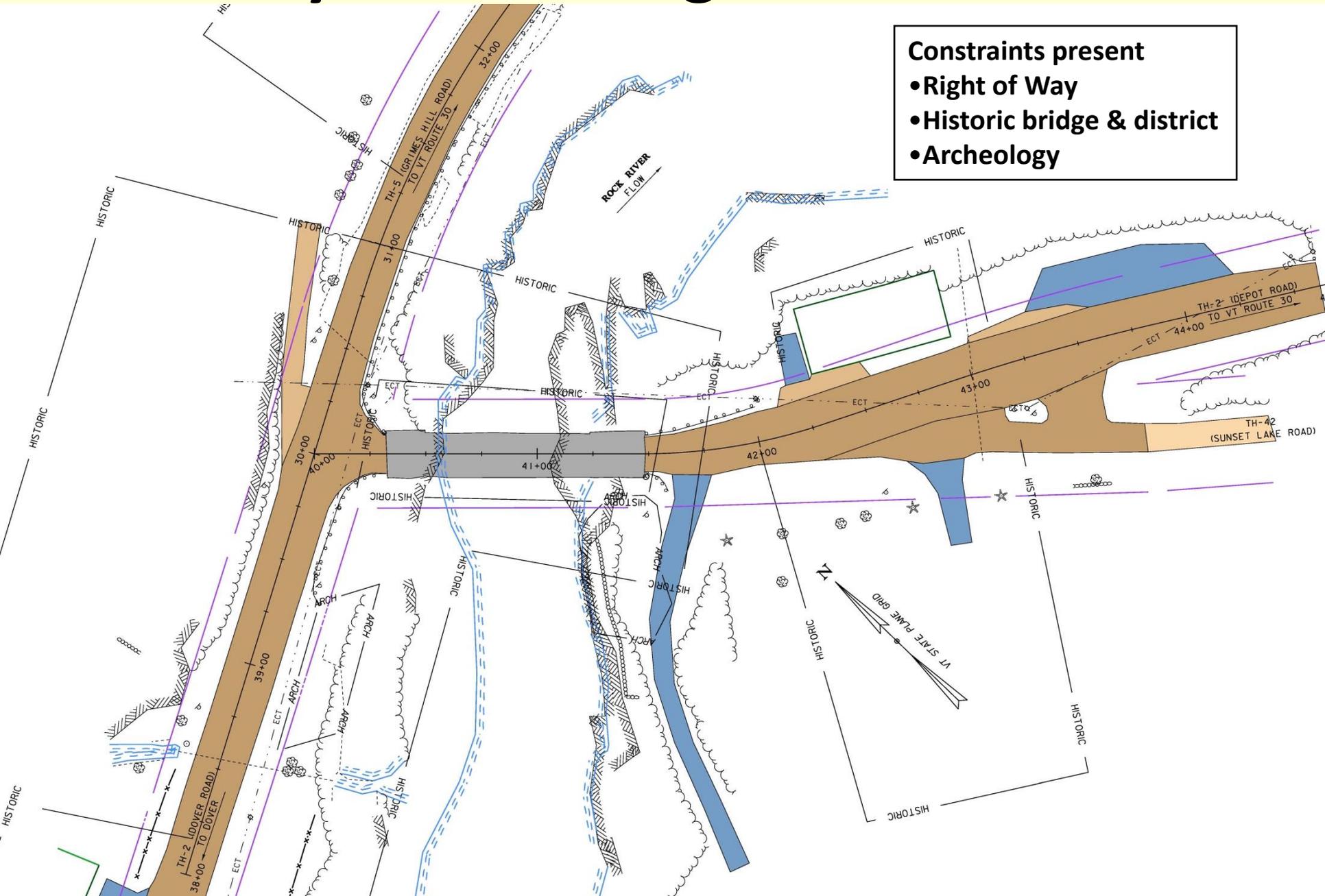
West Abutment & Underside of Arch



Layout Showing Constraints

Constraints present

- Right of Way
- Historic bridge & district
- Archeology



Alternatives Discussion

- Rehabilitation of existing bridge
- Replacement of existing bridge

Note: The method to maintain traffic during construction will be considered later in the presentation

Rehabilitation Discussion

- Attempt to rehabilitation and use as much of the existing bridge as possible
- Very difficult and we have not yet determined if this can be done and/or if it is “feasible and prudent”
- Width and span would remain same as existing
- Various historic bridge railings can be provided
- Load capacity of bridge could not be determined
- If Town signs a preservation agreement this option may mean no local share in project cost

Replacement Discussion

- Must be a fully-functioning concrete arch with the same scale and proportions as the existing
- Match existing horizontal alignment (approximately)
- Match existing vertical alignment (approximately)
- Span would remain same as existing
- Various historic bridge railings can be provided
- Need input on desired width and lane configuration
- No load restrictions with replacement bridge
- Local share would be 5% or 10% depending on method to maintain traffic

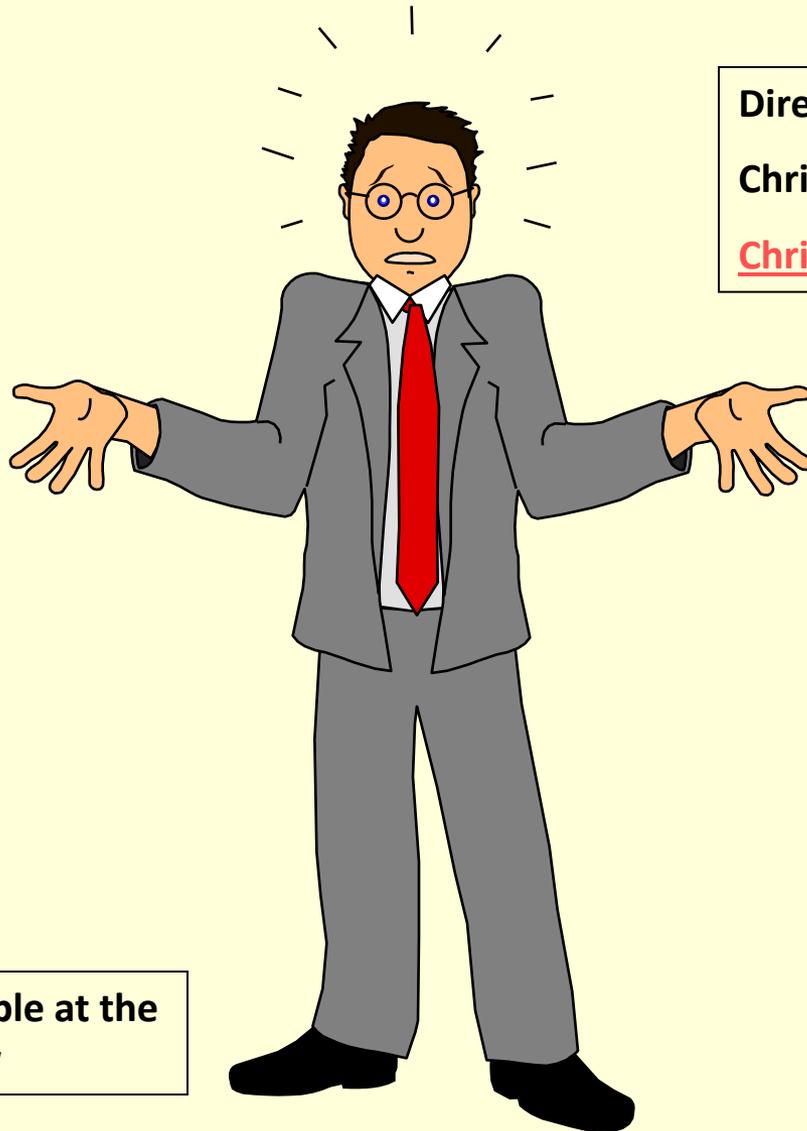
Traffic Maintenance

- The only reasonable option is a bridge closure while traffic is detoured around the site
- Can not predict duration of closure at this early stage
- We generally allow 24/7 construction during bridge closure
- Contract incentives/dis-incentives to encourage contractor
- Community would have input on time of closure (between June 1 and September 1)
- Town will be responsible for detour route
- Local share will be cut in half (10% reduced to 5%)

Next Steps

- Consider comments received at this public meeting
- Develop scoping report in collaboration with Historic Preservation Office that compares alternatives and makes a recommendation
- Obtain Management Approval on recommendation
- Public Presentation of Scoping Report
- Develop and submit Conceptual plans
- Historic Permitting process
- PROJECT DEFINED milestone

Questions



Direct any questions to:

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This presentation is available at the
web address shown below

<https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/13J306>