



Bristol BF 021-1(33)
Regional Concerns Meeting
VT Route 116 – Bridge #12 over Baldwin Creek

April 27, 2015



Introductions

Jennifer Fitch, P.E.

VTrans Project Manager

Laura Stone, P.E.

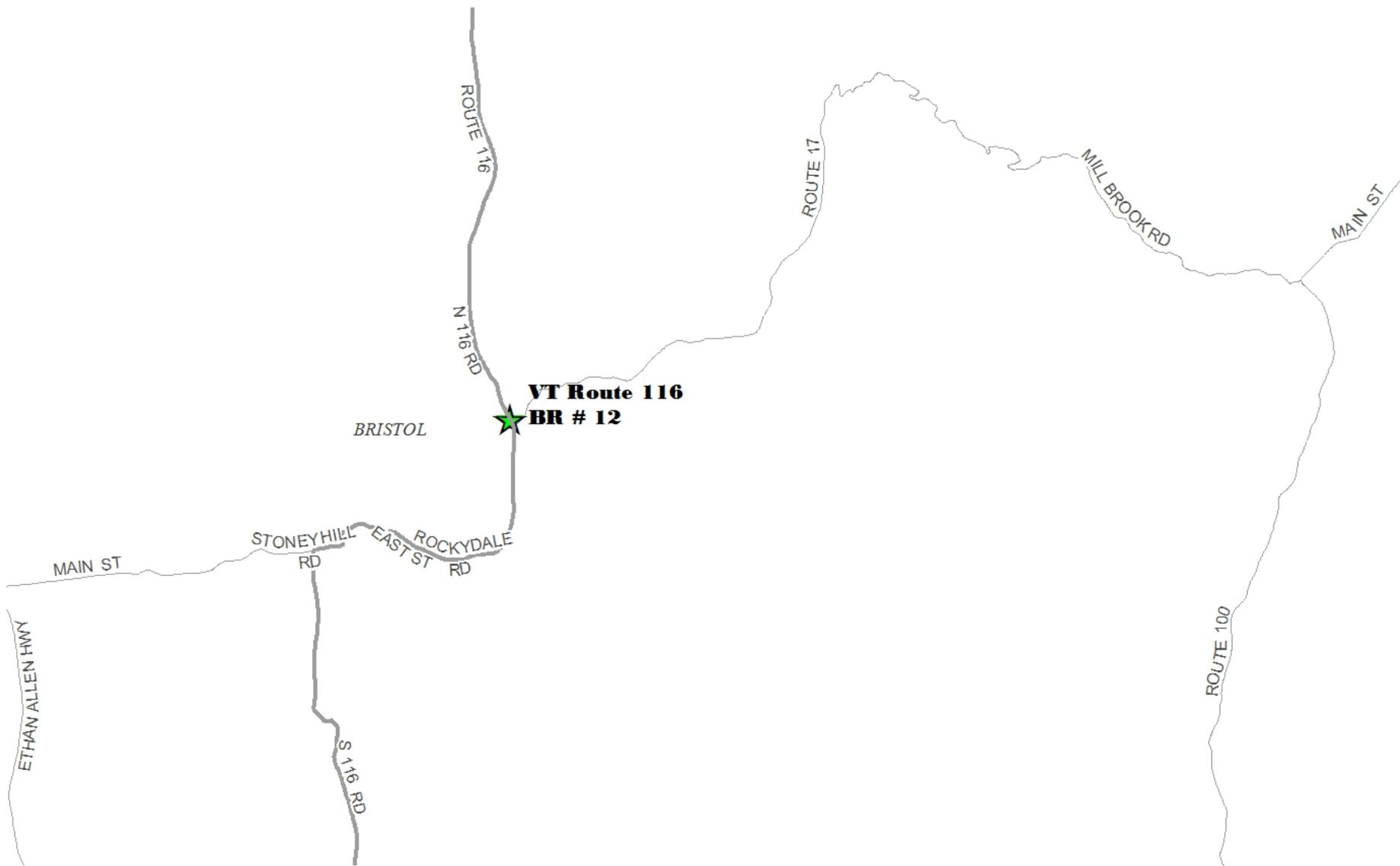
VTrans Scoping Engineer

Carolyn Carlson, P.E.

VTrans Senior Project Manager

Purpose of Meeting

- Provide an understanding of our approach to the project
- Provide an overview of project constraints
- Discuss alternatives that were considered
- Provide an opportunity to ask questions and voice concerns
- Foster support for the recommended alternative



Location Map



Bridge 12
Project Location

116

17

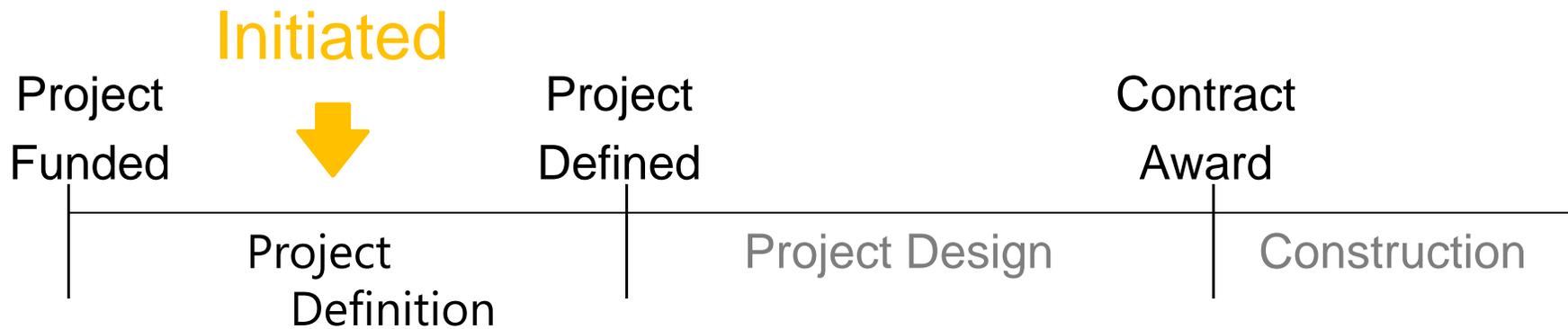
Baldwin Cree

Baldwin Cree

Meeting Overview

- VTrans Project Development Process
- Project Overview
 - Existing Conditions
 - Alternatives Considered
 - Selected Alternative
- Maintenance of Traffic
- Schedule
- Questions

VTrans Project Development Process

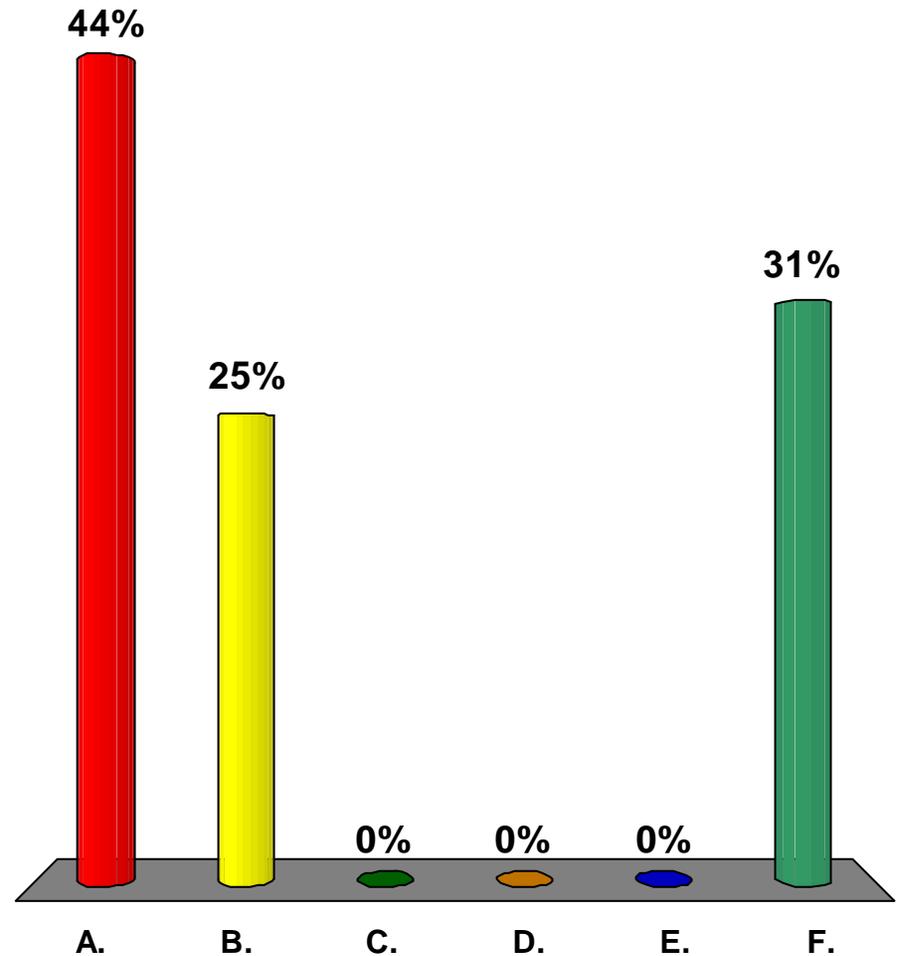


- Identify resources & constraints
- Evaluate alternatives
- Public participation
- Build Consensus

- Quantify areas of impact
- Environmental permits
- Develop plans, estimate and specifications
- Right-of-Way Process (if needed)

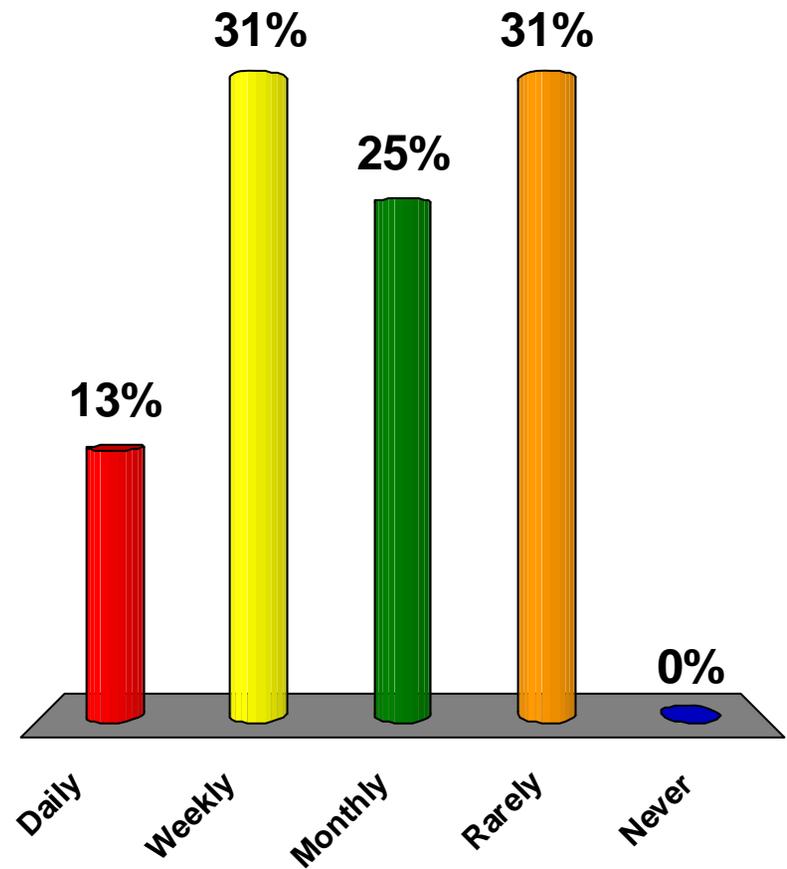
Who are you representing?

- A. Municipal Official
- B. Resident
- C. Emergency Services
- D. Local Business
- E. Independent Organization
- F. Other



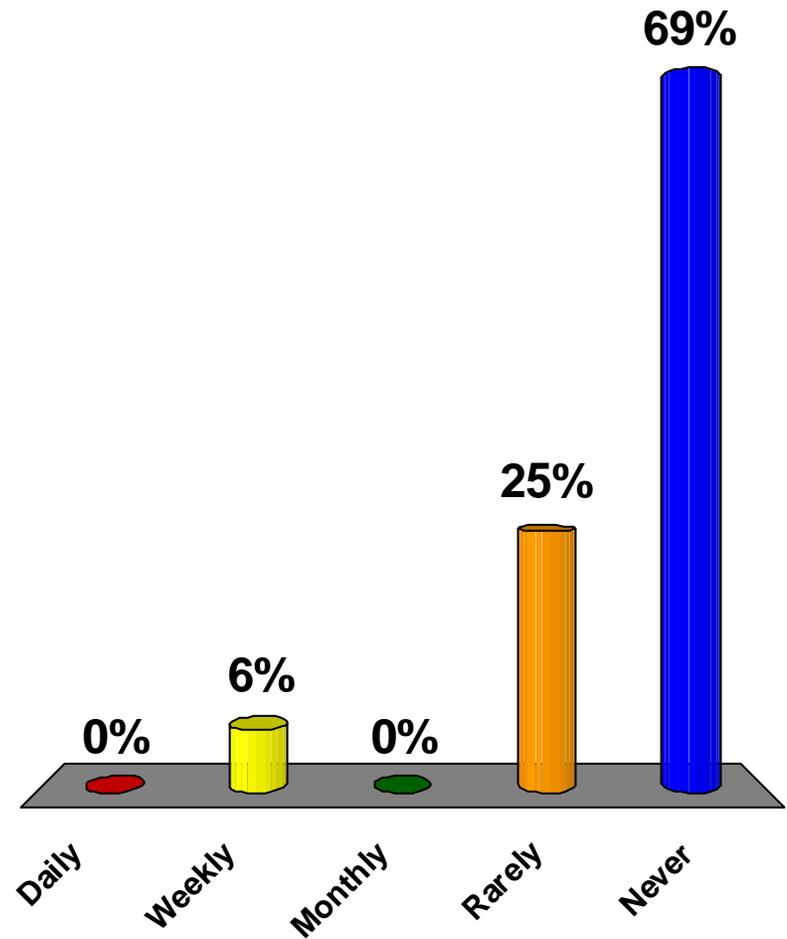
How often do you use this segment of VT Route 116?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never



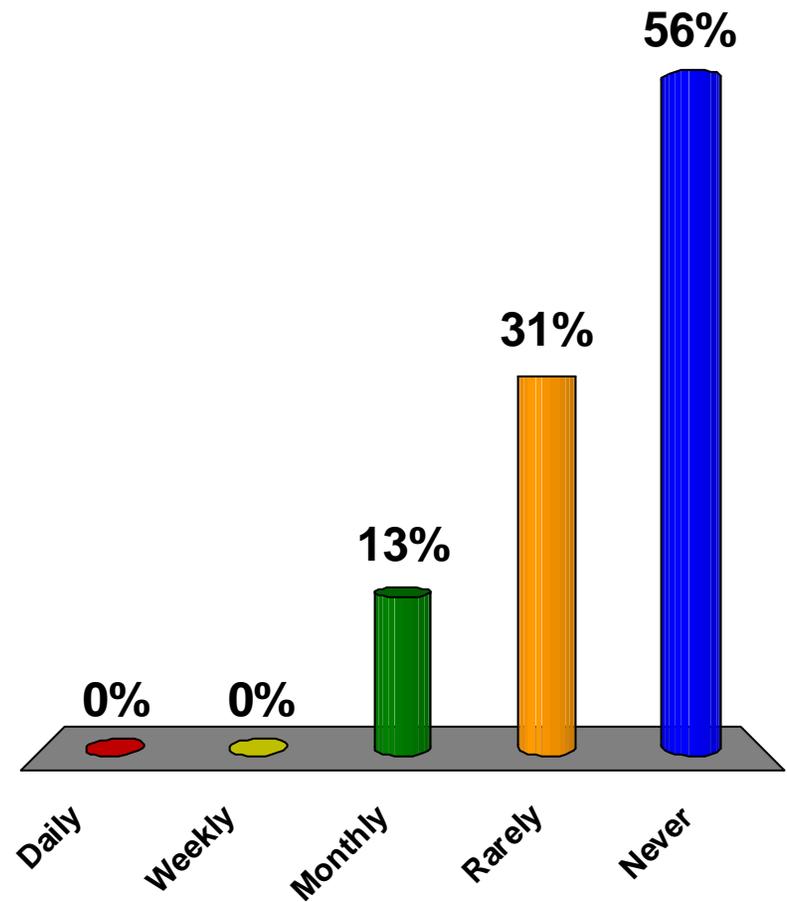
How often do you walk over the bridge?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never



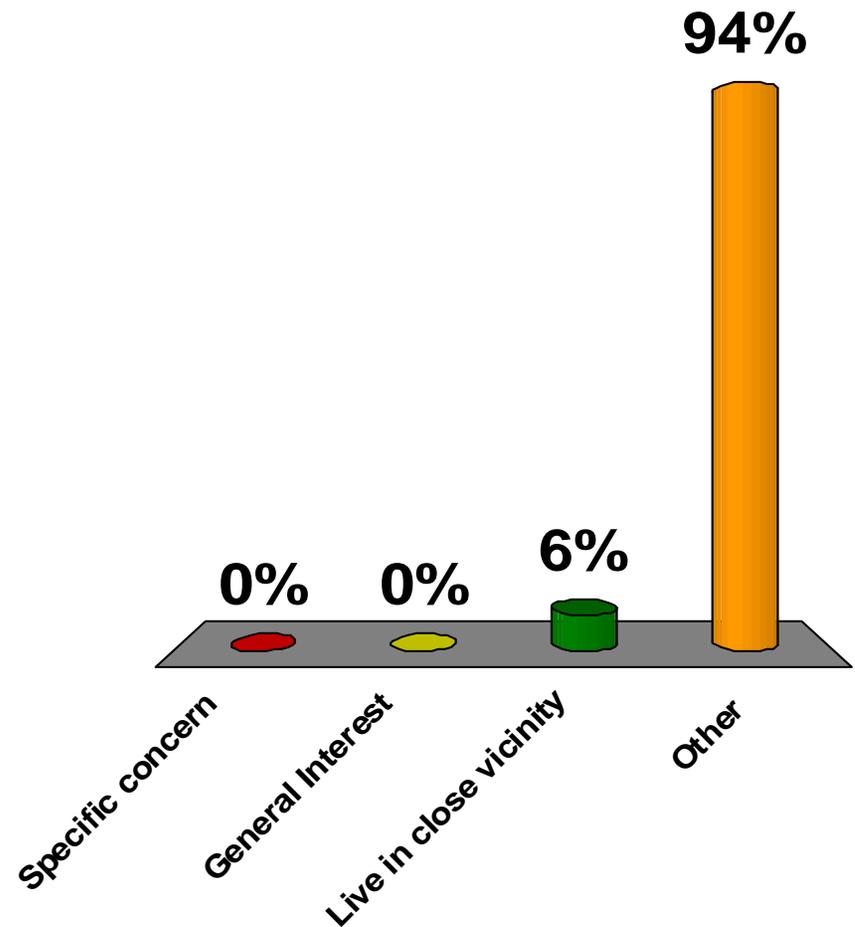
How often do you bike over the bridge?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely
- E. Never



What is your reason for attending this meeting?

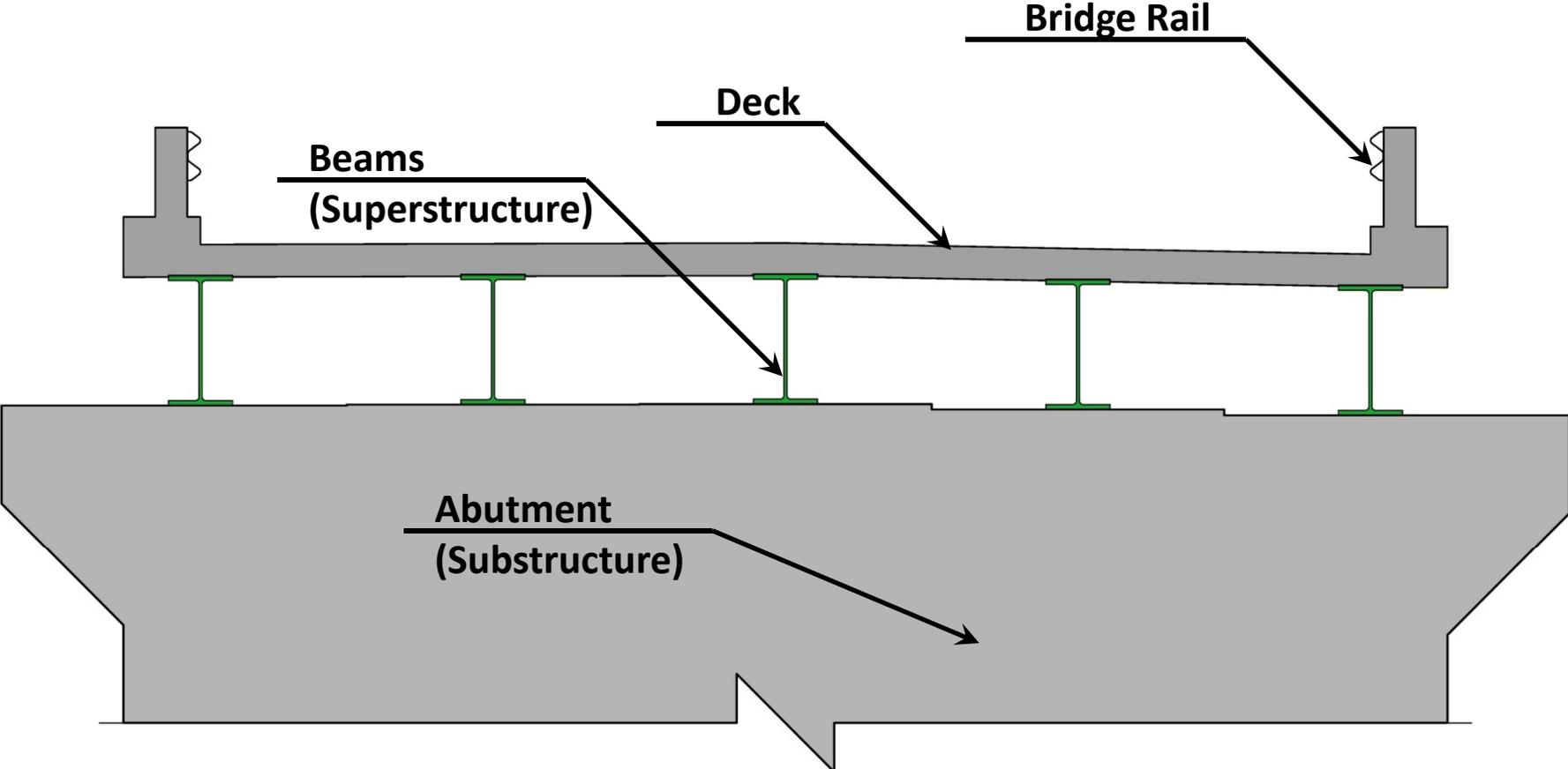
- A. Specific concern
- B. General Interest
- C. Live in close vicinity
- D. Other



Project Overview

- Existing Conditions
- Alternatives Considered
- Recommended Alternative

Description of Terms Used

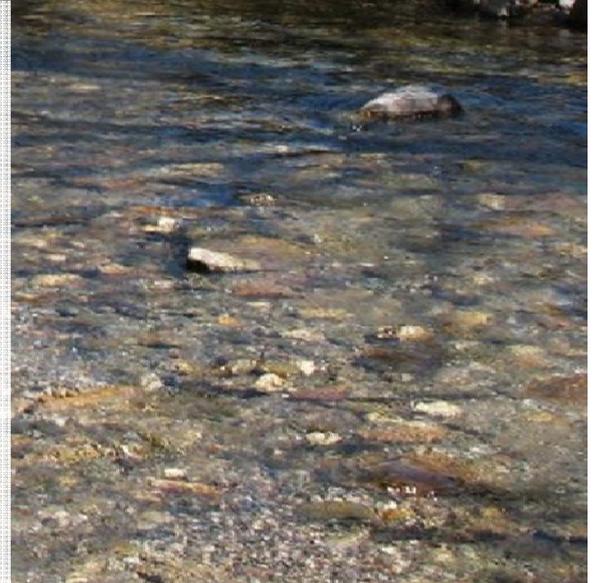


Cross Section of Bridge



Existing Conditions – Bridge #12

- Roadway Classification – Minor Rural Arterial
- Superstructure – 89' long Steel Beam Bridge
- Substructure – Skeletal Abutments
- Constructed in 1955
- Ownership – State of Vermont



Existing Conditions – Bridge #12

- The existing concrete deck is in poor condition. There have been pop-outs in the past, and future deck pop-outs are possible at any time.
- Deck geometry is substandard.
- The roadway is not banked sufficiently for the horizontal curve present.
- Bridge railing is substandard.

Existing Conditions - Bridge #12

- Deck Rating 4 (Poor)
- Superstructure Rating 7 (Good)
- Substructure Rating 6 (Satisfactory)
- Channel Rating 7 (Good)



Continual deck deterioration with large delaminations and exposed rebar

Existing Conditions - Bridge #12

- Bridge Railing
 - Not Crash tested
 - Deteriorated posts, Exposed Reinforcing Steel



Bridge Railing

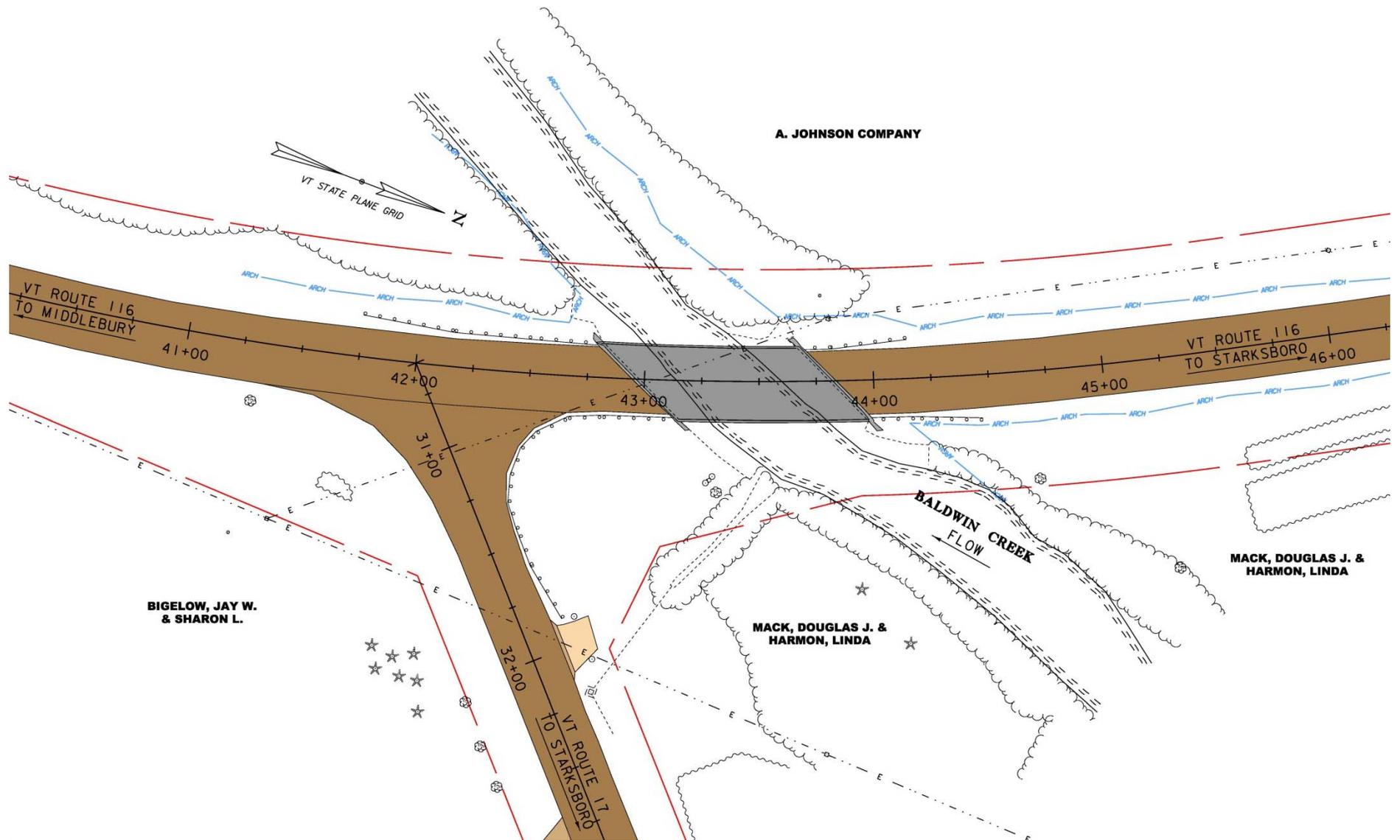
Looking South Over Bridge



Existing Conditions - Bridge #12

- Substandard Horizontal Curve
- Substandard Deck Geometry
 - Existing: 11'4'
 - Standard: 11'5'

Existing Conditions



Design Criteria and Considerations

- ADT of 2,800
- DHV of 320
- % Trucks: 15.7
- Design Speed of 50 mph
- Archaeological resources in 3 quadrants

Alternatives Considered – Bridge #12

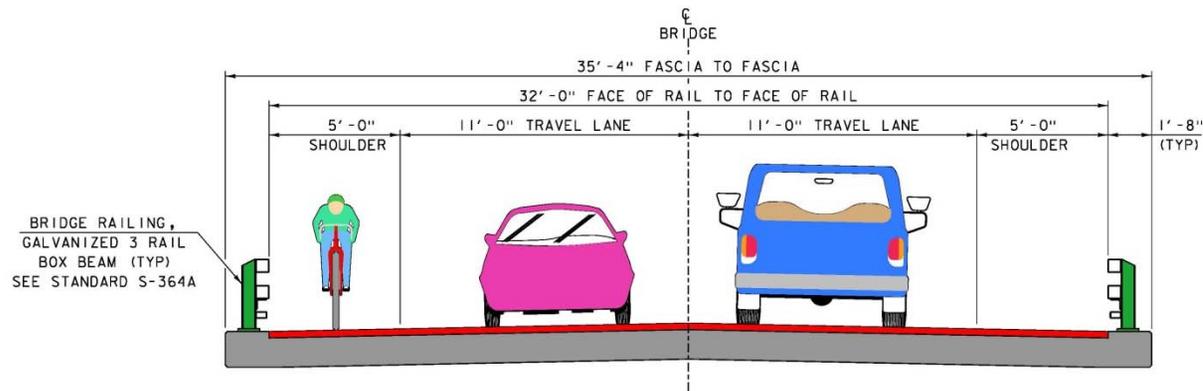
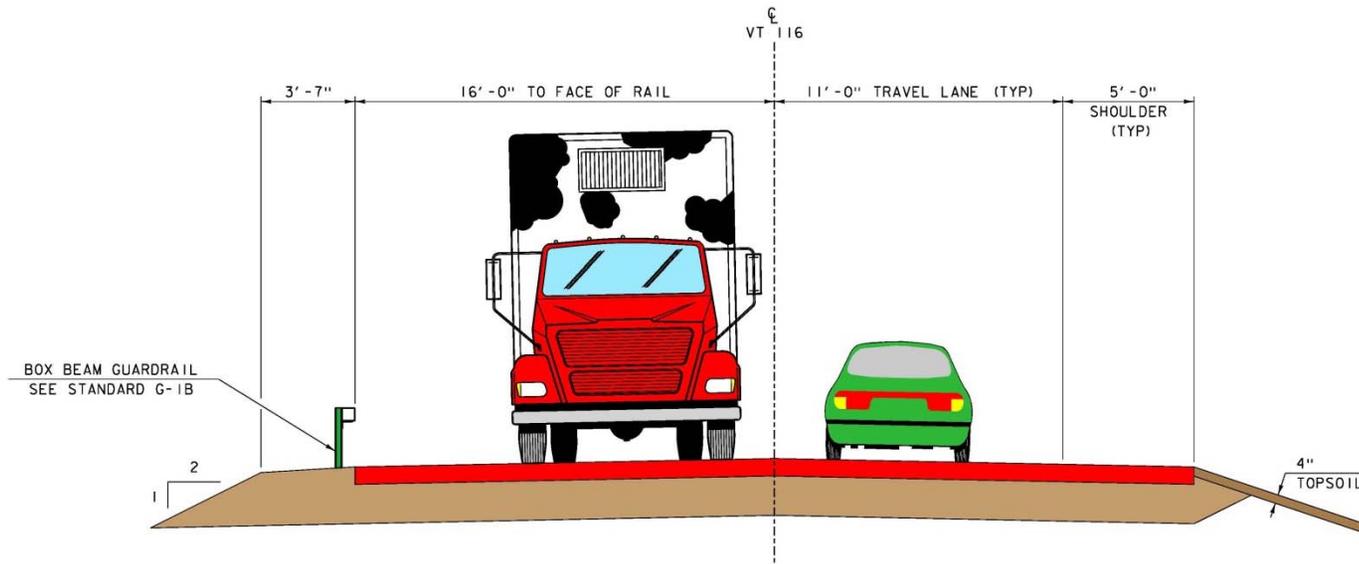
- No Action
 - Additional maintenance required within 10 years
- Rehabilitation – Deck Patching
 - Deck and substructure patching with anodes
 - Shortest design life
 - Substandard width and railing
- Rehabilitation – Deck Replacement
 - Longer lifespan compared to patching
 - Substructure patching with anodes
 - Width and railing brought up to standard
- Full Bridge Replacement
 - Longest design life
 - Meets all geometric criteria

Selected Alternative - Bridge #12

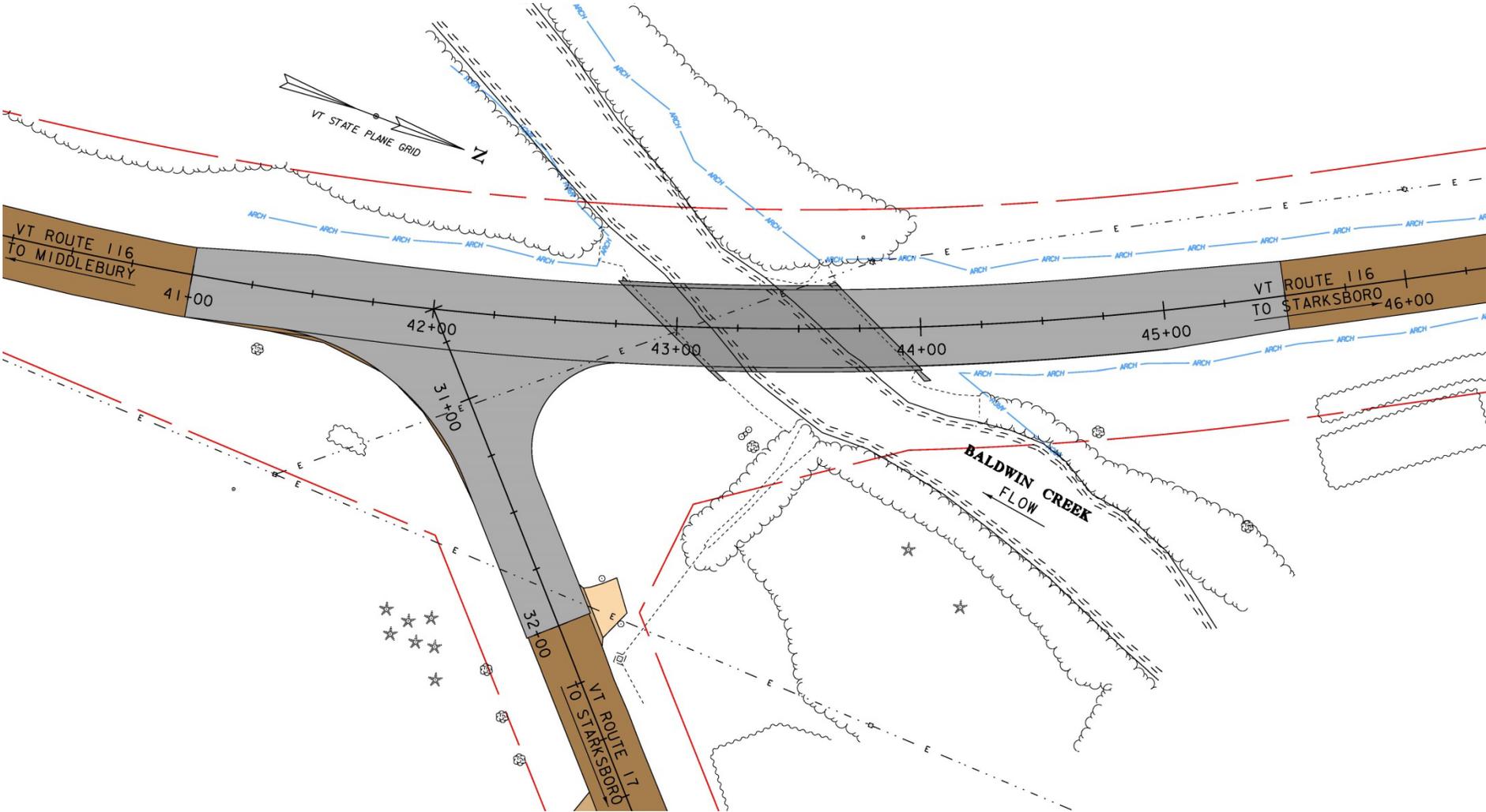
- Replace existing deck
 - Bridge widened by 1 foot on each side to meet standard
 - New approach railing and bridge railing
 - New joints
 - Meets all geometric criteria
 - 40 year design life
 - Utility relocation will be needed
 - No ROW needed

Proposed Typical Sections

- Proposed Bridge Rail to Rail = 32' (Existing is 30')



Proposed Layout



Maintenance of Traffic Options Considered

- Road Closure with Offsite Detour
 - Signed by State, regional detour route: 61.3 miles end-to-end
- Phased Construction
 - Minimal impacts to adjacent properties, wetlands, and wooded areas
 - Longer construction duration
 - No ROW needed
- Temporary Bridge
 - One-way with signals, downstream
 - Biggest impacts to ROW, adjacent properties, and archaeological resources

Selected Maintenance of Traffic

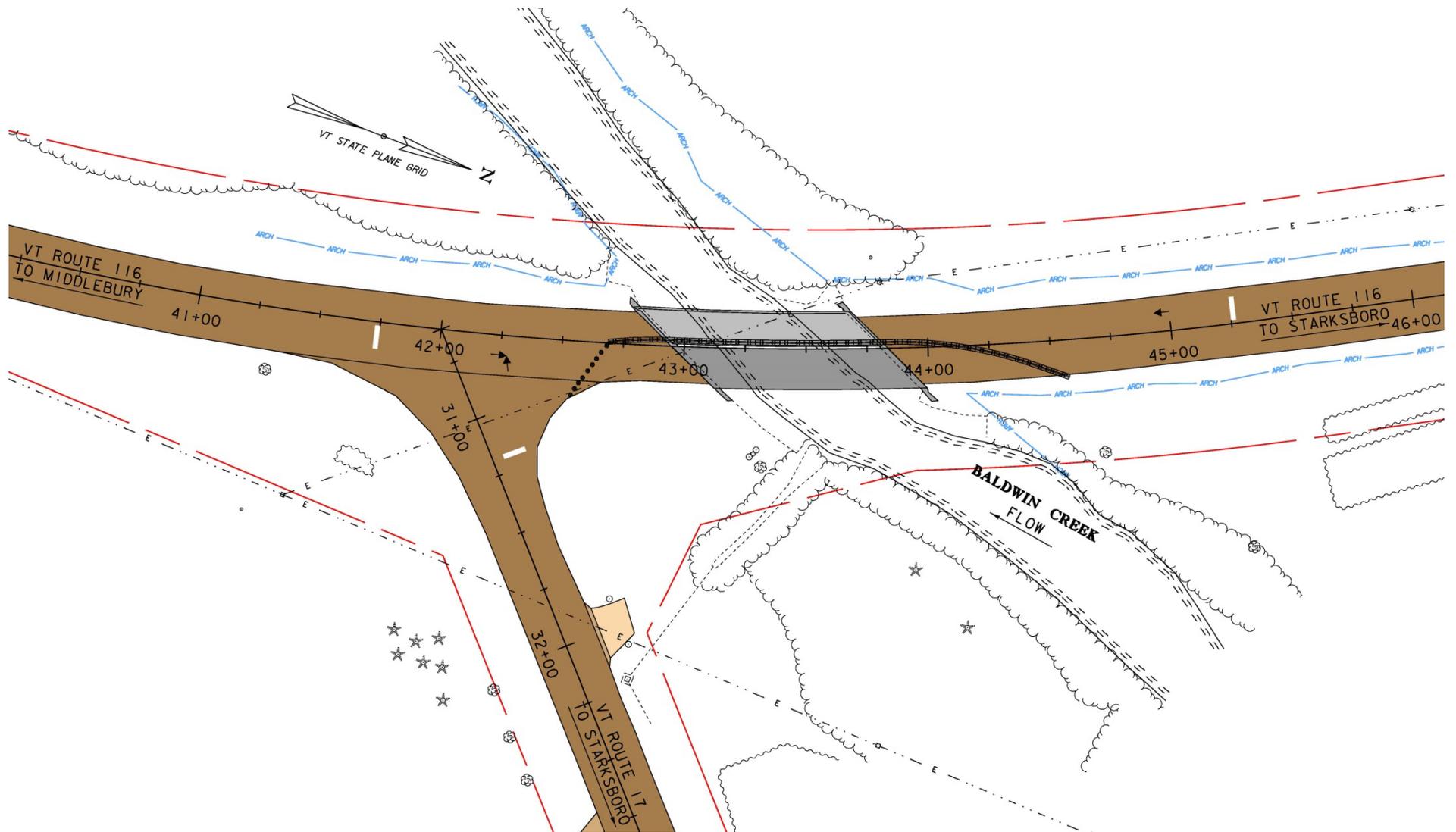


Phased Construction

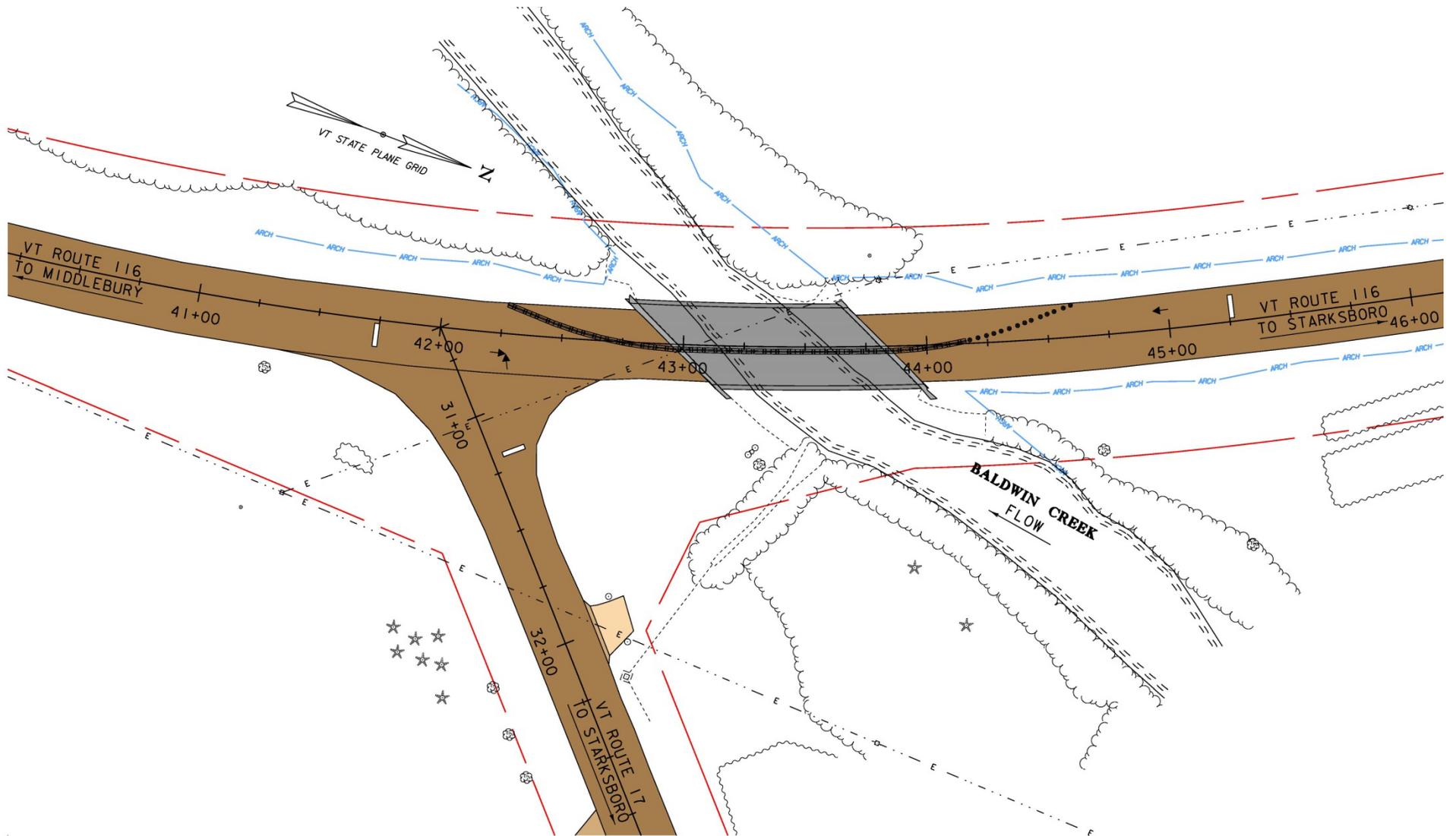
- One lane, alternating, with a traffic signal
- Existing is wide enough to complete deck replacement with 2 phases
- No ROW needed

(Picture from US Route 7 Bridge 184 in Highgate)

Phase 1 Layout

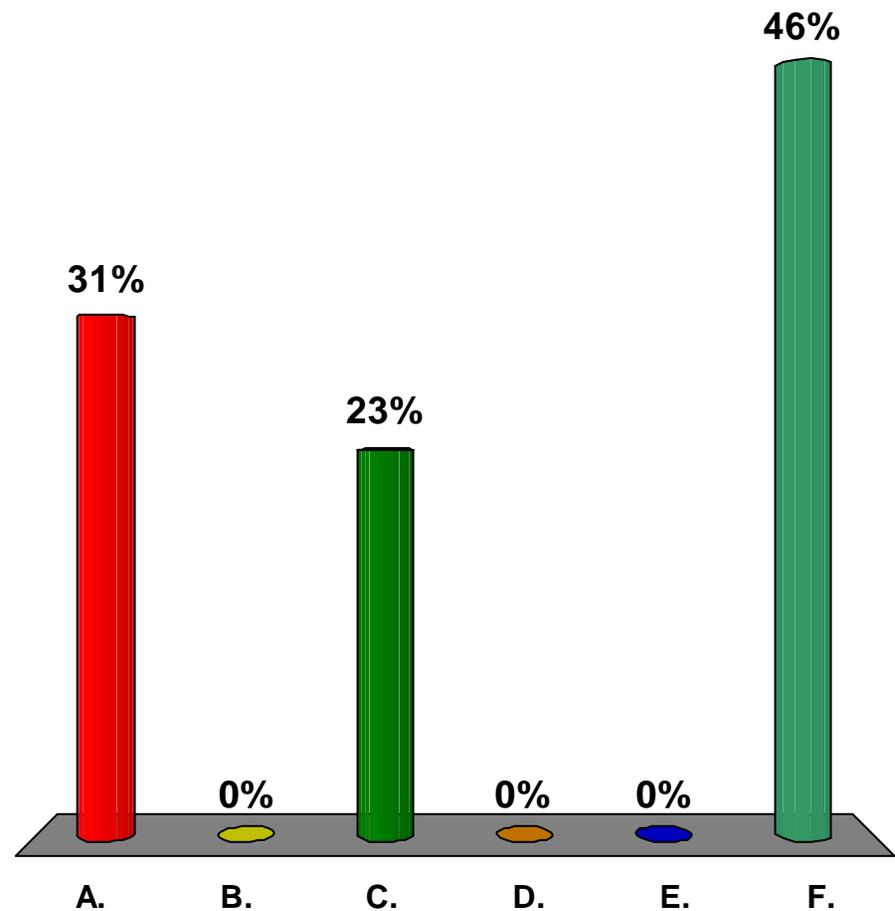


Phase 2 Layout



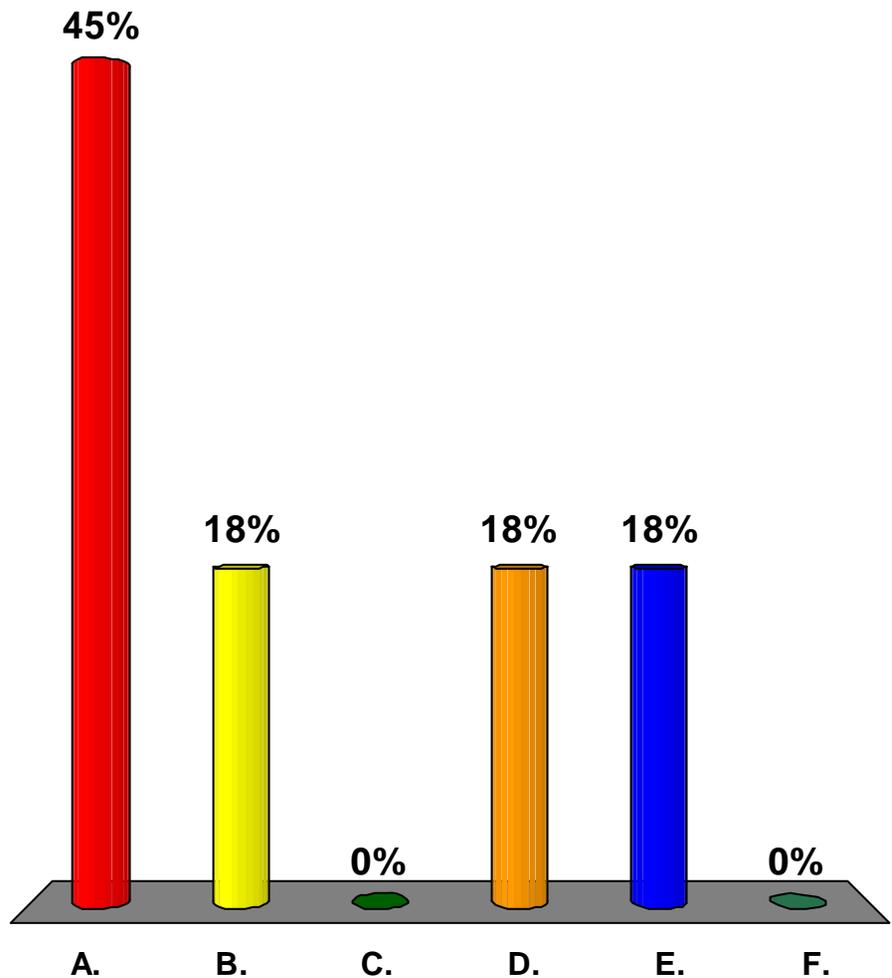
Which would you be most concerned about?

- A. Construction delays on VT Route 116
- B. Bridge Aesthetics
- C. Environmental Impacts
- D. Recreational Impacts
- E. Other
- F. Not really concerned



Which design aspect is the most important to you?

- A. Shoulder width/bicycle accommodations
- B. Aesthetics - Bridge Railing
- C. Construction year
- D. Construction Duration
- E. Cost
- F. Other



Preliminary Project Schedule

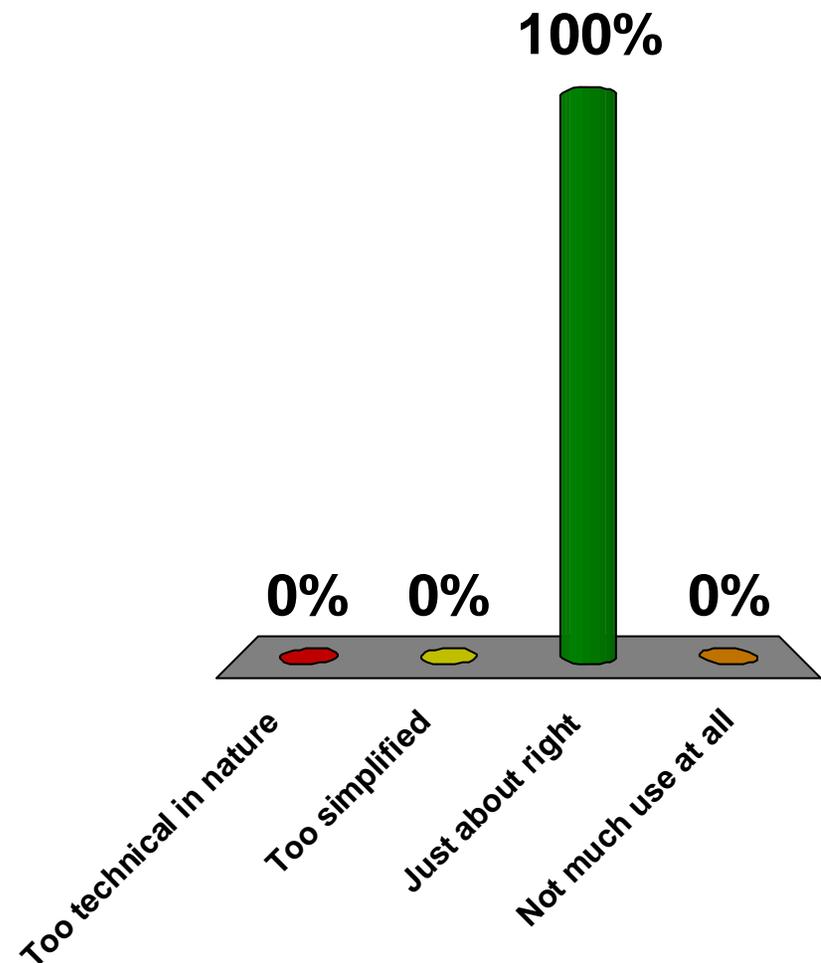
- Construction – Summer 2017 or 2018

Project Summary

- Replace deck:
 - Phased construction
 - 2 Phases
 - Bearing replacement as necessary
 - Substructure concrete patching as necessary
 - Utility relocation will be needed
 - No ROW needed

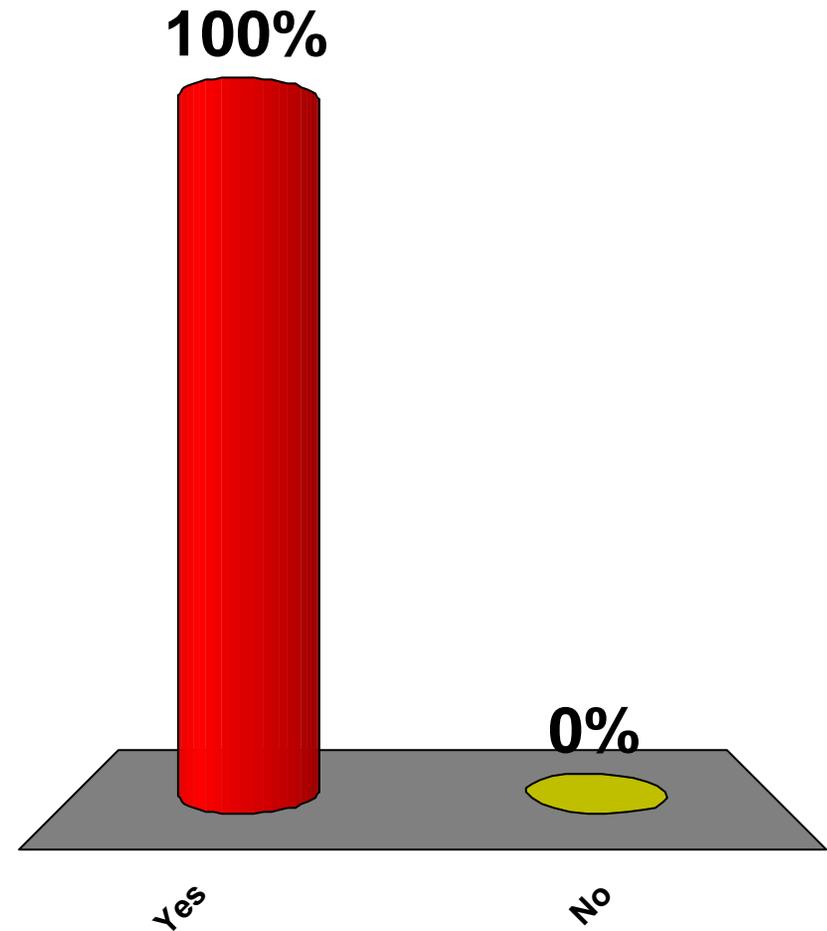
Did you find this presentation to be?

- A. Too technical in nature
- B. Too simplified
- C. Just about right
- D. Not much use at all



Do you find the recommended scope of work satisfactory?

- A. Yes
- B. No



For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/13B256>



Bristol BF 021-1(33) Questions and Comments

VT Route 116 – Bridge #12 over Baldwin Creek

April 27, 2015