



**Berlin BF 026-1(43)**  
**Regional Concerns Meeting**  
**US Route 302 – Bridge #3 over Stevens Branch**

March 19, 2018



# Introductions

**Carolyn Carlson, P.E.**

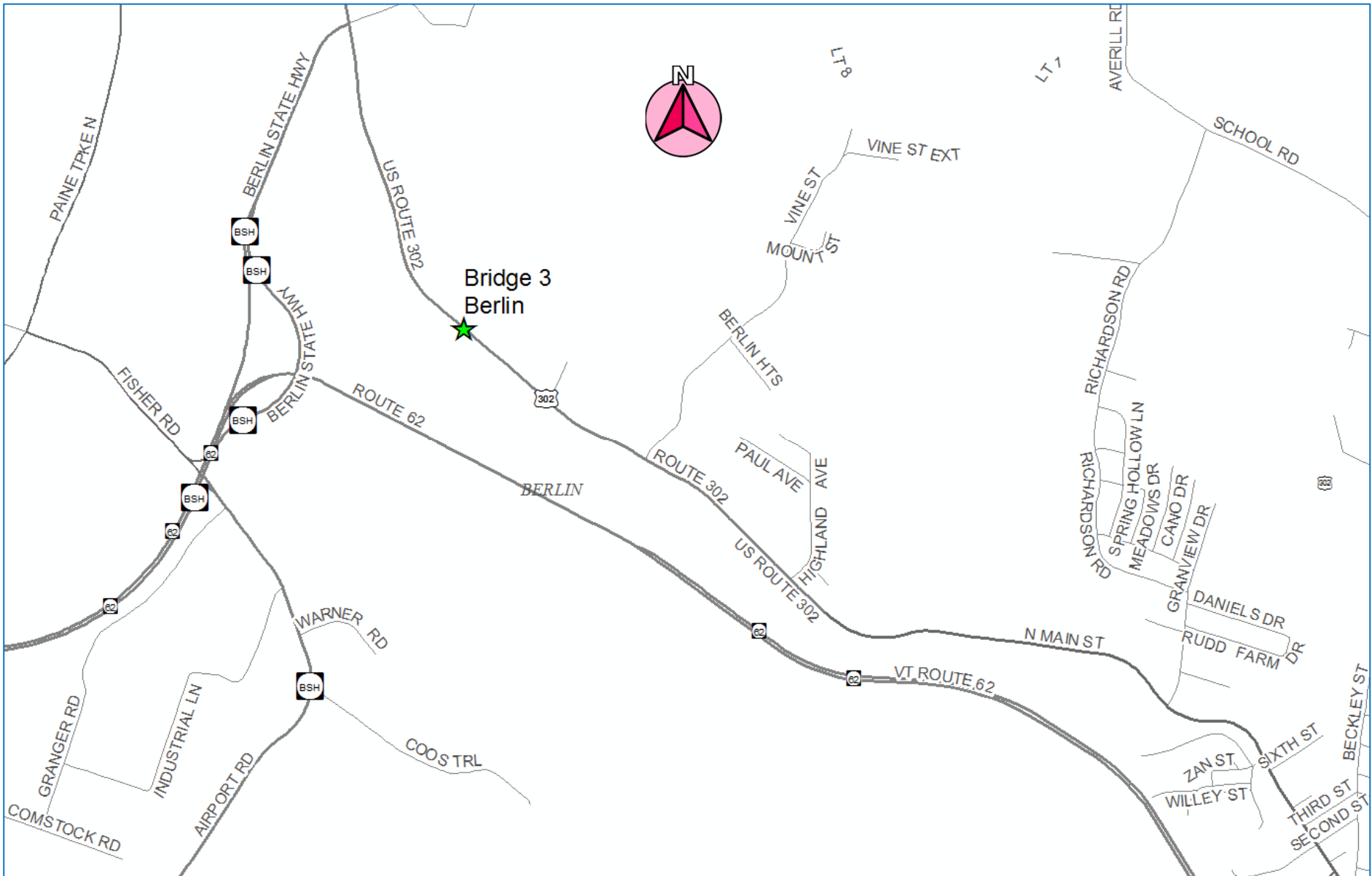
VTrans Design Project Manager

**Laura Stone, P.E.**

VTrans Scoping Engineer

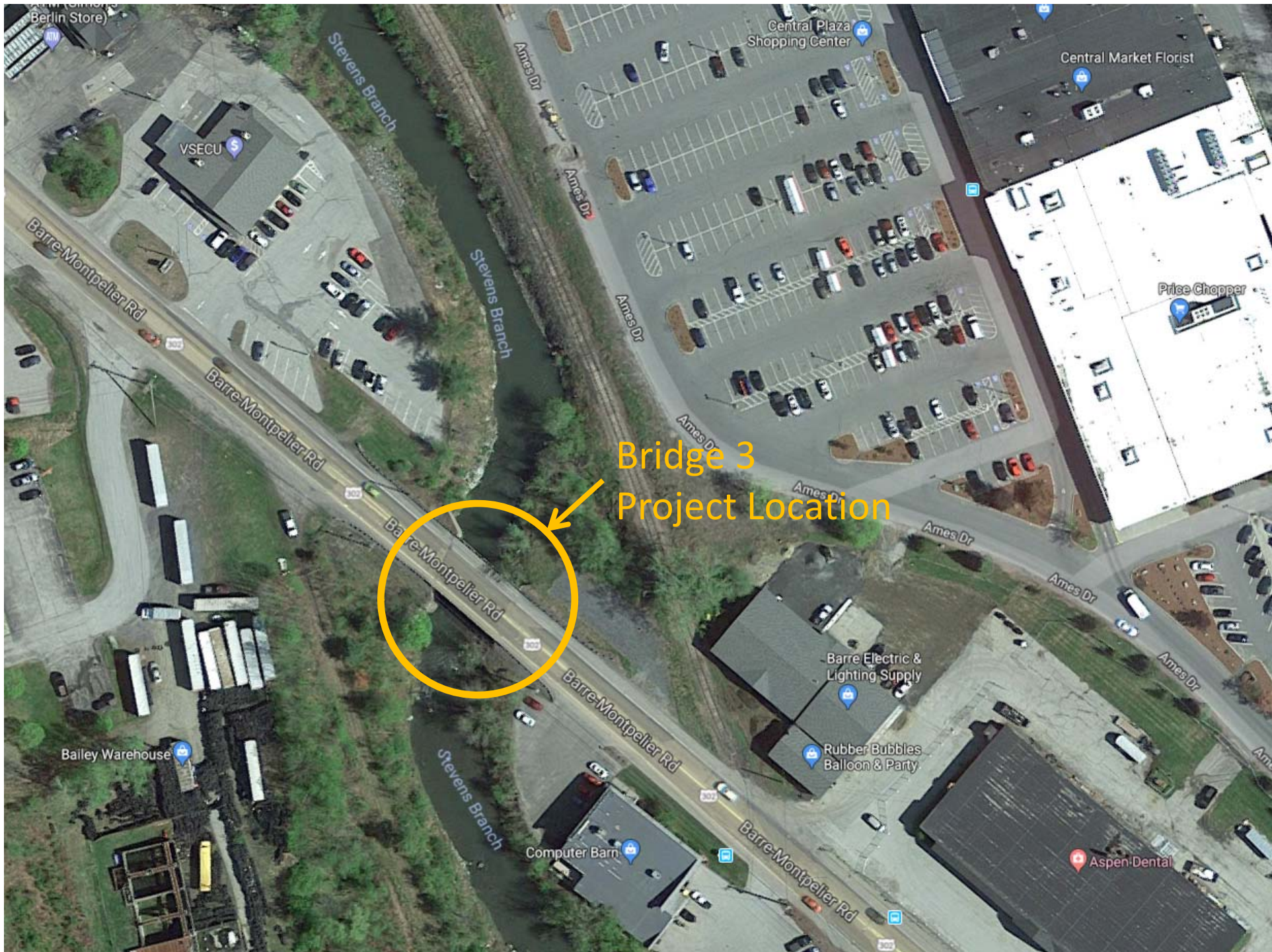
# Purpose of Meeting

- Provide an understanding of our approach to the project
- Provide an overview of project constraints
- Discuss our recommended alternative
- Provide an opportunity to ask questions and voice concerns



## Location Map

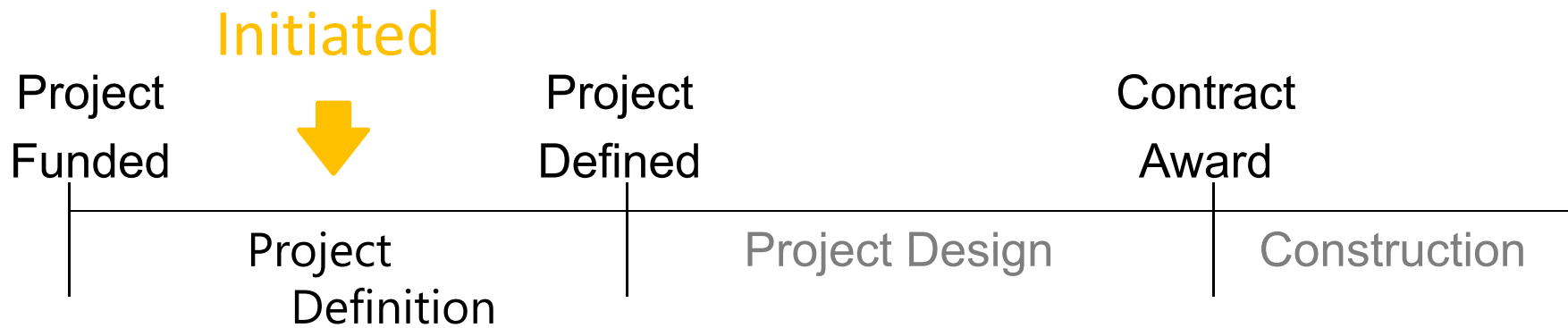




# Meeting Overview

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

# VTrans Project Development Process

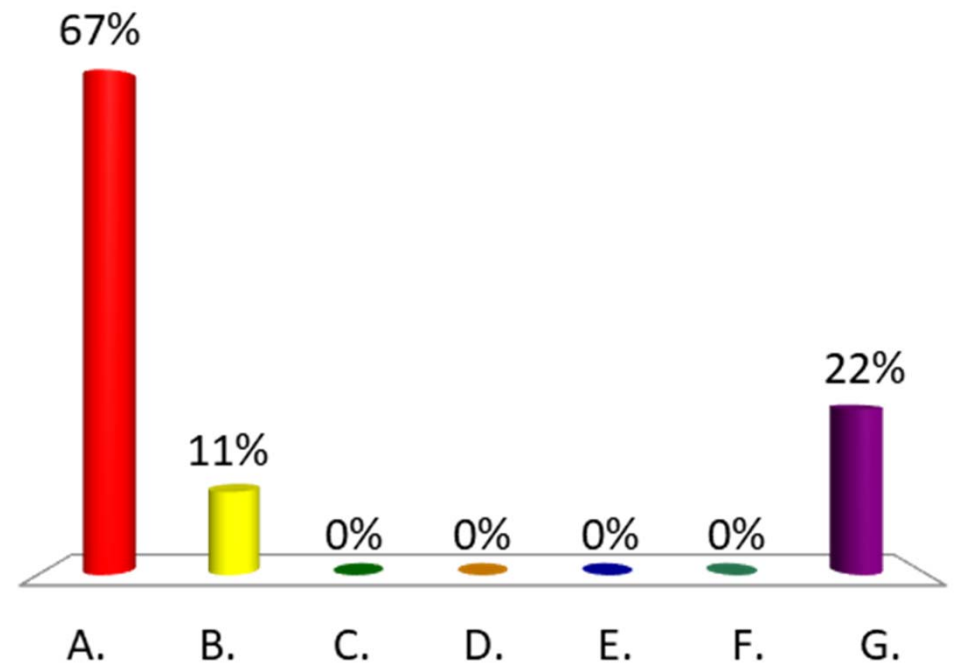


- Identify resources & constraints
- Evaluate alternatives
- Public participation
- Build Consensus

- Quantify areas of impact
- Environmental permits
- Develop plans, estimate and specifications
- Right-of-Way process if necessary

# Who are you representing?

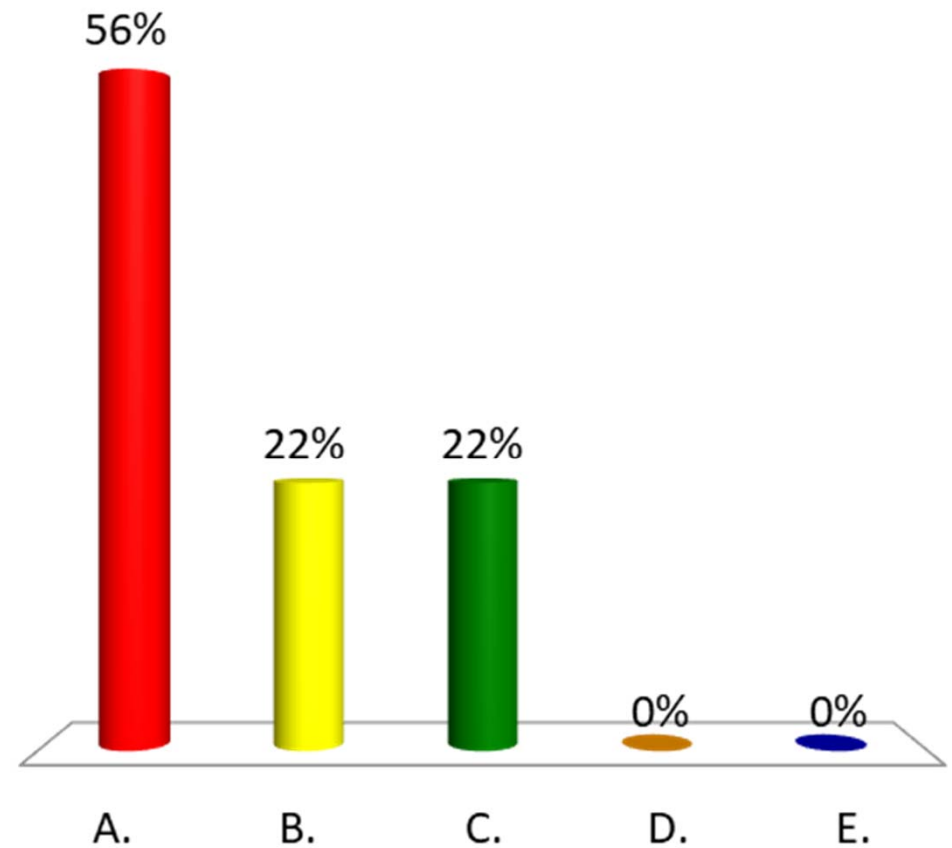
- A. Municipal Official
- B. Resident
- C. Local Business
- D. School
- E. Emergency Services
- F. Independent Organization
- G. Other





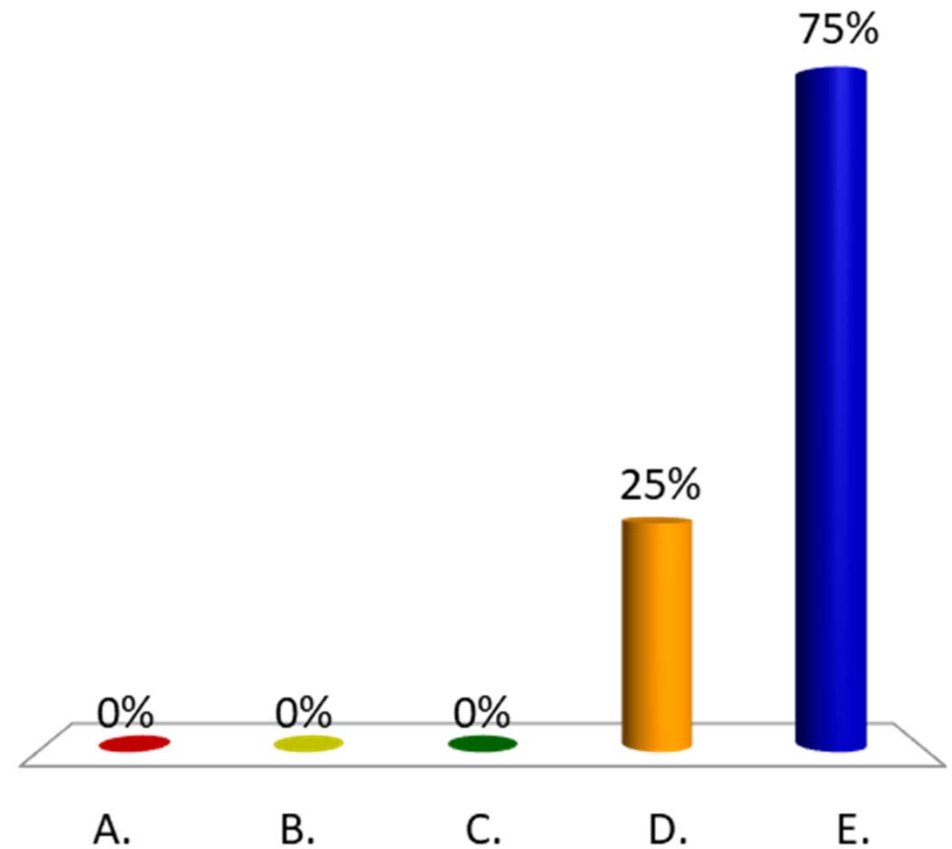
# How often do you use this segment of US Route 302?

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



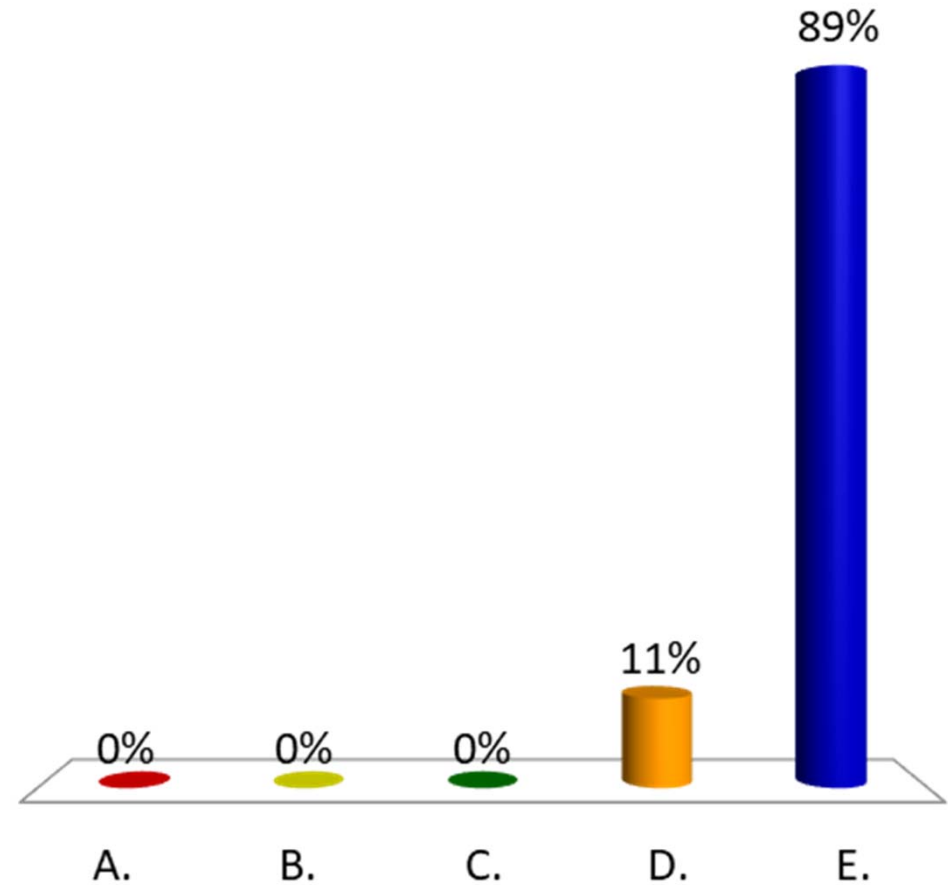
# How often do you walk over the bridge?

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



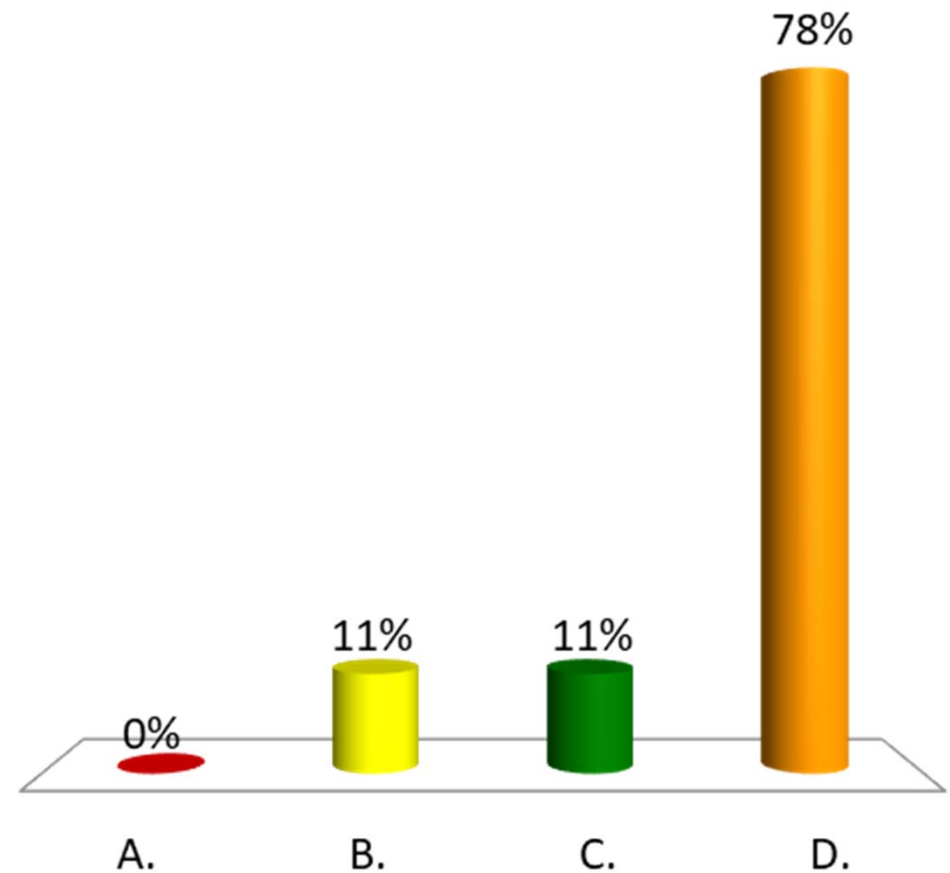
# How often do you bike over the bridge?

- 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

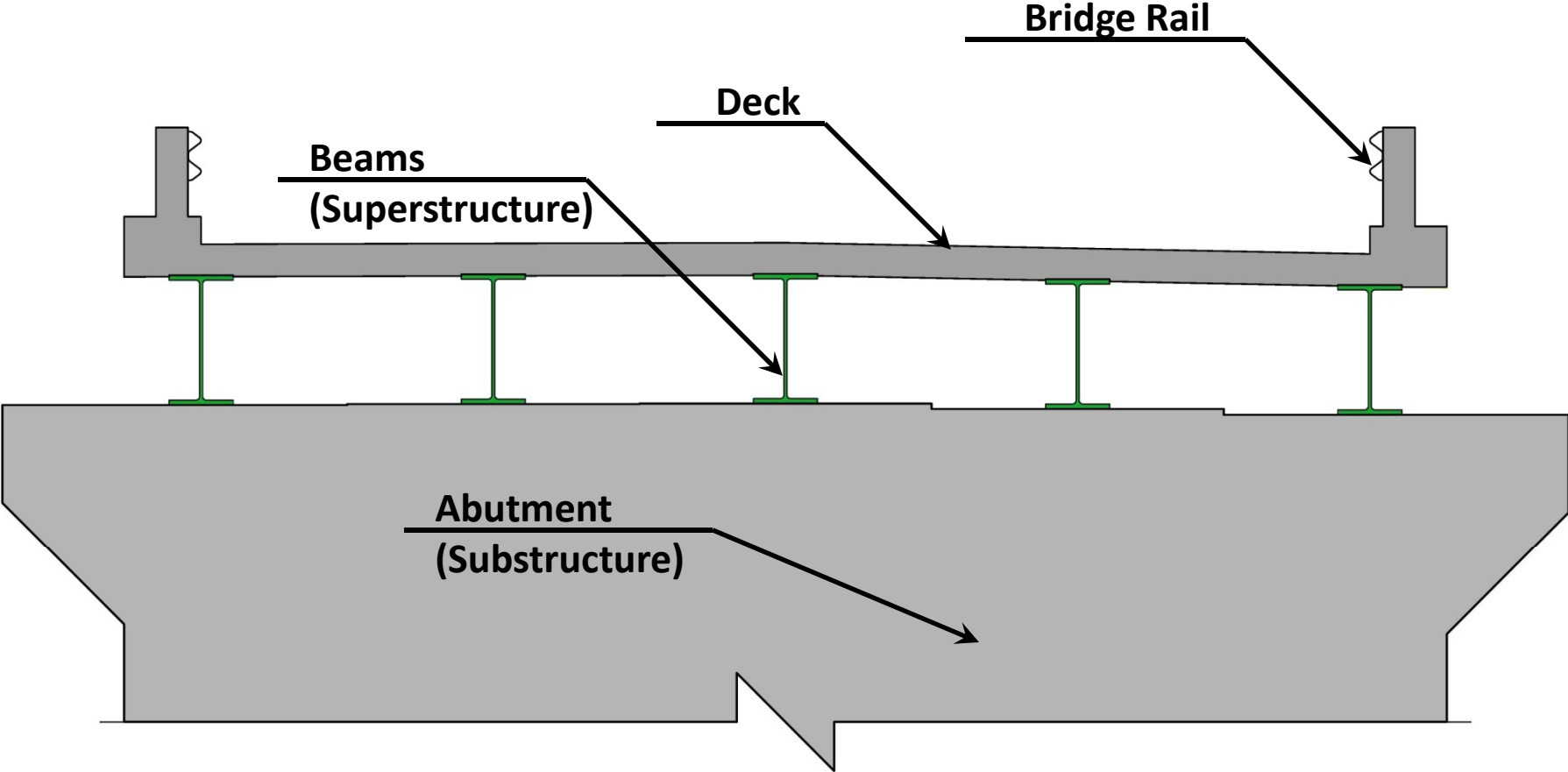




# Project Overview

- Existing Conditions
- Alternatives Considered
- Selected Alternative

# Description of Terms Used



**Cross Section of Bridge**

Looking East over Bridge



## Existing Conditions - Bridge #3

- Roadway Classification – Urban Principal Arterial
- Bridge Type – 60' Span Rolled Beam Bridge
- Ownership – State of Vermont
- Constructed in 1928

07/01/2016

## Bridge Deck



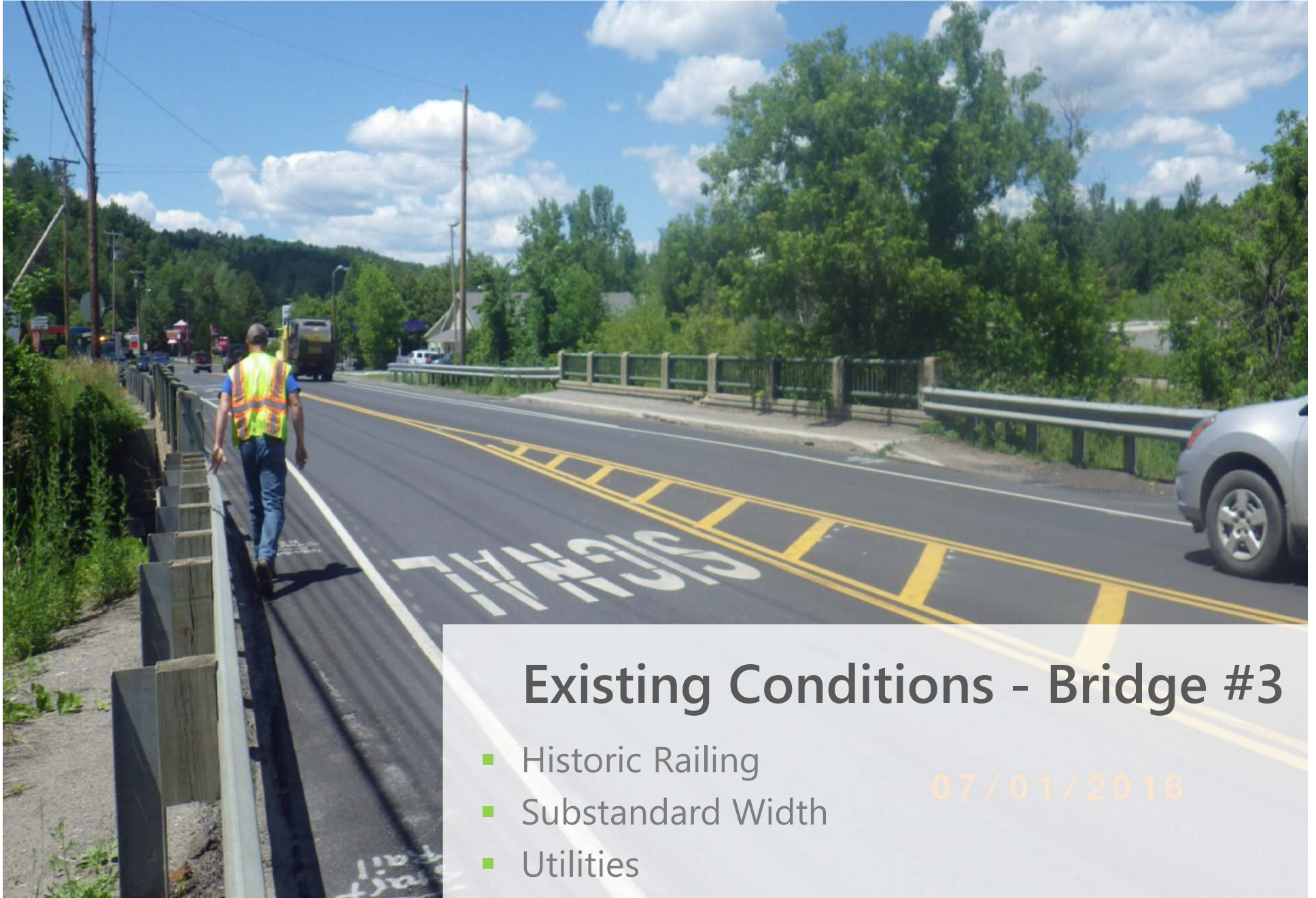
07/01/2016

### Existing Conditions - Bridge #3

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



Looking West Over Bridge

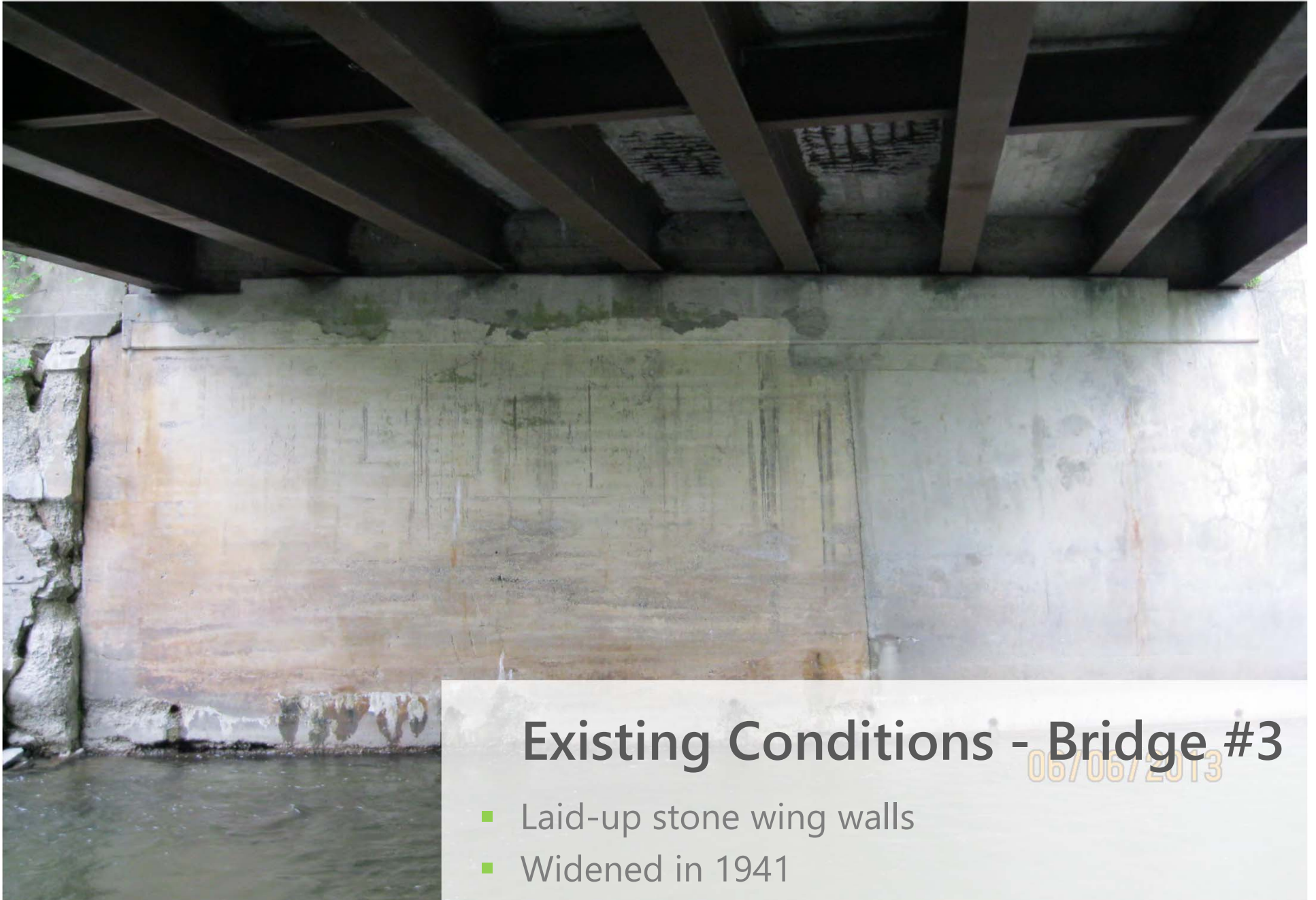


## Existing Conditions - Bridge #3

- Historic Railing
- Substandard Width
- Utilities

07/01/2016

## Western Abutment



### Existing Conditions - Bridge #3

- Laid-up stone wing walls
- Widened in 1941

06/06/2013



## Eastern Abutment



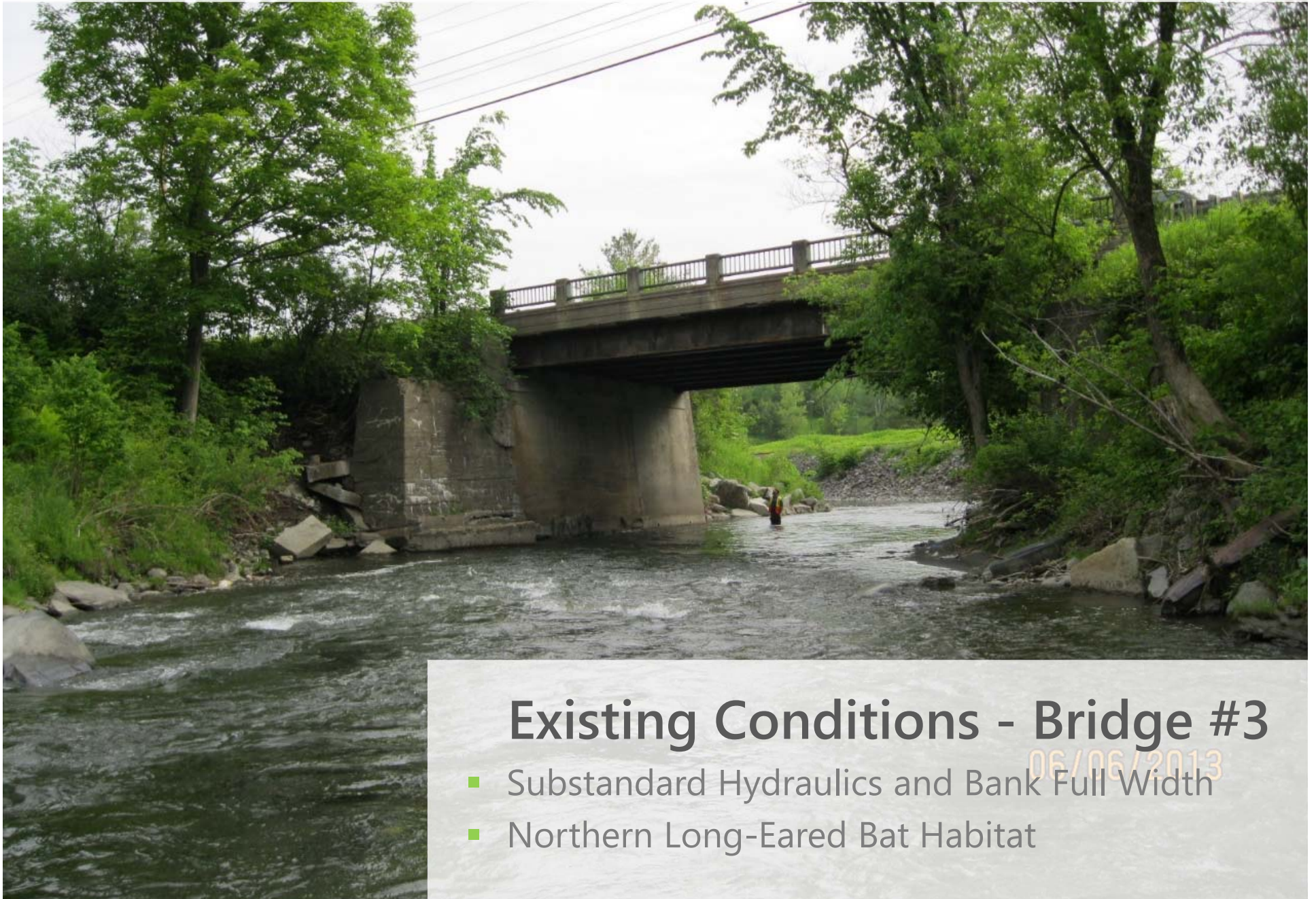
### Existing Conditions - Bridge #3

06/17/2015

- Partially laid-up stone
- Widened in 1941



## Resource Constraints

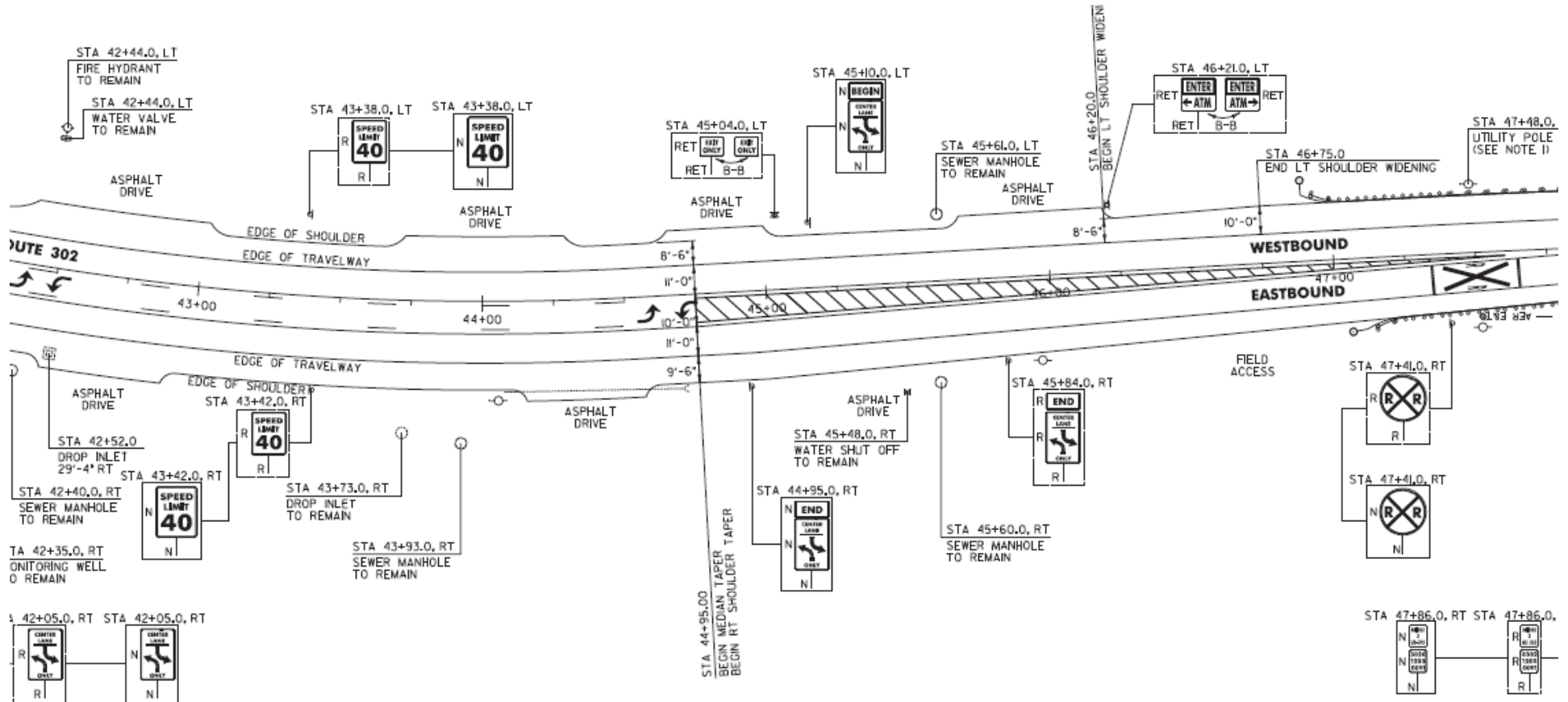


### Existing Conditions - Bridge #3

- Substandard Hydraulics and Bank Full Width
- Northern Long-Eared Bat Habitat

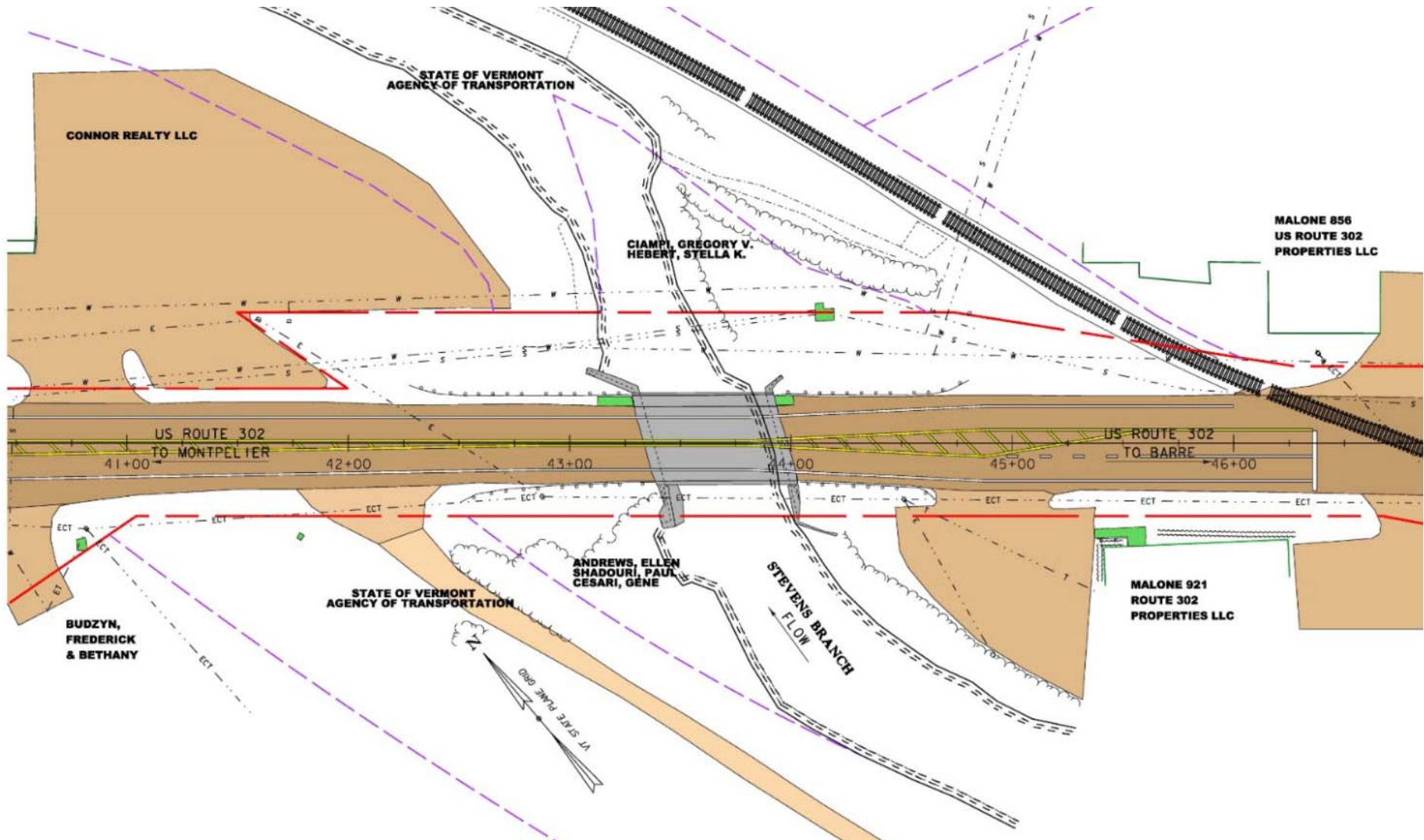
06/06/2013

# US Route 302 Typical Roadway Geometry





# Existing Conditions



# Design Criteria and Considerations

- ADT of 14,400
- DHV of 1,500
- % Trucks: 5.6
- Design Speed of 40 mph
- Utilities
- Area of significant commercial development



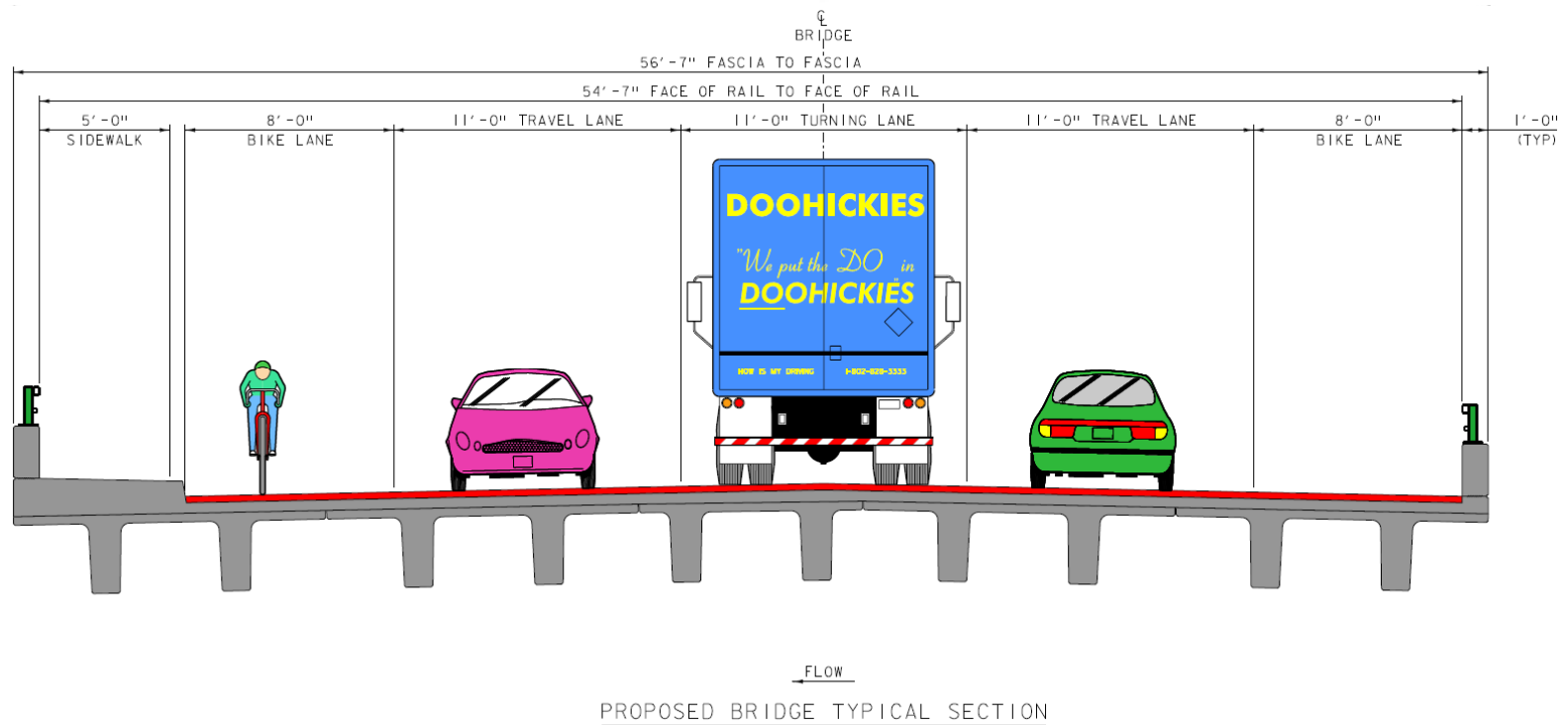
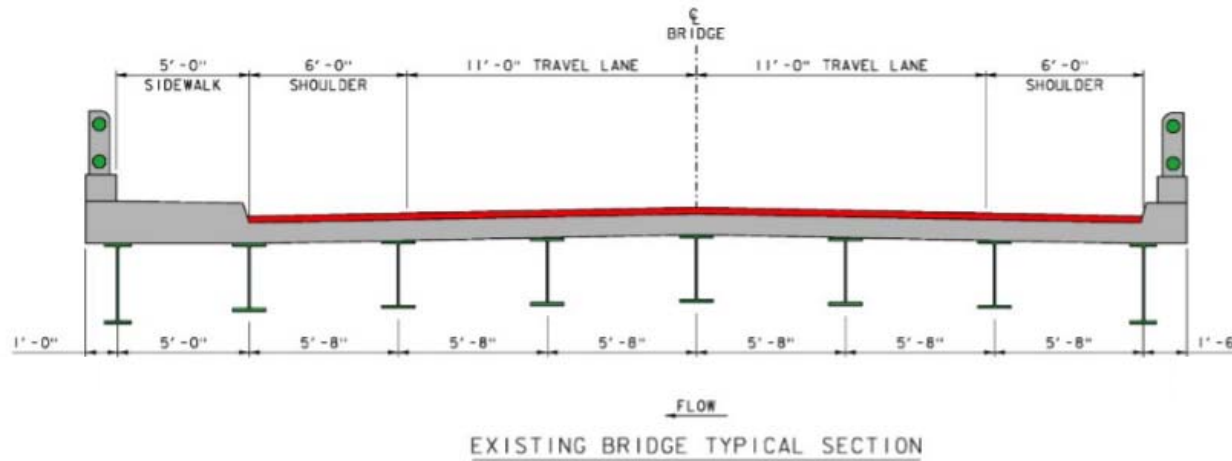
# Alternatives Considered – Bridge #3

- No Action
  - Additional maintenance required within 10 years
- Deck Replacement
  - Structural deficiencies would be addressed
  - Does not meet minimum roadway width or match the corridor (11'/5' Typical)
  - Sidewalk Eliminated
  - 40 year design life
  - Does not meet Hydraulic Requirements
- Superstructure Replacement
  - Structural deficiencies would be addressed
  - Does not meet minimum roadway width or match the corridor (11'/5' Typical)
  - Sidewalk Eliminated
  - 40 year design life
  - Does not meet Hydraulic Requirements
- Full Bridge Replacement
  - Widen to minimum standard matching corridor (5.5 sidewalk-8-11-11-11-8)
  - 80 year design life
  - Meets BFW, Does not meet Design Flood

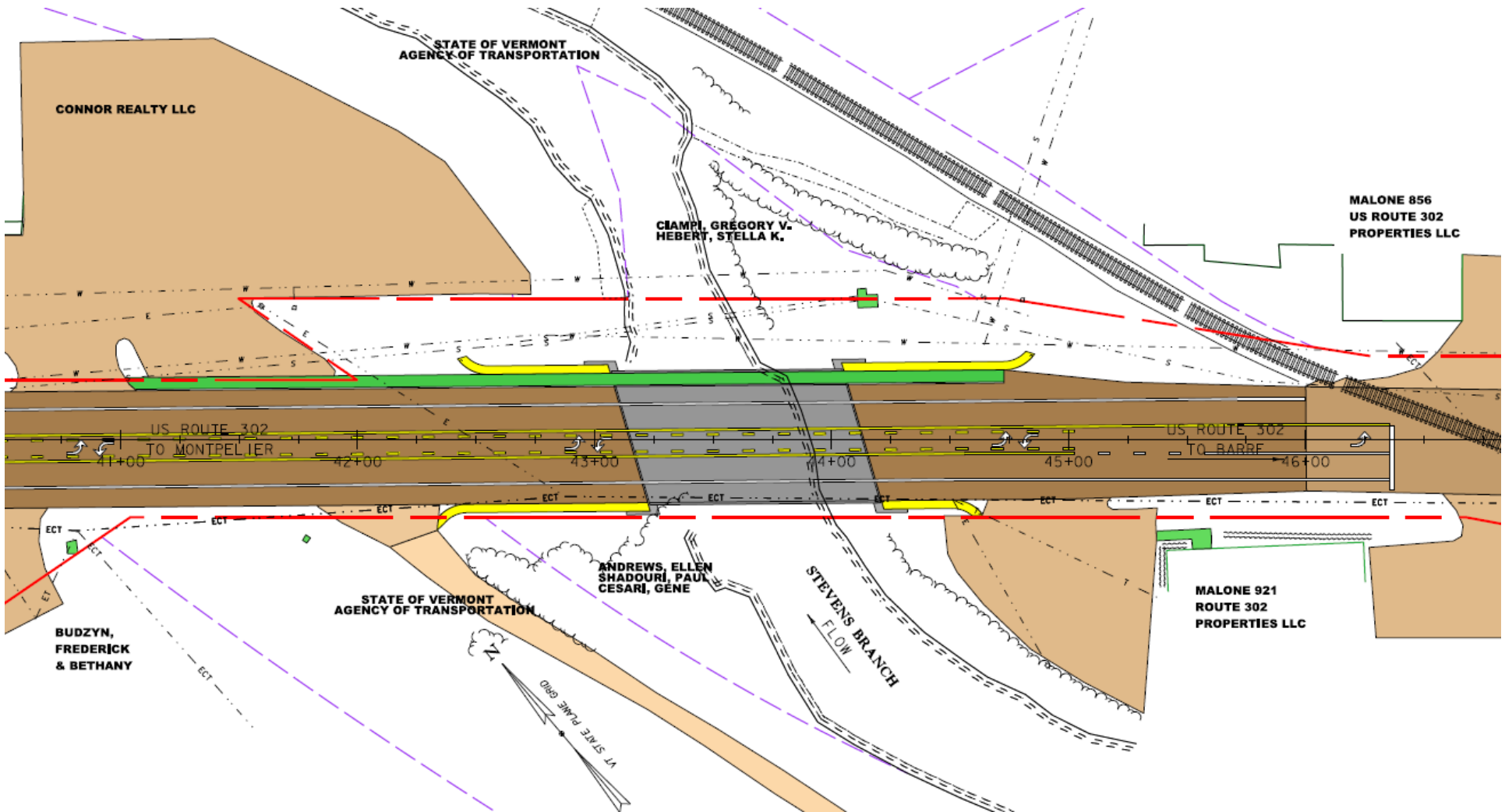
## Selected Alternative - Bridge #3

- Full Bridge Replacement
  - Hydraulics improved
  - Widen to minimum standard (11'/8') matching corridor
  - Sidewalk widened to meet ADA Standards
  - 80 year design life
  - Historic Documentation Required
  - Right-of-Way needed
  - Utility Relocation Needed

# Proposed Typical Section



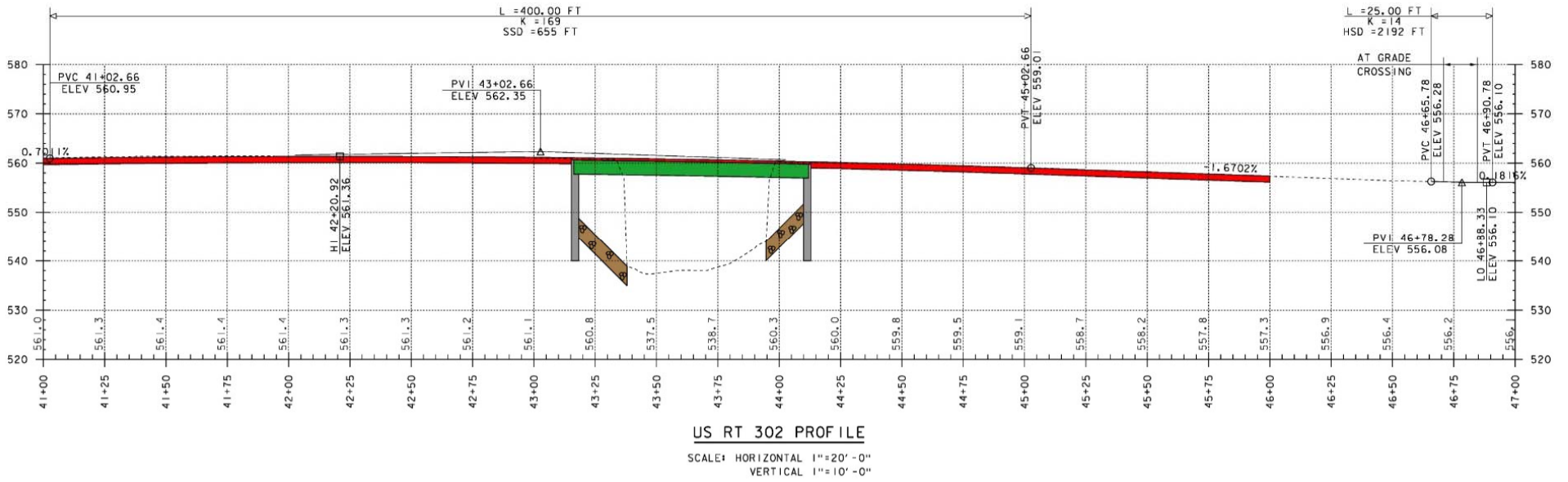
# Proposed Layout



## Full Replacement On Alignment - Bridge #3

- 11'8' typical, 80 year design life

# Proposed Profile





# Maintenance of Traffic Options Considered

- Offsite Detour
- Phased Construction
  - 3 Phases with two-way traffic
  - Long Construction Duration
- Temporary Bridge

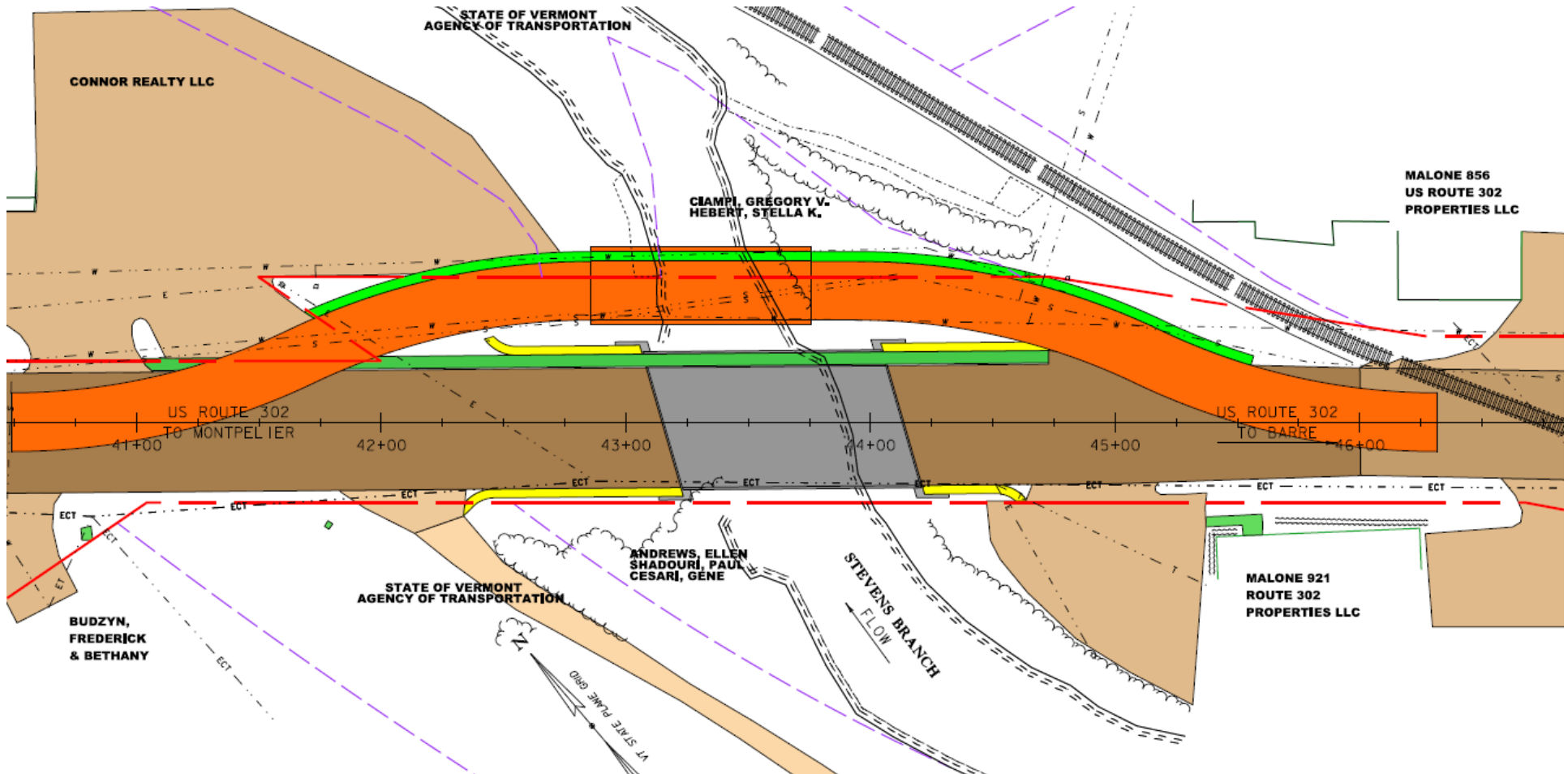
## Selected Maintenance of Traffic



### Temporary Bridge

- Two Lane Temporary Bridge with Sidewalk
- Placed on the downstream side
- Would require additional ROW acquisition

# Temporary Bridge Layout



## Temporary Bridge Option - Bridge #3

- Upstream temporary bridge has a greater impact to adjacent properties
- Downstream temporary bridge has a greater impact to utilities



# Downstream Temporary Bridge Location



## Temporary Bridge Option - Bridge #3

- Downstream temporary bridge has potential impact to utilities

# Preliminary Project Schedule

- Construction – Summer 2022 or 2023



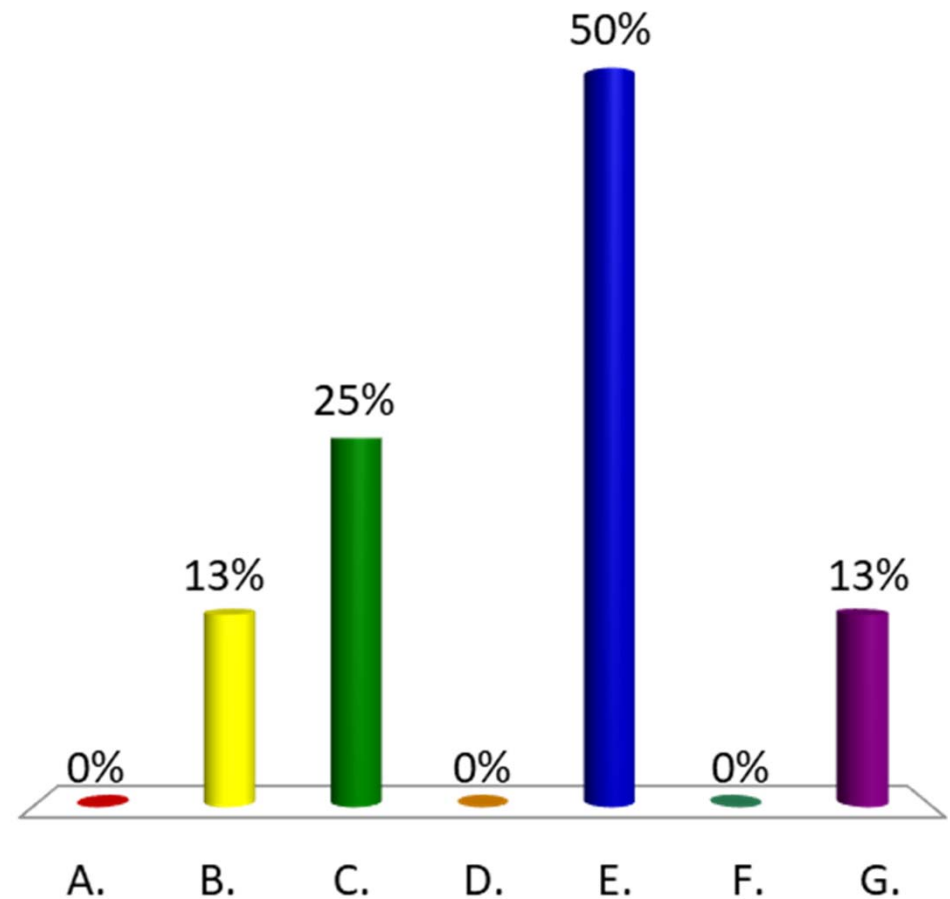
# Project Summary



- Full Bridge Replacement with Traffic Maintained on a Temporary Bridge
  - Hydraulics improved
  - Widen to minimum standard (11'/8') matching corridor
  - Sidewalk widened to meet ADA Standards
  - Two Lane Temporary Bridge with Sidewalk
  - Right-of-Way needed
  - Aerial Utility Relocation Needed
    - Underground utility relocation should be avoided

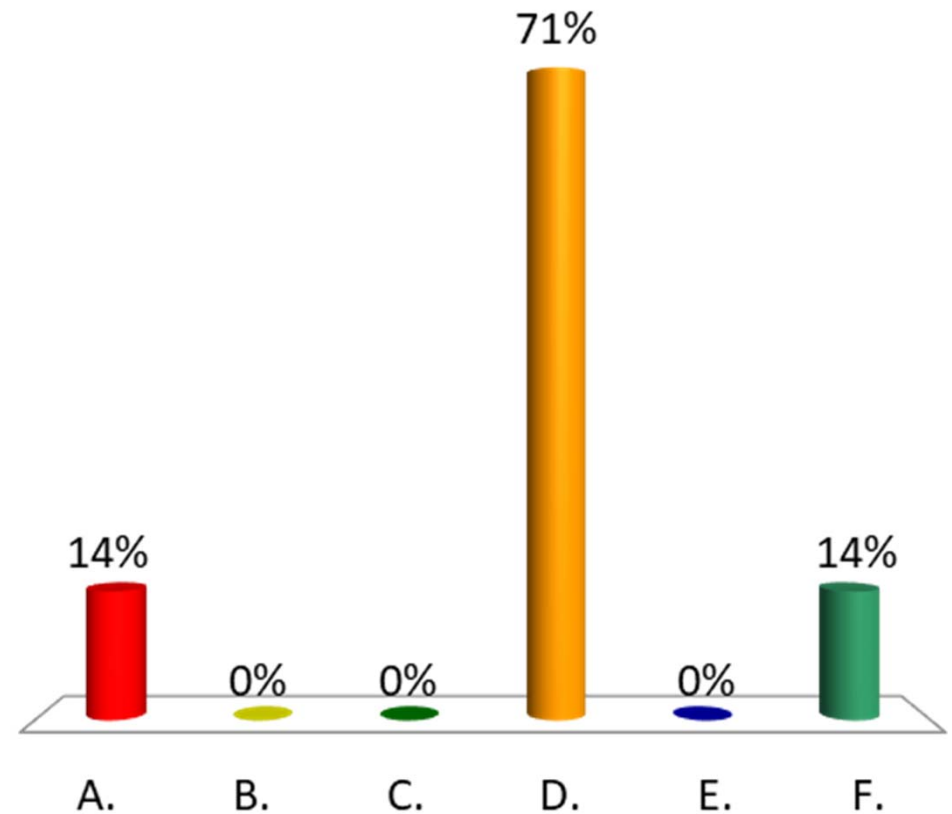
# Which would you be most concerned about?

- A. Bridge Aesthetics
- B. Environmental Impacts
- C. Business Impacts
- D. Recreational Impacts
- E. Traffic Impacts
- F. Other
- G. Not Really Concerned



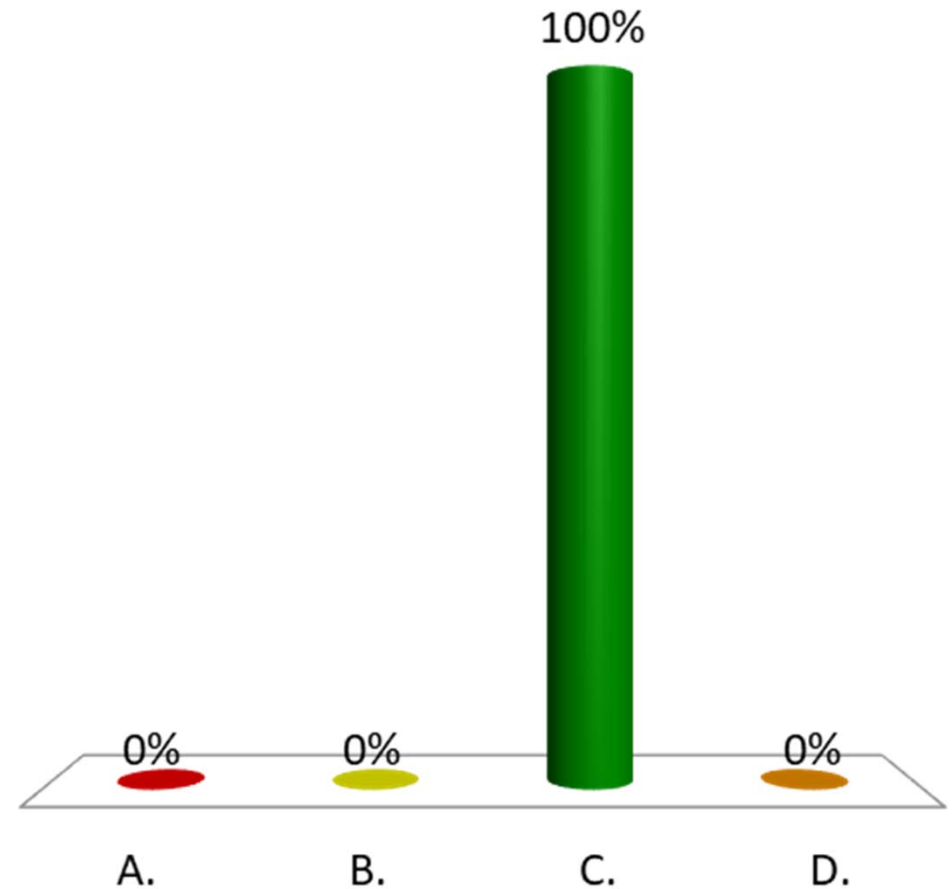
# Which design aspect is the most important to you?

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



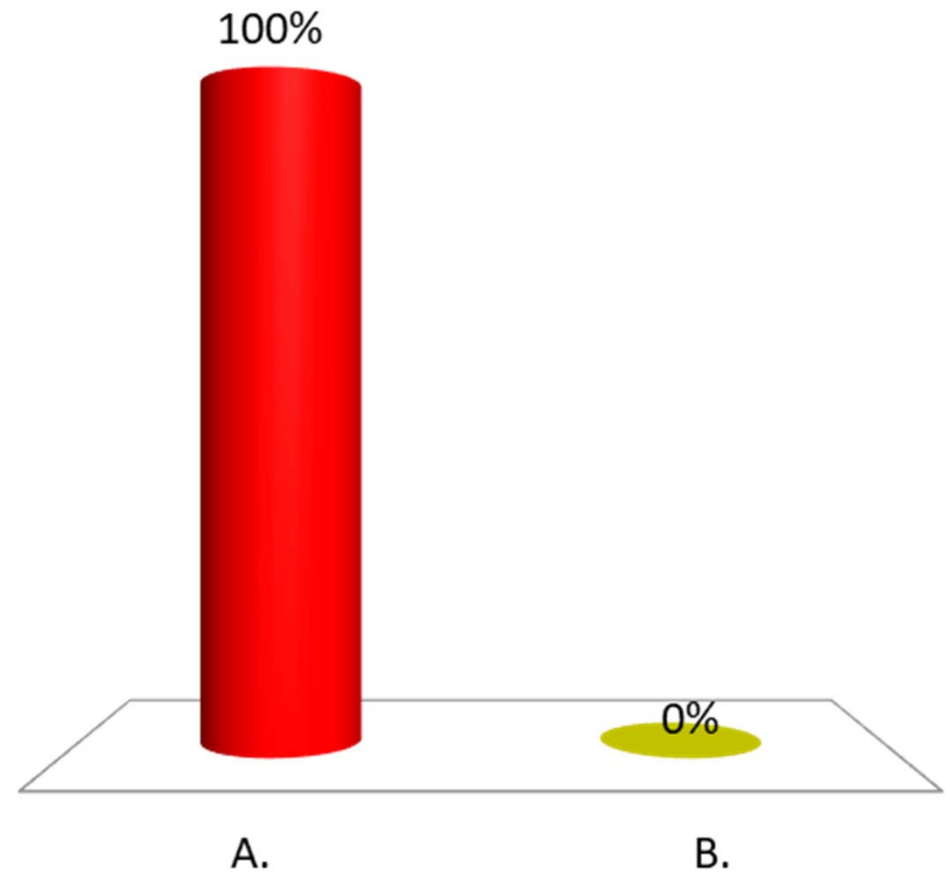
## Did you find this presentation to be?

- 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/13B254>



# Berlin BF 026-1(43) Questions and Comments US Route 302 – Bridge #3 over Stevens Branch

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