



**Irasburg STP DECK(50)
Regional Concerns Meeting**
VT Route 14 – Bridge #124 over Black River

November 25, 2020

06/14/2019 07:57

Introductions

JB McCarthy, P.E.

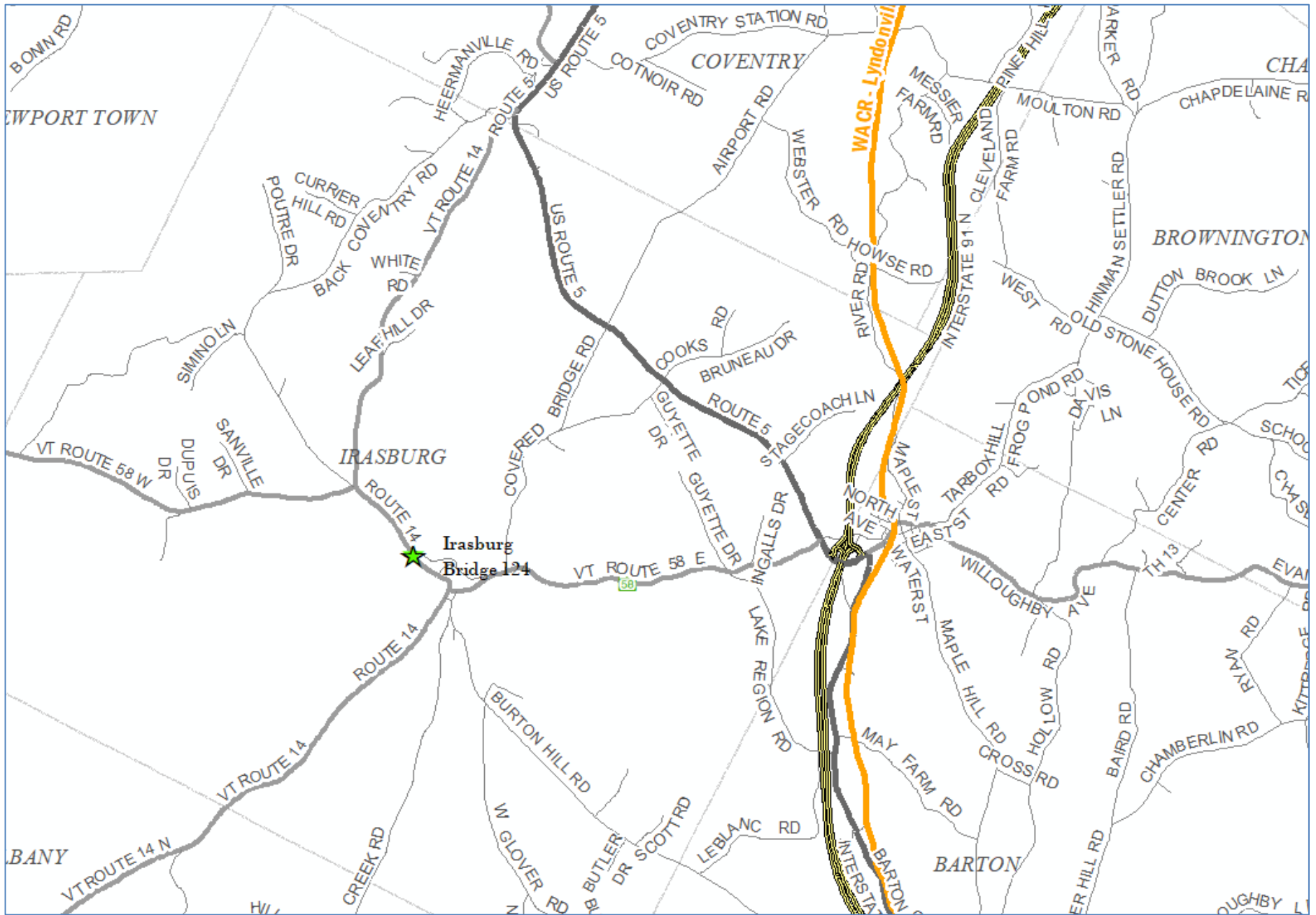
VTrans Project Manager

Laura Stone, P.E.

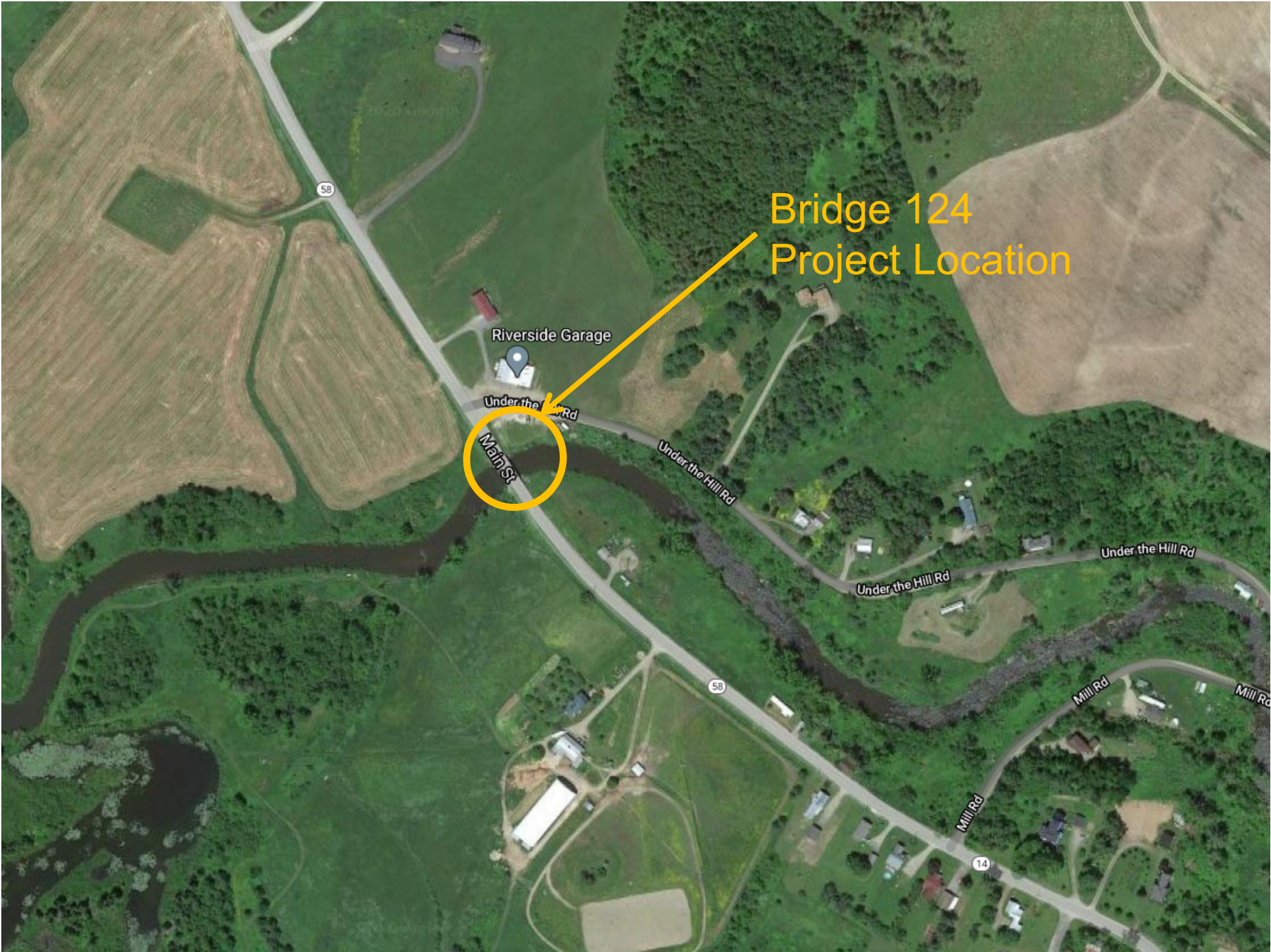
VTrans Scoping Engineer

Purpose of Meeting

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



Location Map



Bridge 124
Project Location

Main St

Riverside Garage

Under the Hill Rd

Under the Hill Rd

Under the Hill Rd

Under the Hill Rd

Mill Rd

Mill Rd

58

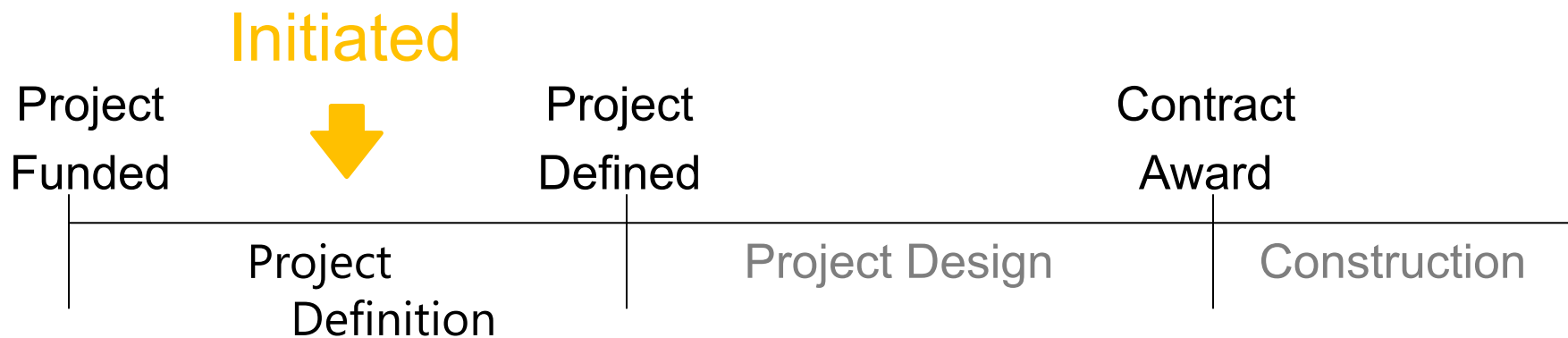
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Meeting Overview

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

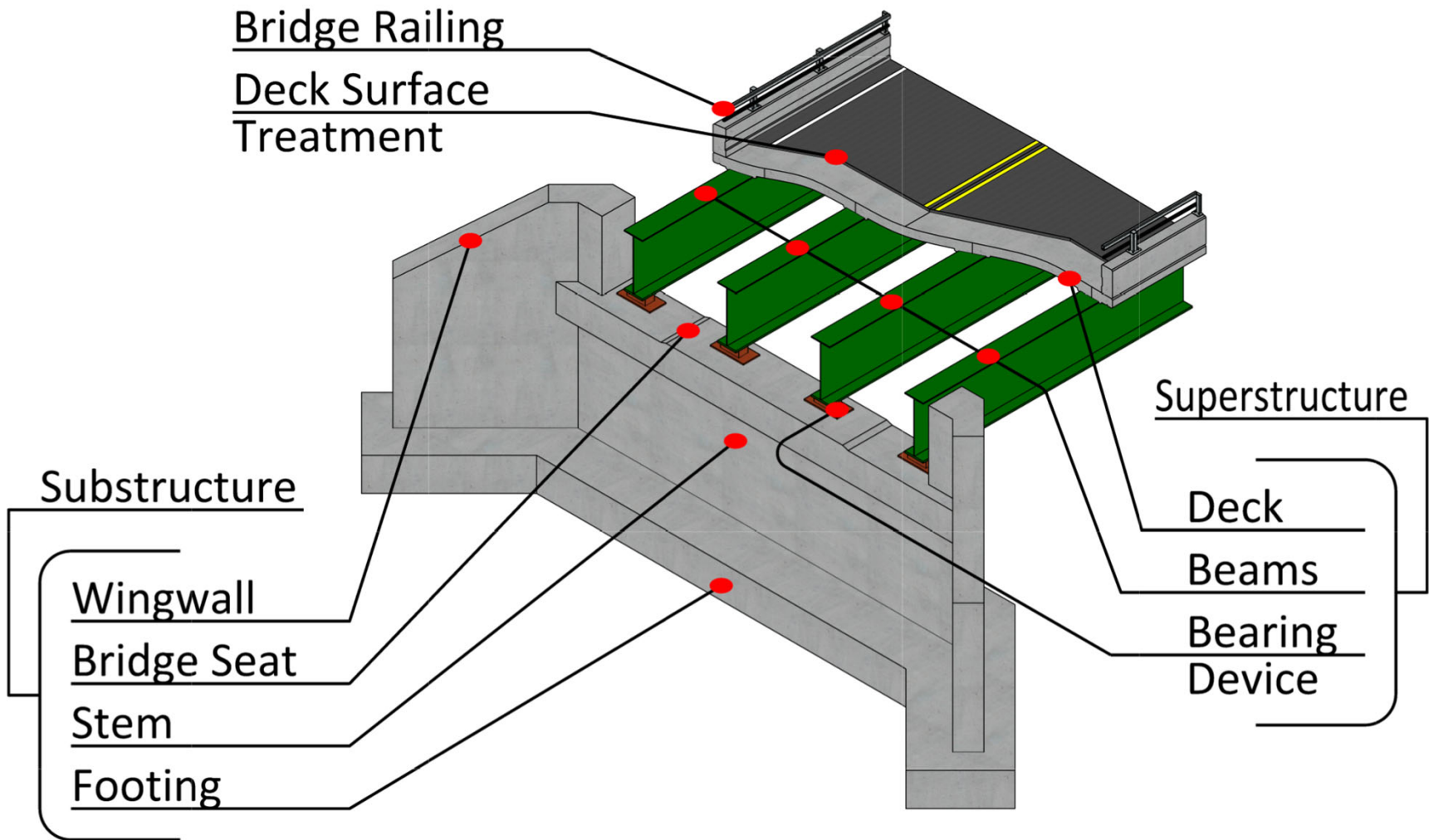
VTrans Project Development Process



- 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

Description of Terms Used



Looking North over Bridge 124



Existing Conditions – Bridge #124

- Roadway Classification – Major Collector
- Bridge Type – 85' Long, Single Span Rolled Beam Bridge
- Ownership – State of Vermont
- Constructed in 1939, Reconstruction in 1968

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Looking South over Bridge 124



Existing Conditions – Bridge #124

- Aerial Utilities

Existing Conditions – Bridge #124

- The reinforced concrete deck is in fair condition.
 - Multiple areas with delaminations with efflorescence leakage and saturation.
 - Minor map cracking and saturation is present in various areas around the deck.
 - Compromised membrane
 - Both the upstream and downstream fascias are in poor condition with spalling and delaminations along the entire length. Spalling has exposed longitudinal and transverse bars with rust scaling and are starting to thin.

- The bridge is narrow.

Condition Ratings

Existing Conditions - Bridge #124

- Deck Rating 5 (Fair)
- Superstructure Rating 7 (Good)
- Substructure Rating 7 (Good)

06/14/2019 07:44

Fascia



06/14/2019 07:46

Existing Conditions - Bridge #124

Southern Abutment



Existing Conditions - Bridge #124

- Laid up stone blocks

06/14/2019 07:48

Northern Abutment



Existing Conditions - Bridge #124

- Laid up stone blocks

06/14/2019 08:07

Underside of Deck



06/14/2019 07:50
Existing Conditions - Bridge #124

- Saturation and fine map cracking

Underside of Deck



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Existing Conditions - Bridge #124

- Saturation and fine map cracking

Bridge Seat



06/14/2019 08:06

Existing Conditions - Bridge #124

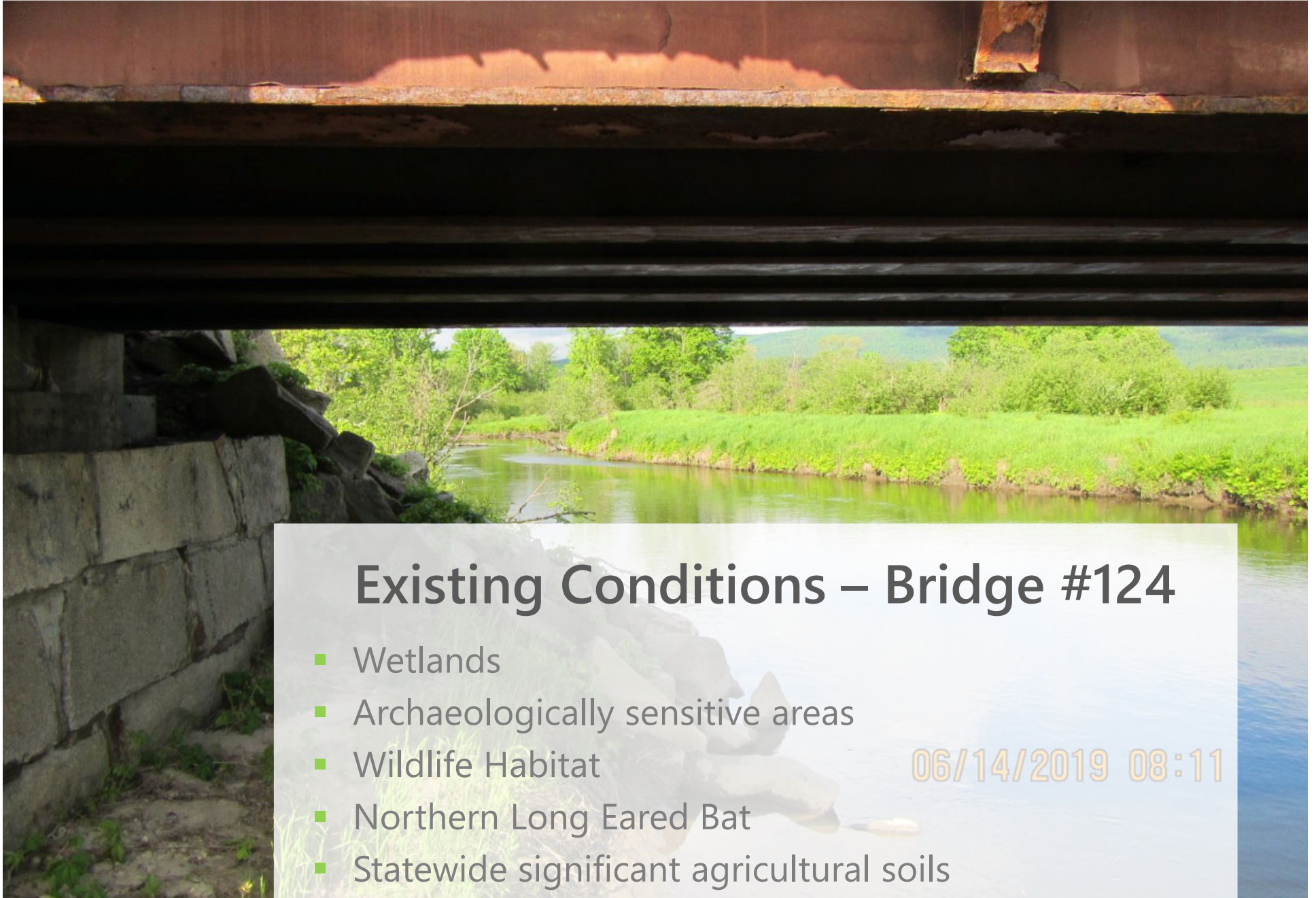
Wearing Surface



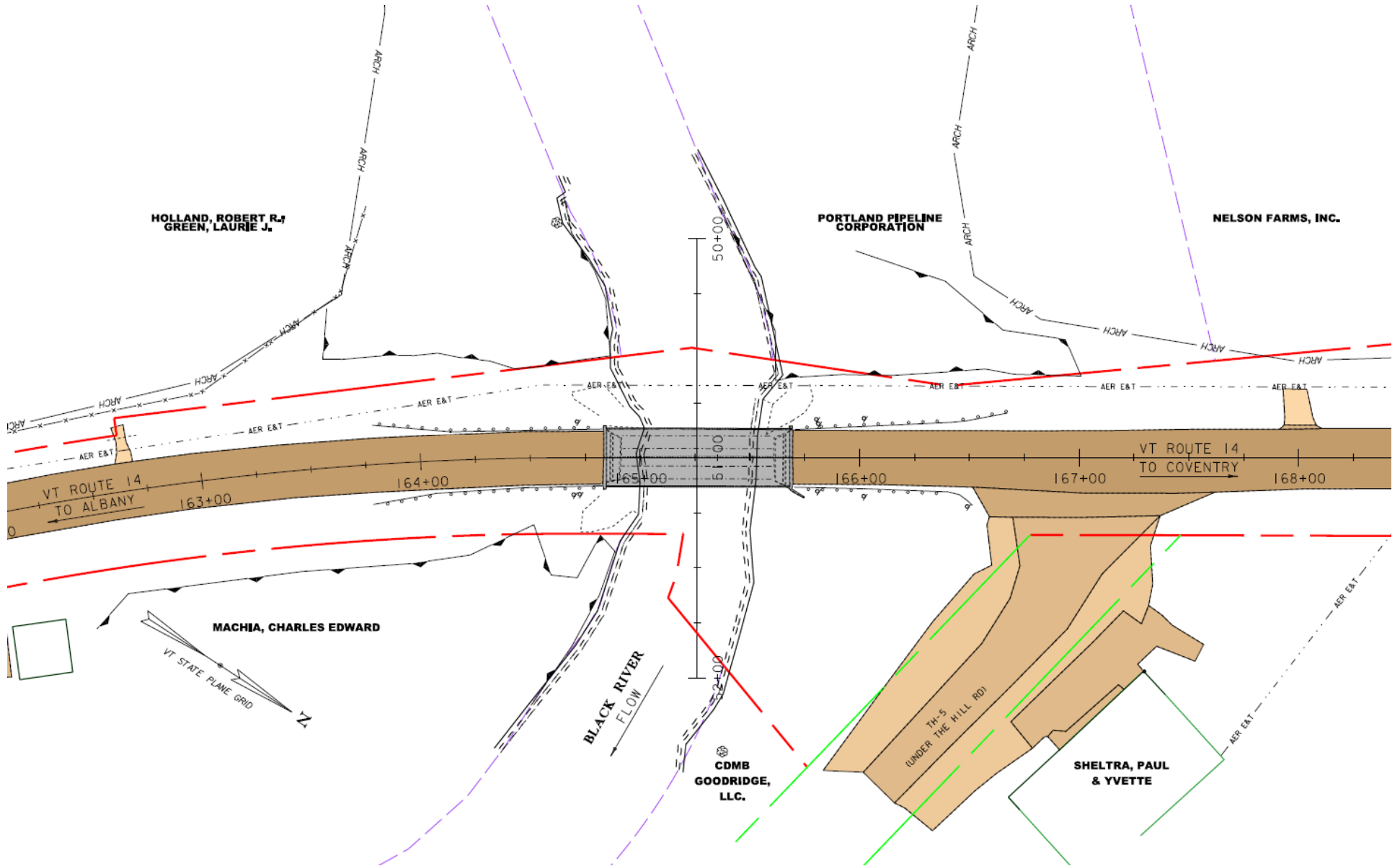
06/14/2019 08:00
Existing Conditions - Bridge #124

- Potholes

Resources – Looking Upstream from Bridge 124



Existing Conditions



Design Criteria and Considerations

- Average Daily Traffic
 - 3,000 vehicles per day
- Design Hourly Volume
 - 350 vehicles per hour
- % Trucks
 - 17.9%

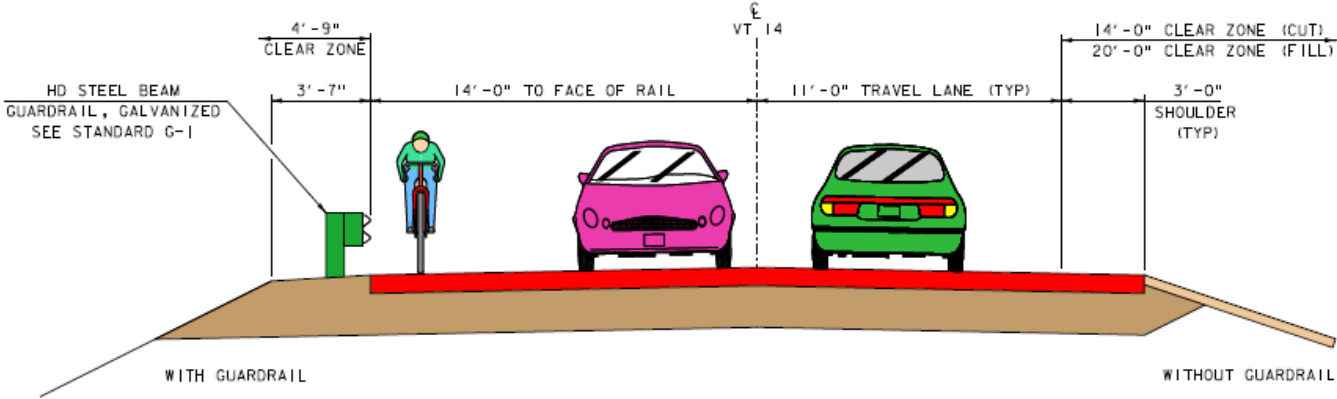
Alternatives Considered – Bridge #124

- No Action
 - Additional maintenance required within 10 years
- Minor Rehabilitation
 - Concrete repair
 - 11’/2’ typical
 - 20-year design life
- Deck Replacement
 - New deck and bridge railing
 - 11’/3’ typical
 - 50-year design life

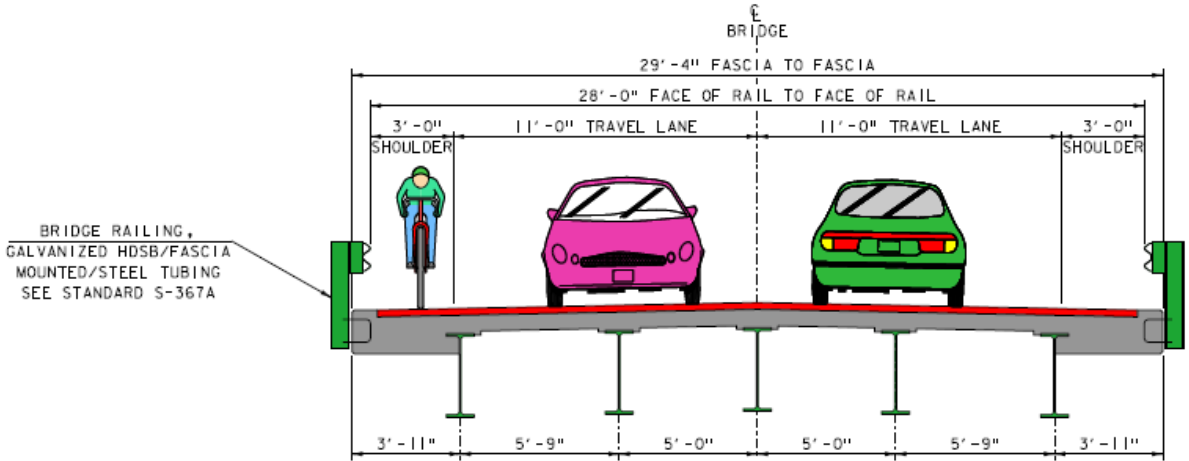
Selected Alternative - Bridge #124

- Deck Replacement
 - Replace the existing deck and railing
 - Widen to 11'3' typical section
 - Does not meet minimum standard of 11'4'
 - 50-year design life
 - No Right of Way Needed

Proposed Typical Section



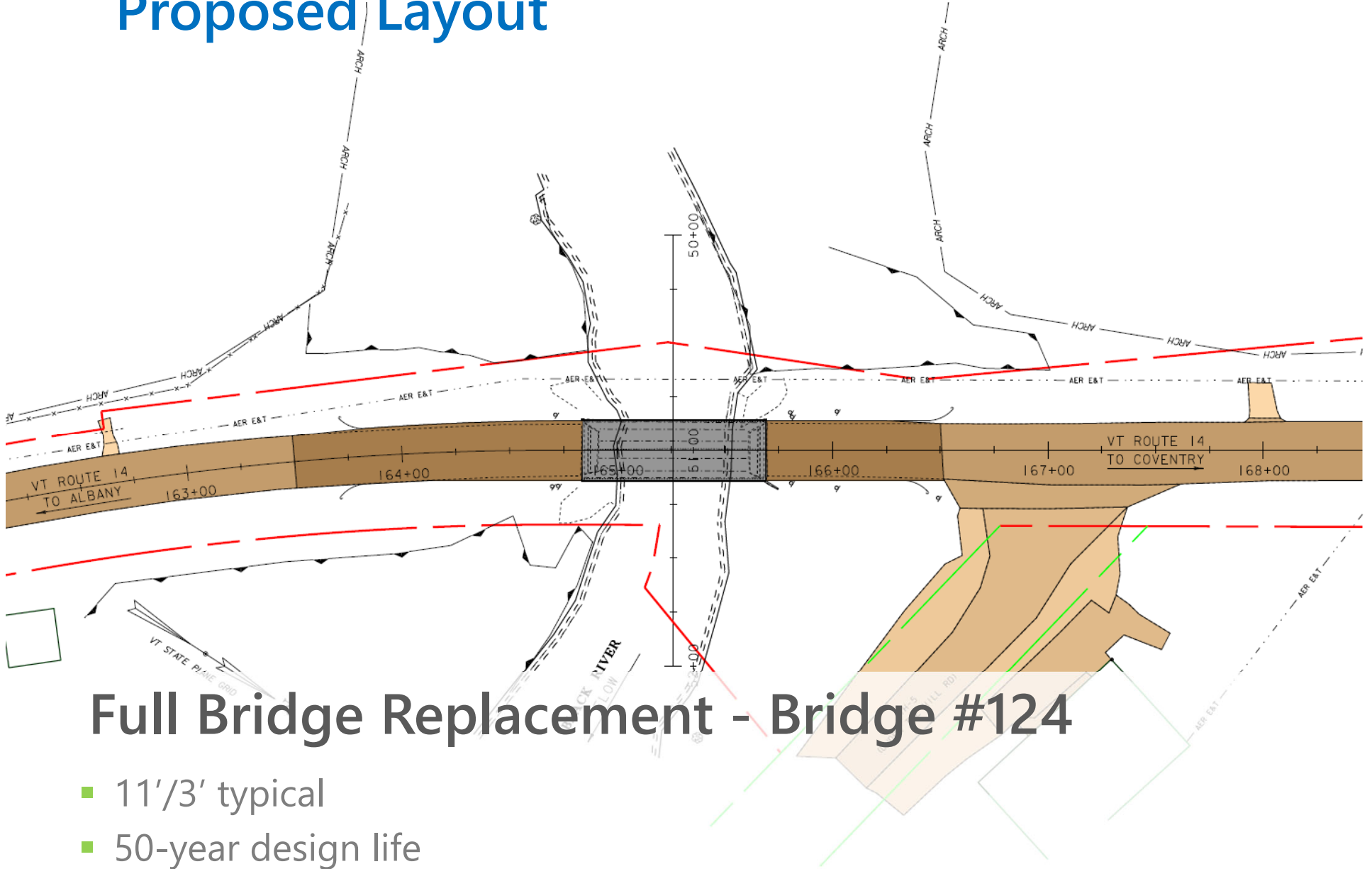
PROPOSED VT ROUTE 14 TYPICAL SECTION



FLOW

PROPOSED BRIDGE TYPICAL SECTION

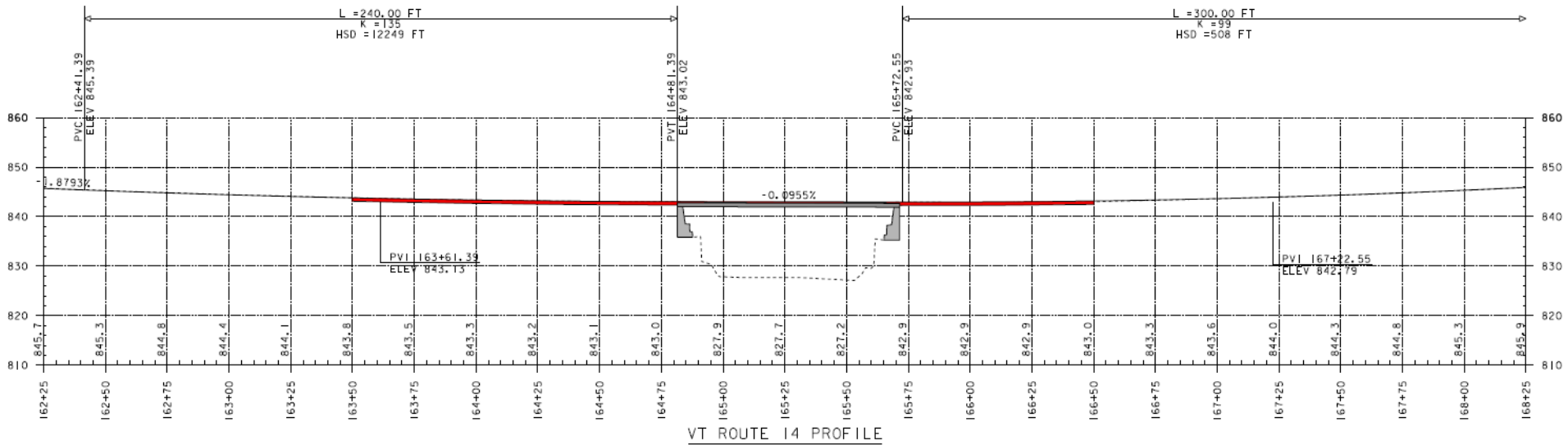
Proposed Layout



Full Bridge Replacement - Bridge #124

- 11' 2/3' typical
- 50-year design life

Proposed Profile



Full Bridge Replacement- Bridge #124

- Match Existing vertical alignment

Maintenance of Traffic Options Considered

- Offsite Detour
- Temporary Bridge
- Phased construction

Selected Method of Traffic Maintenance

A photograph of a road closure barrier. The barrier consists of several horizontal white panels with red diagonal stripes. A central white sign with a black border and the words 'ROAD CLOSED' in large, bold, black capital letters is mounted on two white posts. The background shows a concrete curb, a chain-link fence, and green trees under a clear sky.

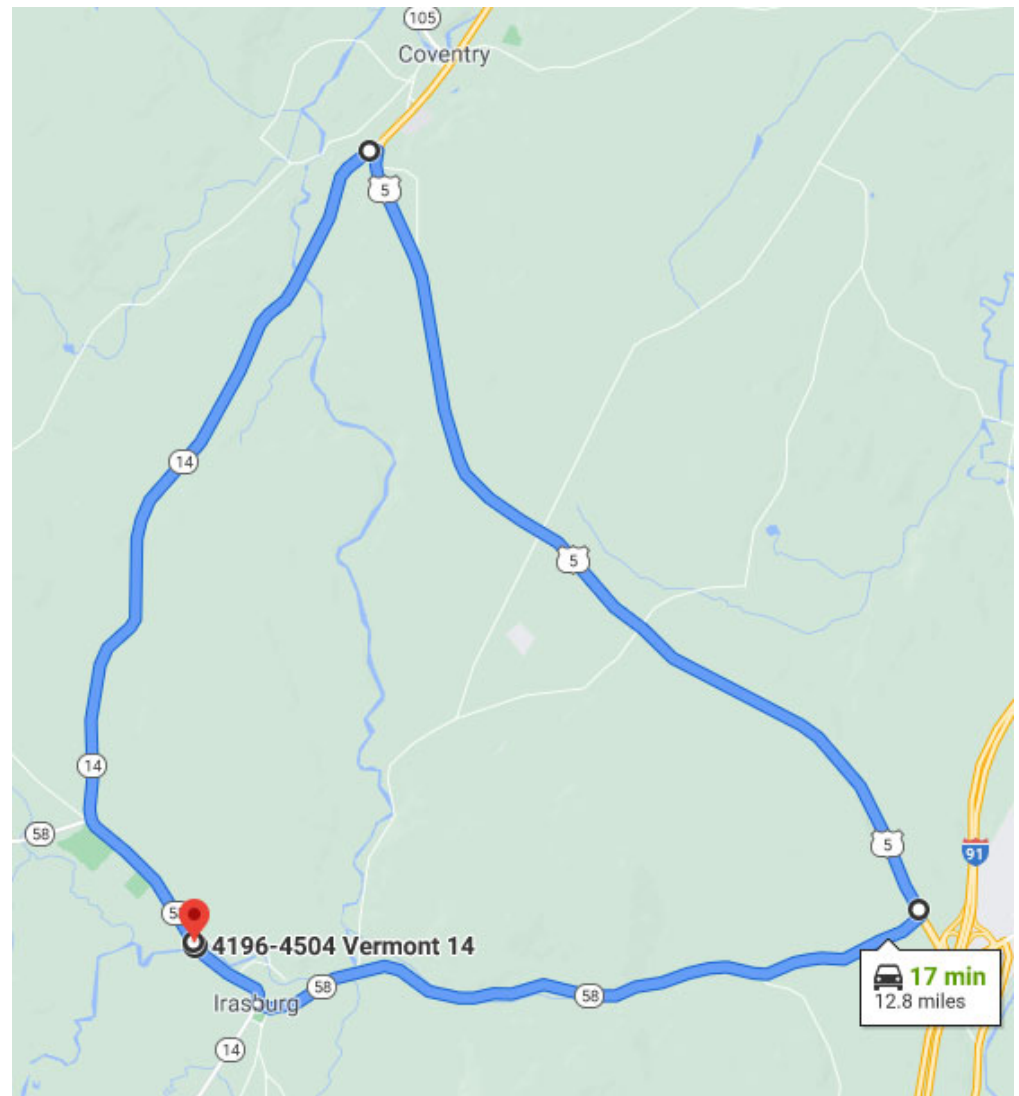
**ROAD
CLOSED**

Road Closure

- Detour chosen and signed by State
- 30-day closure
- 12.8 miles end-to-end
- Local Bypass route available

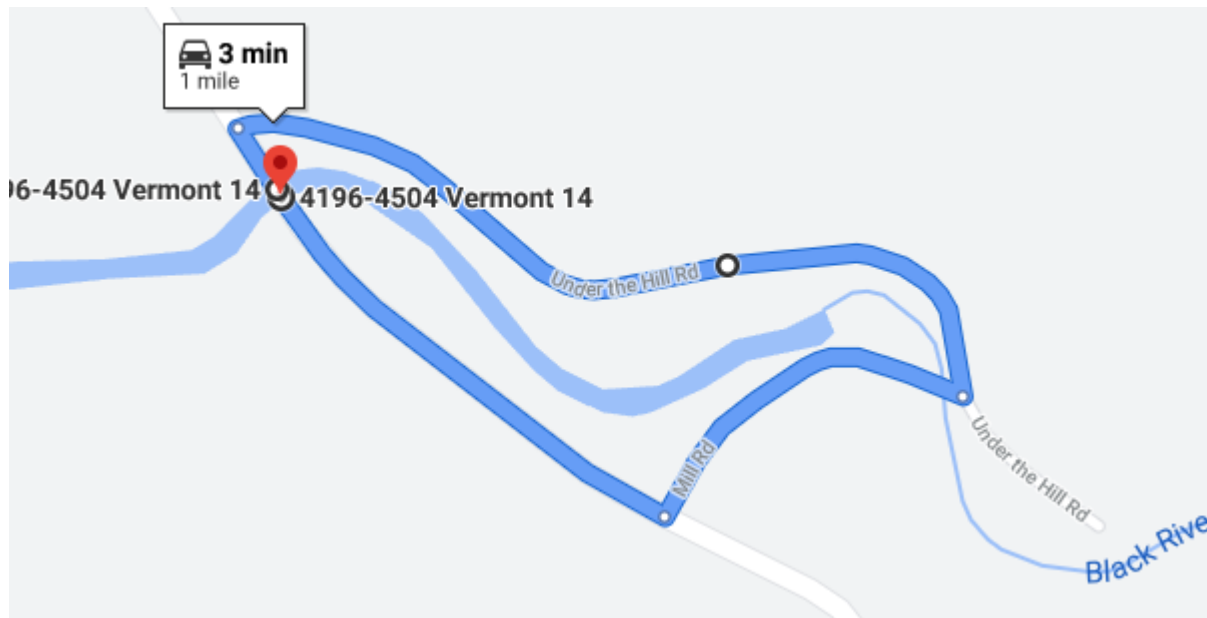
Traffic Control – Regional Detour

- **Regional Detour Route:** VT Route 14, to US Route 5, and VT Route 58, back to VT Route 14.
 - End-to-End Distance: 12.8 miles
 - Through Distance: 4.8 miles
 - Detour Distance: 8.0 miles
 - Added Distance: 3.2 miles



Traffic Control – Local Bypass

- **Local Bypass Route:** VT Route 14, to Under the Hill Road, and Mill Road, back to VT Route 14.
 - End-to-End Distance: 1.0 miles
 - Through Distance: 0.3 miles
 - Detour Distance: 0.7 miles
 - Added Distance: 0.4 miles



Preliminary Project Schedule

- Construction Start – Summer 2023
 - Total Cost Estimate: \$750,000

Project Summary: Bridge 124

- Deck Replacement with Traffic Maintained on Offsite Detour
 - 30-day bridge closure
 - Replace the existing deck and railing
 - Widen to 11'²/₃' typical section
 - Does not meet minimum standard of 11'¹/₄'
 - 50-year design life
 - No Right of Way Needed
 - Impacts to wetlands and limits outside ROW avoided

For more information:

- <https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/19B217>



Irasburg STP DECK(50) Questions and Comments

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