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VERMONT

AGENCY OF TRANSPORTATION

Wilmington BF 010-1(58)
Alternatives Analysis Meeting
Bridge No. 31 (VT Route 9) over the
Deerfield River
December 2025

Introductions



Jamie Roy, P.E.

VHB Project Manager

Nina Truslow, P.E.

VHB Project 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*

Project Location Map

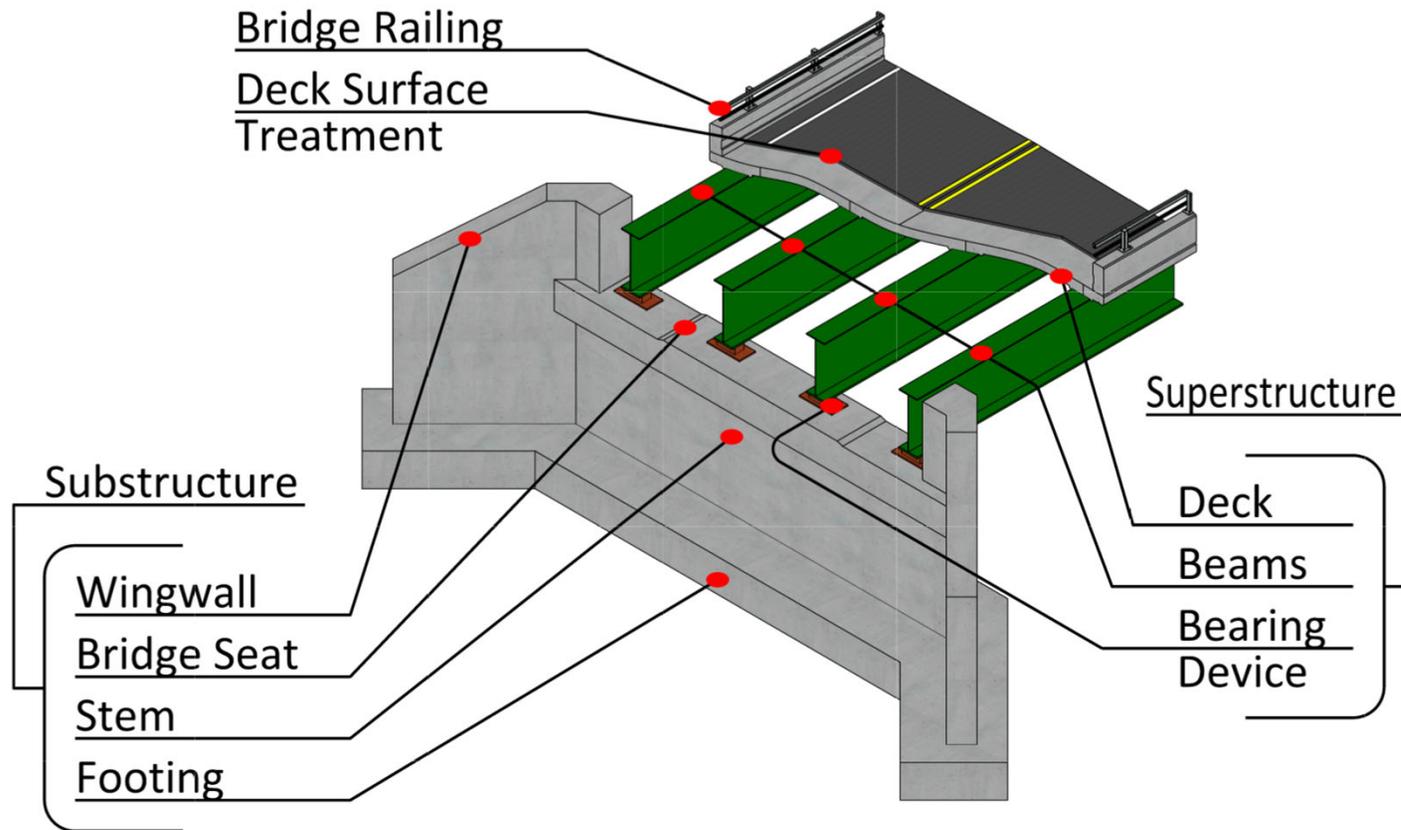


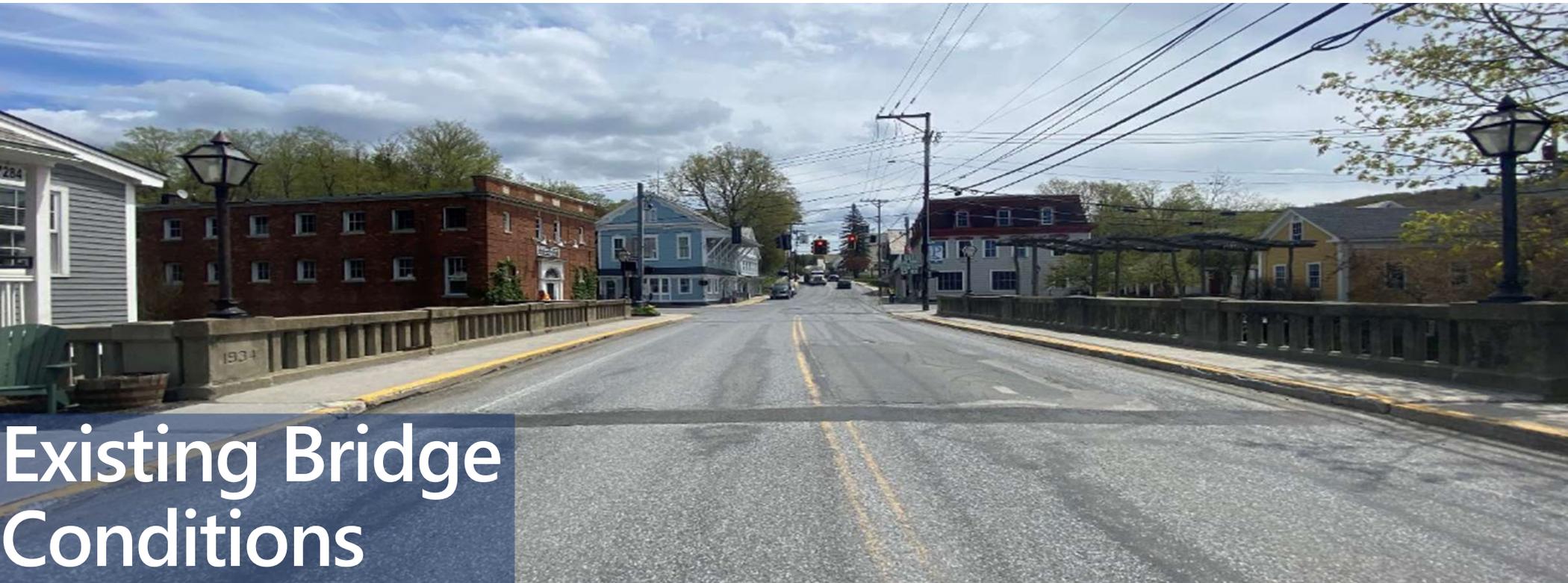
Project Development Process

- Scoping & Conceptual Design – **Wrapping Up**
 - Site Visit - **Complete**
 - Stakeholder and Community Engagement - **Ongoing**
 - ❖ Regional and Local Concerns Meeting - **Complete**
 - Alternatives Evaluation - **Complete**
 - ❖ Alternatives Presentation - **Today**
 - Draft Scoping Report - **Complete**
- Preliminary Design
- Final Design
- Construction



Description of Terms Used





Existing Bridge Conditions

- *The bridge Deck and Superstructure are in **Poor Condition***
- *The Substructure is in **Fair Condition***
- *Multiple temporary repairs have been completed*
- *The bridge is on an increased inspection frequency (12-month)*

Full Depth Hole and 10 Severed Transverse Bars in Bay 4 at Midspan on the West End



EXISTING CONDITIONS – BRIDGE 31

Corroded Bars and 2 Severed Stirrups on Beam 6 at Midspan



EXISTING CONDITIONS – BRIDGE 31



Bay 4 over Abutment 1



Steel Plate installed over Bay 4 at Midspan

- *Recent surficial and full-thickness concrete deck repairs have been completed in response to advancing holes in the deck*
- *Steel plates have been installed on top of deck*

Design Criteria and Considerations

1. *Historic Integration & Section 4(f)*
2. *Hydraulics & Resilience*
3. *Mobility and Traffic*
4. *Utilities*



Community Input

Takeaways from June 2024 Local Concerns Meeting and October 2024 Business Mixer

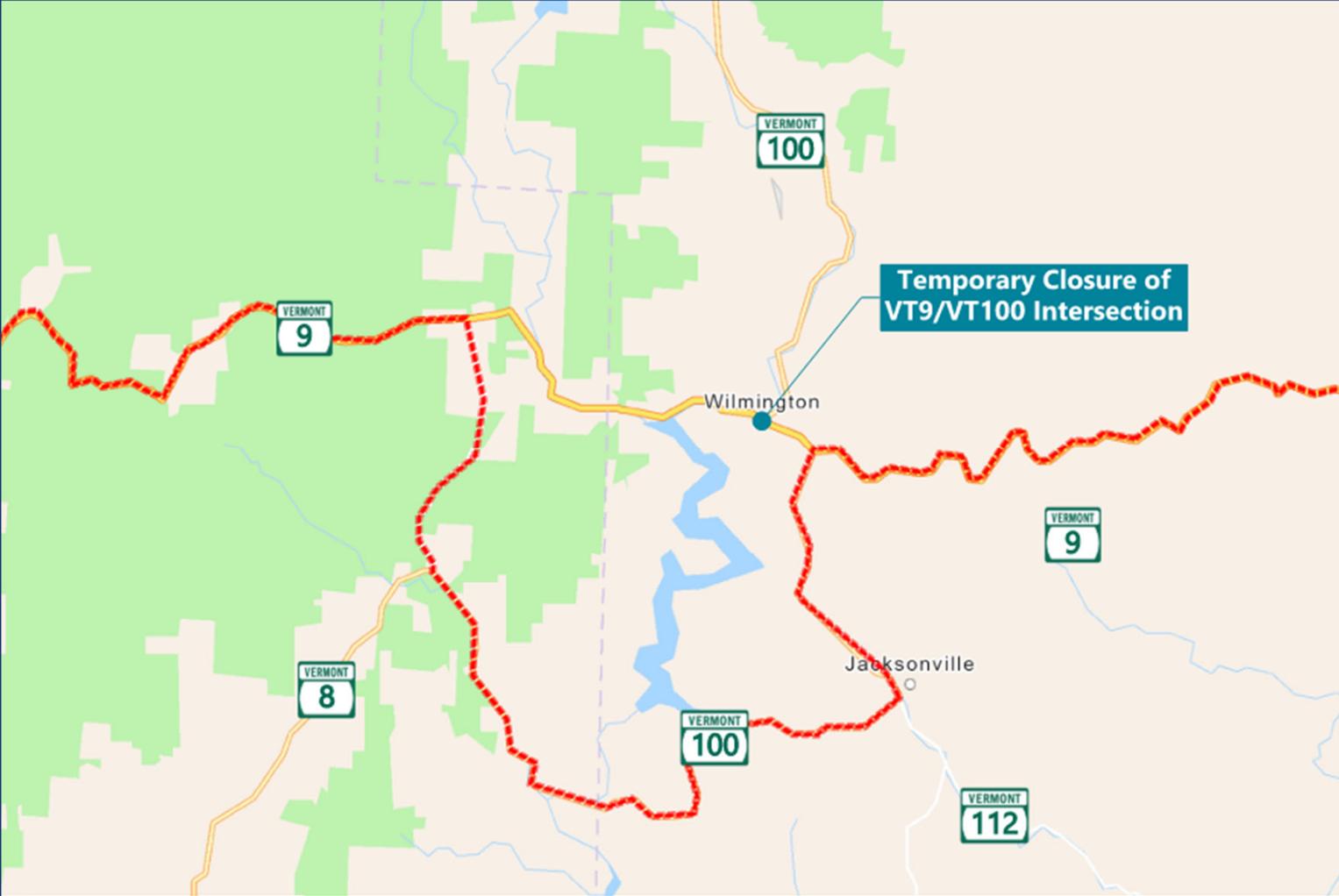
- *Accelerated construction is preferred*
- *April to mid-June best for closure to avoid disruptions during peak tourist seasons*
- *Maintaining bicycle and pedestrian traffic during construction is a major concern as pedestrian traffic is vital to downtown businesses*
- *Preference is to maintain traffic as close as possible to downtown.*
- *Maintaining downtown parking is of importance*

Maintenance of Vehicular Traffic Alternatives:

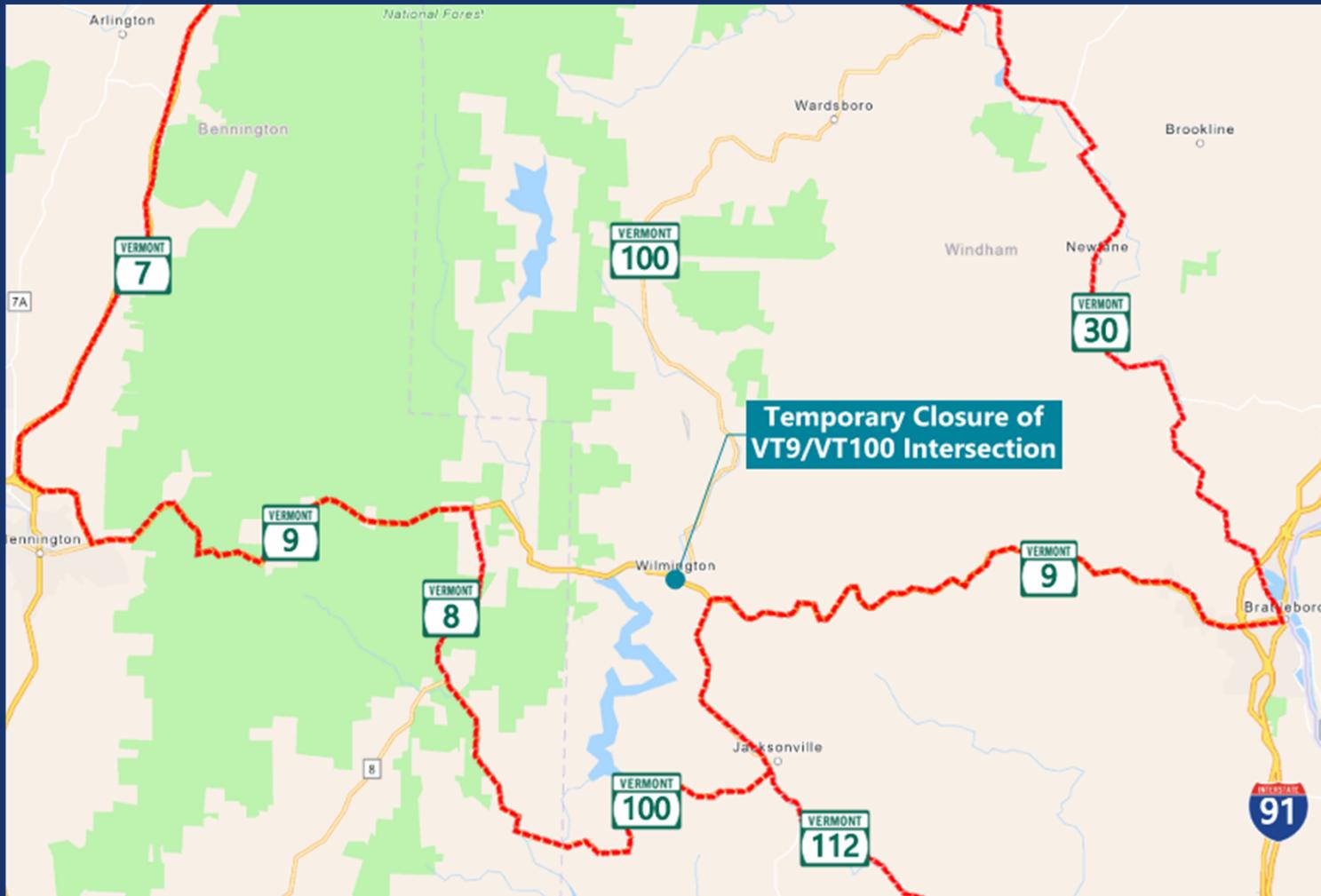
- *Off Site Detour*
- *Temporary Bridge*
- *Phased Construction*
- *Maintain Traffic on Existing Bridge and Construct New Bridge Off-Alignment*



East-West Regional Detour



North-South Regional Detour



Temporary Bridge

- *Spanning between South Main Street and an existing parking area behind several businesses.*
- *Detour is not appropriate for trucks and oversized loads due to geometric constraints*
- *Space constraints at the bridge would necessitate lane closures at the VT-9/VT-100 Intersection*



Maintenance of Traffic Options, Continued

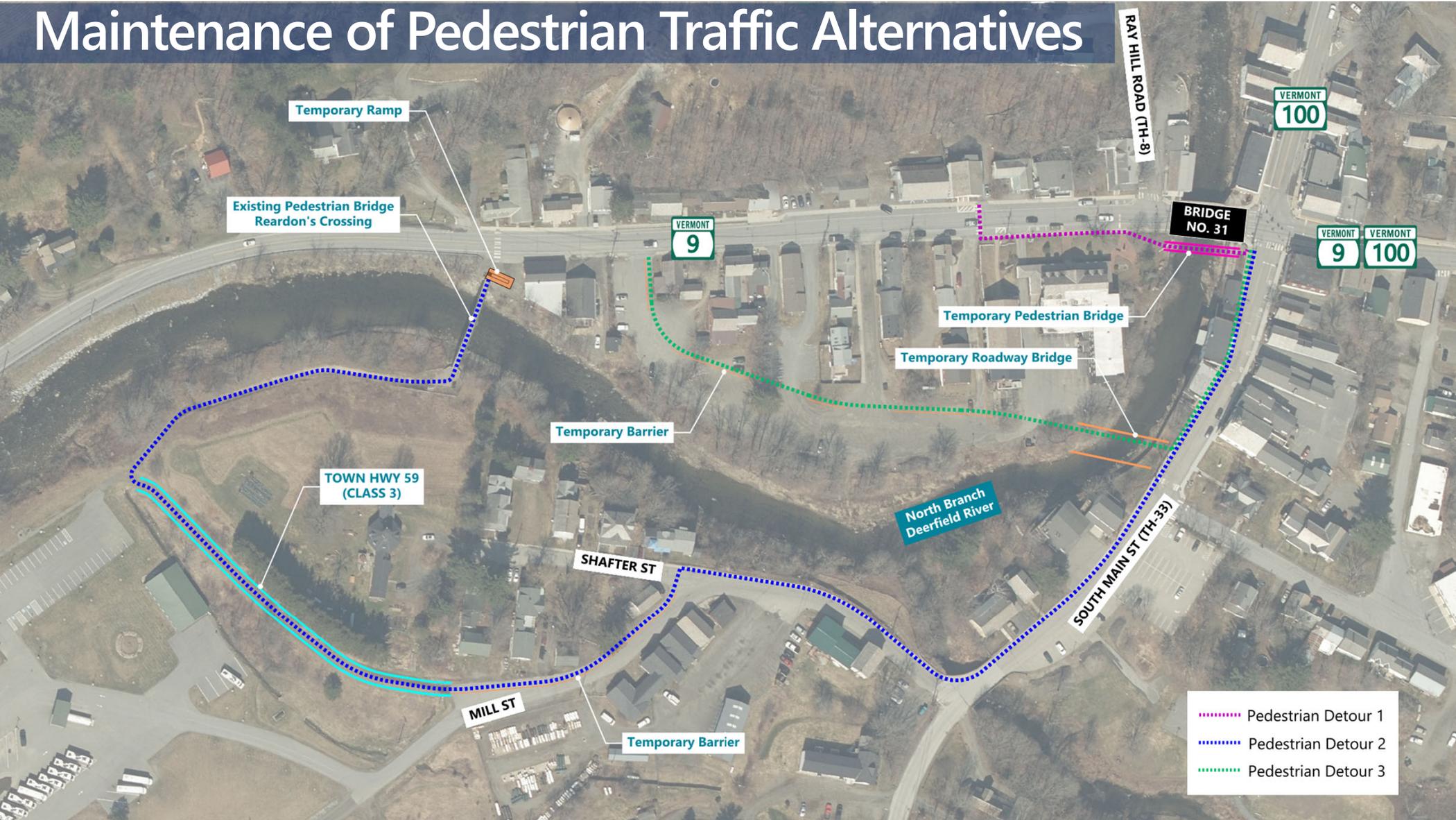
Phased Construction

- *Phased construction would involve alternating one-way traffic on VT-9 for the entire duration of bridge construction.*
- *The space constraints, adjacent properties and intersections, are prohibitive of this option.*

Construction Off-Alignment

- *The bridge is constrained by adjacent properties and by the VT-9/VT-100 intersection, so it is not feasible to realign VT-9 in this location.*

Maintenance of Pedestrian Traffic Alternatives



Alternatives Considered

~~1. No Action~~

- ~~▪ Additional maintenance required within the next 5 years~~

~~2. Bridge Rehabilitation~~

- ~~▪ May address structural deficiencies but would not address hydraulic deficiencies~~
- ~~▪ 50 year- design life based on substructure conditions~~

3. Bridge Replacement, On Alignment

- May address structural deficiencies but would not address hydraulic deficiencies
- 50 year- design life based on substructure conditions

~~4. Bridge Replacement, Off Alignment~~

- ~~▪ Site is tightly constrained by historic properties and proximity to nearby intersections VT-9/VT-100 and VT-9-TH-8~~

Alternatives Considered

3. Bridge Replacement, On Alignment

3.a. Accelerated Bridge Construction with a Temporary Pedestrian Bridge

3.b. Accelerated Bridge Construction with a Permanent Pedestrian Bridge

3.c. Conventional Construction with Traffic Maintained on a Temporary Bridge

Evaluation Criteria	Alternative 1 - Do Nothing	Alternative 2 - Bridge Rehabilitation	Alternative 3 - Complete Replacement on Alignment			Alternative 4 - Complete Replacement Off-Alignment
			ABC & Temporary Pedestrian Bridge	ABC & Permanent Pedestrian Bridge	Conventional Construction with Temp. Bridge	
Hydraulic Resiliency	●	●	●	●	●	●
Multi-Modal Mobility	●	●	●	●	●	●
Historic District, 4(f), and Environmental Impacts	●	●	●	●	●	●
Construction Duration	●	●	●	●	●	●
Constructability	●	●	●	●	●	●
Expected Future Maintenance	●	●	●	●	●	●
Opinion of Probable Construction Cost	\$0	N/A	\$4,591,050	\$5,659,675	\$5,586,850	N/A
Town Share (Public Utility Relocation)	\$0	N/A	\$200,000	\$100,000	\$250,000	N/A

● = Good / Significant Improvement over Existing Conditions

● = Fair / Minor Improvement over Existing Conditions

● = Poor / Regression from Existing Conditions

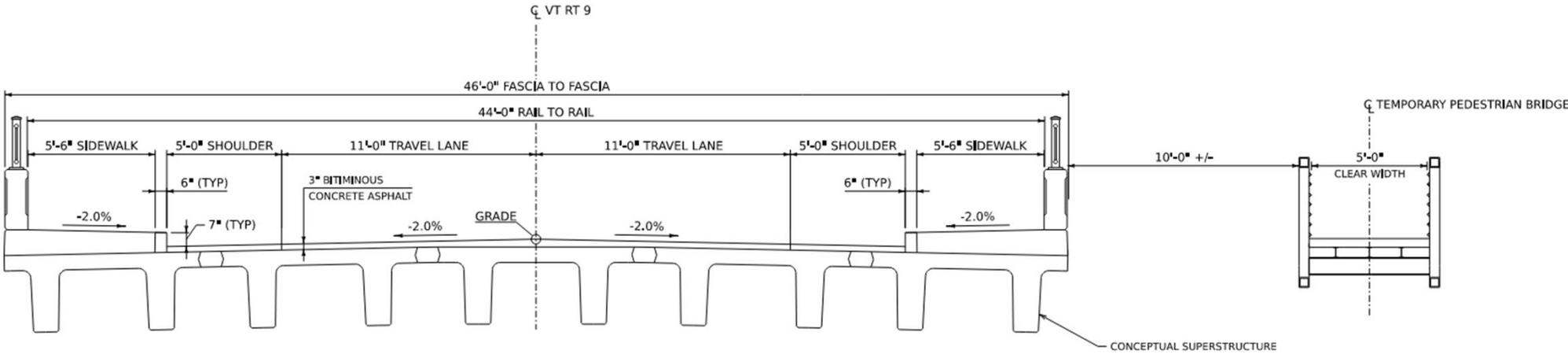
*Alternative does not meet the purpose of this project; therefore an opinion of probable construction cost is not provided.

Selected Alternative: Bridge No. 31

Full Bridge Replacement with Traffic Maintained on an Offsite Detour and a Temporary Pedestrian Bridge

- *28 Day Full Closure, with 14 Day Single Lane Closures before and after*
- *Temporary pedestrian bridge will maintain mobility during construction, and will also be used as a temporary waterline support*
- *Widens bridge slightly to include 5-foot shoulders and 6-foot sidewalks = improved comfort for pedestrians and cyclists*
- *Lengthens bridge slightly for increased hydraulic capacity*
- *Minimal impact to adjacent properties and intersections*

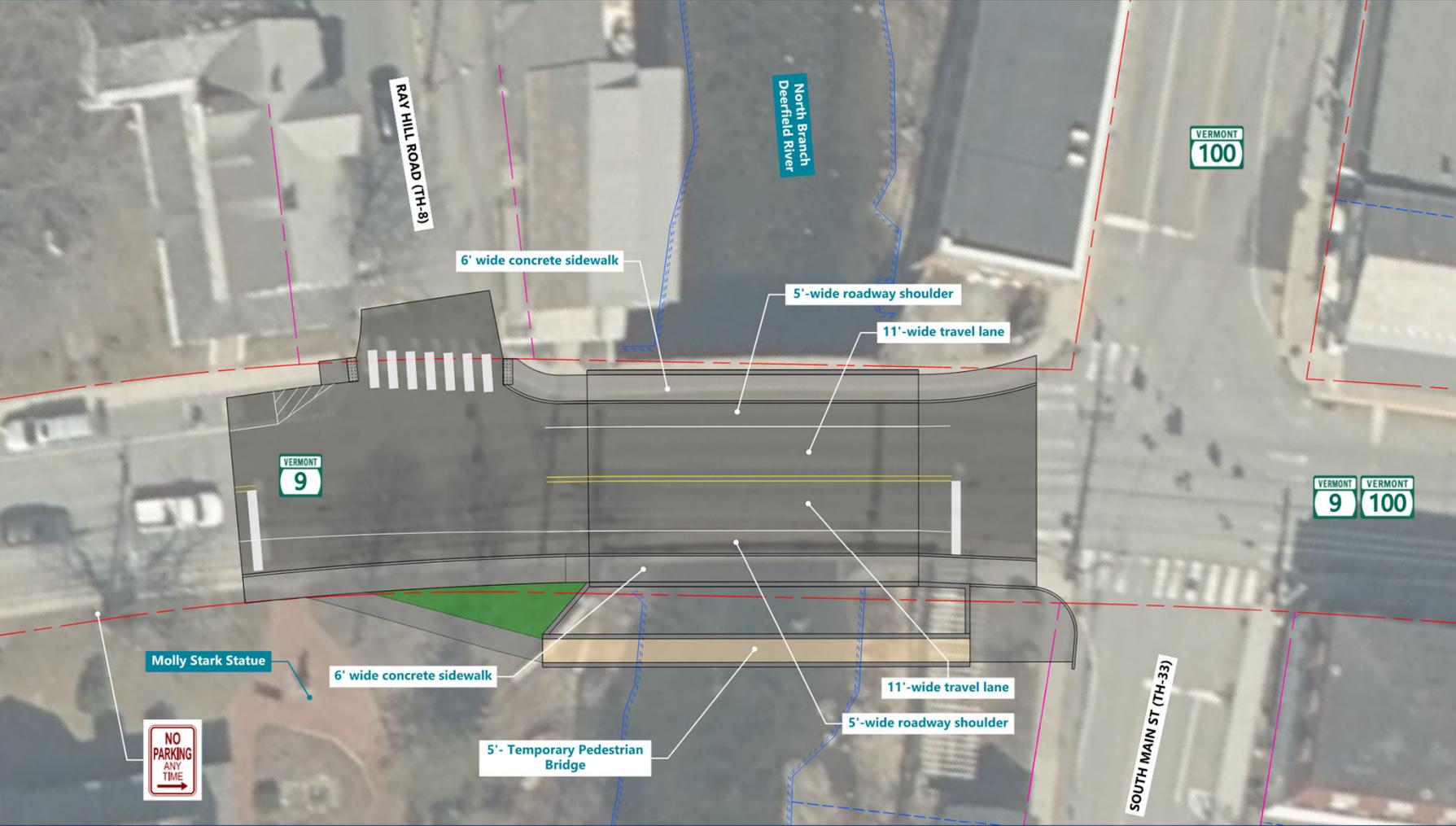
Proposed Typical Section



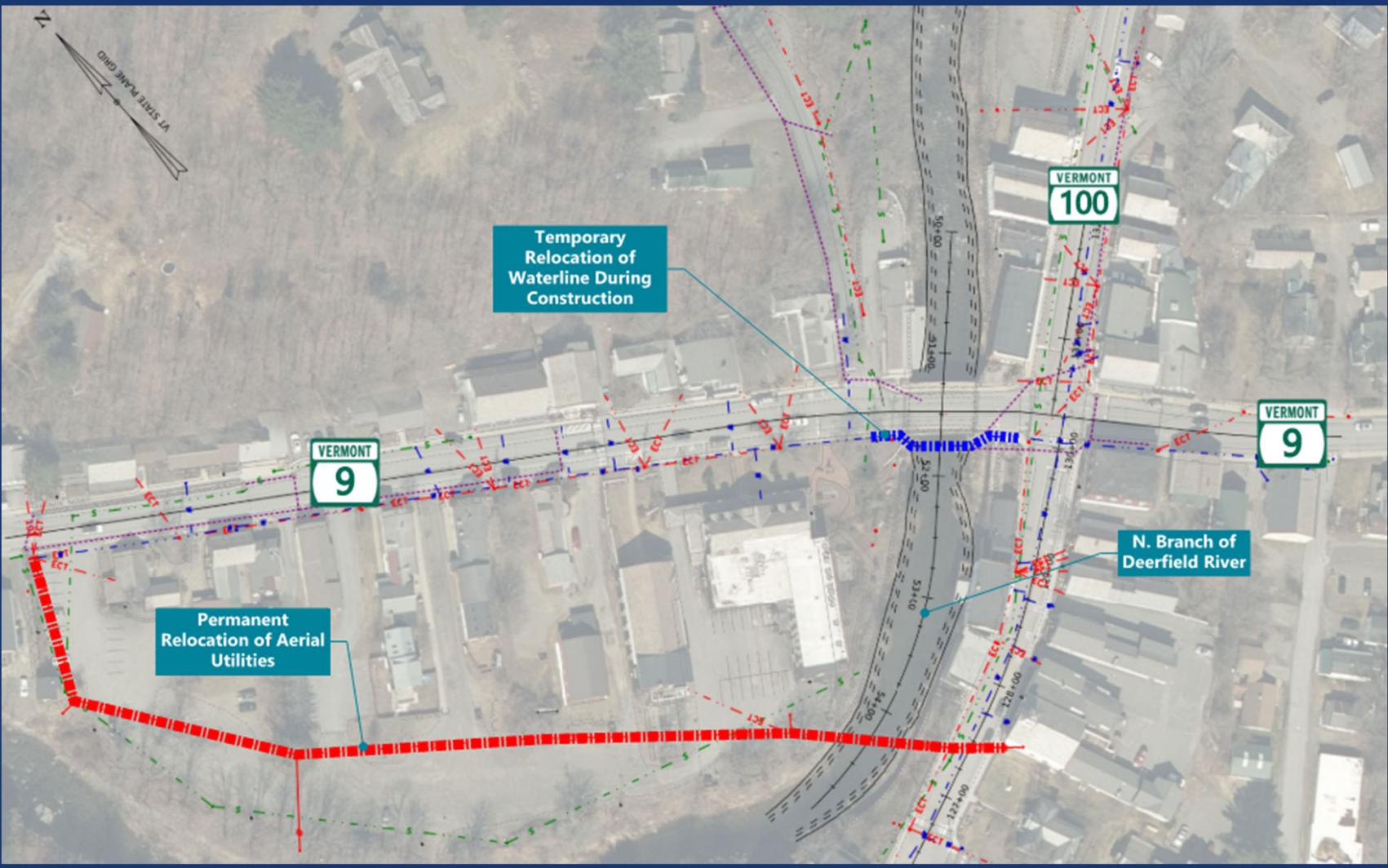
ALTERNATIVE 3A TEMPORARY PEDESTRIAN BRIDGE

SCALE 3/8" = 1'-0"

Proposed Layout



Utility Relocation Layout



Estimated Schedule:

	2026	2027	2028	2029	2030
Preliminary Design					
Final Design					
Contract Plans					
Utility Relocation					
Bridge Construction					



Questions and Comments



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Thank you!

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