Morristown BF 0239(4)
Alternatives Presentation Meeting

FAS Route 0239 (Cadys Falls Road) – Bridge 8 over Lamoille River

September 15, 2025

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Introductions

Cory Burall, P.E.

VTrans Design Project Manager

Laura Stone, P.E.

VTrans Scoping Engineer

Judith Ehrlich

VTrans Historic Preservation Officer

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Purpose of Meeting

- Provide an understanding of our approach to the project
- Provide an overview of project constraints
- Gather Town's needs for the project
- Discuss alternatives that are being considered
- Provide an opportunity to ask questions and voice concerns

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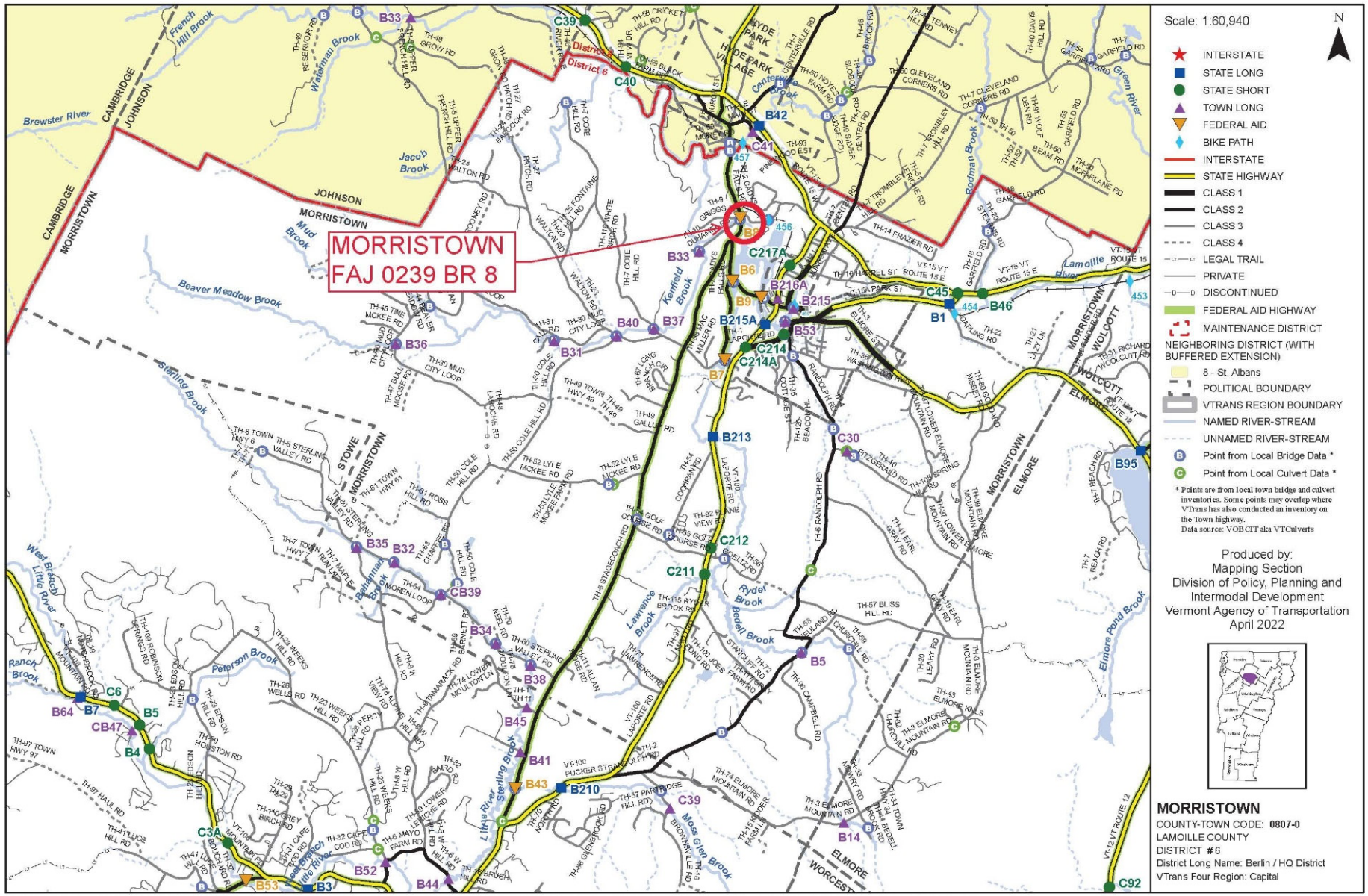
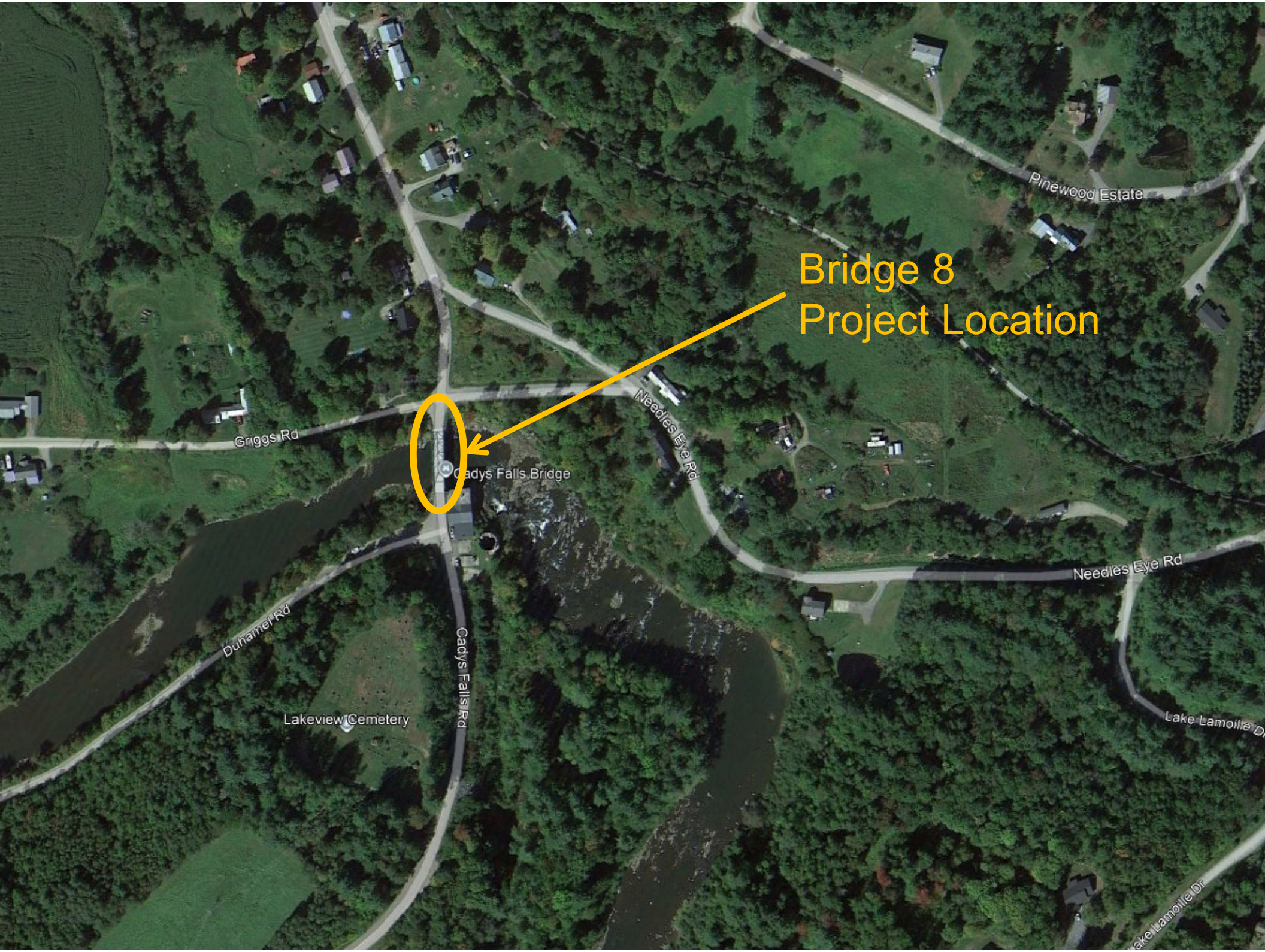
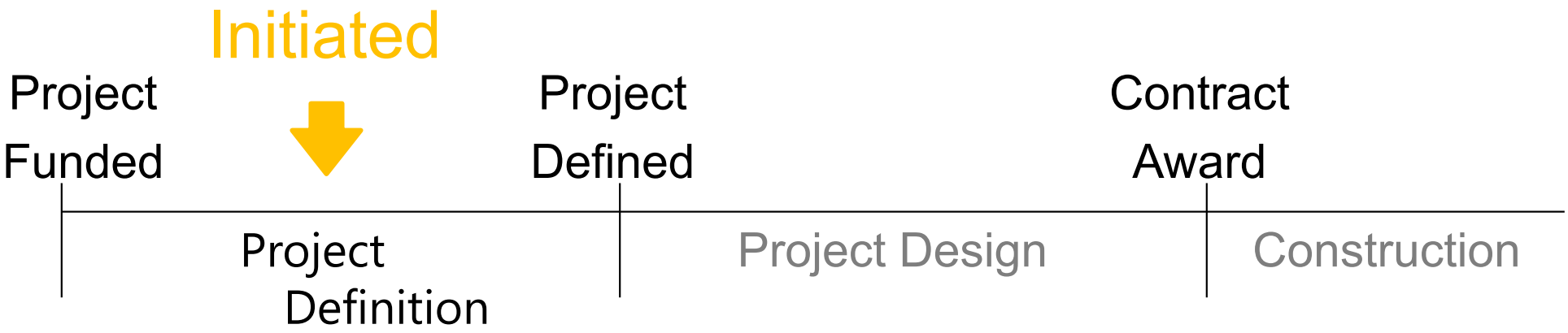


Location Map


Bridge 8
Project Location
Pinewood Estate
Griggs Rd
Cadys Falls Bridge
Needles Eye Rd
Needles Eye Rd
Duhamel Rd
Cadys Falls Rd
Lakeview Cemetery
Lake Lamoille Dr

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

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Looking North

Existing Conditions

- Roadway Classification – Rural Major Collector (Class 2)
- Bridge Type – Pratt Steel Thru Truss
- Ownership – Town of Morristown
- Constructed in 1928, rehabilitated in 2016

ACT 153 of the 2012 Legislative Session

	Local Share	
	Road Closed During Construction	Road Open During Construction
Rehabilitation	2.5%	5%
Replacement	5%	10%

- Per Act 153, the local share is reduced by 50% for rehabilitating versus replacement
- Per Act 153, the local share is reduced by 50% for closing the road to traffic during construction

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Looking South

Existing Conditions – Utilities

- Aerial (Morrisville Water & Light, Consolidated Communications, Comcast (north side of the bridge only)
- Hydro Power Plant on South Side w/ tailrace under Cadys Falls Road
- Underground (Morrisville Water & Light – Transmission Power to Sub-Station on South Side)
- Municipal (Water facilities exist within the ROW to the north of the bridge)

Existing Conditions – Bridge #8

- The structure has heavy section loss and pitting throughout the steel below the bridge deck
- The deck has cracking, the curb is breaking up in places, and the steel paint has begun to peel from the steel
- The bridge is rated with a 5-ton weight limit, which was reduced in 2017, after a rehabilitation project in 2016
- Roadway shoulder width of 1′ is substandard. Bridge lane and shoulder widths of 9′ and 1′ respectively are substandard

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Extensive Corrosion

Existing Conditions - Bridge #8

- Deck Rating 7 (good)
- Superstructure Rating 5 (fair)
- Substructure Rating 6 (satisfactory)
- Channel Rating 8 (very good)

Northern Abutment

Existing Conditions - Bridge #8

Southern Abutment

Existing Conditions - Bridge #8

2014 Stringer Degradation

Existing Conditions - Bridge #8

2018 Stringer Degradation

Existing Conditions - Bridge #8

2024 Stringer Degradation

Existing Conditions - Bridge #8

Displaced Asphalt Curb, Corrosion, Peeling Paint

Existing Conditions – Bridge #8

- Wetland/Watercourses – None
- Rare, Threatened and Endangered Species - None
- Historic – Cady Falls Power Plant, and Bridge #8
- Archaeological – None
- Hazardous Waste - None

Existing Typical Section

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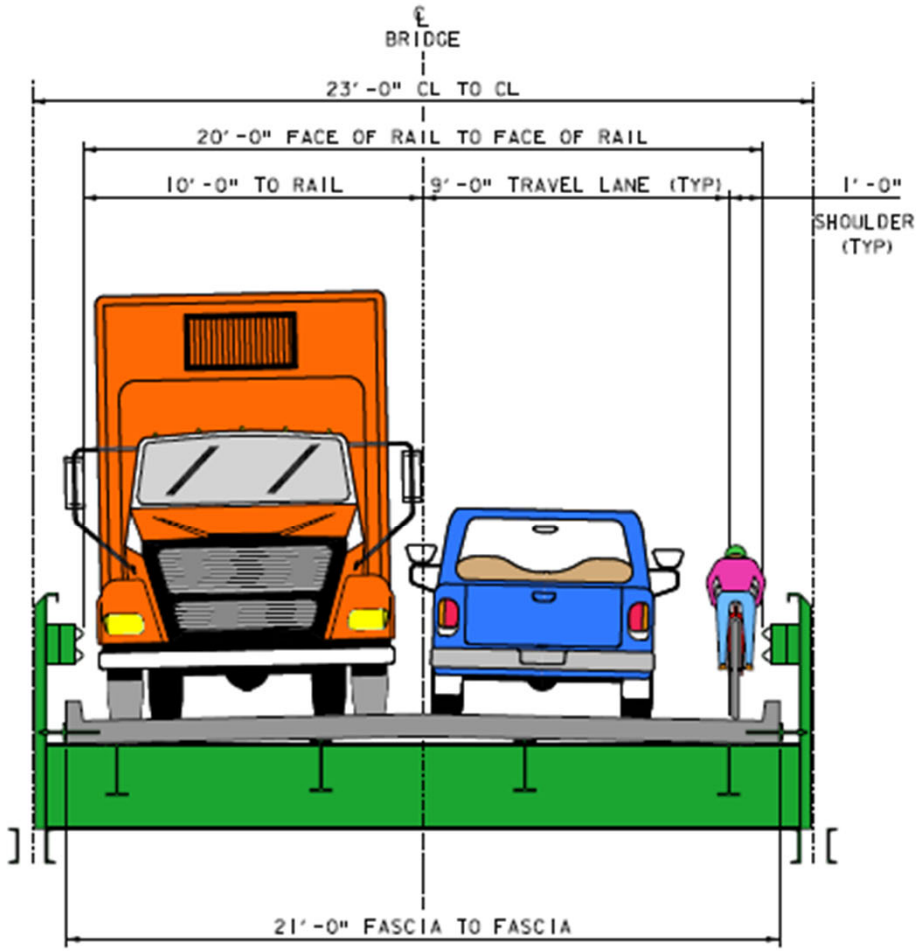
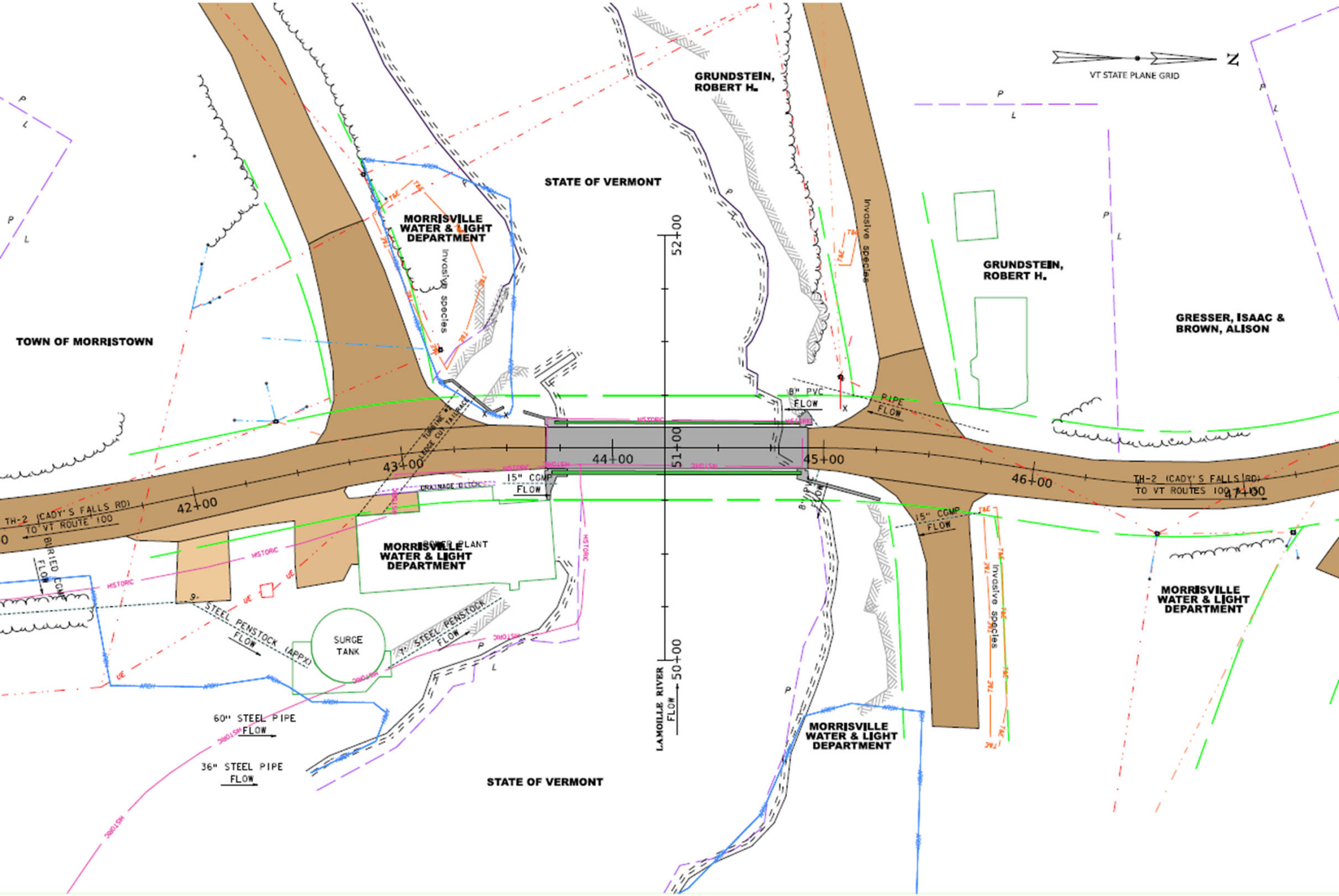


EXISTING BRIDGE TYPICAL SECTION

Existing Conditions- Bridge #8

- Substandard Width (10’/0’ typical section)

Existing Conditions



Design Criteria and Considerations

- Average Daily Traffic
  - 3,652 vehicles per day
- Design Hourly Volume
  - 619 vehicles per hour
- % Trucks
  - 11.2%

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Alternatives Considered – Bridge #8

- No Action
  - Not recommended. Next load-rating downgrade will close the bridge
- Truss Repair
  - Structural deficiencies would be addressed
  - Effects on adjacent properties, historic and archeological resources are minimal
  - 40-year design life
- Full Bridge Replacement with New Pratt Thru Truss
  - On-alignment, with new substructure
  - Follows stipulations set by the Division for Historic Preservation
  - Widen to meet minimum standard of 28′ (3′-11′-11′-3′)
  - 75-year design life
- Full Bridge Replacement with Steel Beam Bridge
  - No ROW acquisition
  - Low maintenance, composite steel, with a concrete deck superstructure
  - Widen to meet minimum standard of 28′ (3′-11′-11′-3′)
  - 75-year design life

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Alternative 1 Typical Section

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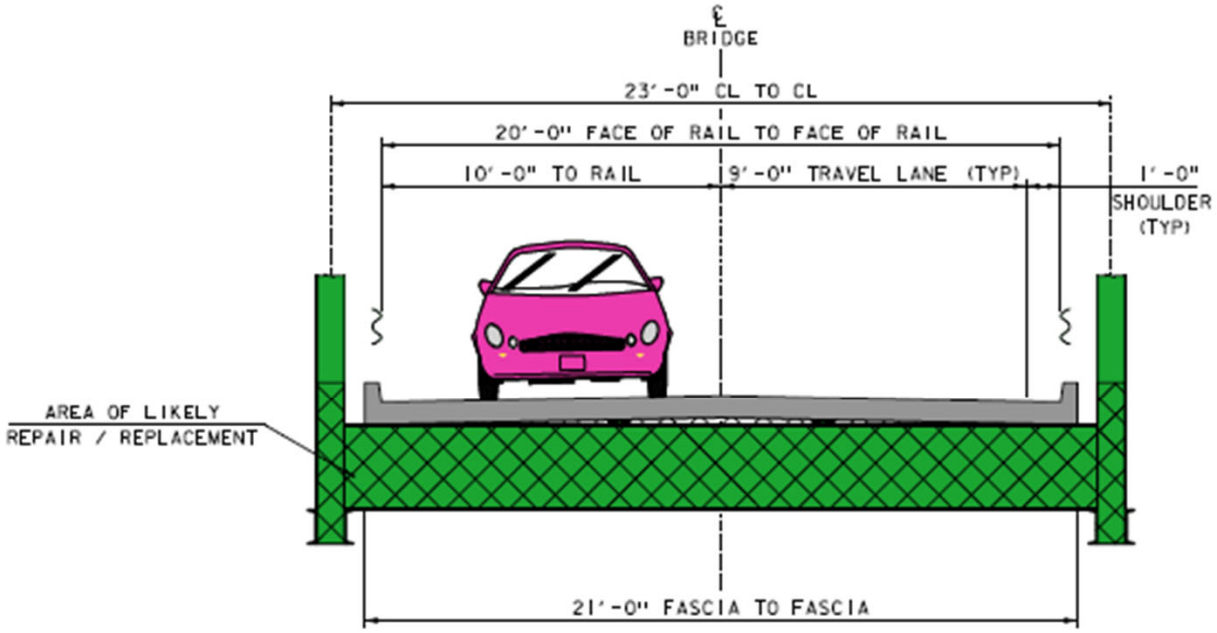

BRIDGE REPAIR TYPICAL SECTION

Truss Repair - Bridge #8

- Selected members repaired, or replaced
- Addresses the structural deficiencies of the existing bridge
- Remains substandard 20′ width (0′-10′-10′-0′)
- 40-year design life

Alternative 1 Layout

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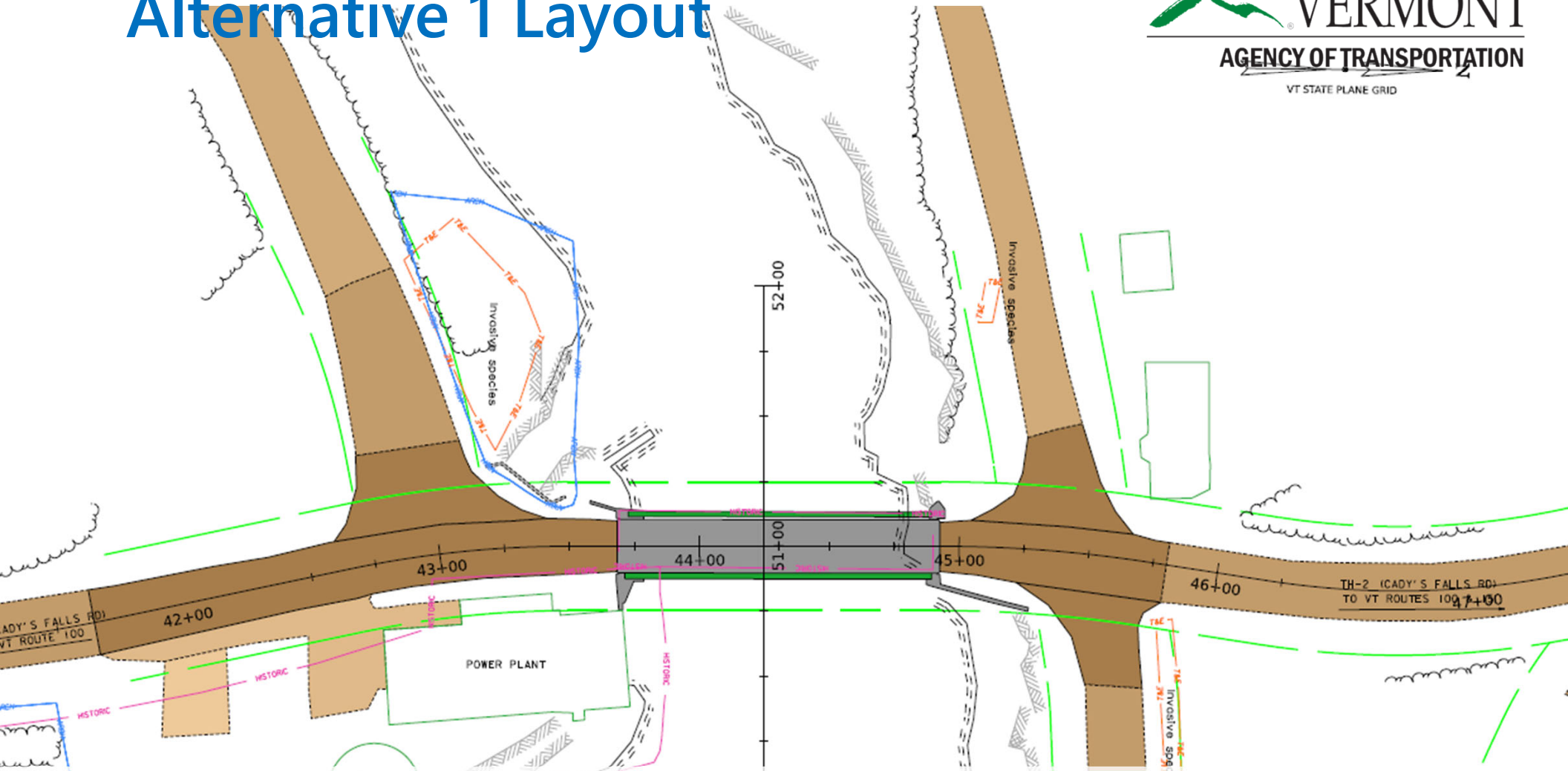
VT STATE PLANE GRID



Truss Repair - Bridge #8

- Selected members repaired, or replaced
- Addresses the structural deficiencies of the existing bridge
- Remains substandard 20′ width (0′-10′-10′-0′)
- 40-year design life

Alternative 2 Typical Section

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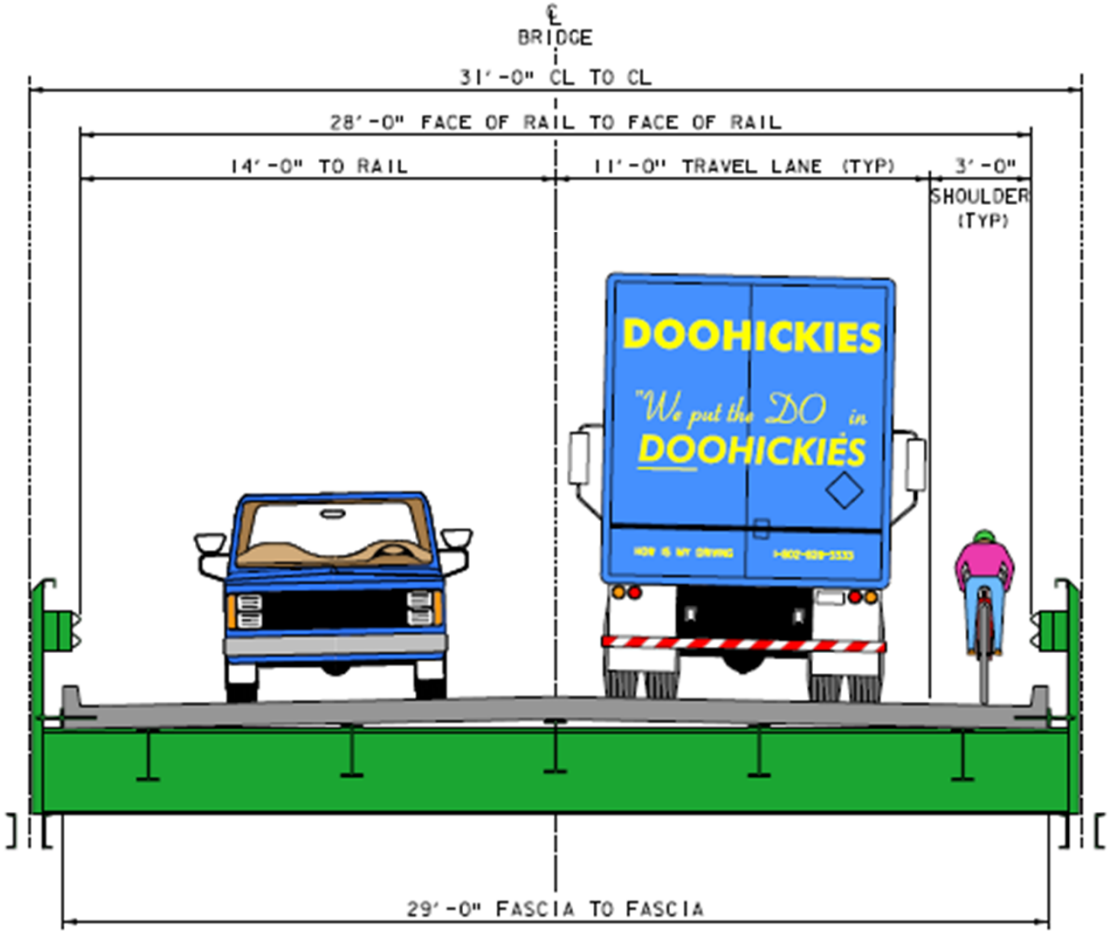

PROPOSED TRUSS BRIDGE TYPICAL SECTION

New Pratt Thru Truss - Bridge #8

- Follows stipulations set by the Division for Historic Preservation
- Widen to meet minimum standard of 28’
- 75-year design life

Alternative 2 Layout

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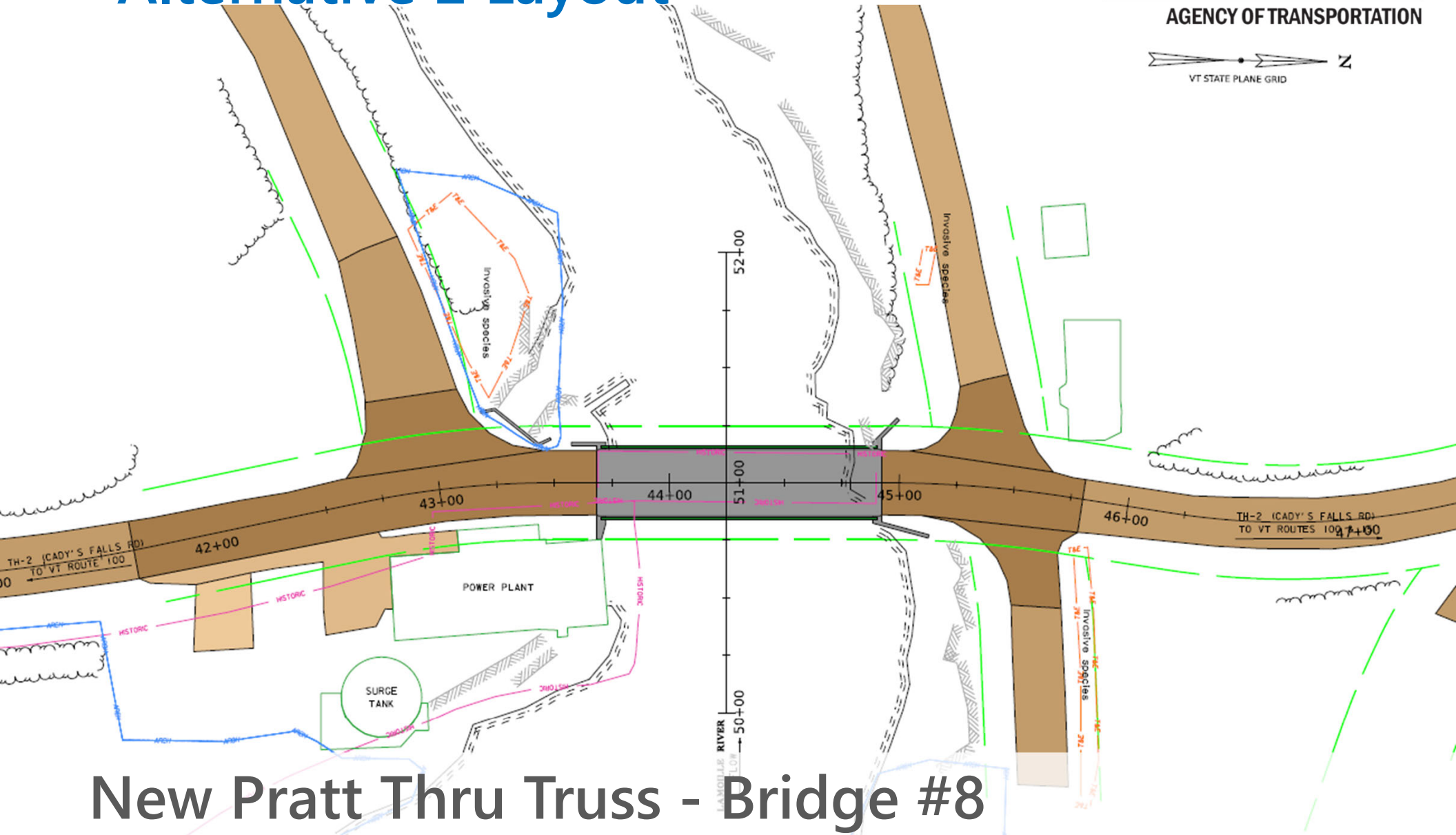

New Pratt Thru Truss - Bridge #8

- Follows stipulations set by the Division for Historic Preservation
- Widen to meet minimum standard of 28’
- 75-year design life

Alternative 3 Typical Section

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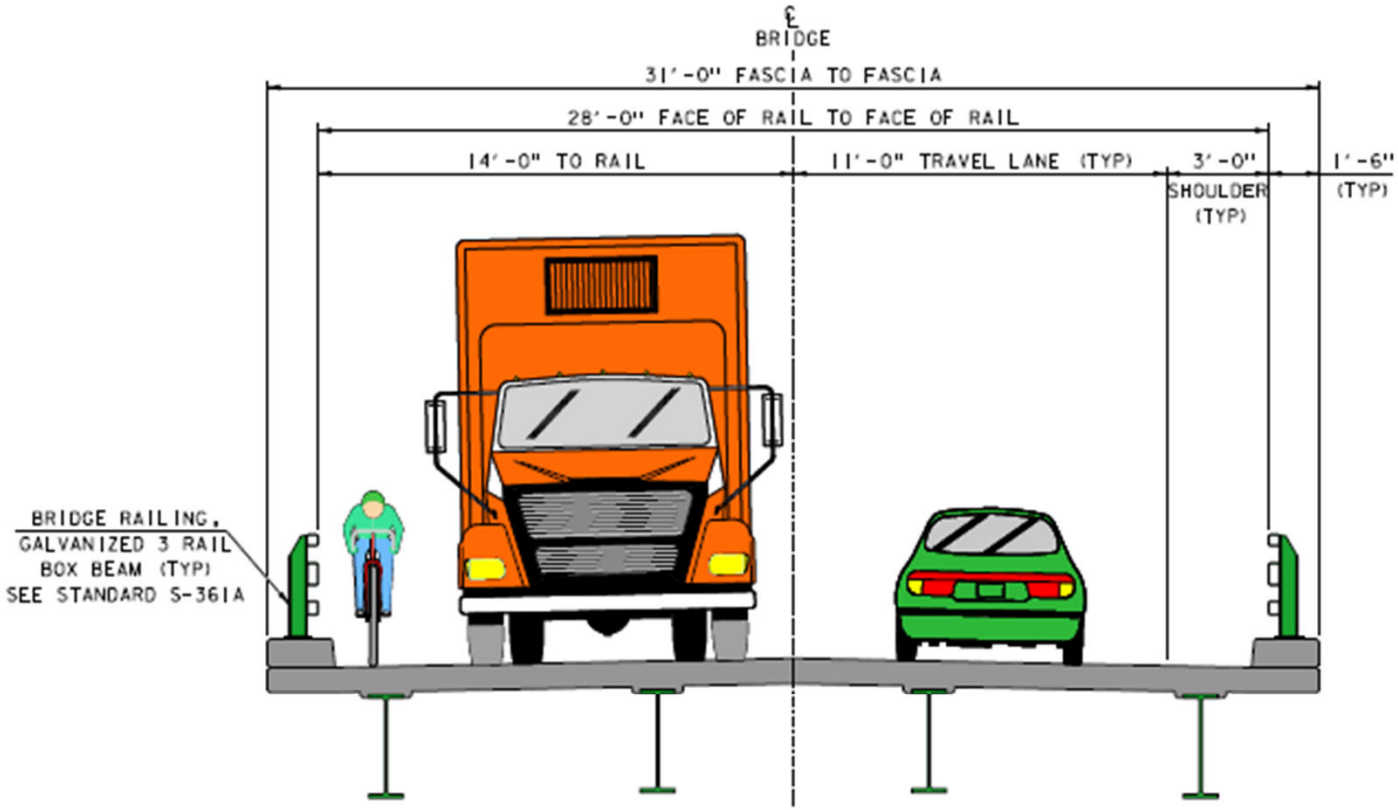

PROPOSED CONCRETE BRIDGE TYPICAL SECTION

New Steel Beam Bridge - Bridge #8

- Low maintenance, composite steel, with a concrete deck superstructure
- Widen to meet minimum standard of 28’
- 75-year design life

Alternative 3 Layout

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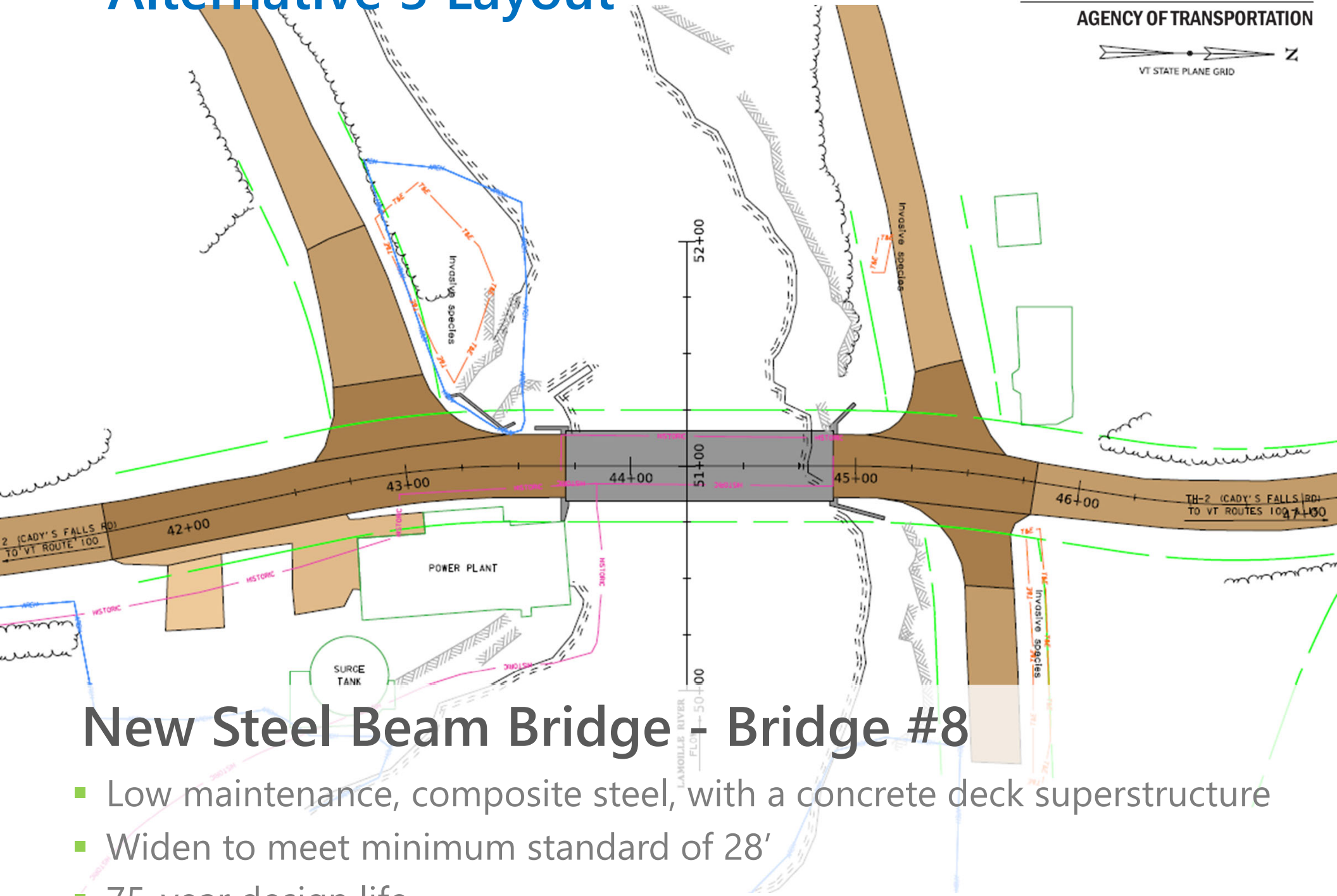

New Steel Beam Bridge - Bridge #8

- Low maintenance, composite steel, with a concrete deck superstructure
- Widen to meet minimum standard of 28’
- 75-year design life

Recommended Alternative - Bridge #8

- Alternative 2 – Construct new Pratt Thru Truss, while maintaining traffic utilizing a temporary detour
  - Safer accommodations for bicycles and pedestrians
  - Will meet current Vermont State Standard, requiring minimum of 11’ lanes and 3’ shoulders
  - Preserves the historical character of the original Pratt Thru Truss bridge
  - Method of traffic control will close the bridge for a construction season and maintain traffic on an offsite detour
  - By closing the road to traffic during construction, the local share is reduced by 50%
  - 75-year design life

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Maintenance of Traffic Options Considered

- Offsite detour
- Temporary bridge

Road Closure

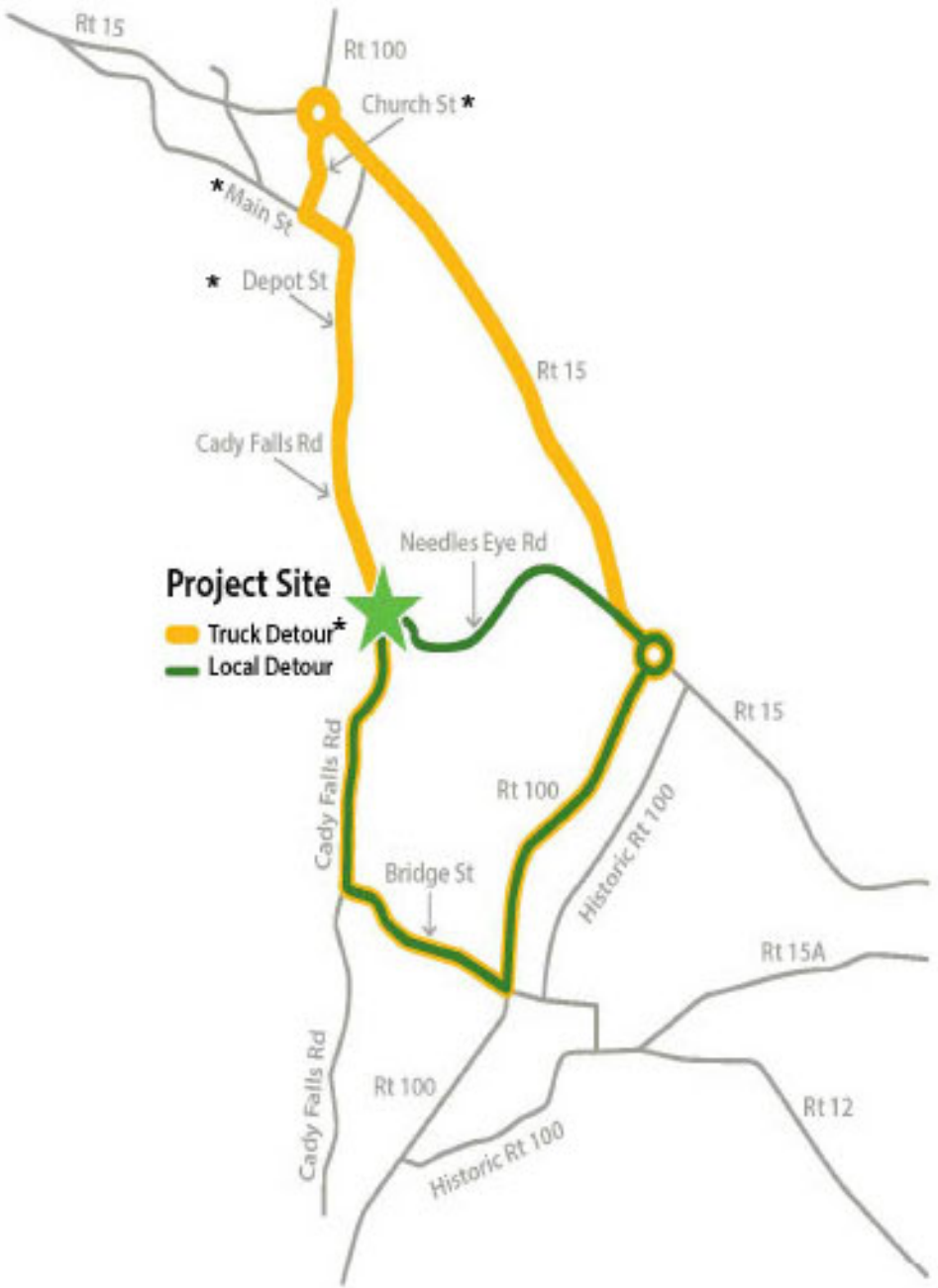
- Detour chosen and signed by Town
- Construction Season duration
- Shortest Detour Route is 3.7 miles end-to-end

Traffic Control – Detour

- **Local Detour Route:** From the intersection of Cadys Falls Road & Bridge Street onto VT Route 100 onto Needles Eye Road and back to Cadys Falls Road.
  - End-to-End Distance: 3.7 miles
  - Through Distance: 0.8 miles
  - Detour Distance: 2.9 miles
  - Added Distance: 2.1 mile

- **Truck Detour Route:**

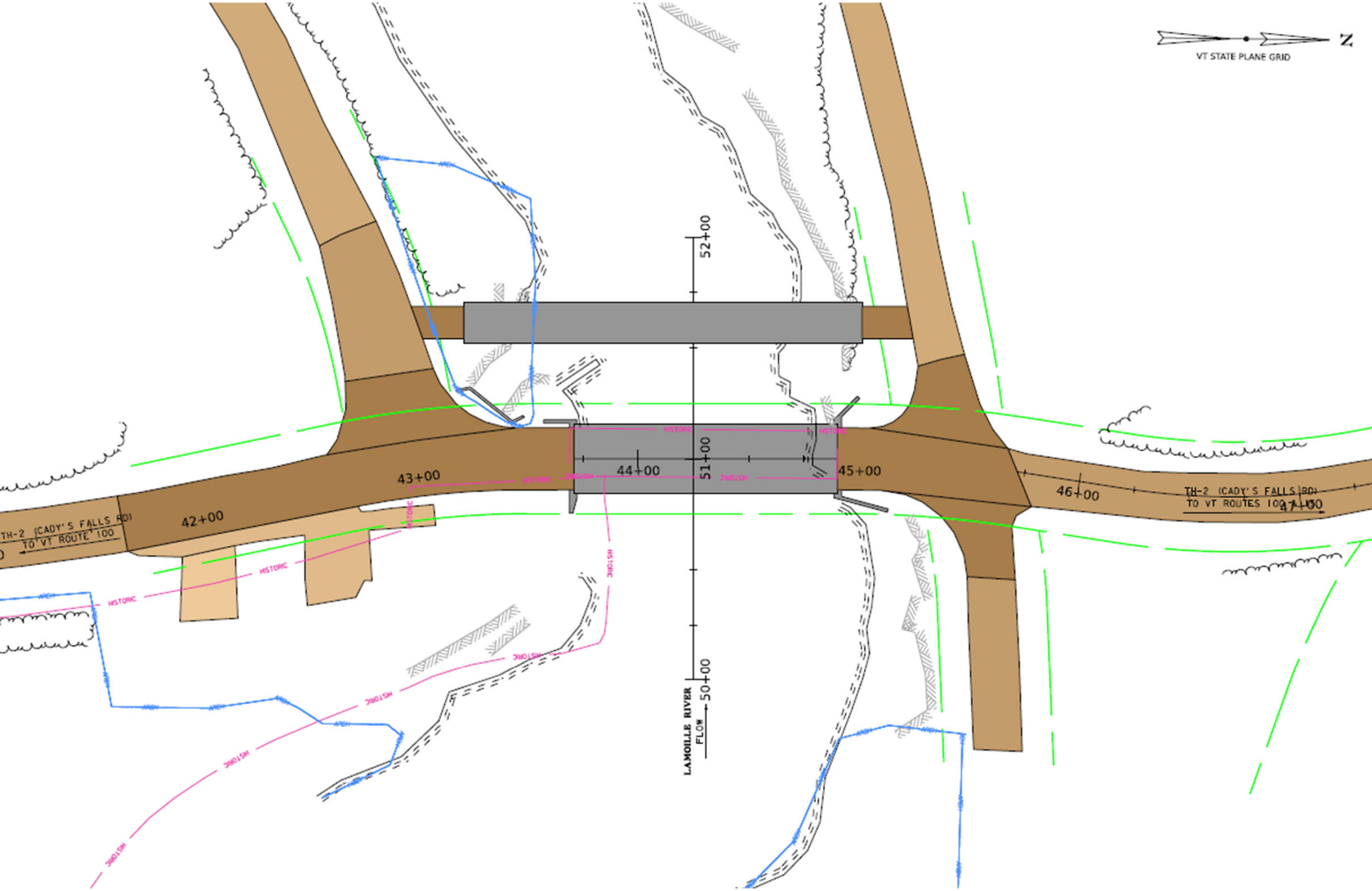
Bridge St. to VT Route 100 to VT Route 15 to Church St. to Main St. and Depot St. in Hyde Park.



Temporary Bridge

- One Lane Temporary Bridge constructed Downstream

Downstream Temporary Bridge Layout



Alternatives Matrix

Morristown BF 0239(4)		Do Nothing	Alternative 1	Alternative 2	Alternative 3
			Truss Rehabilitation	Full Bridge Replacement with New Thru Truss	Full Bridge Replacement with New Bridge
			Off Site Detour		
COST	Bridge Cost	$0	$1,735,400	$3,694,700	$2,929,400
	Removal of Structure	$0	$260,400	$338,520	$338,520
	Roadway	$0	$87,000	$243,000	$254,000
	Maintenance of Traffic	$0	$107,800	$17,800	$17,800
	Construction Costs	$0	$2,190,600	$4,294,020	$3,539,720
	Construction Engineering & Contingencies	$0	$547,650	$729,983	$601,752
	Accelerated Premium	$0	$0	$0	$0
	Total Construction Costs w CEC	$0	$2,738,250	$5,024,003	$4,141,472
	Preliminary Engineering	$0	$547,650	$644,103	$530,958
	Right of Way	$0	$0	$2,500	$2,500
	Total Project Costs	$0	$3,285,900	$5,670,606	$4,674,930
	Annualized Costs	$0	$82,148	$75,608	$62,332
TOWN SHARE		$0	$82,147	$283,530	$233,746
TOWN %		0%	2.5%	5%	5%
SCHEDULEING	Project Development Duration	N/A	4 years	4 years	4 years
	Construction Duration	N/A	6 months	6 months	6 months
	Closure Duration	N/A	4 months	4 months	4 months
ENGINEERING	Typical Section - Roadway (feet)	1'-11'-11'-1' (24')	1'-11'-11'-1' (24')	3'-11'-11'-3' (28')	3'-11'-11'-3' (28')
	Typical Section - Bridge (feet)	1'-9'-9'-1' (20')	1'-9'-9'-1' (20')	3'-11'-11'-3' (28')	3'-11'-11'-3' (28')
	Geometric Design Criteria	Substandard Width	Substandard Width	Meets Minimum Standard	Meets Minimum Standard
	Traffic Safety	No Change	No Change	Improved	Improved
	Alignment Change	No Change	No Change	No Change	No Change
	Bicycle Access	No Change	No Change	Improved	Improved
	Pedestrian Access	No Change	No Change	Improved	Improved
	Hydraulics	Meets Minimum Standard	Meets Minimum Standard	Meets Minimum Standard	Meets Minimum Standard
	Utilities	No Change	No Change	Utility Relocation	Utility Relocation
OTHER	ROW Acquisition	No Change	No	Yes	Yes
	Road Closure	No Change	Yes	Yes	Yes
	Design Life (years)	<20	40	75	75

Preliminary Project Schedule

- Construction Start – 2031
  - Total Cost Estimate: approx. $5.6 Million
    - Town Share: Approx. $280,000 (5%)
      - For Recommended Alternative (Scope: Replacement, MOT: Detour)

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Next Steps – Bridge #8

This is a list of a few important activities expected in the near future and is not a complete list of activities.

- Wait for Town response to recommendation on proposed project
- Develop Conceptual plans and distribute for comment
- Process local agreements
- Right-of-Way process (if needed)
- Updates on project plans and estimates at each submittal

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https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/22J399

Morristown BF 0239(4)
Questions and Comments

FAS Route 0239 – Bridge 8 over Lamoille River

September 15, 2025

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