Northfield Village BF 0241(58)
Project Update – Preliminary Plans

Vermont Route 12 – Bridge #60 over Dog River

August 12, 2025

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Introductions

Gary Laroche, P.E.

VTrans Consultant Project Manager

Alan Legacy

VTrans Utilities Coordinator

Mike Keedy

VTrans Project Contamination Engineer

Nancy Avery, P.E.

VTrans - Work Zone Safety Engineer

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Meeting Overview

- VTrans Project Development Process
- Project Location
- Existing Conditions
- Project Overview (Final Plans)
- Maintenance of Traffic
- Contaminated Soils
- Estimate
- Schedule
- Concurrent Construction Risk
- Questions

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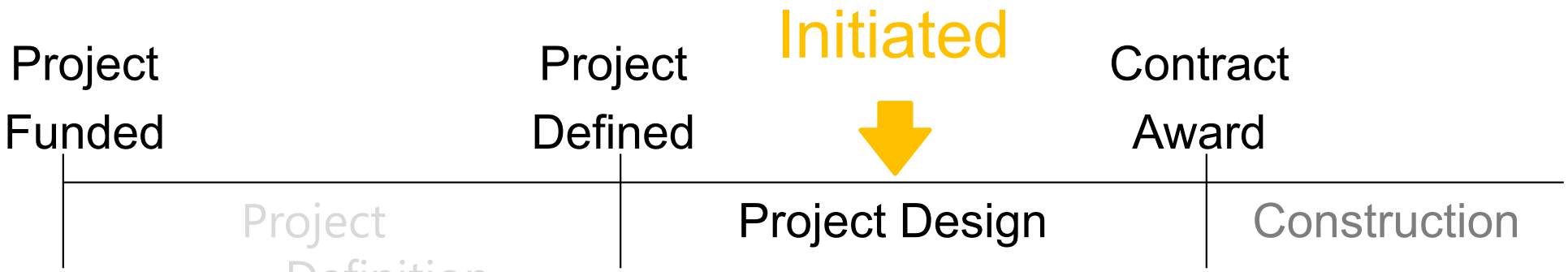
VTrans Project Development Process



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

- Conceptual Plans Complete
- Preliminary Plans Complete
- Property Owner Contact
- Quantify areas of impact
- Environmental permits
- Right-of-Way process
- Final Plans, estimate and specifications
- Contract Plans
- Advertisement

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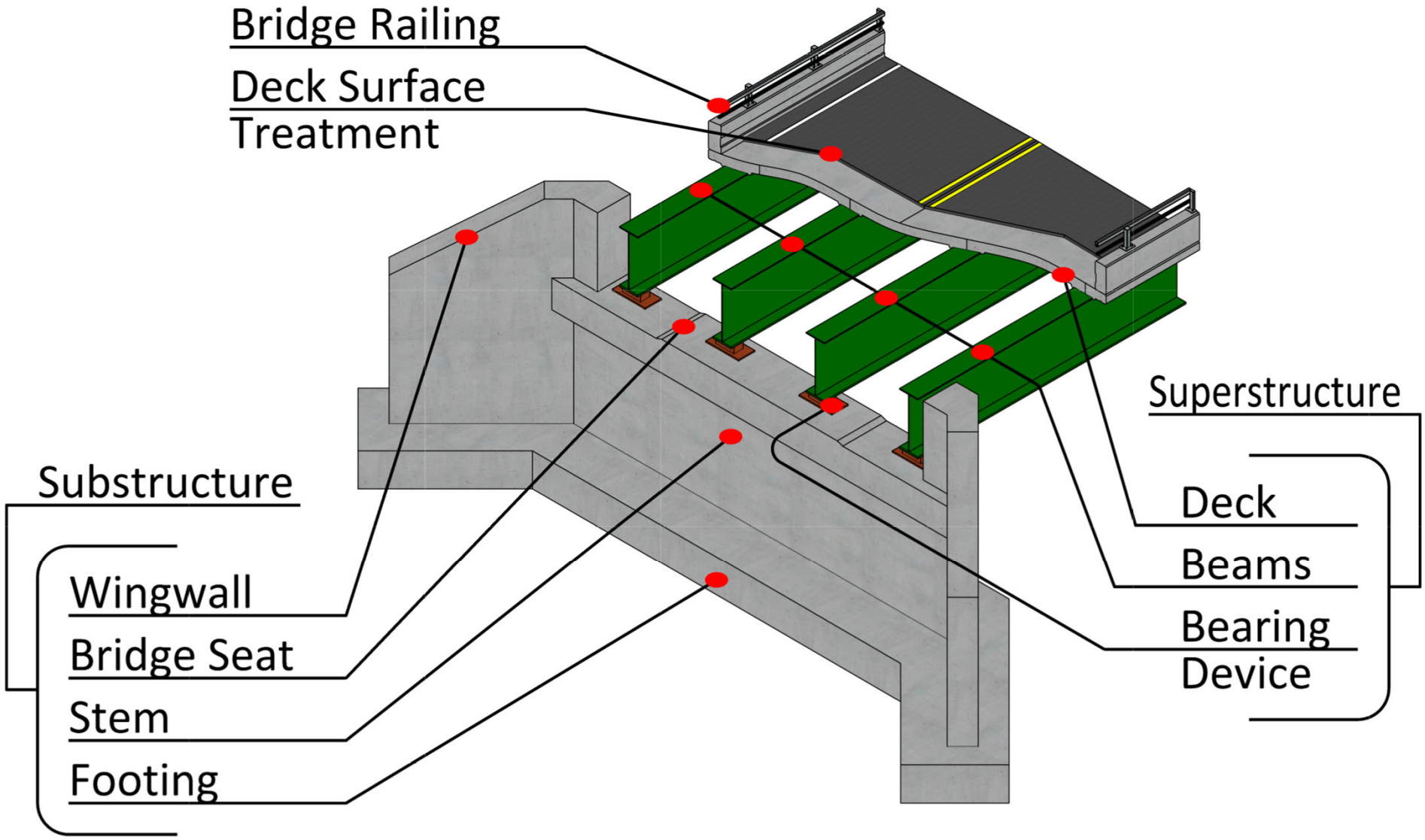
Description of Terms Used (1 of 2)



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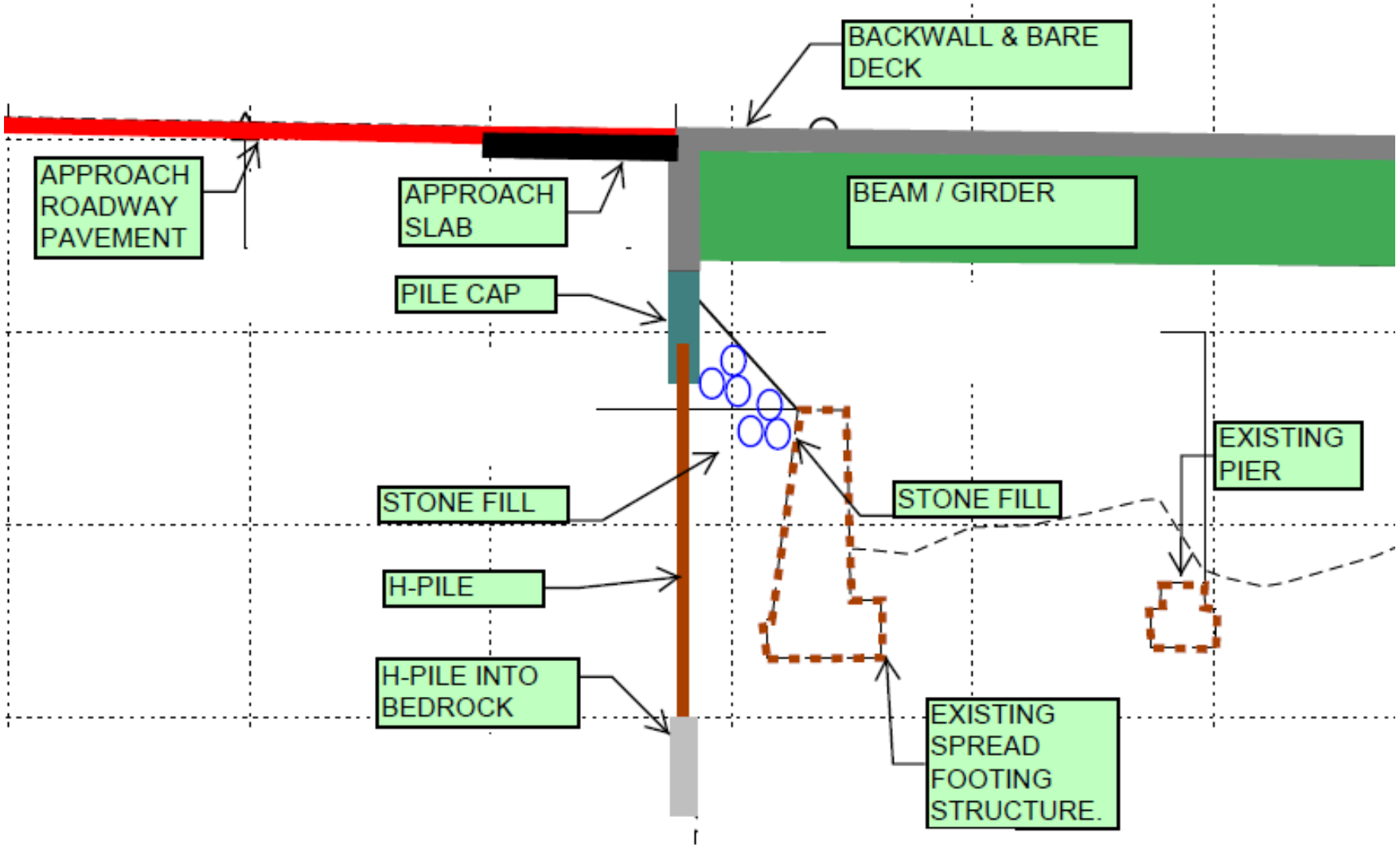
Description of Terms Used (2 of 2)



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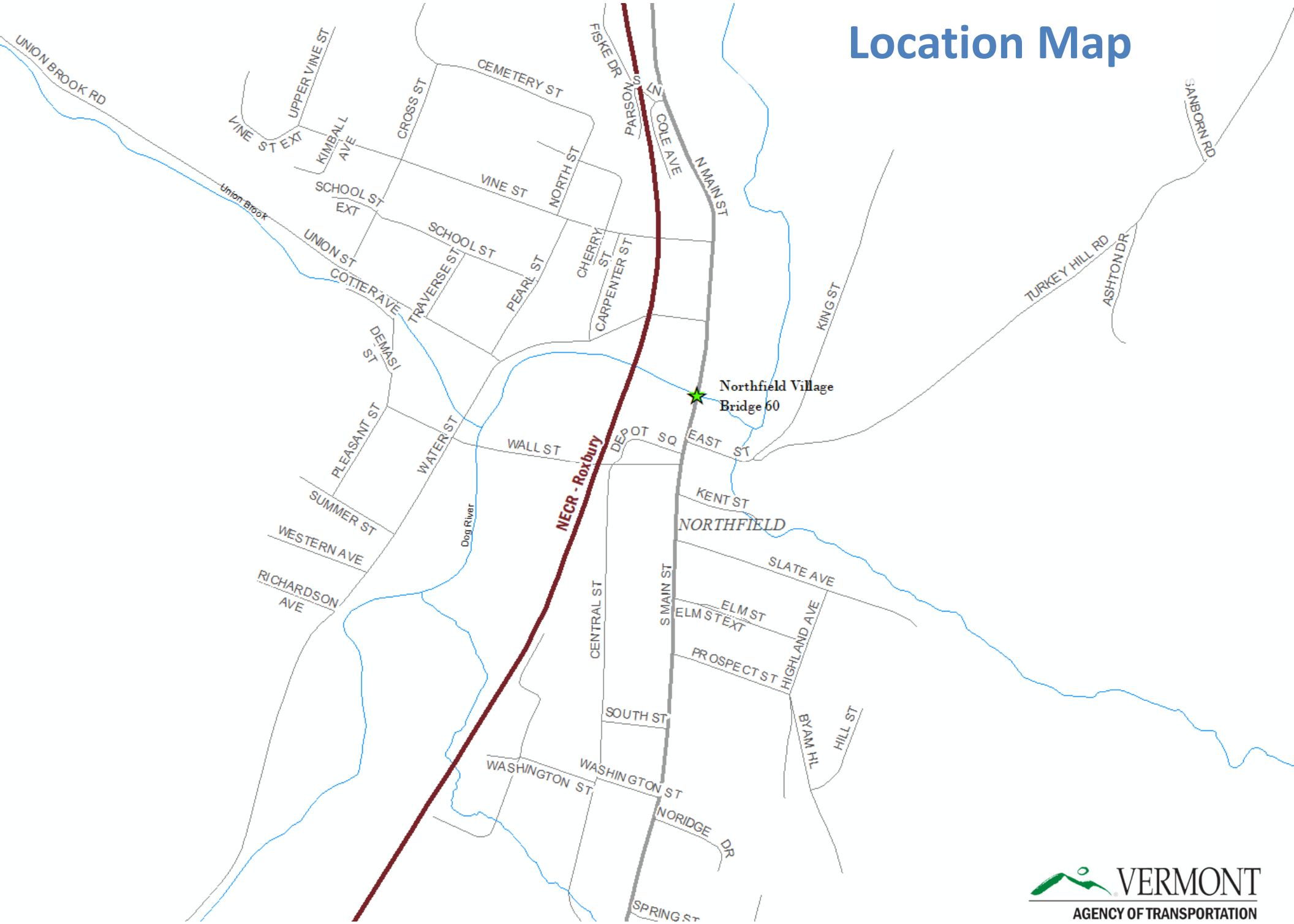
Location Map



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Bridge 60
Project Location
Water St
Water St
Water St
Carpenter St
Dog River
King St
Kenyons True Value
Hardware store
Champlain Farms
Convenience store
Dollar General
Dollar store
Dog River
N Main St
King St
Dog River
O'Maddi's Deli & Cafe
China Star
Takeout
The Common Cafe
Takeout
Good Measure
Brewing Co
Cornerstone Burger Co
Takeout
Northfield Pharmacy
Northfield Fire
Department
Northfield Police
Department
East St
Turkey Hill Rd
King St
Turkey Hill Rd
Wall St
Wall St
S Main St
Northfield Savings Bank
NAPA Auto Parts -
Northfield Auto Supply
Auto parts store
Mayo Associates
Central St
Grace Evangelical
Free Church
United Church
of Northfield
Northfield Town Clerk
Kent St
Kent St
Kent St
Brown Public Library
Google

Looking North over Bridge 60

Existing Conditions

- Roadway Classification – Major Collector (Class 1 TH)
- Bridge Type – 111’ Long 3-Span Concrete T-Beam Bridge
- Ownership – Town of Northfield
- Constructed in 1926, Reconstructed in 1958 Sidewalks on both sides

Looking South over Bridge 60

Existing Conditions

- Sidewalks on both sides
- Crosswalk at north end of bridge

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Existing Conditions – Bridge #60

- **Sidewalks are in poor condition** with heavy spalling and large delaminations
- **Wearing Surface is in poor condition** with cracking and pothole formation
- **Reinforced concrete T-Beams are in fair to poor condition** having areas of heavy saturation, efflorescence leakage, rust staining and spalling with delaminations and exposed rebar
- **Both abutments have moderate to heavy cracking** with efflorescence leakage due to saturation from above. Additionally, small spalls are present in the bridge seat area below the fifth and sixth beams.
- **The pier seat and caps have heavy deterioration** with heavy cracking, delaminations, and efflorescence leakage present. The bridge seats at both piers have heavy spalling, saturation and efflorescence leakage below the fifth and sixth beams. The pier shafts have small spalls exposing reinforcing steel along with cracking with efflorescence.
- The Dog River is prone to high debris, and debris gets caught on the existing piers on a regular basis.

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Existing Condition Ratings

- Deck Rating - 5 (Fair)
- Superstructure Rating - 4 (Poor)
- Substructure Rating - 5 (Fair)

2025 Bridge Inspection Report:
https://resources.vtrans.vermont.gov/vtransparency/viewreport.ashx?id=1762&strucnum=200241006012132&type=StructureSL

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Project Overview (Final Plans)

Full Bridge Replacement and related approach and channel work while maintaining Traffic on an offsite detour (75-year design life)

- Site Layout
- Typical Section
- Design Characteristics
- Utility Relocation
- Bridge Lighting
- Maintenance of Traffic

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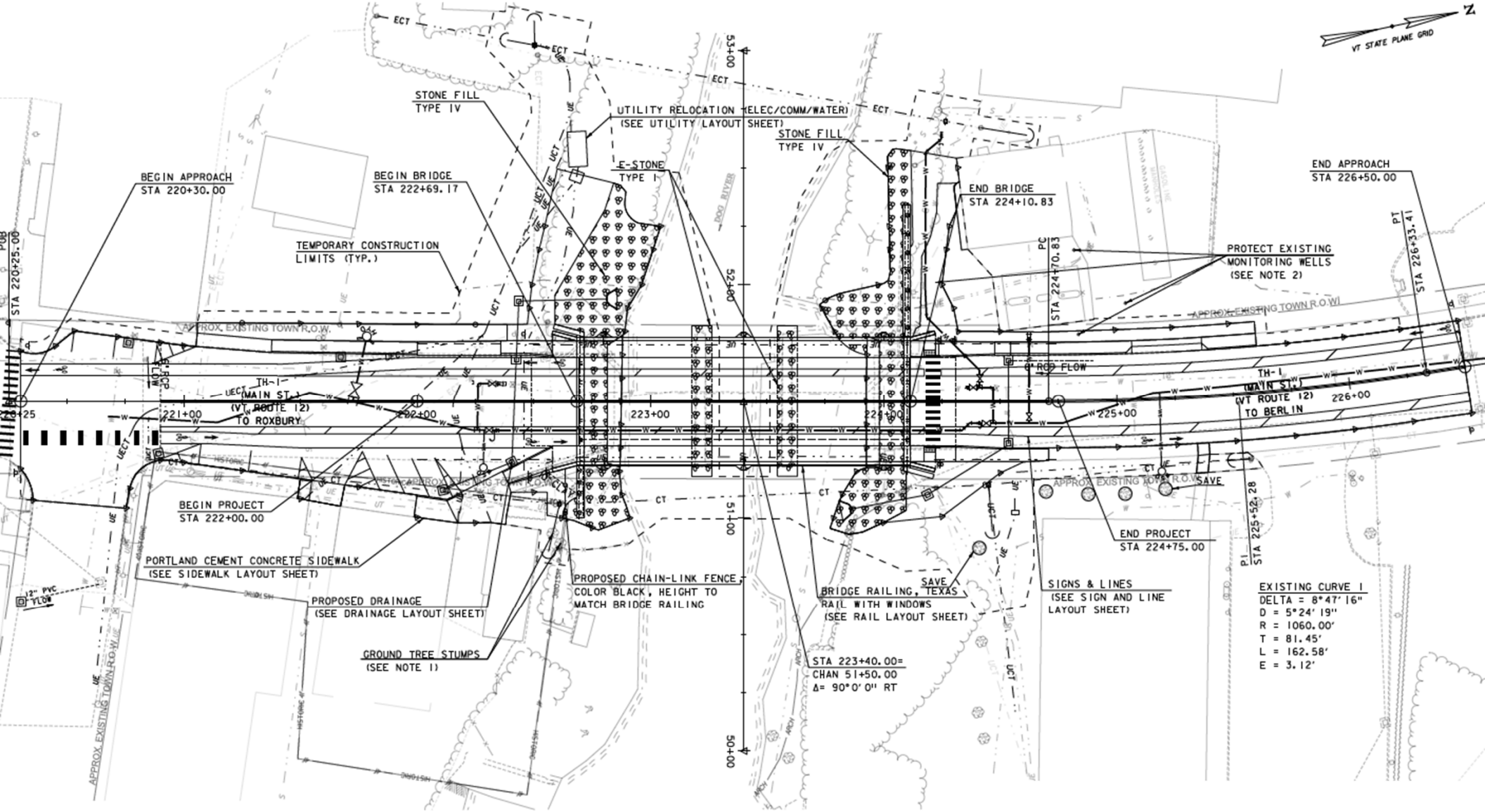
Bridge Replacement Layout



- Bridge: 8’-11’-11’-8’ Typical with 7’ wide sidewalks
- Project approaches: East St. to DG.

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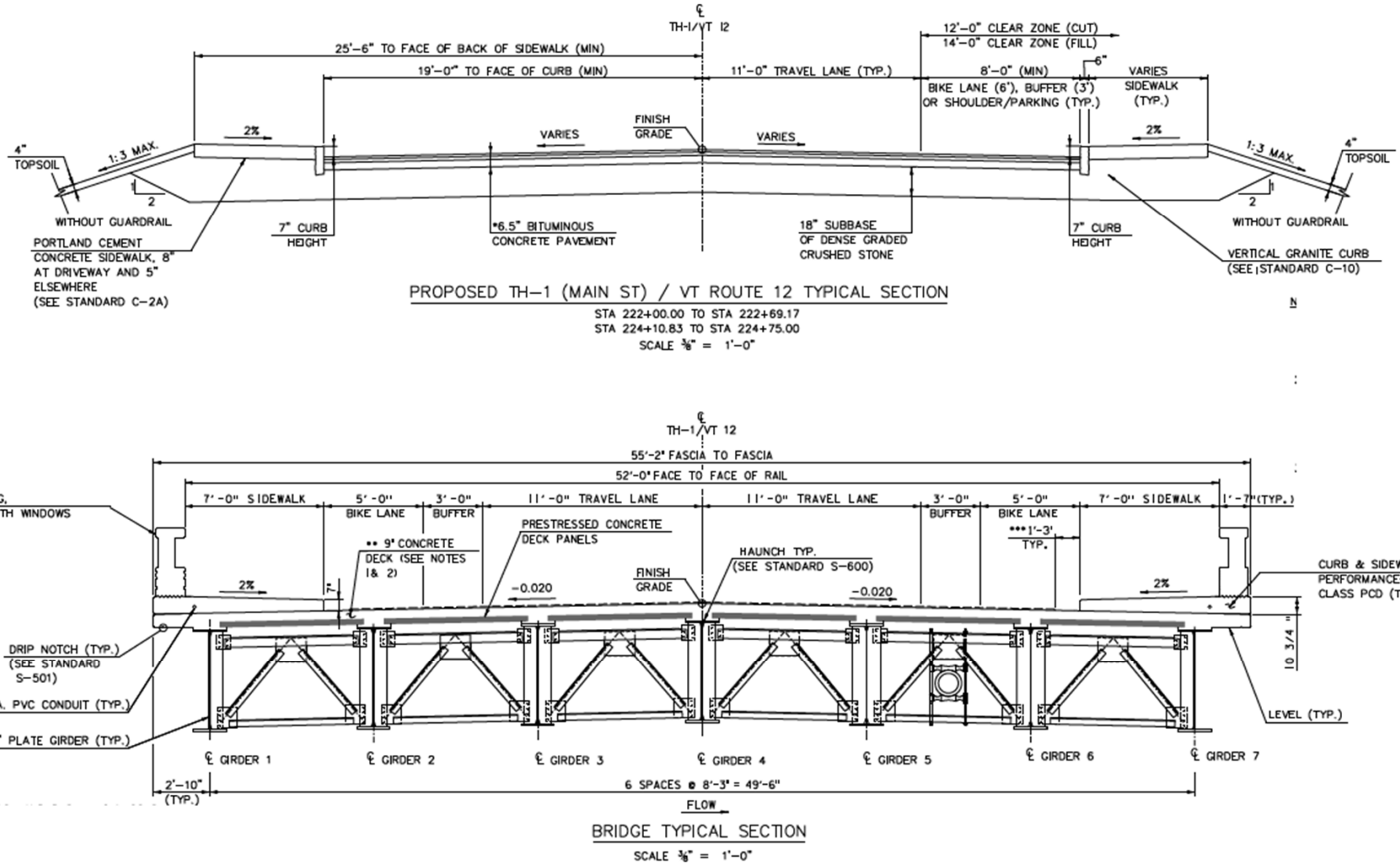
Full Bridge Replacement: Roadway/Bridge Typical Sections



11' Travel Lanes

8' Shoulder divided to a 5' Bike Lanes and 3' Striped Buffers

7' Sidewalks (Nose of curb to face of bridge railing)

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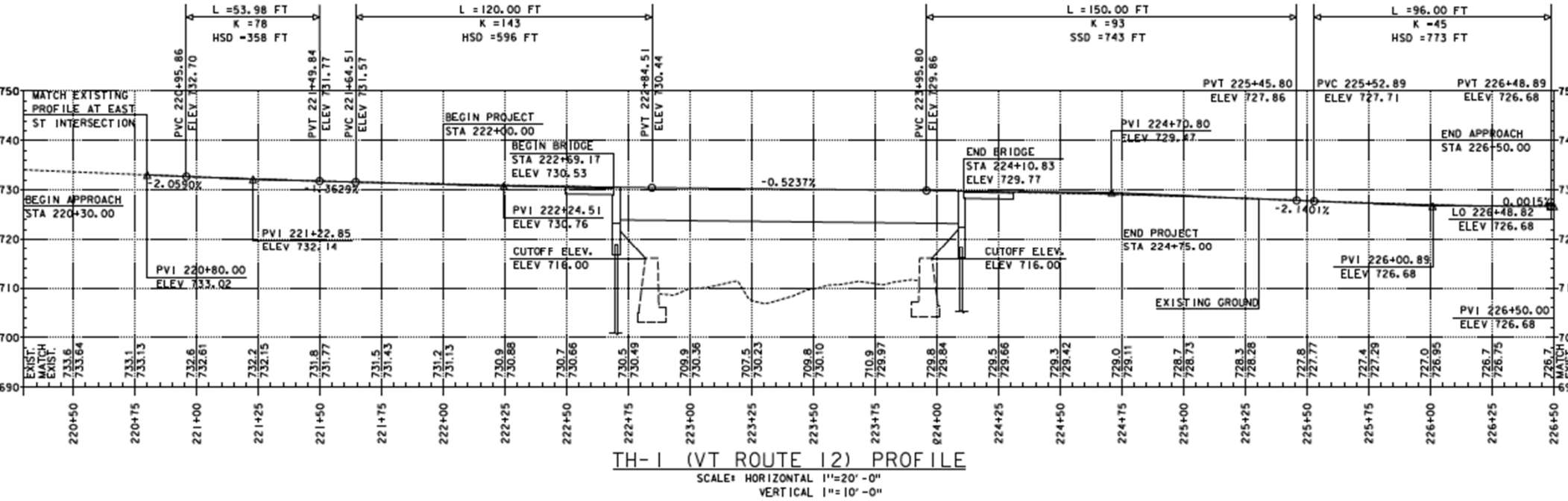
Proposed Profile



TH-1 (VT ROUTE 12) PROFILE

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=10'-0"

- Closely match existing vertical alignment of VT-12
- Existing abutments removed to elevation 716
- Piers completely removed from channel

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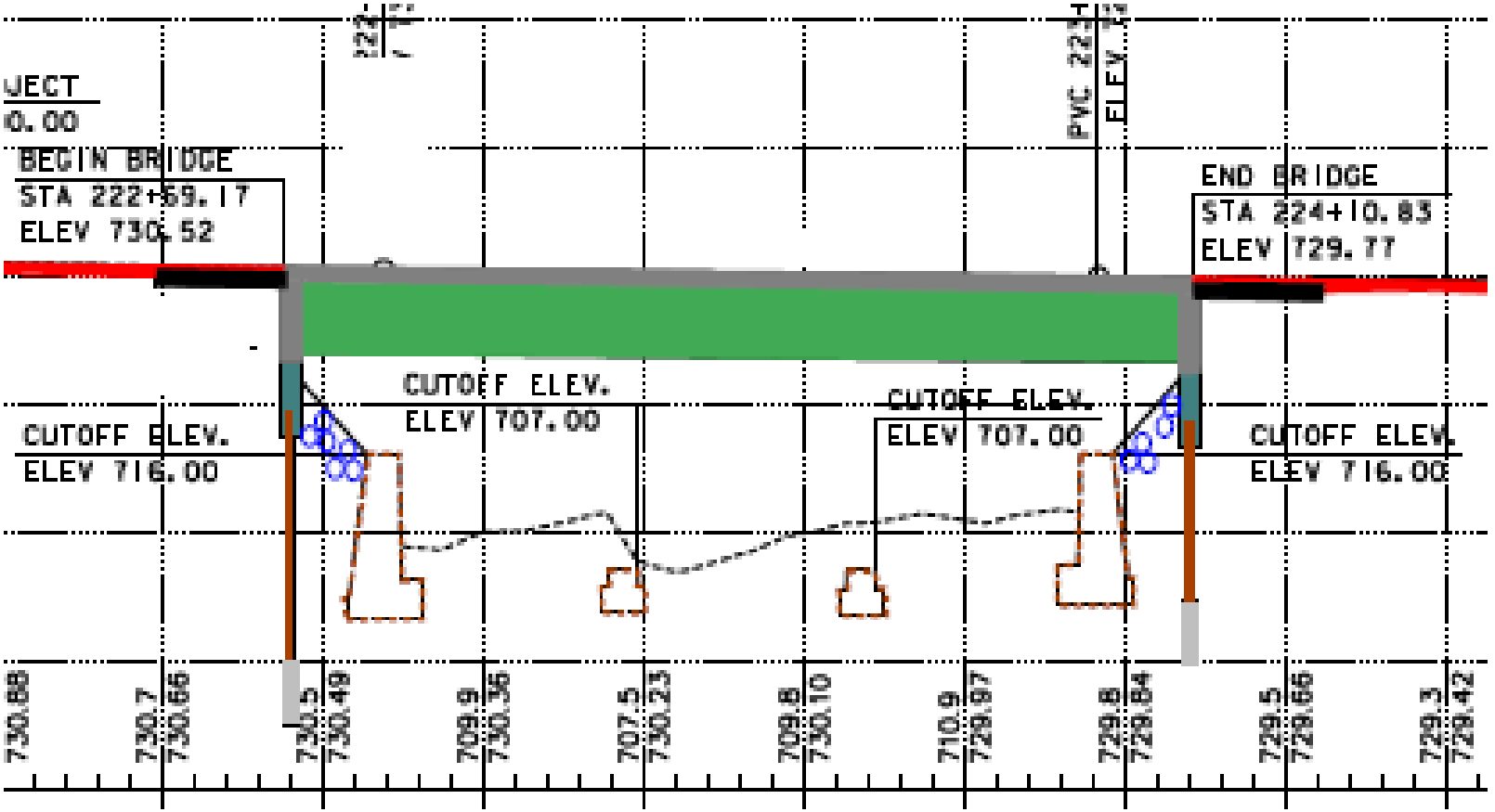
Proposed Structure

140’ Single span steel I-Girder superstructure founded on integral abutments (VTrans preferred bridge type)

Deep H-Pile foundation will be socketed into bedrock



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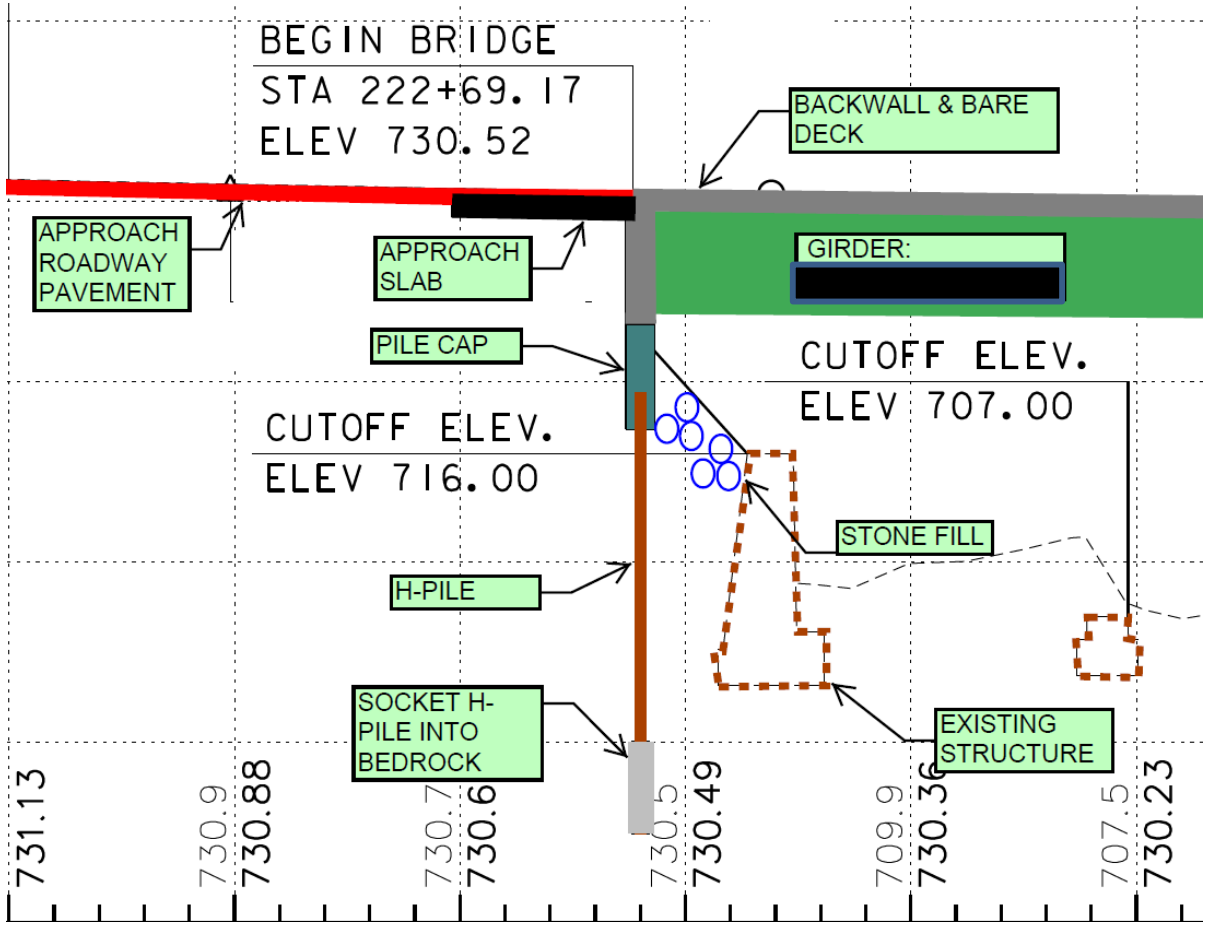
Removal of Existing Bridge & Proposed Bridge Components

- Existing superstructure will be removed
- Existing abutments will be partially removed / cut down to minimize excavation in the urban setting.
- Bridge piers will be completely removed from the channel.



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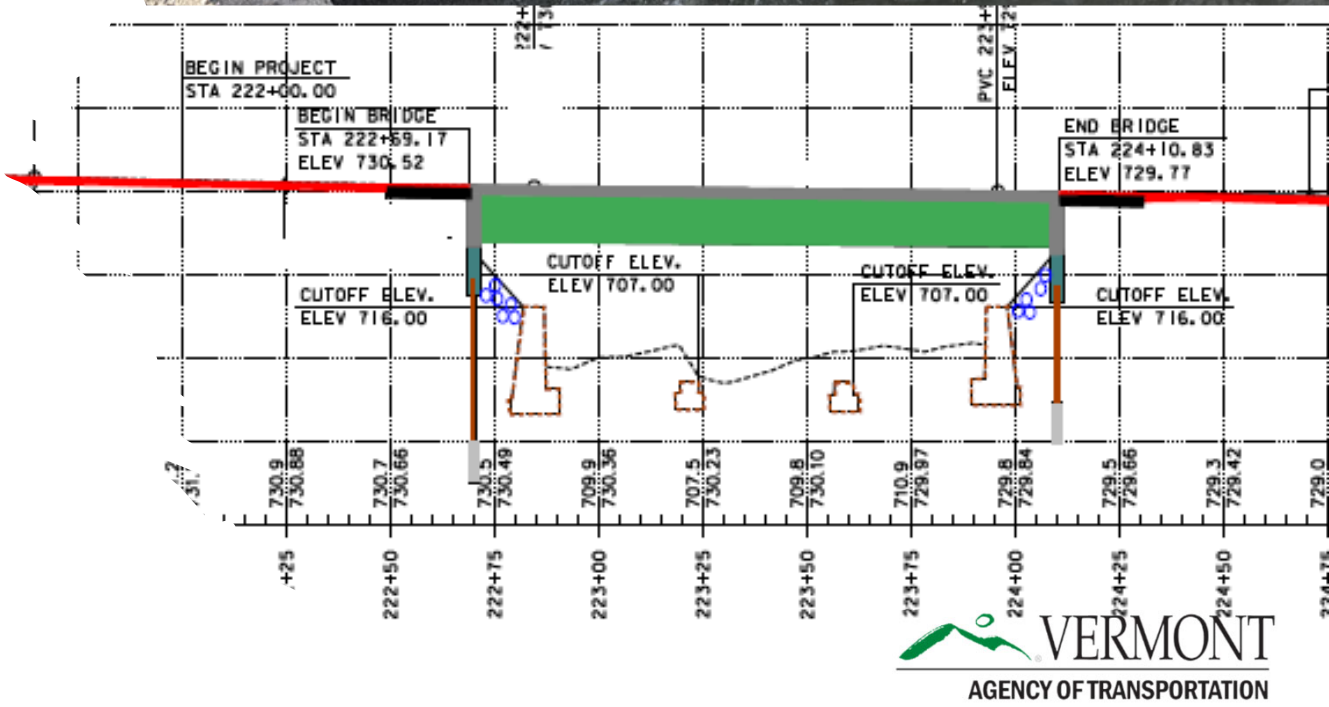
Hydraulics

Proposed 140’ single span, integral abutment bridge improves hydraulic conditions

- Increased hydraulic Opening

Removal of Piers:

- Eliminates Debris Concerns
- Decreases Scour Potential



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Design Characteristics

Bridge Railing

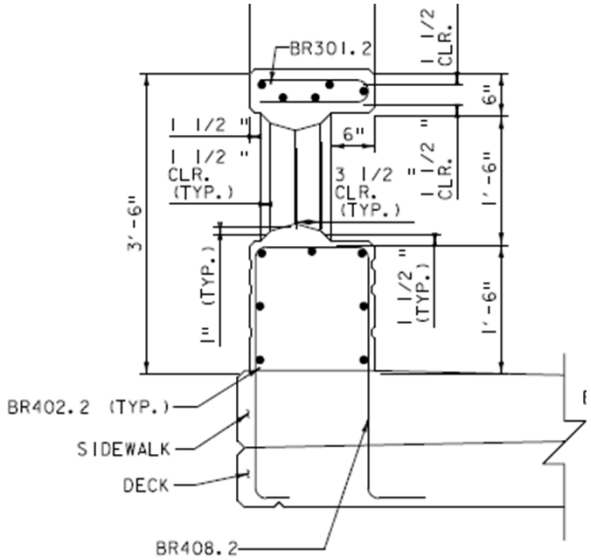
13.8—PEDESTRIAN RAILINGS

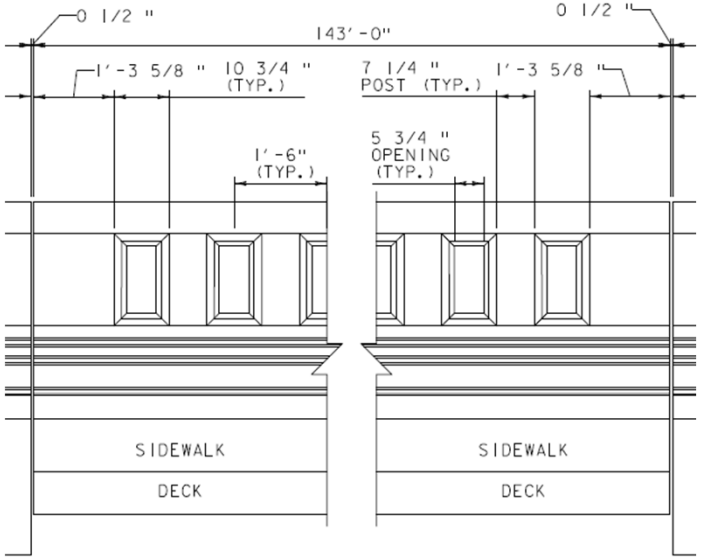
13.8.1—Geometry

The minimum height of a pedestrian railing shall be 42.0 in., measured from the top of the walkway.

A pedestrian railing may be composed of horizontal and/or vertical elements. The clear opening between elements shall be such that a 6.0-in. diameter sphere shall not pass through.

When both horizontal and vertical elements are used, the 6.0-in. clear opening shall apply to the lower 27.0 in. of the railing, and the spacing in the upper portion shall be such that an 8.0-in. diameter sphere shall not pass through. A safety toe rail or curb should be provided. Rails should project beyond the face of posts, pickets, or both as shown in Figure A13.1.1-2.





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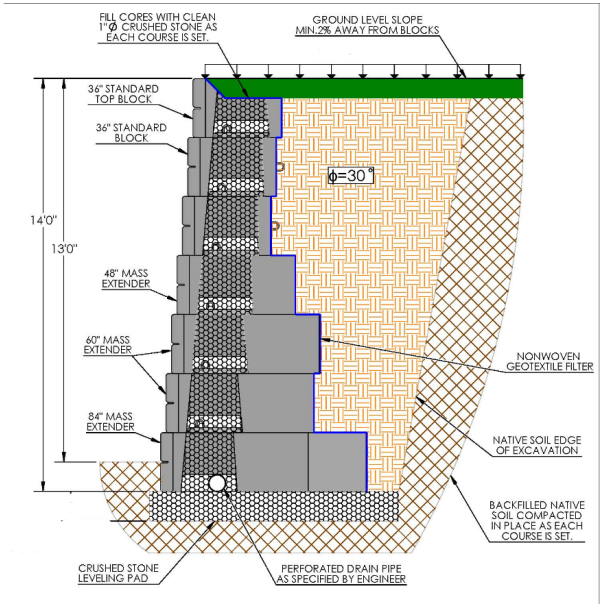
Substructure – Independent Retaining Walls (WW1, WW4)

Independent Retaining Walls will be utilized on the SW, NW, NE corners of the bridge.

Independent walls do not introduce torsional stresses on the substructure thus minimize the potential of concrete cracking during expansion and contraction of the bridge.



VTrans Approved Retaining Wall Systems:

VAOT APPROVED RETAINING WALL SYSTEMS

WALL TYPE / SPECIAL PROVISION	WALL SYSTEM	DESIGNER / INSTALLATION GUIDELINES	INITIAL APPROVAL	CONTACT
Precast Concrete Retaining Wall	Redi-Rock ™	Redi-Rock International, LLC Installation Guide	2007	Scott Mathie Business Consultant - Northeastern US Phone: (414) 412-7888 Email: scott.mathie@redi-rock.com
	Recon ™	ReCon Retaining Wall Systems Installation Instructions	2015	Michael S. Klotthor, PE, Director of Engineering 7600 W. 27th Street #229 St. Louis Park, MN 55426 Phone: (952) 922-0027 ext. 1114 Email: mklotthor@reconwalls.com
	T-Wall®	Reinforced Earth Co. Construction Manual	2002	Peter Anderson, P.E., Regional Manager 133 Park Street North Reading MA 01864 Phone: (978) 664-2830 Email: panderson@reinforcedearth.com
	Gravix®	Earth Wall Products Product Sheet	2017*	Hannah Ian Engineering Manager 1349 Old 41 Hwy, Suite 135 Marietta, GA 30060 Phone: (687) 594-3451 Email: hian@earthwallproducts.com
	Verti-Block®	Verti-Block, Verti-Crete LLC Design Resources	2020*	Ryan Stucki, Designer 16120 S Pony Express Road Bluffdale, UT 84065 Phone: (801) 676-6068 Email: ryan@verti-crete.com
Mechanically Stabilized Earth Wall	Reinforced Earth®/ Retained Earth ™	Reinforced Earth Co. N. Reading, MA Installation Guide	1998 / 2004	Peter Anderson, P.E., Regional Manager 133 Park Street North Reading MA 01864 Phone: (978) 664-2830 Email: panderson@reinforcedearth.com
	Vist-A-Wall ™	Big R Bridge Corp Product Sheet	2018	Glenn Robie Market Manager Phone: (207)-232-3228 Email: grobie@bigrbridge.com

*Pending final approval, but available for use on project

Updated: 3/30/2022

https://outside.vermont.gov/agency/VTRANS/external/docs/construction/03GeotechEng/Engineering/Approved%20Wall%20System%20List.pdf

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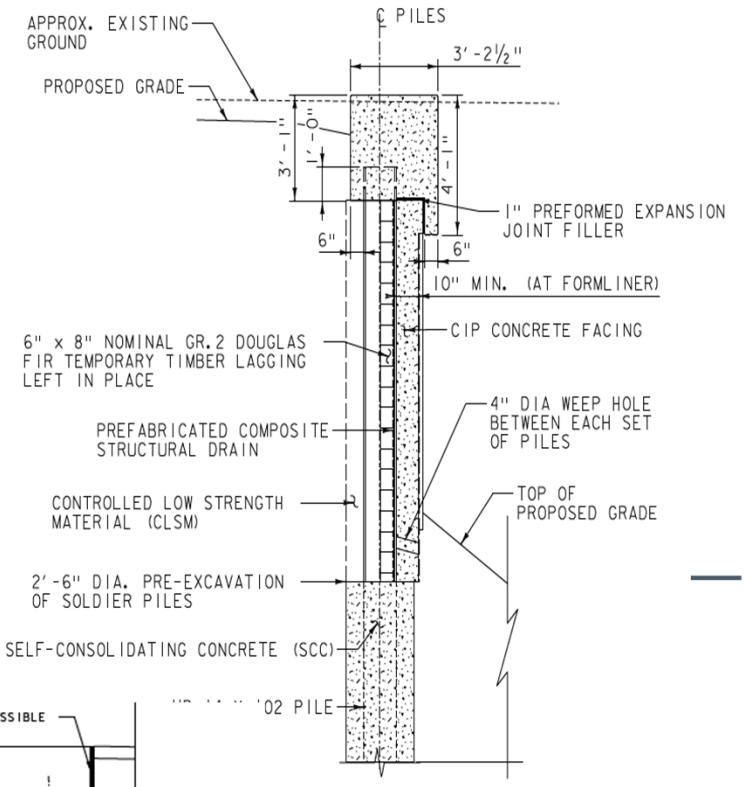
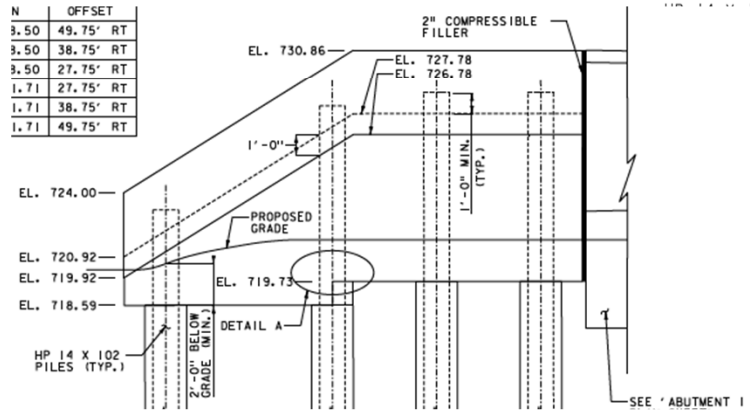
Substructure – Independent Retaining Walls (WW2, WW3)

Permanent Soldier Pile Retaining Wall (Drilled)

A concrete-faced soldier pile wall is a retaining wall system that utilizes steel H-shaped beams (soldier piles) driven or drilled into the ground at regular intervals, with a concrete facing (either cast-in-place or precast) installed to retain soil. This type of wall is often used for both temporary and permanent support of excavations, particularly in situations where a deep excavation is needed.

This wall type is required to minimize excavation limits on the Southeast and Northwest corners of the bridge to not impact impacting existing building foundations and utilities. This type of wall does not require reinforced earth behind it and will stand on its own if excavation is required behind it in the future to maintain municipal utilities, etc.





46. AN ASHLAR STONE ARCHITECTURAL CONCRETE FACING PATTERN SHALL BE USED ON WINGWALLS 2 & 3. THE ASHLAR PATTERN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING.

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1900
Welcome to Northfield and Norwich University
Celebrating 200 Years of Leadership and Service

UTILITIES


Gulf
DOLLAR GENERAL

Utility Relocation: Progress

- Utility Relocations Underway:
- Municipal Utilities:
  - The Town of Northfield Water and Sewer Department has a waterline attached underneath the bridge.
  - The Town of Northfield has street lighting on the 4 corners of the bridge.
- Underground:
  - Village of Northfield Electric Department has underground services.
- Aerial:
  - Northfield Electric – GMP Serving Electric Company
  - TDS Telecom
  - Trans Video
  - FirstLight Fiber

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Utility Relocation: Progress

- Utility Agreements (STATE/TOWN): Executed agreements August 2025
- Utility Relocation Order: Executed August 2025
  - Relocation of overhead utility lines when underground conduits are complete.
- Utility Clearance: August 14, 2025
- Town Contractor (Dufrene Group and Hutchins) currently installing municipal water line and underground conduits south of the bridge .
- Soil management requirements for bridge project also apply for underground utility work within bridge project limits. Soils are being managed in accordance with DEC approved Soil Management Plan.

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Bridge Lighting

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Existing Lighting

- 4 – Existing lights at each corner of the bridge
- Existing lights not mounted to bridge

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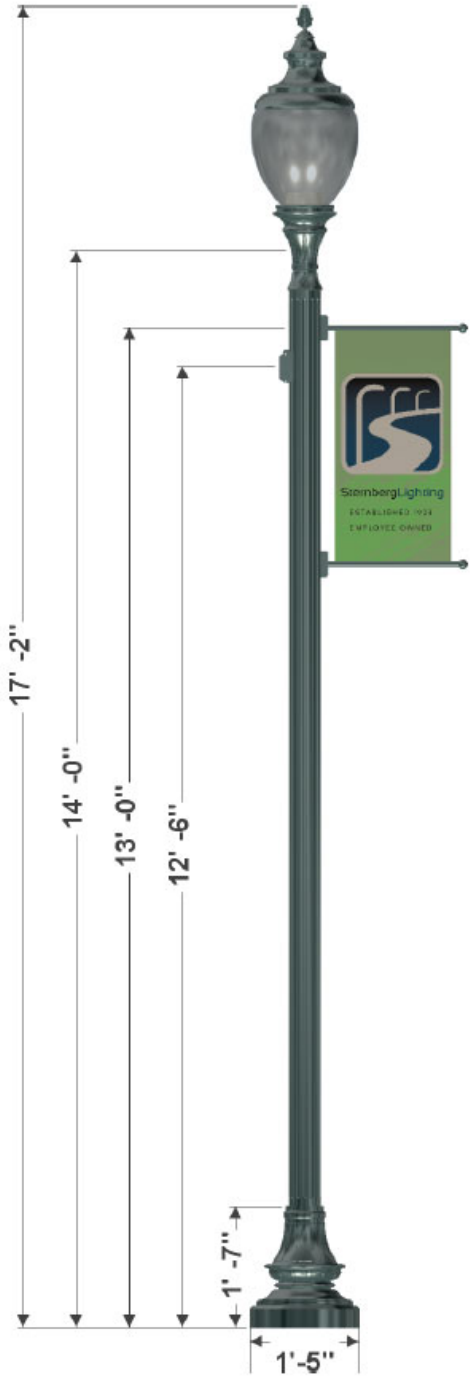
6 Proposed Poles



Proposed poles to match Depot Sq.

Height: 17’-2”

Pole Equipment

- Banner Arm:
  - 48” in height.
  - 24” to 28” wide
- Bottom Banner Arm approximately 10’ from sidewalk surface.
- GFI Protected Receptacle

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Maintenance of Traffic: Bridge Closure Period (Approximately 12-weeks)

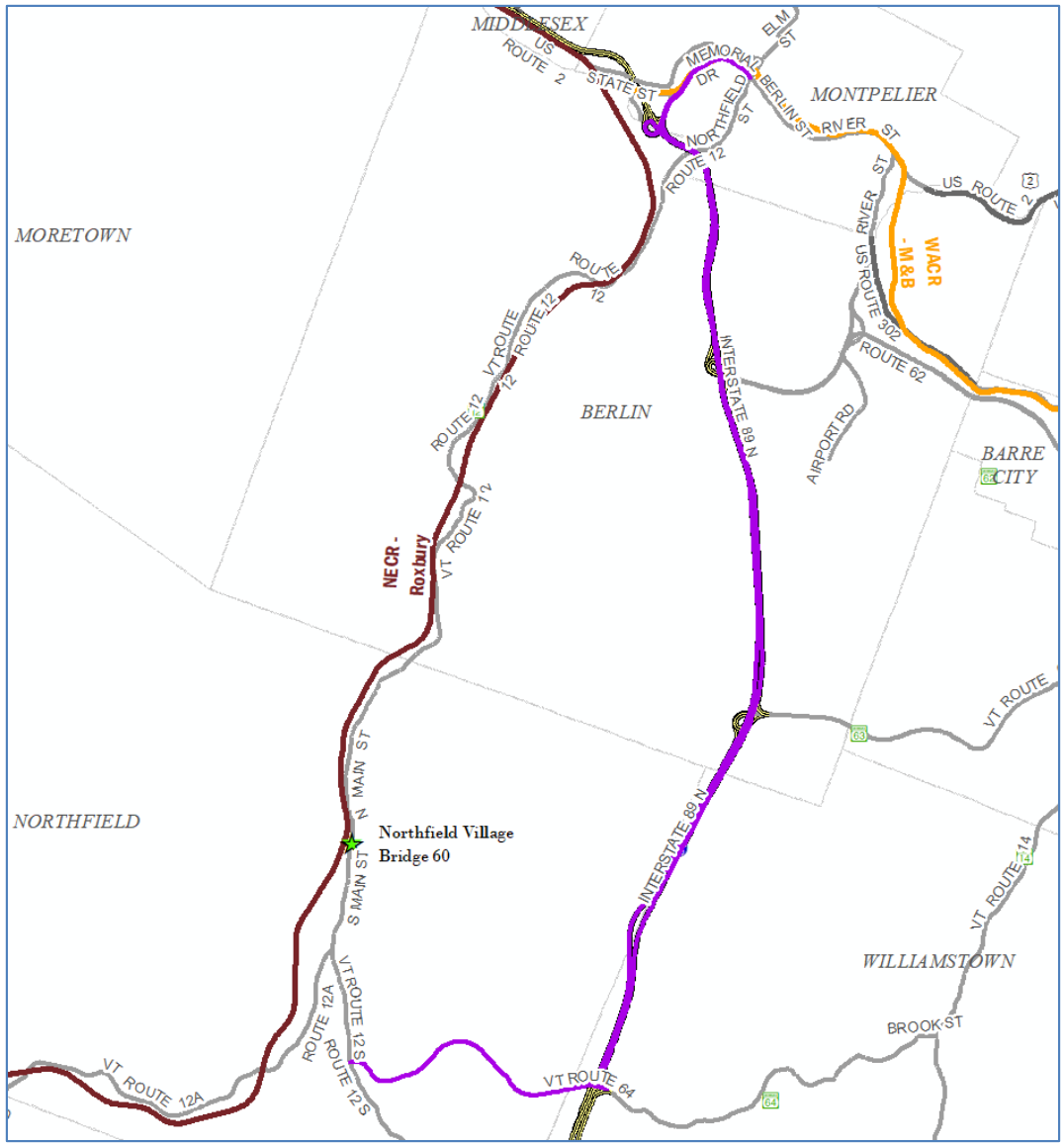
Detour chosen by Town and signed by State

(Class 1 TH)

- Regional Detour:
  - 26.4-mile end-to-end
- Local Detour:
  - 0.8-mile end-to-end
  - Railroad Crossing x 2

Traffic Control – Offsite/Regional Detour (Trucks)

- VT Route 12, to VT Route 64, Memorial Drive and Interstate 89, back to VT Route 12



26.4 Miles end-to-end

11.9 Miles Through-Route

14.5 Miles Detour Route

2.6 Miles Added

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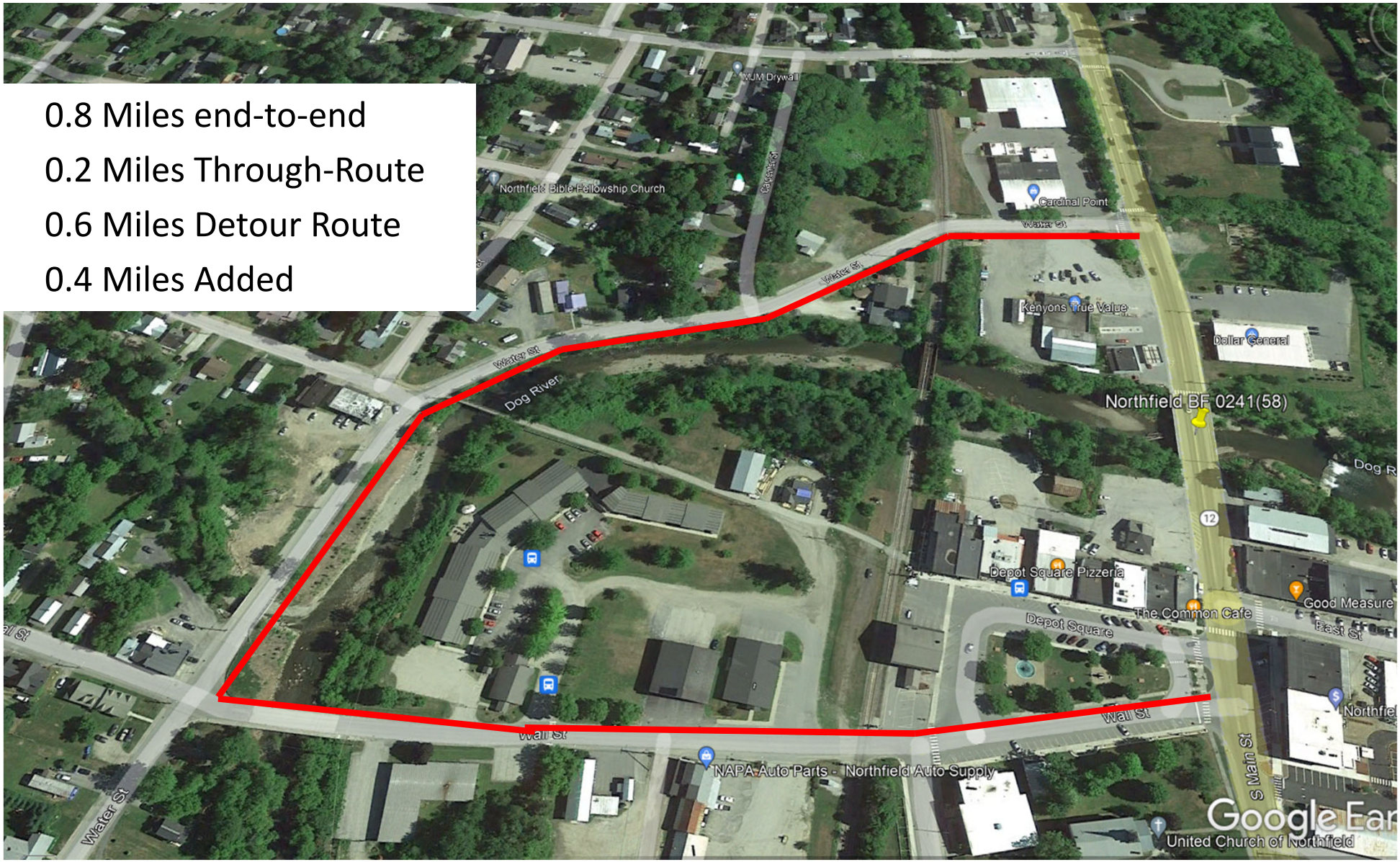
Traffic Control – Local Detour (Passenger Cars) & Pedestrian Detour

VT Route 12 (North Main Street), to Water Street, and Wall Street back to VT Route 12 (South Main Street)

- February 2023: Board agreed Bike/Ped detour would follow the local detour



Finance & Maintenance Agreement: Maintenance of Traffic

13. Traffic Control; Detours. During construction of the Project, the MUNICIPALITY will render such assistance as the STATE may request in the maintenance of traffic. If the Project route is closed to through traffic, the State or its contractor, with the cooperation of the MUNICIPALITY, will be responsible for selecting, signing, and maintaining a detour route, which shall be accomplished in conformance with 23 V.S.A. Section 1025 and the applicable edition of the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* (*MUTCD*).

- The bridge project is required to provide a temporary ADA accessible pedestrian detour route since the existing bridge has pedestrian facilities on the Class 1 Town Highway.

- In areas ADA compliance isn't met with existing facilities on the designated route, the project will include appropriate channeling devices, and temporary surfaces, etc. on the designated route.

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Finance & Maintenance Agreement: Maintenance of Traffic

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- **Nonparticipating Items:** Pedestrian traffic measures that direct pedestrian traffic in directions other than the designated pedestrian detour route are nonparticipating to the project and will be the responsibility of the Town.

- **Temporary Work:** The work along the local detour route is temporary in nature so all items installed except small areas we need to improve for accessibility like cross walk paint and paved areas for ramps / deteriorated sections of sidewalk for accessibility will be removed after we are finished with the detour.

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Temporary Local Detour: Vehicles / Pedestrians

- **Concerns expressed regarding safety of pedestrians at intersections**
  - The local pedestrian detour sheets do not include the vehicular traffic signs, except for the area near Depot Square where wall street is changing configuration to accommodate two-way traffic.
    - STOP at Wall St. / Depot Sq.
    - STOP at Wall St. / Central St.
  - The bridge contractor will be required to submit a site-specific traffic control plan for the local vehicle detour and pedestrian detour that satisfies ADA requirements within their means and methods that meets the intent of the information provided.
    - The pedestrian local detour route plan sheets have been included in the plans so the contractor may understand the scale of work required along the route for pedestrian accessibility for bidding the bridge project.
  - A VTrans Resident Engineer will be on site every day so adjustment can be made there are issues in the field.

Local Detour Intersections – STOP Condition

Concerns expressed regarding safety at intersections

- Wall St. / Water Street
- Water Street / Union Street

The bridge project is not proposing a stop condition change to what currently exists at the Wall St. / Water St. and Water St. / Union Street intersections.

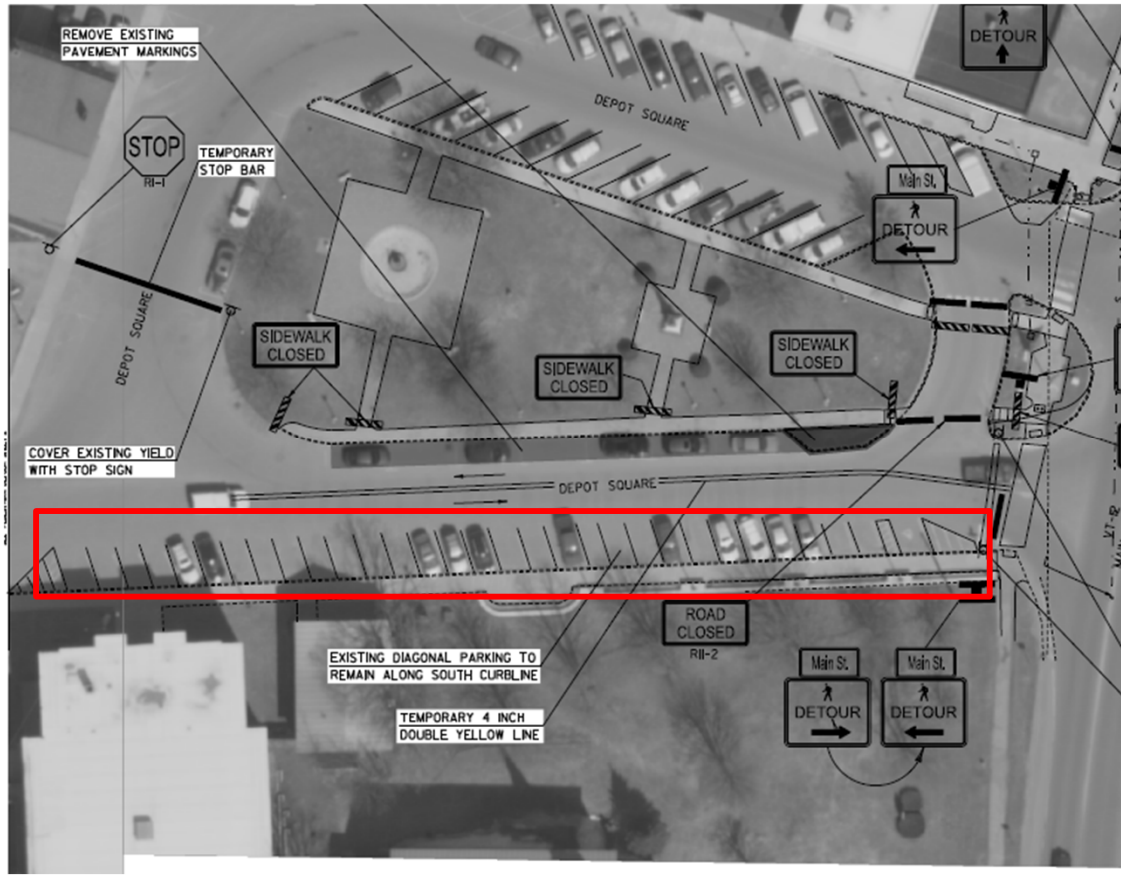
- They Agency does not have jurisdiction to change these intersection conditions along the local detour route to install the stop signs since the Town is the governing entity of this local route.

- The Town of Northfield is the Governing body on local roads in accordance with **23 V.S.A. § 1008**.
  - If the board would like intersection conditions permanently changed to include an all stop at both intersections of Wall St. / Water St. and Water St. / Union Street the Town will need to create an ordinance.

- If the Town has ordinances for revised intersection conditions in advance of the bridge project construction and signs installed the project will include the necessary supplemental line striping along the local detour route.

Traffic Control – Local Detour (Passenger Cars)

VT Route 12 (North Main Street), to Water Street, and Wall Street back to VT Route 12 (South Main Street)



- Utilize 7 parking spaces along Wall Street for 2-way traffic flow during bridge closure period
- Turning movement reviewed indicate there is adequate space for two lanes of traffic with the proposed configuration.
- The intersection of Depot Square / Wall St. and Central St. / Wall St. are temporarily being changed from yield conditions to Stop conditions for safety in accordance with MUTCD.

In addition to temporarily removing parallel parking, remove diagonal parking to provide more space / enhance safety? (Town owned?)

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Traffic Control – Local Detour (Passenger Cars)

VT Route 12 (North Main Street), to Water Street, and Wall Street back to VT Route 12 (South Main Street)

Clarity of the pedestrian detour route:

- Pavement markings for the pedestrian detour route will be refreshed so the path of travel is clear.

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Traffic Control – Pedestrian Detour – Crosswalk Enhancement

Pedestrian safety concerns along local detour route:

2019 VTrans Guidelines for Pedestrian Crossing Treatments (Figure 11)

- VT12: ADT 4200 Crosswalk Enhancement Options
  - In-street sign
  - No temporary signals at crosswalks: Rectangular Rapid Flashing Beacons (RRFBs) or equivalent temporary signal

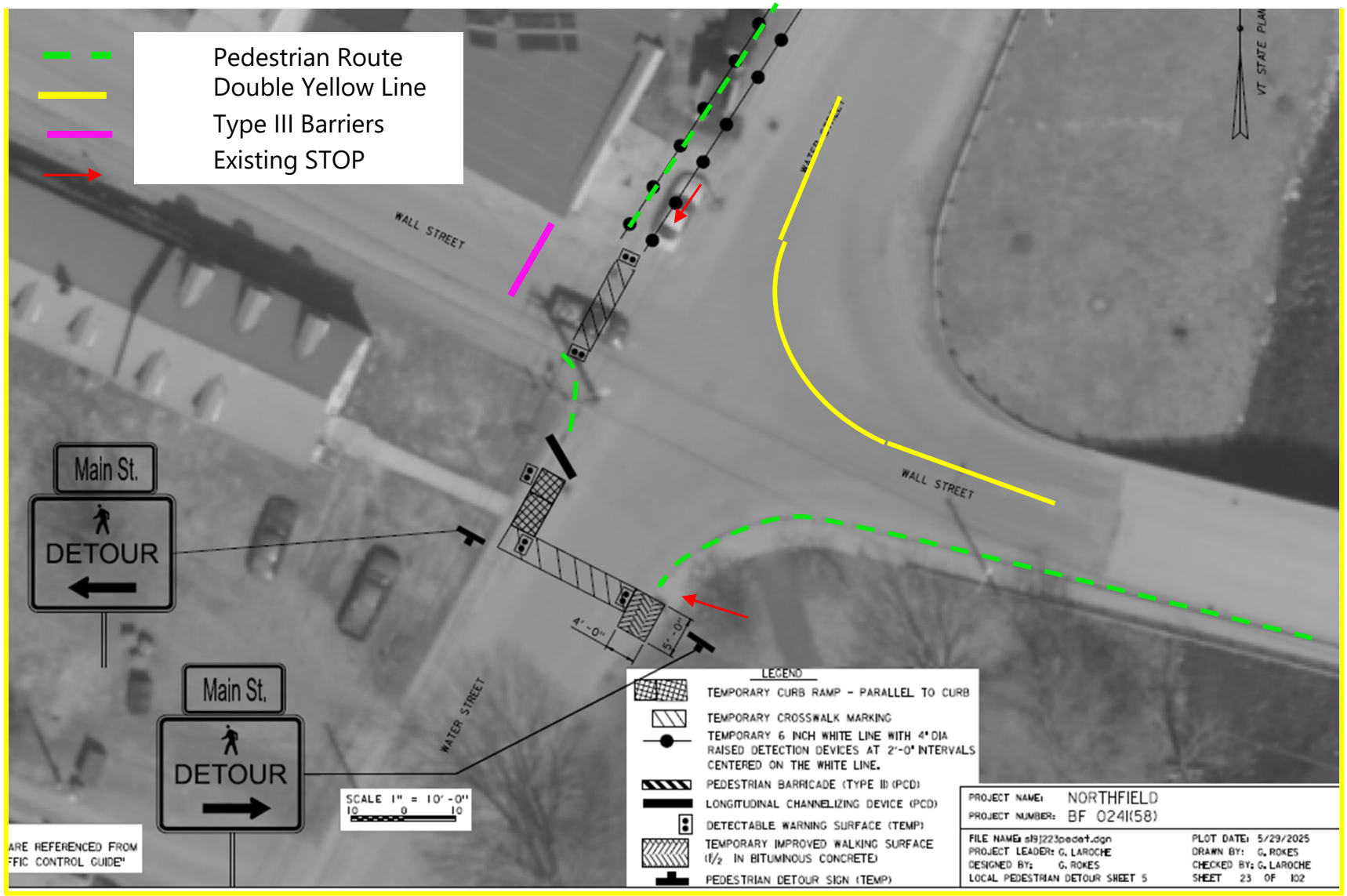
Figure 11: Crosswalk Enhancement Options to Consider

Roadway Type	3000 ≤ AADT ≤ 9,000			AADT >9,000 and ≤ 12,000			AADT > 12,000		
	≤ 30 MPH	35 MPH	40 MPH	≤ 30 MPH	35 MPH	40 MPH	≤ 30 MPH	35 MPH	40 MPH
2 Lanes	In-street sign	In-street sign	In-street sign, RRFB	In-street sign, RRFB	In-street sign, RRFB	In-street sign, RRFB	In-street sign, RRFB	In-street sign, RRFB	In-street sign, RRFB
3 Lanes	Ped Refuge	Ped Refuge	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB, PHB
4 or more Lanes with Raised Median*	AYL	AYL	AYL, RRFB	AYL, RRFB	AYL, RRFB	AYL, RRFB, PHB	AYL, RRFB	AYL, RRFB	AYL, RRFB, PHB
4 or more lanes without raised median	Ped Refuge, AYL	Ped Refuge, AYL	Ped Refuge, AYL, RRFB, PHB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, RRFB	Ped Refuge, AYL, PHB	AYL, RRFB	Ped Refuge, RRFB, AYL, PHB	Ped Refuge, AYL, PHB

Intersections – Wall St. / Water Street

Concerns expressed regarding safety of pedestrians at intersections

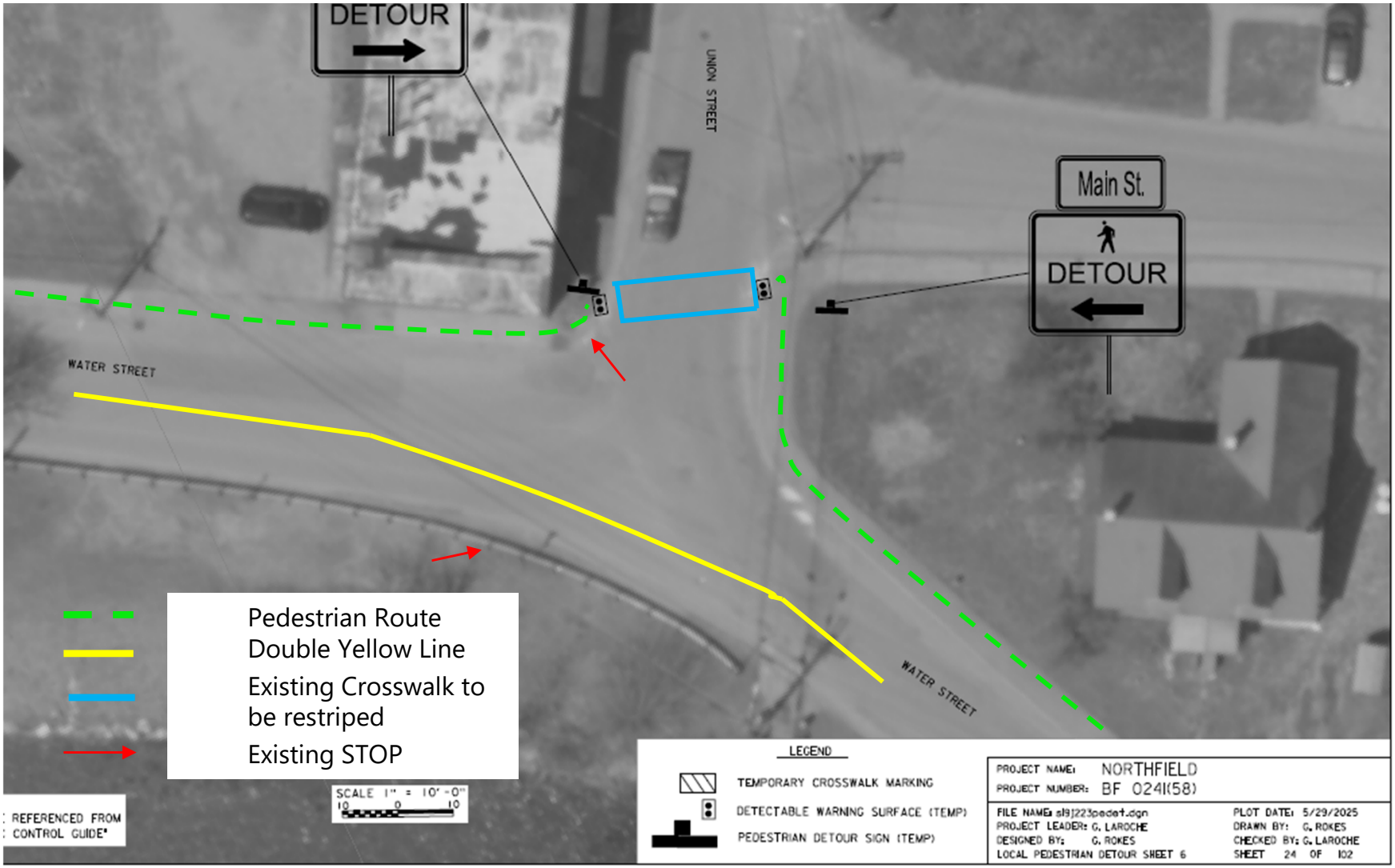
- Wall street has inter-block connectivity to pleasant St.
  - For enhanced safety during bridge closure traffic on this leg of wall street could be closed
- For clarity of traffic flow a double yellow line could be striped at intersection of Wall and Water.



Intersections – Water St. / Union Street

Concerns expressed regarding safety of pedestrians at intersections

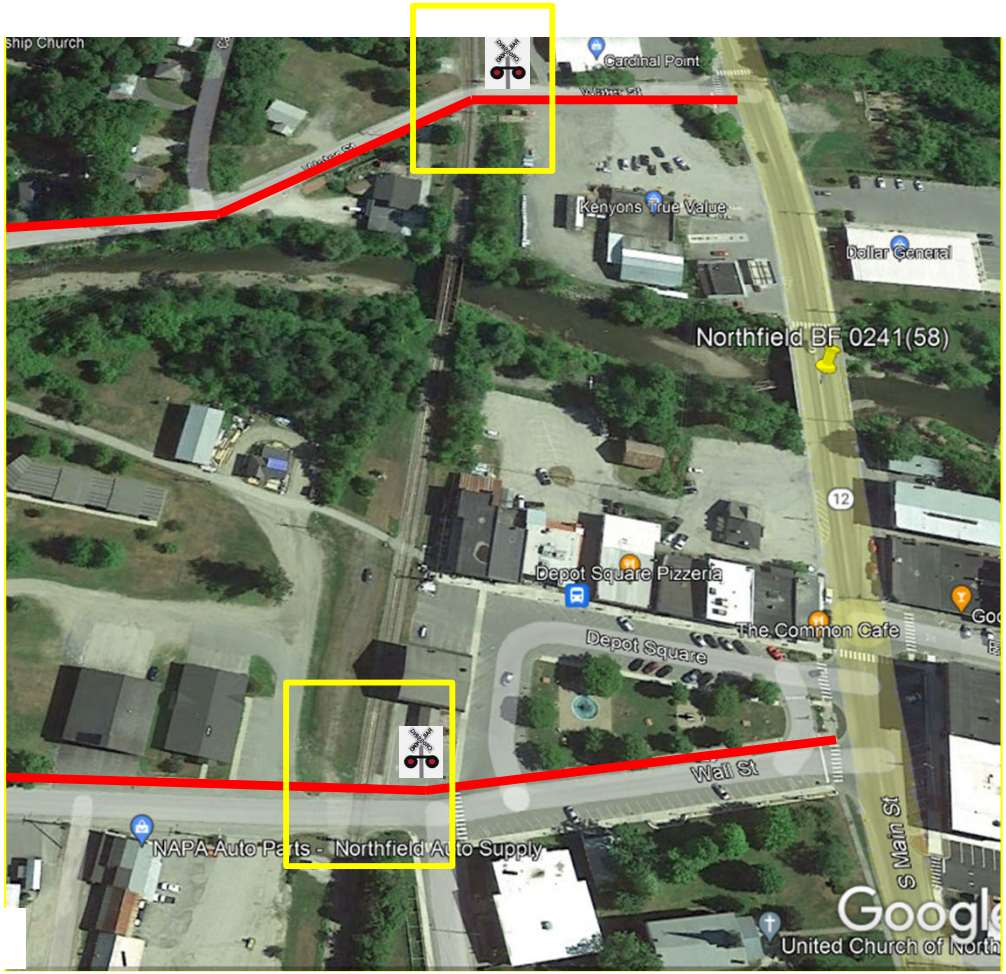
- Wall street has inter-block connectivity to pleasant St.
  - For enhanced safety during bridge closure traffic on this leg of wall street could be closed
- For clarity of traffic flow a double yellow line could be striped at intersection of Wall and Water.



Railroad Crossing – VTrans / NECR Coordination

<u>The local vehicle and pedestrian detour will cross NECR in two locations</u>

- **Existing railroad pavement seals are considered ADA compliant**. The project proposes to use the existing width of pavement and include channelizing devices through each RR crossing area.
- **Right-of-Entry agreement:** (This is essentially a permit to be in the ROW, and not going to disrupt anything) The intent of this agreement is for short duration non-impactful work within the railroad ROW. Right-of-entry agreement will include RR flagging hours.



Wall St. ->Water St. (Local Vehicle / Pedestrian Detour)

Finance and Maintenance Agreement: Environmental Contamination

Existing Conditions

- Hazardous Sites (ANR ATLAS)
  - Fernandez Living Trust (SW)
  - Wesco Realty, LLC. (NW)
  - Dollar General (NE)

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Finance & Maintenance Agreement & I-RULE

7. Environmental Contamination. The Parties agree to abide by current regulatory guidance regarding the discovery of any environmental contaminants including, but not limited to, identification of other contributing parties who may potentially share liability for the conditions encountered in the Project area.

Within the Municipal right-of way, the cost of mitigation of environmental contamination in existence prior to construction of that portion of the Project shall be non-participating. Accordingly, any costs associated therewith shall be the sole responsibility of the MUNICIPALITY.

Within the STATE right-of way, the cost of mitigation of environmental contamination in existence prior to construction of that portion of the Project shall be the responsibility of the STATE. Accordingly, any costs associated therewith shall be the sole responsibility of the STATE.

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Vermont DEC I-Rule:
What are contaminated soils?

Vermont DEC I-Rule:
https://dec.vermont.gov/sites/dec/files/wmp/Sites/0706.IRULE_.pdf

SUBCHAPTER 8 CONTAMINATED SOIL

§ 35-801. APPLICABILITY

(a) The following soils containing hazardous materials at concentrations exceeding the applicable Vermont Soil Standards shall be managed in accordance with this section:

(1) Non-hazardous waste contaminated soil.
(2) Development soils.
(3) Petroleum contaminated soils that are exempted from management under VHWMR § 7-203(p).

100% Town Responsibility:

- Development Soil Reuse/Disposal
- Hazardous Soils Disposal
- Environmental Professional Oversight

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Soil Management Plan

ATLAS Environmental:

- Soil Management Plan Scheduled for Completion 8/14/2025

For estimating, the project included $500,000 for soil disposal in the estimate assuming all soil excavated is contaminated and requires disposal.

- Petroleum Contaminated Soil disposal through petroleum cleanup fund(PCF) accounts for roughly $100,000 of the total estimate.
    - As stewards to the taxpayer VTrans seeks the lowest cost alternatives by prioritizing what can be reused and what will be reimbursed by other entities.

- PCF applications have been filled out on behalf of the Town to dispose of this material and reimburse the Agency for nonparticipating cost.

- Soil will be tested after all soil in a decision unit has been excavated and prioritized for reuse to minimize disposal costs.

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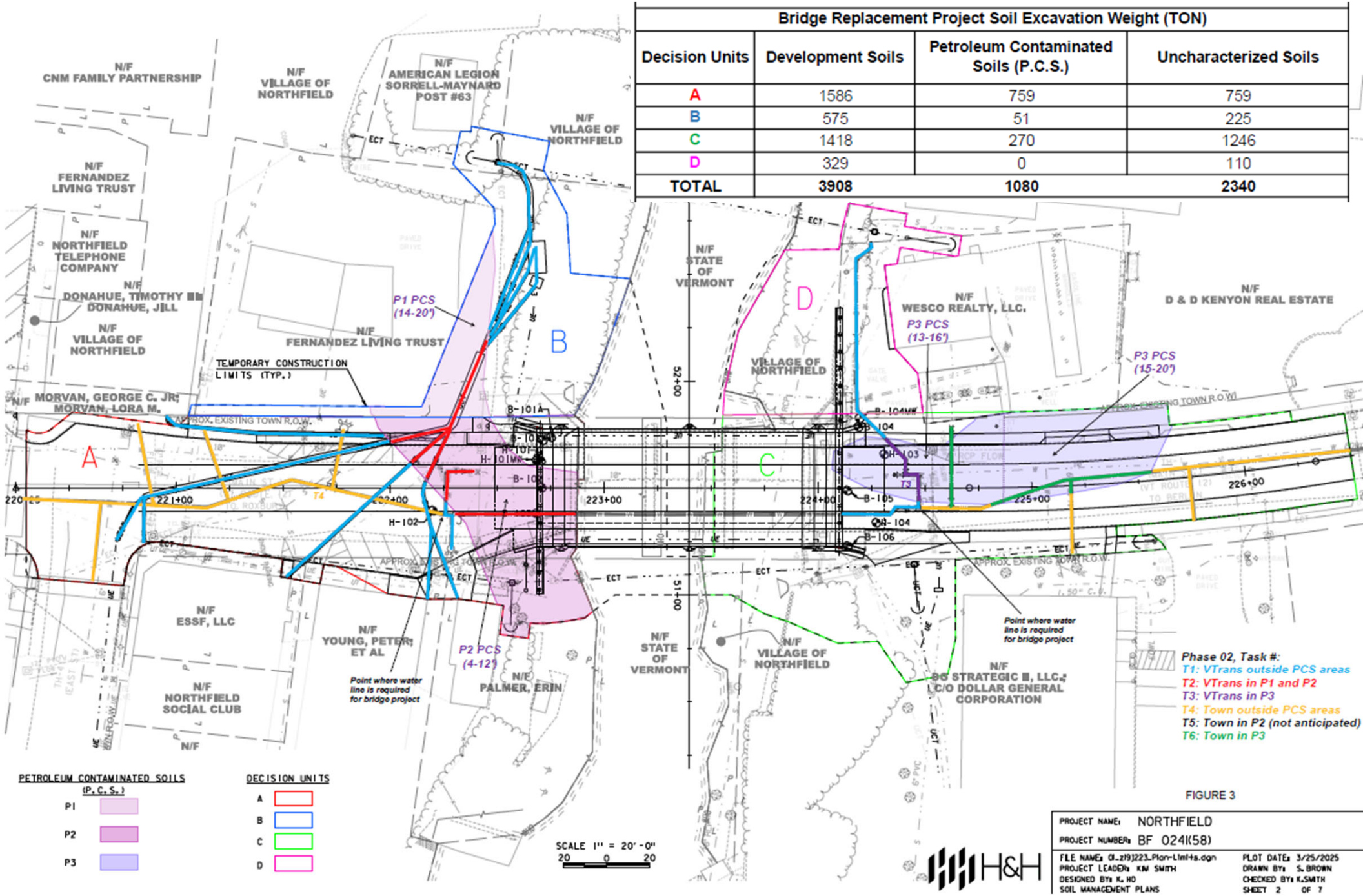
Soil Management Decision Units:

Bridge Replacement Project Soil Excavation Weight (TON)			
Decision Units	Development Soils	Petroleum Contaminated Soils (P.C.S.)	Uncharacterized Soils
A	1586	759	759
B	575	51	225
C	1418	270	1246
D	329	0	110
TOTAL	3908	1080	2340



Soil Management Location

Soil will be managed at the Town owned sandpit:

Site approved for use by VT Department of Environmental Conservation (DEC)

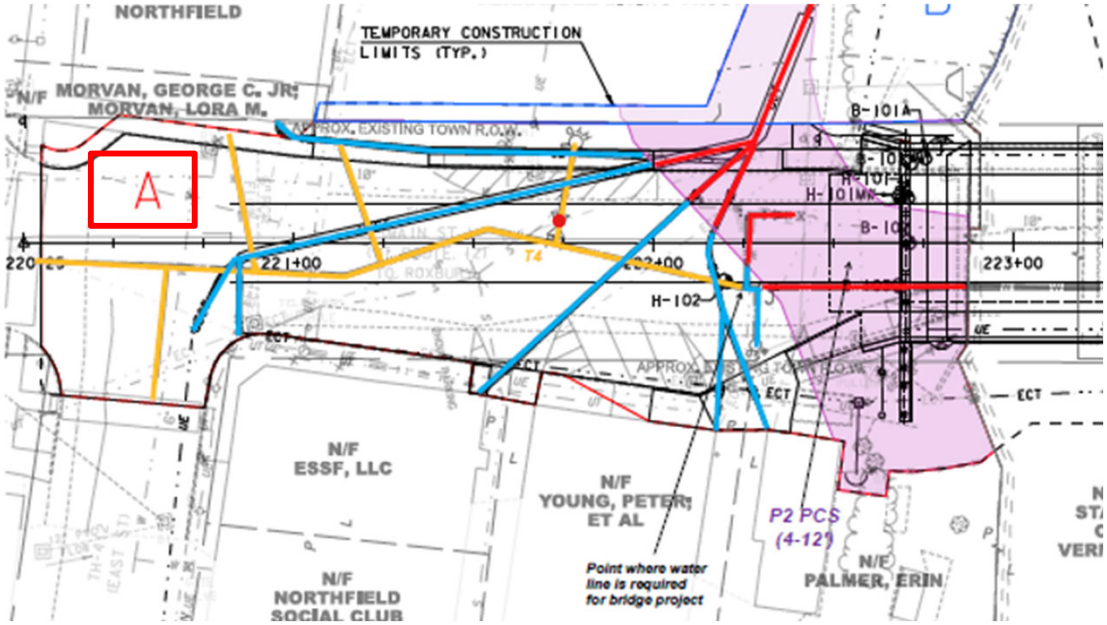
Utility relocation this year (2025)
Bridge construction (2026)

Vermont DEC I-Rule:
Soil Management Location

Stockpile	2025 Town Water Line (CY)	2025 Vtrans Water Line (CY)	2025 VTrans Duct Bank (CY)	2025 VTrans Utility Pole (CY)	2026 VTrans Bridge Replacement (CY)	Total (CY)
DU-A-DS	163	230	325	2.5	1,065	1,786
DU-B-DS	0	0	255	0	315	570
DU-C-DS	152	245	0	0	900	1,297
DU-D-DS	0	55	0	0	195	250
DU-P1 (B)	0	0	30	0	20	50
DU-P2 (A)	12	40	45	0.8	490	588
DU-P3 (C)	100	110	0	0	160	370
DU-A-US	0	180	205	0.1	450	835
DU-B-US	0	0	120	0	135	255
DU-C-US	0	155	0	0	745	900
DU-D-US	0	60	0	0	65	125
Totals:	**427**	**1075**	**980**	**3.4**	**4,540**	**7,025**

Vermont DEC I-Rule:
2025 Utility Construction

- <u>2025 Utility Relocation Soil Test Performed to Date:</u>
  - Decision Unit DU-A-US - 0 to 4 feet south of the bridge
    - This location was within the roadway prism <u>not</u> within the area labeled as a petroleum impacted .
  - Testing came back under within urban soil criteria so the Town may reuse this soil within the same urban background area defined by the ANR ATLAS.



Stockpile	2025 Town Water Line (CY)	2025 Vtrans Water Line (CY)	2025 VTrans Duct Bank (CY)	2025 VTrans Utility Pole (CY)
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DU-D-DS	0	55	0	0
DU-P1 (B)	0	0	30	0
DU-P2 (A)	12	40	45	0.8
DU-P3 (C)	100	110	0	0
DU-A-US	0	180	205	0.1
DU-B-US	0	0	120	0
DU-C-US	0	155	0	0
DU-D-US	0	60	0	0
Totals:	**427**	**1075**	**980**	**3.4**

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Town Share: 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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Total Cost Estimate

	2025 Final PS&E	Expended to Date	Town Share
Preliminary Engineering & ROW (5% Town)	$1,900,000.00	$1,666,301.67	$95,000.00
Construction w/ Engineering, Contingency, Misc. (5% Town)	$11,055,783.00	$0.00	$552,789.15
Soil Disposal (100% Town)	$500,000.00	$0.00	$500,000.00
TOTAL COST EST.	**$13,455,783.00**		**$647.789.15 + Soil Disposal**

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Previous Estimate Comparison

	2023 Preliminary Plans	2025 Final PS&E	DELTA	% Difference
Preliminary Engineering & ROW (5% Town)	$935,000.00	**$1,900,000.00**	$965,000.00	203.2%
Construction (5% Town)	$7,982,000.00	**$11,055,783.00**	$3,073,783.00	38.5%
Soil Disposal (100% Town)	$0.00	**$500,000.00**		
TOTAL COST EST.	$8,917,000.00	**$13,455,783.00**	$4,538,783.00	50.9%

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Estimate Explanation

Preliminary Engineering:

- PE cost Increase is due to complexity of the project in an urban setting and the redesign efforts to assure the removal of the Cross Brothers Dam did not negatively impact the new bridge.

Construction Estimate:

- Estimates have been based on current prices and not projected prices into the future since inflation rates have been unpredictable. Structural Steel prices have fluctuated greatly over the past several years.
- The municipal waterline on the bridge was not included in the Preliminary Plan estimate since DG hadn't provided information at the time of submission.
- Cross Brothers Dam removal redesign
  - Redesign of the foundation increased the length of piles and drilling for the deep foundation
- Contaminated soil disposal was not included in project estimate in 2023.
  - Preliminary did not include 100% disposal/oversight cost of hazardous soil, but included $500,000 in estimate at Final Plans
- Soldier Pile wall type determined between Preliminary and Final Plans: This type of wall is more costly than other types of retaining walls due to the drilling required to install the piles.

Project Schedule

- Environmental Permits: Cleared
- Right of Way: Cleared
- Utilities: Clearing August 14, 2025
- Contract Plans: August 14, 2025
- Advertise for Construction: September 10, 2025
- Construction Start: April 1, 2026

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Construction Schedule

Pre Bridge Closure: April 1, 2026 – May 31, 2026

Prior to the bridge closure the Contractor will be allowed to maintain a minimum of one-lane (12-foot lane and two 2-foot shoulders) alternating traffic during daytime hours to perform work. No night work will be allowed during this time, and two-lane, two-way traffic must be maintained on the existing alignment during nighttime hours.

- Access to channel / causeway
- Soil management area
- Subsurface utility relocation – Kenyon waterline
- WW2 & WW3 Soldier Pile Walls
- Bridge H-Pile Drilling / Installation

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Construction Schedule

Bridge Closure: June 1, 2026 – August 28, 2026

- Bridge deck, bridge sidewalk, bridge rail, and approach slabs cast
- base and intermediate course of pavement shall be placed and compacted through the project limits. Temporary pavement transverse tapers shall be installed at the begin and end of bridge deck, and at the existing pavement match locations.
- Wingwalls #1, #2, #3, and #4 shall be installed and backfilled.
- Construction of the portion of proposed water main that is supported by the superstructure.
- Restore Depot Square to original motor vehicle traffic flow configuration.
- The bridge and roadway shall be opened to two-way traffic (two 12-foot lanes and two 2-foot shoulders) with temporary delineation.

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Construction Schedule

Post Bridge Closure: - August 29, 2026 - October 15, 2026

- channel access removal
- Approach roadway: Finish sidewalk, wearing course pavement on bridge approaches,
- Line striping
- Site cleanup

Project completion: October 15, 2026

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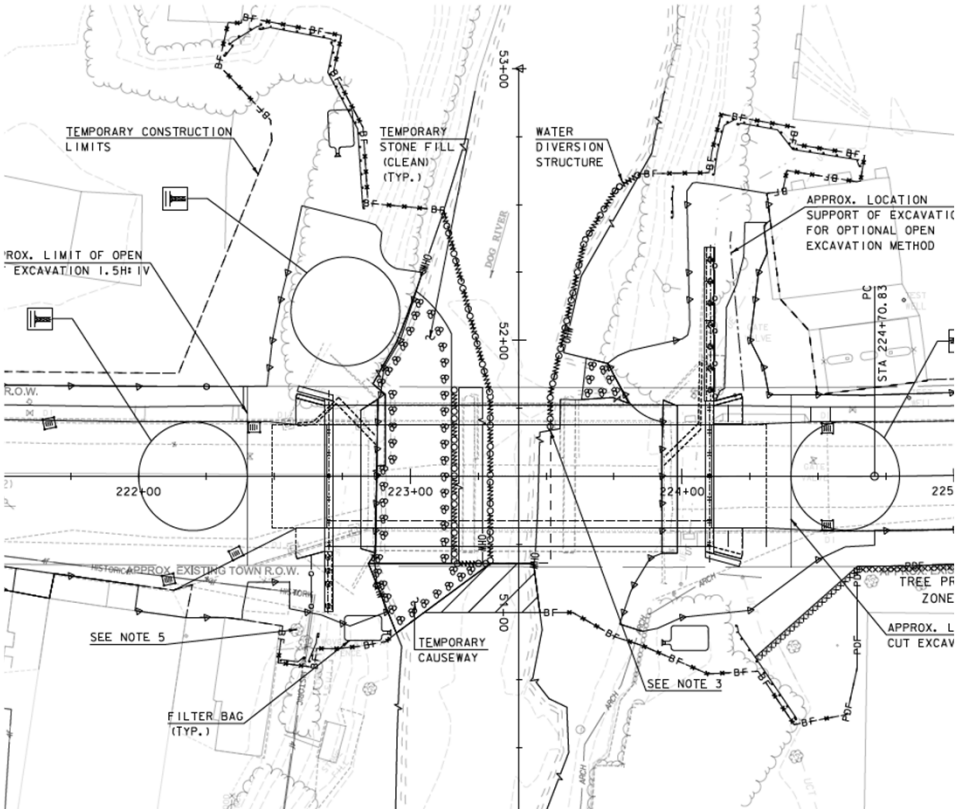
Concurrent Construction Risk

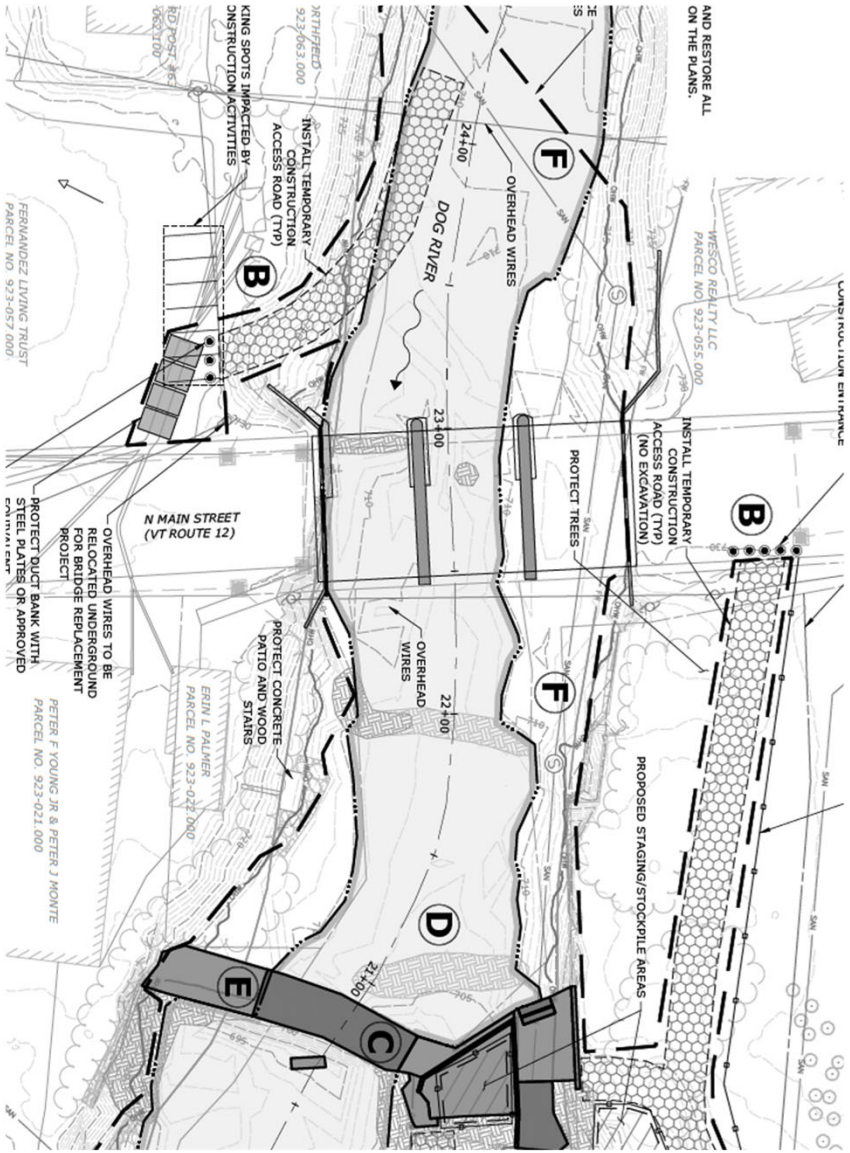
Cross Brothers Dam Removal project scheduled for construction in 2026?

- Overlapping project limits creates risk of construction delay claims by the contractor(s). VTrans does not recommend these projects occur at the same time especially when the bridge is closed for 12-weeks.

Bridge Project Construction Layout



Cross Brothers Dam Project Layout



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VTrans Revenue Forecast

- Developments 8/12/2025 at 5PM: Due to the budget revenue forecast there is possibility of revenue downgrades. Meaning, this would require the bridge project to be pushed out due to lack of funding.

- We will understand the revenue picture more in the next few weeks and I will be in communication with the Town with updates.

- I am moving forward with the project as if the project is going to Advertise on September 10, 2026, until I hear otherwise.

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For more information:

- https://outside.vermont.gov/agency/vtrans/external/Projects/Structures/19J223

Northfield Village BF 0241(58) Questions and Comments

Vermont Route 12 – Bridge #60 over Dog River

August 12, 2025

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