

Rehabilitation of Bridge No. 00653

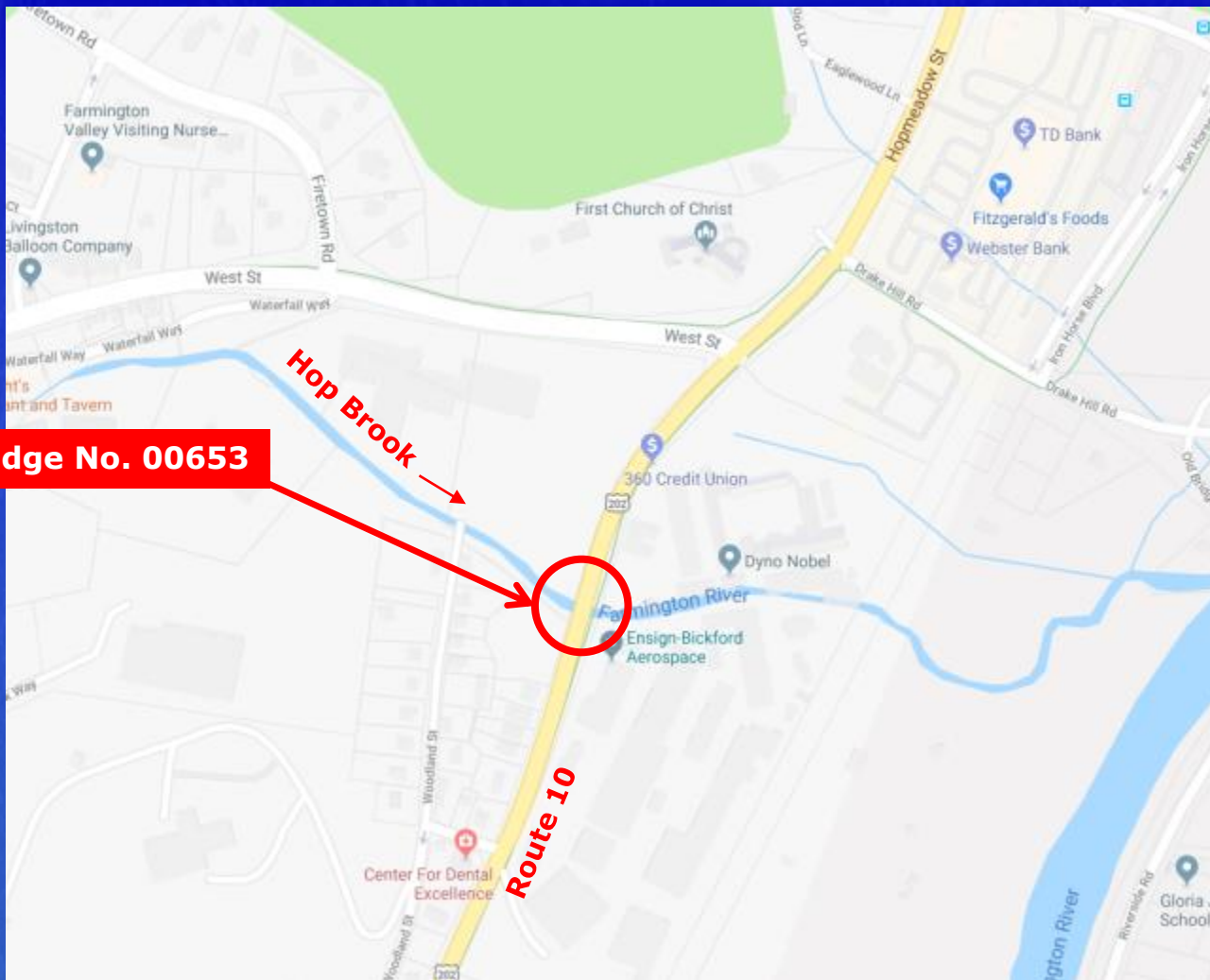
State Project No. 0128-0153

Town of Simsbury



Connecticut Department of Transportation





Bridge No. 00653

Project Location

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Bridge No. 00653 Aerial View

North



Looking North



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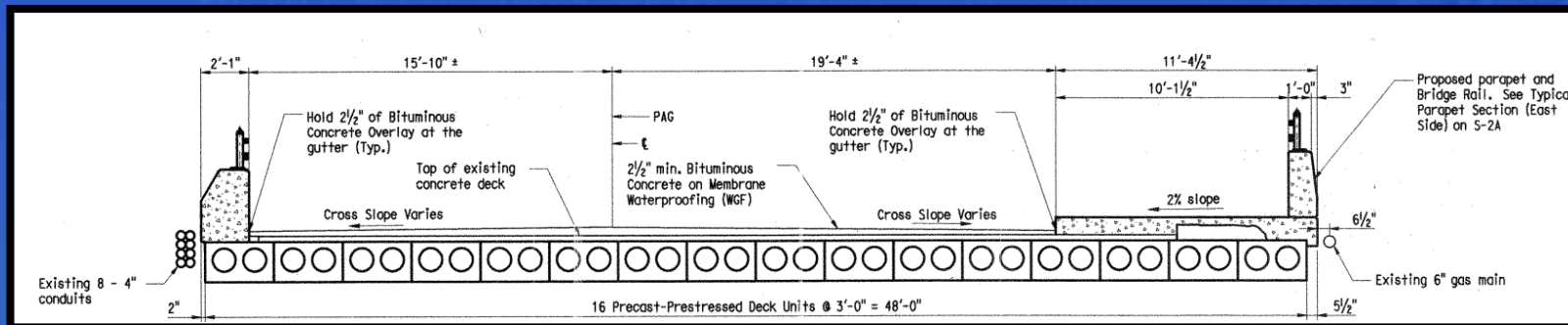


Looking South



Existing Bridge Information

Existing Conditions for Bridge No. 00653	
Year Built	1957 (2009 Rehab.)
Structure Type	<ul style="list-style-type: none"> Single Span Pre-stressed concrete deck units
Curb-to-Curb	35'-9"
Out-to-Out	49'-3"
Structure Length	40' span
Service	Hopmeadow St. (Route 10) Over Hop Brook 13,000 ADT
Superstructure Rating	3
Substructure Rating	5
Scour Critical Rating	3



Superstructure Deterioration

Underside of Bridge



Large Spall with Severed Strand



Severed Strand



Missing Post tension Anchorage and Transverse Tie



Substructure Deterioration



Utility Considerations



Overhead Utilities on West Side of Bridge

Utility Considerations



- **6" gas main supported by east parapet**
- **Eight 4" conduits supported by west parapet**
- **Conduits attached to the north abutment**

Environmental Considerations

- **The following permits are anticipated:**
 - **Individual Flood Management Certification (DEEP)**
 - **Inland Wetland General Construction Activities (DEEP)**
 - **(USACE) Self Verification Form**



Project Schedule & Cost

- **Schedule**
 - FDP: Spring 2021
 - Anticipated Construction Start: Spring of 2022
 - Anticipated Construction Completion: Fall of 2022
- **Cost**
 - Total project cost is approximately \$3 million
 - 20% State funded 80% Federal funded
 - No Town funds required for this project
- **Duration**
 - One construction season (April – December)

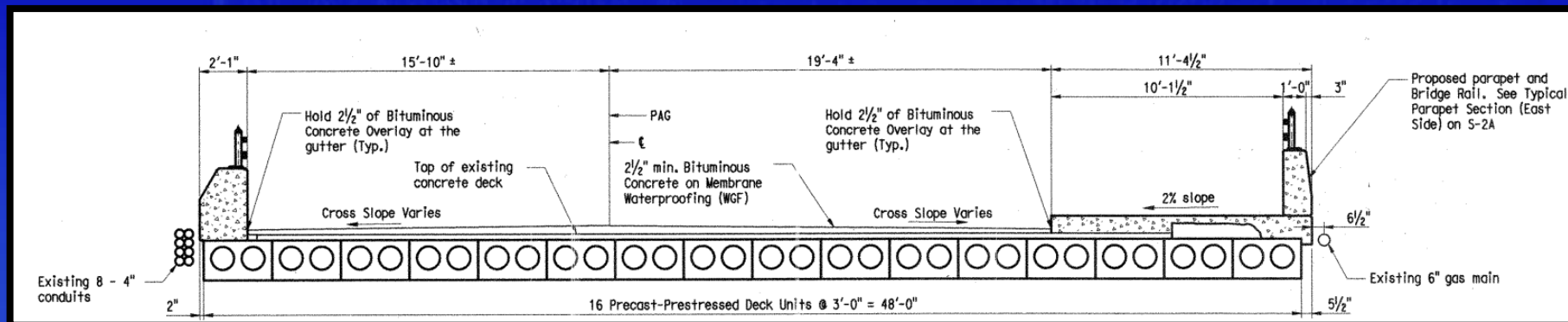


Proposed Project Scope:

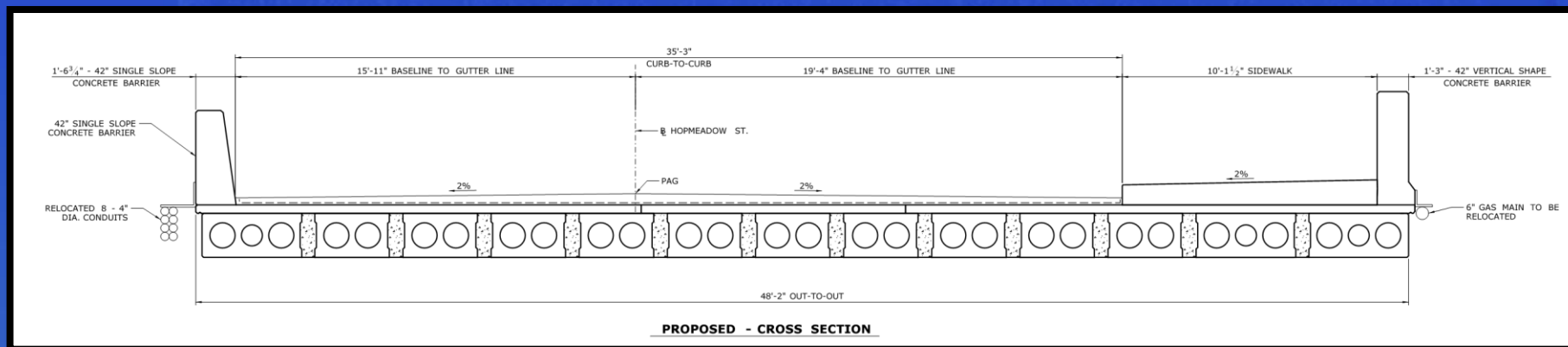
- **Superstructure replacement with box beams and closure pour between beams**
- **Substructure rehabilitation with scour countermeasures**



Proposed Box Beam Bridge Section



Existing



Proposed

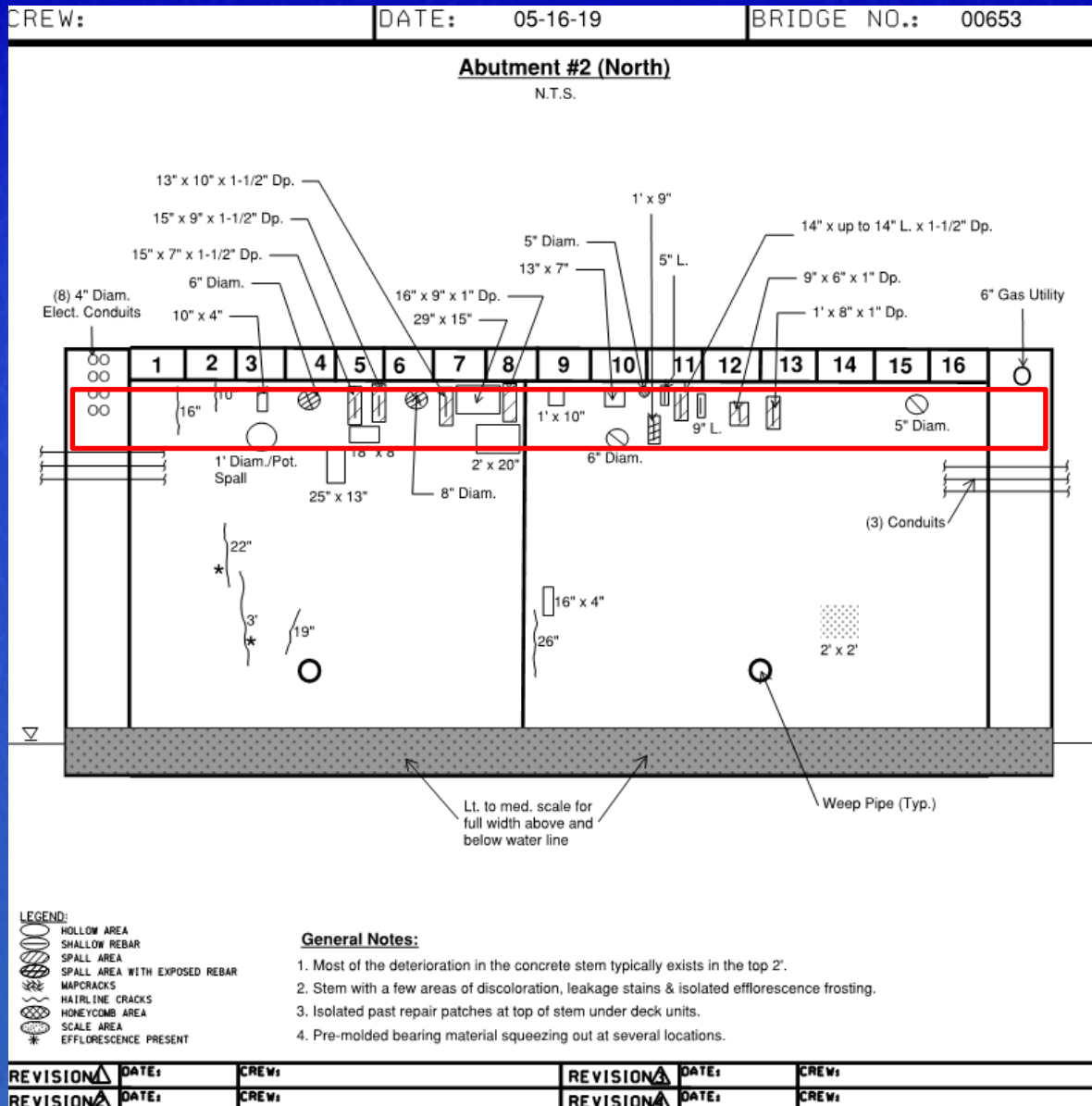
Abutment Rehabilitation



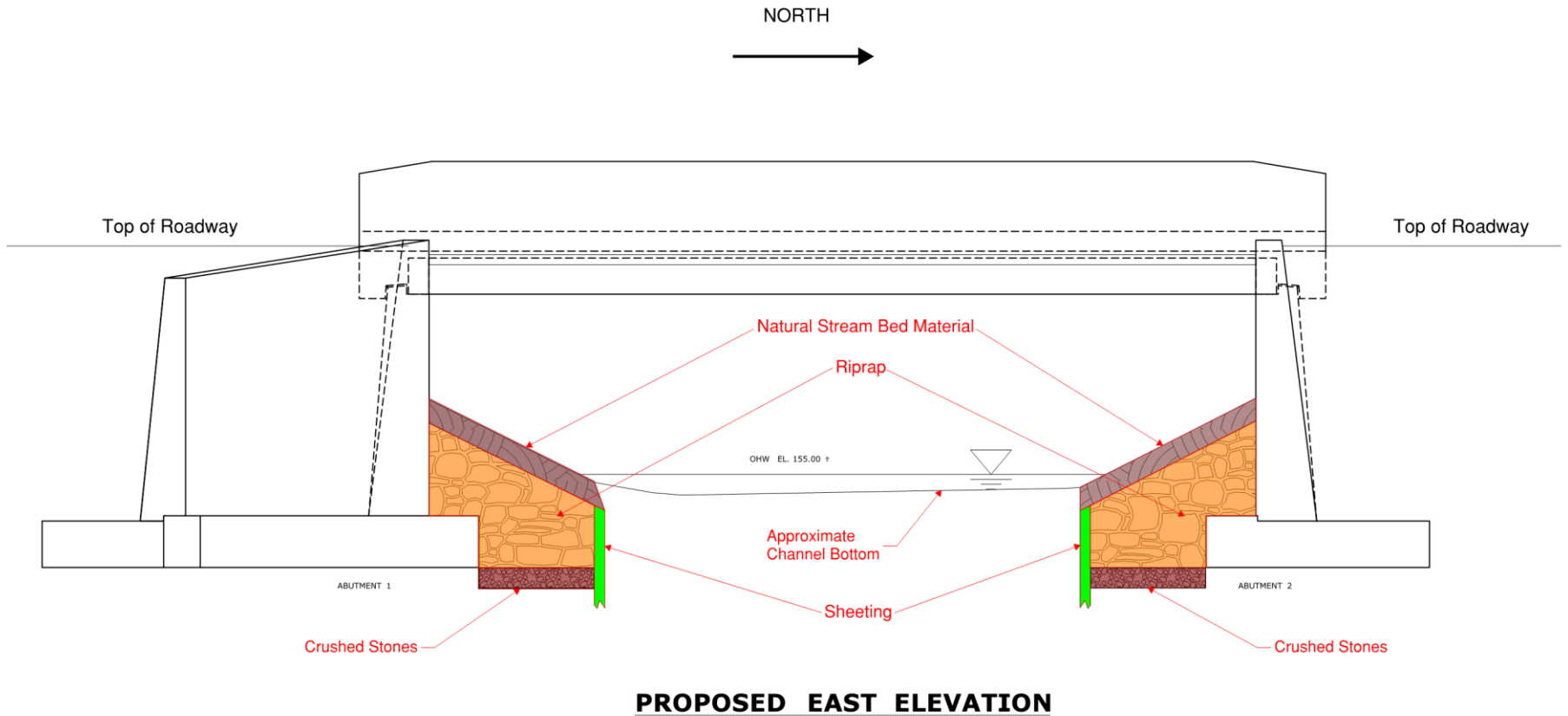
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Abutment Rehabilitation



Scour Countermeasure



Sheet Piles



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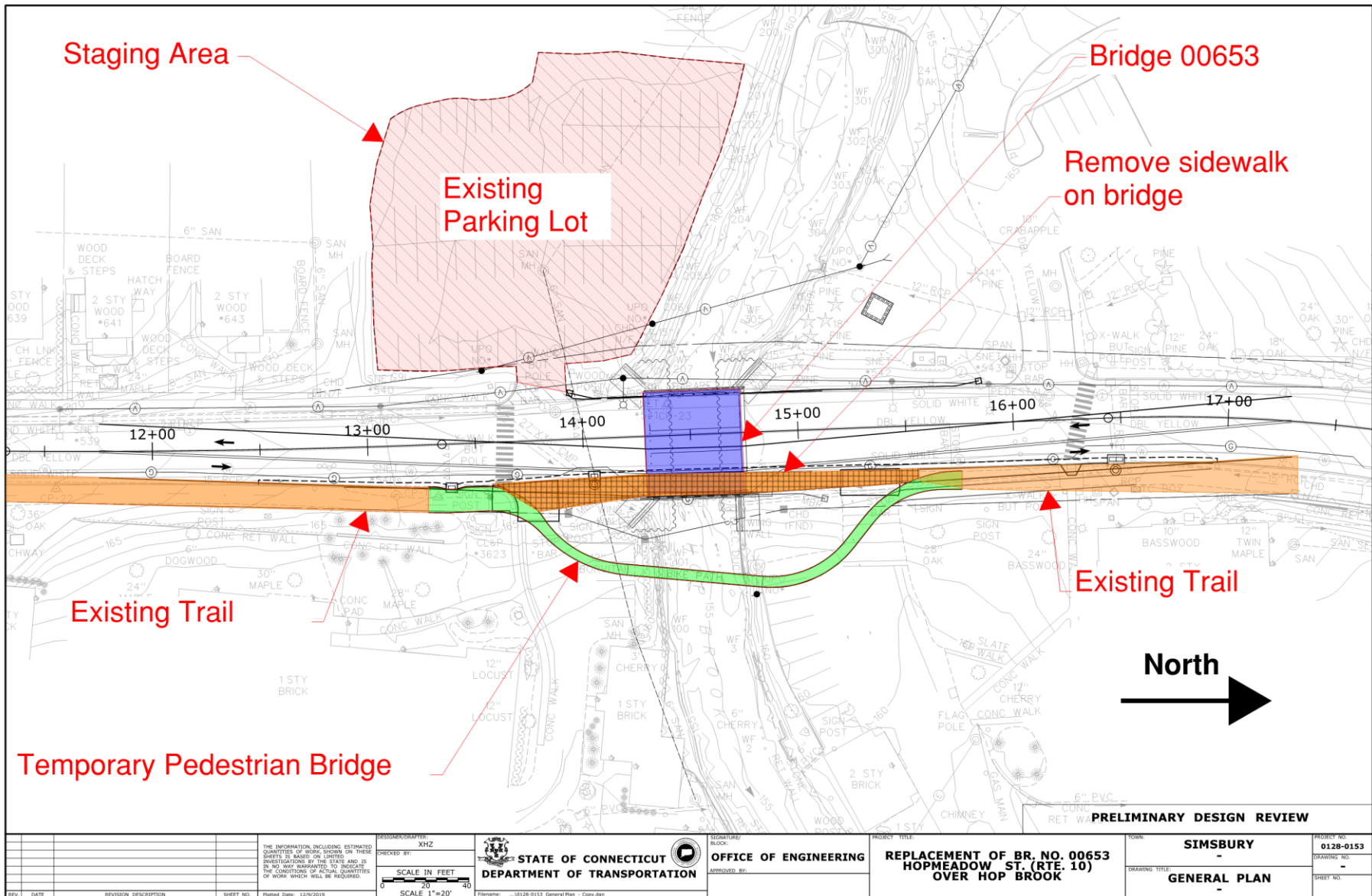


Stage Construction

- **Maintain two lanes of traffic on bridge during construction**
 - **13,000 ADT presents challenges for detour and alternating traffic.**
 - **Anticipated Construction time: 1 construction season**
- **Farmington Canal Heritage Trail will be temporarily relocated to a pedestrian bridge down stream of the bridge.**
- **Bridge rehabilitation will be in 4 stages.**



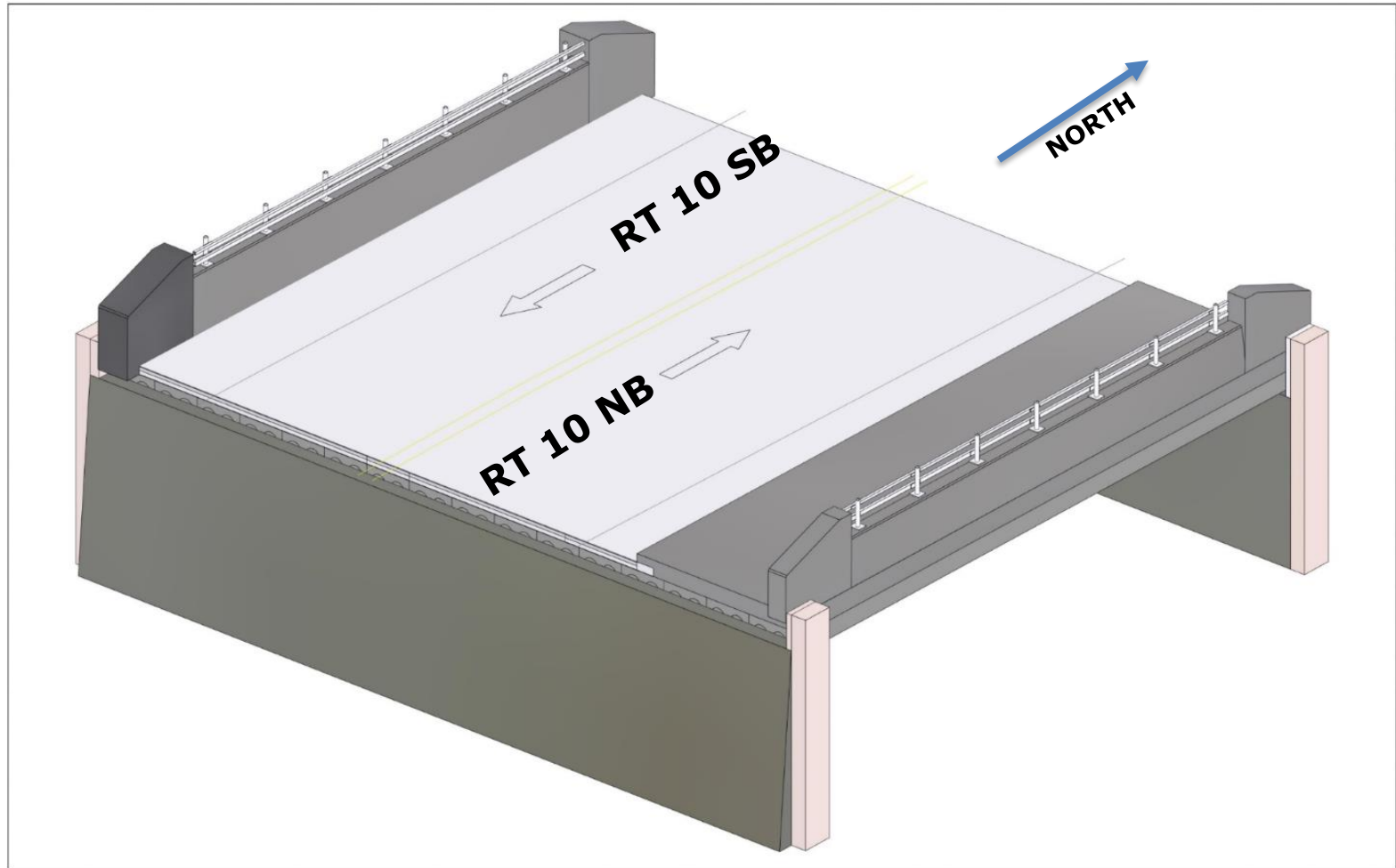
Project Staging



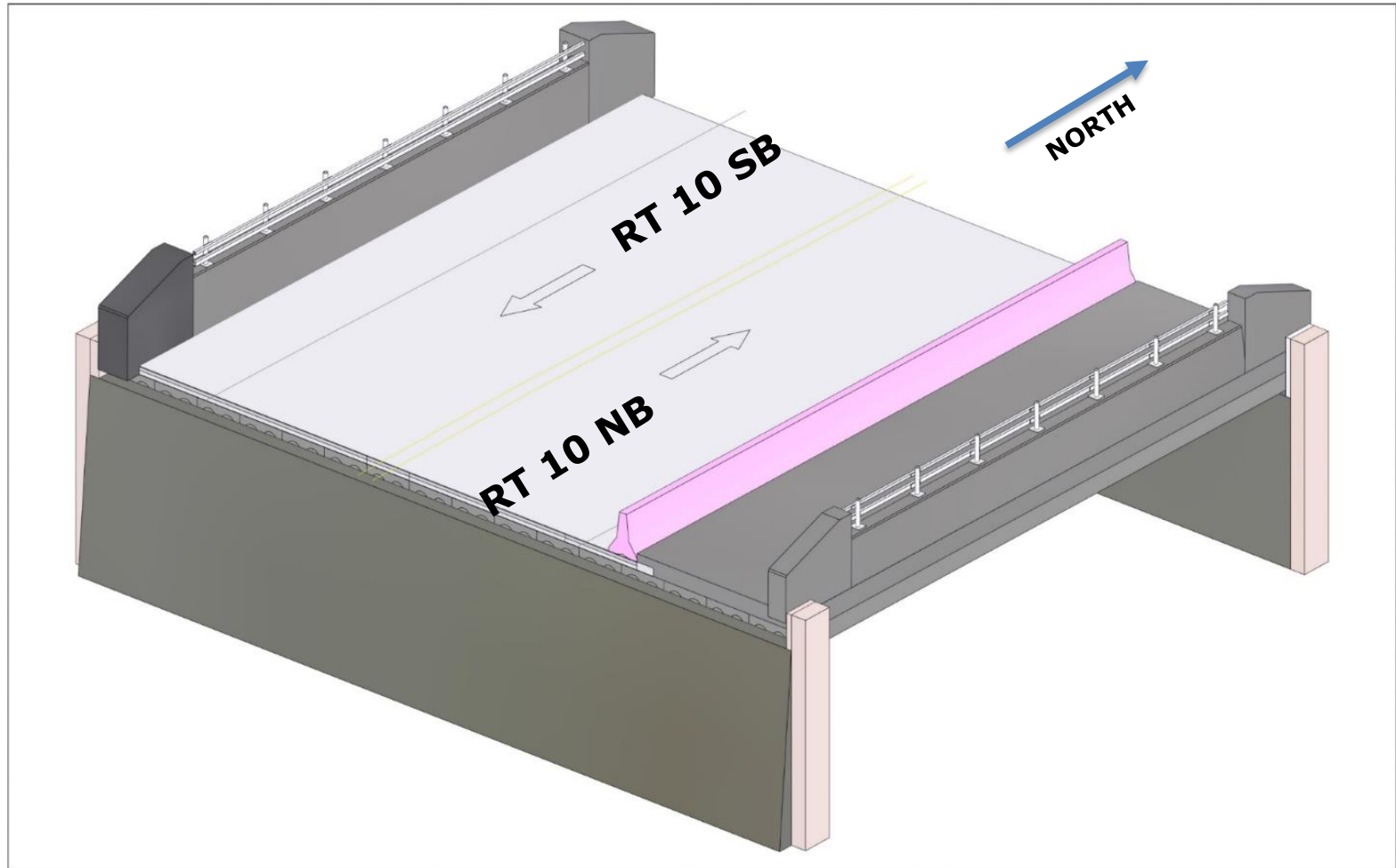
Construction Sequence and **Maintenance of Traffic**



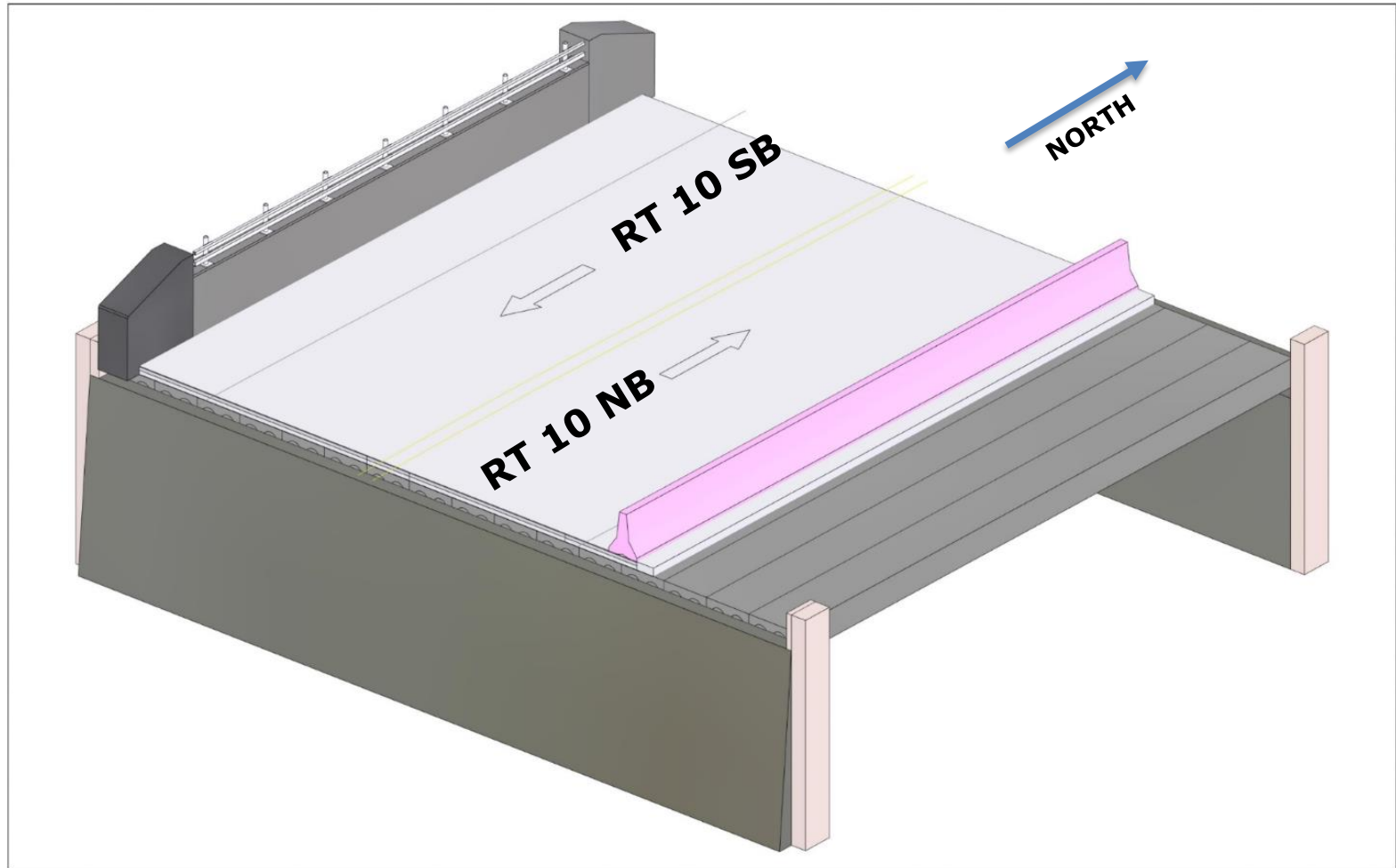
Existing Condition



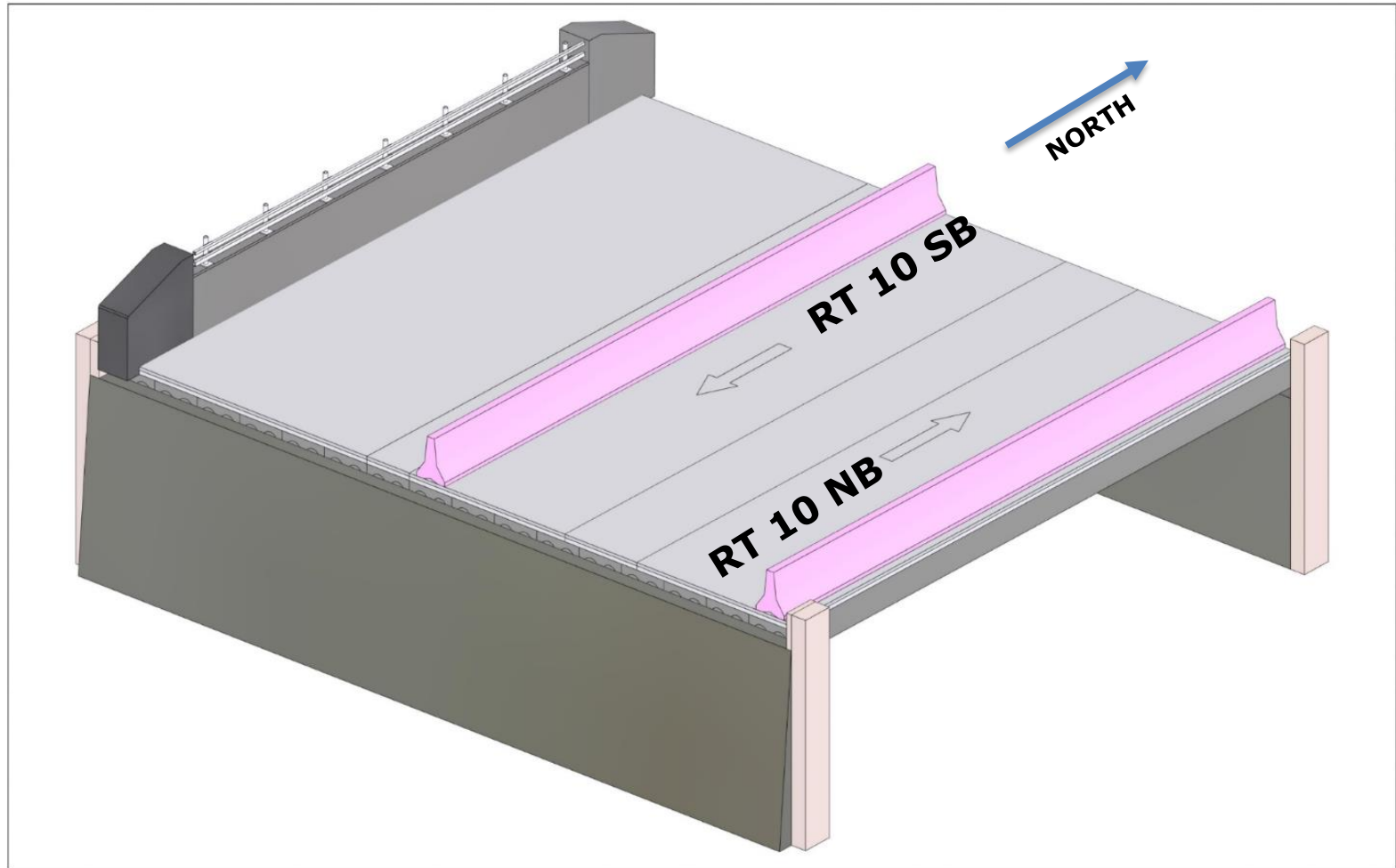
Stage 1: Traffic Set-up



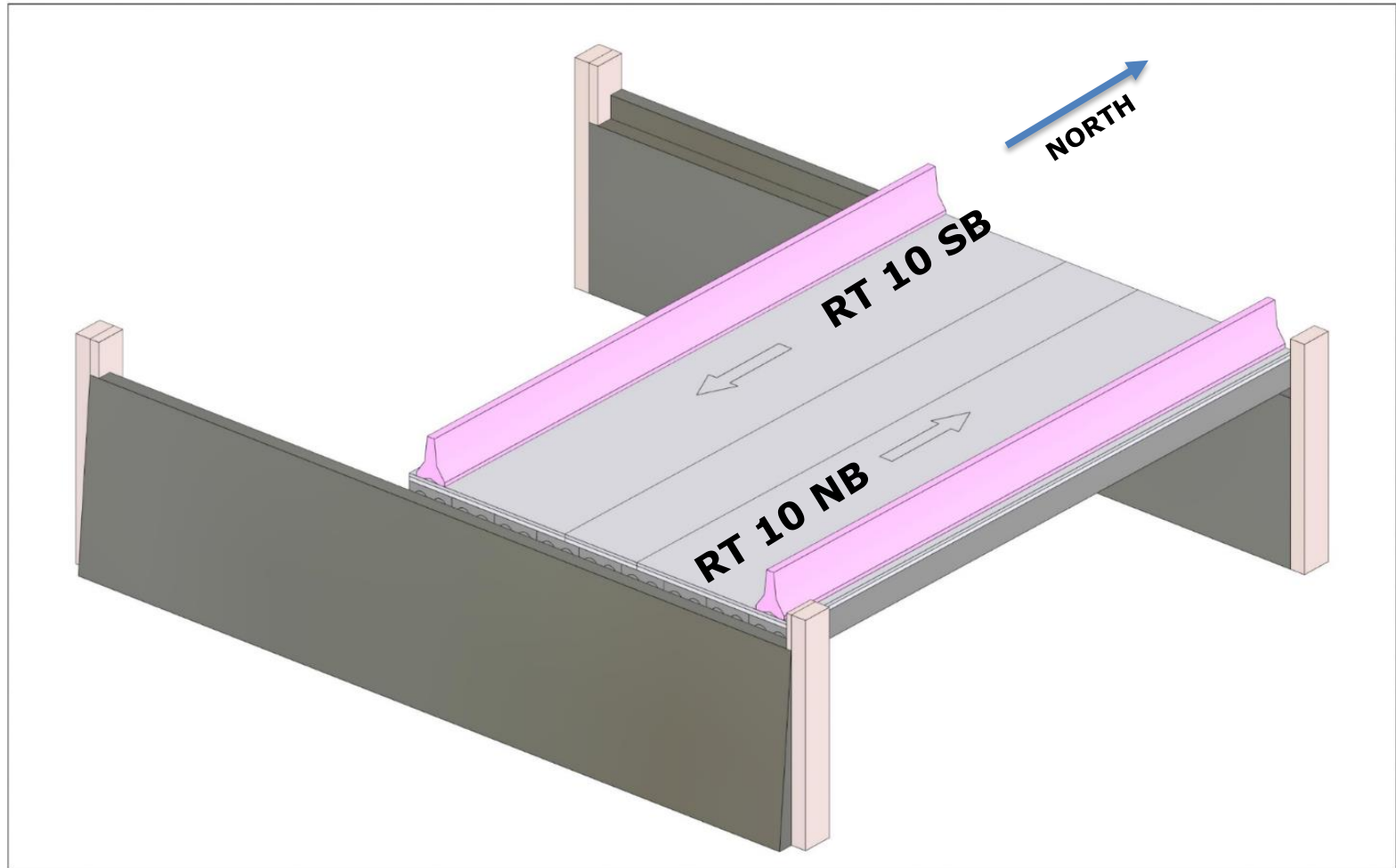
Stage 1: Sidewalk Removal



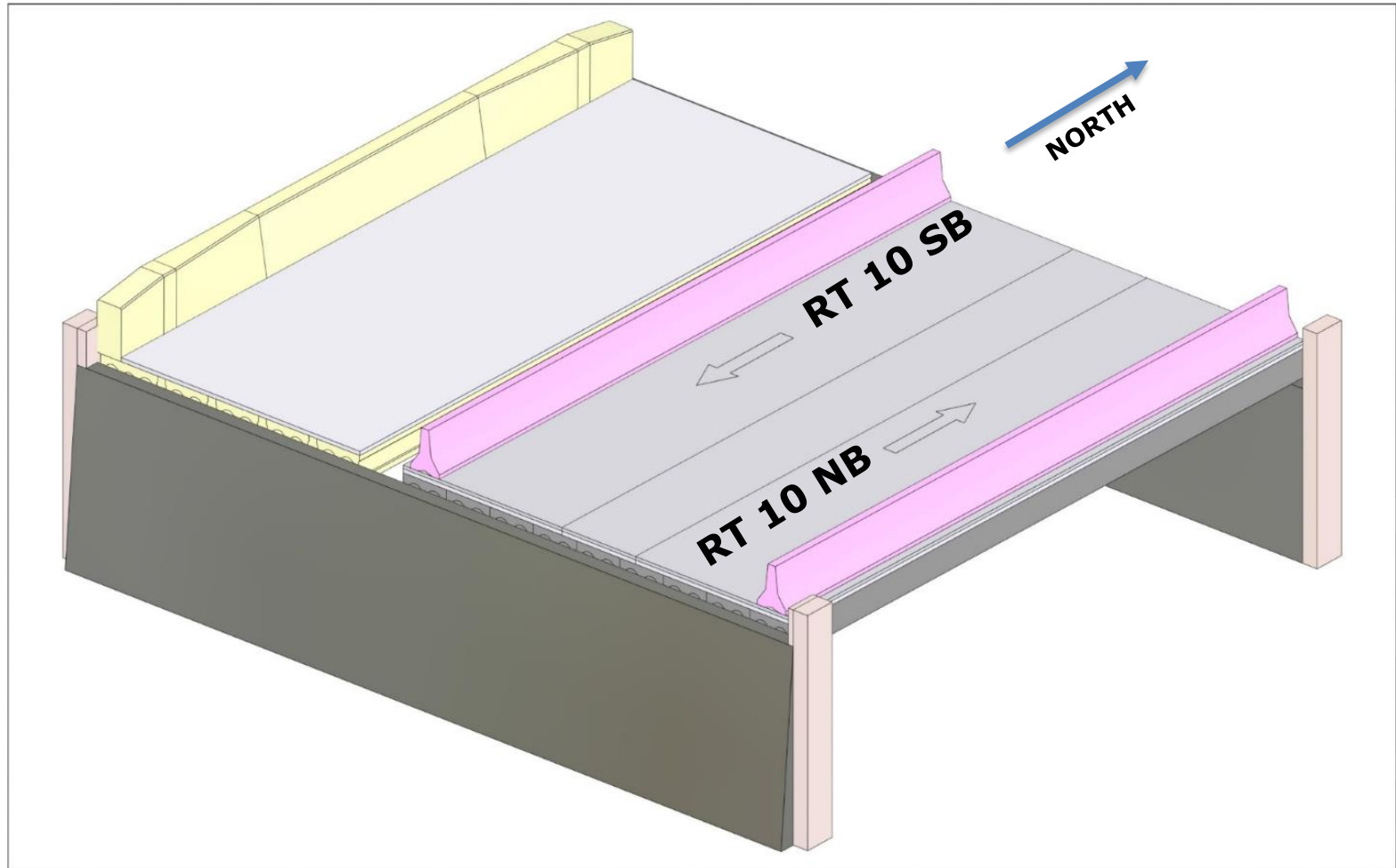
Stage 2: Traffic Set-up



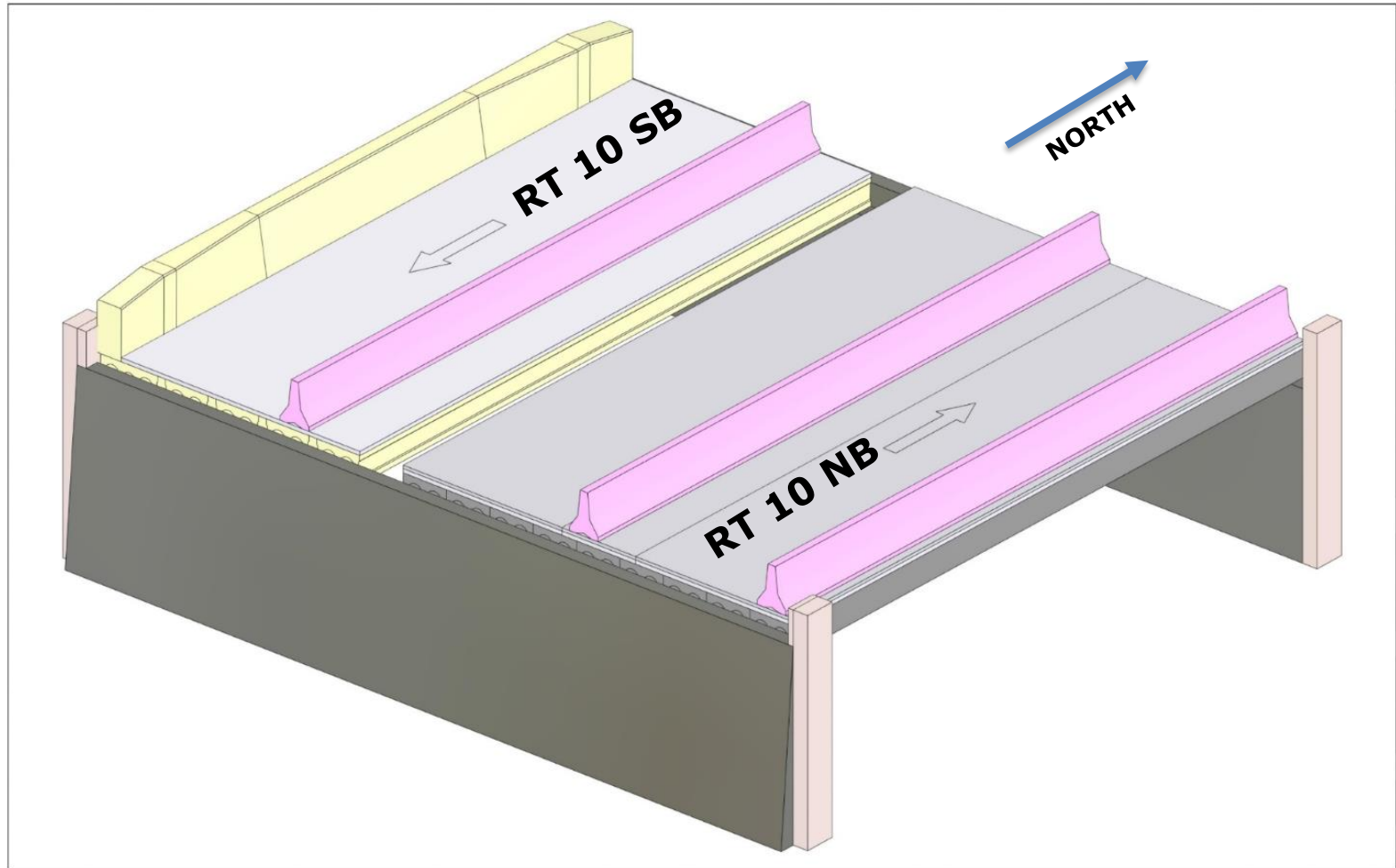
Stage 2: Superstructure Removal



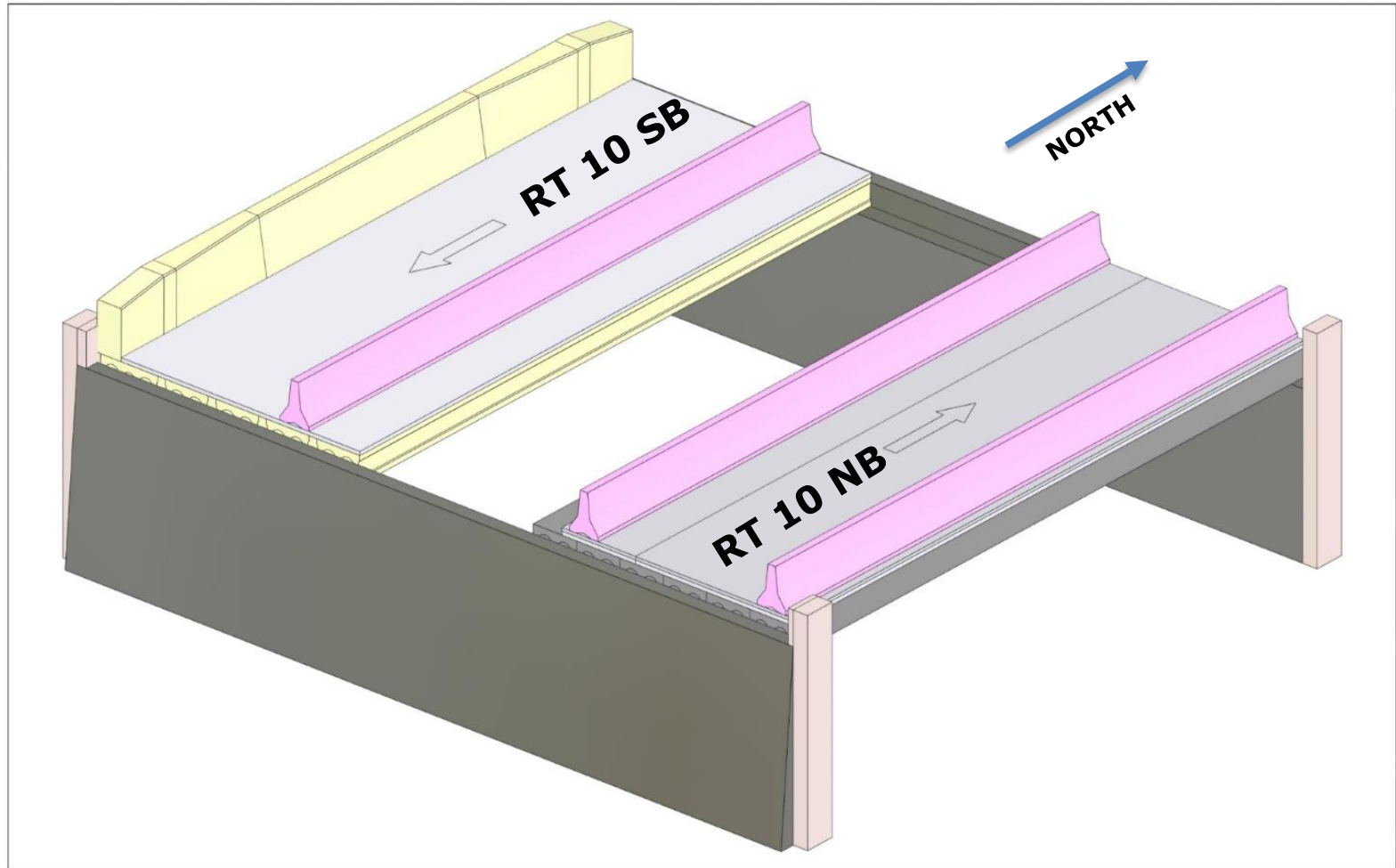
Stage 2: Superstructure Installation



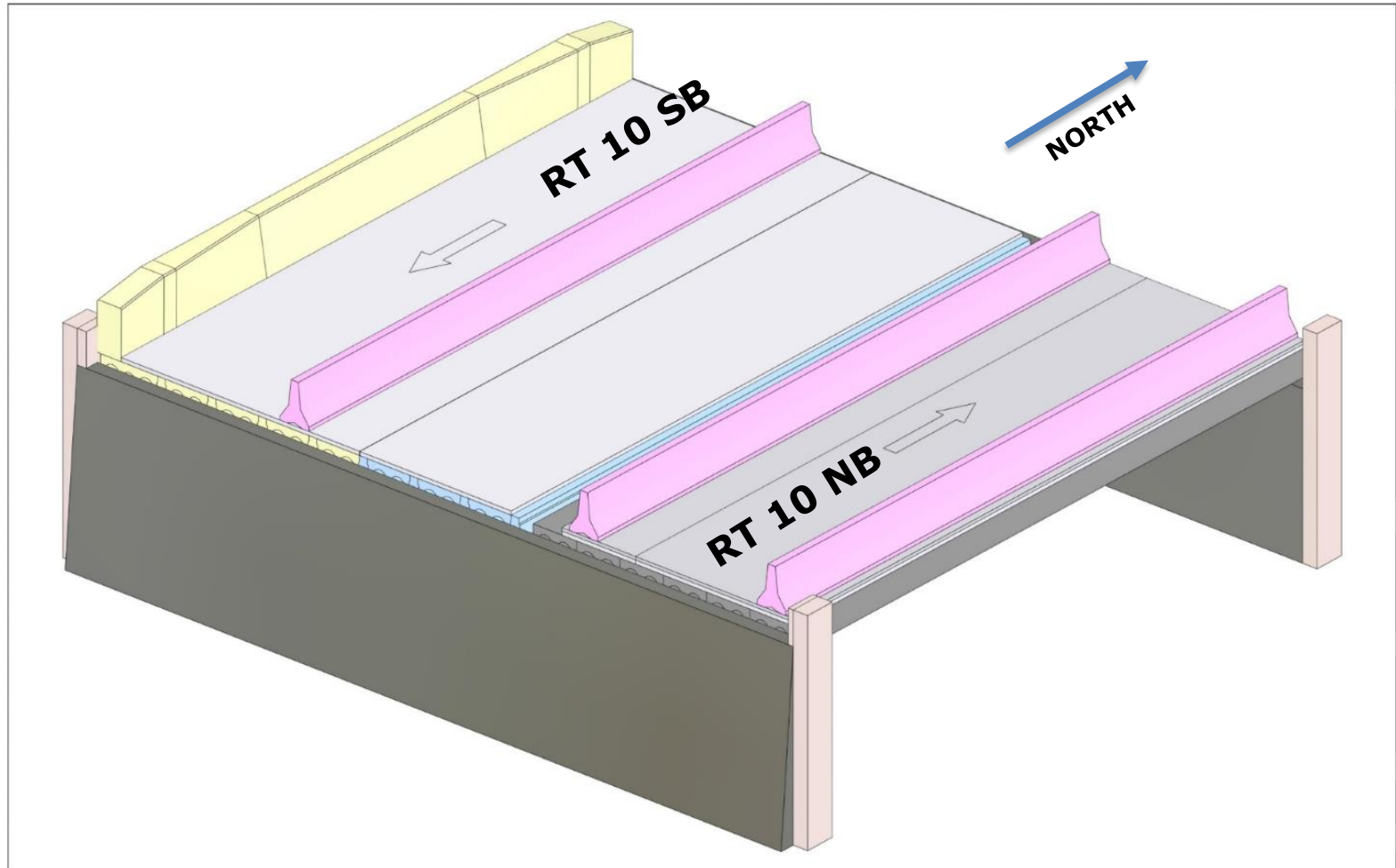
Stage 3: Traffic Set-up



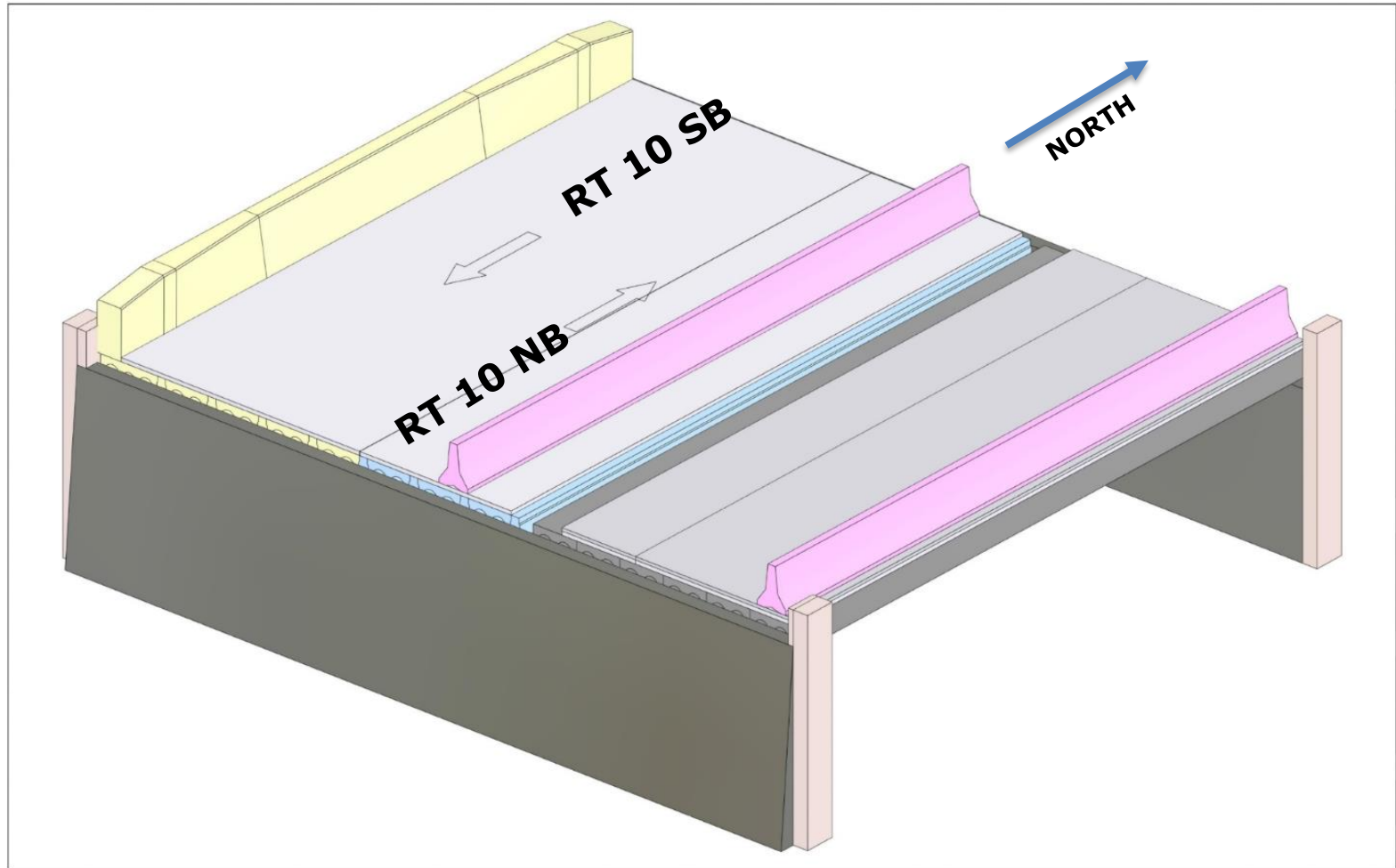
Stage 3: Superstructure Removal



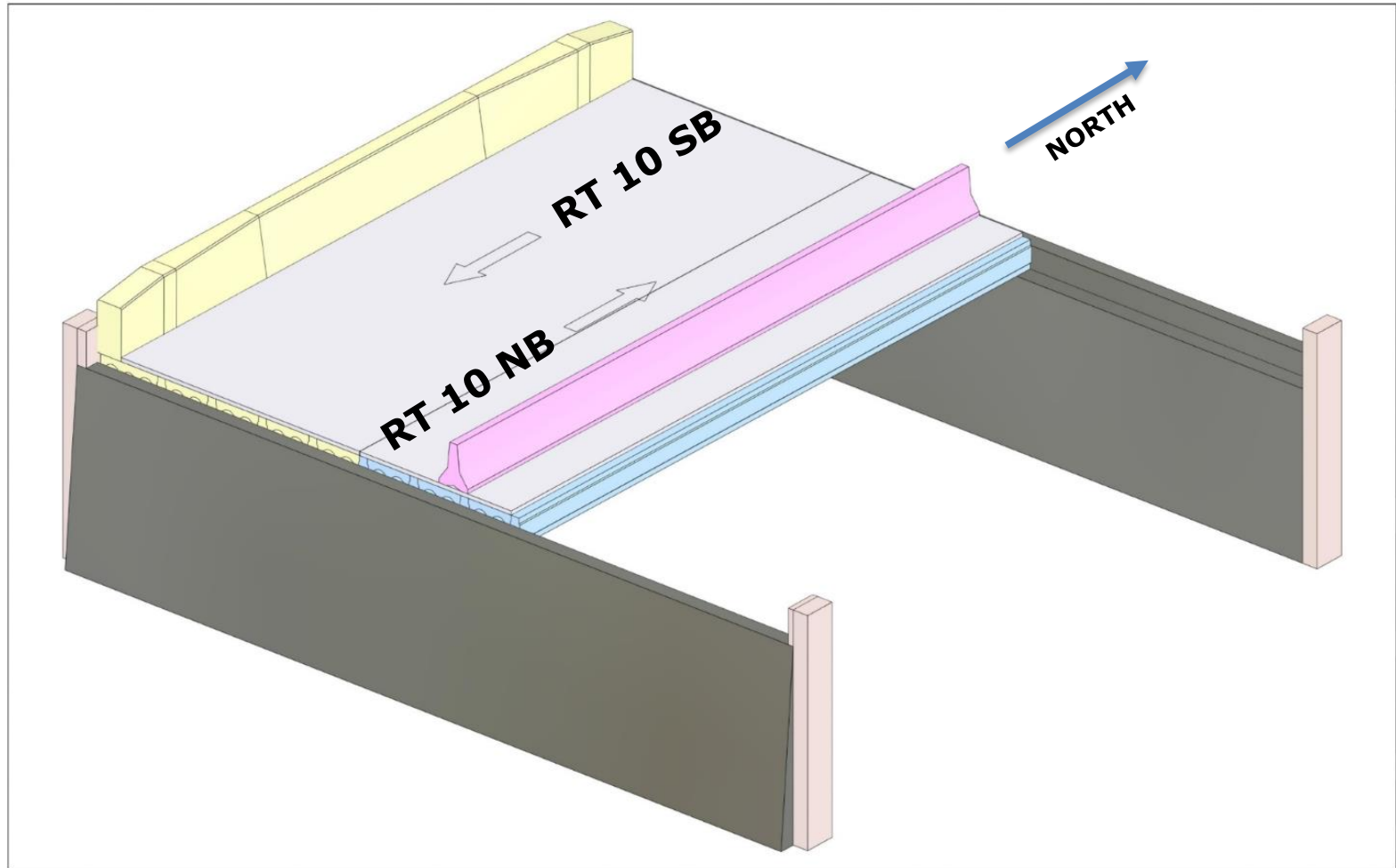
Stage 3: Superstructure Installation



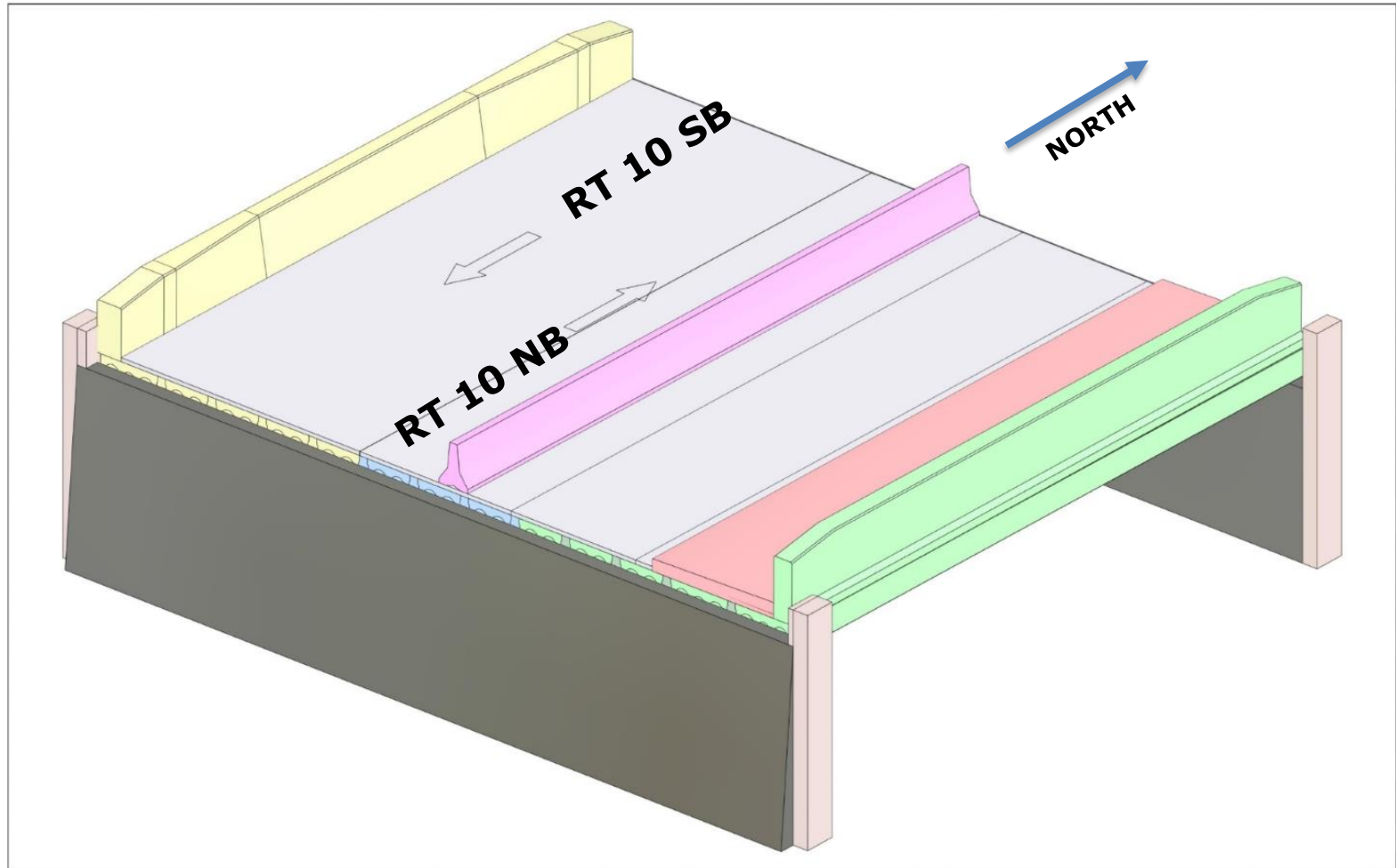
Stage 4: Traffic Set-up



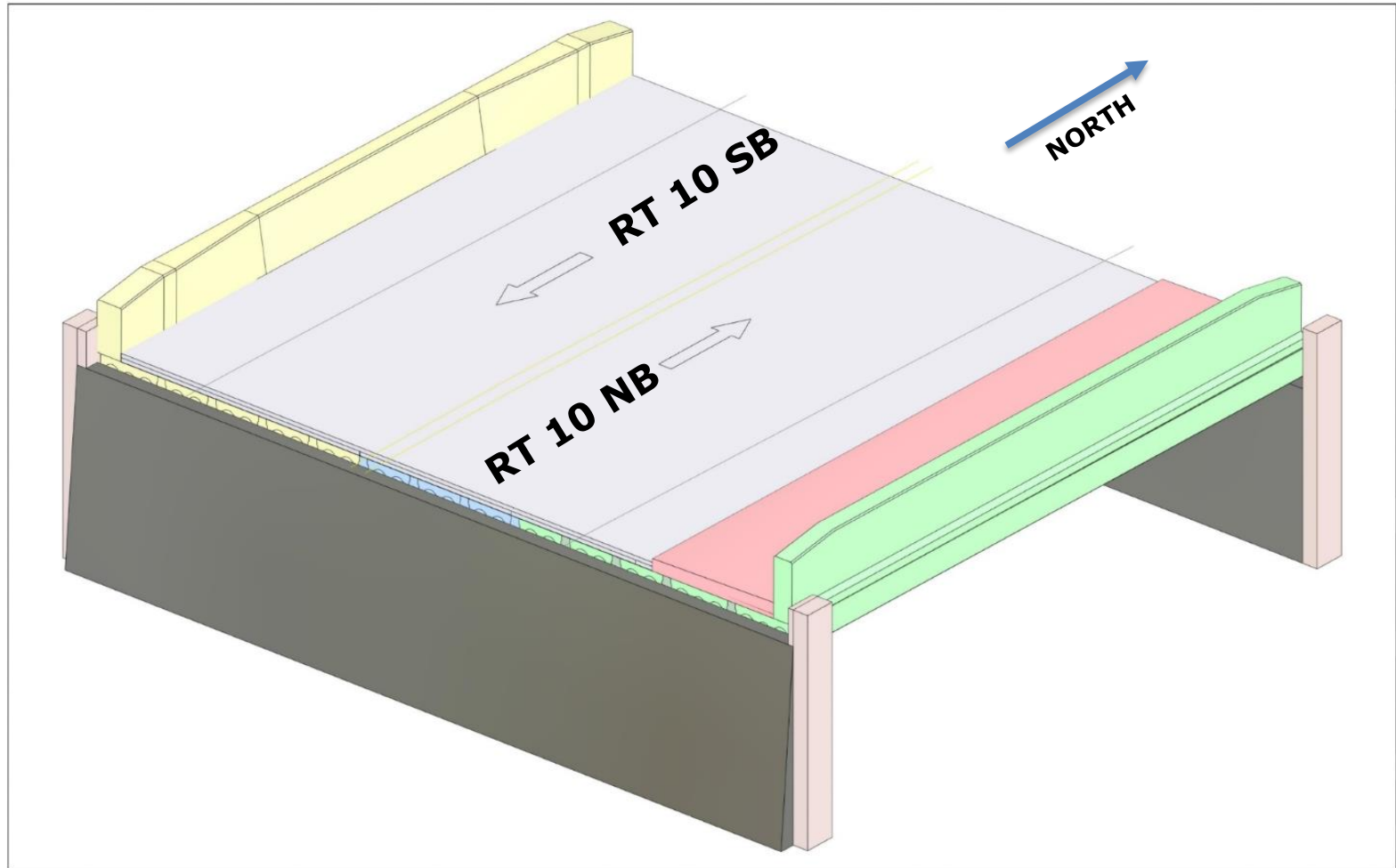
Stage 4: Superstructure Removal



Stage 4: Superstructure Installation



Final Condition



ROW - Relevant Law

- **State of Connecticut**

C.G.S. Sections 13a-73 & 13a-98e

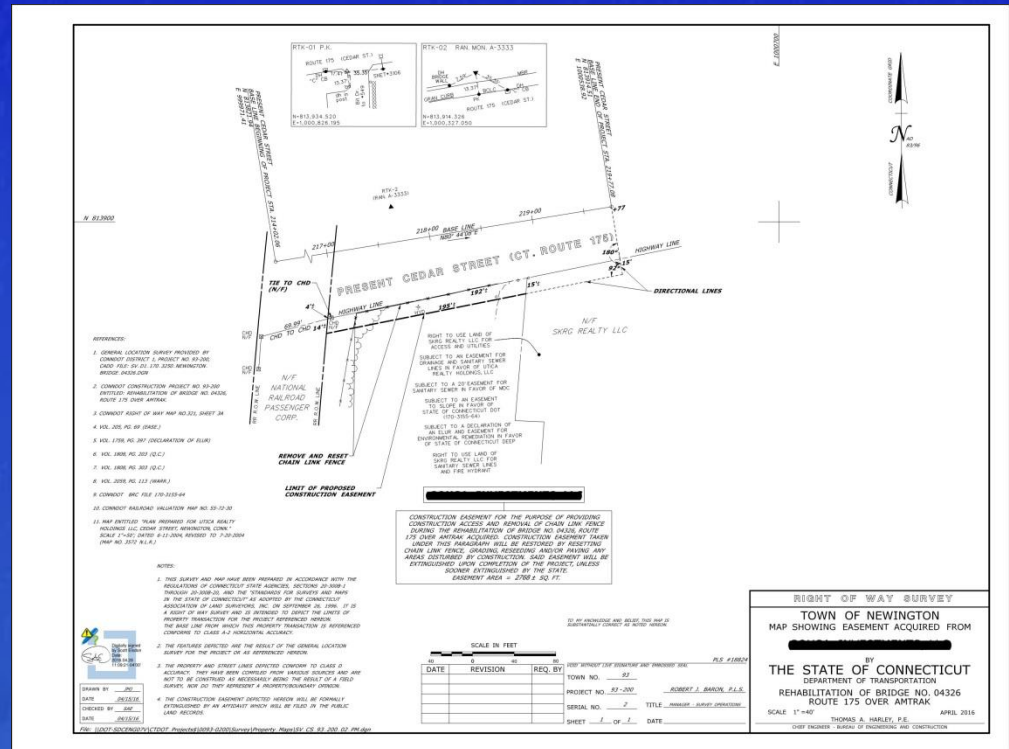
- **Federal**

Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970, as amended.



ROW - Acquisition Process

- Letter of Intent to Acquire
- Valuation
- Offer of Just Compensation
- Negotiation
- Acquisition
 - Agreement
 - Eminent Domain/Condemnation
 - » 6 month appeal period



CT Department of Transportation Personnel

Principal Engineer

Mary E. Baker, P.E.

Project Manager

Kevin V. Blasi, P.E.

Project Engineer/Contact

Sarwat A. Basha

Project Designer

Xiao Han Zhuo



For more information:

<https://egov.ct.gov/PMC/#agency102>

Connecticut Department of Transportation



Thank You!!

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