



Meeting Minutes

Project:	Concord 41212 - Loudon Road Bridge
Subject:	Public Informational Meeting No. 1
Date:	Thursday, March 20, 2025
Location:	City Wide Community Center, 14 Canterbury Road, Concord, NH
Team Attendees:	Mike Bezanson (City Engineer) Roch Larochelle (HDR, Project Manager) Keith Cota (HDR, Technical Specialist) Nick Caron (HDR, Structural Lead) Debbie Finnigan (HDR, Traffic Lead) Tony Puntin (NHDOT Project Manager)

A public information meeting was held for the subject project at the Concord Community center on March 20, 2025. A copy of the meeting notice, attendance list and presentation materials are attached for reference. The meeting notice was physically posted at the public library, City Clerk's Office (City Hall) as well as outside the City Hall Annex, emailed to direct project abutters, posted on the City Website with email notices to City Administration and City Council and also posted on City Social media pages. Additionally, the attached notice was sent directly to various state agencies and community centers (distribution lists attached for reference).

1. Introduction/Purpose of Meeting

Mike Bezanson opened the meeting with an overview for the purpose of this meeting and expected agenda discussion. He noted the purpose of the Public Informational Meeting (PIM) is to present alternative concepts for the proposed bridge and roadway improvements on the Loudon Road bridge over Merrimack River between Fort Eddy Road and Gully Hill Road. He explained the City's consultant, HDR, will be presenting the project's purpose and need, background, and conceptual improvements associated with the proposed NHDOT State Aid Bridge (SAB) Project. The intent of the meeting is to collect input from the public, municipal officials, resource agencies, and abutting property/business owners on the project's objectives, proposed design alternatives, and recommended action for the improvements.

He further highlighted the Loudon Road bridge over the Merrimack River is a city project (CIP #588) and is incorporated into the State's Ten-Year Plan with programmed State Aid Bridge funds for engineering and Federal Funds for construction in FYs 2027-2029. The study limits are limited mostly to the bridge over the Merrimack River but will include intersection improvements at Fort Eddy Road/I-93 Exit 14 Northbound Off Ramp and Gully Hill Road/Everett Arena. While the project limits are contained near the bridge, the ultimate improvements will assist to advance improvements for Merrimack River Greenway Trail (MRGT), tie into CIP project for Kiwanis Waterfront Park improvements and set up Loudon Road to tie into the NHDOT's future I-93 expansion and upgrades at Exit 14. Mike turned the meeting over to Roch Larochelle, Project Manager for HDR.



2. Project Overview and Development Process

Roch Larochelle explained that HDR has been working with the City for several years to evaluate the alternatives to address the Red List Bridge concerns for the Loudon Road Bridge. He pointed out that the project study started in 2020 with the kickoff of a bridge engineering study due to the bridge condition. Over the course of the bridge study, HDR met with TPAC, the City Manager and City Council for review of concepts to address the structural issues for the bridge, the traffic operational challenges and the long-term objectives for ped/bike trail connections. This resulted in five primary concept alternatives being developed. Prior to the bridge report being finalized in January 2022, the City met with NHDOT to review the conclusions and to seek approval for increased funding over the programmed funding for the bridge. With the support of NHDOT, the request for increased funding to rehabilitate and widen the bridge, as well as, improving operational flow and inclusion of a bike/ped trail for ultimate connection of the MRGT and Northern Rail Trail was incorporated into the updated State Ten-Year Plan and the City's CIP.

Roch explained that following the funding approval, HDR entered a joint preliminary and final design contract with the City to advance the project through NHDOT's Local Government Approval and Federal environmental approval. Roch indicated that tonight's meeting is the start of this process to obtain public feedback on the "purpose and need" statement, the alternatives studied under the bridge engineering study and the project overall.

Roch explained that the study's main focus is the Loudon Road bridge over the Merrimack River and addressing the traffic flow challenges at each intersection located on the approach of the bridge (Gully Hill Road and Fort Eddy Road). It is anticipated that with the bridge widening and proposed lane adjustments, it will provide improved operation over the existing conditions while allowing the ultimate I-93 improvements at Exit 14 to further enhance the corridor flow and safety.

Roch highlighted the Purpose and Need (P&N) drafted for the project. He noted this statement will be used to evaluate any alternative that should be carried forward in the National Environmental Protection Act (NEPA) review.

The project purpose is seen as follows:

"The purpose of the project is to address structural deficiencies, safety concerns, and conflicts between vehicle, bicycle and pedestrians on Loudon Road (NH Route 9) and the Municipal Red List Bridge No. 163/111 over the Merrimack River."

The project's need is to address the following:

- *structural deficiency of the deck, superstructure, and abutment backwall deterioration.*
- *operational deficiencies caused by imbalanced lane groups and lane alignments through the I-93 Exit 14 northbound interchange and Fort Eddy Road intersection.*
- *lack of adequate shoulders for bicycle use; and*



- *limited pedestrian crossings through I-93 Exit 14 across Loudon Road causing high exposure risks.*

Roch noted that there are also multiple projects and objectives to provide improved service life for the Loudon Road Bridge over the Merrimack River and removal from the Municipal Bridge Red Listing, improve the operational flow, safety and decrease vehicle delays along the Loudon Road Corridor from the I-93/Exit 14 interchange to the Gully Hill Road intersection, complement and accommodate improved operational flow and traffic safety with adjacent projects and corridor improvements (i.e. NHDOT's I-93/Exit 14 interchange, City of Concord's Kiwanis Waterfront Park), implement infrastructure improvements that will accommodate the City's long-term objectives for multi-modal and recreational connections between Kiwanis Waterfront Park, Merrimack River Greenway Trail (MRGT) and Northern Rail Trail (NRT), implement any needed utility infrastructure improvements within the project area, especially the City of Concord's public water system infrastructure, and minimize project impacts on local business operations, as well as on natural, cultural, and environmental resources.

With these items in mind, the City and Design team further developed the five alternative concepts developed during the bridge study as the reasonable range of alternatives with the no-build alternative. The five concepts include:

- 1) Concept 1 – Bridge deck replacement with no lane adjustments, no shoulders or increased sidewalk widths.
- 2) Concept 2 – Bridge deck replacement with WB-third lane consolidation (eliminate right-turn lane) with reallocation of lane widths to five-foot shoulders and raised median and maintaining sidewalks on upstream and downstream side.
- 3) Concept 3 – Bridge deck replacement and widening by one girder (8 feet), maintaining the five bridge lanes (with dedicated westbound lane for lefts to I-93 southbound Exit 14), five-foot shoulders and six-foot sidewalks on upstream and downstream side.
- 4) Concept 4 – Bridge deck replacement and widening by two girders (20 feet) to maintain five lanes on bridge (with dedicated westbound lane for lefts to I-93 southbound Exit 14), five-foot shoulders, and twelve-foot multi-use path on upstream and downstream.
- 5) Concept 5 - Bridge deck replacement and widening by two girders (16 feet) to maintain five lanes on bridge (with dedicated westbound lane for lefts to I-93 southbound Exit 14), five-foot shoulders, one fourteen-foot multi-use path on upstream side and six-foot sidewalk on the downstream side.

Roch concluded that of the five concepts, Concept 5 appears to meet the P&N to the highest order. He noted that this alternative will address the structural deficiencies of the existing bridge, the bridge widening and lane configurations will improve the traffic operations over the existing conditions, and the addition of the 14-foot multi-use trail will accommodate the long-term objectives for development of a multi-use trail that connects the MRGT, Main Street and Northern Rail Trail. He noted the construction cost for this alternative is currently estimated at \$18.6 million with FHWA funding 80% and the City funding a match of 20%.

Roch continued to explain that the bridge improvements will be tied into the ultimate improvements for I-93 Exit 14 by NHDOT and the City has a commitment from NHDOT for the



extension of the ped/bike trail to a northern connection to the Rail Trail corridor under that project. He also noted that the design of the bridge can also accommodate the ability to extend the MRGT under the southern abutment with an ultimate connection on the Kiwanis Waterfront Park. He concluded the project overview with the need for providing a protective barrier between the westbound traffic and the ped/bike trail over the bridge. He highlighted several existing examples located on the Scammell Bridge in Dover, NH., Connecticut River Crossing in Hanover, NH, Rte. 75A over the Pemigewasset River in Plymouth, NH and the Fore River in Portland, Maine. The purpose of the barrier is to be crash worthy for projection from run-off-the-road vehicles. The inside barrier height would be a minimum of 42 inches and the outside trail bridge rail will be a minimum of 54 inches.

Mike Bezanson opened the meeting to questions and comments.

3. Public Input

- Mike B. acknowledged the attendance of the City Mayor and two Council members and asked if they had any comments on the design or presentation. They had no comments.
- Q: Why was there not an Alternative 6 considered? Alternative 6 would consist of a shared use path on the downstream side with a two-stringer widening. The path as proposed for Alternative 5 crosses at grade with Fort Eddy Road, northbound on ramp and southbound off ramp. With it on the south side, there are less major road crossings. Additionally, this would add 2 girders to the south side of the bridge and zero on the north side. This would make construction more efficient with only work on one side.
 - A: Roch explained that a southside path was considered. He noted it was not supported due to concerns with crossing the NB-off and SB-on ramps. He noted that the at-grade crossing of the local streets can be designed through AASHTO criteria to increase safety for these street crossings. He noted that ultimately the northbound on ramp will be limited to right turn only through the State's I-93 Project thus reducing the traffic impact for an at grade street crossing. Also, a southern path placement would make it more difficult for connection to the future trail link to Storrs Street and the Northern Rail Trail.
 - A: Roch noted there would be a widening of the piers if the bridge was only to be widened to one side. This would cause more significant environmental impacts to the river than splitting the widening to both sides of the bridge. Nick Caron also reiterated that the widening of the bridge only on the south side would add significantly more costs for pier widening in the river, and more costly and challenging environmental permitting.
- Q: Will any designs improve traffic flow?
 - A: Roch noted one of the project's objectives is to provide improvements to traffic flow and allow the State's project to further extend improvements to the Loudon Road corridor traffic with the upgrade at Exit 14. He noted the Team has obtained updated traffic counts for the coordinated traffic network and with the bridge widening and lane adjustments as outlined by Concept 5, it will result in improvements to intersection operation through Fort Eddy Road with the dedicated storage lane for I-93 southbound on-ramp traffic at Exit 14 and the elimination of the dangerous crossover/weave of westbound through traffic that exists today. Roch explained that as part of the project, the existing coordinated traffic network will be adjusted to reflect the benefits for the



- lane adjustments as proposed by Concept 5. It is expected the operational deficiencies at Fort Eddy Road and I-93 northbound off ramp will be addressed as part of the project and not make the traffic worse while making improvements and efficiencies where possible.
- Q: What is the sense that funding will still come from FHWA? Being a red-list bridge which means it should be improved sooner rather than later.
 - A: Mike B. noted the project construction costs will be split 80% federal and 20% City. He noted there is no indication that there were any issues with receiving the federal funding.
 - A: Tony P. (NHDOT) noted that addressing functionally and structurally deficient structures that are on the red list remains a priority for federally funding.
 - A: Roch L. noted HDR recently completed a bridge assessment on the existing structure to determine condition and adequacy and that report has been submitted to NHDOT. One result of that study was the recent paving on the bridge that was completed to protect/preserve the existing deck while the final design and construction is completed..
 - Q: What happens to traffic during construction?
 - A: Roch noted the design team has looked into constructability for phased bridge construction. While a strong encouragement will be provided to the community for using alternative routes, traffic and pedestrians will be accommodated as efficiently as possible on the bridge during construction. Additionally, the traffic management will coordinate priority emergency response through the corridor.
 - Q: Can you explain the separate bike/ped bridge footnote seen on one of the slides for reference to a separate pedestrian bridge?
 - A: Roch noted a separate pedestrian bridge was considered as part of the alternative review during the initial bridge study, but it was deemed to not be cost effective and would result in more environmental impacts than to have the sidewalks and shared use path as part of the existing bridge. The additional cost for a separate structure was about \$6M (4 years ago). He noted by combining the path as part of the bridge rehabilitation made more sense economically, reduced the environmental impacts and provided improved constructability.
 - Q: The path under the bridge is a good idea. I was originally under the impression that a full bridge replacement was going to occur and therefore more clearance over the path would be incorporated. That is not the case, but that is okay. However, an at-grade crossing of the path at Fort Eddy Road is not recommended. Providing an overpass or underpass would be more preferred.
 - A: Roch noted that either an overpass or underpass of the path at Fort Eddy Road is not achievable due to the limited elevations and horizontal distance to work with. The at-grade path crossing of local streets will be done in compliance with guidance from national criteria (AASHTO Ped and Bike Guide, MUTCD). The design team will be coordinating with NHDOT and their consultant for the continuation of the trail through the, I-93 Project.
 - Q: Why can't you take Concept 5 and move shared use path to the south side? I travel that area often on bike and would prefer to be on the south side of the road.
 - A: Roch acknowledged the comment.
 - Q: What will happen if the Federal funding goes away?
 - A: Roch noted there was no indication that funding would be going away.



- A: Tony P. further explained the project design is funded through State Funds with Federal funds for construction. He noted if Federal funding is lost for this project through a federal action in Washington, DC, it would likely be a concern for multiple NH projects and NH communities. Currently, it is understood investment in transportation infrastructure, especially red listed bridges, remains a worthy investment.
- Q: What is the time frame for construction?
 - A: Roch noted that construction should take approximately 2+ years. The biggest challenge will be the ability to reach the river piers and it is expected this will be done by launching a temporary trestle for bridge construction. This will be evaluated during the final design phase.
- Q: What is a BMP?
 - A: Roch noted BMP was an acronym for Best Management Practices which are stormwater treatment systems that remove pollutants before releasing stormwater into the Merrimack River.
- Q: Is there a federal regulation for the clearance over the path below the bridge? The tunnel (underpass) is a nice idea but must be maintained. During the winter existing tunnel surfaces in town ice over.
 - A: Roch noted the 10-foot clearance was established to meet the minimum standards for clearance through national guidance for pedestrian and bicycle paths.
- Q: Will bike and pedestrian count volumes be available on the City's website?
 - A: Mike noted the traffic data including pedestrian and bicycle counts will be posted on the City's website.
- Q: Can you explain the piers? Additionally, I suggest a full bridge closure for 1 year to get it done in a shorter time frame and at less cost.
 - A: Nick Caron explained there are three existing river piers creating a 4-span bridge. The intent of the project is to maintain the curved look of the existing girder profile. He noted that the existing piers are wider at the bottom and narrower at the top. The proposed pier widening will look to reverse the pier layout to create piers that are slightly wider at the top and narrow at the bottom. This approach with the equal girder widening on each side allows for reduce environmental impacts into the river and overall project costs.
- Q: Do you think there is potential for a parapet so people can enjoy the view from the bridge?
 - A: Roch explained that there will be parapets for lighting and overhead sign structures most likely situated over one of the piers (not intended for public use).
 - A: Nick noted the design team can investigate additional parapets for overlooks and may require additional steel to cantilever it from the outside girder resulting in added costs.
- Q: Any thoughts on the rail style or features on the rail that is more aesthetic. One attending member expressed their preference for similar style as the Scammell Bridge in Dover on US Rte. 4. They would not support the decorative globes as on the Hanover Bridge.
- Public Comment: Dick Lemieux, Committee chair for the MRGT explained that the Committee is finalizing negotiations with the property owner at 6 Loudon Road regarding an easement that will allow the extension of the MRGT to Loudon Road. He requested the Committee, City Engineering and HDR design team meet to discuss how the extended



path can be further incorporated into the bridge reconstruction. He noted that the Committee objectives is to raise the funds through donations to construct the trail extension through the 6 Loudon Road property this year. He noted his disappointment as to the project construction timeline being extending by 1-year from prior timeline and asked the project not to be delayed further.

- Q: Have you thought about teenagers jumping from the bridge? Can something be done to deter that?
 - A: Roch noted that added fencing could be considered to be incorporated if desired by the City if illegal jumping is a frequent occurrence at this location. This would typically consist of an unaesthetic chain link fencing.

Attachments

cc: Project Team

KC/AGB/RDL:kc



CITY OF CONCORD

New Hampshire's Main Street™
Community Development Department

PUBLIC MEETING NOTICE

LOUDON ROAD OVER MERRIMACK RIVER STATE AID BRIDGE (SAB) REHABILITATION PROJECT



Concord 41212 / CIP 588 PROJECT LOCATION MAP



 Approximate Project Limits

The Public is invited to attend an “Informational Meeting” with City representatives for discussion of proposed bridge and roadway improvements on Loudon Road between Fort Eddy Road and Gully Hill Road. The City’s consultant, HDR, will be presenting the project’s purpose and need, background, and conceptual improvements associated with the proposed NHDOT State Aid Bridge (SAB) Project. The intent of the meeting is to collect input from the public, municipal officials, resource agencies, and abutting property/business owners on the project’s objectives, proposed design alternatives, and recommended action for the improvements. Come learn about the project and provide your feedback.

When: Thursday, March 20, 2025 @ 6:00 PM (doors open at 5:30 PM)

Where: City Wide Community Center
14 Canterbury Road, Concord, NH 03301

Contact: City of Concord, Community Development Dept., Engineering Services Div.
Michael Bezanson, City Engineer, 603-225-8520 or mbezanson@concordnh.gov

All City of Concord public meetings are accessible for persons with disabilities. Any person who feels that he or she may be unable to participate in a City of Concord public meeting due to a disability should, to the extent possible, call (603) 225-8520 at least 48 hours prior to the meeting so that a reasonable accommodation can be arranged.

City of Concord City Hall 41 Green St. Concord NH, 03301	The Church of Jesus Christ of Latter-Day Saints 90 Clinton St. Concord, NH 03301	Goodlife Programs & Activities 254 N State St., Unit L Concord, NH 03301
Bow Municipal Buildings 10 Grandview Rd. Bow, NH 03304	First Congregational Church 79 Clinton St. Clinton, NH 03301	Community Action Program 26 S Commercial St. #105 Concord, NH 03301
New Hampshire State Library 20 Park St. Concord, NH 03301	East Congregational Church 51 Mountain Rd. Concord, NH 03301	Presidential Oaks 200 Pleasant St. Concord, NH 03301
Concord Public Library 45 Green St. Concord, NH 03301	West Congregational Church 499 N State St. Concord, NH 03301	Pleasant View Retirement 277 Pleasant St. Concord, NH 03301
Francis Beach White Library 84 Silk Farm Rd. Concord, NH 03301	World of Life Christian Fellowship 95 Old Loudon Rd. Concord, NH 03301	The Birches at Concord 300 Pleasant St. Concord, NH 03301
Saint Pauls Episcopal Church 21 Centre St. Concord, NH 03301	Granite State Baptist Church 236 Sheep Davis Rd. Concord, NH 03301	Granite Ledges at Concord 151 Langley Pkwy Concord, NH 03301
CenterPoint Church 20 N State St. Concord, NH 03301	One Church – Concord Outpost 79 Sheep Davis Rd. Concord, NH 03301	Havenwood 33 Christian Ave. Concord, NH 03301
South Church 27 Pleasant St. Concord, NH 03301	Grace Capital Church 542 Pembroke St. Concord, NH 03301	Connect55+ Concord 62 Plus Active Adult Retirement Community in NH 23 Triangle Park Dr. Concord, NH 03301
Cornerstone Community Church 39 Fayette St. Concord, NH 03301	Heritage Heights 149 East Side Dr. #2 Concord, NH 03301	Granite State Independent Living 21 Chenell Dr. Concord, NH 03301
Christ the King Parish 72 S Main St. Concord, NH 03301	Tads Place Art Center 149 East Side Dr. Concord, NH 03301	Friendly Kitchen 2 S Commercial St. Concord, NH 03301

St. Pauls Church – Food Distribution
Center
21 Centre St.
Concord, NH 03301

Servicelink Merrimack County
8 Old Suncook Rd.
Concord, NH 03301

InShape – Food Distribution Center
87 S Main St.
Concord, NH 03301

Community Action Program
8 Old Suncook Rd.
Concord, NH 03301

Belknap Merrimack Community Action
Food Pantry
2 Industrial Park Dr.
Concord, NH 03302

Commodity Supplemental Food
2 Industrial Park Dr.
Concord, NH 03302

McKenna House
100 S Fruit St.
Concord, NH 03301

Concord Coalition to End Homelessness
238 N Main St.
Concord, NH 03301

Street Outreach CAPBM
2 Industrial Park Dr.
Concord, NH 03301

USPS
18 Loudon Rd. #1325
Concord, NH 03301

USPS
22 Chenell Dr.
Concord, NH 03301

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Concord 41212

**Loudon Road over Merrimack River
(Bridge No.163/111)**

State No. 41212 | Concord CIP 588

Public Information Meeting No.1

March 20, 2025





Meeting Agenda

1. Welcome and Introductions
2. Project Location
3. Project Development Process
4. Project Overview & Progress to Date
5. Environmental Resource Identification
6. Purpose & Need Statement
7. Concept Evaluation
8. Other Design Considerations
9. Project Program Budget
10. Next steps and Schedule
11. Questions?



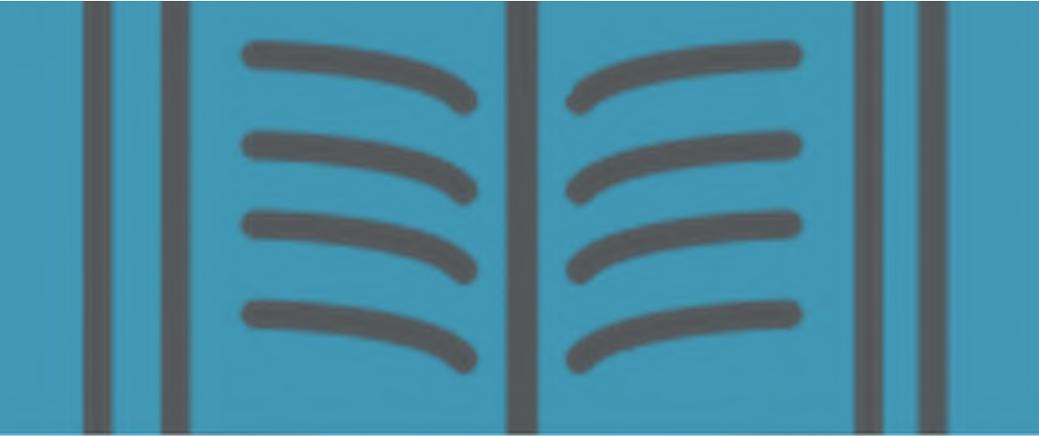


Key Project Team Members

- Michael Bezanson, PE
City Engineer, City of Concord
- Karen Hill, PE
Transportation Engineer, City of Concord
- Tony Puntin, PE
Planning & Community Assist. (NHDOT)

- Roch Larochelle, PE
Consultant Team Project Manager (HDR)
- Keith Cota, PE
Consultant Technical Advisor (HDR)
- Nick Caron, PE
Consultant Structural Design Lead (HDR)
- Debbie Finnigan, PE
Consultant Traffic Design Lead (HDR)
- Kevin Slattery, PWS
Consultant Environmental Lead (HDR)





Project Location

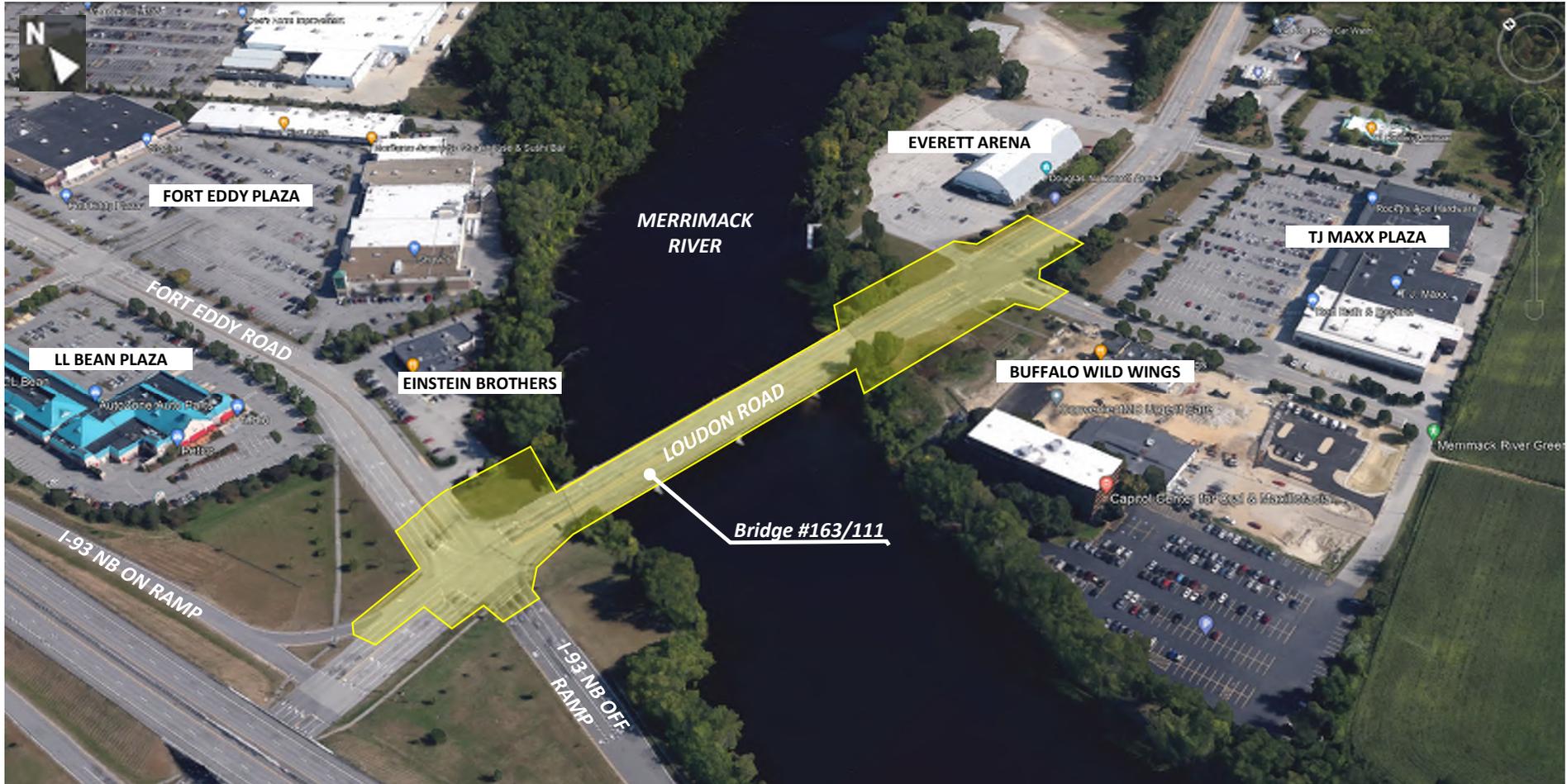


Concord 41212 / CIP 588 PROJECT LOCATION





Concord 41212 / CIP 588 PROJECT LOCATION MAP



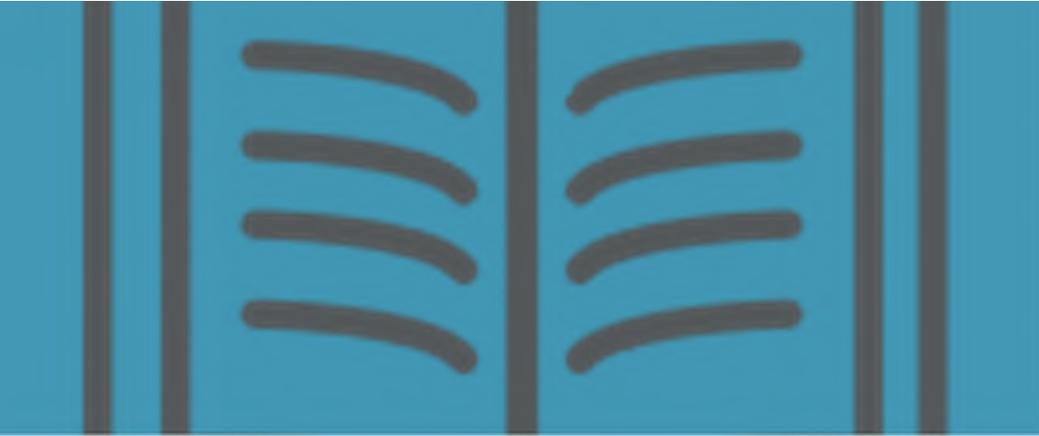
 Approximate Project Limits

PROJECT OVERVIEW & BASIC GOALS

- ✓ Concord Project CIP 588 / NHDOT Project 41212
- ✓ The project is in the Ten-Year Plan currently programmed through the State Aid Bridge and MOBRR⁽¹⁾ programs at **\$24.8M** for construction in FY 2027 - 2029 (Bridge Widening).
- ✓ Study limits include Loudon Road from Fort Eddy Road to Gully Hill Road/Everett Arena Driveway
- ✓ Project design to be compatible with City Long-Range Plan (Multi-Modal Connections)
 - Address Operational & Safety Concerns along the Corridor (Fort Eddy Road/ NB I-93 Ramps)
 - Considers future Active Transportation connections (MRGT⁽²⁾/Northern Rail Trail)
 - Considers Storrs Street Extension (Multi-Modal connection north)
 - Considers the Bow-Concord I-93 Preferred Alternative (F2)

(1) MOBRR-Municipal Off-System Bridge Replacement and Rehabilitation Program

(2) MRGT-Merrimack River Greenway Trail



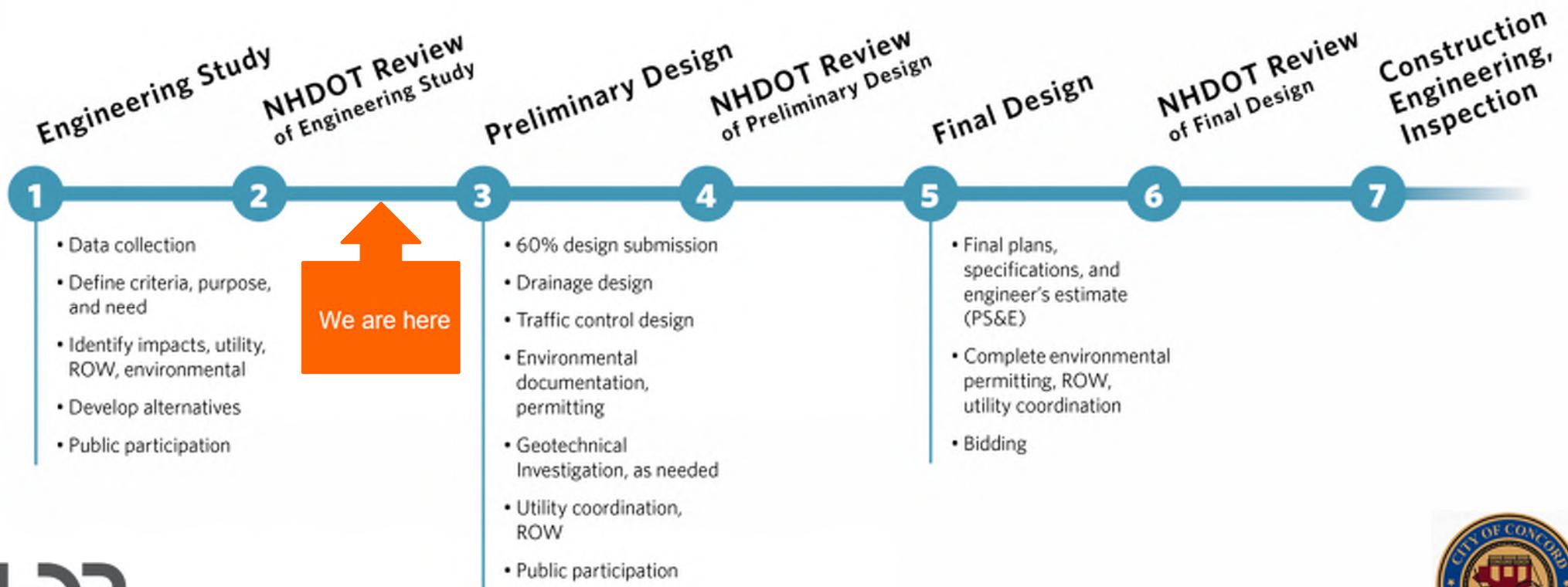
Project Development Process

PROJECT DEVELOPMENT PROCESS

- Collect Data and Analyze Conditions
- Craft Purpose and Need Statement
- Develop and consider range of reasonable design alternatives
- Solicit input from Public (Local Concerns Meeting)
- Evaluate environmental impact of alternative
- Recommend preferred alternative that meets project Purpose and Need
- Develop Proposed Action Plan and implementable project



NHDOT LPA Workflow



Source: <https://www.nh.gov/dot/org/projectdevelopment/planning/cmaq/index.htm>



Project Overview & Progress to Date



PROJECT RECAP

- ✓ Project Kickoff (Engineering Study).....Feb. 14, 2020
- ✓ Data Collection (Surv/Traffic/Hyd-Env).....Mar-June 2020
- ✓ Initiate Engineering Study.....June-Dec 2020
- ✓ Design Review Committee Meeting.....June 18, 2020
- ✓ TPAC Meeting (Prelim. Concepts).....June 25, 2020
- ✓ TPAC Meeting (Traffic Analysis).....July 23, 2020
- ✓ Report to Mayor/City Council (Concepts).....Sept. 24, 2020
- ✓ TPAC Meeting (Multi-modal connections).....Jan. 21, 2021
- ✓ Draft Engineering Study Submitted.....Mar. 1, 2021
- ✓ Rev. Draft Engineering Study Submitted.....Apr. 6, 2021
- ✓ NHDOT Design Review Meeting.....May 11, 2021
- ✓ Estimate Review Committee (NHDOT).....Sept. 24, 2021
- ✓ GACIT Hearing/NHDOT TYP.....Oct. 19, 2021
- ✓ Final Engineering Study Submitted.....Jan. 11, 2022
- ✓ **Contract Authorized (Phase I-Data Collection).....Jan. 26, 2024**
- ✓ Traffic Data Update/Bridge Inspection.....Feb -June 2024
- ✓ Geotech Program Permitting (Drilling).....Jan-Aug. 2024
- ✓ Interim Bridge repair estimate (Paving).....May 3, 2024
- ✓ Bridge Assessment Report Submitted.....May 22, 2024
- ✓ Existing Conditions Traffic Model complete.....Sept. 4, 2024
- ✓ **Contract Authorized (Phase II-Final Design).....Jan. 2, 2025**
- ✓ Interim Repair Meeting (NHDOT).....Jan. 30, 2025
- ✓ Developed Purpose & Need Statement.....Feb. 2025
- ✓ Meet with City Planning/Traffic.....Feb. 25, 2025
- ✓ Local Concerns Meeting.....Mar. 20, 2025

2020

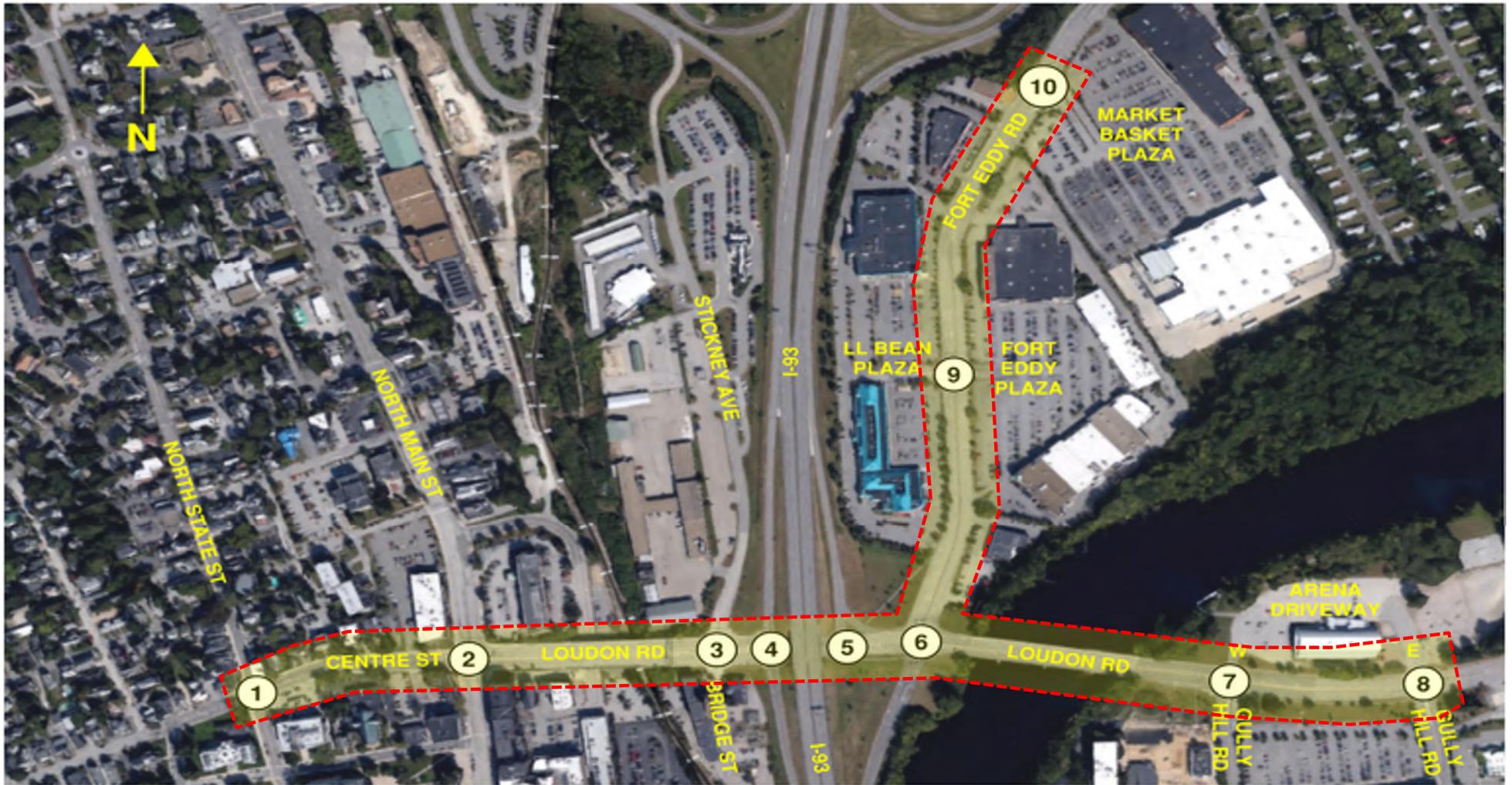
2021

2022 - 2024

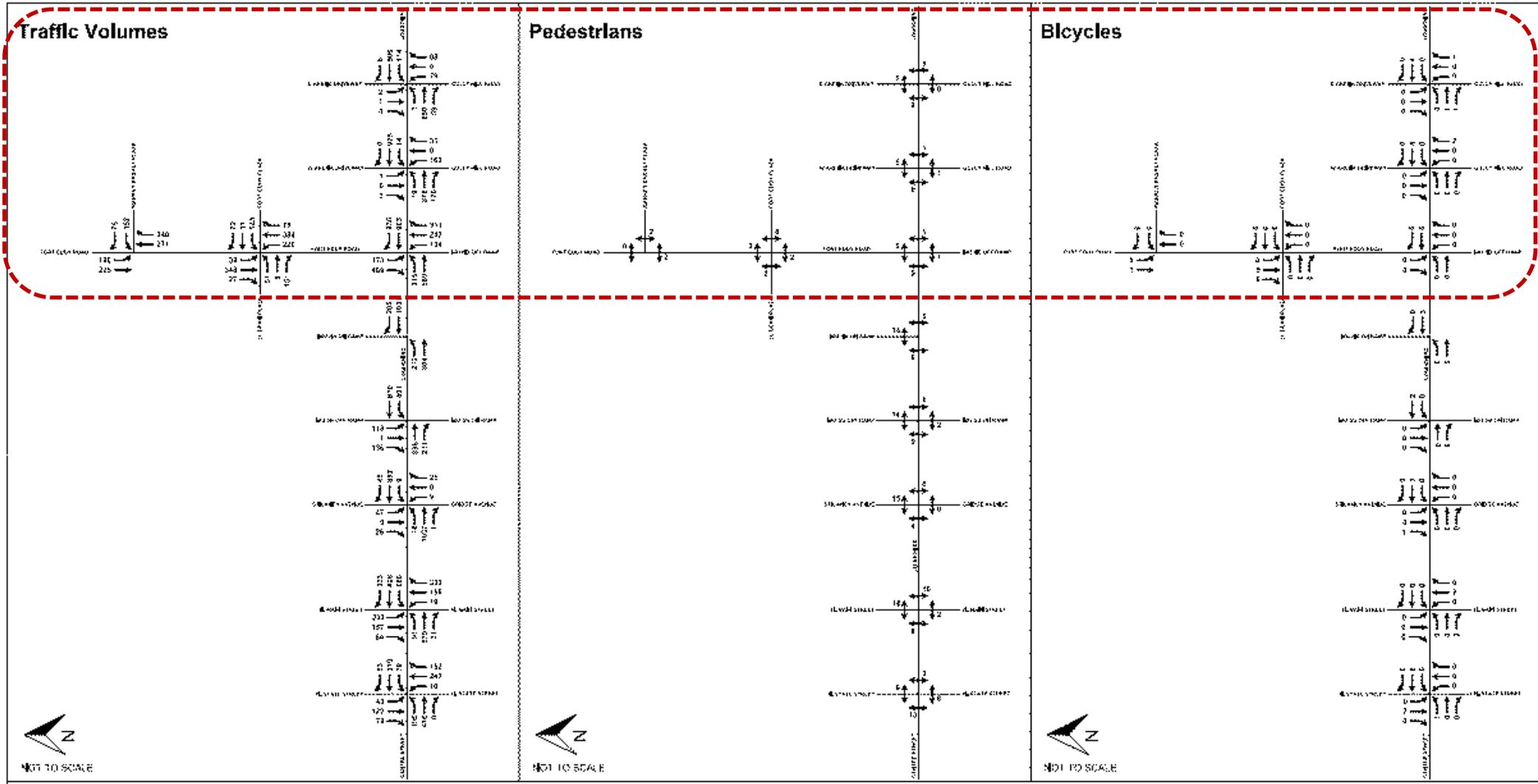
2025

Phase I Complete

TRAFFIC STUDY AREA (TRAFFIC ANALYSIS)



TRAFFIC VOLUMES (2024 EXISTING PM)

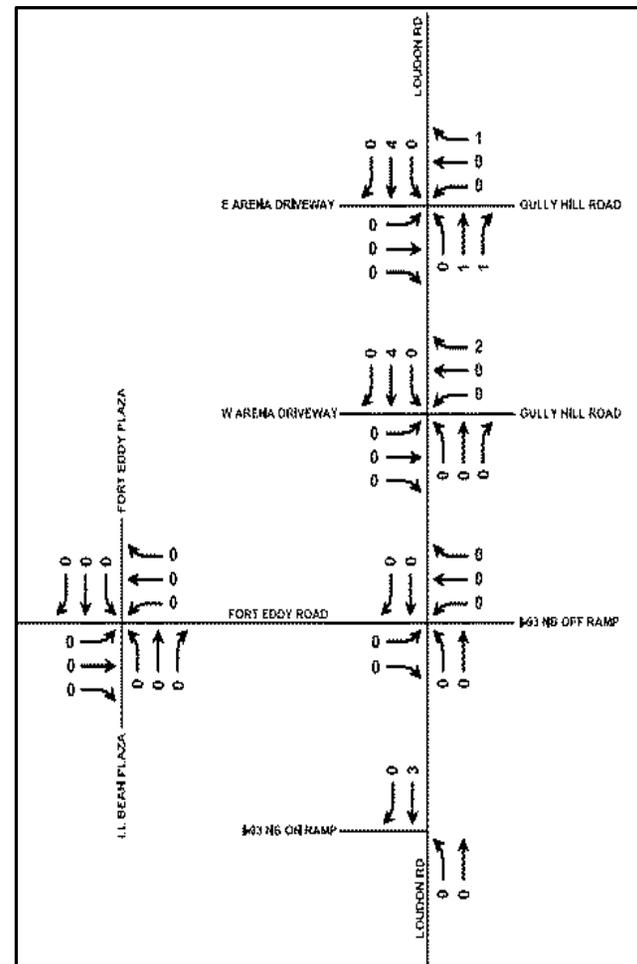
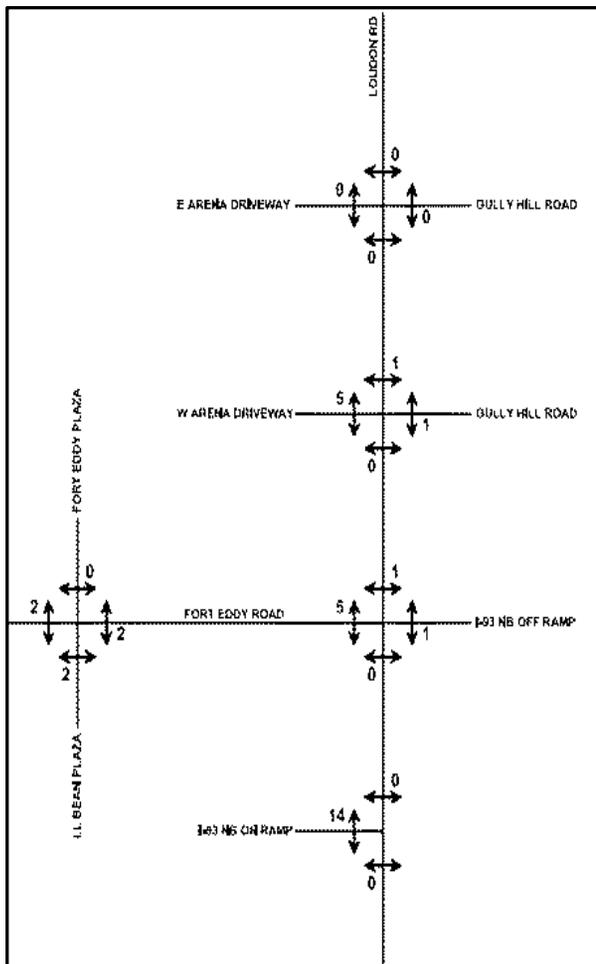
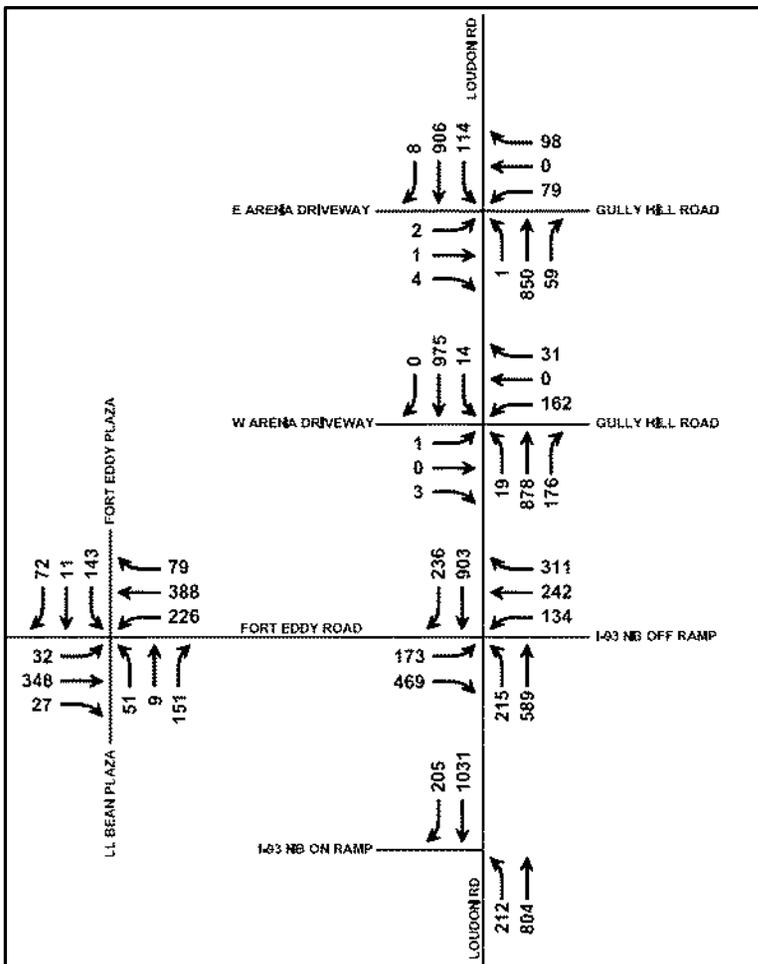


TRAFFIC VOLUMES (2024 EXISTING PM)

Traffic Volumes

Pedestrians

Bicycles



Note: Raw counts taken Tuesday June 11, 2024

INTERCHANGE CRASH SUMMARY (2015-2020)

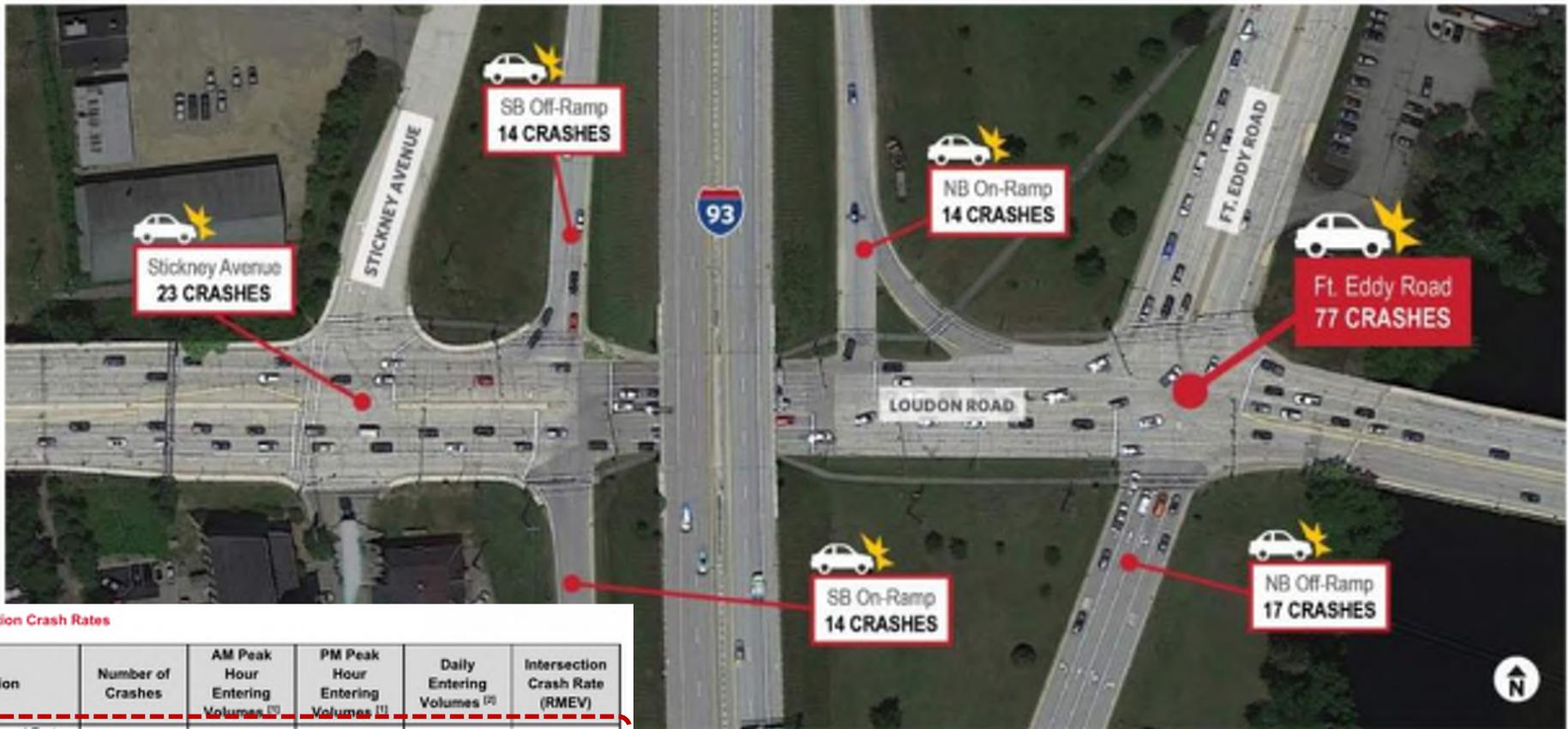
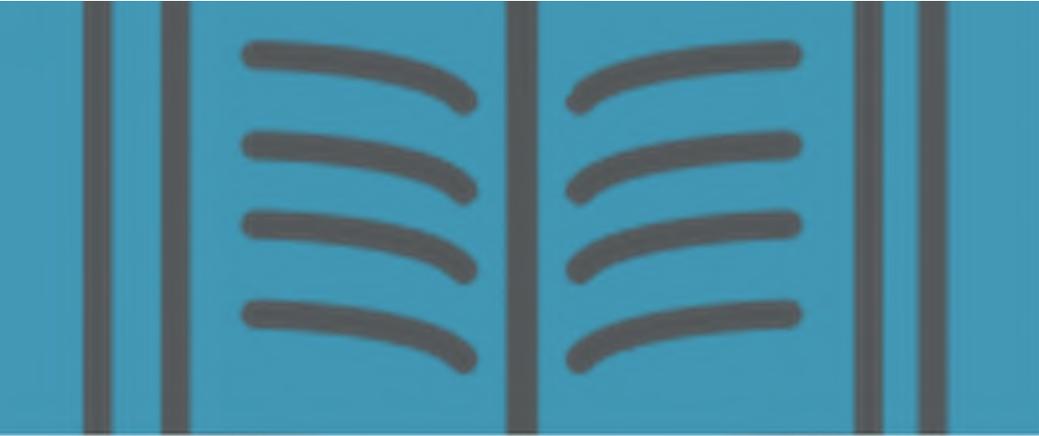


Table 2 - Intersection Crash Rates

Intersection	Number of Crashes	AM Peak Hour Entering Volumes (V)	PM Peak Hour Entering Volumes (V)	Daily Entering Volumes (V _D)	Intersection Crash Rate (RMEV)
1 Loudon Rd and Fort Eddy Rd and I-93 NB Exit 14 Off-Ramp	94	2722	3830	38300	1.26
2 Loudon Rd and I-93 NB Exit 14 On-Ramp	14	1827	2826	28260	0.26
3 Loudon Rd and I-93 SB Exit 14 Ramps	28	2367	3049	30490	0.47
4 Loudon Rd and Stickney Ave	23	2070	2517	25170	0.47



Environmental Resource Identification

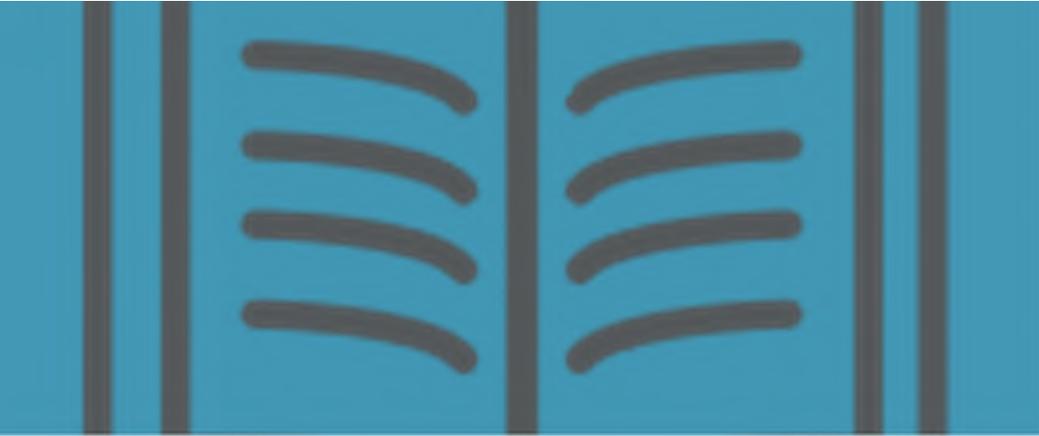
Integrated Environmental Process Minimizes Risks

➤ Early Constraints Identification

- Wetlands & Watercourses
- Floodplains & Floodways/“Designated River”
- Invasive, Threatened and Endangered Species
- Wildlife & Fish Habitat
- Historical and Archaeological Resource
- Social and Economic Resources
- Hazardous Materials
- Air & Water Quality Conforms
- Public and Conserved Lands

➤ NEPA Document & Permitting





Purpose & Need Statement

PURPOSE & NEED DEFINITION AND USE

- Required for NEPA Clearance
- Defines transportation issues and needs.
- States reason for undertaking and intended outcomes.
- Used to compare effectiveness of Build Alternatives against the No-Build Alternative.



Purpose and Need Statement

Purpose

The purpose of the project is to address structural deficiencies, safety concerns, and conflicts between vehicle, bicycle and pedestrians on Loudon Road (NH Route. 9) and the Municipal Red List Bridge No. 163/111 over the Merrimack River.

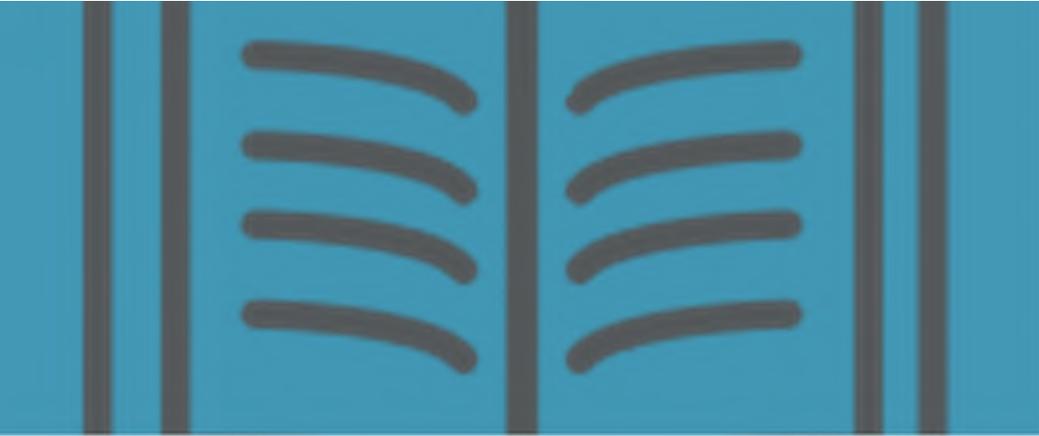
Need

The Project Need is defined to address the following:

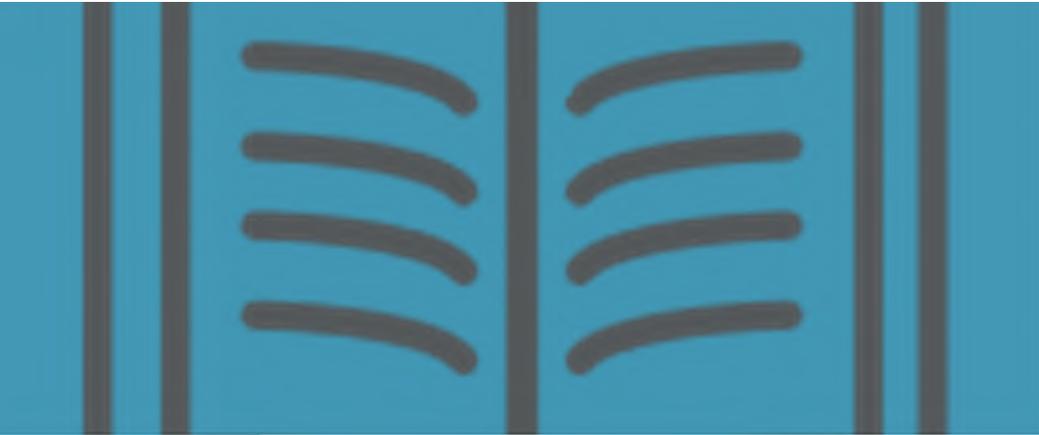
- Structural deficiency of the deck, superstructure, and abutment backwall deterioration;
- Operational deficiencies caused by imbalanced lane groups and lane alignments through the I-93 Exit 14 northbound interchange and Fort Eddy Road intersection;
- Lack of adequate shoulders for bicycle use; and
- Limited pedestrian crossings through I-93 Exit 14 across Loudon Road causing high exposure risks.

GOALS AND OBJECTIVES

- Provide improved service life for the Loudon Road Bridge over the Merrimack River, address structure deterioration and removal from the Municipal Bridge Red Listing;
- Implement infrastructure improvements that will accommodate the City's long-term objectives for multi-modal and recreational connections between Kiwanis Waterfront Park, Merrimack River Greenway Trail (MRGT) and Northern Rail Trail (NRT);
- Improve the operational flow, safety and decrease vehicle delays along the Loudon Road Corridor from the I-93/Exit 14 interchange to the Gully Hill Road intersection;
- Complement and accommodate improved operational flow and traffic safety with adjacent projects and corridor improvements (i.e. NHDOT's I-93/Exit 14 interchange, City of Concord's Kiwanis Waterfront Park);
- Implement any needed utility infrastructure improvements within the project area, especially the City of Concord's public water system infrastructure; and
- Minimize project impacts on local business operations, as well as on natural, cultural, and environmental resources.



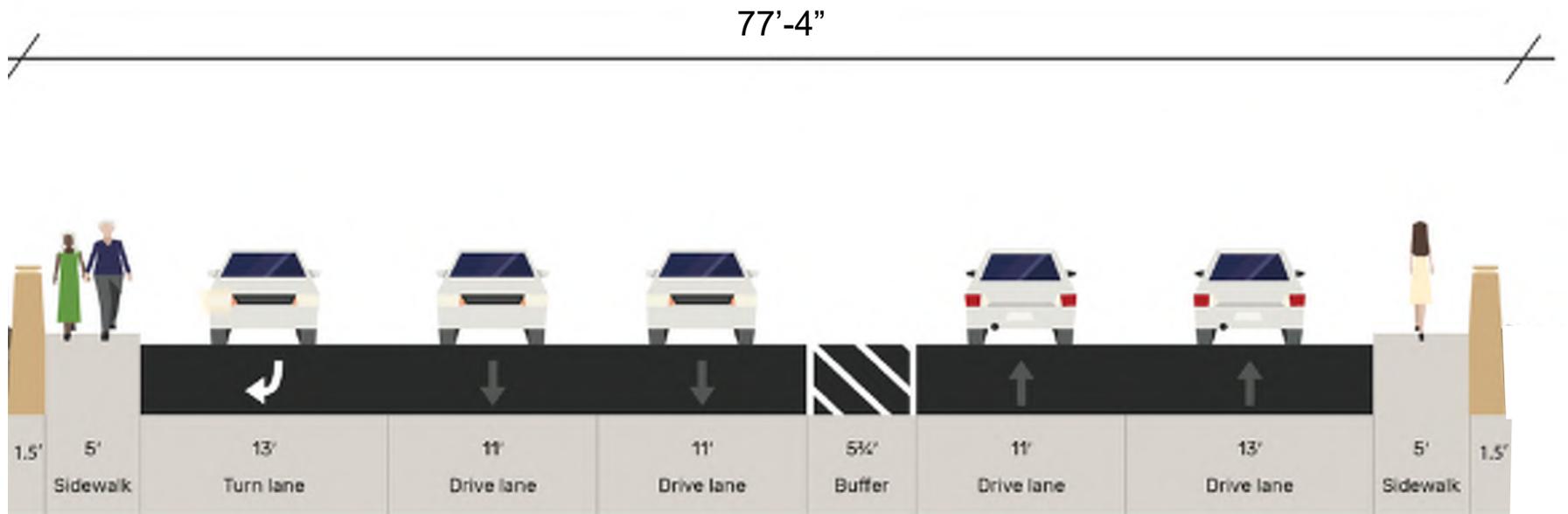
Concept Evaluation



BRIDGE REHABILITATION CONCEPTS CONSIDERED

Alternative	Bridge Rehabilitation	Travel Lanes	Median	Shoulder Width	Pedestrian / Bicycle Accommodation
1	Deck Replacement	5	5.3' (Painted)	2'	North: 5' Sidewalk South: 5' Sidewalk
2	Deck Replacement	4	6' Raised	5'	6' Sidewalks (n/s) 5' shoulders (n/s)
3	1 Girder Widening	5	4' Raised	5'	6' Sidewalks (n/s) 5' shoulders (n/s)
4	2 Girder Widening	5	4' Raised	5'	12' Shared-Use Path (n/s) 5' shoulders (n/s)
5	2 Girder Widening	5	4' Raised	5'	14' Shared Use Path (n) 6' Sidewalk (s) 5' shoulders (n/s)

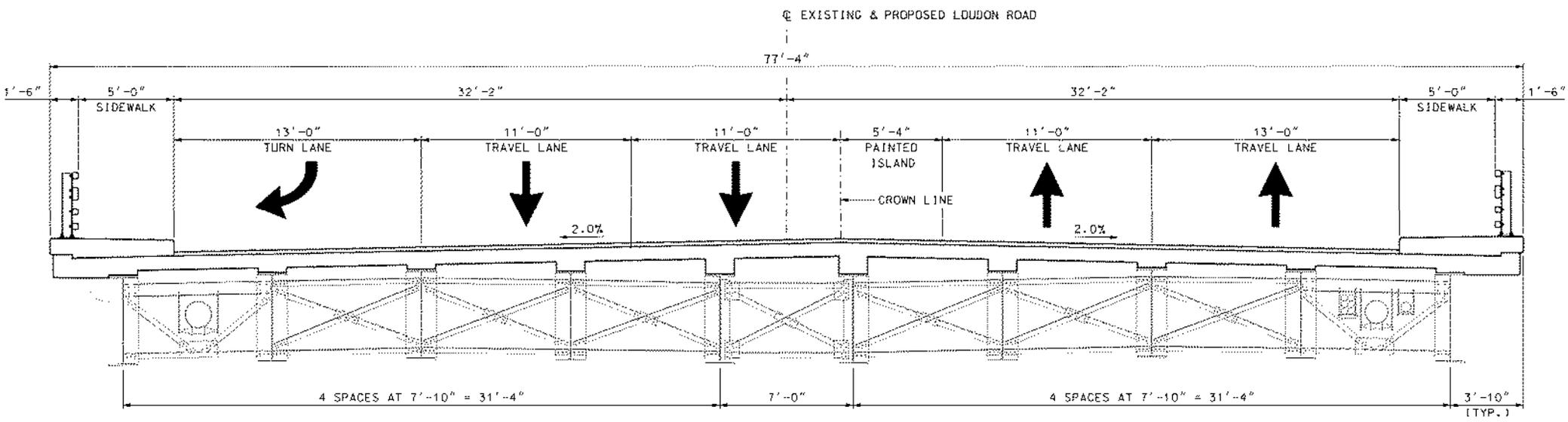
Concept 1 – No Bridge Widening (Existing Loudon Road Bridge Cross Section)



- No bicycle accommodation exists
- Constrained sidewalks with little buffer from traffic

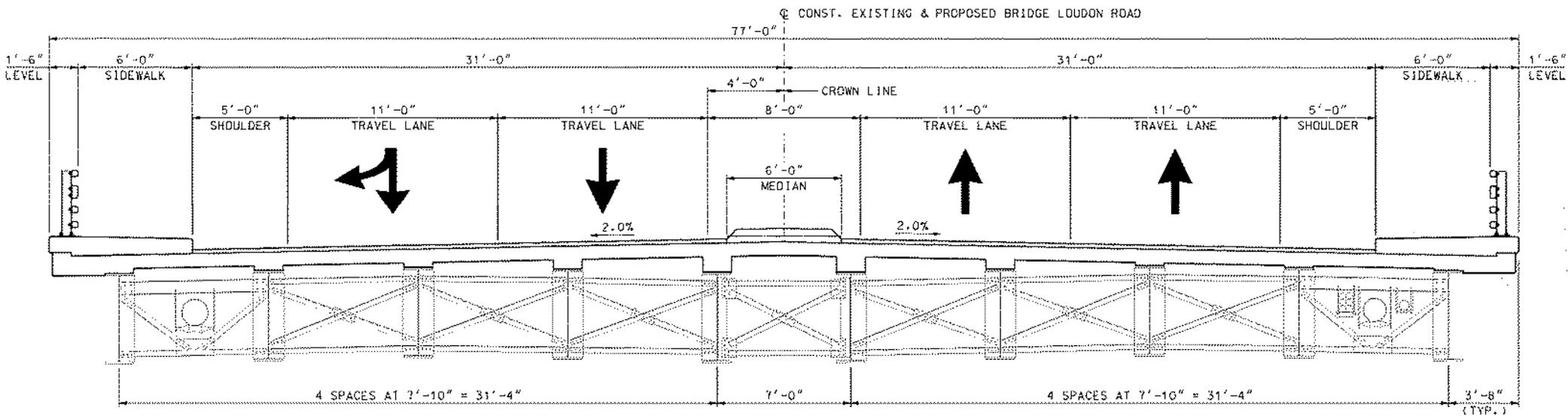
CONCEPT 1 – NO BRIDGE WIDENING (MATCH EXISTING)

(DECK REHABILITATION W/ NO GEOMETRIC UPGRADES)



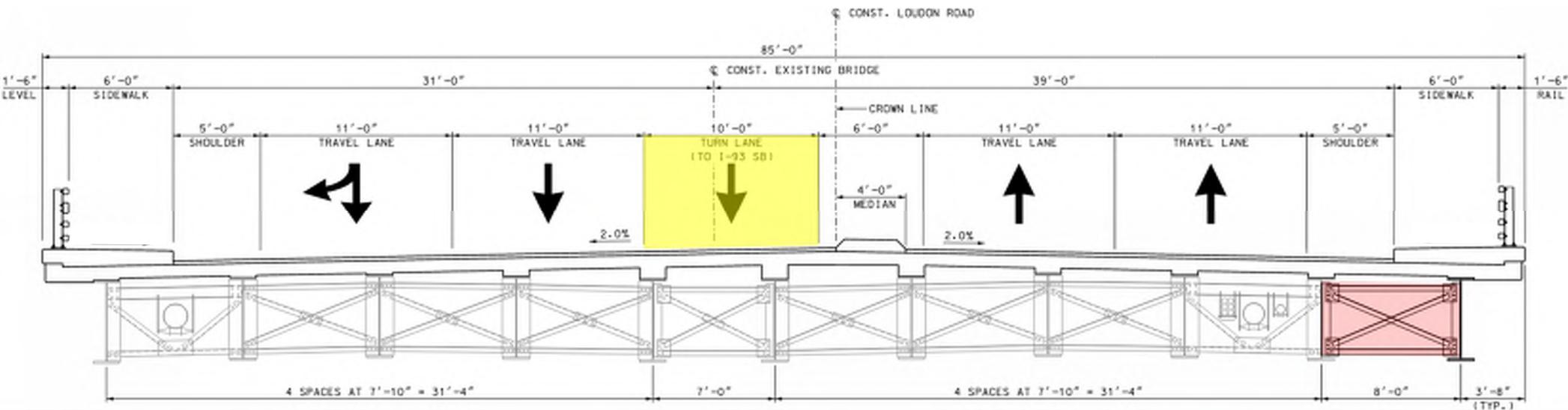
- Deck Rehab Only
- Maintain Existing Geometric Layout Over 77 ft. 4 in. wide deck)

CONCEPT 2 – No Bridge Widening (4-LANES) (LANE REASSIGNMENT ONLY)



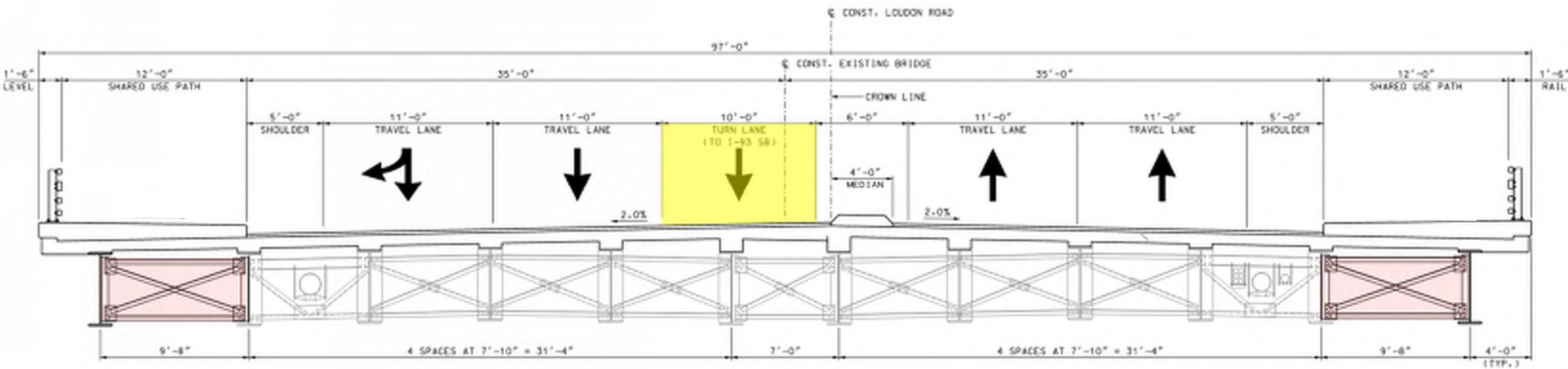
- Reprogramming of space only (No new Girders)
- Results in loss of Right Turn Lane (WB)
- Adds Median (but no future Left-Turn Lane (EB))

CONCEPT 3 – 8' BRIDGE WIDENING (5-LANES) (ADDED WB-AUXILIARY LANE & SHOULDERS)



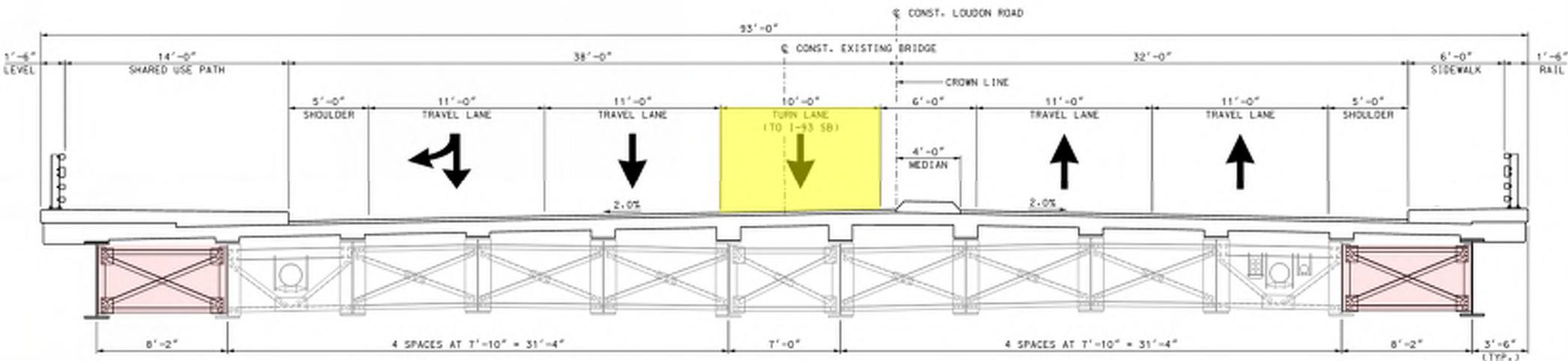
- 5 ft Bike Shoulder and 6 ft Pedestrian Upgrades
- Dedicated WB Auxiliary lane for Operational Improvements (Fort Eddy Road/Exit 14)

CONCEPT 4 – 20' BRIDGE WIDENING (5-LANES) (SHARED USE PATH BOTH SIDES)



- 5 ft Shoulders / 12 ft Shared Use Paths (both sides)
- Consistent with I-93 Expansion Typical for Loudon Road & Connection to Northern Rail Trail (NRT)
- Dedicated WB-Auxiliary Lane for Operational Improvements (Fort Eddy Road/Exit 14)

CONCEPT 5 – 16' BRIDGE WIDENING (5-LANES) (SHARED USE PATH ONE-SIDE ONLY)



- Northerly (left) 14 ft. Shared Use Path and Southerly 6 ft, Sidewalk
- 5 ft Shoulders (both sides)
- Dedicated WB Auxiliary lane for Operational Improvements (Fort Eddy Road/Exit 14)
- Consistent with I-93 Expansion Typical for Loudon Road & Connection to Northern Rail Trail (NRT)

RECOMMENDED CONCEPT



Walmart Supercenter

CHRYSLER STORE

Walmart Supercenter

Hardman's Home & Garden Store & Cash Bar

Publix

Ernesto Bros. Bagels

Country Music Store

Rocky's Ace Hardware

Walmart Supercenter

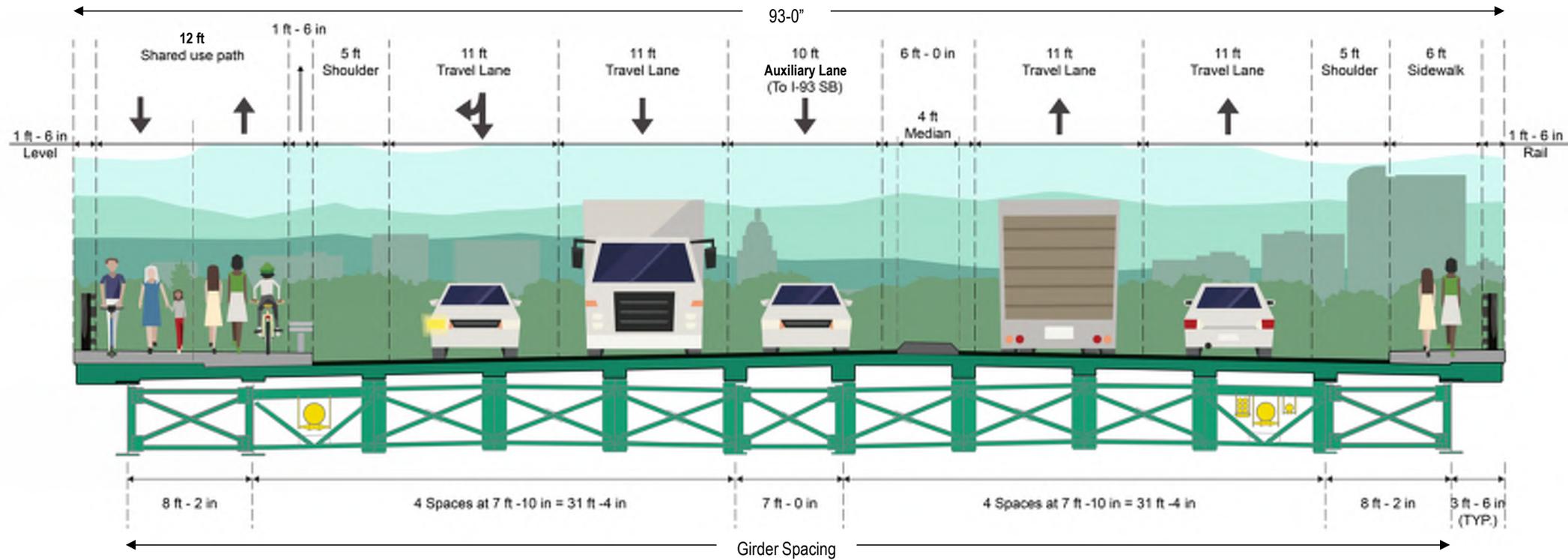
Walmart Supercenter

Walmart Supercenter

Caprol Genex (Auto & Maintenance)

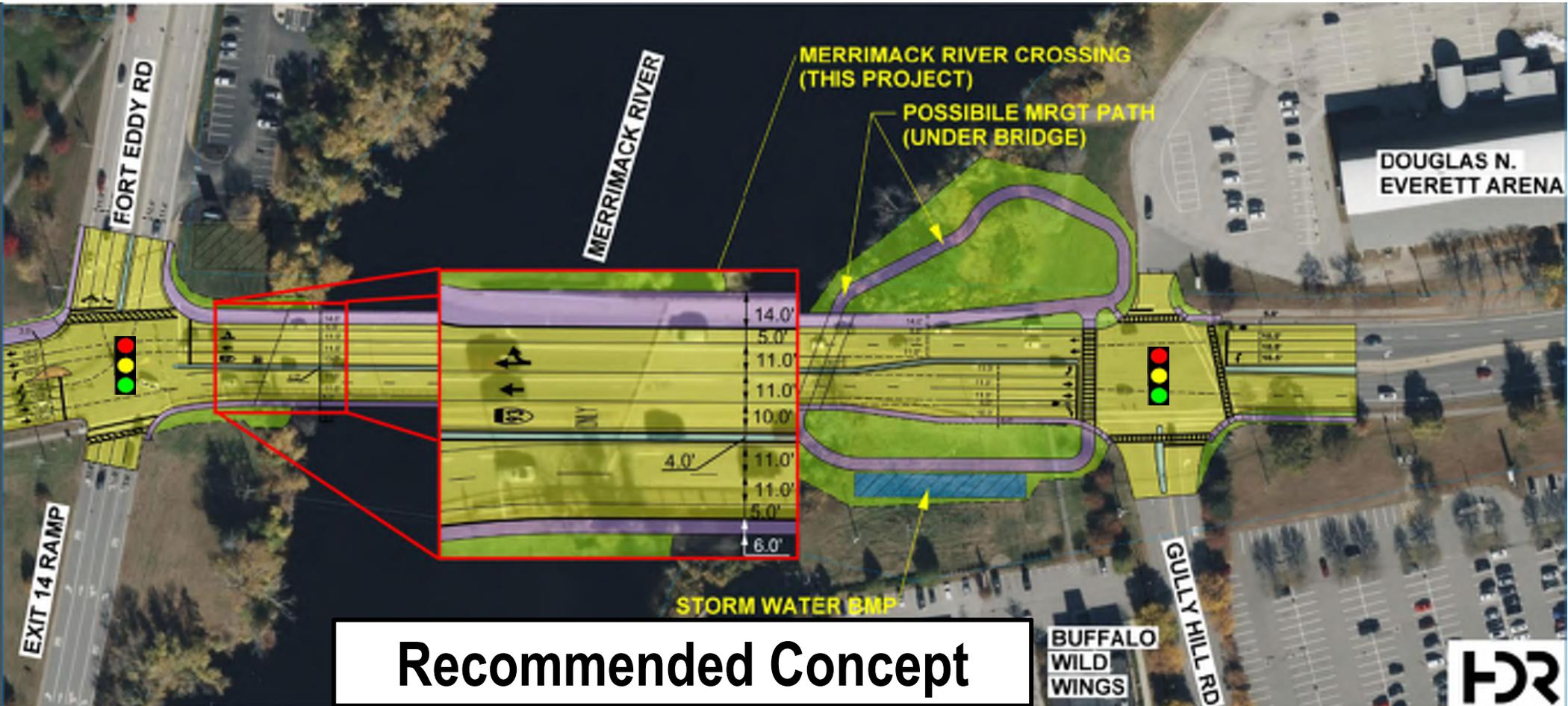
Memmick River Green

CONCEPT 5 – TWO GIRDER WIDENING (SHARED USE PATH ONE-SIDE ONLY)



Recommended Concept

CONCEPT 5 – TWO GIRDER WIDENING (SHARED USE PATH ONE-SIDE ONLY)

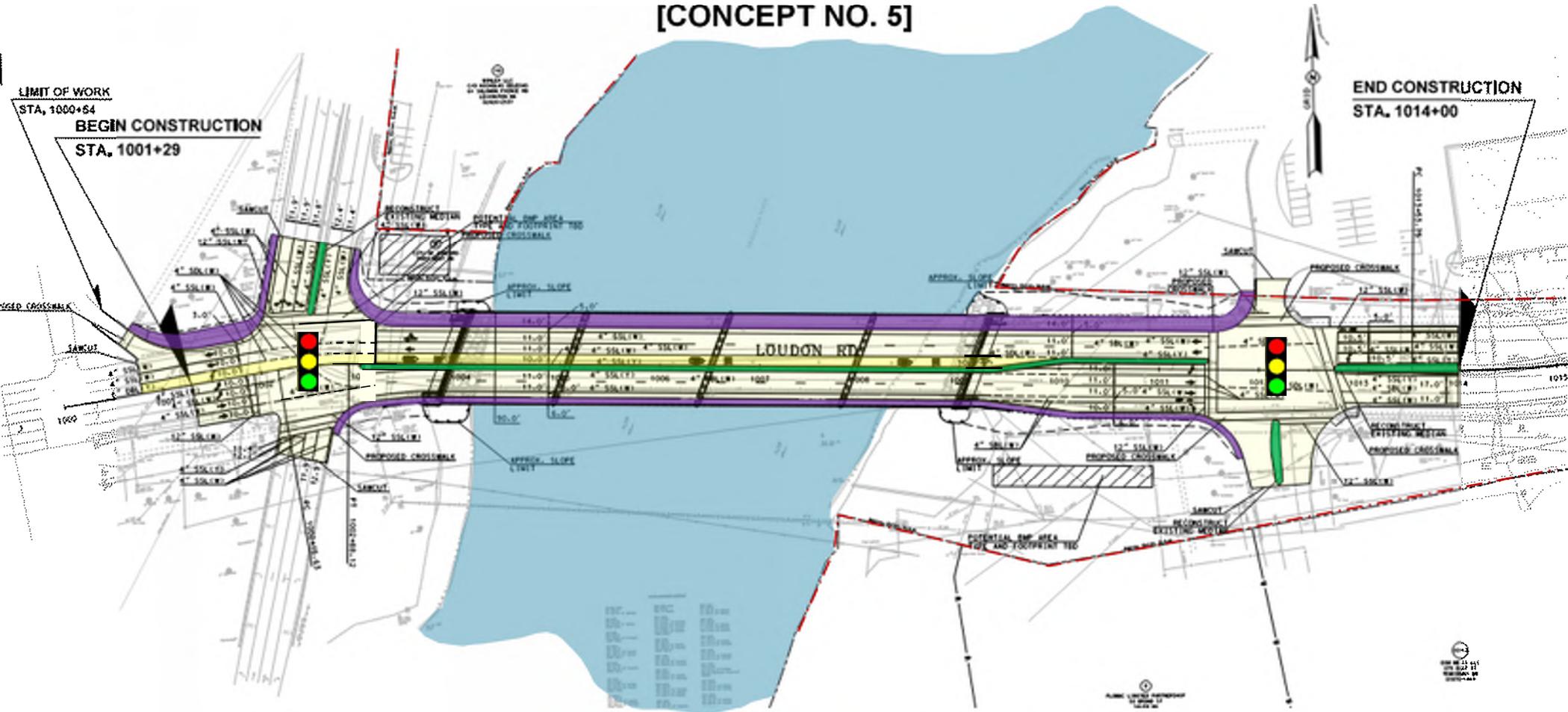


Recommended Concept

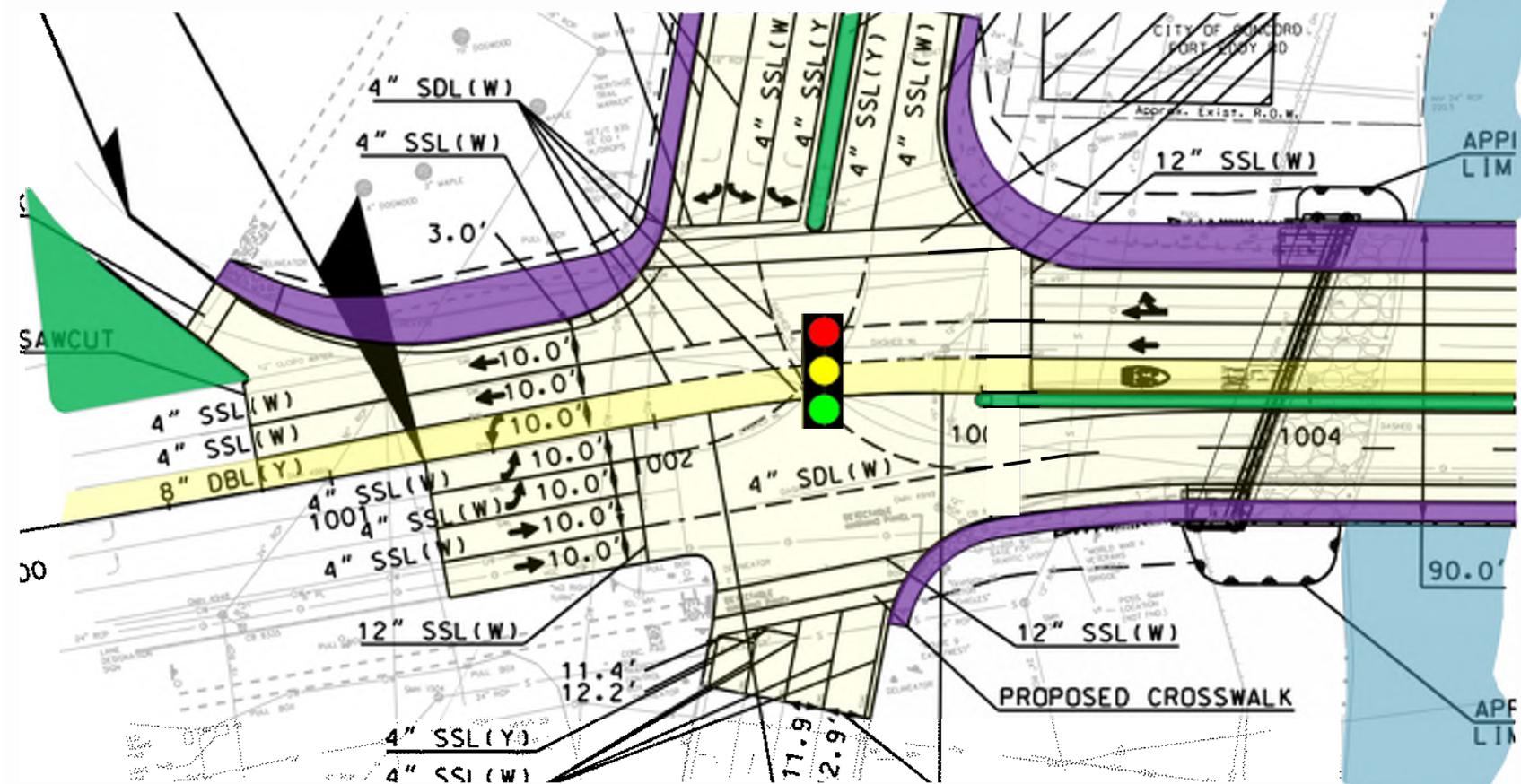


RECOMMENDED ROADWAY CONCEPT

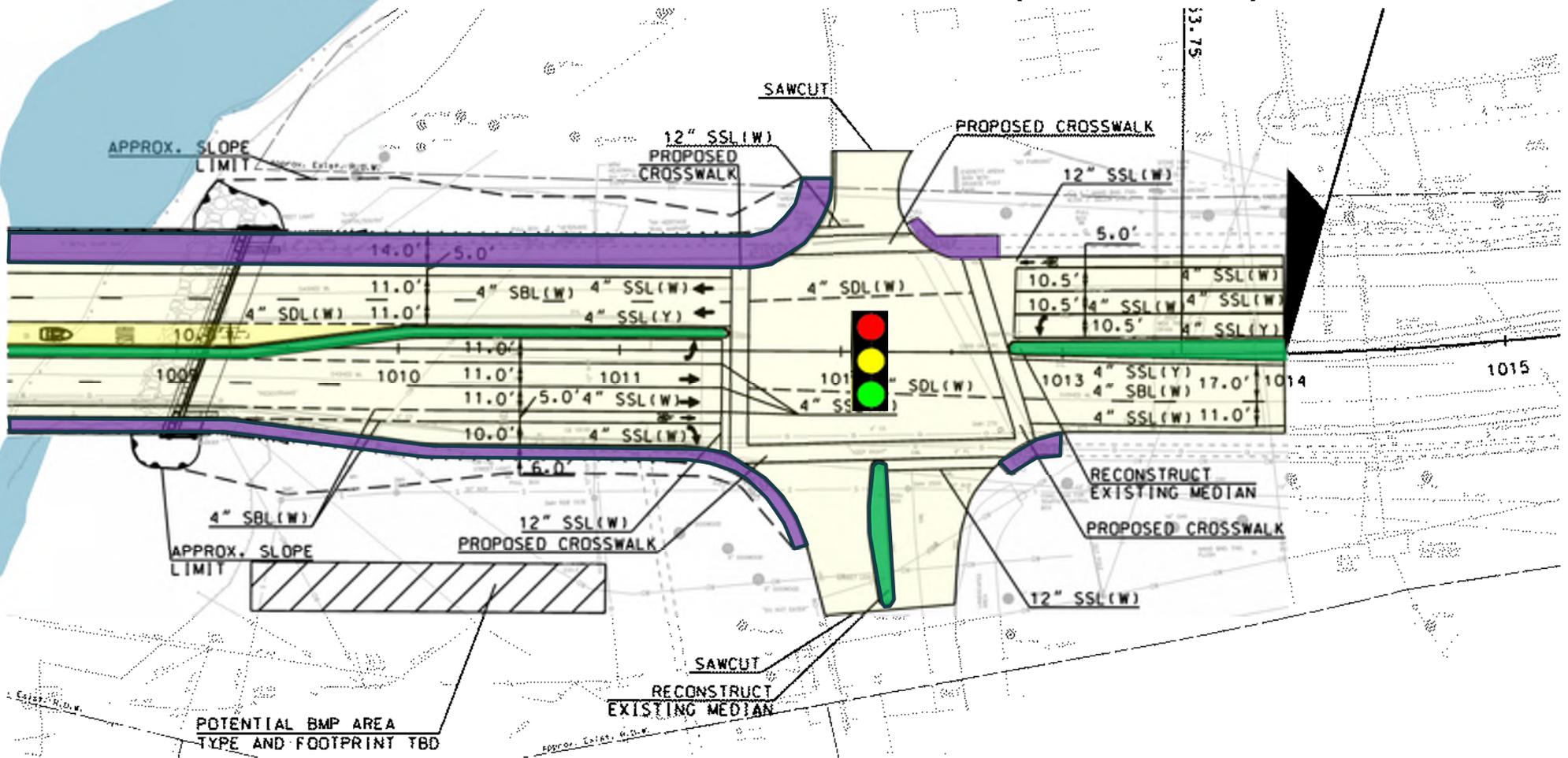
[CONCEPT NO. 5]



LOUDON ROAD / I-93 NB OFF RAMP / FORT EDDY ROAD



LOUDON ROAD / GULLY HILL ROAD (ICE ARENA)

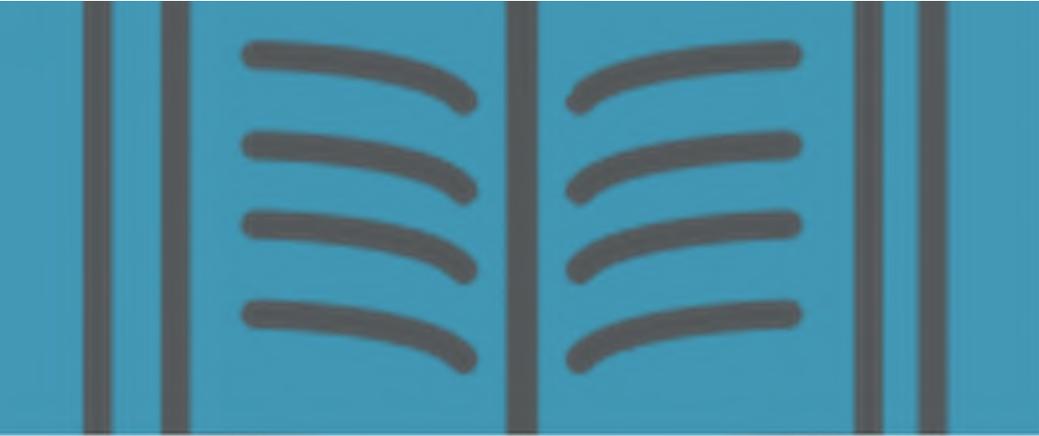


BRIDGE REHABILITATION CONCEPTS CONSIDERED

Concept	Bridge Rehabilitation	Travel Lanes	Median	Shoulder Width	Pedestrian / Bicycle Accommodation	Estimated Costs [1]
1 [2]	Deck Replacement	5	5.3' (Painted)	2'	North: 5' Sidewalk South: 5' Sidewalk	\$9.4M
2 [2]	Deck Replacement	4	6' Raised	5'	6' Sidewalks (n/s) 5' shoulders (n/s)	\$9.4M
3 [2]	1 Girder Widening	5	4' Raised	5'	6' Sidewalks (n/s) 5' shoulders (n/s)	\$14.0M
4	2 Girder Widening	5	4' Raised	5'	12' Shared-Use Path (n/s) 5' shoulders (n/s)	\$20.3M
5	2 Girder Widening	5	4' Raised	5'	14' Shared Use Path (n) 6' Sidewalk (s) 5' shoulders (n/s)	\$18.6M

[1] Includes Construction, Engineering and Permitting. Does not include right of way costs

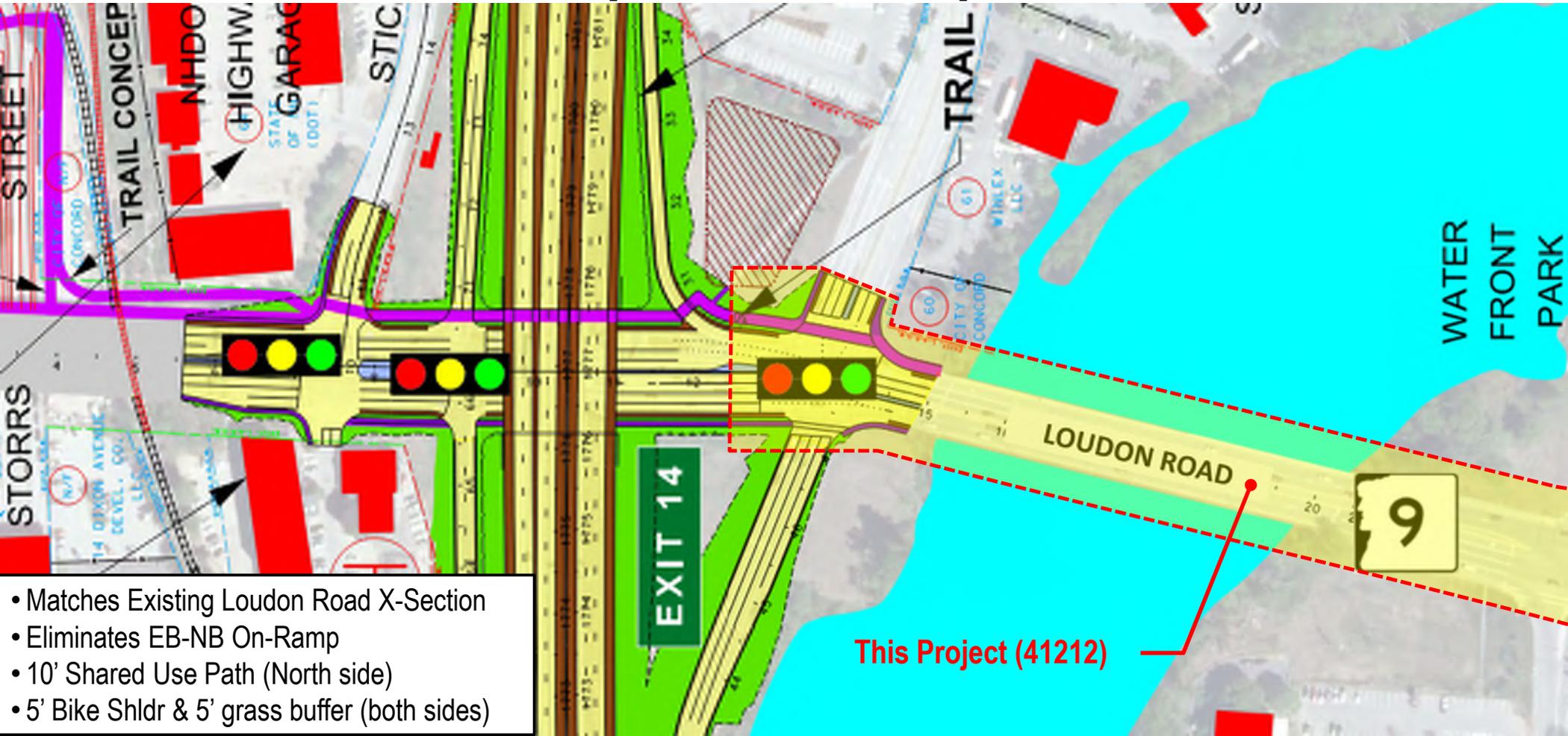
[2] Multi-modal connectivity may be provided via separate pedestrian/bicycle bridge (Estimated Additional Cost \$6.0M)



Other Design Considerations

OTHER DESIGN CONSIDERATIONS

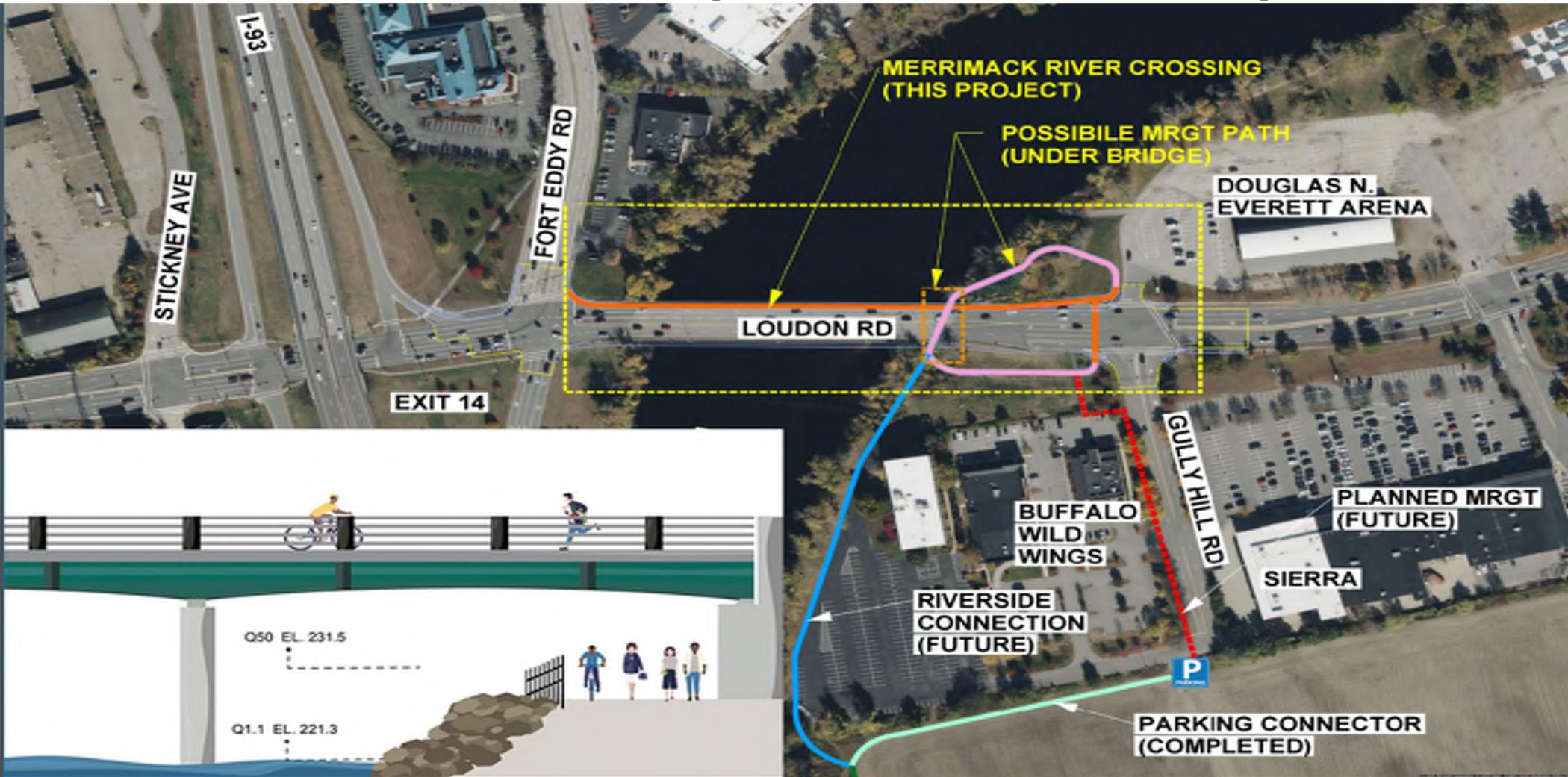
I-93 – PREFERRED (F2.2) ALTERNATIVE
[EXIT 14 INTERCHANGE]



- Matches Existing Loudon Road X-Section
- Eliminates EB-NB On-Ramp
- 10' Shared Use Path (North side)
- 5' Bike Shldr & 5' grass buffer (both sides)

OTHER DESIGN CONSIDERATIONS

RAIL-TRAIL CONNECTIONS [UNDER BRIDGE CONNECTION-EAST]



OTHER DESIGN CONSIDERATIONS

GUARDRAIL OPTIONS [ON NEW BRIDGE]



US Rte 4 Scammell Bridge - Dover, NH



Connecticut River Crossing - Hanover NH



175A over Pemi - Plymouth NH



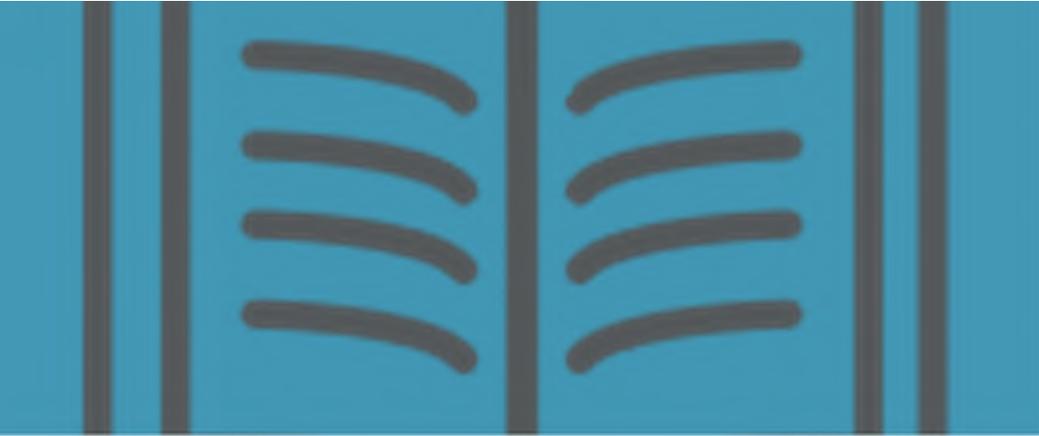
Fore River - Portland Maine

GUARDRAIL HEIGHT MUST BE:

- ✓ Outside Rail: 54" (4.5')
- ✓ Inside Rail: 42" (3.5')
- ✓ Crashworthy Barrier

Design Reference:

AASHTO Guide for Development of Bicycle Facilities 5th Edition.



Project Program Budget



2025 - 2034 Ten Year Plan

9/13/2024

CONCORD (41212)

Route/Road NH ROUTE 9 (LOUDON RD) OVER MERRIMACK RIVER

Category BRIDGES

Scope BRIDGE REHABILITATION-NH ROUTE 9 (LOUDON RD) OVER MERRIMACK RIVER BR. #163/111 (SAB+MOBRR) RED LIST

Strategy TIER 5

Phase	Year	Funding	Program
Preliminary Engineering	2025	1,716,318	SAB *
Right of Way	2025	106,604	SAB *
Construction	2025	11,265,086	Bridg-LPA-Rehab-Rcn
Construction	2026	11,681,874	Bridg-LPA-Rehab-Rcn

Total	\$24,769,862	Previous Funding	\$0
		Current TYP Funding	\$24,769,862
		Future Funding Required	\$0
		Total Project Cost	\$24,769,862



Next Steps & Schedule

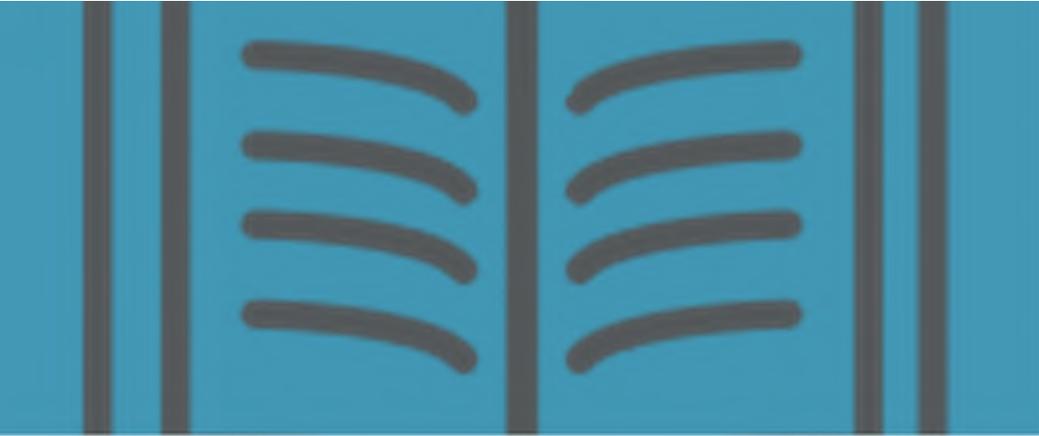
NEXT STEPS

- Develop Preferred Alternative
- Complete Preliminary Design
- Finalize Environmental Study (NEPA)
- Public Information Meeting No. 2
- NTP Final Design & Right-of-Way
- Complete Final Design
- Clear Utilities and Right-of-Way
- Prepare Bidding Documents



ANTICIPATED PROJECT SCHEDULE

- ✓ Topographic Ground Survey.....*Completed June 2020*
- ✓ Engineering Study.....*Completed January 2022*
- ✓ Traffic Data Collection.....*Completed June 2024*
- ✓ **Local Concerns/Public Info. Meeting No. 1.....March 20, 2025**
- Preliminary Design / Environmental Study.....*Spring - Fall 2025*
- **Public Information Meeting No. 2.....Fall 2025**
- Final Design Efforts.....*Summer - Winter 2026*
- Bidding and Construction.....*Spring 2027 – Fall 2029*



Questions?

PROJECT CONTACTS

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Email: Mbezanson@ConcordNH.gov

