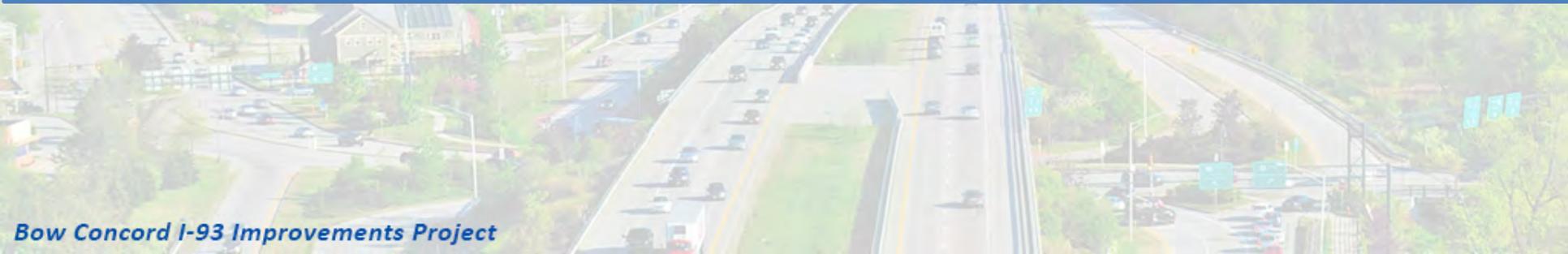
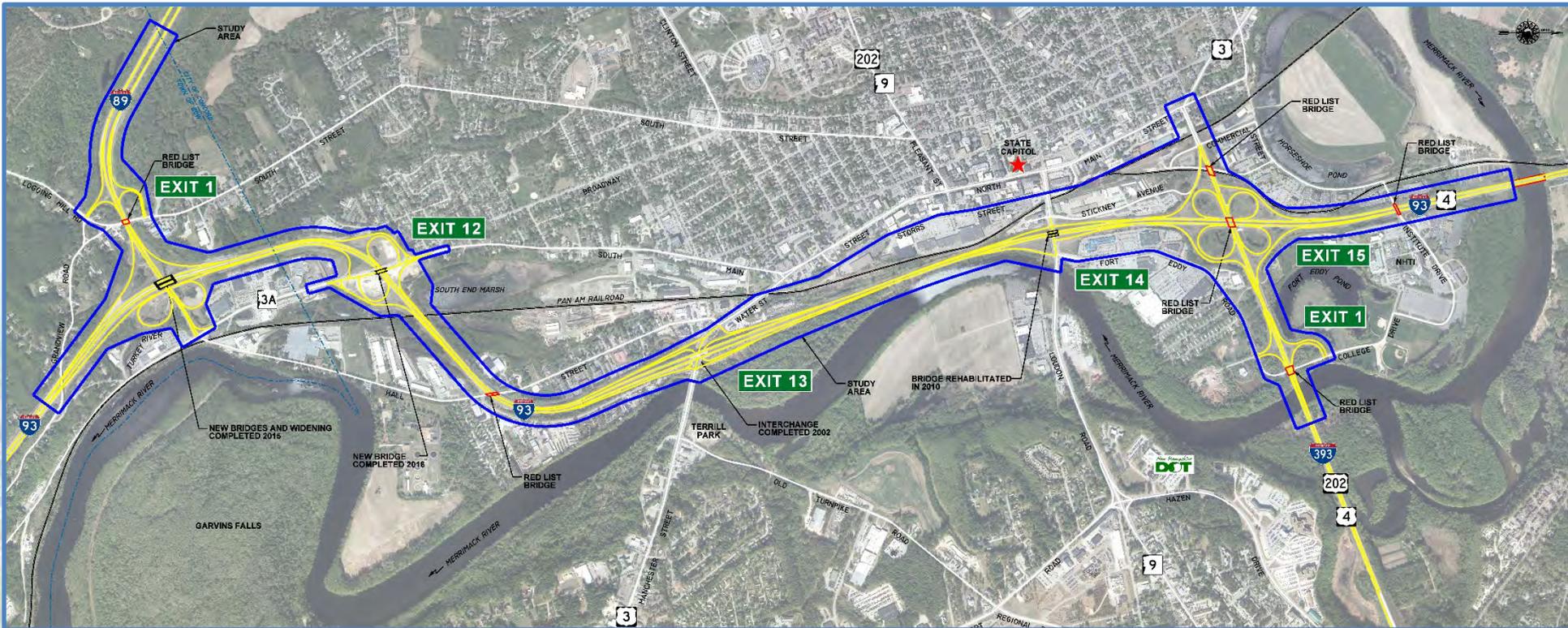


Bow Concord I-93 Improvements T-A000(018) 13742

Project Update

August 9, 2022

Project Overview



Project History / Overview

Part A – Planning (2002 - 2008)

- Problem & Goal Statements
- Range of Reasonable Alternatives
- Determine Level of Environmental Document
- Prepare Summary/Classification Report

Red List Bridges (2008 - 2016)

- Exit 14 Rehabilitation
- I-93 over I-89 Replacement
- Exit 12 Replacement

Part B – Scoping (2013 - 2019)

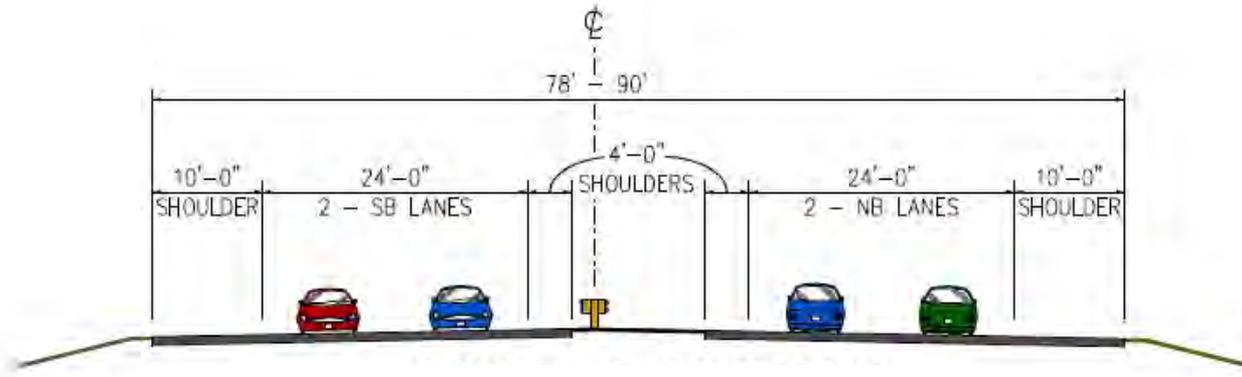
- Select Preferred Alternative
- Environmental Documentation (EA)
- Public Hearing (November 2018)

Part C – Final Design

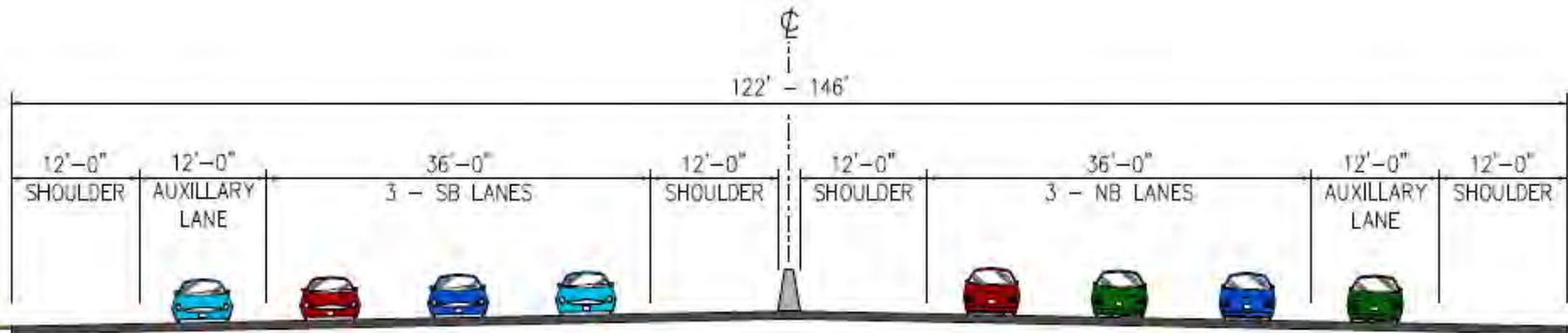
Project Purpose

The purpose of the Interstate 93 Bow-Concord project is to address the existing and future transportation needs for all users of this four-mile segment of I-93, while balancing the needs of the surrounding communities, by providing a safe and efficient transportation corridor for people, goods and services.

I-93 Typical Sections

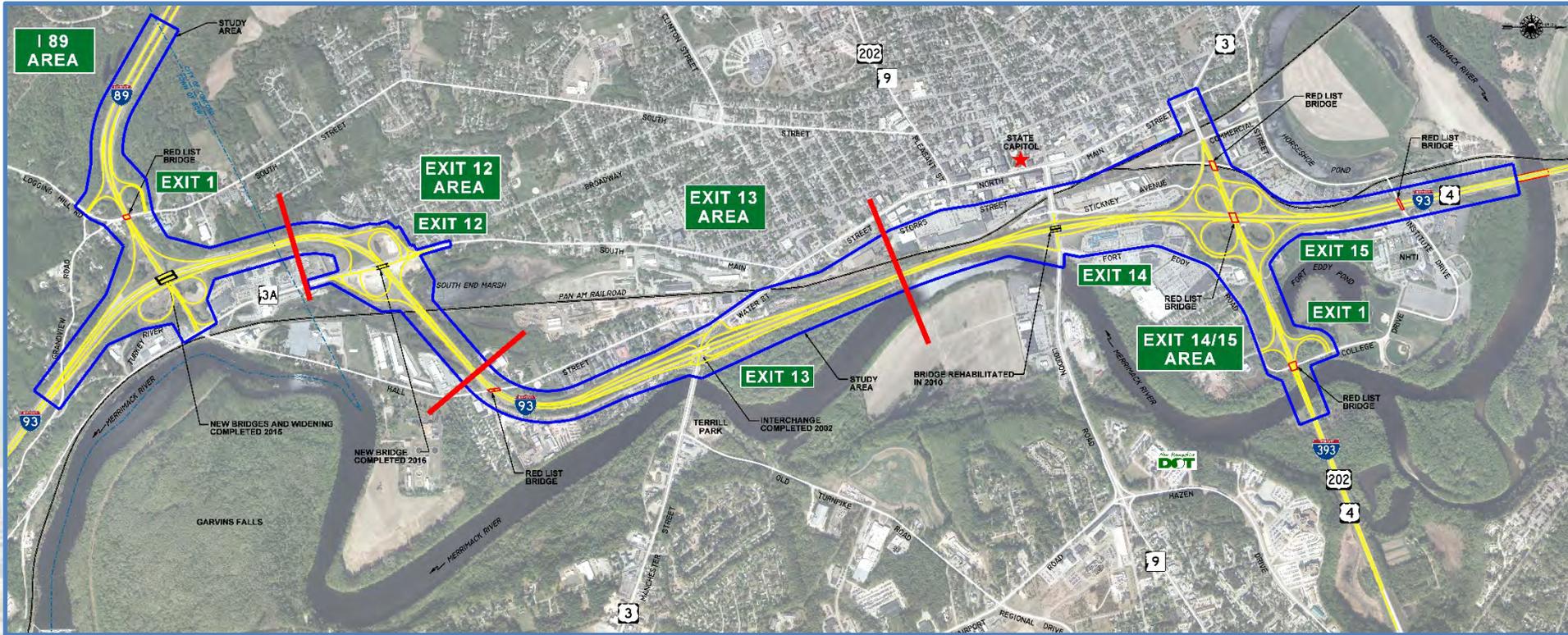


Existing Interstate 93 (4 Lanes)



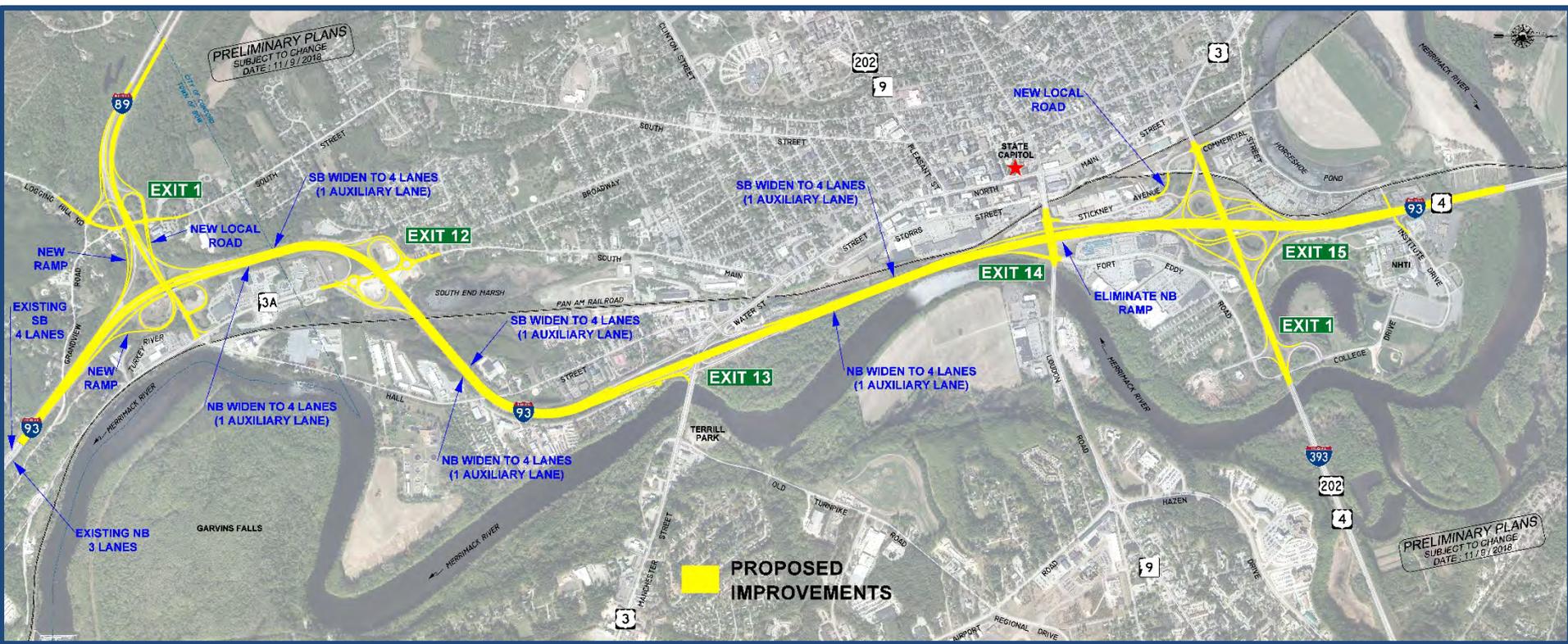
Proposed Interstate 93 (6 Lanes)

Proposed Project



- Red List Bridges
- Geometric Issues
- Operational Issues
- Proposed Improvements
- Access
- Pedestrian/Bicycle Accommodation
- Stormwater Treatment
- Property Impacts

Recommended Preferred Alternative



**I-89 Area
Concept K**

**Exit 12 Area
Concept F**

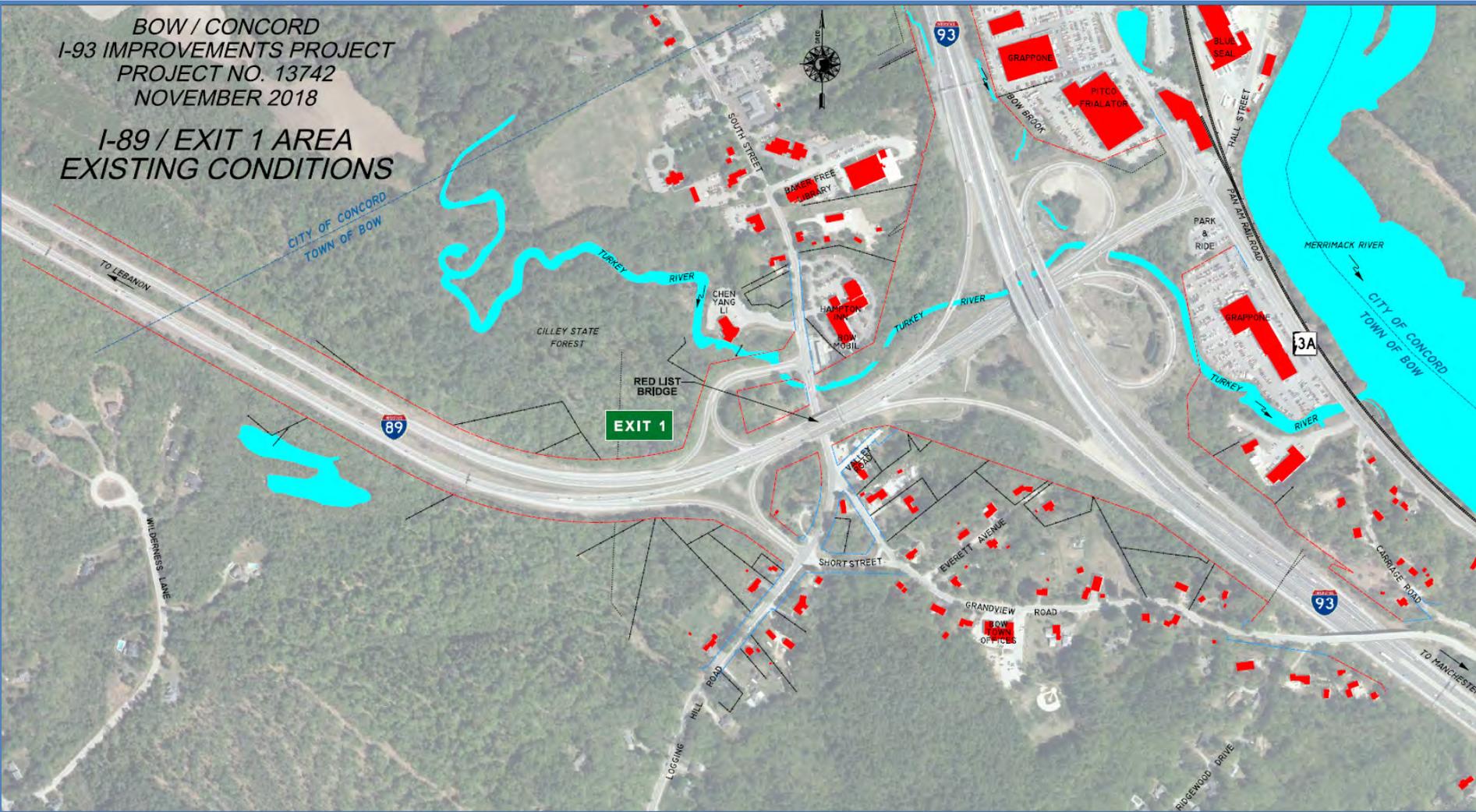
**Exit 13 Area
Concept B**

**Exit 14/15 Area
Concept F2**

I-89 / Exit 1 Area - Existing

BOW / CONCORD
I-93 IMPROVEMENTS PROJECT
PROJECT NO. 13742
NOVEMBER 2018

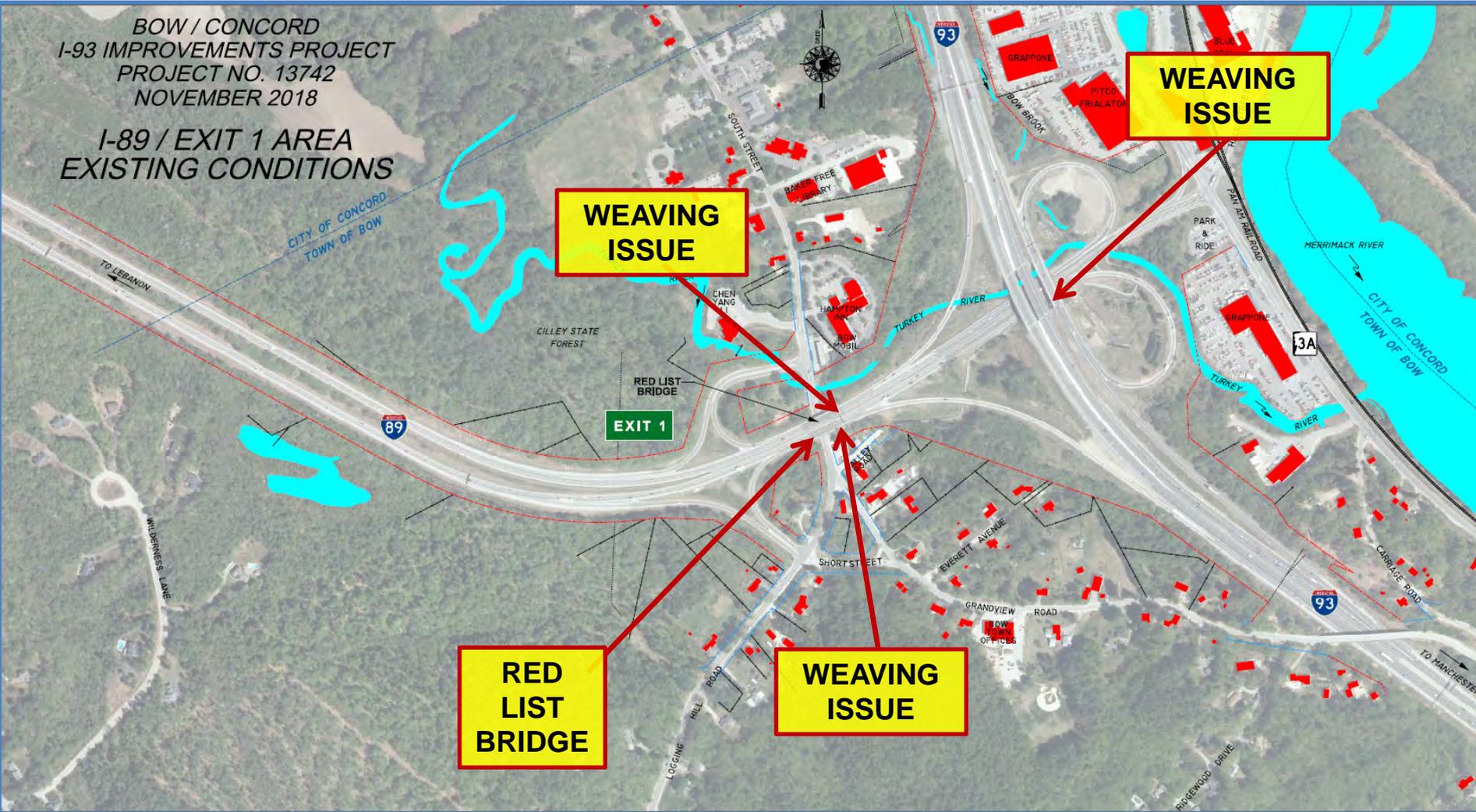
I-89 / EXIT 1 AREA
EXISTING CONDITIONS



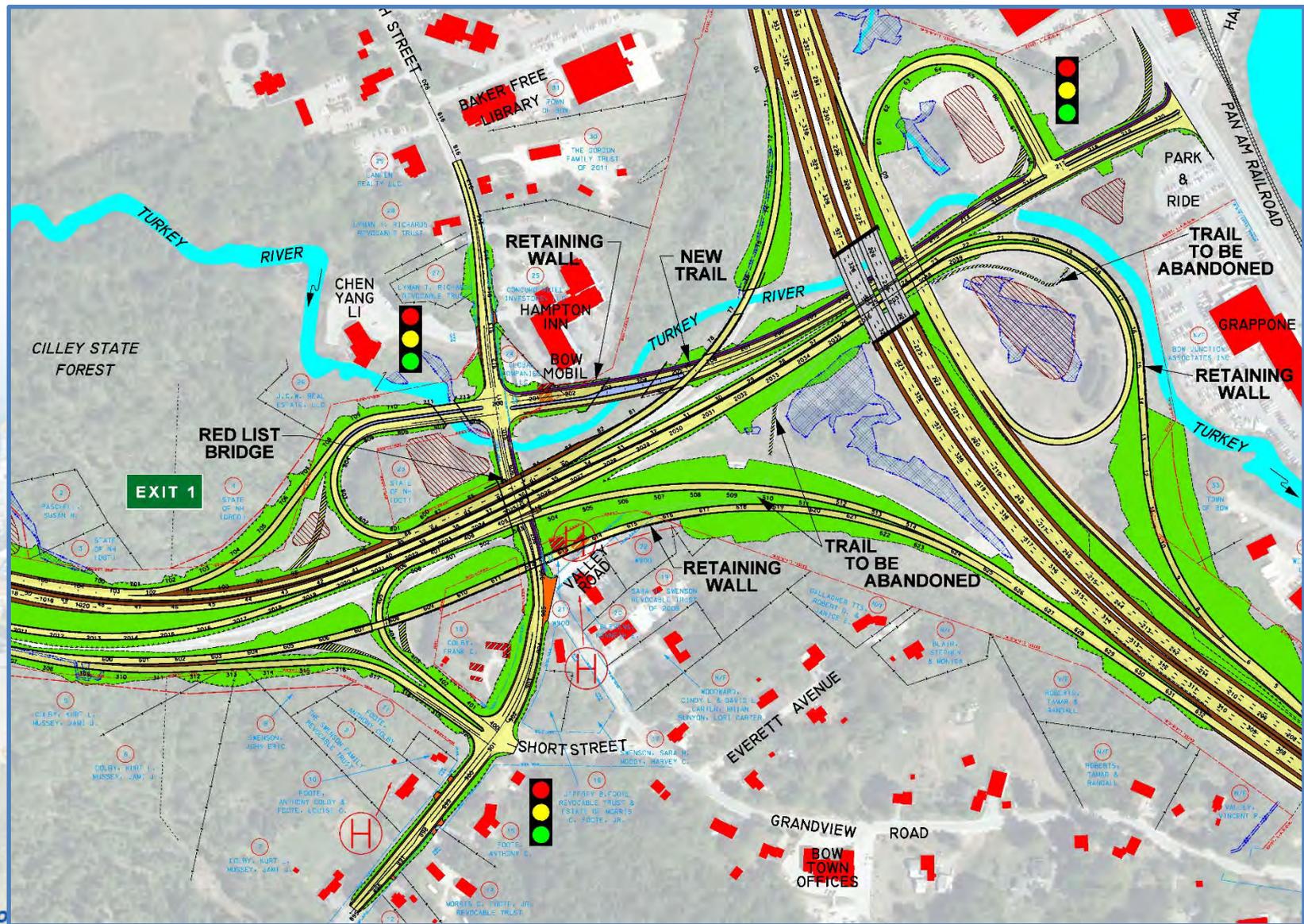
I-89 / Exit 1 Area - Existing

BOW / CONCORD
I-93 IMPROVEMENTS PROJECT
PROJECT NO. 13742
NOVEMBER 2018

I-89 / EXIT 1 AREA
EXISTING CONDITIONS

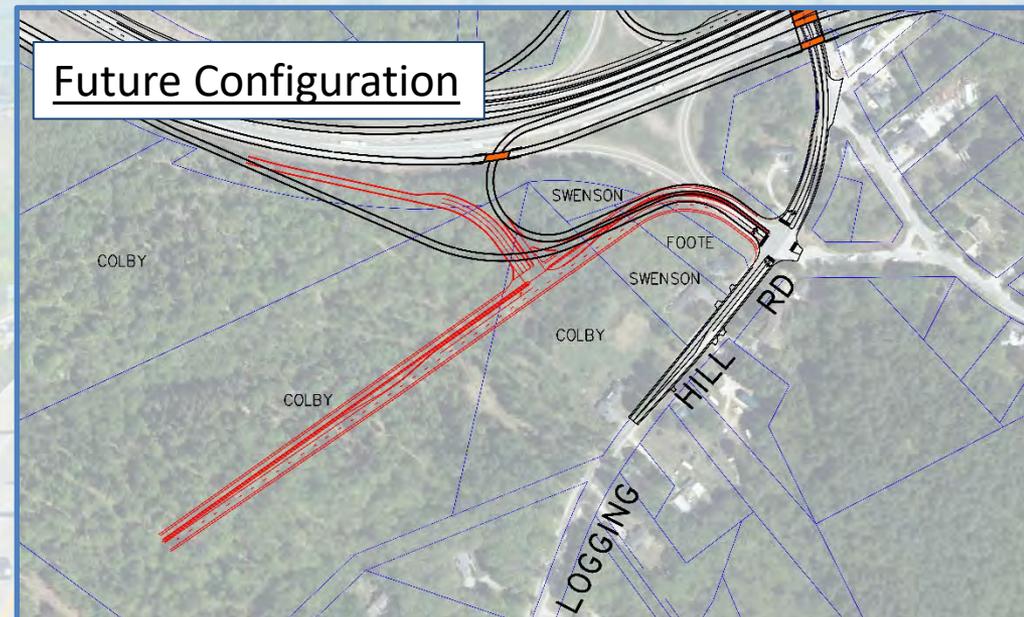
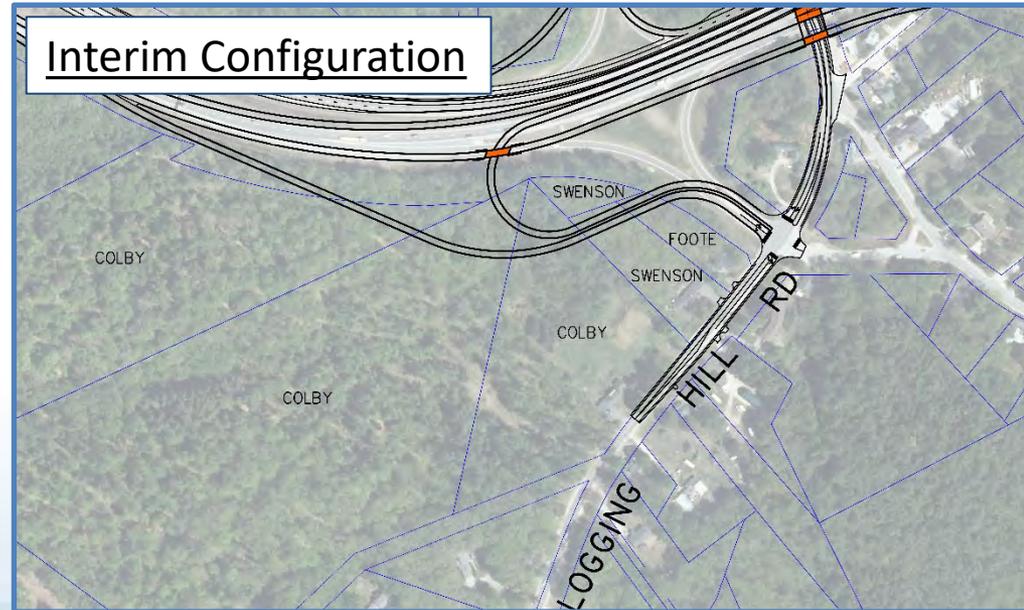


I-89 / Exit 1 Area - Proposed



Concept K Modified

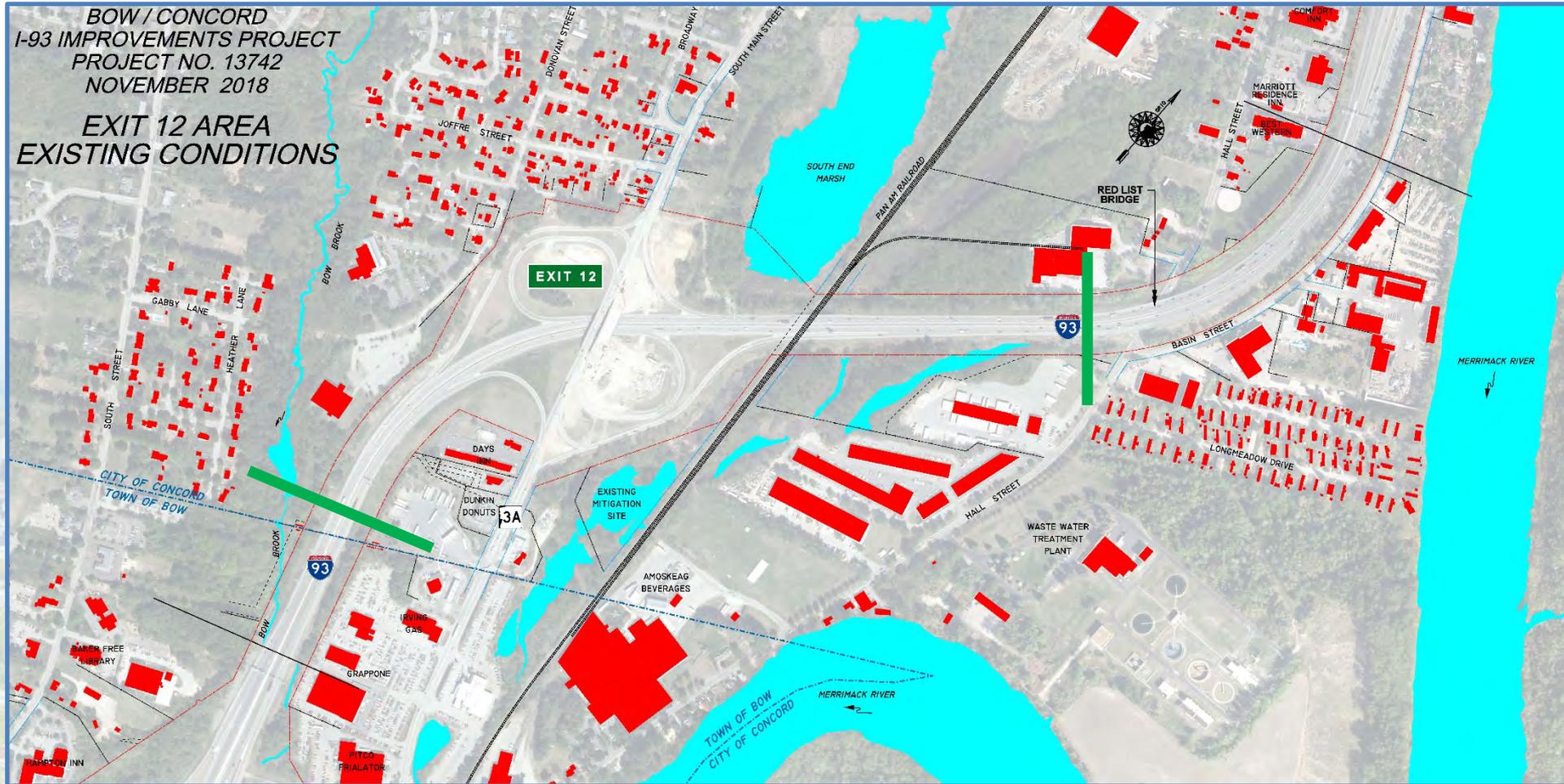
- As Requested by Town of Bow
- Retains Exit 1 access to South Street and Logging Hill Road.
- Accommodates future connection to undeveloped land adjacent to Logging Hill Road.
- Additional property impacts, including Historic Property.



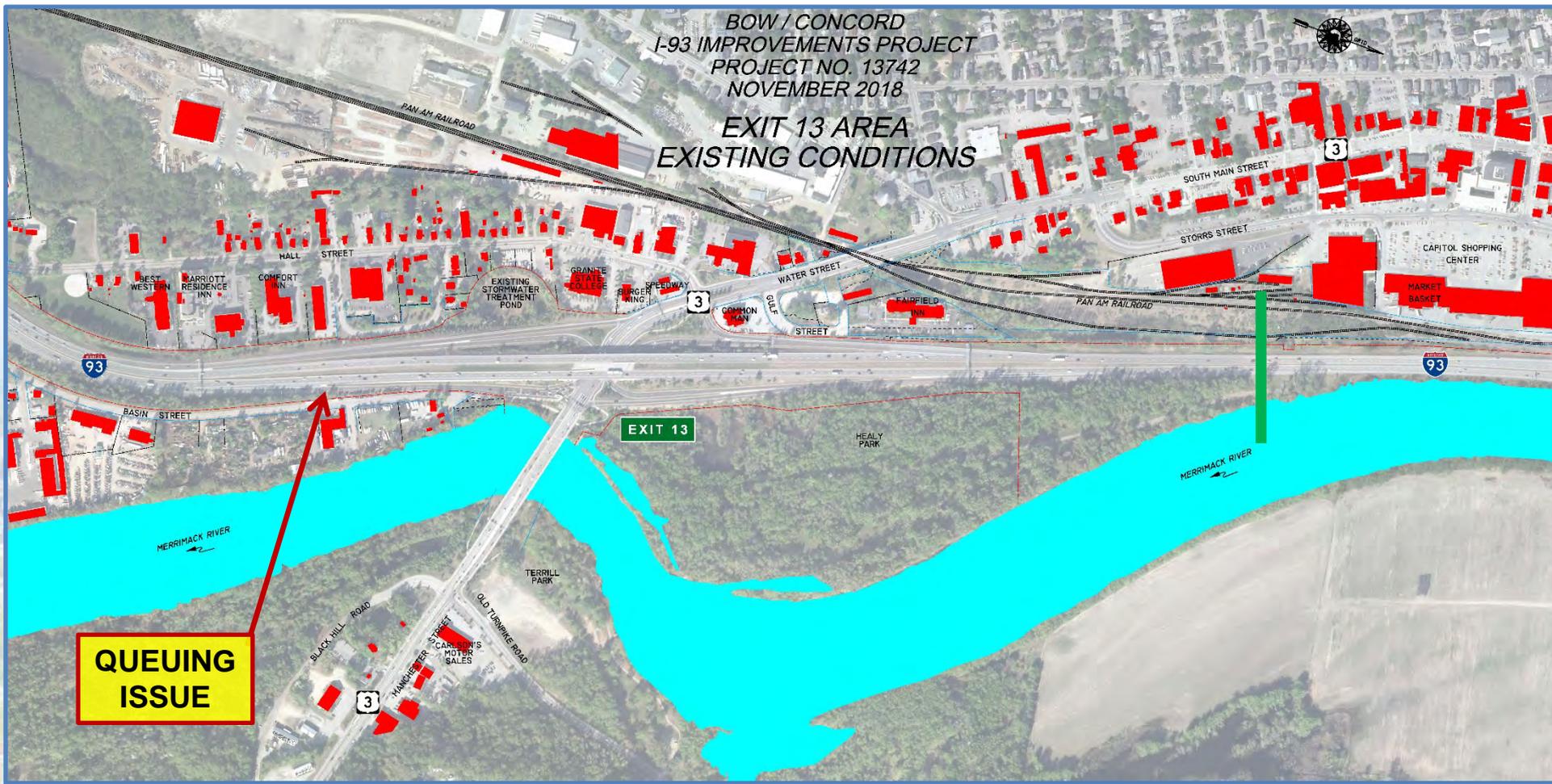
Exit 12 Area - Existing

BOW / CONCORD
I-93 IMPROVEMENTS PROJECT
PROJECT NO. 13742
NOVEMBER 2018

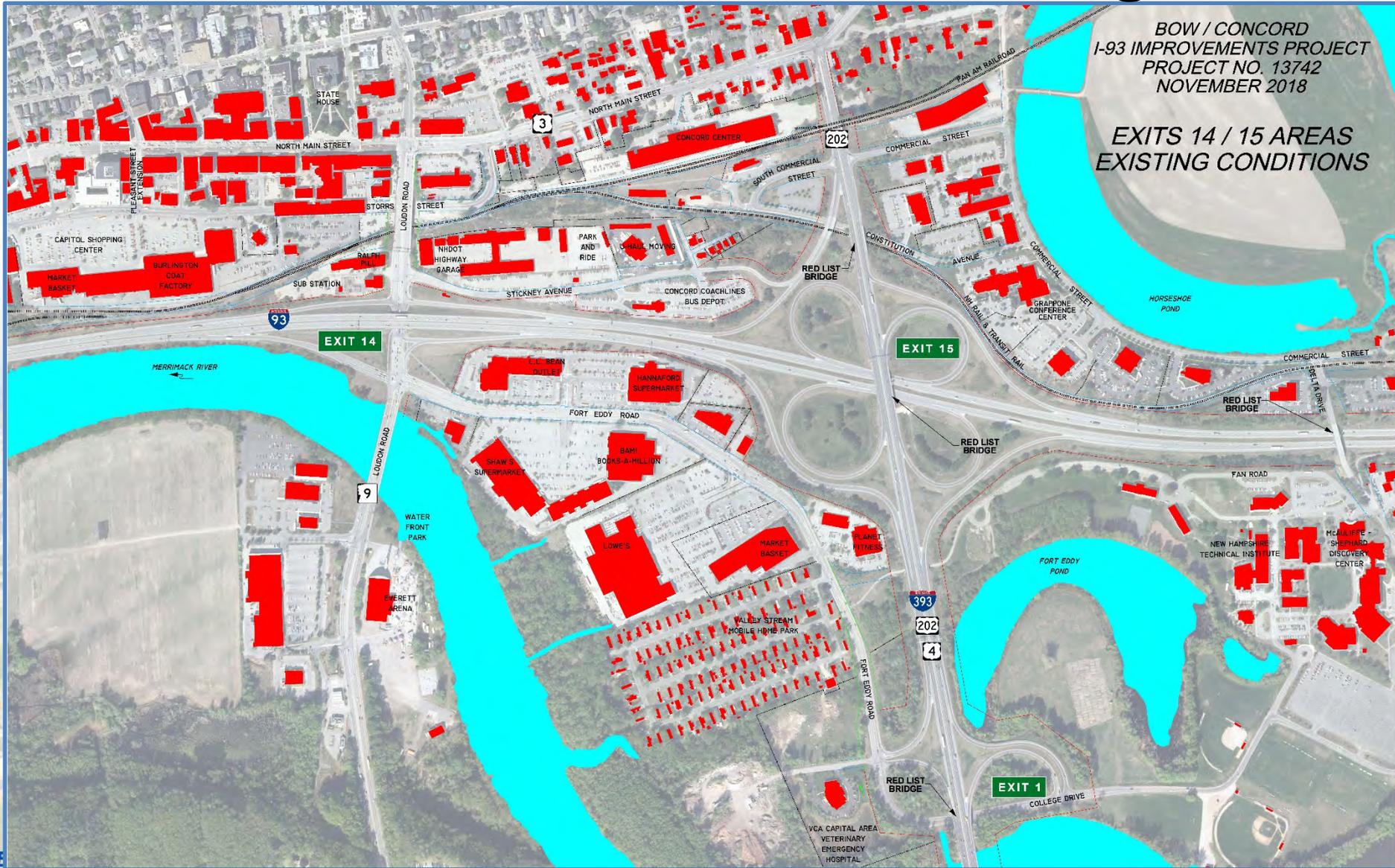
EXIT 12 AREA
EXISTING CONDITIONS



Exit 13 Area - Existing



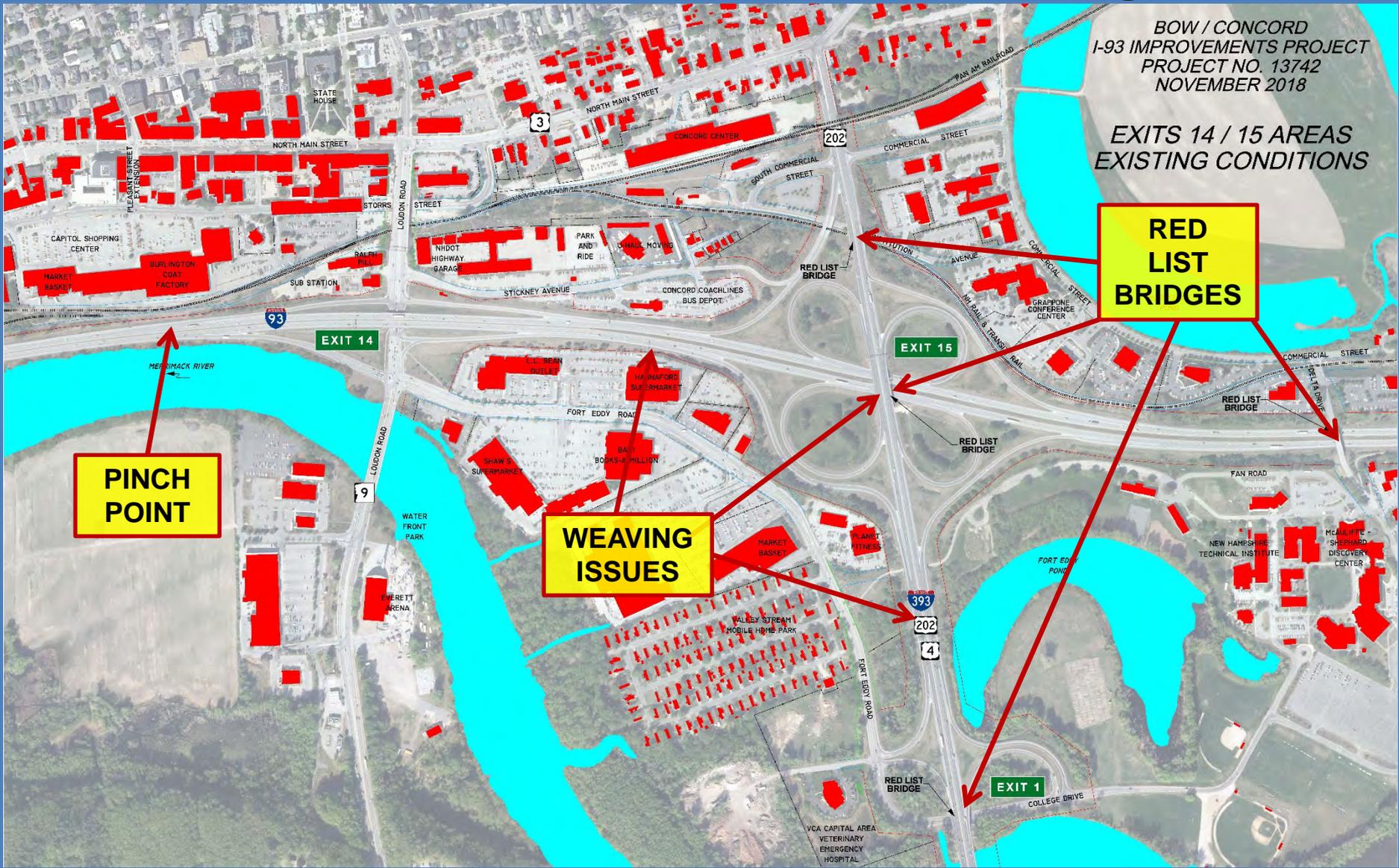
Exit 14 / 15 Area - Existing



Exit 14 / 15 Area - Existing

BOW / CONCORD
I-93 IMPROVEMENTS PROJECT
PROJECT NO. 13742
NOVEMBER 2018

EXITS 14 / 15 AREAS
EXISTING CONDITIONS



PINCH POINT

WEAVING ISSUES

RED LIST BRIDGES

EXIT 14

EXIT 15

EXIT 1

9

3

202

393

202

4

93

9

9

9

9

9

9

9

9

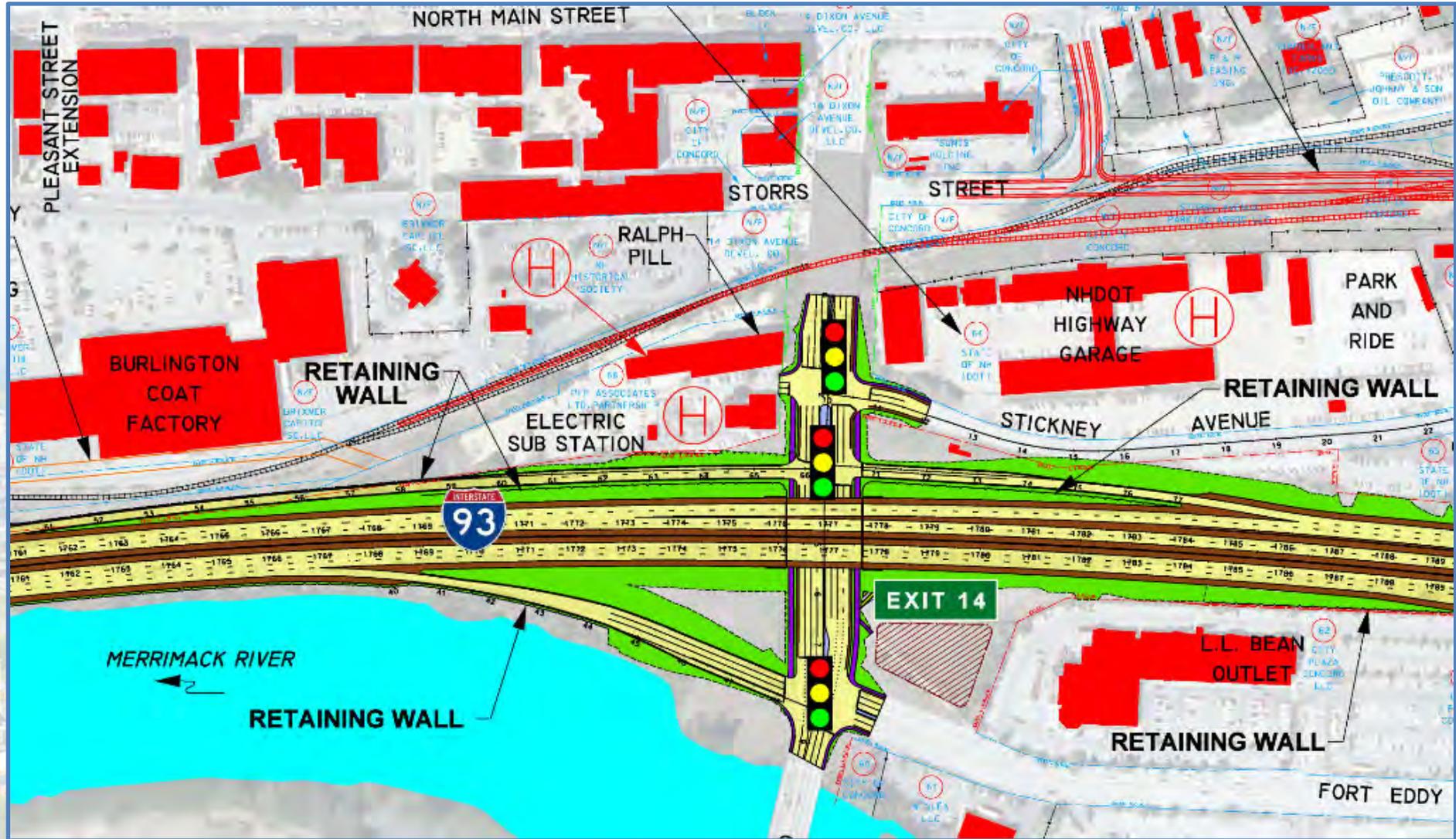
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9

Exit 15 Proposed



Exit 14 - Proposed



Concord Comments/Concerns (2019)



1. Clear brush along I-93



2. Highway Garage complex on Stickney Avenue

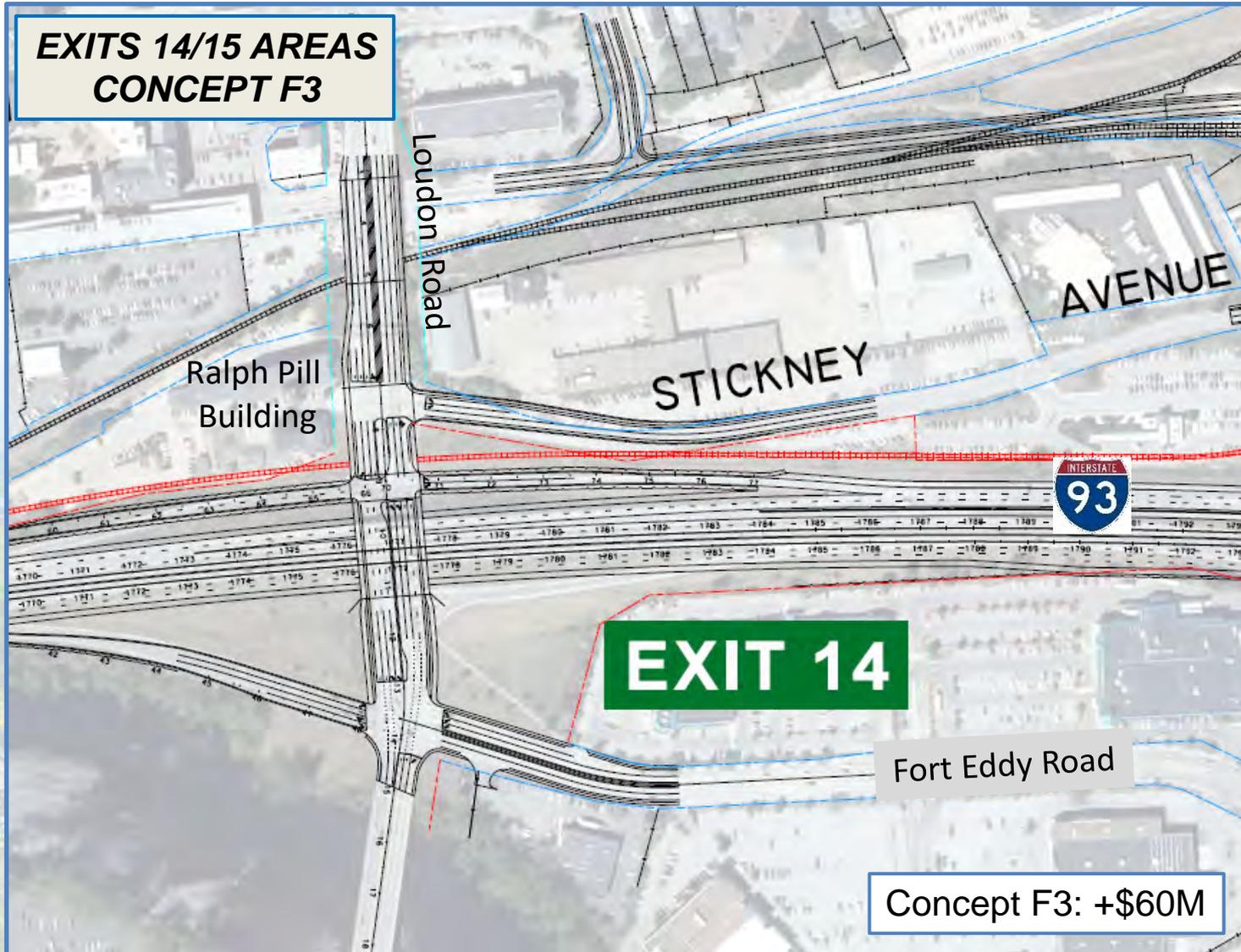
3. Consistency with Concord's Vision for I-93

4. Pedestrian Access from Downtown to the Merrimack River

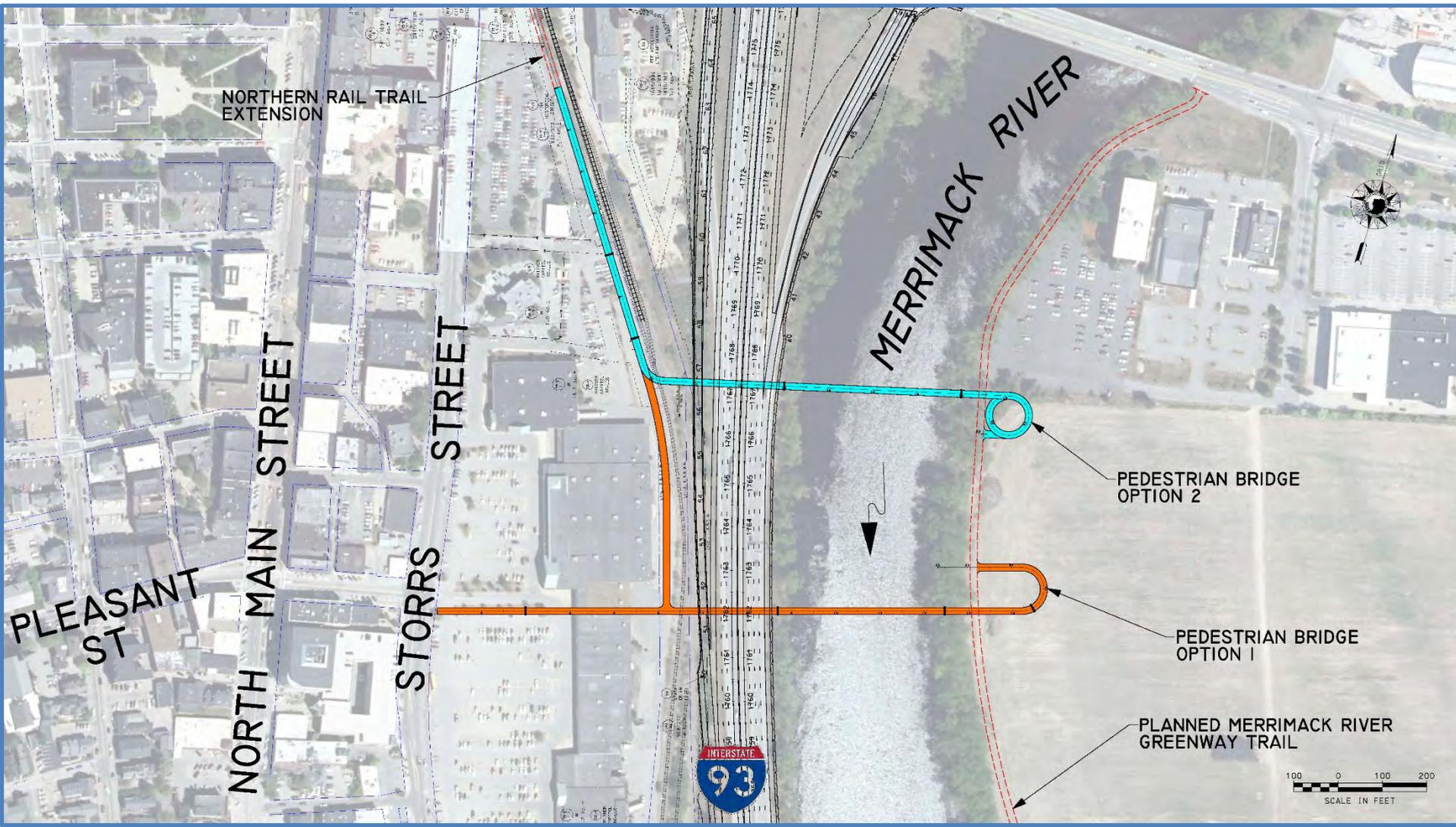
5. Increased Traffic on Fort Eddy Road

6. Loss of the Northbound Entrance ramp at Exit 14

3. Consistency with Concord's Vision for I-93



4. Pedestrian Access from Downtown to the Merrimack River



Pedestrian Bridge (Construction Only): \$12M - \$30M

Concord Comments/Concerns (2019)



1. Clear brush along I-93



2. Highway Garage complex on Stickney Avenue

3. Consistency with Concord's Vision for I-93

4. Pedestrian Access from Downtown to the Merrimack River

5. Increased Traffic on Fort Eddy Road

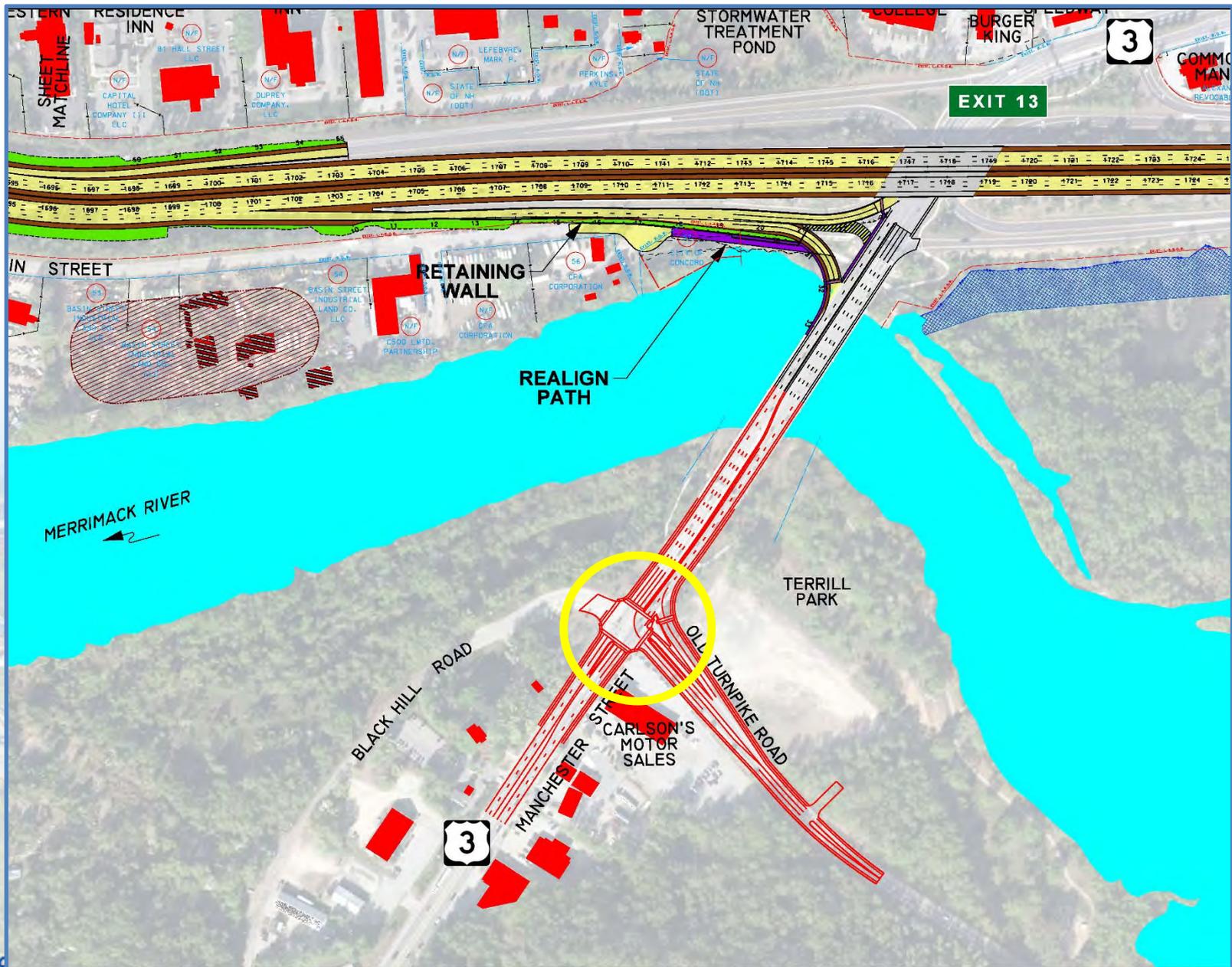
6. Loss of the Northbound Entrance ramp at Exit 14

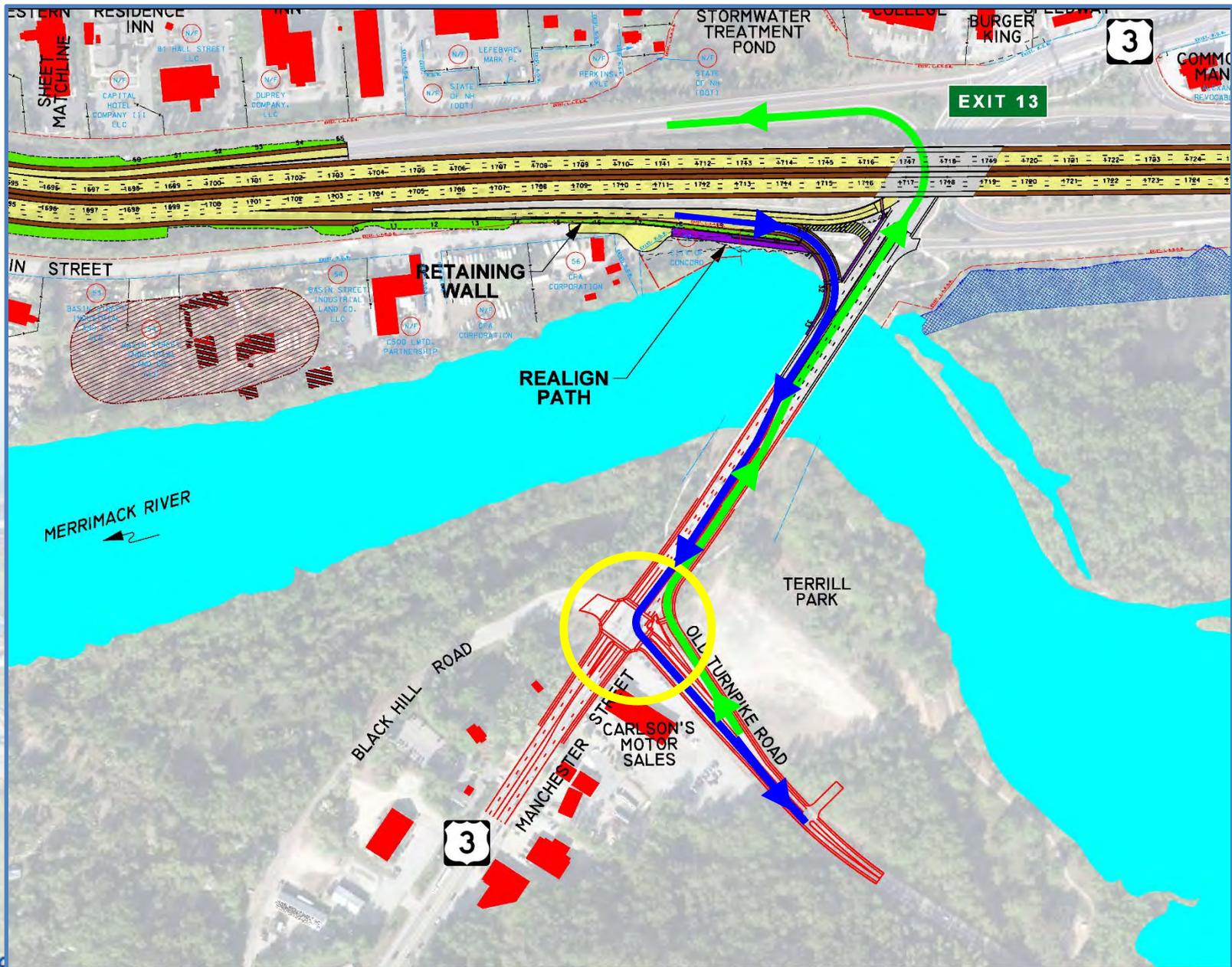
City of Concord Comments (2021/2022)

- I. Include Improvements at the Manchester Street/Old Turnpike Road/Black Hill Road Intersection near Exit 13
- II. Partially Restore the Northbound On-Ramp at Exit 14
- III. Expand the Merrimack River Greenway Trail (MRGT) through the project limits
- IV. Investigate Partial Access at the Loudon Road/Stickney Avenue Intersection (Right In/Right Out Only)
- V. Include the Storrs Street Extension and Railroad Track Re-alignment

City of Concord Comments (2021/2022)

- I. Include Improvements at the Manchester Street/Old Turnpike Road/Black Hill Road Intersection near Exit 13
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City Proposed Intersection with Proposed New Field

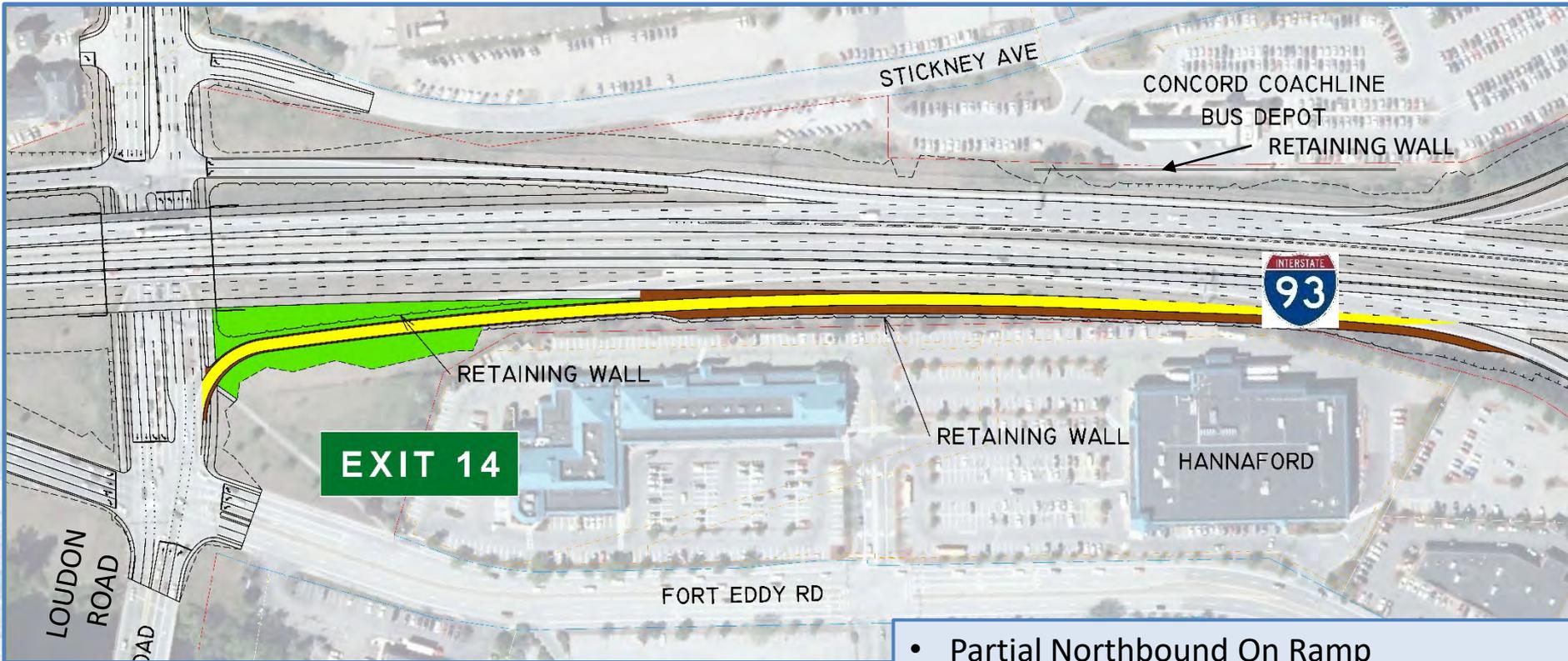
- Dual Lefts for SB Manchester St to EB Old Turnpike Road
- Dual Rights for WB Old Turnpike to NB Manchester St
- Upgraded Signal Equipment
- No Bridge Widening
- Additional Project Cost Approx. \$5.0M



City of Concord Comments (2021/2022)

- I. Include Improvements at the Manchester Street/Old Turnpike Road/Black Hill Road Intersection near Exit 13
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II. Partial NB On Ramp at Exit 14



Considerations

- Sidewalk/Path conflict (MRGT Along Loudon Road)
- Retain NB Weave between Exits 14 & 15

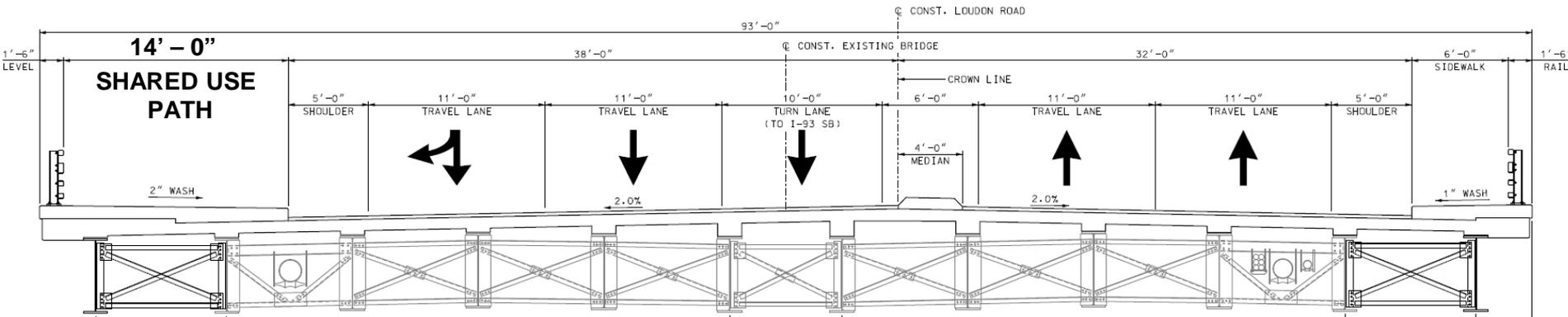
- Partial Northbound On Ramp
- WB Loudon Road To NB I-93
- No EB Loudon Road to NB I-93
- Retains NB Weave between Exits 14 & 15
 - Weave LOS B/C
 - Short Weaving Length
- Additional Project Cost Approx. \$4.0M

City of Concord Comments (2021/2022)

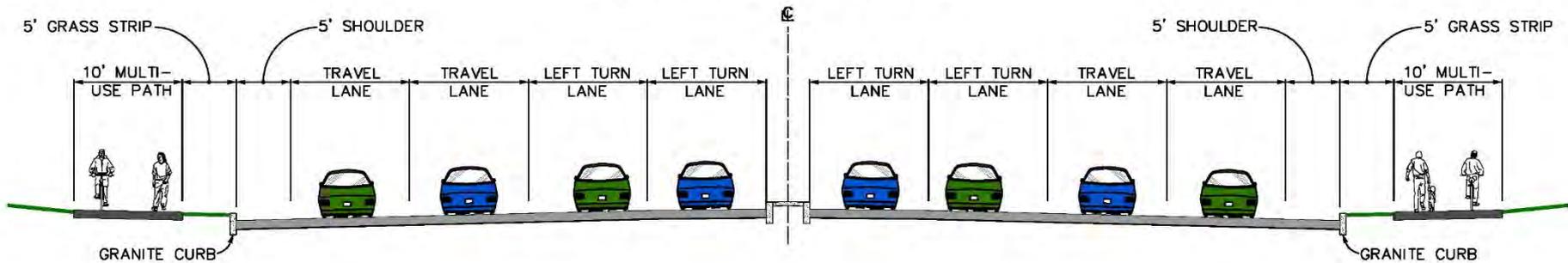
- I. Include Improvements at the Manchester Street/Old Turnpike Road/Black Hill Road Intersection near Exit 13
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Exit 14 - Proposed

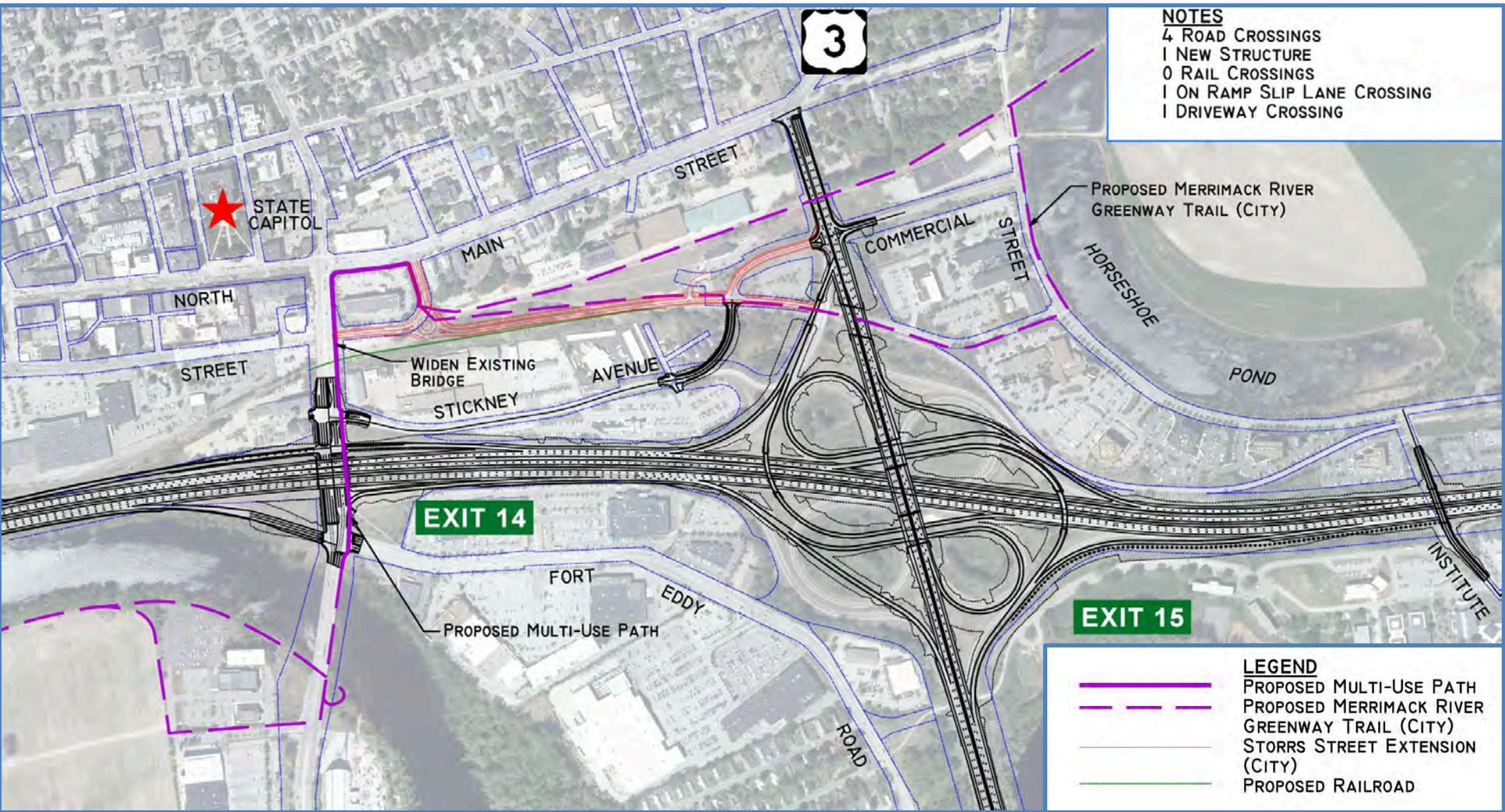
LOUDON ROAD BRIDGE – PROPOSED TYPICAL SECTION



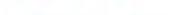
LOUDON ROAD – PROPOSED TYPICAL SECTION



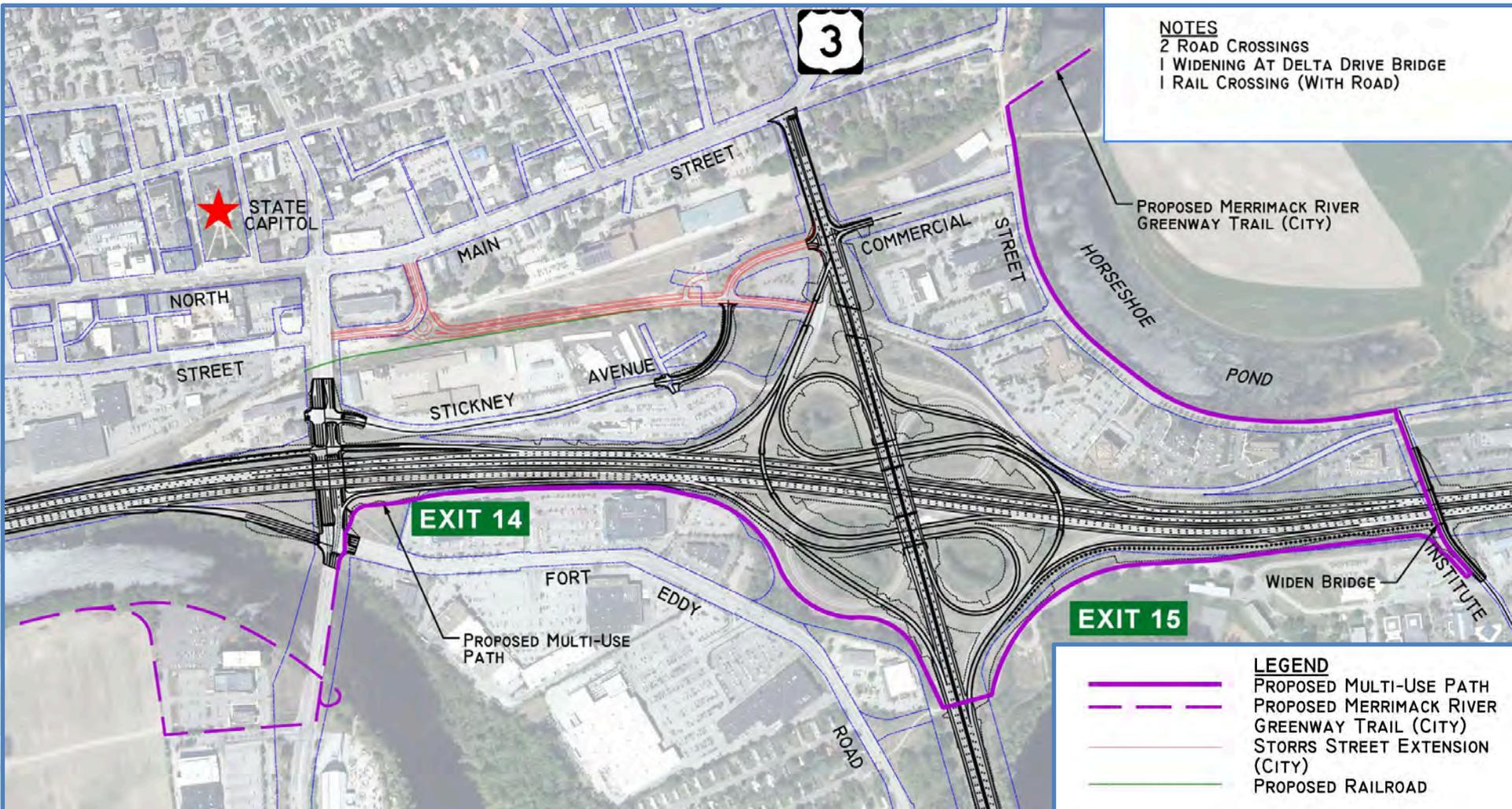
Concept A



- NOTES**
- 4 ROAD CROSSINGS
 - 1 NEW STRUCTURE
 - 0 RAIL CROSSINGS
 - 1 ON RAMP SLIP LANE CROSSING
 - 1 DRIVEWAY CROSSING

- LEGEND**
-  PROPOSED MULTI-USE PATH
 -  PROPOSED MERRIMACK RIVER GREENWAY TRAIL (CITY)
 -  STORRS STREET EXTENSION (CITY)
 -  PROPOSED RAILROAD

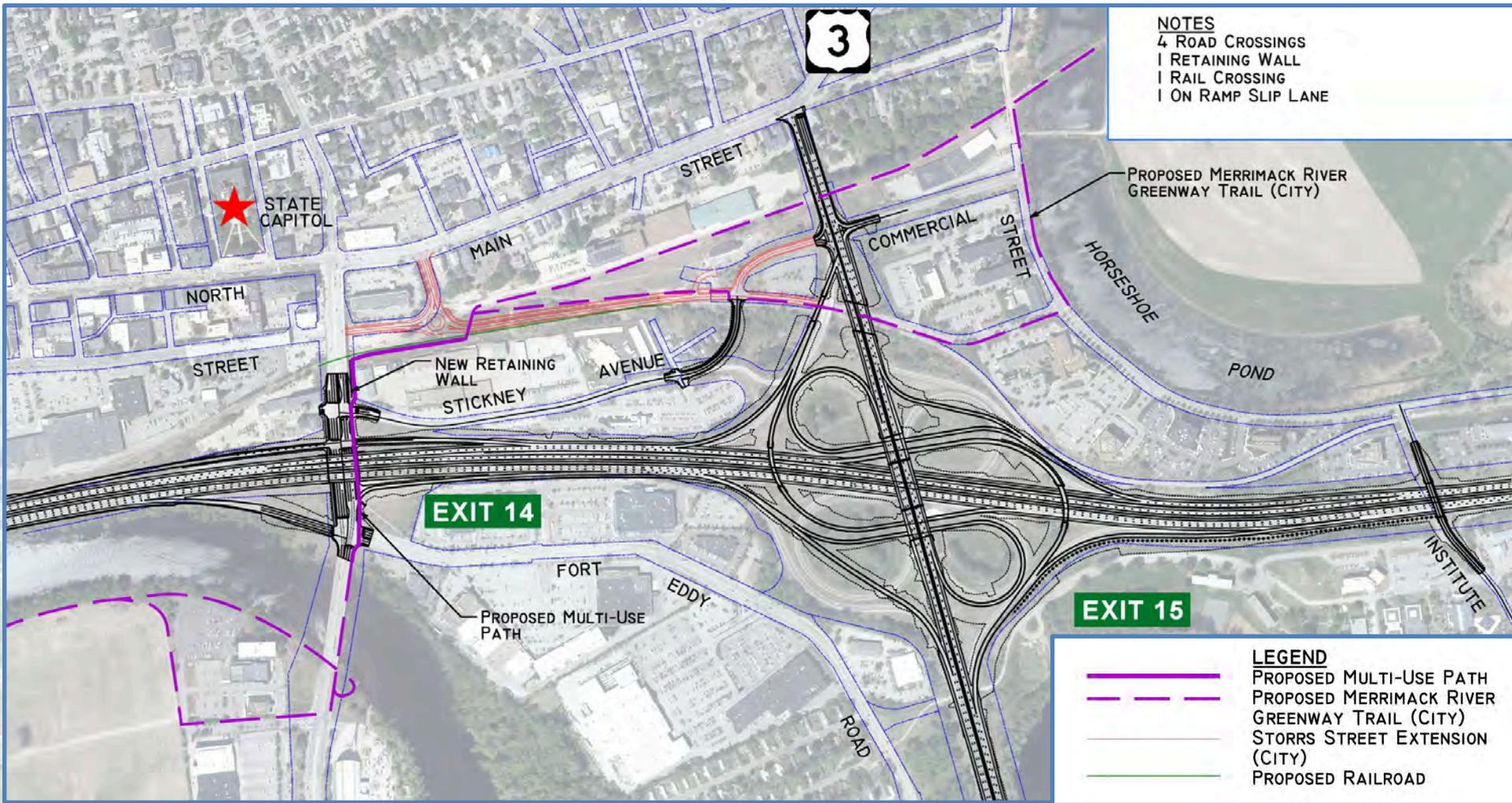
Concept B



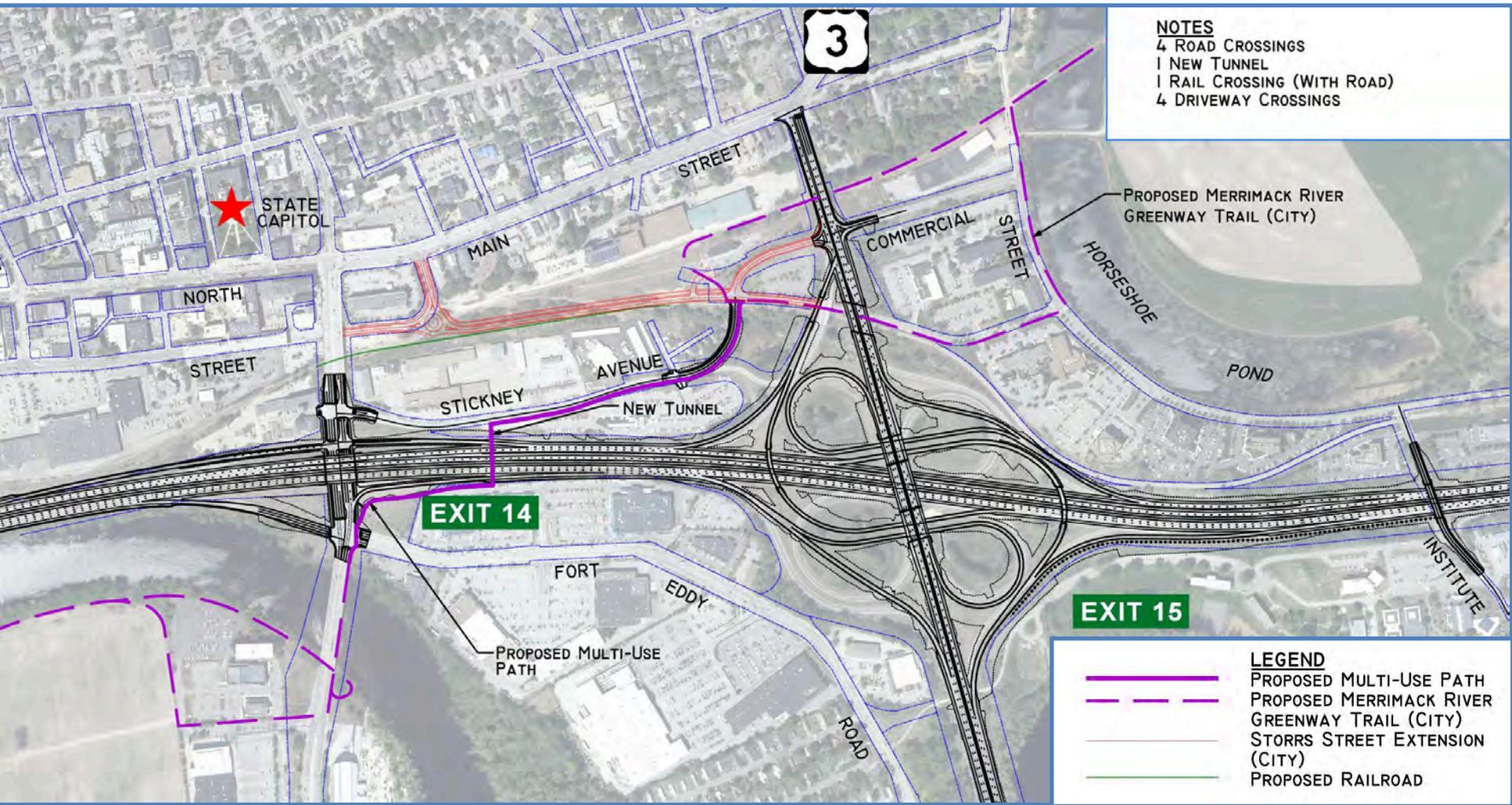
NOTES
 2 ROAD CROSSINGS
 1 WIDENING AT DELTA DRIVE BRIDGE
 1 RAIL CROSSING (WITH ROAD)

LEGEND
 PROPOSED MULTI-USE PATH
 PROPOSED MERRIMACK RIVER GREENWAY TRAIL (CITY)
 STORRS STREET EXTENSION (CITY)
 PROPOSED RAILROAD

Concept C



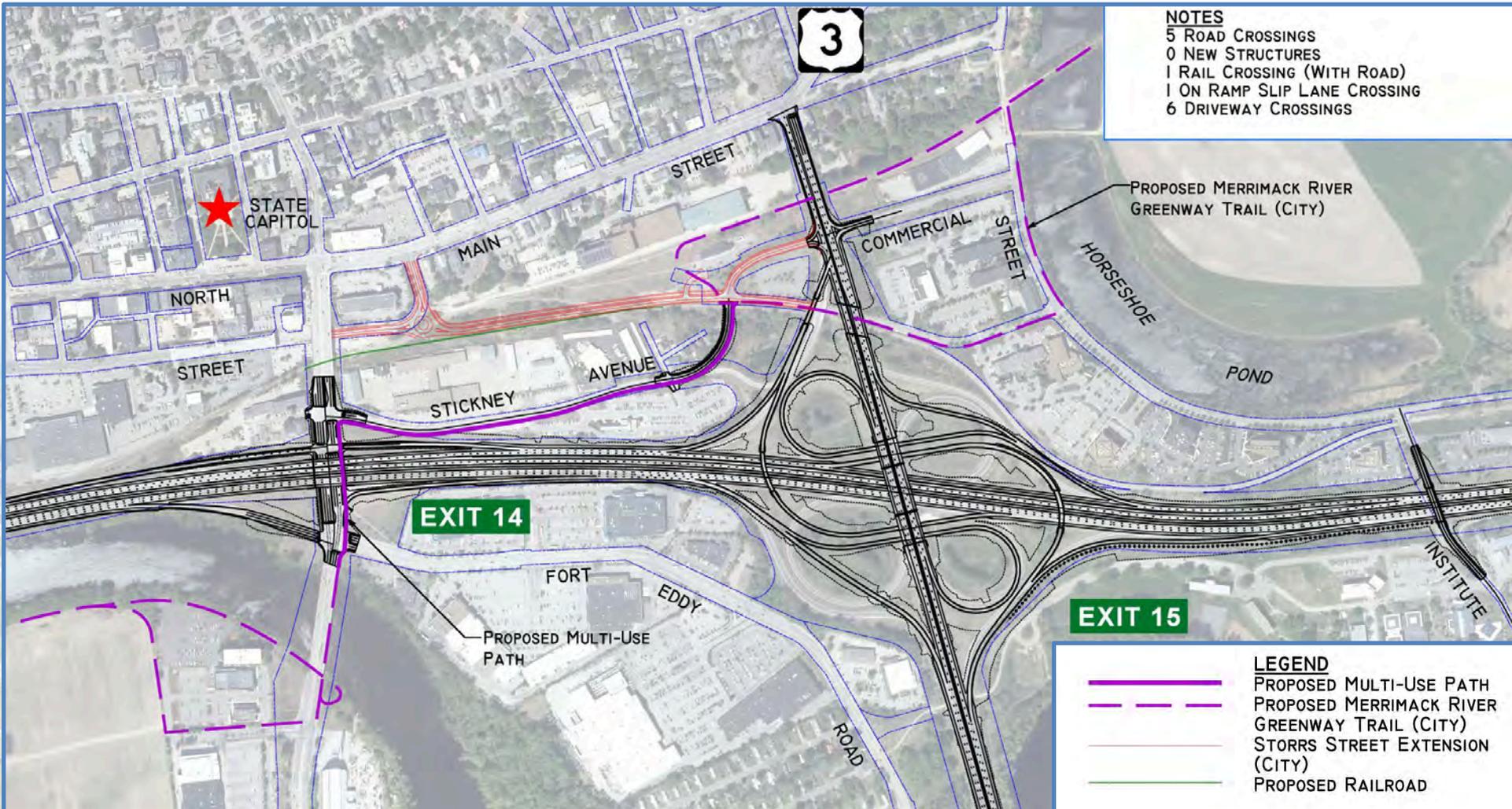
Concept D



- NOTES**
- 4 ROAD CROSSINGS
 - 1 NEW TUNNEL
 - 1 RAIL CROSSING (WITH ROAD)
 - 4 DRIVEWAY CROSSINGS

- LEGEND**
-  PROPOSED MULTI-USE PATH
 -  PROPOSED MERRIMACK RIVER GREENWAY TRAIL (CITY)
 -  STORRS STREET EXTENSION (CITY)
 -  PROPOSED RAILROAD

Concept E

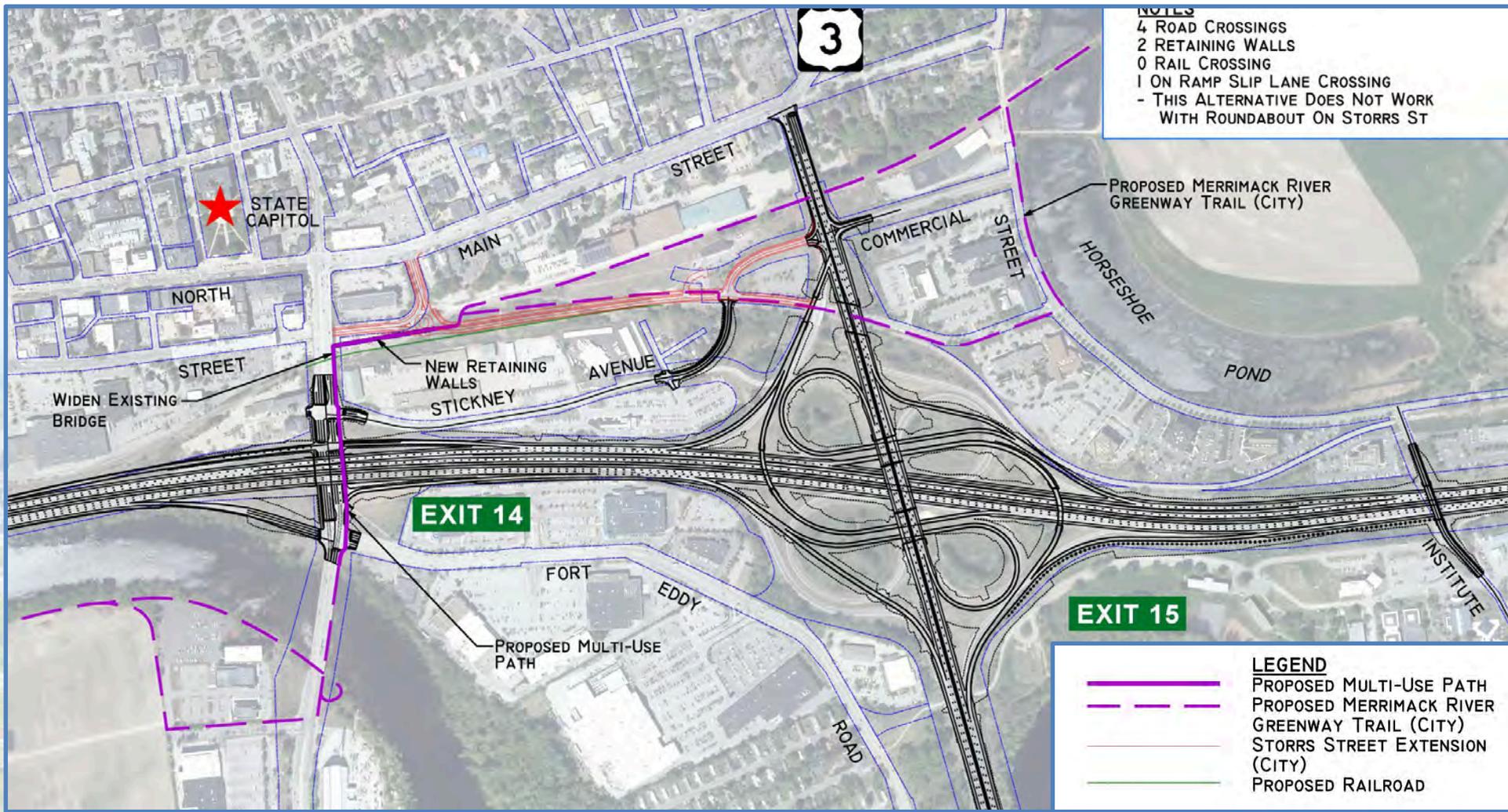


NOTES
 5 ROAD CROSSINGS
 0 NEW STRUCTURES
 1 RAIL CROSSING (WITH ROAD)
 1 ON RAMP SLIP LANE CROSSING
 6 DRIVEWAY CROSSINGS

LEGEND

-  PROPOSED MULTI-USE PATH
-  PROPOSED MERRIMACK RIVER GREENWAY TRAIL (CITY)
-  STORRS STREET EXTENSION (CITY)
-  PROPOSED RAILROAD

Concept F



III. Expand the Merrimack River Greenway Trail (MRGT) through the project limits

OPTION	Description	Road Crossings	Driveway Crossings	On Ramp Slip Lane Crossings	Rail Crossings	Signals	Parking Spaces Lost	ROW Impacts	Maintenance	Bridge Widening (LF)	Retaining Wall Area (SF)	Tunnel Length (LF)	Length Along Roadway (LF)	Total Length (LF)	Total State Cost \$
A	Rail trail to downtown	4	1	1	0	2	0	Holiday Inn (New)	High	190	0	0	2,550	5,800	\$2,400,000
B	Minimize crossings	2	0	0	1	1	Around 90 at Shopping Plaza	NHTI, Shopping Plaza	Highest	180	0	0	5,750	11,100	\$3,500,000
C	Less trail along roads	4	0	1	1	1	0	0	Lowest	0	1,140	0	1,240	5,200	\$330,000
D	Minimal distance and major crossings	4	4	0	1	1	Bus Station/Park and Ride, and around 20 at Shopping Plaza	Shopping Plaza and Bus Station/Park and Ride	Low	0	0	240	2,180	5,470	\$3,200,000
E	Minimal cost	5	6	1	1	1	Bus Station/Park and Ride	Bus Station/Park and Ride	Higher	0	0	0	3,430	5,670	\$375,000
F	Minimize length and trail along roads	4	0	1	0	1	0	0	Lower	190	10,000	0	1,650	5,260	\$3,700,000

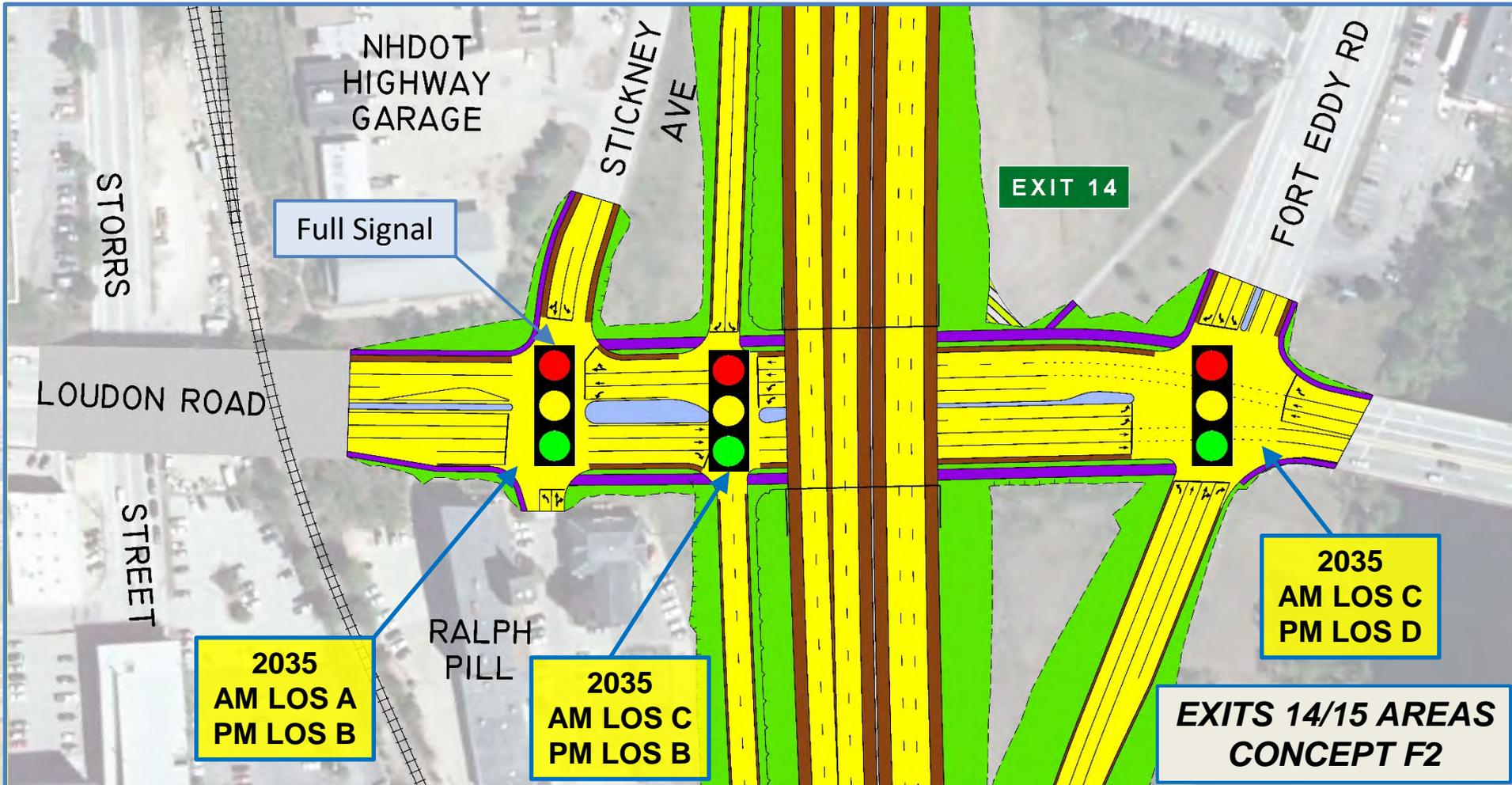
Considerations

- NHDOT is committed to Bike & Ped Connectivity
- Convenience versus Conflicts
- Cost & Selecting an Option should not be Critical Path
- Integrate Preferred 2-3 Options into Public Outreach

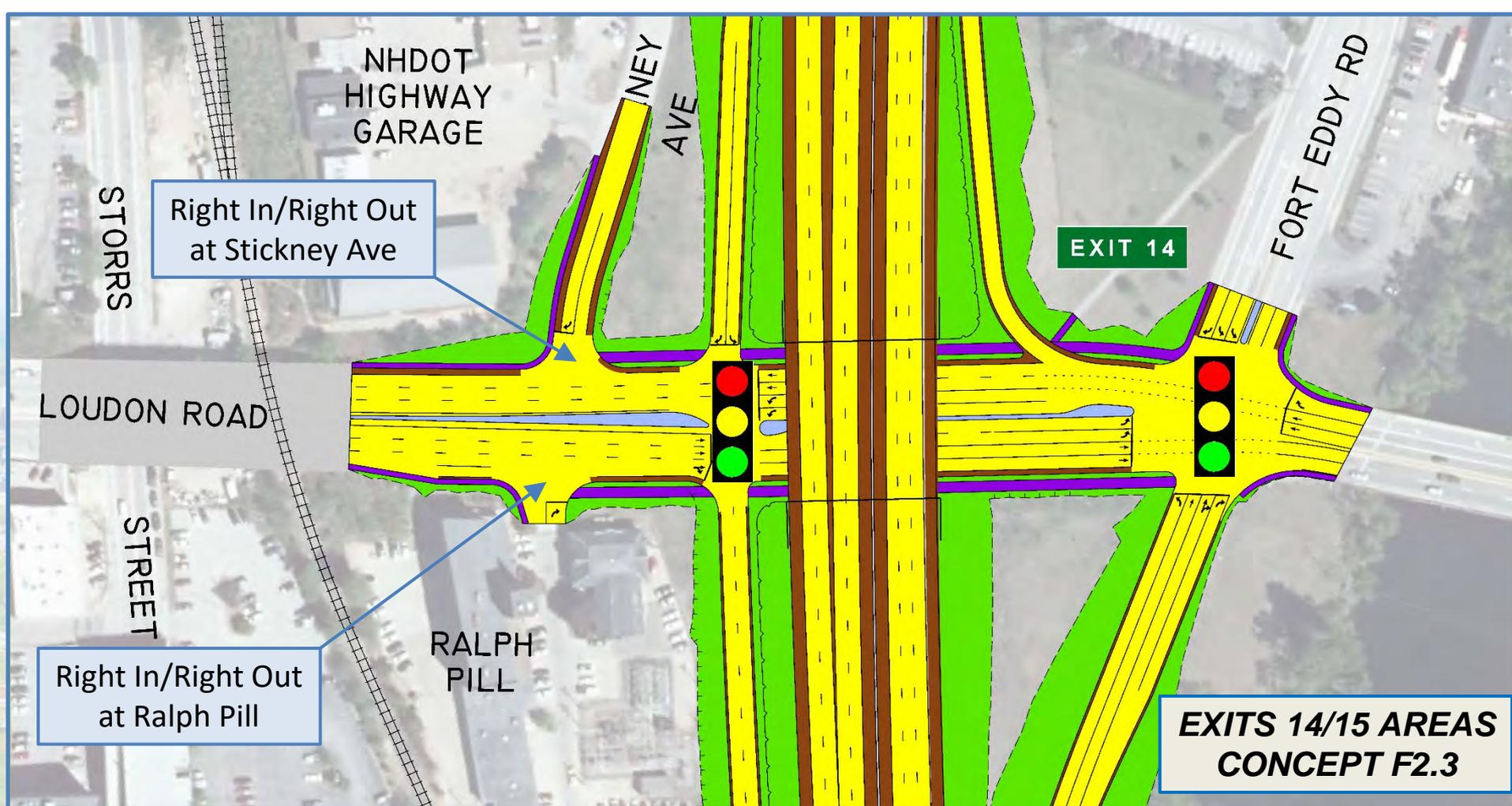
City of Concord Comments (2021/2022)

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- IV. Investigate Partial Access at the Loudon Road/Stickney Avenue Intersection (Right In/Right Out Only)**
- V. Include the Storrs Street Extension and Railroad Track Re-alignment

IV. Partial access at the Loudon Road/Stickney Avenue Intersection (Right In/Right Out Only)



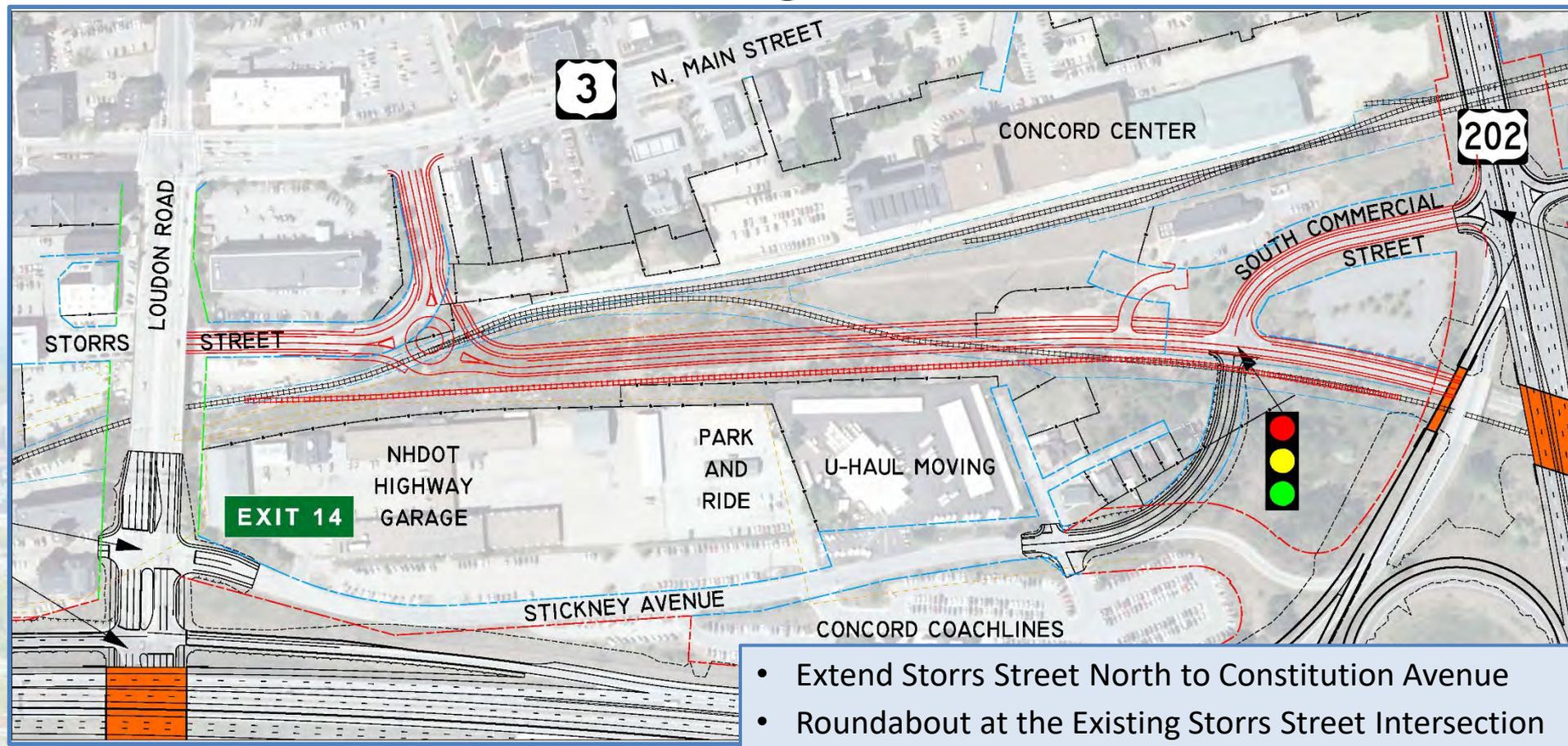
IV. Partial access at the Loudon Road/Stickney Avenue Intersection (Right In/Right Out Only)



City of Concord Comments (2021/2022)

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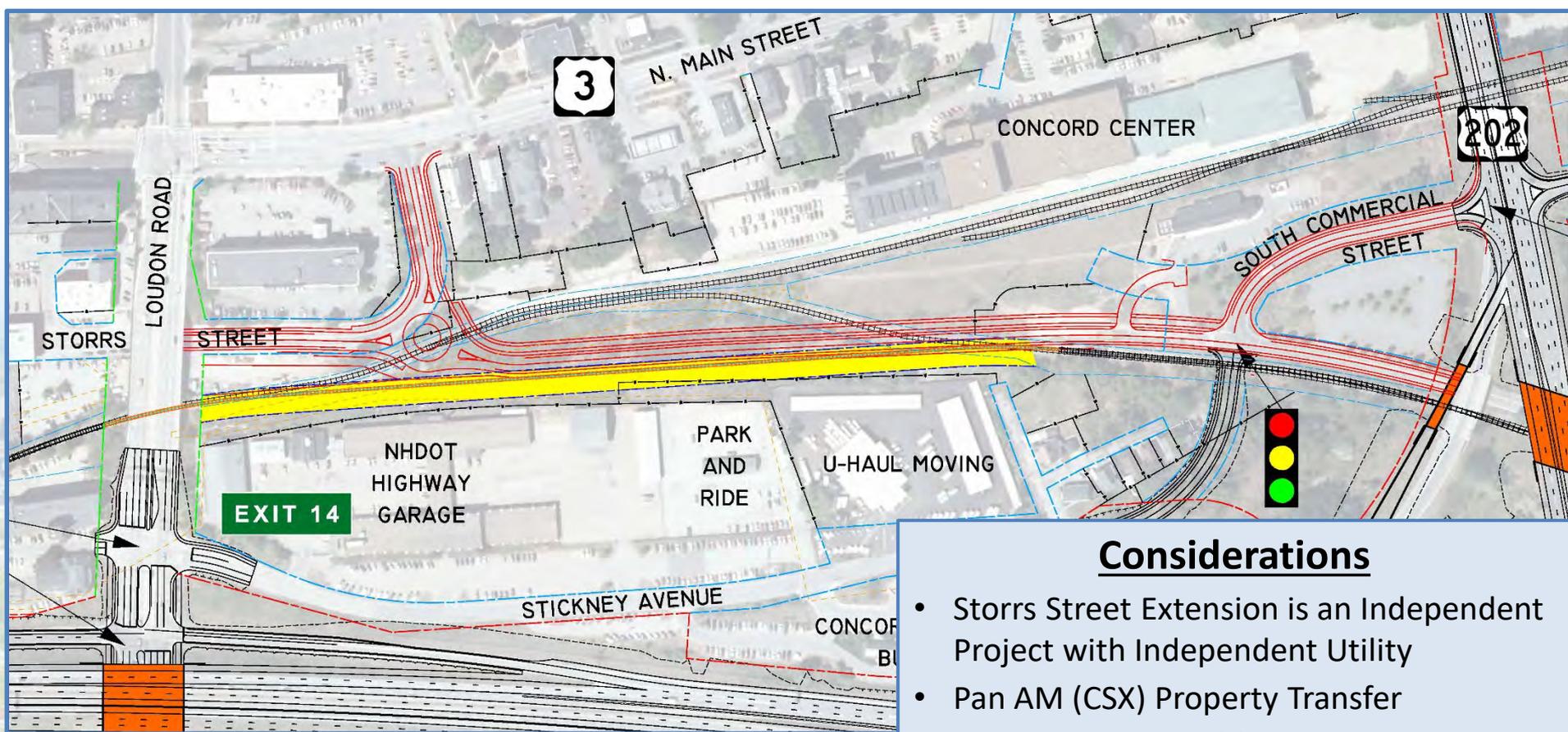
V. Storrs Street Extension and Railroad Track Re-alignment



- Extend Storrs Street North to Constitution Avenue
- Roundabout at the Existing Storrs Street Intersection
- Re-Align the NHDOT Rail Corridor
- City's Estimated Project Cost \$11.1M (\$2016)
(Includes Utility Expansion of \$2M)



V. Storrs Street Extension and Railroad Track Re-alignment



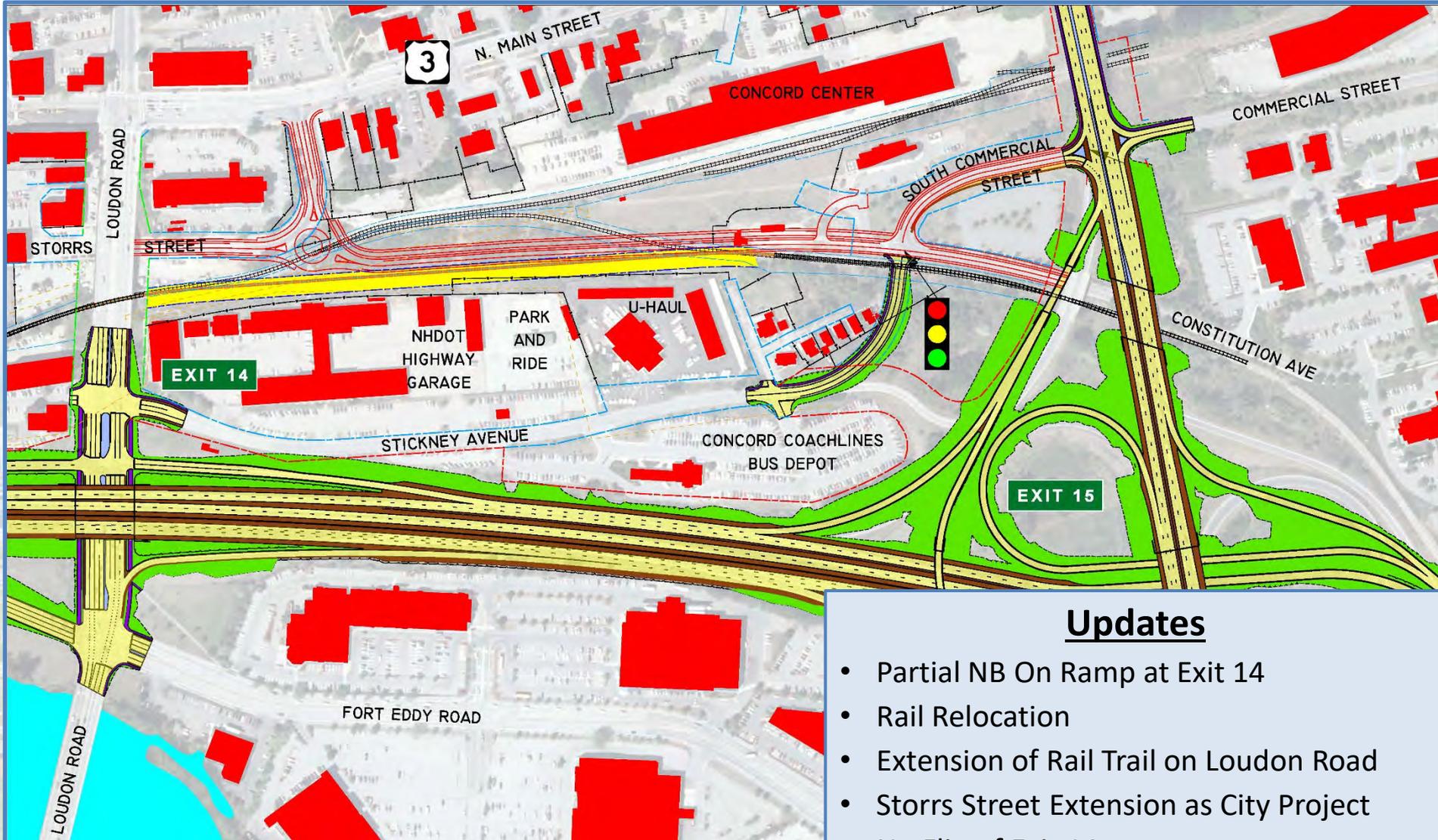
Considerations

- Storrs Street Extension is an Independent Project with Independent Utility
- Pan AM (CSX) Property Transfer
- Incorporation would require meeting NEPA & introduces further delay
- Relevance to the Purpose & Need?

City of Concord Comments

- I. ✓ Include Improvements at the Manchester Street/Old Turnpike Road/Black Hill Road Intersection near Exit 13
- II. ✓ Partially Restore the Northbound On-Ramp at Exit 14
- III. ✓ Expand the Merrimack River Greenway Trail (MRGT)
City through the project limits
- IV. ✓ Investigate Partial Access at the Loudon Road/Stickney
City Avenue Intersection (Right In/Right Out Only)
- V. ✓ Include the Storrs Street Extension and Railroad Track
Rail Re-alignment
Only

Exit 14/15 Concept F2.3



Updates

- Partial NB On Ramp at Exit 14
- Rail Relocation
- Extension of Rail Trail on Loudon Road
- Storrs Street Extension as City Project
- No Flip of Exit 14

Cost Update

Project Cost Presented at Public Hearing (2018\$) \$267.9 M

2022 City of Concord Comments

Old Turnpike Improvements \$5 M

Exit 14 NB On-Ramp \$4 M

MRGT Expansion \$3M

Railroad Relocation \$3 M

New Project Cost \$282.9 M

Additional Loudon Rd. Bridge Widening \$15 M

Next Steps

- Present Revised Alternative to City TPAC Committee – August 9, 2022
- Present Revised Alternative to Chamber of Commerce – August 9, 2022
- Present Revised Alternative to City Council – September / October 2022
- Review with Bow Officials – Fall 2022
- Public Informational Meeting
- Revise NEPA Document (EA)
- Public Hearing – Summer 2023

Questions / Comments

Project Contacts:

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NHDOT Project Manager

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Jason.M.Ayotte@dot.nh.gov

Gene McCarthy, PE

MJ Project Manager

(603)-225-2978

gmccarthy@mjinc.com

www.i93bowconcord.com