



I-293 EXIT 6 & 7 (PART B)

Public Informational Meeting
August 10, 2016



I-293 EXITS 6 & 7 – PART B

(MANCHESTER #16099)

New Hampshire Department of Transportation (NH DOT)

Project Team

Vanasse Hangen Brustlin, Inc. (VHB)

Southern New Hampshire Planning Commission (SNHPC)

RKG Associates

Independent Archaeological Consulting, LLC (IAC)

ARCADIS

TECHNICAL ADVISORY COMMITTEE

NHDOT

Town of Hooksett

FHWA

Greater Manchester Chamber
Commerce

SNHPC

Hooksett Chamber of Commerce

City of Manchester

Manchester Community College

Town of Goffstown

State Senator Boutin

PROJECT PROCESS



PURPOSE

The purpose of the project is to address capacity, safety, and access related deficiencies along a 3.5-mile portion of I-293 beginning north of Exit 5 and ending north of Exit 7 by:

- Correcting geometric and safety deficiencies while reducing congestion at problem locations;
- Accommodating future traffic growth related to commuter trips and the transportation of commercial goods and services through the corridor; and
- Improving access to the highway consistent with the long-term vision of the communities of Manchester and Goffstown.

PLANNING STUDY FINDINGS

- There are substantial problems that need to be addressed.
- There are a reasonable range of alternatives to address the problems.
- TDM and TSM actions, alone, won't meet the study need.

PLANNING STUDY FINDINGS (CONTINUED)

- I-293 mainline, between Exits 5 and 7 will need 3 lanes per direction.
- I-293 mainline, through and north of Exit 7, could be retained at 2 lanes per direction.
- Each of the Exit 6 alternatives, with the exception of the Diamond Interchange with Roundabouts, operates acceptably and meets the study purpose.

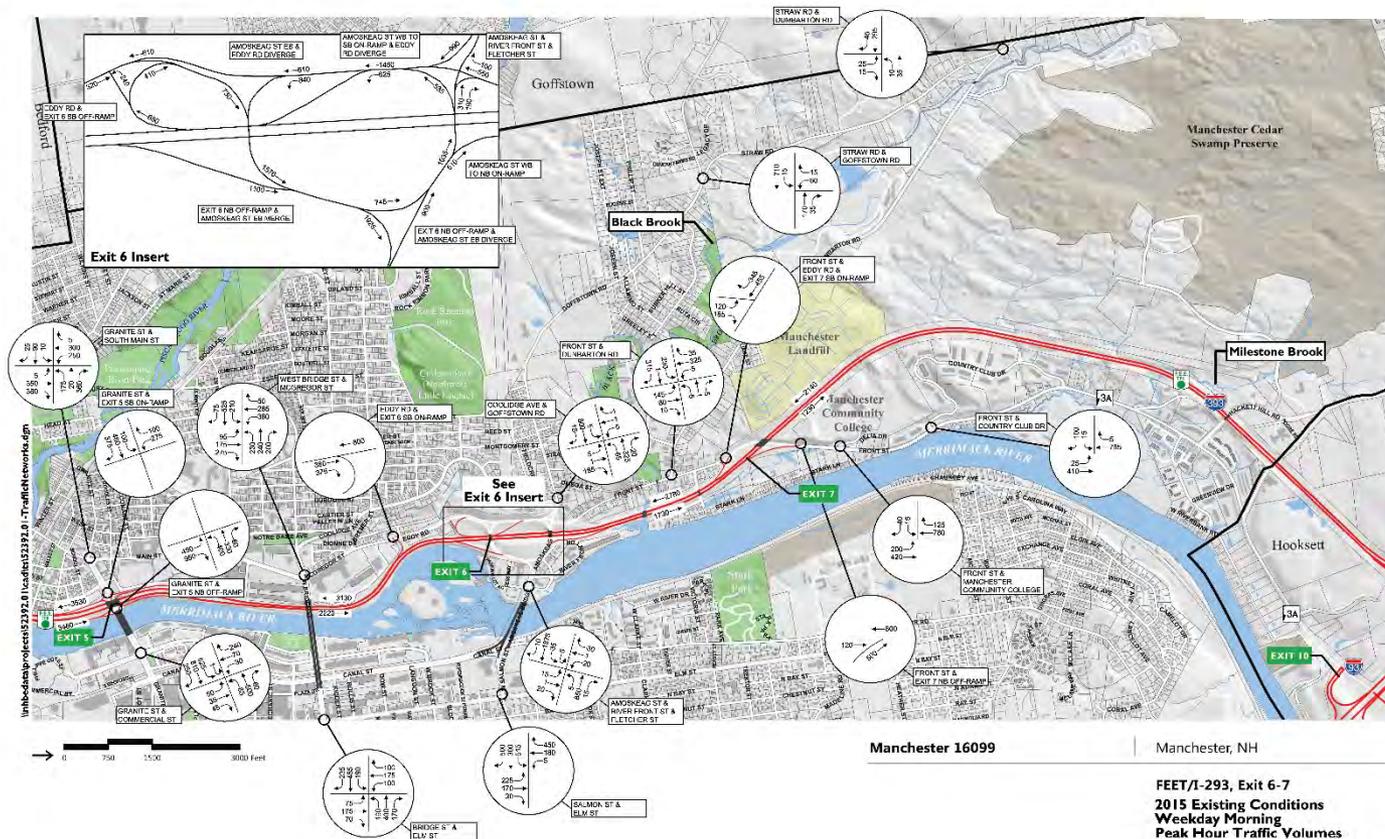
PLANNING STUDY FINDINGS (CONTINUED)

- Reconfiguring Exit 7 at its existing location could be problematic given the proximity to Exit 6.
- Relocating Exit 7 to the north will meet the capacity and safety study purposes and support connectivity to important future economic development areas in Manchester and Goffstown.

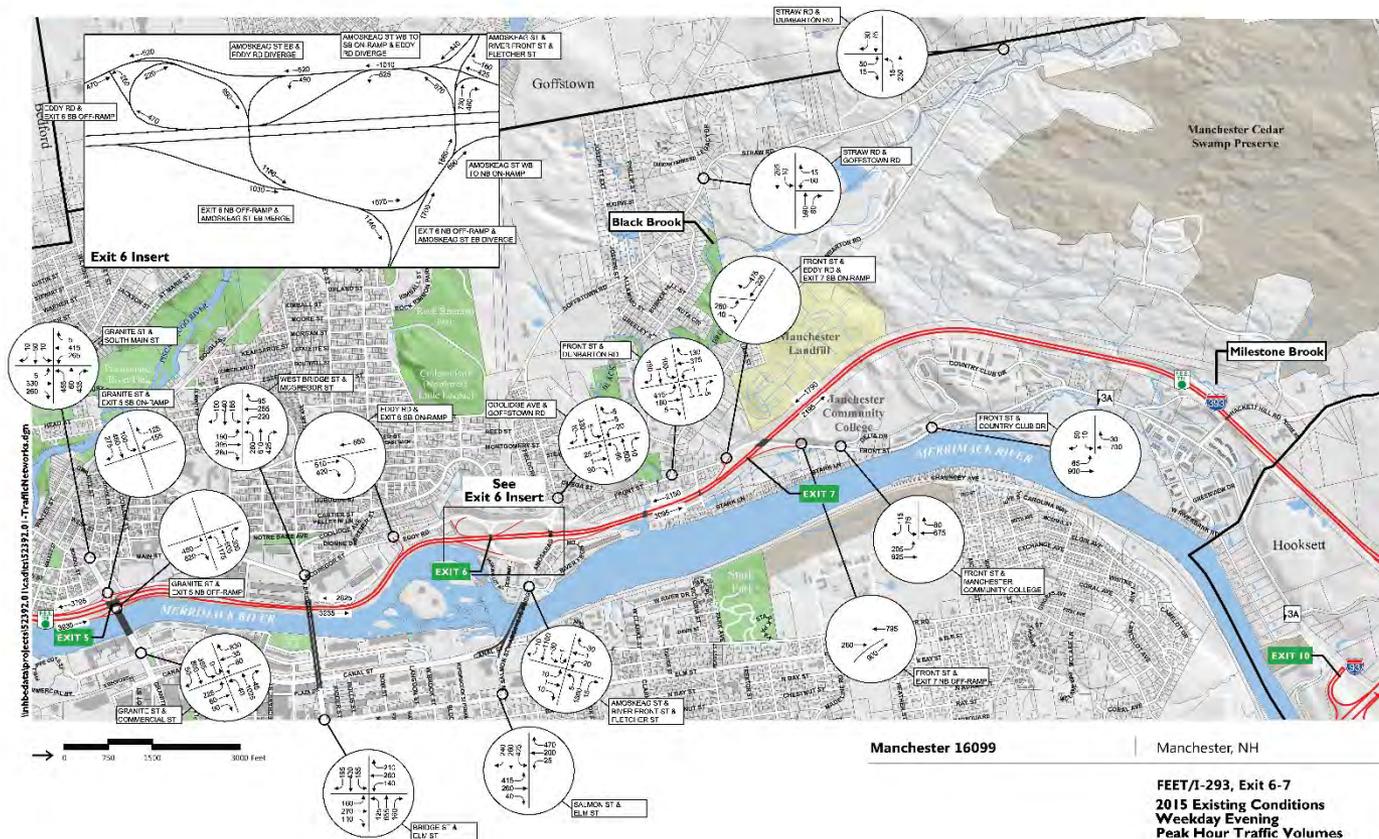


DATA COLLECTION

EXISTING WEEKDAY AM PEAK HOUR

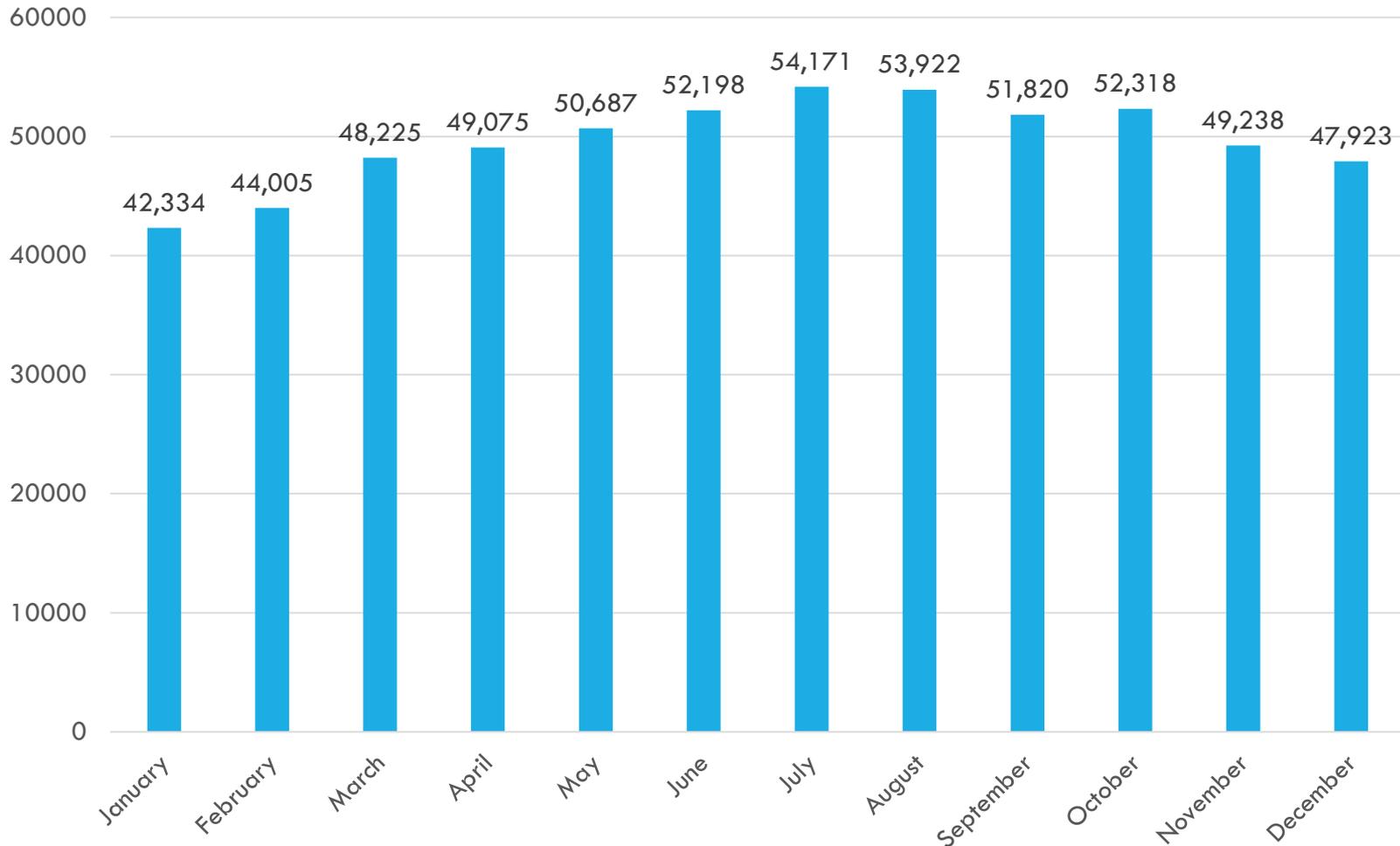


EXISTING WEEKDAY PM PEAK HOUR



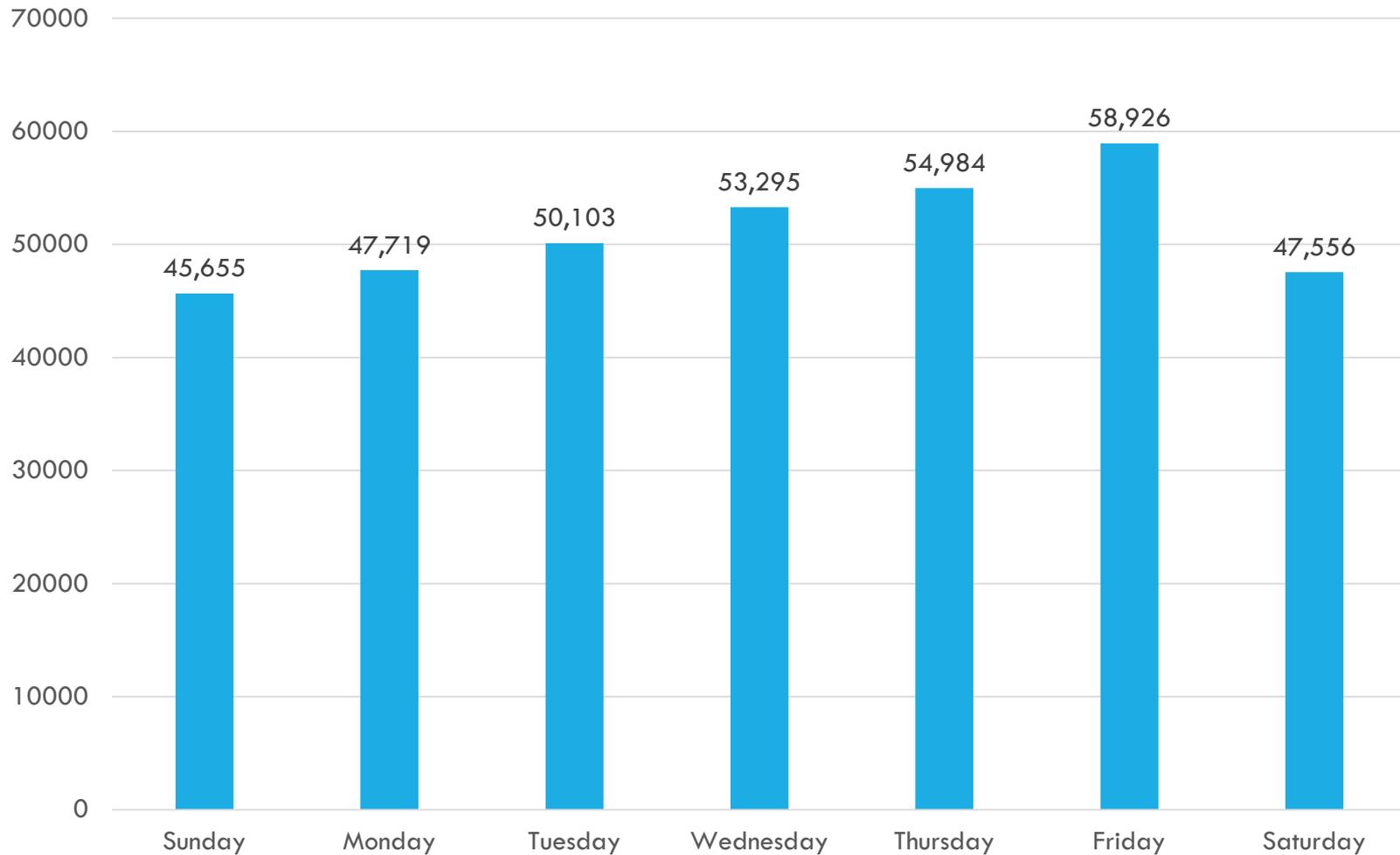
I-293 MONTHLY VOLUMES

2015 AT BEDFORD TOLLS – AVERAGE WEEKDAY



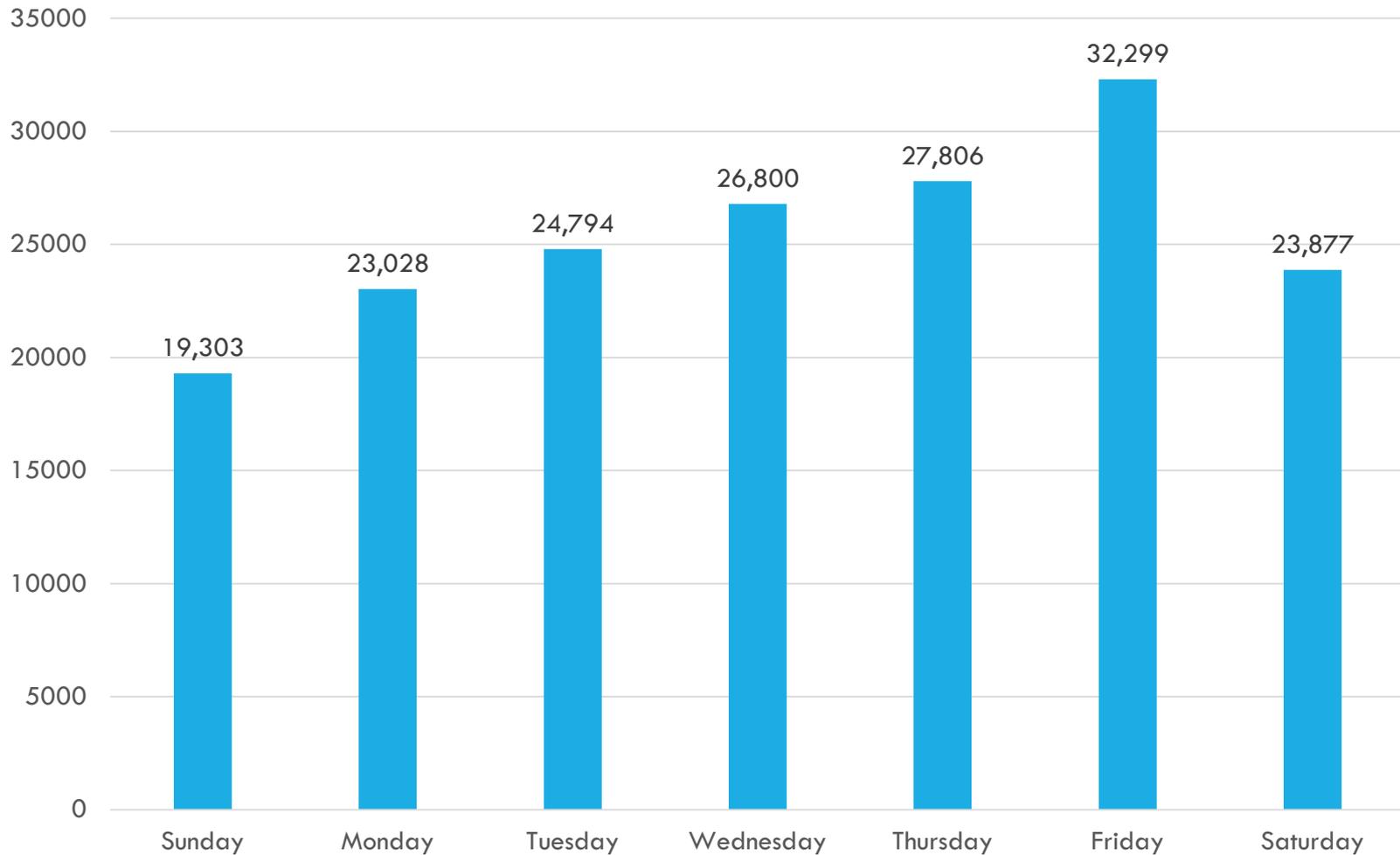
I-293 DAILY VOLUMES

JUNE 2015 AT BEDFORD TOLLS



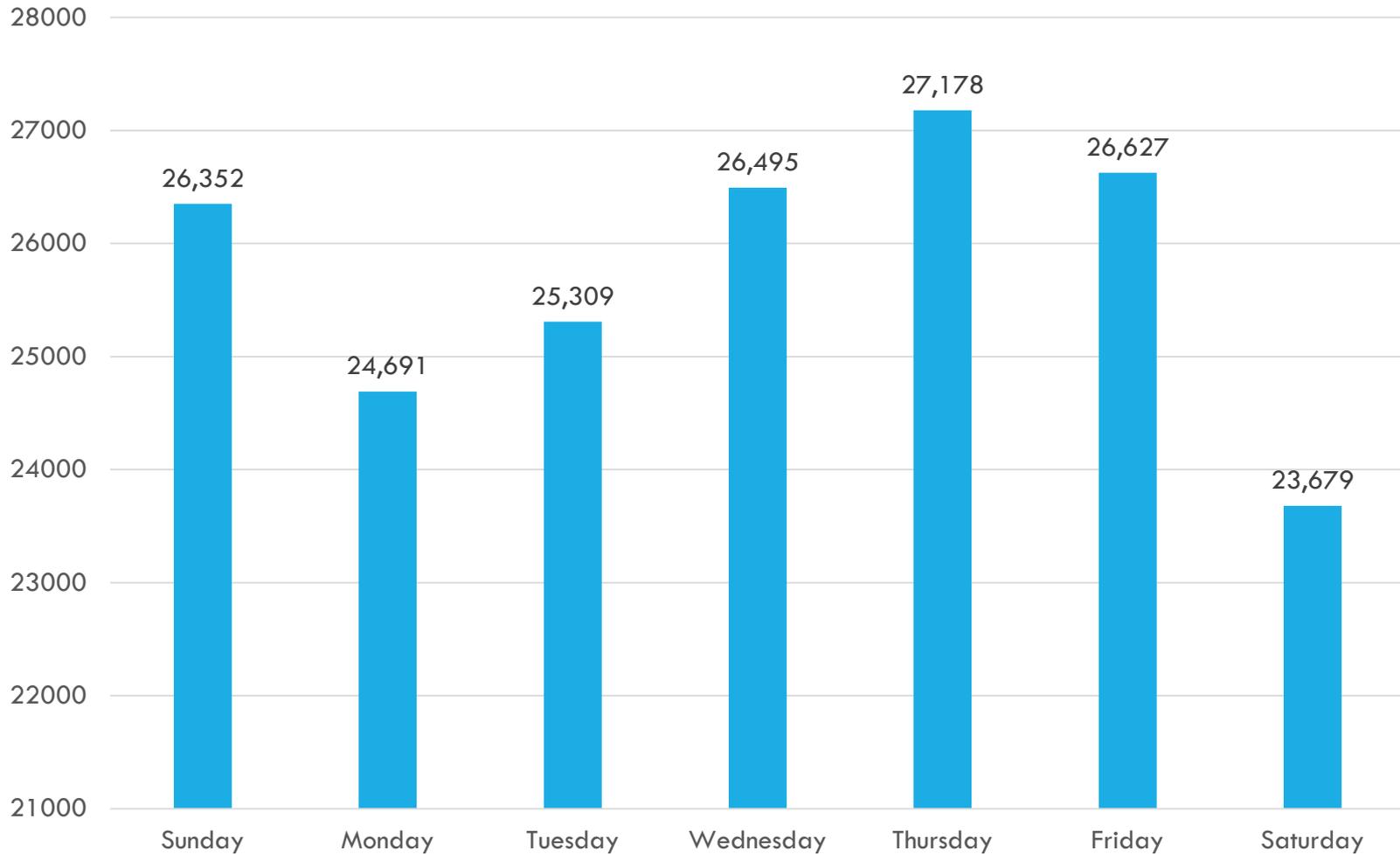
I-293 DAILY VOLUMES (NORTHBOUND)

JUNE 2015 AT BEDFORD TOLLS



I-293 DAILY VOLUMES (SOUTHBOUND)

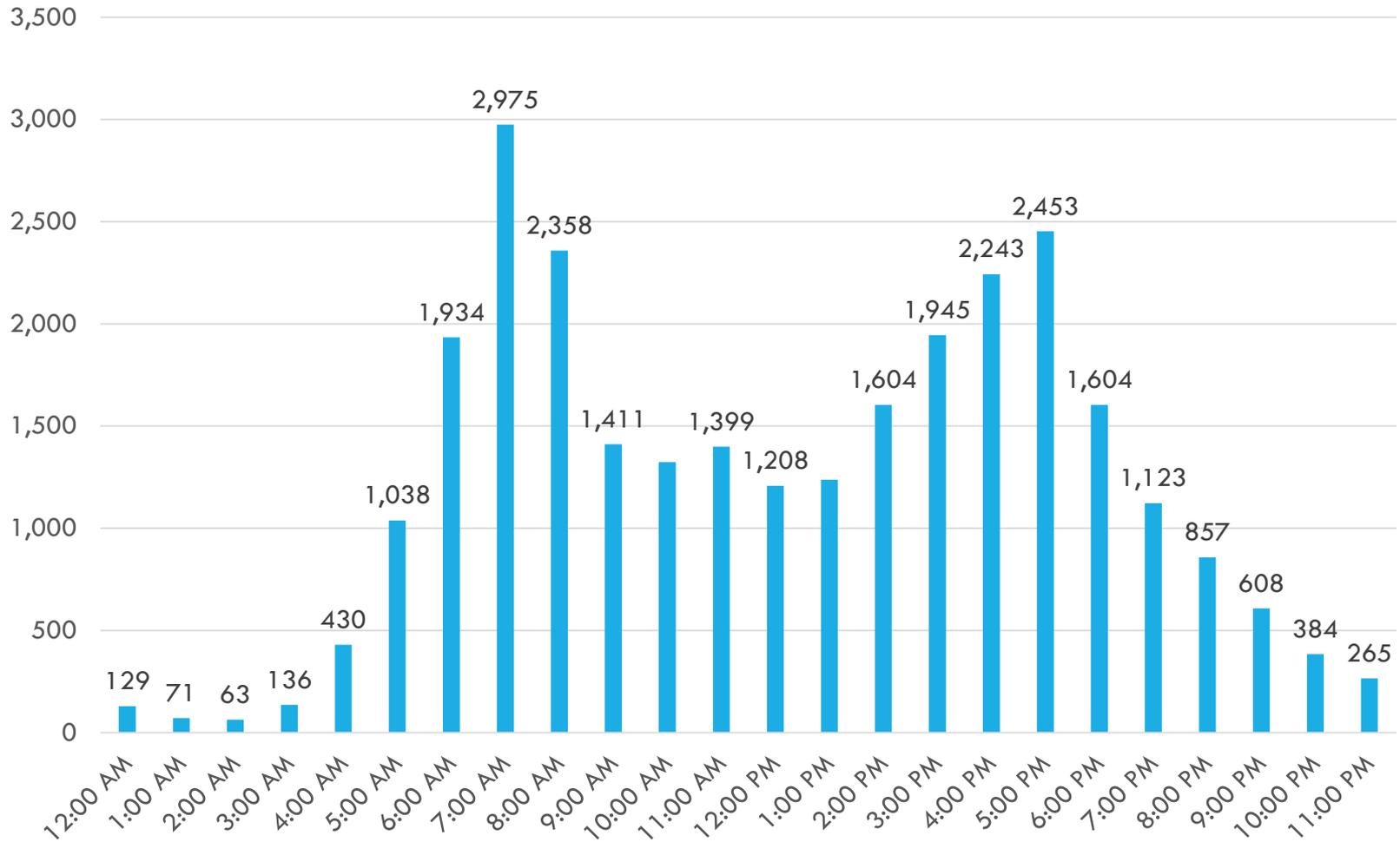
JUNE 2015 AT BEDFORD TOLLS



I-293 HOURLY VOLUMES (SOUTHBOUND)

BETWEEN EXITS 5 AND 6

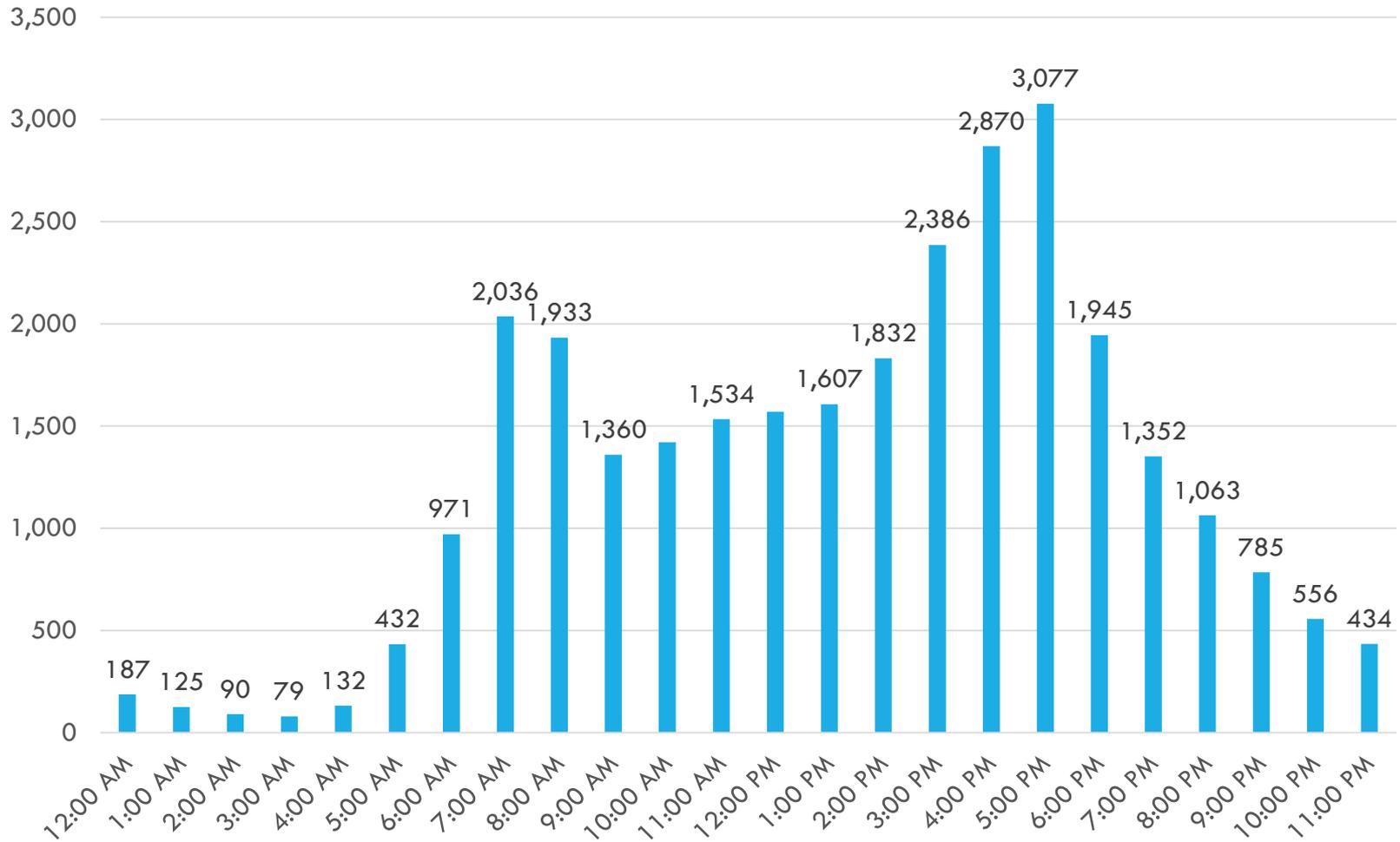
TUESDAY AUGUST 18, 2015



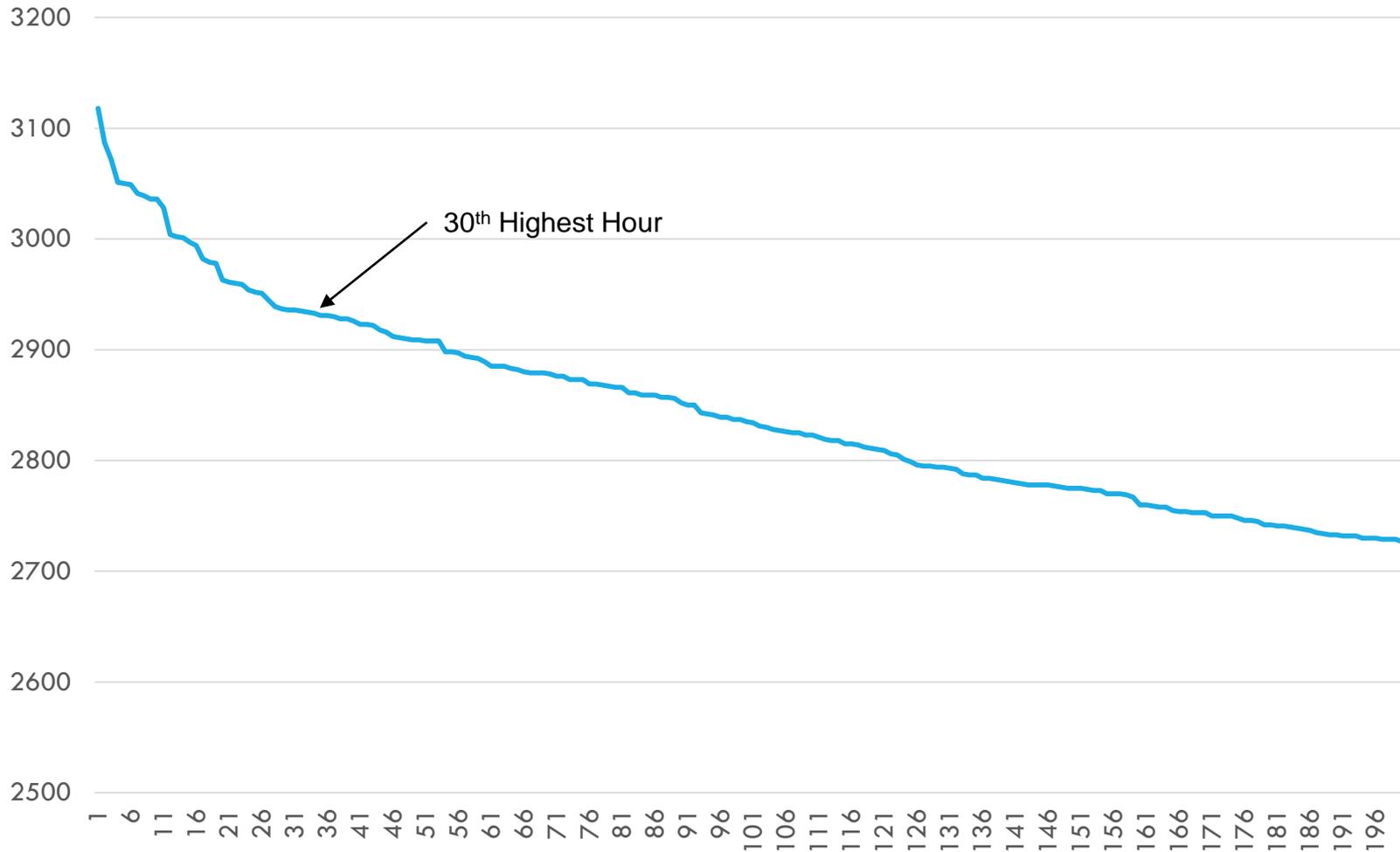
I-293 HOURLY VOLUMES (NORTHBOUND)

BETWEEN EXITS 5 AND 6

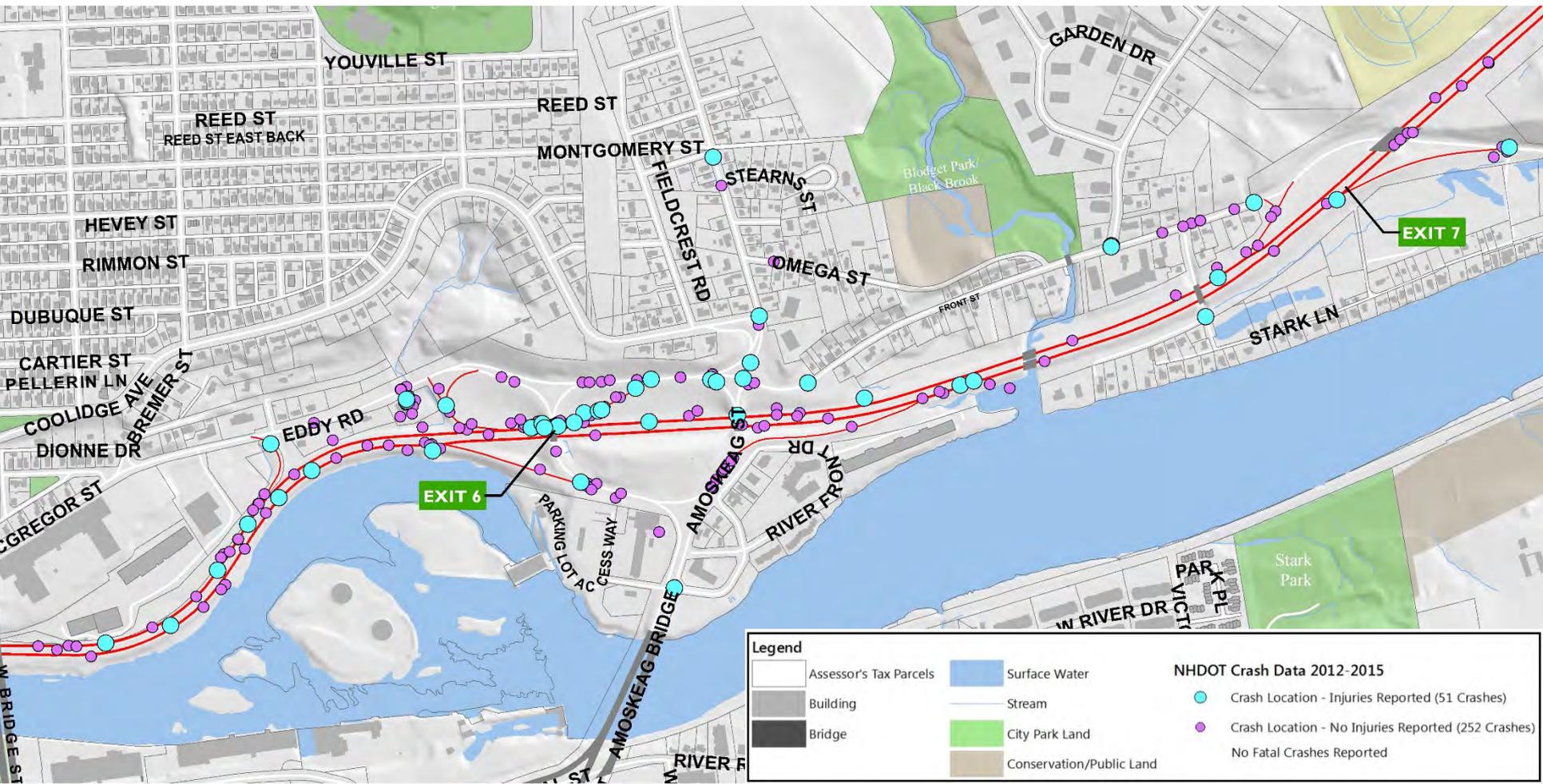
TUESDAY AUGUST 18, 2015



DESIGN HOUR VOLUME (DHV)

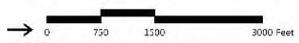
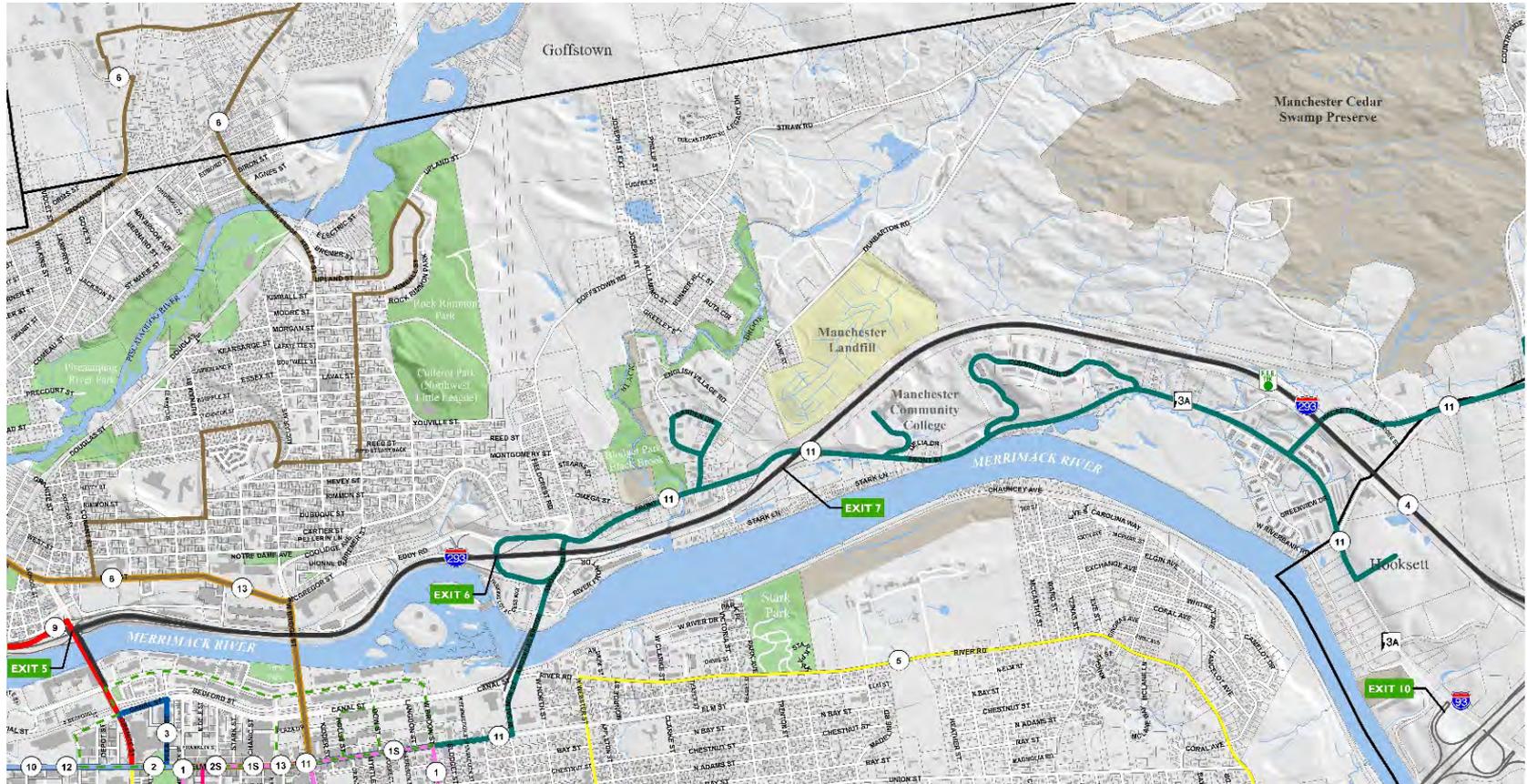


CRASH SUMMARY (2012 – 2015)



Legend		NHDOT Crash Data 2012-2015	
	Assessor's Tax Parcels		Crash Location - Injuries Reported (51 Crashes)
	Building		Crash Location - No Injuries Reported (252 Crashes)
	Bridge		No Fatal Crashes Reported
	Surface Water		
	Stream		
	City Park Land		
	Conservation/Public Land		

EXISTING TRANSIT ROUTES



Legend

- Assessor's Tax Parcels
- Building
- Bridge
- Town/City Boundary
- Surface Water
- Stream
- City Park Land
- Conservatory/Public Land

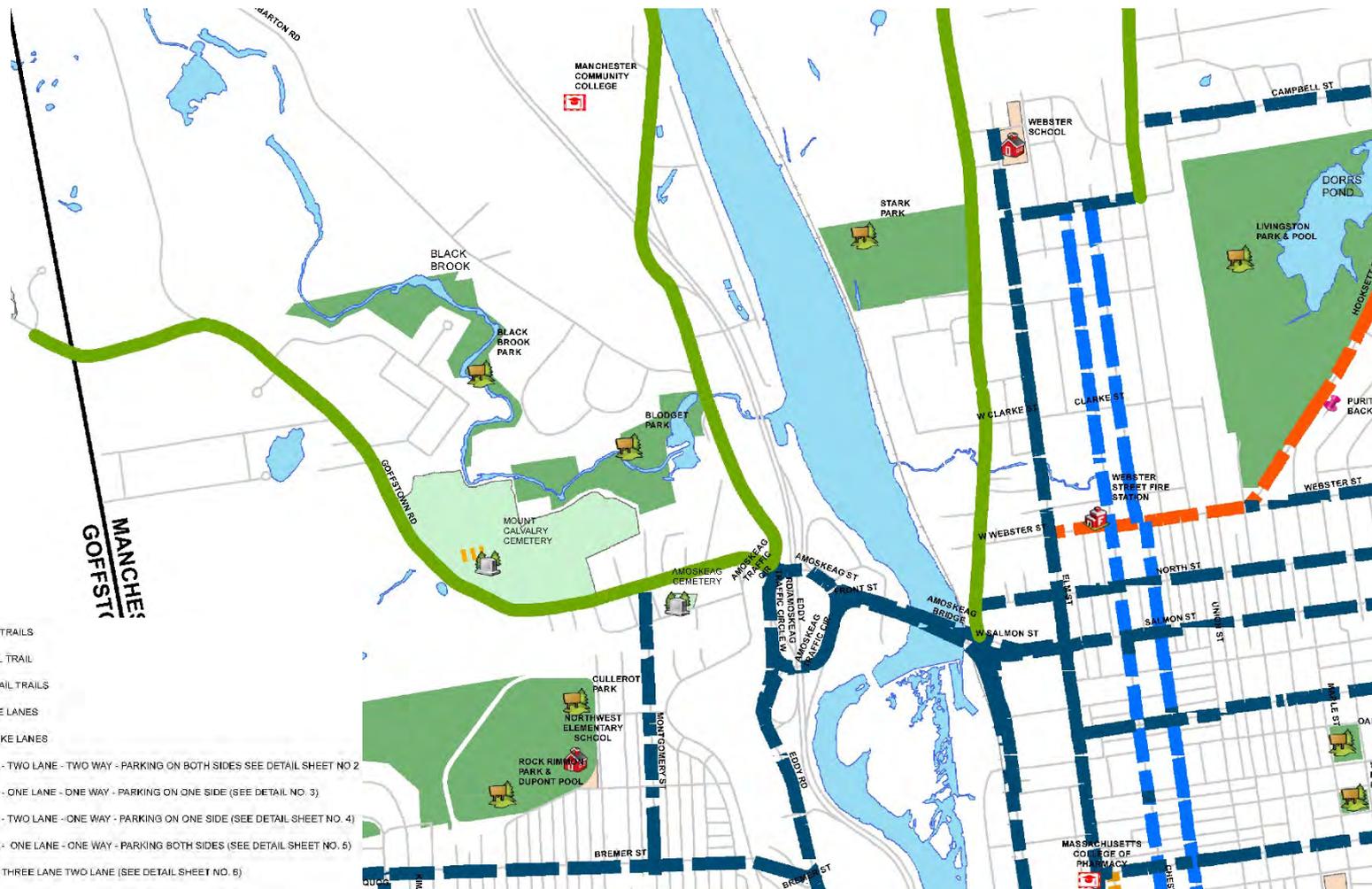
Manchester Transit Authority Routes

- Route 1 - Healthcare Shuttle/East Side Plaza
- Route 2 - Hanover St/East Side Plaza
- Route 3 - Brown Ave/Airport Industrial Area
- Route 4 - Concord Express

Note: * Weekday service only.
All other routes include Saturday service.

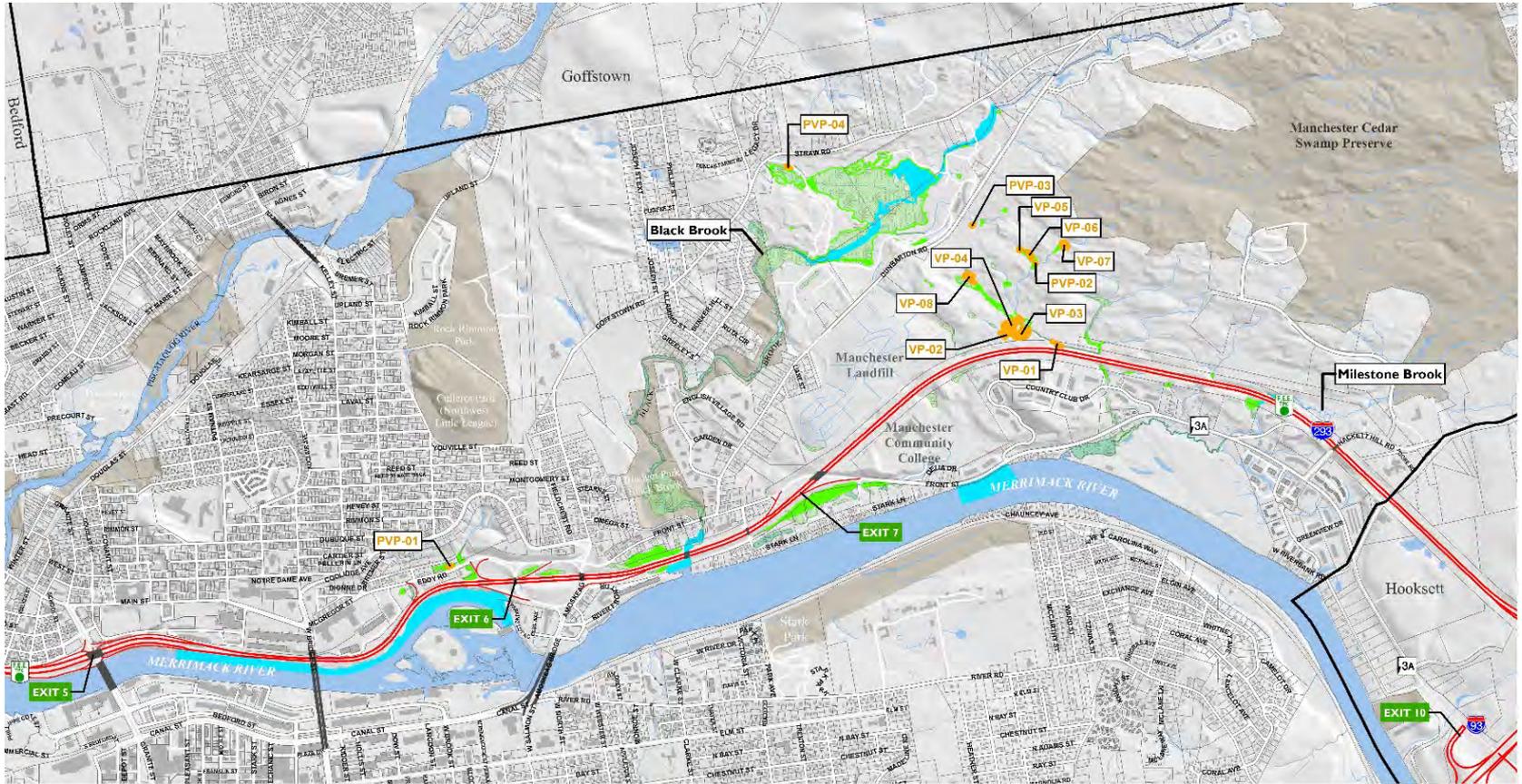
- Route 5 - River Road/SNHU
- Route 6 - Bremer St/Mast Road
- Route 9 - Nashua Express
- Route 10 - Valley St/Weston Rd/Mail of NH
- Route 11 - Front Street/Hackett Hill Road
- Route 12 - South Beech St/Mail of NH
- Route 13 - Bedford Grove Plaza/Second St
- GREEN DASH - Downtown Area Shuttle

MANCHESTER'S BIKE MASTER PLAN



ENVIRONMENTAL RESOURCES

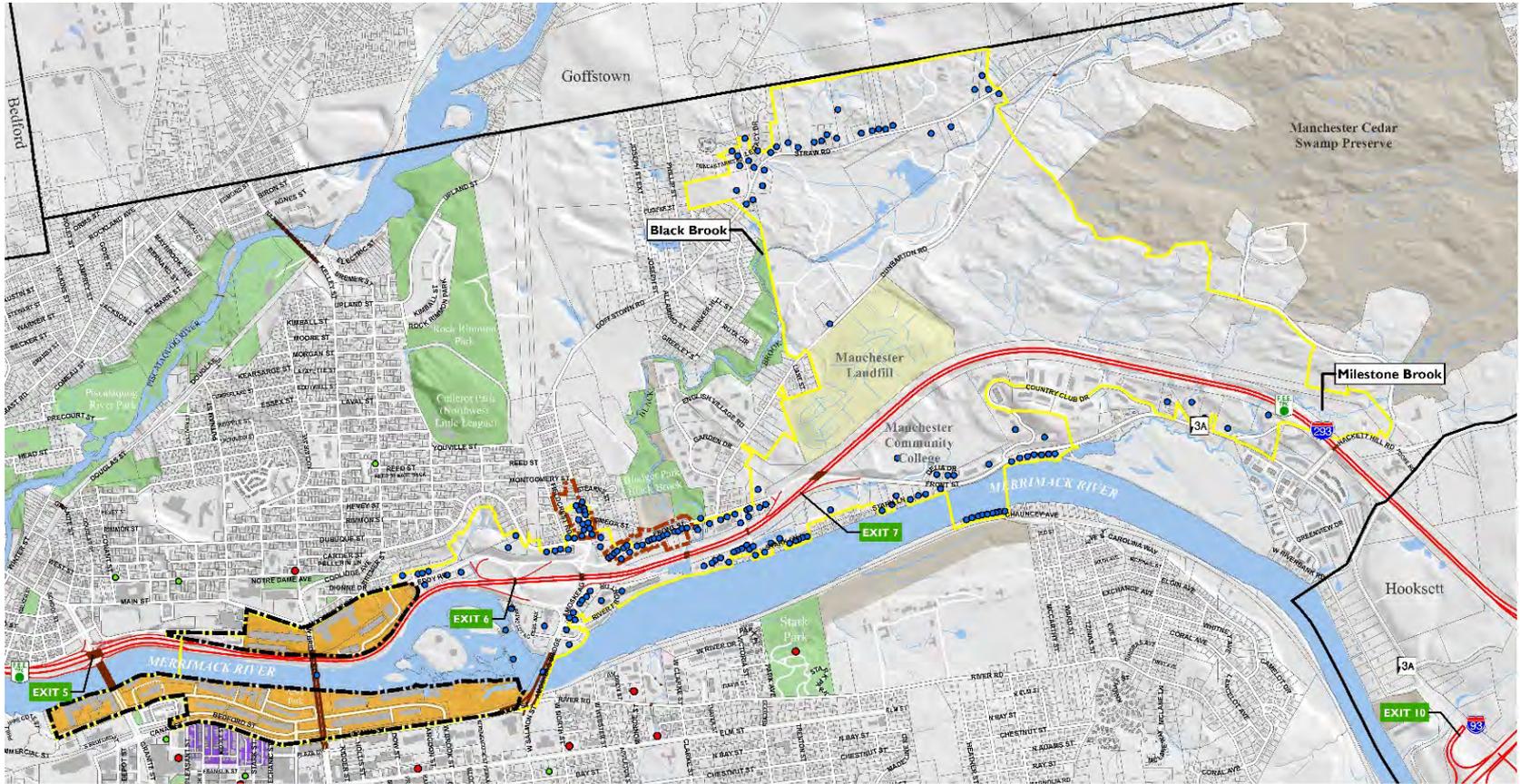
WETLAND RESOURCES



Legend

- | | | |
|------------------------|--------------------------|--|
| Assessor's Tax Parcels | Surface Water | Delineated Open Water |
| Building | Stream | Delineated Wetland Resource Area |
| Bridge | Conservation/Public Land | Field Identified Potential Vernal Pool |
| Town/City Boundary | Verified Wetland | |

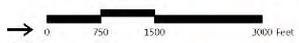
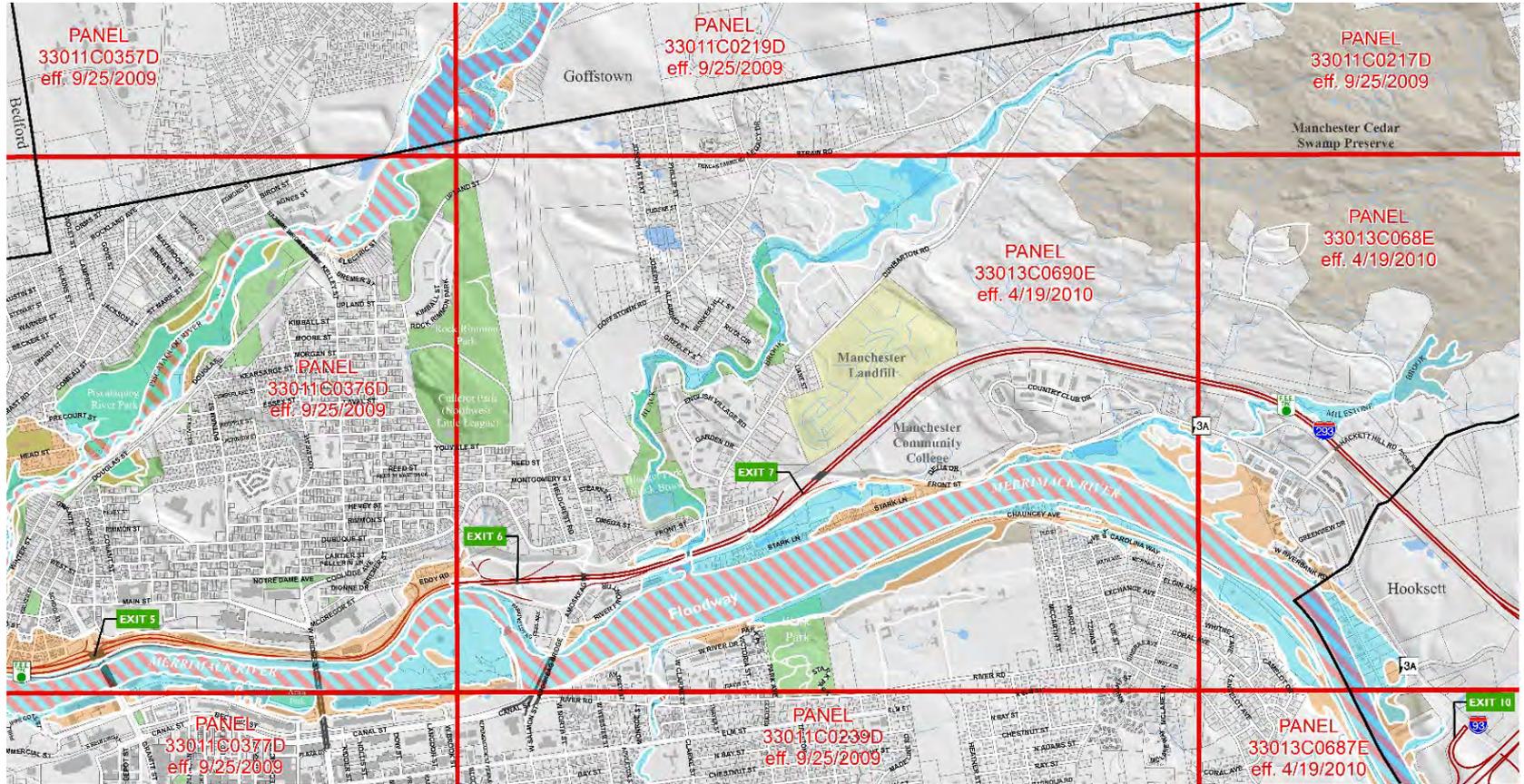
CULTURAL RESOURCES



Legend

- | | | | | |
|------------------------|--------------------------|-----------------------------|---|--|
| Assessor's Tax Parcels | Surface Water | Surveyed APE Properties | City of Manchester Identified Historic Sites | Amoskeag Corporation Housing Historic District |
| Building | Stream | Potential Historic District | NR Listed | Amoskeag Millyard Historic District |
| Bridge | City Park Land | Historic District | NR Eligible (Recommended Eligible by Preparer of Documentation) | |
| Town/City Boundary | Conservation/Public Land | Area of Potential Effect | | |

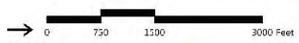
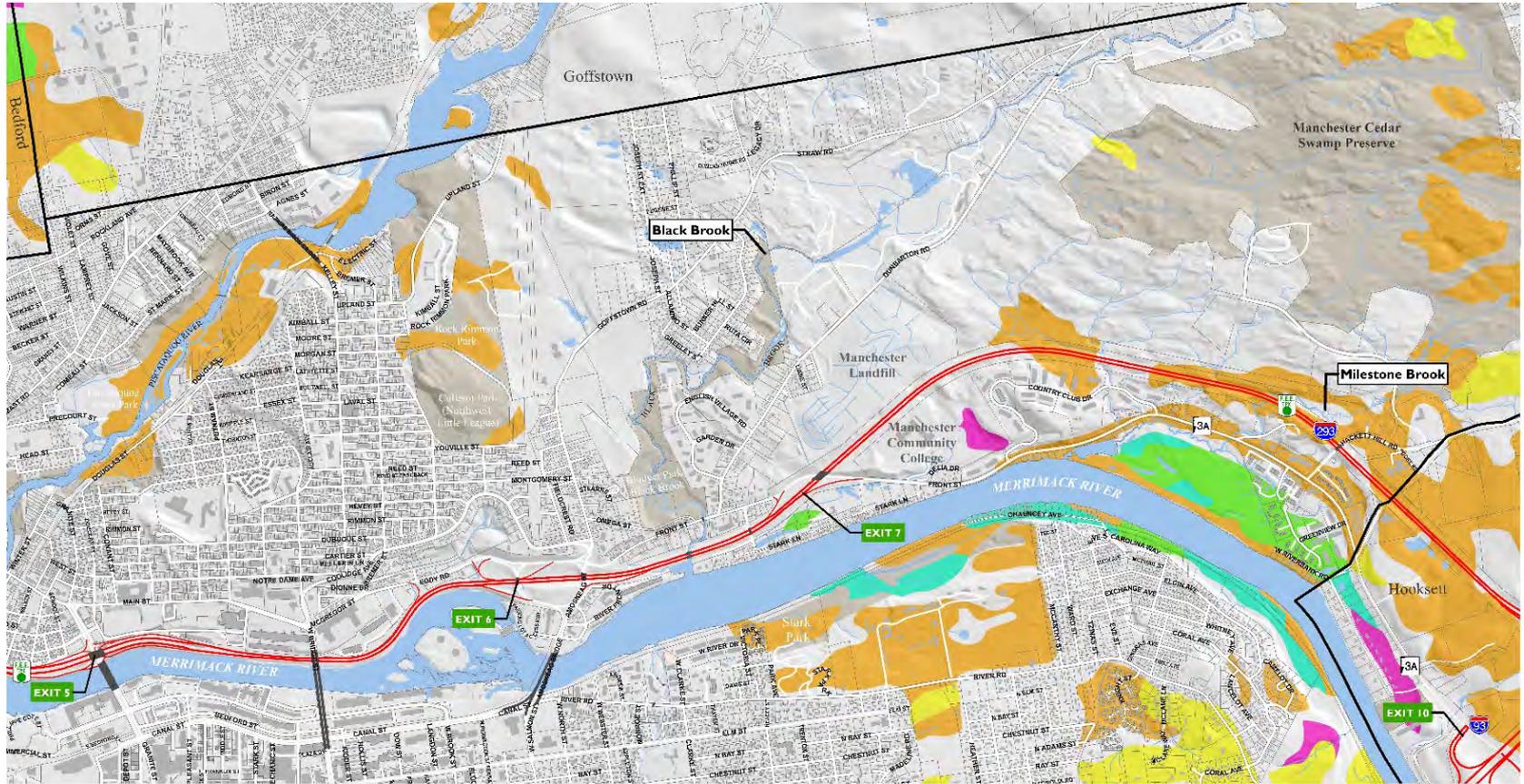
FLOODPLAINS



Legend

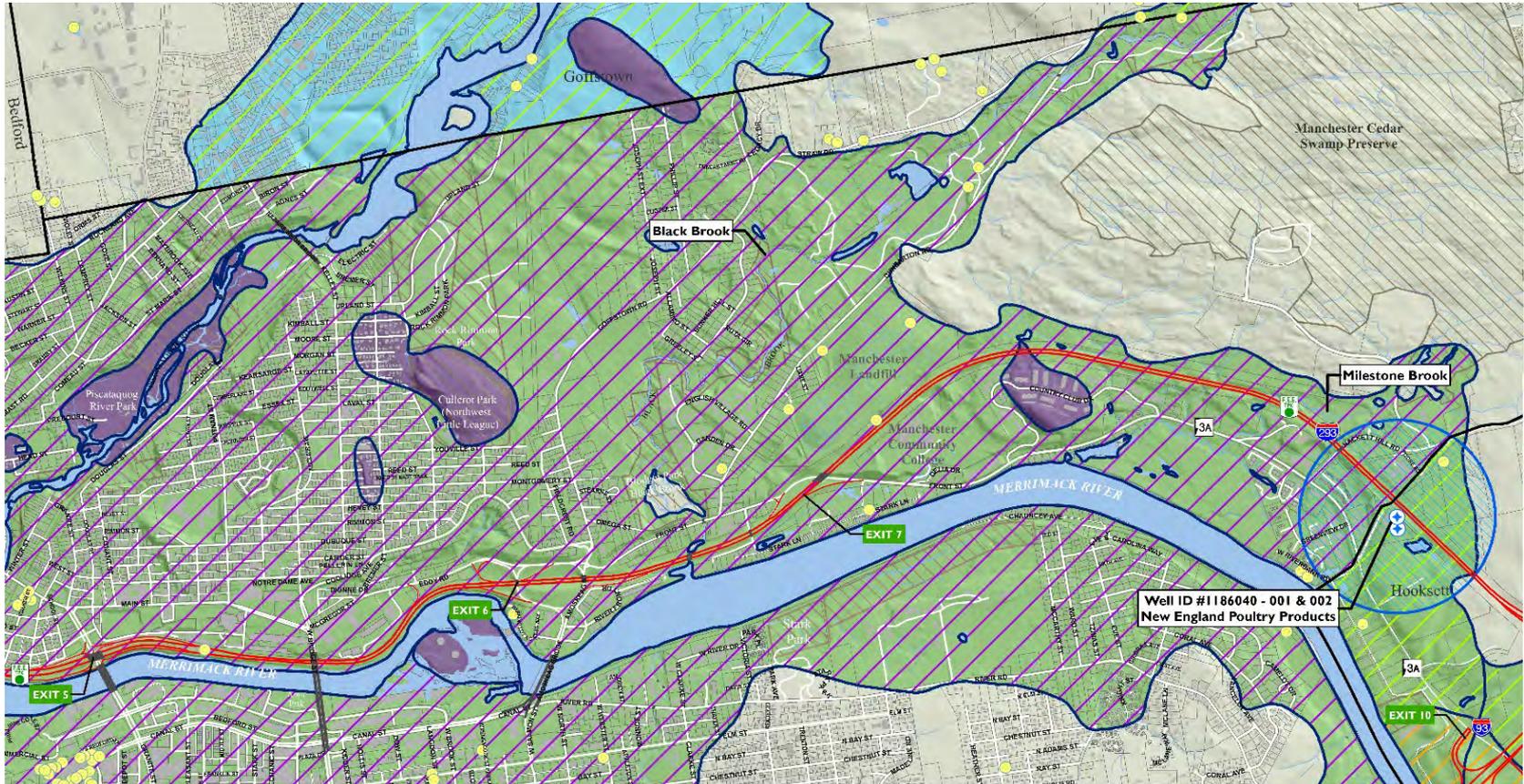
- | | | | | |
|------------------------|--------------------------|-----------------------|-----------------------------------|---|
| Assessor's Tax Parcels | Surface Water | FIRM Panels | 1% Annual Chance Flood Hazard | 0.2% Annual Chance Flood Hazard |
| Building | Stream | Base Flood Elevations | Regulatory Floodway | Future Conditions 1% Annual Chance Flood Hazard |
| Bridge | City Park Land | | Special Floodway | Area with Reduced Risk Due to Levee |
| Town/City Boundary | Conservation/Public Land | | Area of Undetermined Flood Hazard | |

FARMLAND SOILS



Legend	
Assessor's Tax Parcels	Surface Water
Building	Stream
Bridge	Conservation/Public Land
Town/City Boundary	Soils
	Farmland of local importance
	Farmland of statewide importance
	Prime farmland if drained
	Prime farmland if protected from flooding or not frequently flooded during the growing season

GROUNDWATER RESOURCES



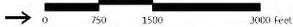
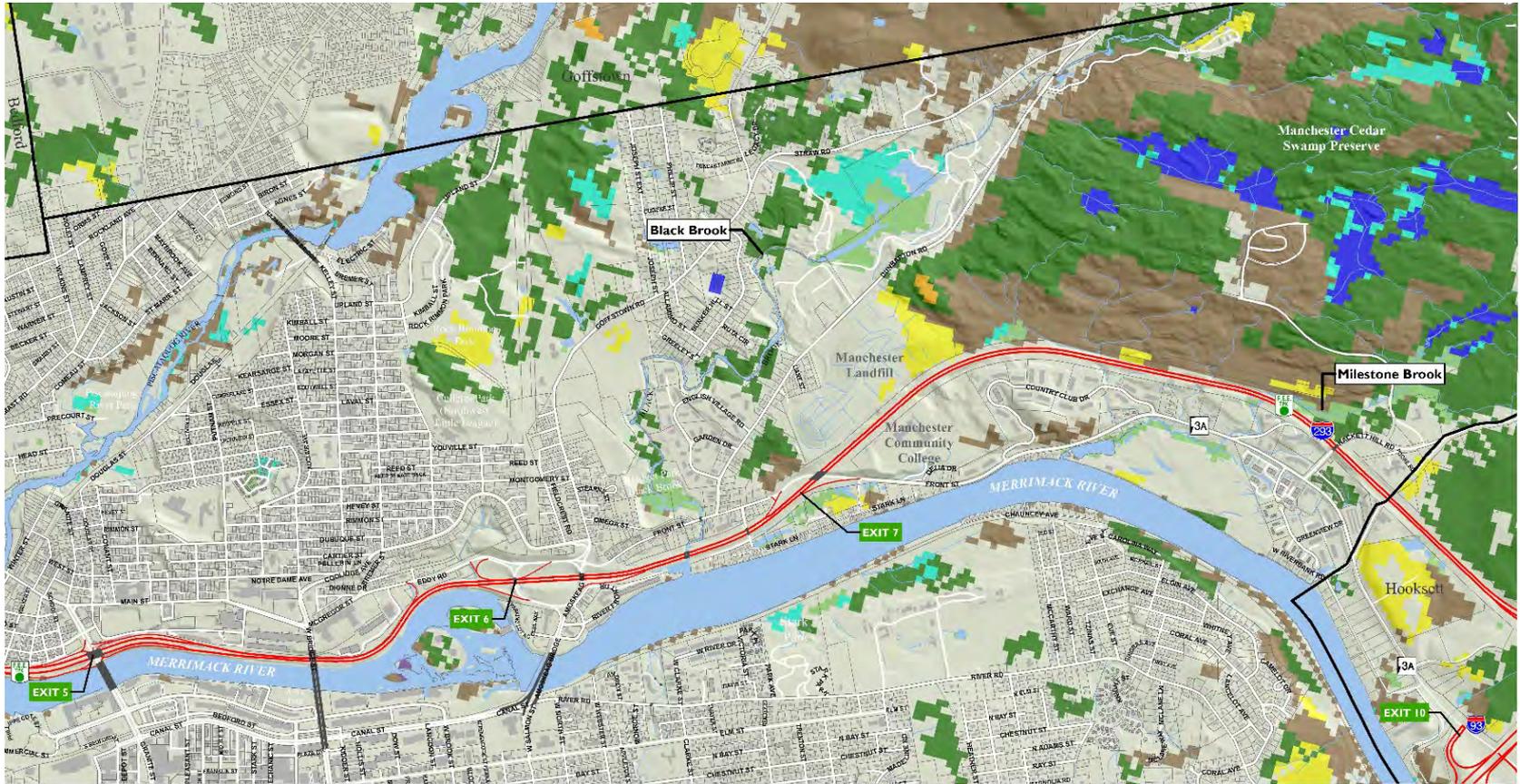
Note: The entire City of Manchester is located in the Source Water Protection Area (SWPA).



Legend

- | | | | | |
|------------------------|--------------------------|---------------------------|------------------------------|-------------------------------------|
| Assessor's Tax Parcels | Surface Water | Public Water Supply | USGS Aquifer Boundaries | Aquifer Transmissivity (sq.ft./day) |
| Building | Stream | Private Well Inventory | Glacial Lake Bottom Deposits | 0 |
| Bridge | Conservation/Public Land | Well Head Protection Area | Stratified drift | 1 - 1000 |
| Town/City Boundary | | | Till | 1001 - 2000 |
| | | | Non-Aquifer Area | 4001 - 99999 |

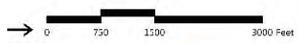
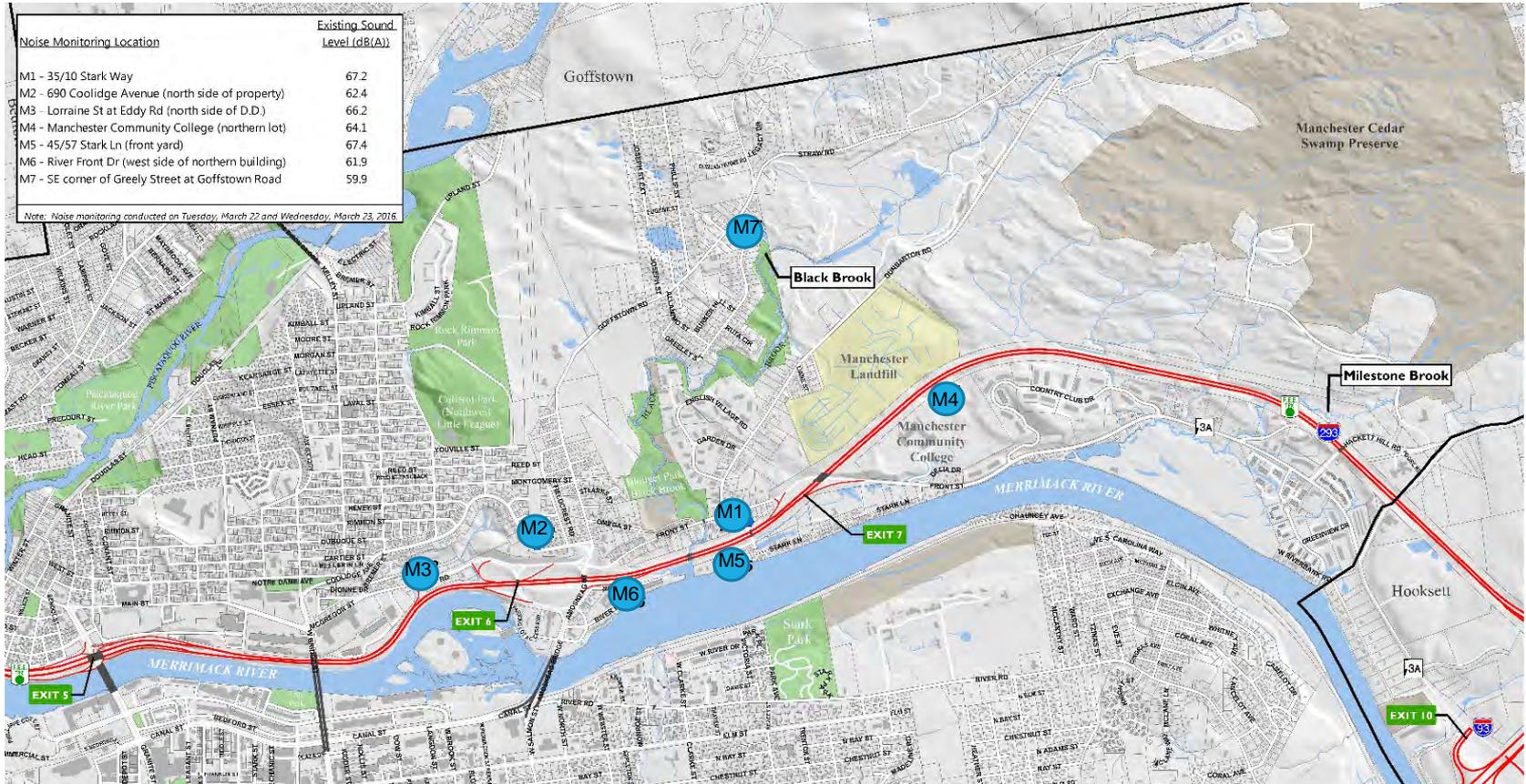
WILDLIFE ACTION PLAN HABITATS



Legend

Assessor's Tax Parcels	Surface Water	New Hampshire Fish & Game Wildlife Action Plan Habitats		Peatland	Area not considered to be priority habitat
Building	Stream	Appalachian oak pine	Rocky ridge	Temperate swamp	
Bridge		Floodplain forest	Wet meadow/shrub wetland		
Town/City Boundary		Grossland			
		Hemlock hardwood pine			

NOISE MONITORING LOCATIONS



- Legend**
- Assessor's Tax Parcels
 - Building
 - Bridge
 - Town/City Boundary
 - Surface Water
 - Stream
 - City Park Land
 - Conservation/Public Land
 - Noise Monitoring Location

OTHER ENVIRONMENTAL RESOURCES

- Socio-Economic
- Air Quality
- Public Recreation and Conservation Lands
- Visual Resources



ALTERNATIVES

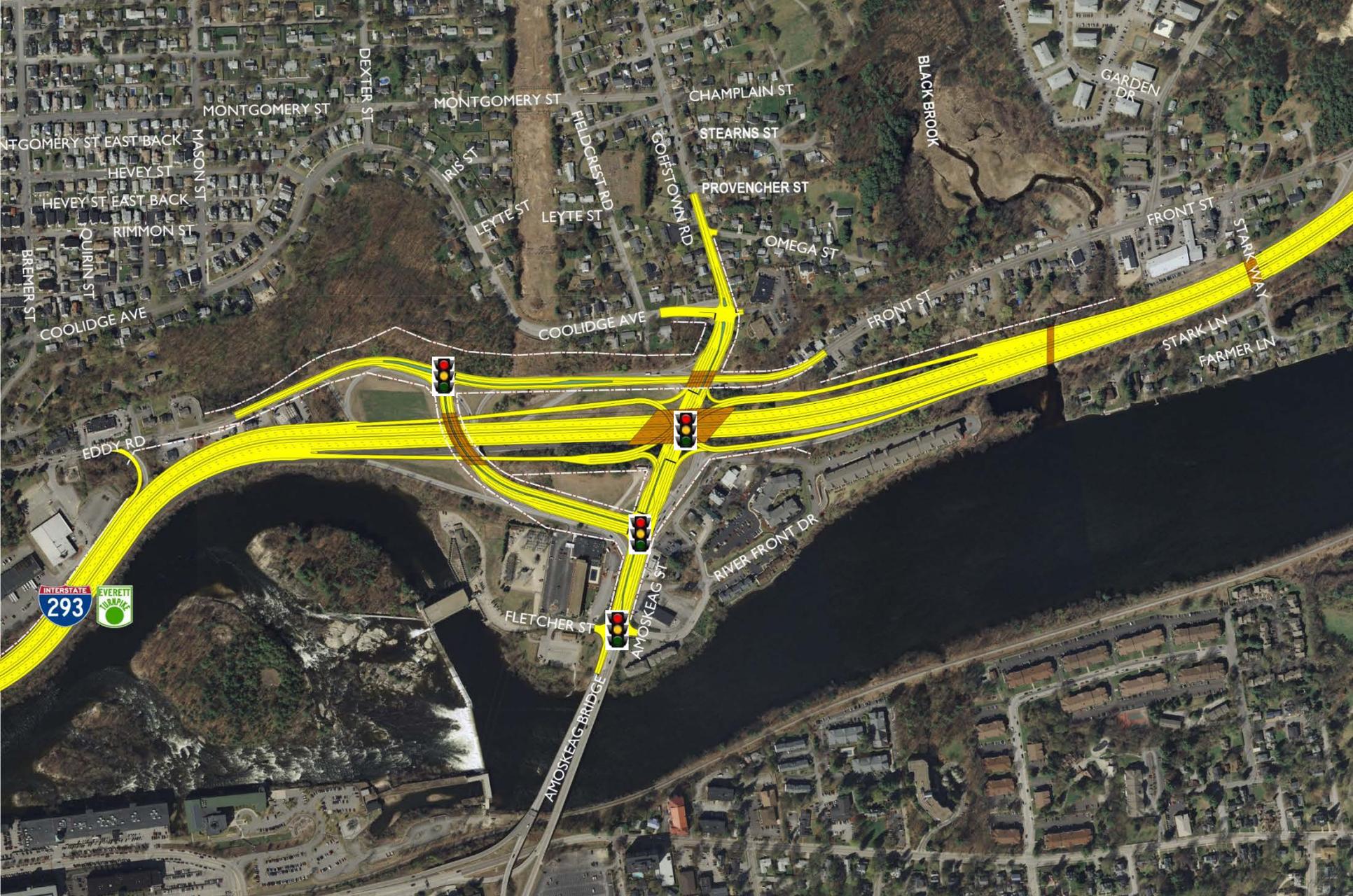
Exit 6



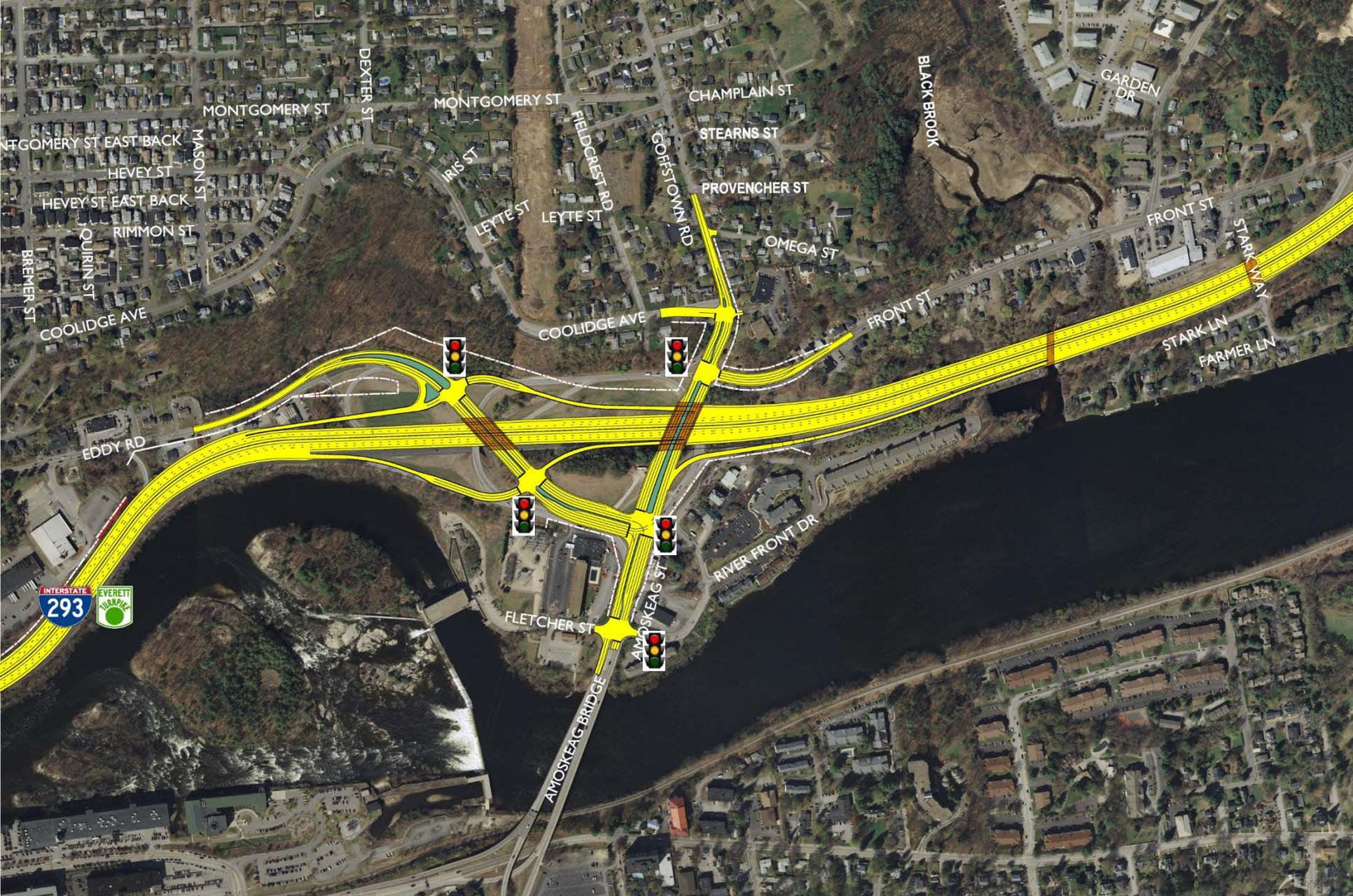
INTERSTATE
293

EVERETT
MUNICIPAL

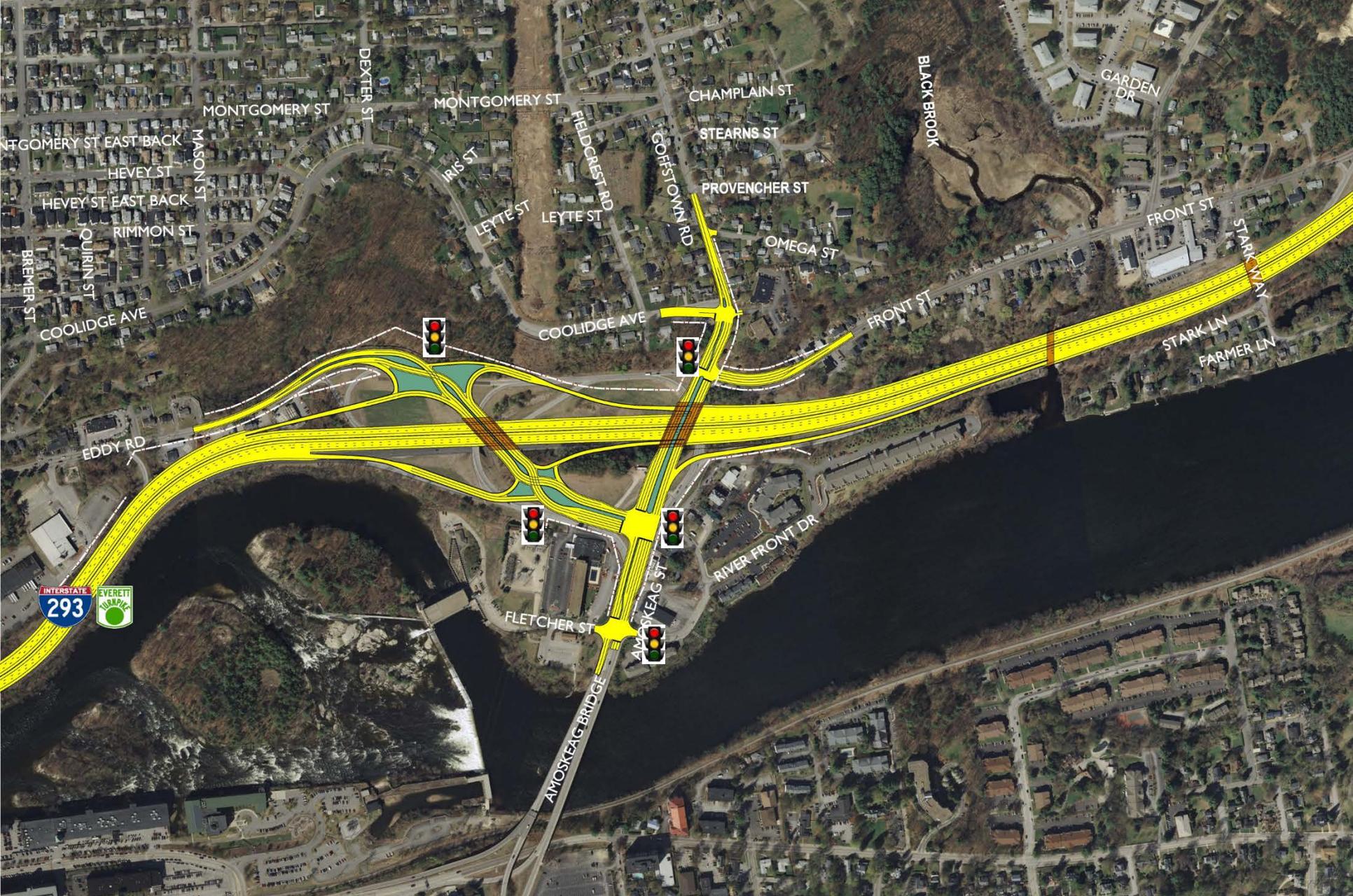
Exit 6 – Single Point Urban Interchange (SPUI)



Exit 6 – Diamond Interchange



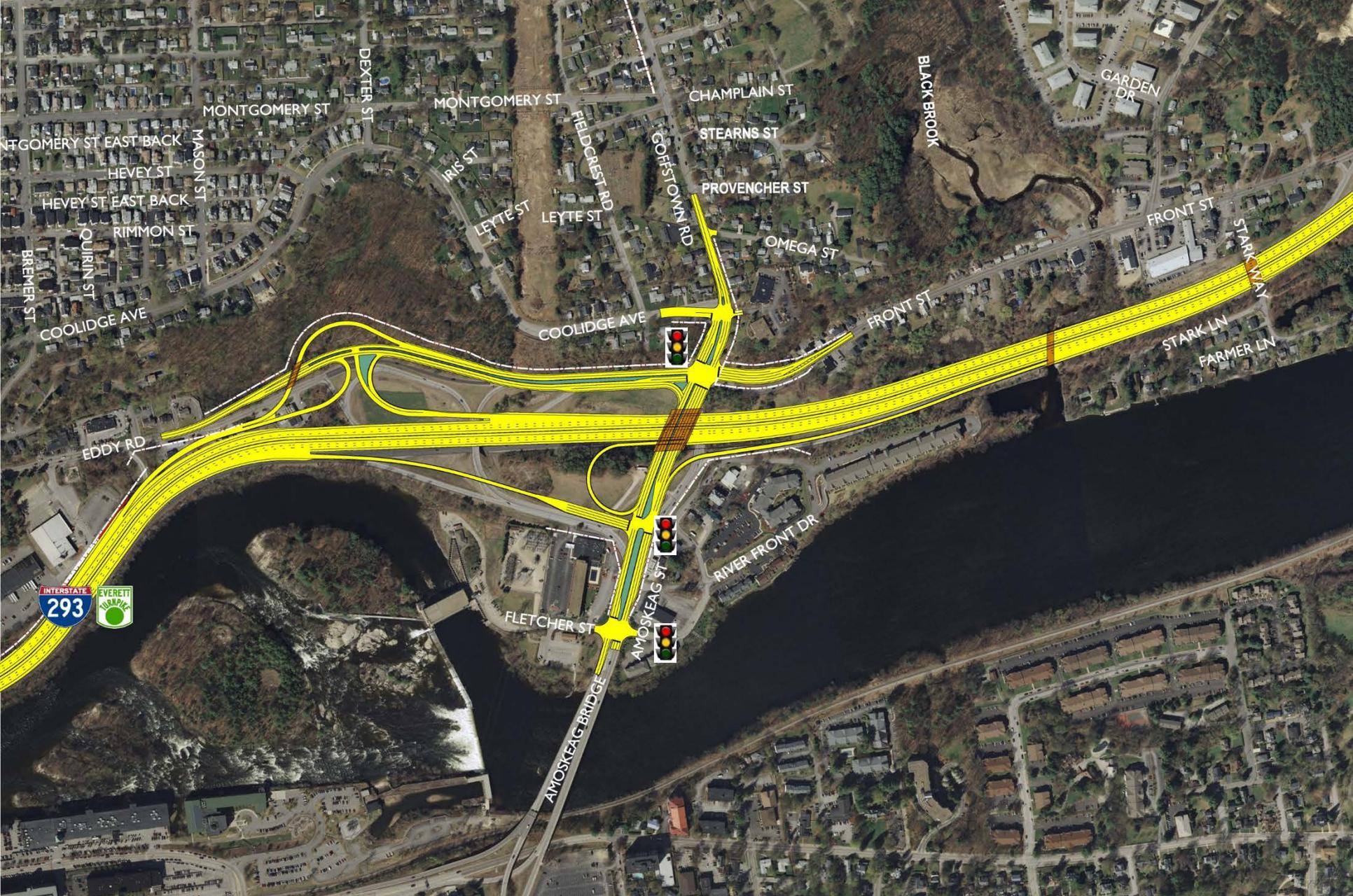
Exit 6 – Diverging Diamond Interchange (DDI)



Exit 6 – Diverging Diamond Interchange (DDI)



Exit 6 – Offset Diamond Interchange



Exit 7 – Current Location



Manchester
Landfill

Manchester
Community
College

DELIA DR

FRONT ST

STARK LN

STARK LN

FRONT ST

STARK WAY

STARK LN

FARMER LN

ENGLISH VILLAGE RD

DUNBARTON RD

LOUISE ST

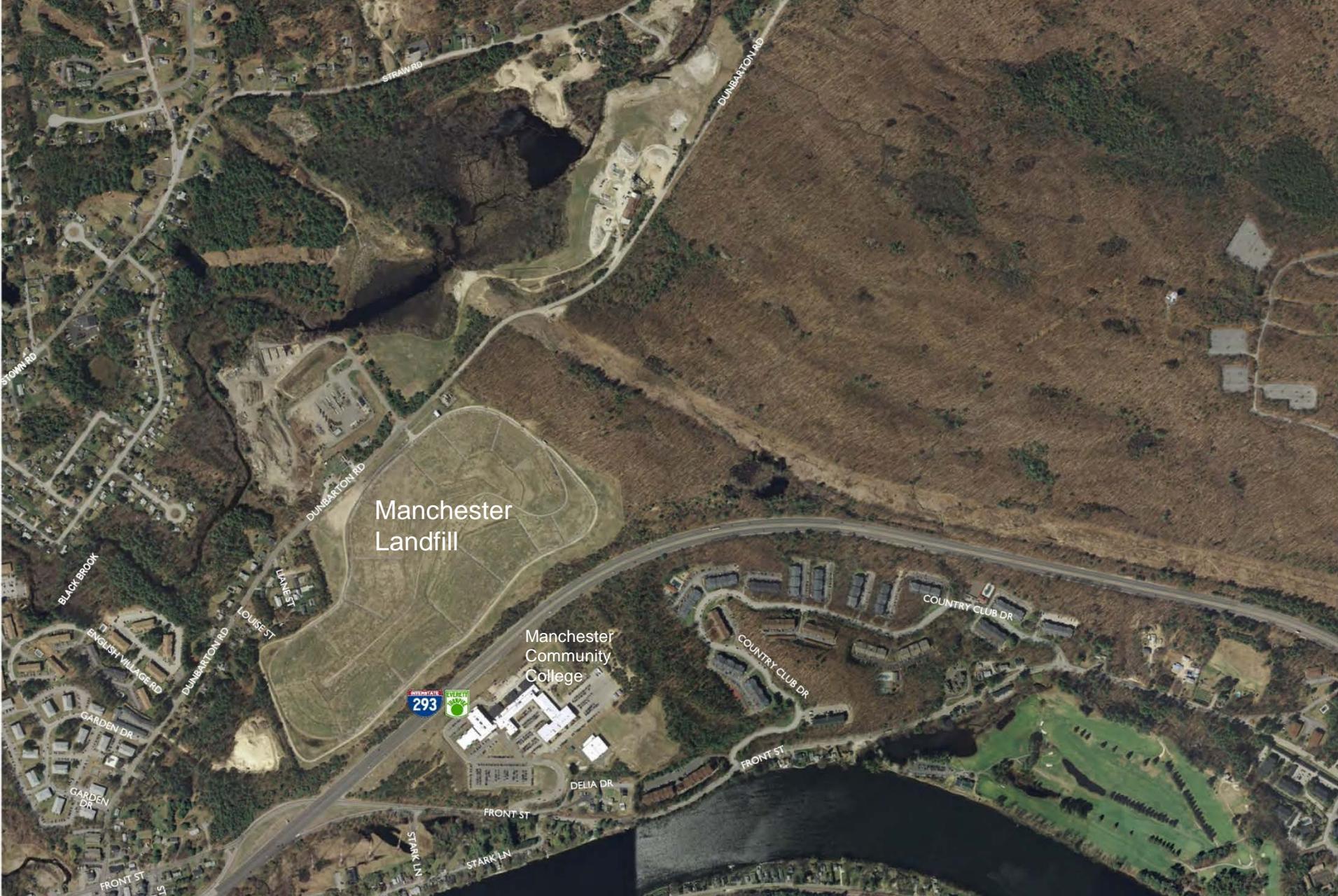
GARDEN DR

GARDEN DR

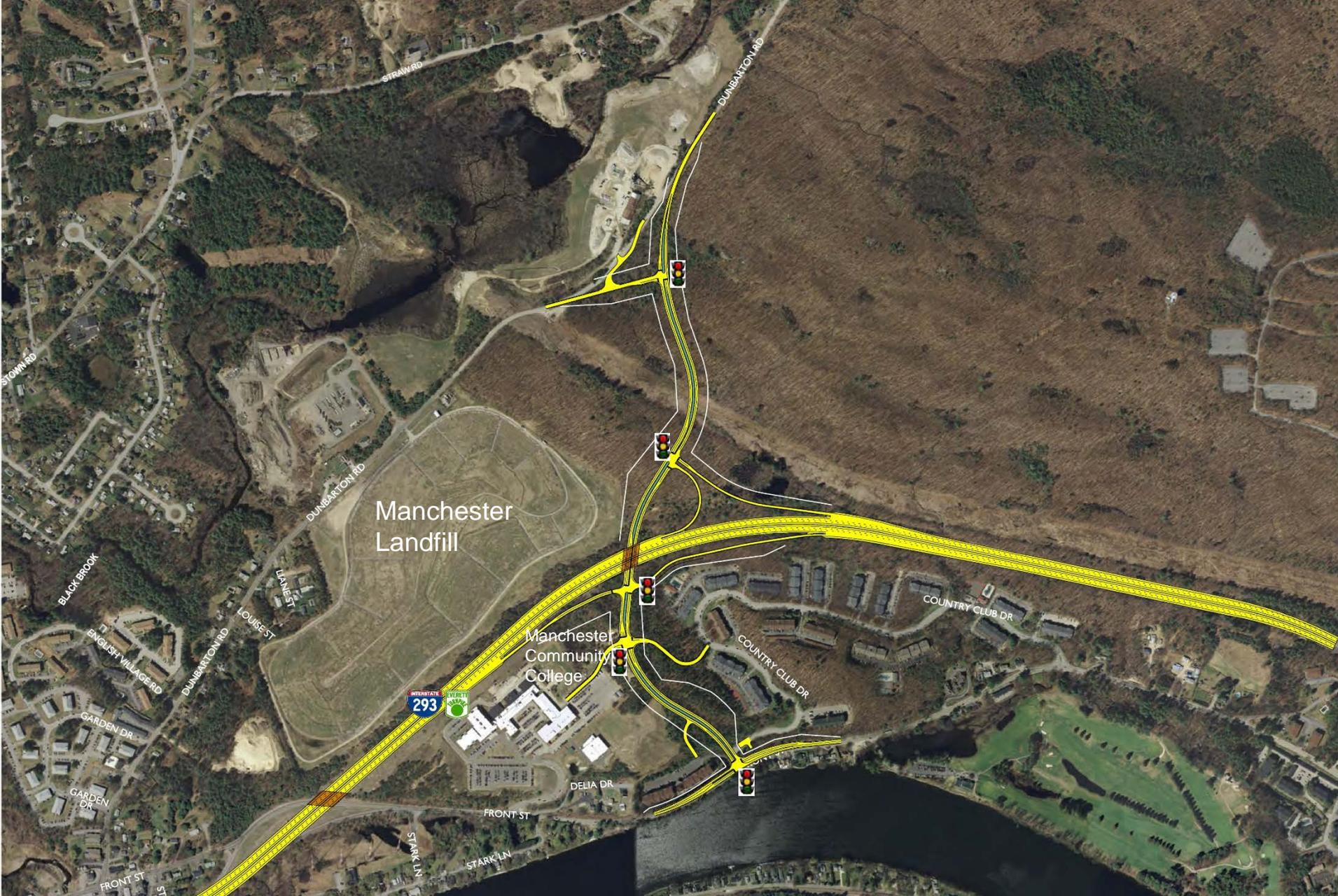
Exit 7 – Diamond Interchange (Current Location)



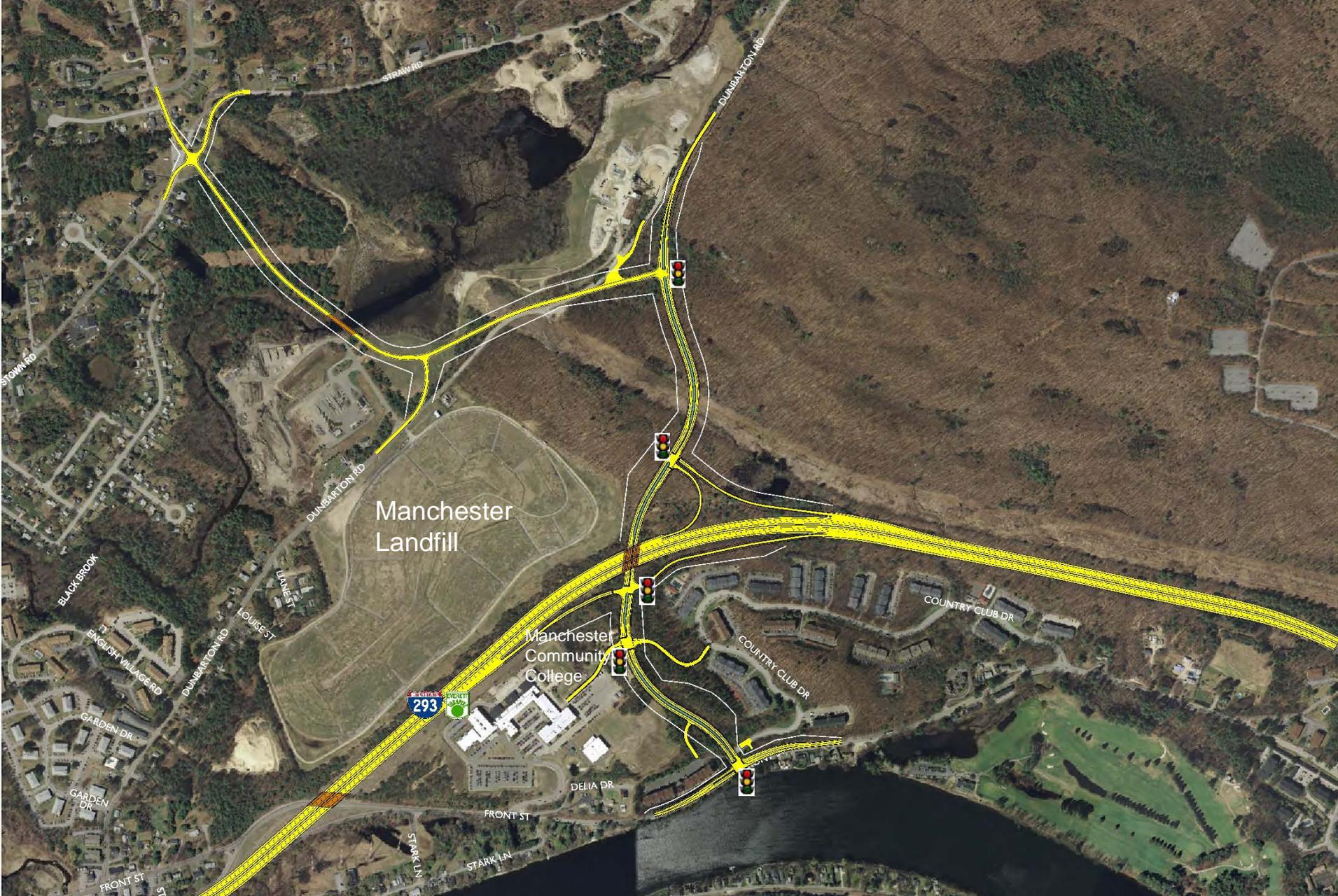
Exit 7 – Potential New Location for Interchange



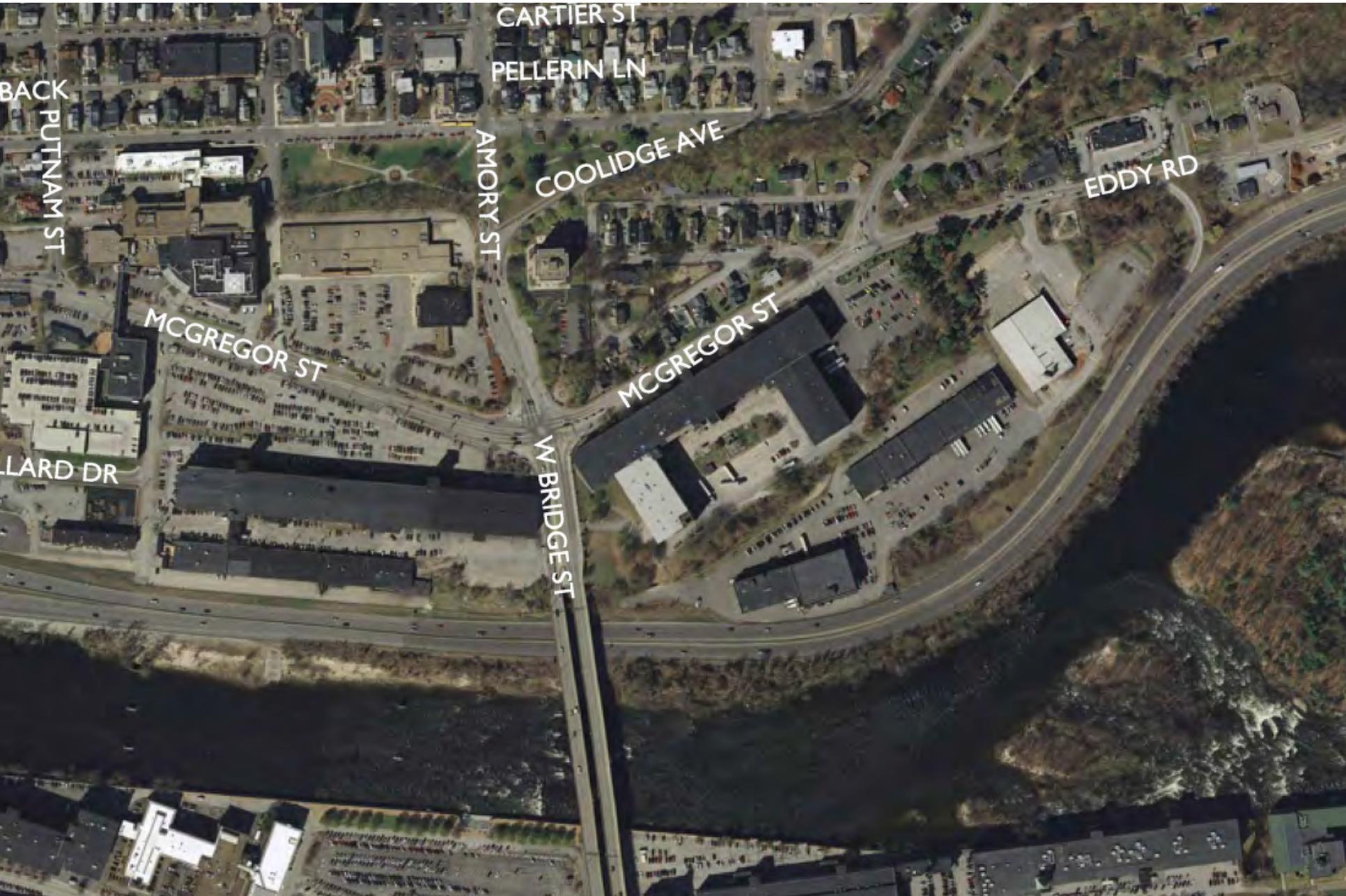
Exit 7 – Potential New Location for Interchange



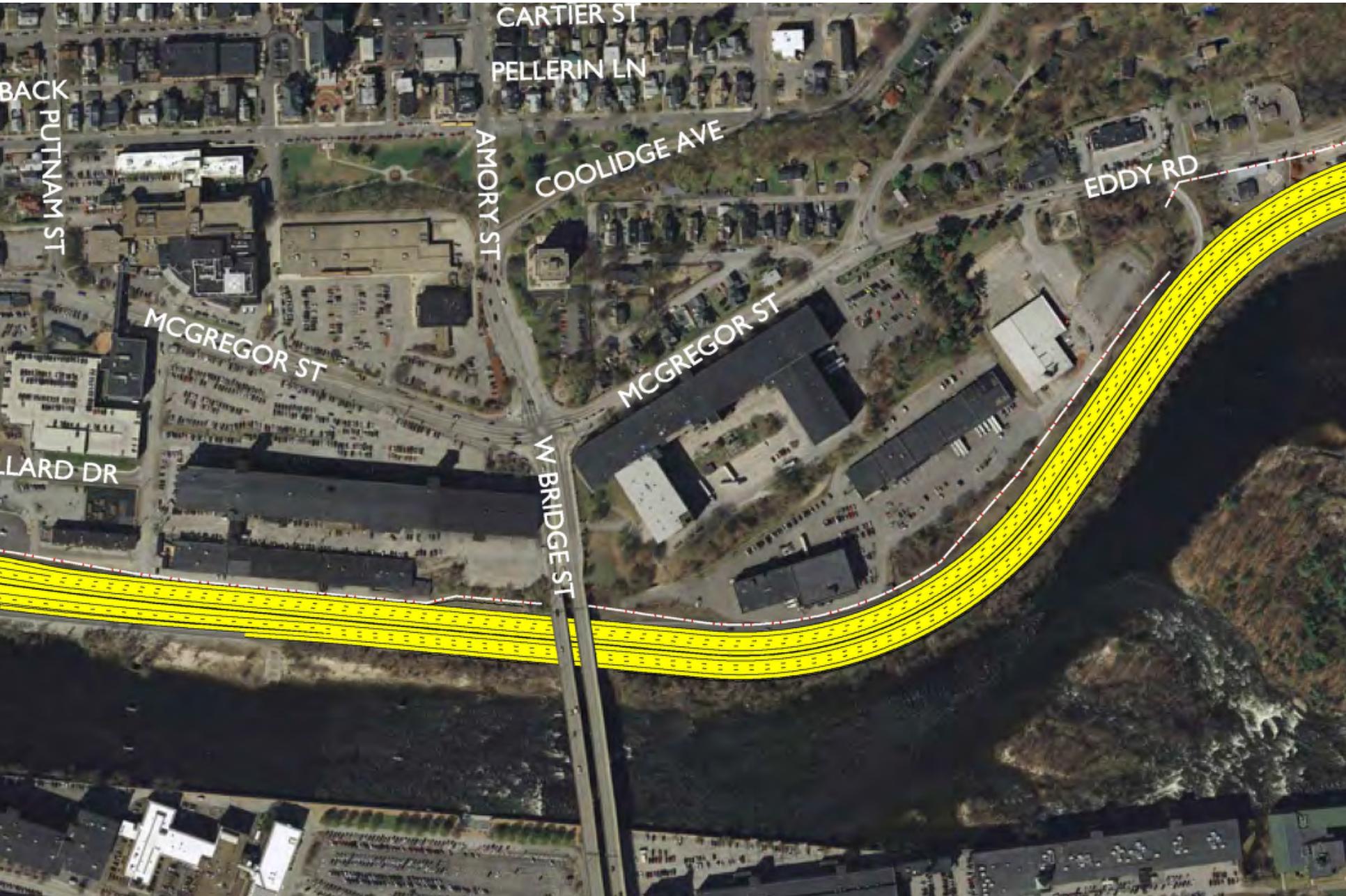
Exit 7 – Potential New Location for Interchange



I-293 Mainline – Additional lane in each Direction



I-293 Mainline – Additional lane in each Direction



I-293 Mainline – Additional lane in each Direction



CARTIER ST

PELLERIN LN

AMORY ST

COOLIDGE AVE

EDDY RD

MCGREGOR ST

MCGREGOR ST

W BRIDGE ST

Historic Mill District

Floodplain

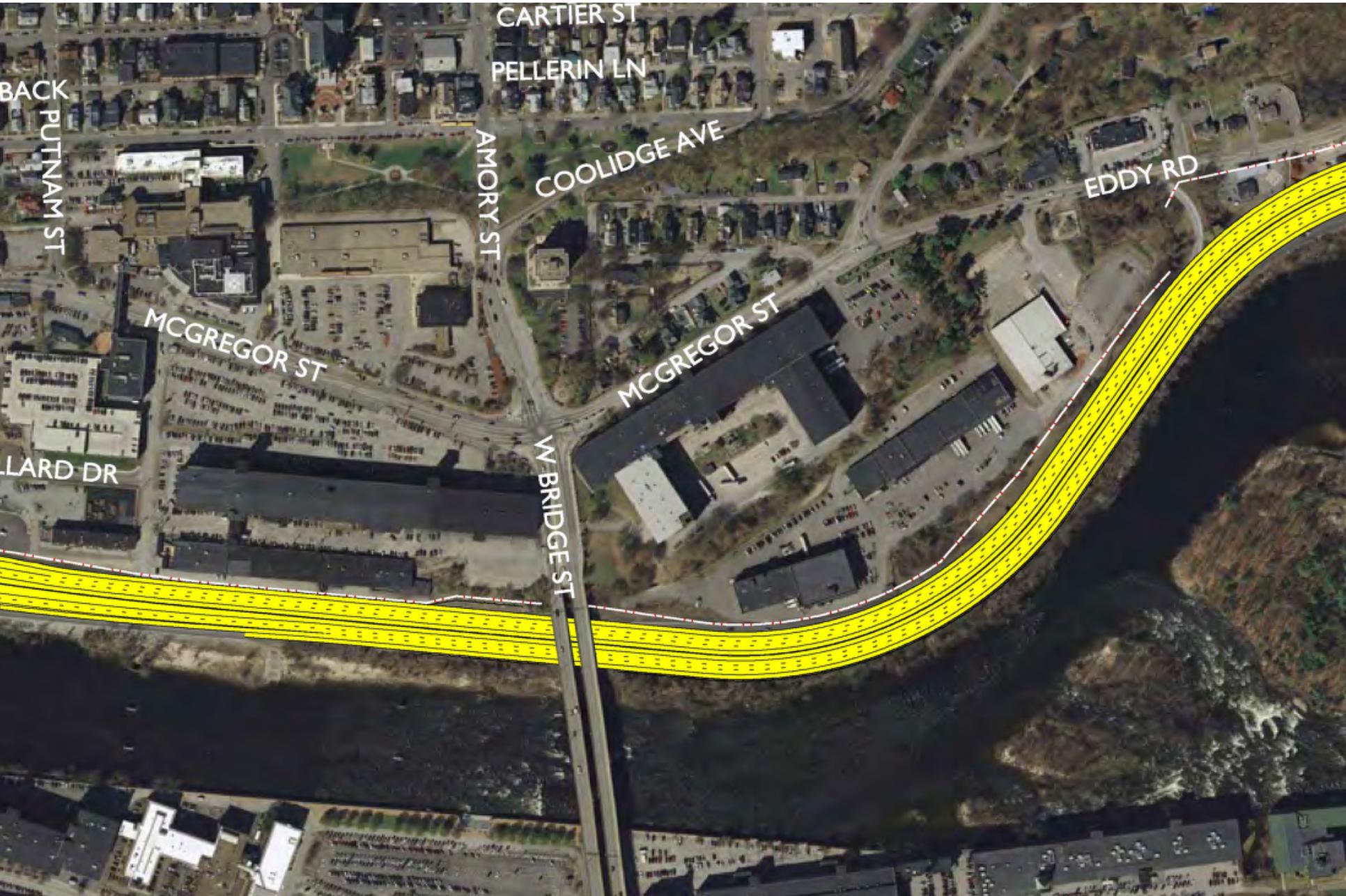
BACK PUTNAM ST

LARD DR

I-293 Mainline – Additional lane in each Direction



I-293 Mainline – Additional lane in each Direction



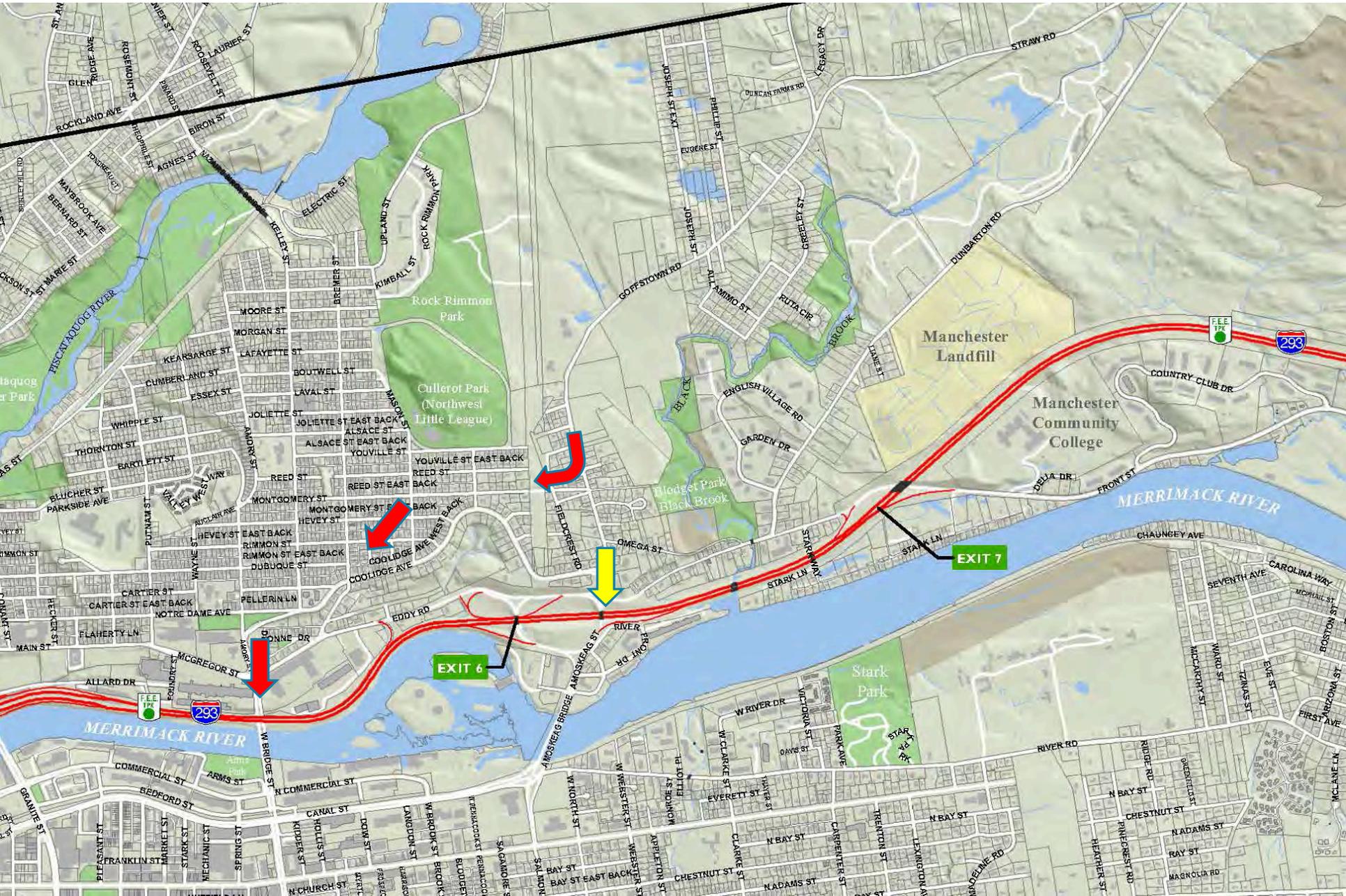
PRELIMINARY TRAFFIC MODEL RESULTS

PRELIMINARY TRAFFIC MODEL RESULTS DIVERSIONARY EFFECTS

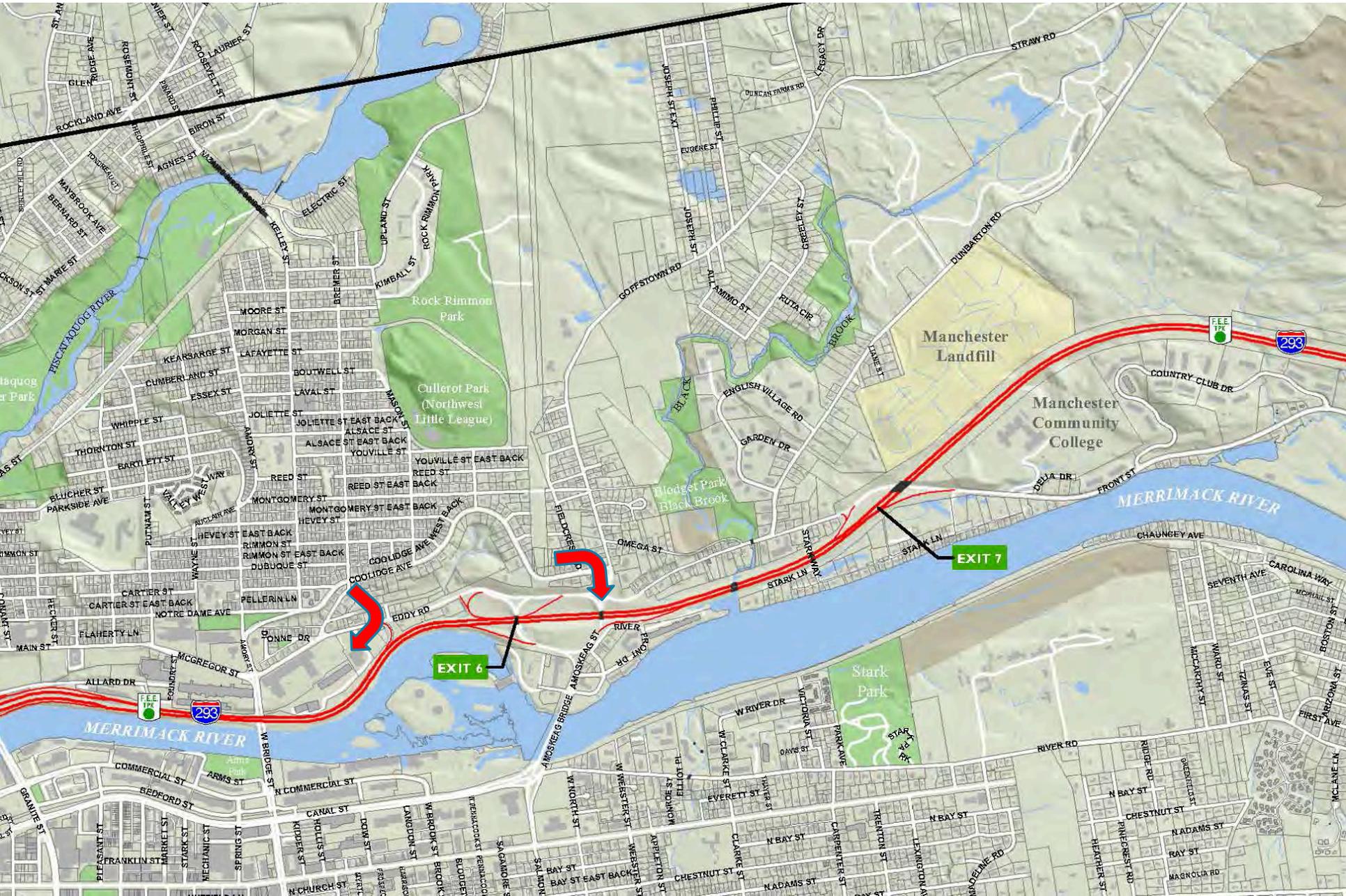
What happens when we upgrade Exit 6?

1. Reduced Congestion and Delay
2. Diversion of traffic flow within west side neighborhood

Study Corridor



Study Corridor



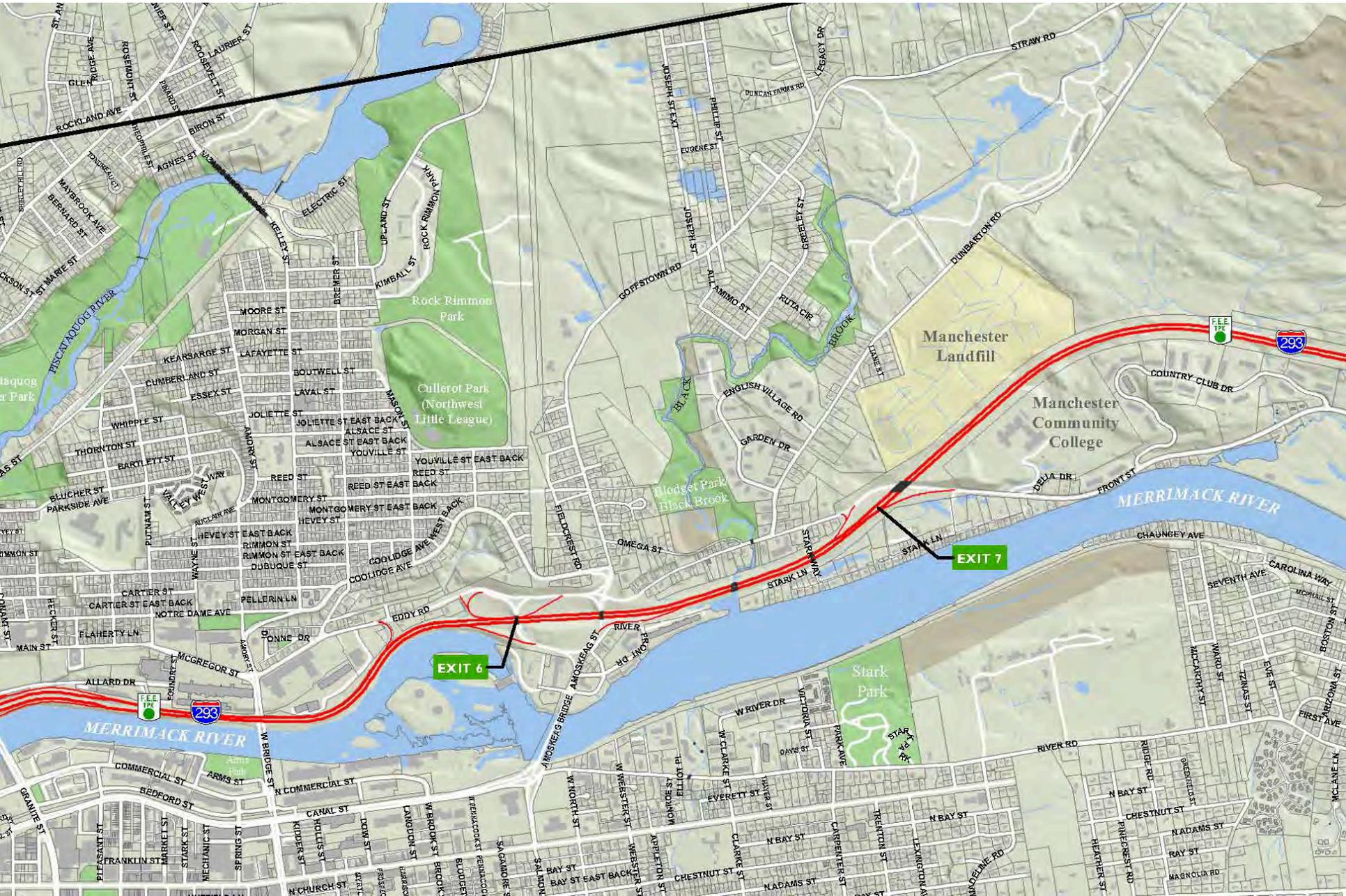
PRELIMINARY TRAFFIC MODEL RESULTS DIVERSIONARY EFFECTS

What happens when we provide a full interchange at the existing Exit 7 location?

Exit 7 – Diamond Interchange (Current Location)



Study Corridor



PRELIMINARY TRAFFIC MODEL RESULTS DIVERSIONARY EFFECTS

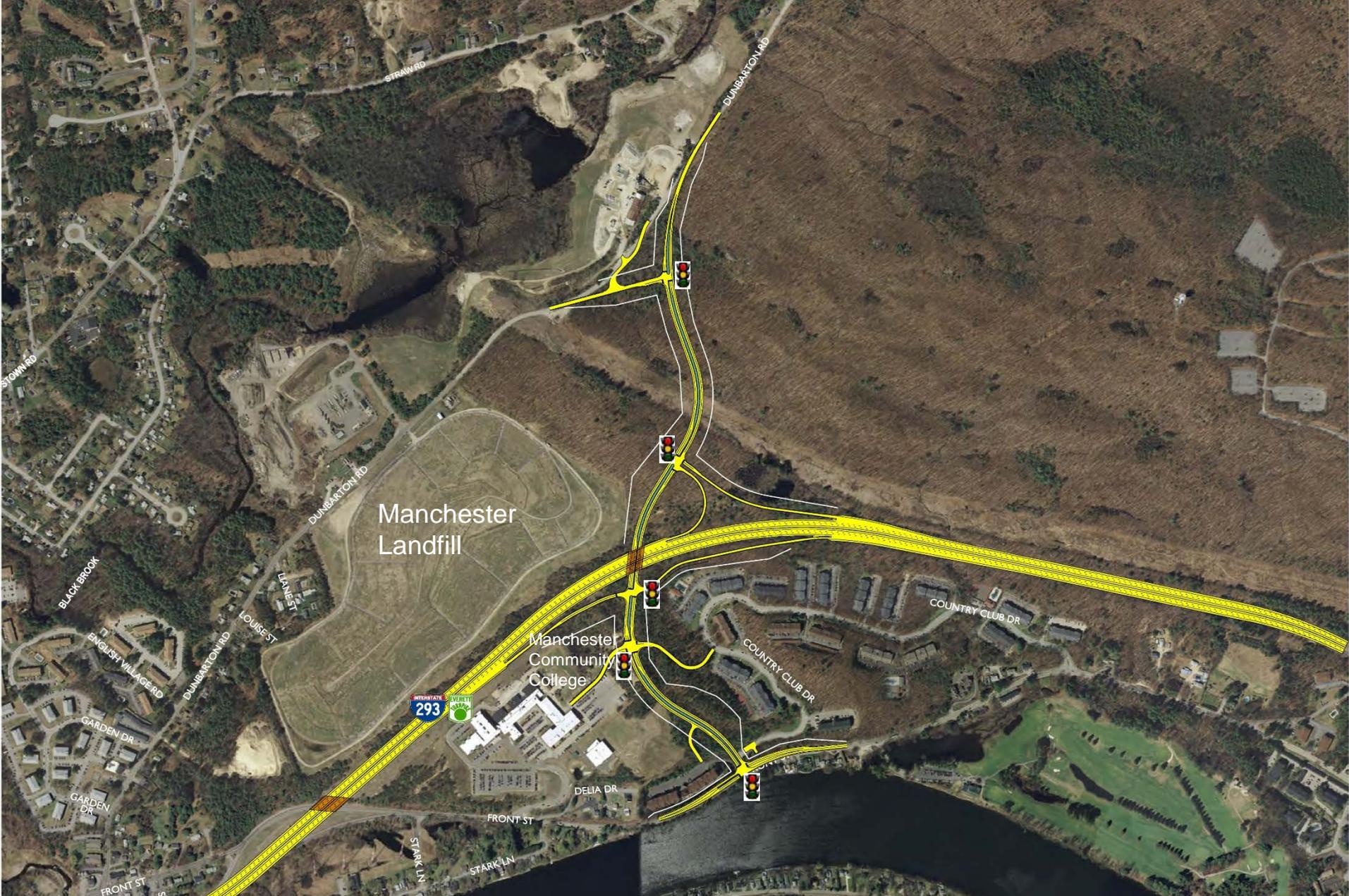
What happens when we relocate Exit 7 to the north?

1. Improved access to Hackett Hill Master Plan Area
2. Reduction of traffic on Goffstown Road

335 vph in AM (24%)

260 vph in PM (18%)

Exit 7 – Potential New Location for Interchange



PRELIMINARY TRAFFIC MODEL RESULTS DIVERSIONARY EFFECTS

What happens when we relocate Exit 7 to the north and provide a connection across the Black Brook?

1. Improved access to Goffstown's industrial zoned land
2. Reduction of traffic on Goffstown Road
 - 435 vph in AM (31%)
 - 480 vph in PM (34%)

Exit 7 – Potential New Location for Interchange



PUBLIC OUTREACH

Key to the success of the project will be to provide an open and consensus driven public participation process.

- TAC Meetings
- Public Informational Meetings
- Public Officials Meetings
- Newsletters
- Project Website

NEWSLETTERS



Improving I-293 Exits 6 and 7

Driving the Greater Manchester Area Forward

For residents and visitors, commuters and businesses, I-293 (FE Everett Turnpike) provides essential links to and around the Greater Manchester area. In order to help maintain safe and efficient travel along this important highway, the New Hampshire Department of Transportation (NH DOT) is leading an effort to improve capacity, safety, and access along a 3.5-mile segment of I-293 from north of Exit 5 (Granite Street) to Exit 7 (Front Street).

What will this project accomplish?

The effort to improve this portion of I-293 will address deficiencies in the safety and design of the highway, while reducing congestion. It will also help support the long-term vision of the surrounding communities, especially Manchester and Goffstown, by enhancing access to the highway—and by accommodating travel related to future growth along the corridor. The I-293 Exits 6 and 7 project will examine travel not just for automobiles, trucks, and buses—but also for pedestrians and bicyclists.



Who is involved?

Because of the importance of I-293 to the region, a collaborative approach is critical on this project. For this reason, the NH DOT, in partnership with the Federal Highway Administration (FHWA), is working closely with a consultant team, led by Bedford-based VHB, as well as the public and a Technical Advisory Committee (TAC). The TAC includes representatives from the communities of Manchester, Goffstown, and Hooksett; the Southern New Hampshire Planning Commission; the chambers of commerce for both Hooksett and Greater Manchester; and the Manchester Community College. Working together, the TAC plays an integral role in guiding the process and seeing that project goals are carried out.

Further Information

Catch up on progress made to date by reviewing the "Part A" planning study, past public meeting presentations, and more so: <https://www.293planningstudy.com/planningstudy-documents.asp>

Check who is on the TAC for your community here: <https://www.293planningstudy.com/tac.asp>

Make your voice heard by sharing feedback here: <https://www.293planningstudy.com/feedback.asp>

For more information about the FHWA's INVI-SI program, visit: <https://www.sustainablehighways.org/>

What's been done so far?

Improving this section of I-293 is a journey in itself. It involves a three-step process, as seen below. "Part A" of the project, completed in December 2013, involved identifying a range of options to address capacity and safety concerns at the interchanges for both Exit 6 and Exit 7. It also examined the possibility of relocating and reconfiguring the Exit 7 interchange.



Next Public Meeting

Learn more about the plans to improve I-293 along Exit 6 and Exit 7 by attending the open house and project presentation scheduled for:

Wednesday, August 10, 2016
6:00 pm
Manchester Community College
Auditorium Room 100
1066 Front St.
Manchester, NH



What's happening now?

Currently, the team is working on "Part B" of this project. This phase involves refining options to improve this segment of I-293 and understanding the impact such changes may have on the natural environment and historical resources in the area. To help with this, the project team is making use of the FHWA's Infrastructure Voluntary Evaluation Sustainability Tool (INVI-SI), a resource that helps transportation agencies like NH DOT incorporate responsibility toward environmental and cultural resources into the design, construction, and maintenance of their projects.

Using this information, as well as feedback from the TAC and public, the project team will then identify a proposed action and present the plan for approval at a public hearing.

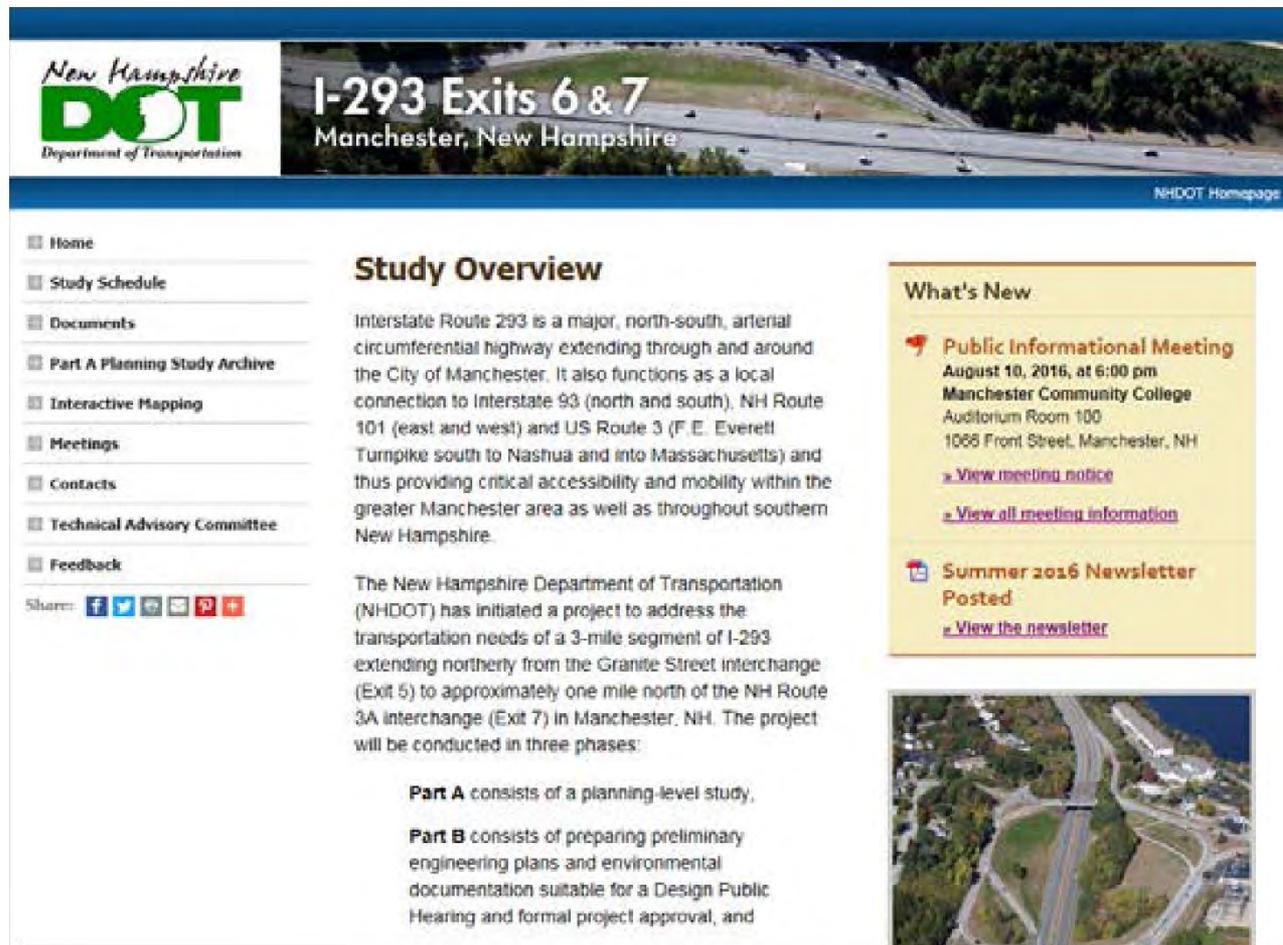
How can I stay informed and participate?

Driving forward these improvements to I-293 is truly a team effort, and everyone's voice is important. You are encouraged to stay involved by:

- Attending a public meeting, such as the one to be held on August 10, 2016
- Visiting our website (www.293planningstudy.com) for more information
- Providing your thoughts and suggestions through the "Feedback" link on the menu along the left side of the project website's homepage
- Connecting with the following key project team members:
 - **NH DOT: Keith Cota, PE**
603.273.1615 or kcota@dot.state.nh.us
 - **Consultant from VHB: Marty Kennedy, PE**
603-391-3900 or mkenney@vhb.com

PROJECT WEBSITE

WWW.293PLANNINGSTUDY.COM





I-293 Exits 6 & 7

Manchester, New Hampshire



- Home
- Study Schedule
- Documents
- Part A Planning Study Archive
- Interactive Mapping
- Meetings
- Contacts
- Technical Advisory Committee
- Feedback

Share: 

Study Overview

Interstate Route 293 is a major, north-south, arterial circumferential highway extending through and around the City of Manchester. It also functions as a local connection to Interstate 93 (north and south), NH Route 101 (east and west) and US Route 3 (F. E. Everett Turnpike south to Nashua and into Massachusetts) and thus providing critical accessibility and mobility within the greater Manchester area as well as throughout southern New Hampshire.

The New Hampshire Department of Transportation (NHDOT) has initiated a project to address the transportation needs of a 3-mile segment of I-293 extending northerly from the Granite Street interchange (Exit 5) to approximately one mile north of the NH Route 3A interchange (Exit 7) in Manchester, NH. The project will be conducted in three phases:

- Part A** consists of a planning-level study,
- Part B** consists of preparing preliminary engineering plans and environmental documentation suitable for a Design Public Hearing and formal project approval, and

What's New

- 
Public Informational Meeting
 August 10, 2016, at 6:00 pm
 Manchester Community College
 Auditorium Room 100
 1066 Front Street, Manchester, NH
[View meeting notice](#)
[View all meeting information](#)
- 
Summer 2016 Newsletter Posted
[View the newsletter](#)



QUESTIONS/COMMENTS?

NHDOT Contact		Consultant Contact
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Chief Project Manager		Senior Principal
Bureau of Highway Design		VHB
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Concord, NH 03302		Bedford, NH 03110
Phone: (603) 271-1615		Phone: (603) 391-3900
Email: kcota@dot.state.nh.us		Email: mkenedy@vhb.com



I-293 EXIT 6 & 7 (PART B)

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