



I-84 HARTFORD PROJECT

I-84 Hartford Project **Public Advisory Committee Meeting #14**

March 1, 2017





New PAC Members / Organizations

- Julia Rivera – Trinity College
- Adina Giannelli - Bike Walk CT
- Jillian Massey – CRCOG, Alternate



Meeting Agenda

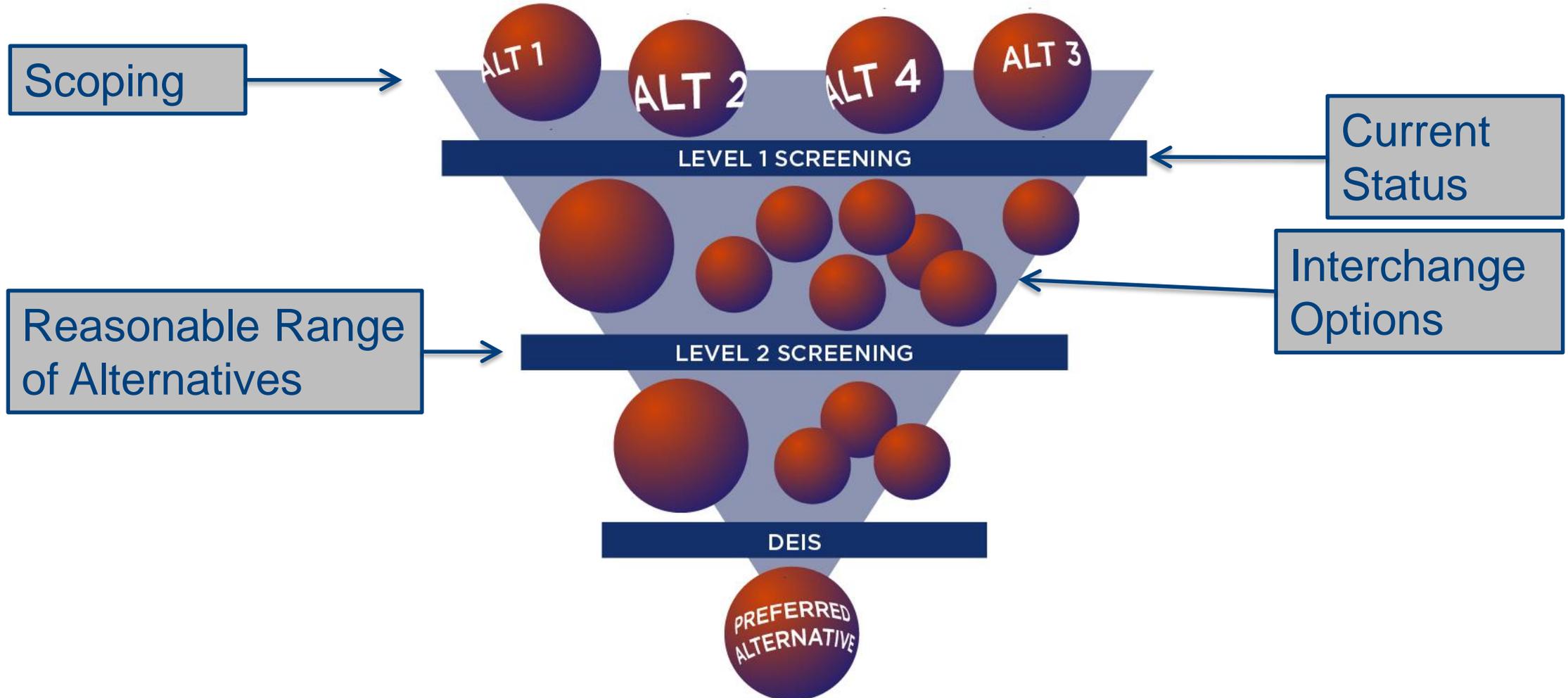
1. Welcome
2. Alternatives update
3. Environmental documentation
4. Rail station area planning
5. I-84 / I-91 Interchange Study coordination
6. Outreach



Alternatives Update



Alternatives Screening





Screening Next Steps

- FHWA review and concurrence on Level 1 Screening
- Level 2 Screening
 - Eliminate interchange options that do not meet Purpose and Need

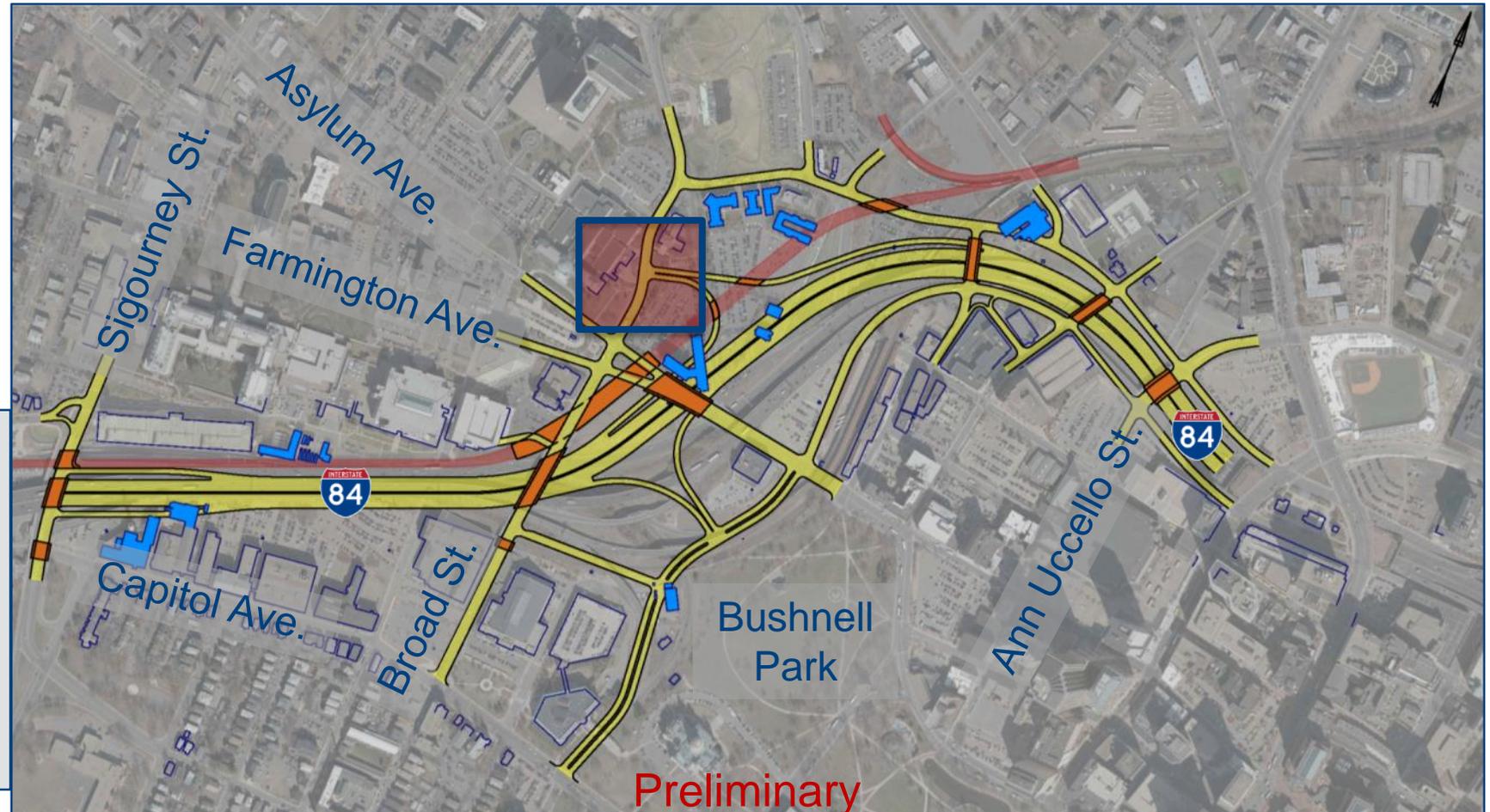


Recent Progress – East Options

- Critical flaw in westbound ramps at Cogswell Street (Option 3B-E2(S))

Legend:

Roadway At-Grade	
Bridge Structure	
Railroad Corridor	
Potential Building Impacts	

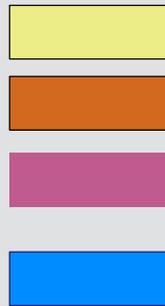


Recent Progress – East Options

- Critical flaw in westbound ramps at Cogswell Street (Option 3B-E2(S))

Legend:

- Roadway At-Grade
- Bridge Structure
- Railroad Corridor
- Potential Building Impacts





Recent Progress – East Options

- Critical flaw in westbound ramps at Cogswell Street (Option 3B-E2(S))

Legend:

Roadway At-Grade



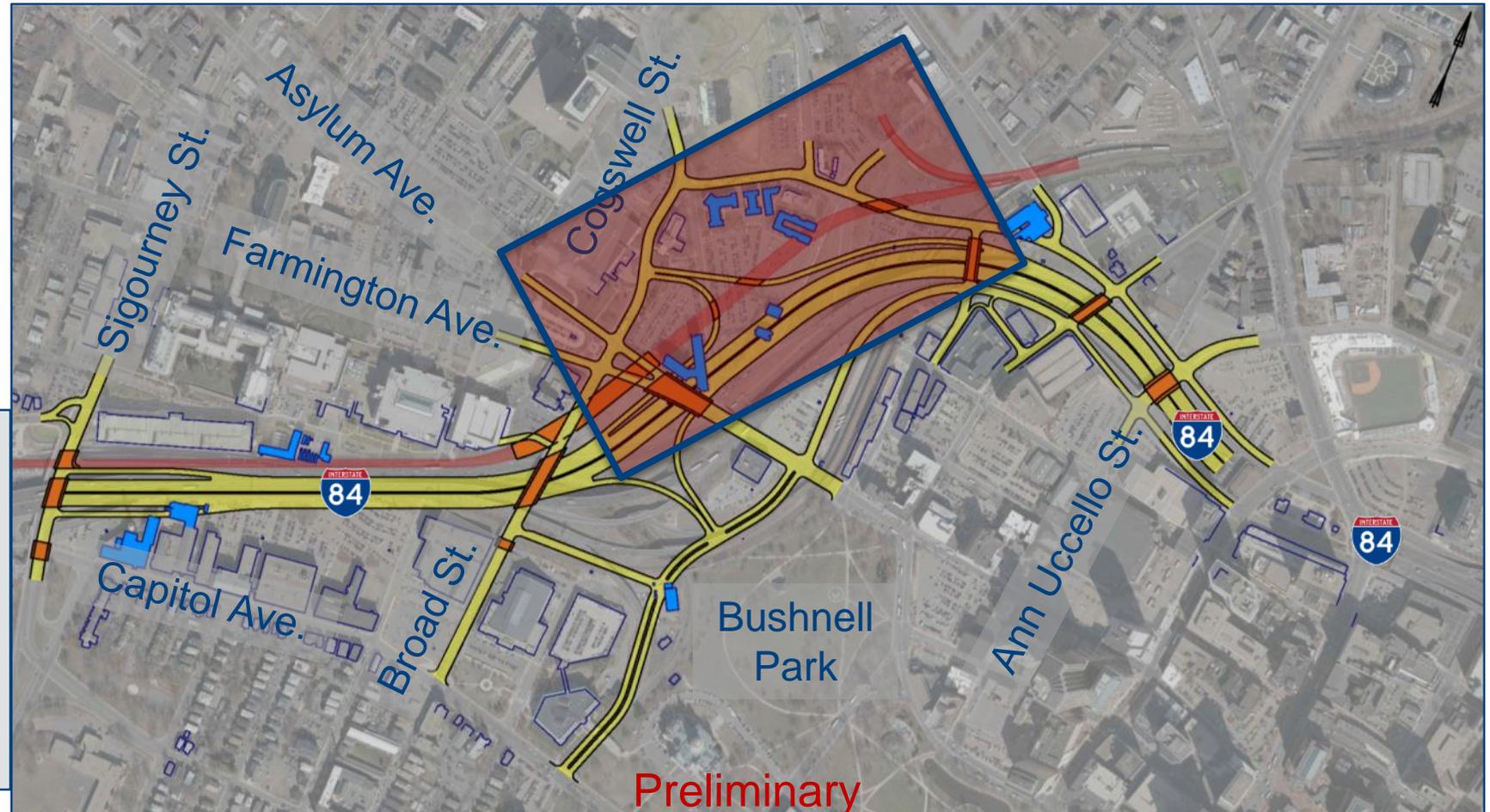
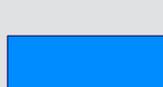
Bridge Structure



Railroad Corridor



Potential Building Impacts





Important Considerations (East Options)

- Volume
- Distribution
- Trident
- Operations
- Access
- Impacts (including historic)
- Connections
- Stakeholders / neighborhoods
- Transit Oriented Development (TOD) and open space potential



Recent Progress - Rail

- Recent publication of NEC FUTURE Final EIS
 - Two tracks along rail corridor
 - Four intercity, two commuter trains per hour (Amtrak)
 - Upgrade to “hub” or “major hub”
- CTDOT requested evaluation of four track station



Proposed Rail Relocation

- Necessary for Lowered and Tunneled alternatives
- Two-track corridor
- Approximate limits: Park St to Walnut St

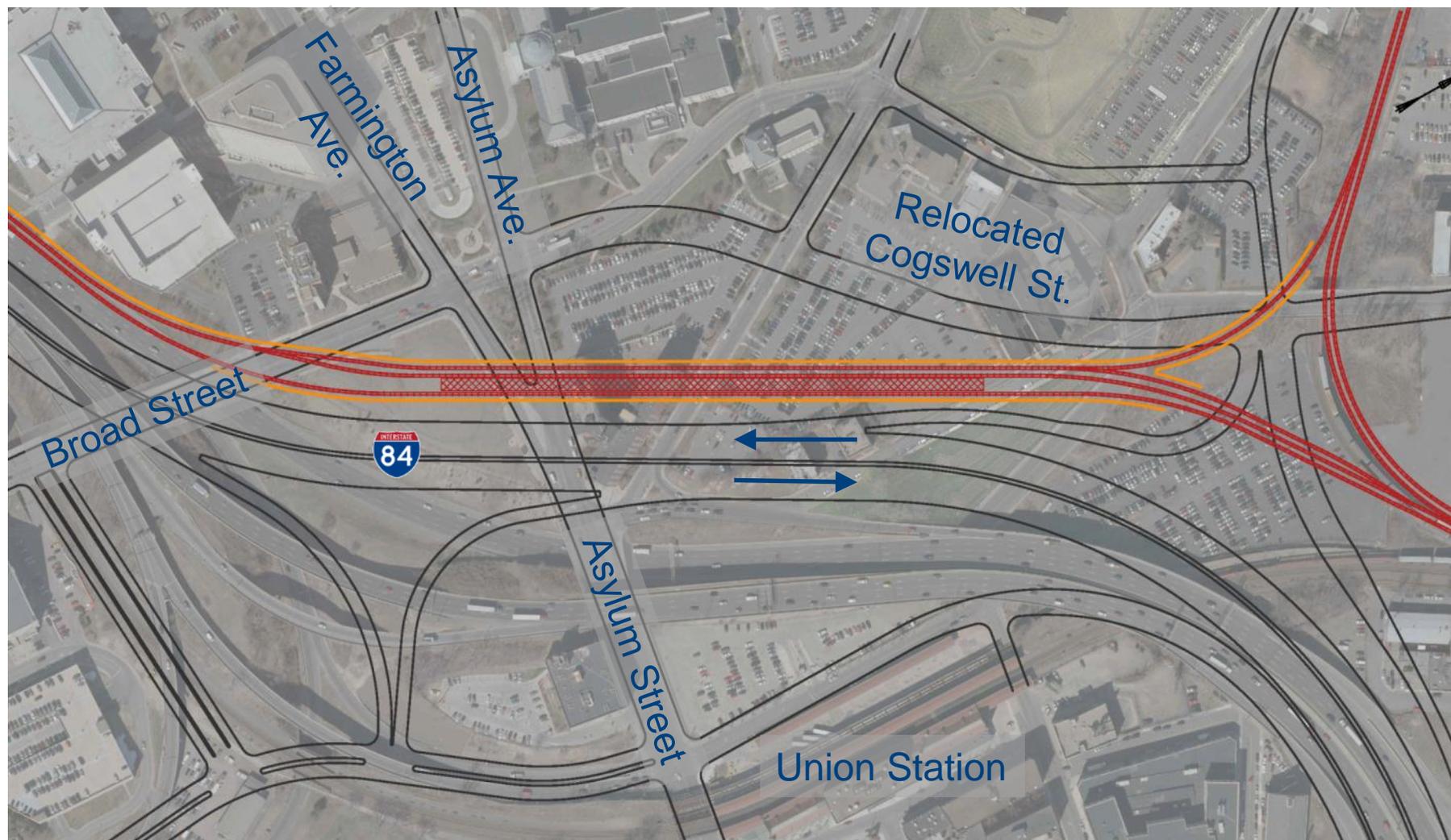




Proposed Station

Three Tracks

- Two passenger tracks
- Island platform
- Freight bypass track
- Potential Griffin Line connection

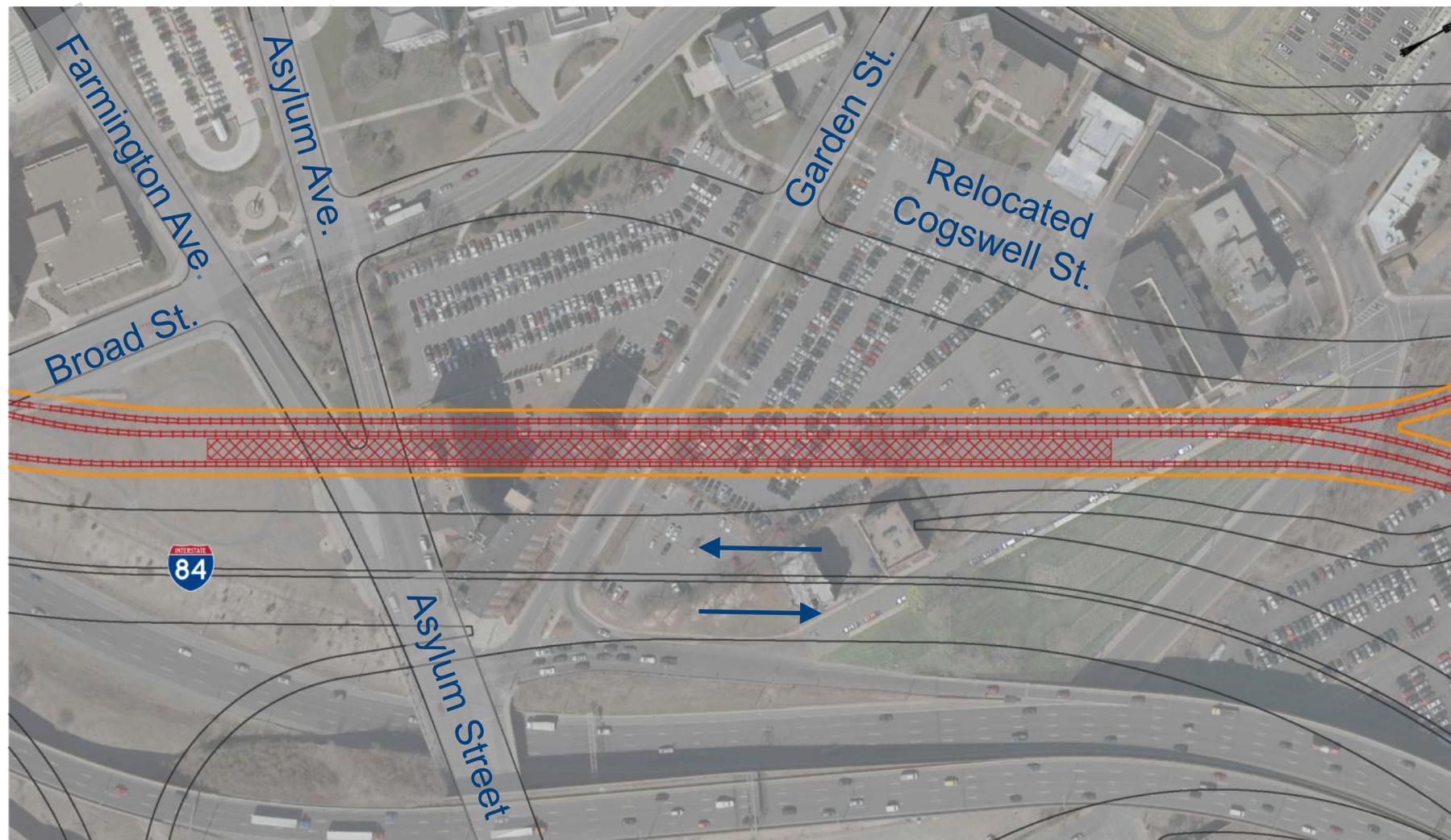




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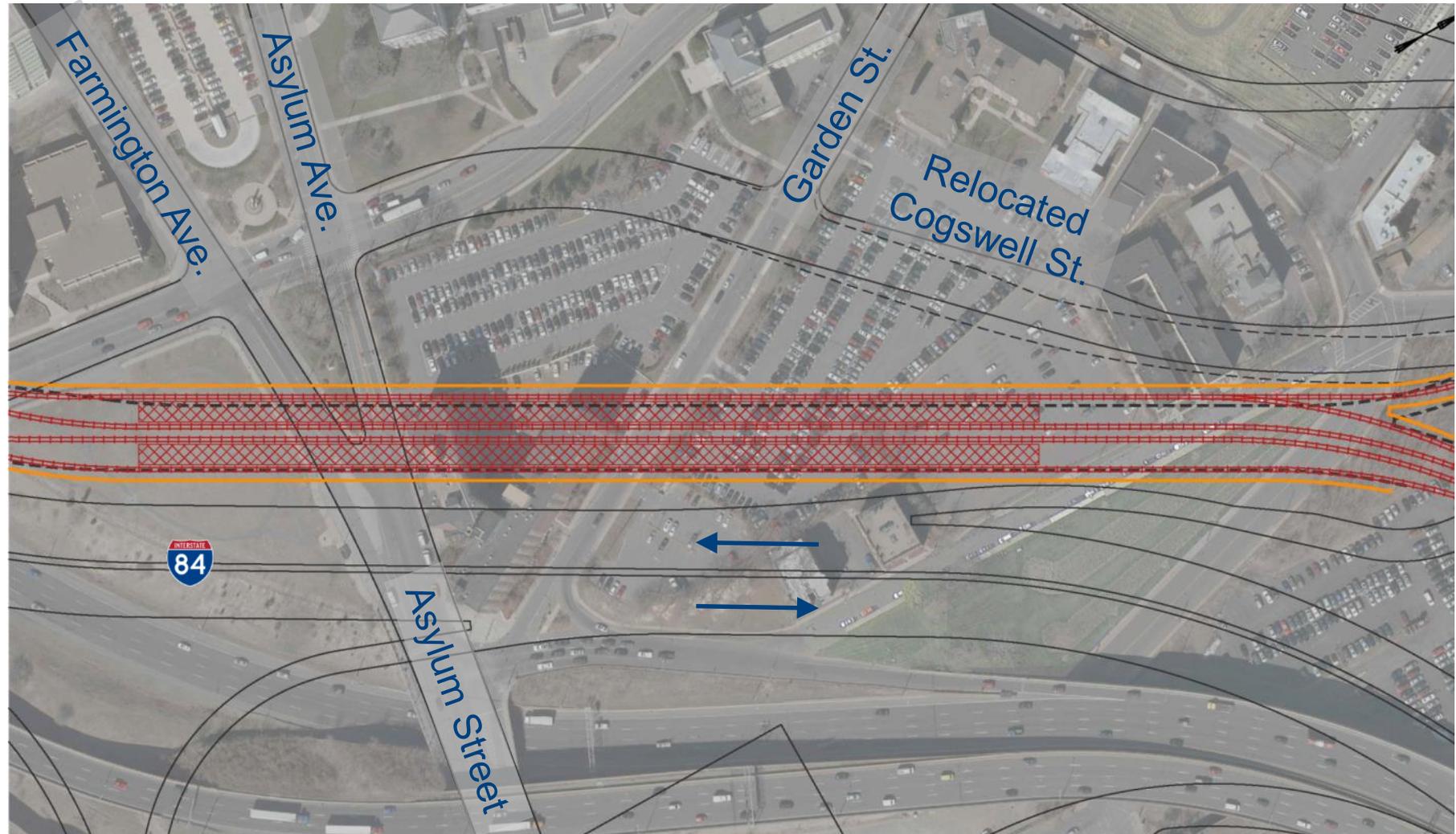


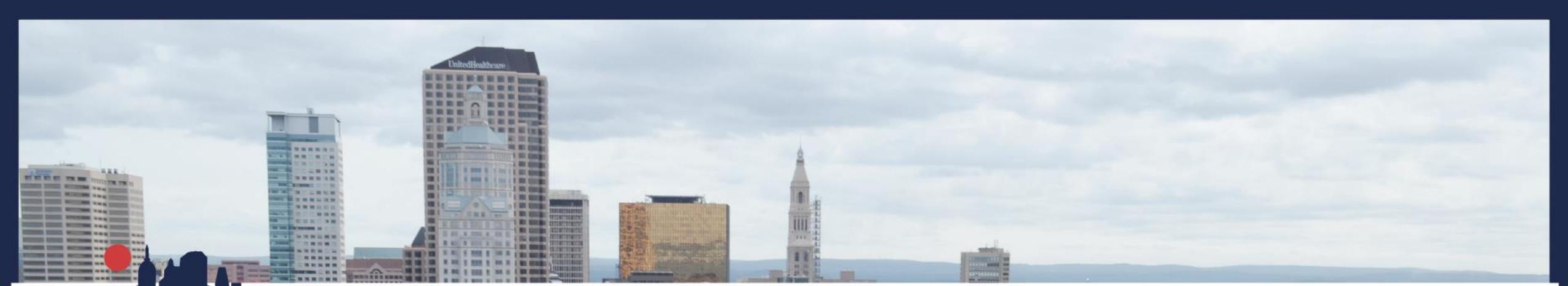


Proposed Station

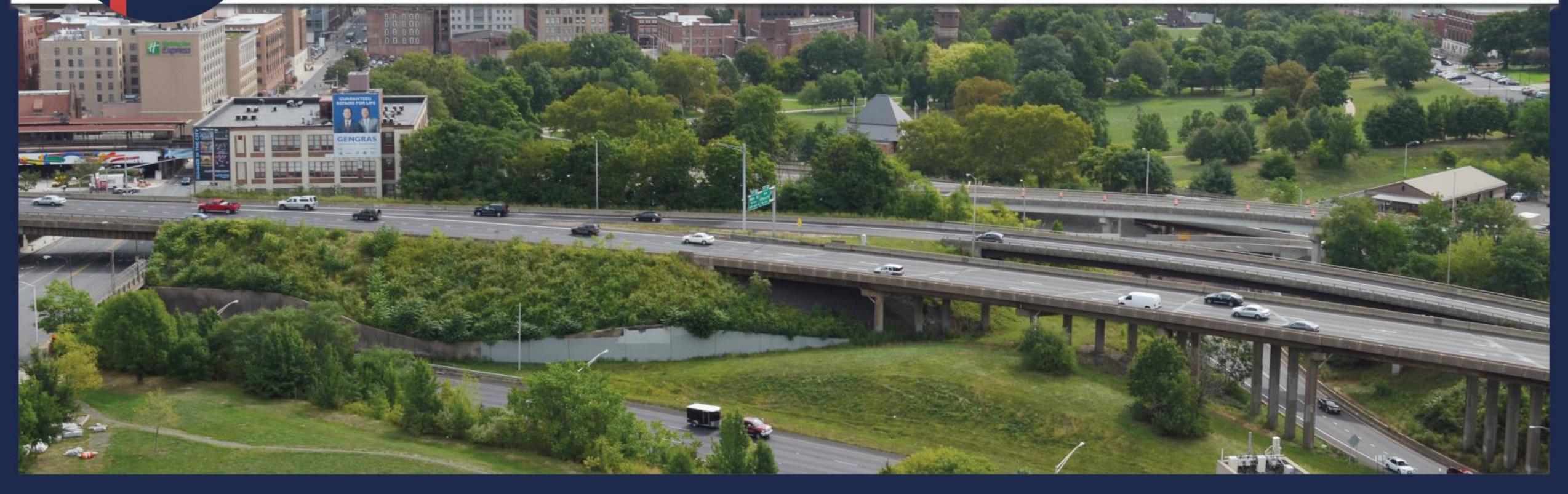
Four Tracks

- All tracks could serve passenger trains
- Two island platforms
- Gauntlet track for oversized freight
- Potential Griffin Line connection





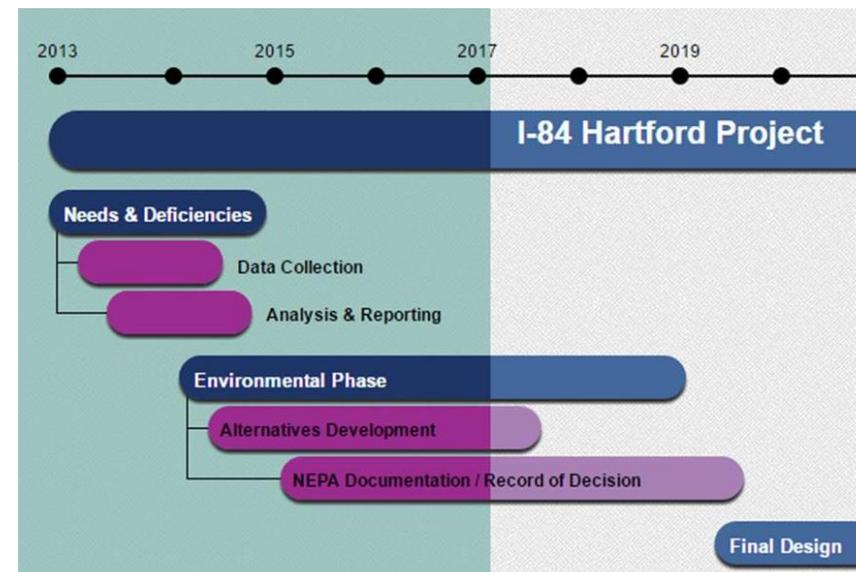
Environmental Documentation





NEPA / CEPA Timeline

- On-going technical analysis
- Draft EIS out for public review, summer 2018
- Public Hearing, end of 2018
- Final EIS, Summer 2019
- Record of Decision, Fall 2019





Draft EIS Format

- Purpose and Need
- Alternatives
- Agency Coordination and Public Outreach
- Existing Conditions, Impacts and Mitigation
- Indirect and Cumulative Impacts
- Construction Impacts
- Appendices



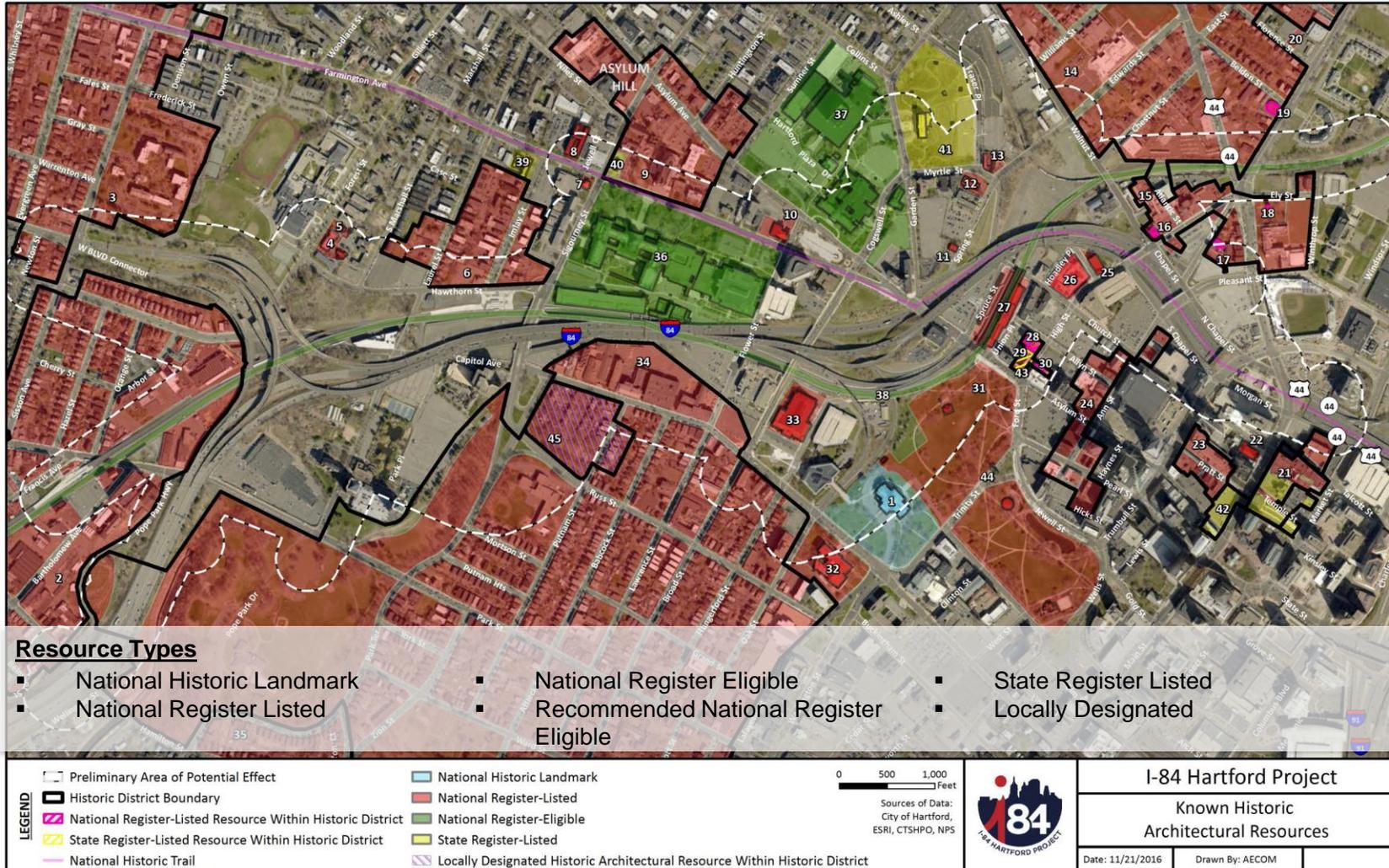


Cultural Resources

- **Above ground resources (architectural)**
 - ~45 known historic resources
 - ~15 Potential historic resources
- **Below ground resources (archeological)**
 - 50 acres analyzed for archeological potential



Known Architectural Resources





Preliminary Results of Architectural Survey

- Identified Area of Potential Effect (APE)
 - 45 known historic resources identified within APE
 - 80 resources within APE not previously surveyed and evaluated were assessed
- 15 of 80 resources identified as potentially NR eligible
- 65 of 80 resources recommended non-NR-eligible
- DOT, FHWA, and SHPO are slated to review NR eligibility recommendations and preliminary effects analysis



Cultural Resources

Summary of Impacts

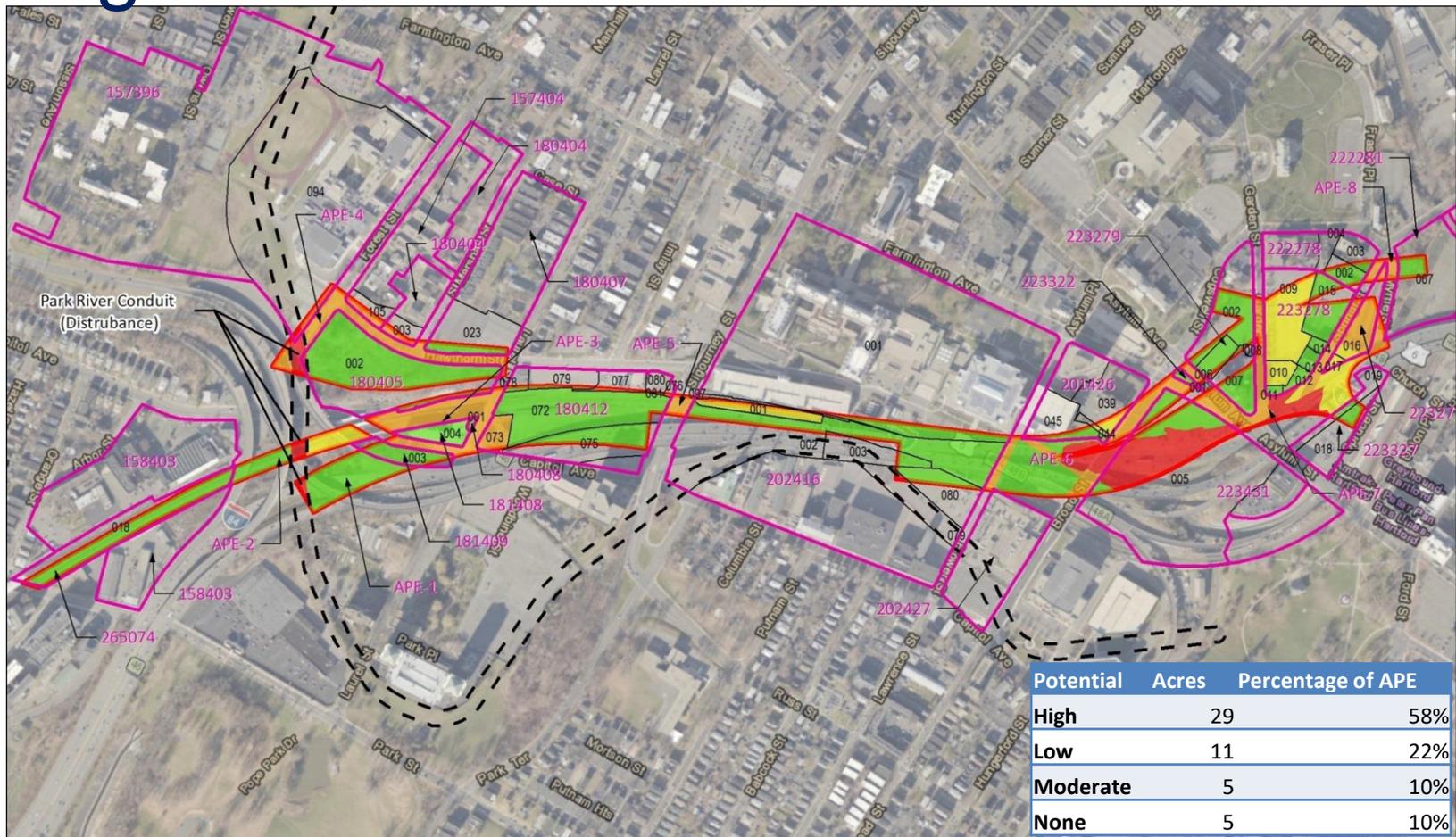
Alternative	# of Known Historic Resources Directly Affected	# of Potentially NR-Eligible Resources Directly Affected	Total Historic Resources Directly Affected by Alternative
Elevated	3	2	5
Lowered	4	7	11
Tunnel	7*	8	15

*4 of 7 known resources are within NR-listed Frog Hollow Historic District

Note: Preliminary effect determination pending SHPO concurrence



Archaeological Potential



Potential	Acres	Percentage of APE
High	29	58%
Low	11	22%
Moderate	5	10%
None	5	10%

LEGEND

Project Features

- Proposed Excavation Area (Red outline)
- Park River Conduit LOD (Dashed line)
- Block/Section (Pink outline)
- Lot in APE (White outline)

Archaeological Potential

- High (Green)
- Moderate (Yellow)
- Low (Orange)
- None (Red)

0 250 500 feet

I-84 Hartford Project
Archaeological Potential

Drawn By: AECOM
Date: 9/1/2016

AECOM



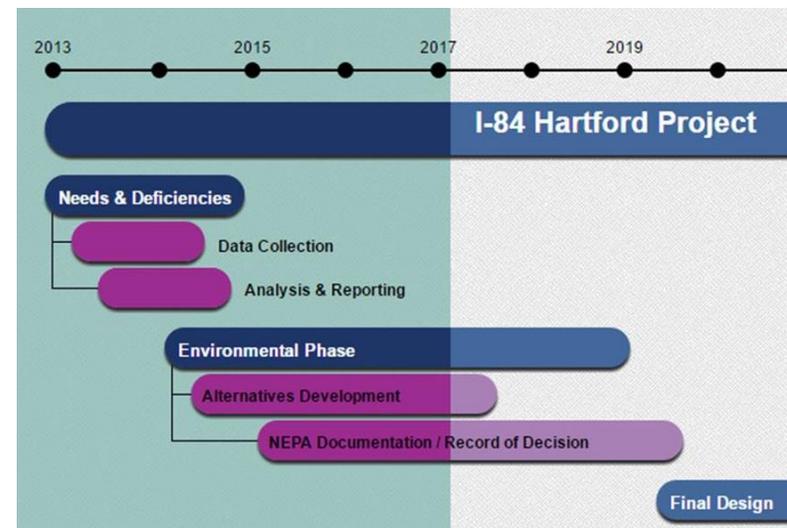
Next Steps

■ Cultural resources

- FHWA / SHPO review Final Determination of Effect and Mitigation Measures
- Memorandum of Agreement

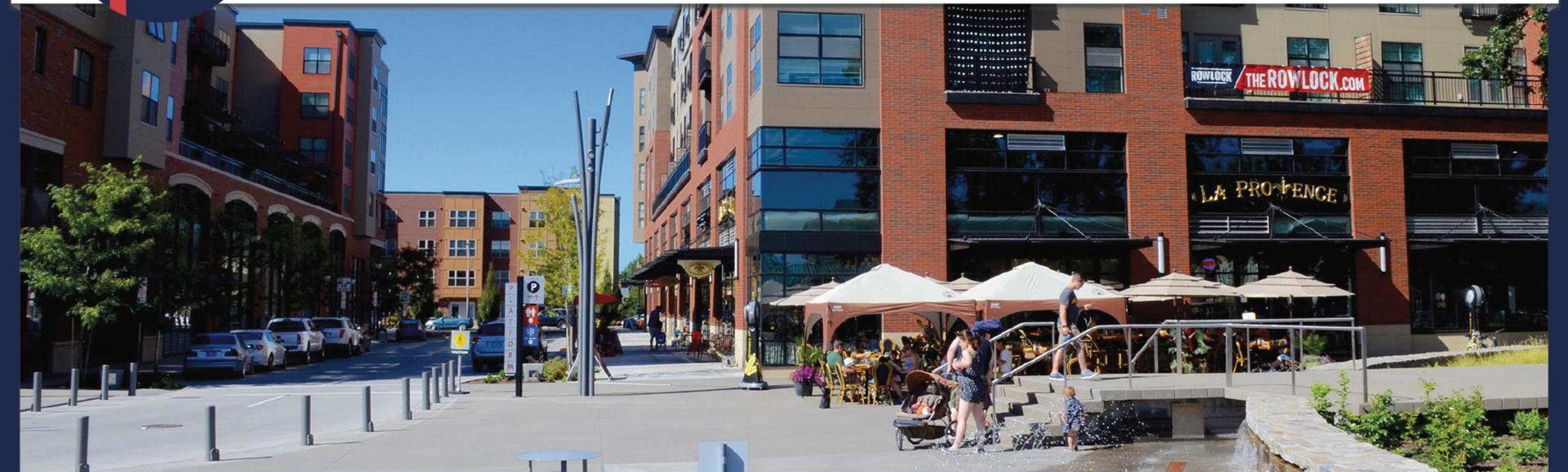
■ Environmental phase

- Draft EIS: fall 2018
- Public Hearing: end 2018
- Final EIS: summer 2019
- Record of Decision: fall 2019





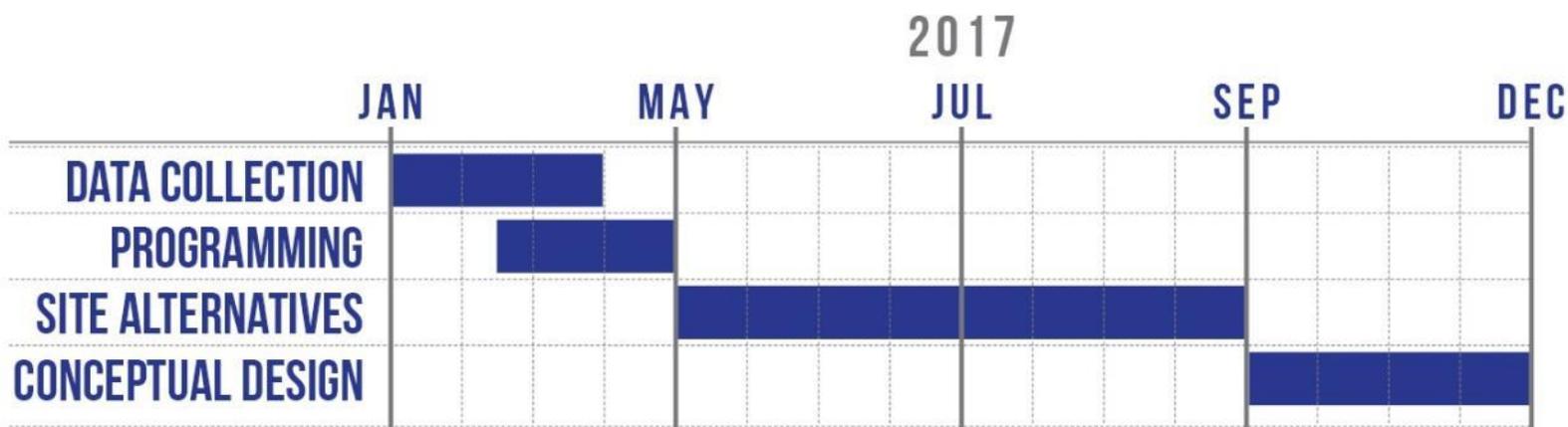
Multimodal Station Area Planning





Hartford Multimodal Station Planning and Design

- Kicked off in January 2017
- 12 month effort
 - Define program
 - Develop site layout alternatives
 - Identify preferred site layout
 - Prepare conceptual design plans (15%)
- Status
 - Data collection is ongoing
 - Visioning / programming exercise is starting





Examples of Multimodal Station Facilities



Anaheim Regional Transportation Intermodal Center



Vision: Denver Union Station - 2040



Examples of Multimodal Station Facilities



Transbay Transit Center – San Francisco



Milwaukee Intermodal Center

Programming and Design Considerations

- Modes / users
- Functional values and priorities
- Design restrictions and guidelines
 - City building codes / zoning regulations
 - Design guidelines (Amtrak, NHHS HSR Program) - Category 1 Station?
 - Platform design (1000' long x 24' wide, 4' above top of rail)
 - Historic Union Station





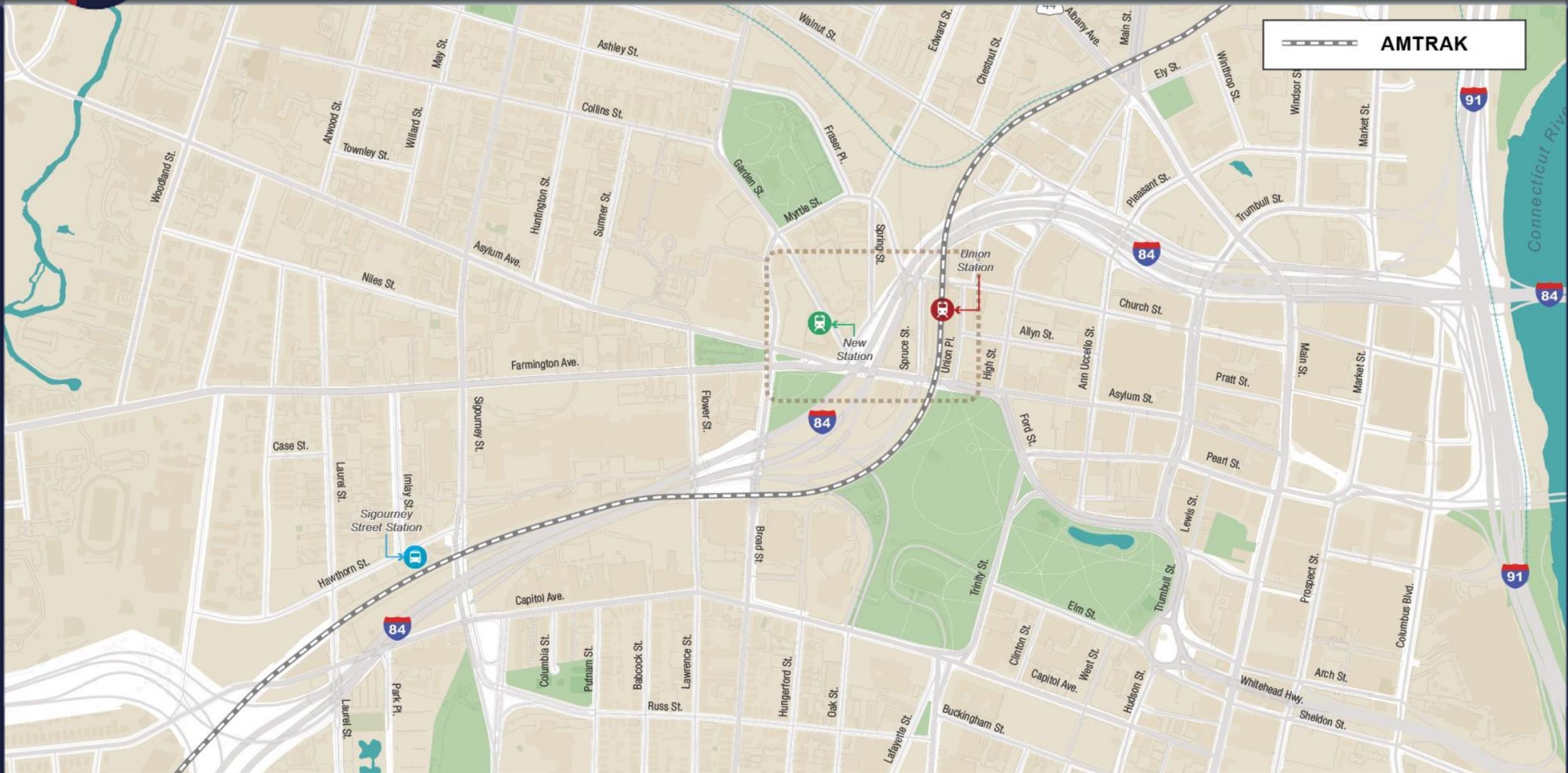
Programming and Design Considerations

- Access considerations
- Parking requirements
- Neighborhood character / linkages
- Transit Oriented Development / mixed use facility
- Streetscape and public art



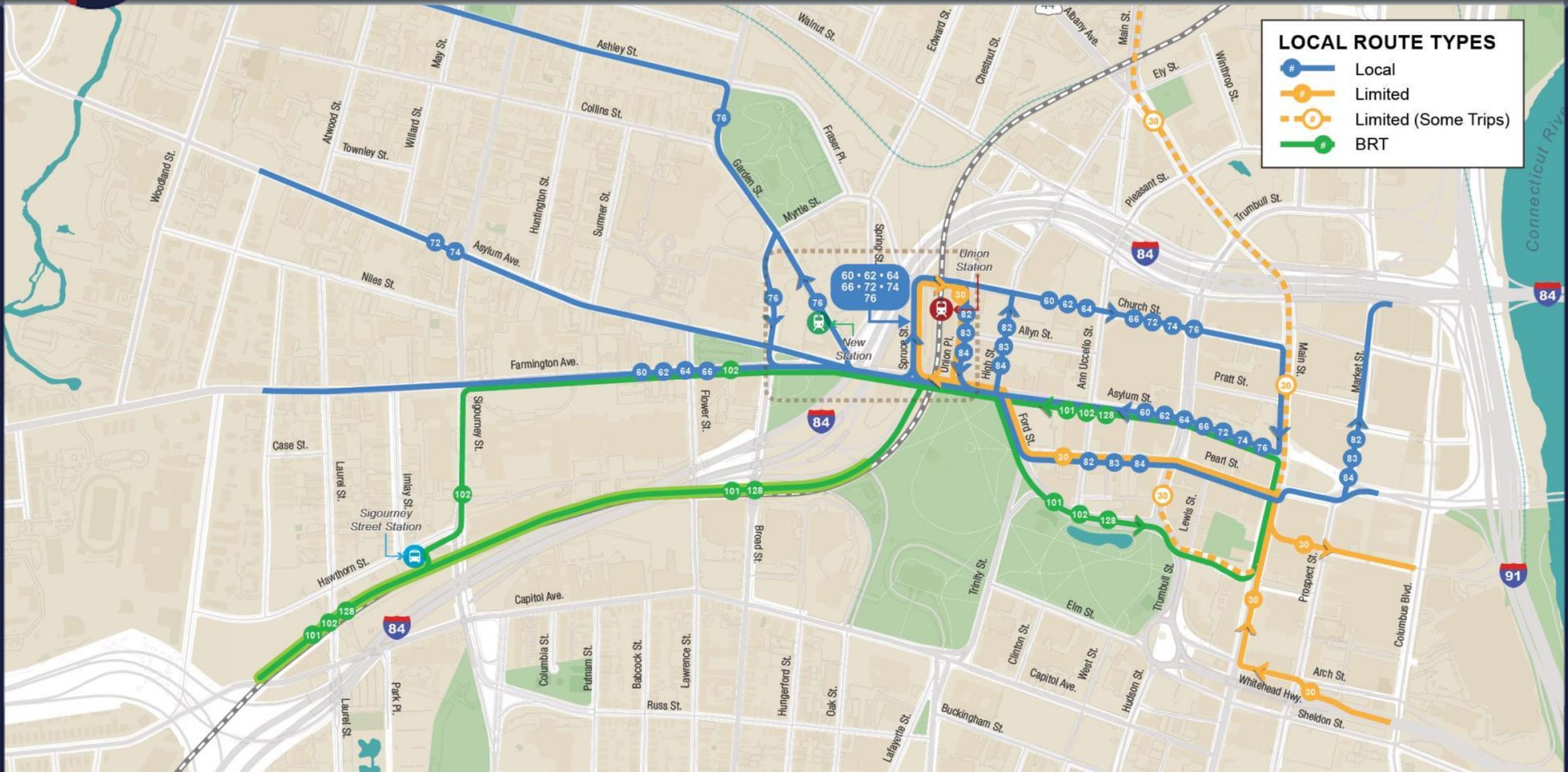


I-84 HARTFORD PROJECT





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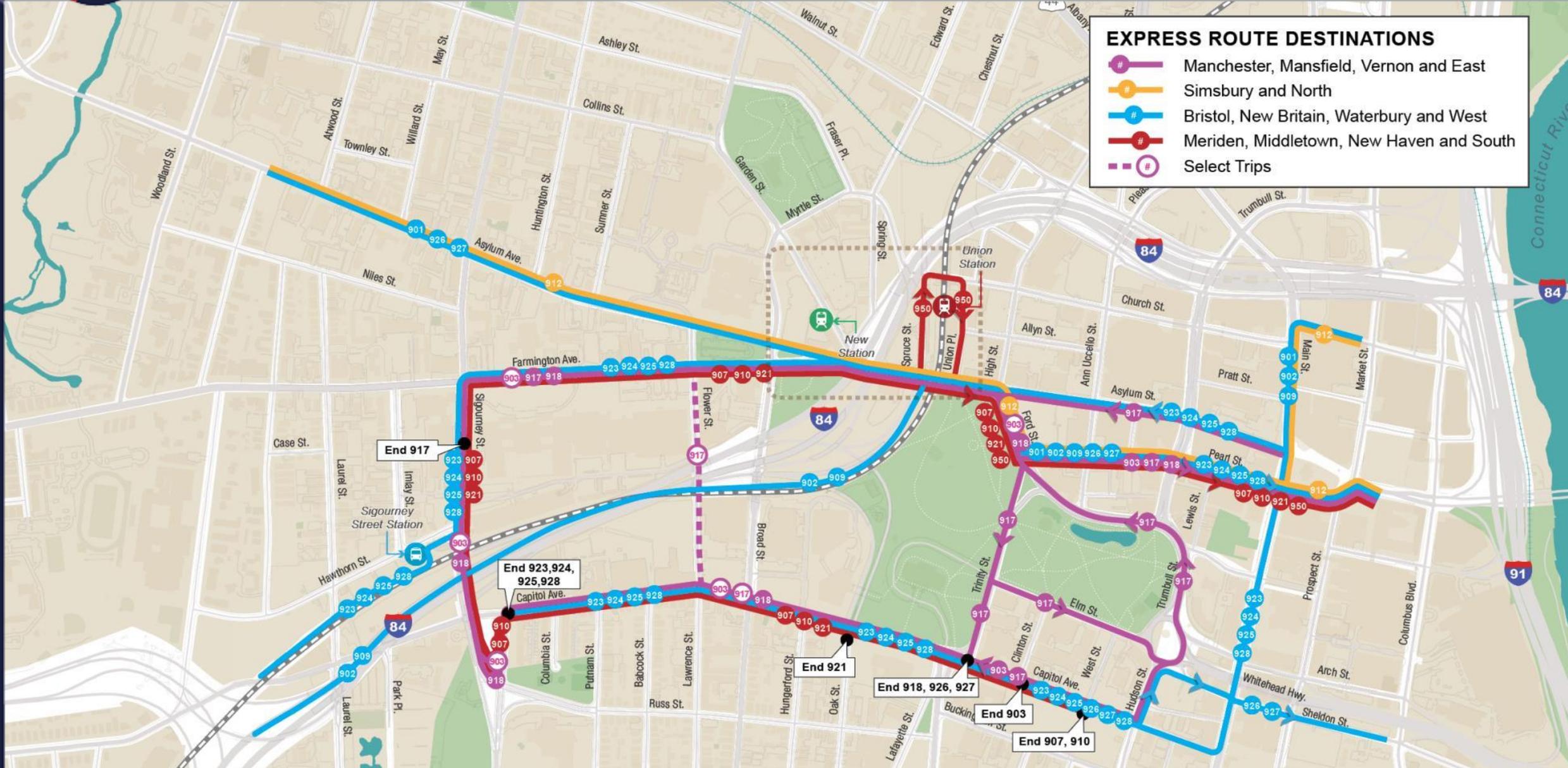




I-84 HARTFORD PROJECT

EXPRESS ROUTE DESTINATIONS

- Manchester, Mansfield, Vernon and East
- Simsbury and North
- Bristol, New Britain, Waterbury and West
- Meriden, Middletown, New Haven and South
- Select Trips



End 917

End 923, 924, 925, 928

End 921

End 918, 926, 927

End 903

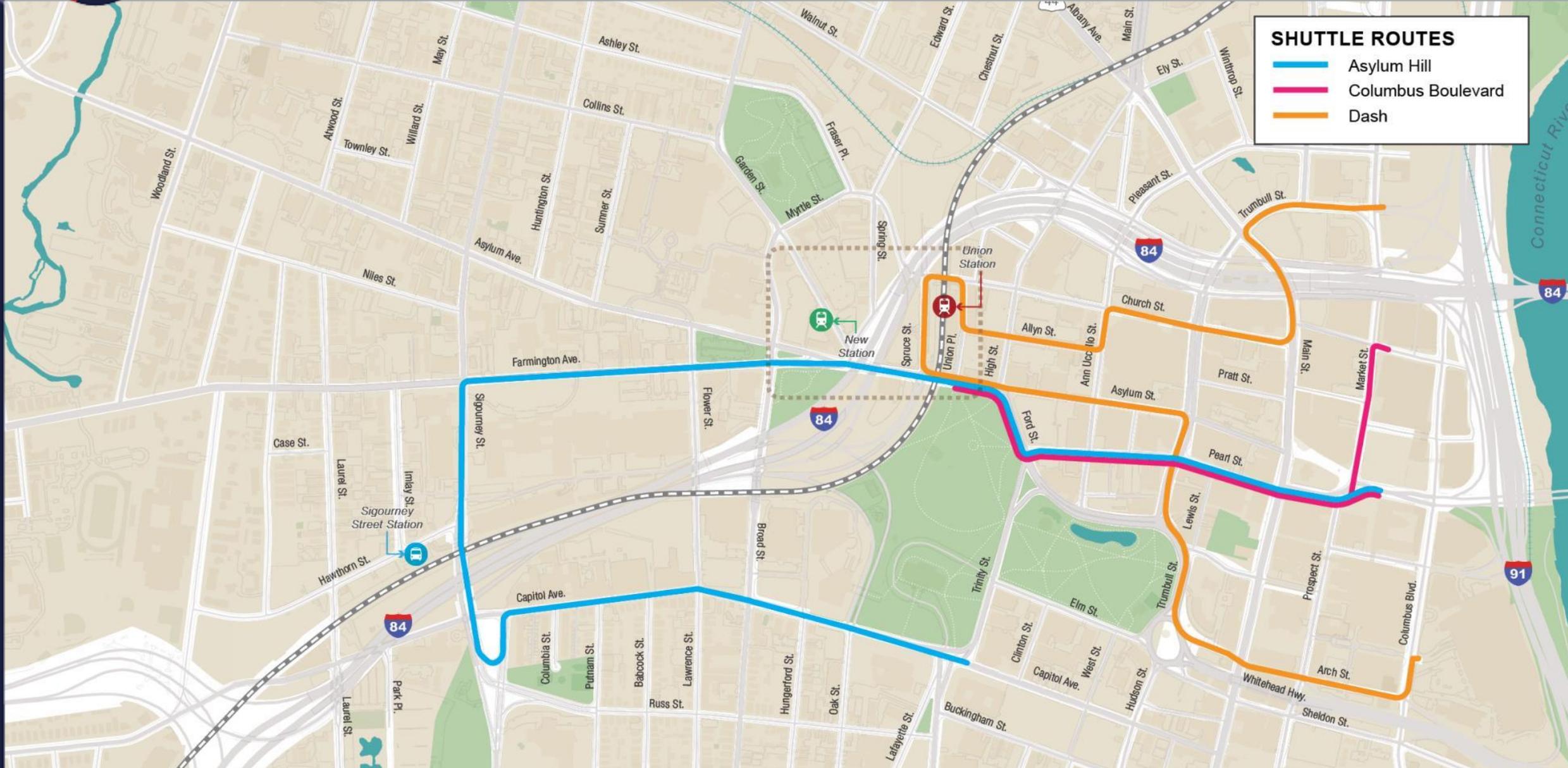
End 907, 910



I-84 HARTFORD PROJECT

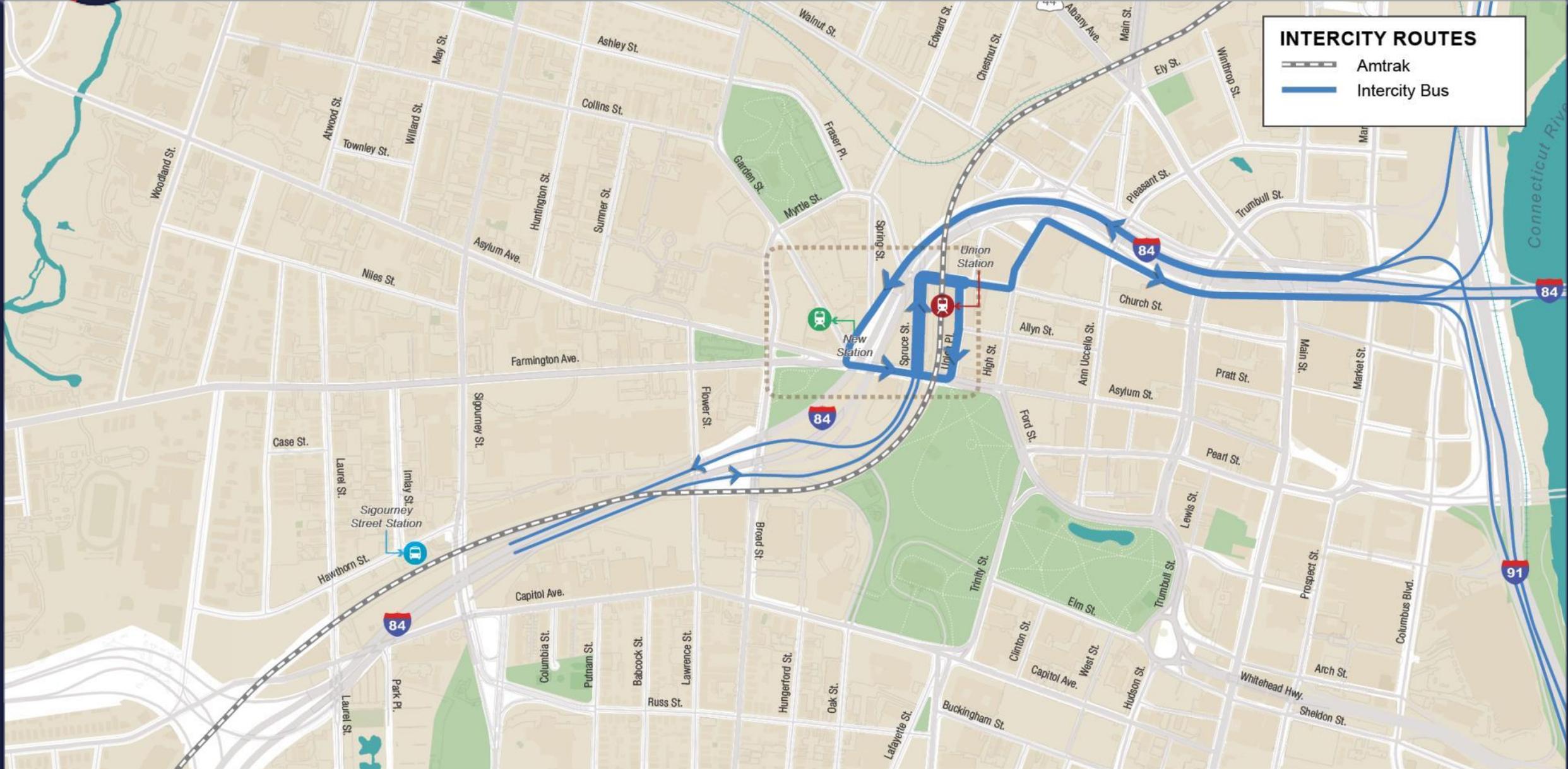
SHUTTLE ROUTES

- Asylum Hill
- Columbus Boulevard
- Dash



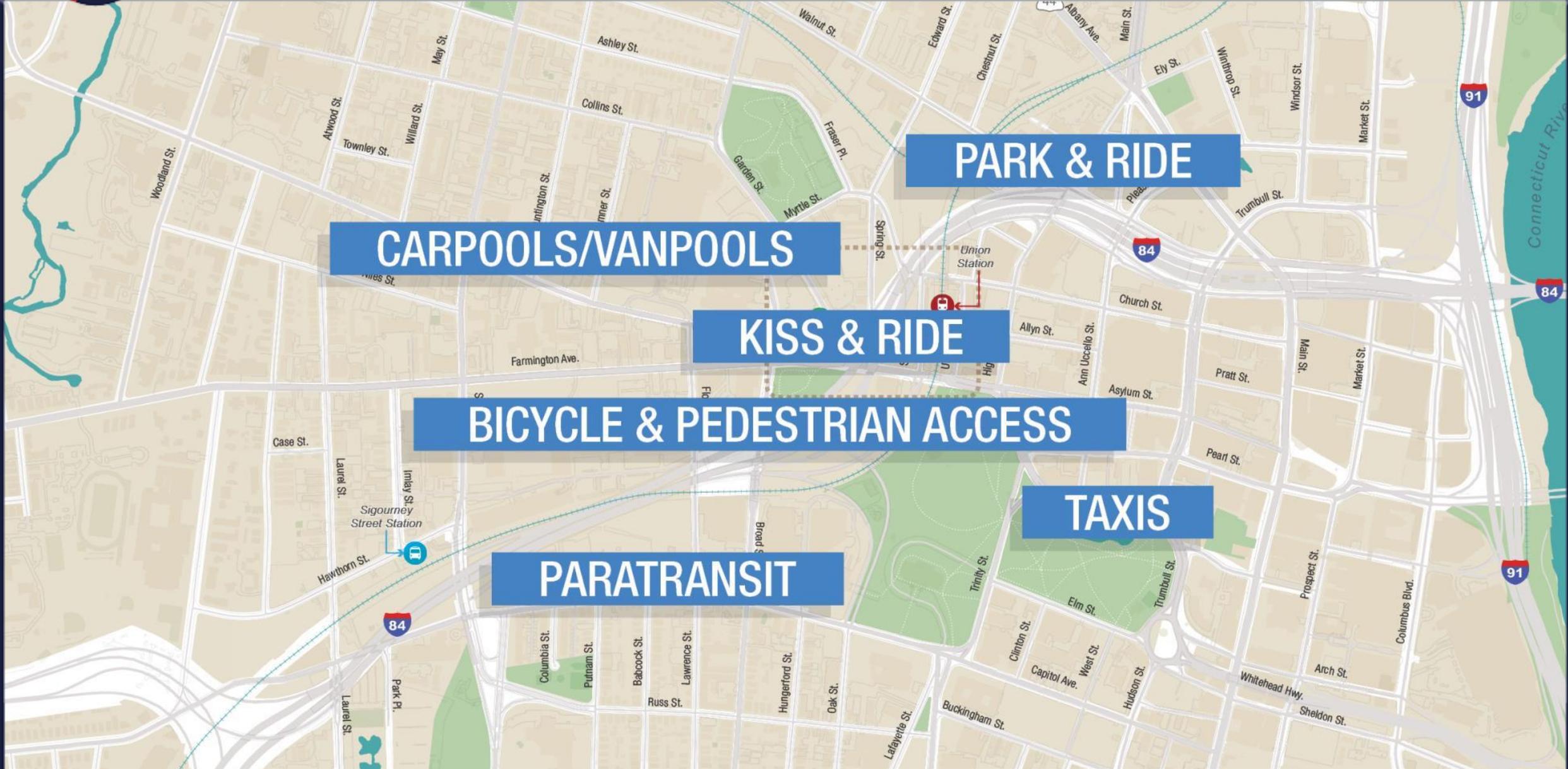


I-84 HARTFORD PROJECT





I-84 HARTFORD PROJECT



PARK & RIDE

CARPOOLS/VANPOOLS

KISS & RIDE

BICYCLE & PEDESTRIAN ACCESS

TAXIS

PARATRANSIT

Transit Oriented Development Opportunities

What are the best ways to encourage development?

- Retail
- Restaurants
- Residential
- Office
- Lodging / hotels



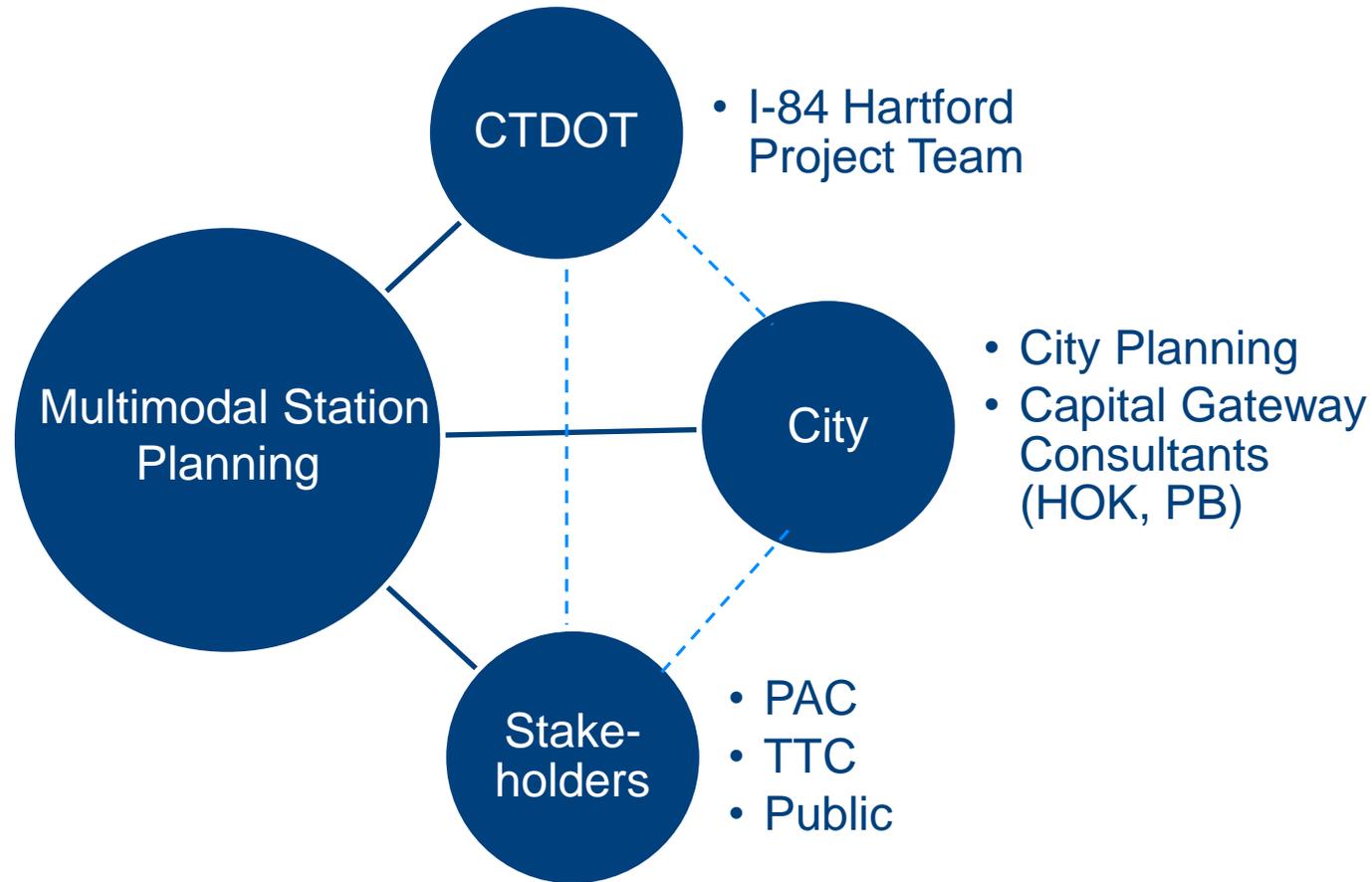


Public and Stakeholder Involvement

- Cooperative approach with City / stakeholders
- Public and stakeholder involvement
 - PAC meetings
 - Transit Technical Committee (TTC) meetings
 - Public meetings
- Interaction with City's Capital Gateway Master Plan consultant



Multimodal Station Planning



Capital Gateway Master Plan

- Engaged A/E team of HOK & WSP/Parsons Brinckerhoff (PB)
- Envision a fitting new transit center for the Capital City
- Prepare a strategic station area master plan

Washington DC Union Station

HOK & PB Team



Denver Union Station

WSP | PB Experience





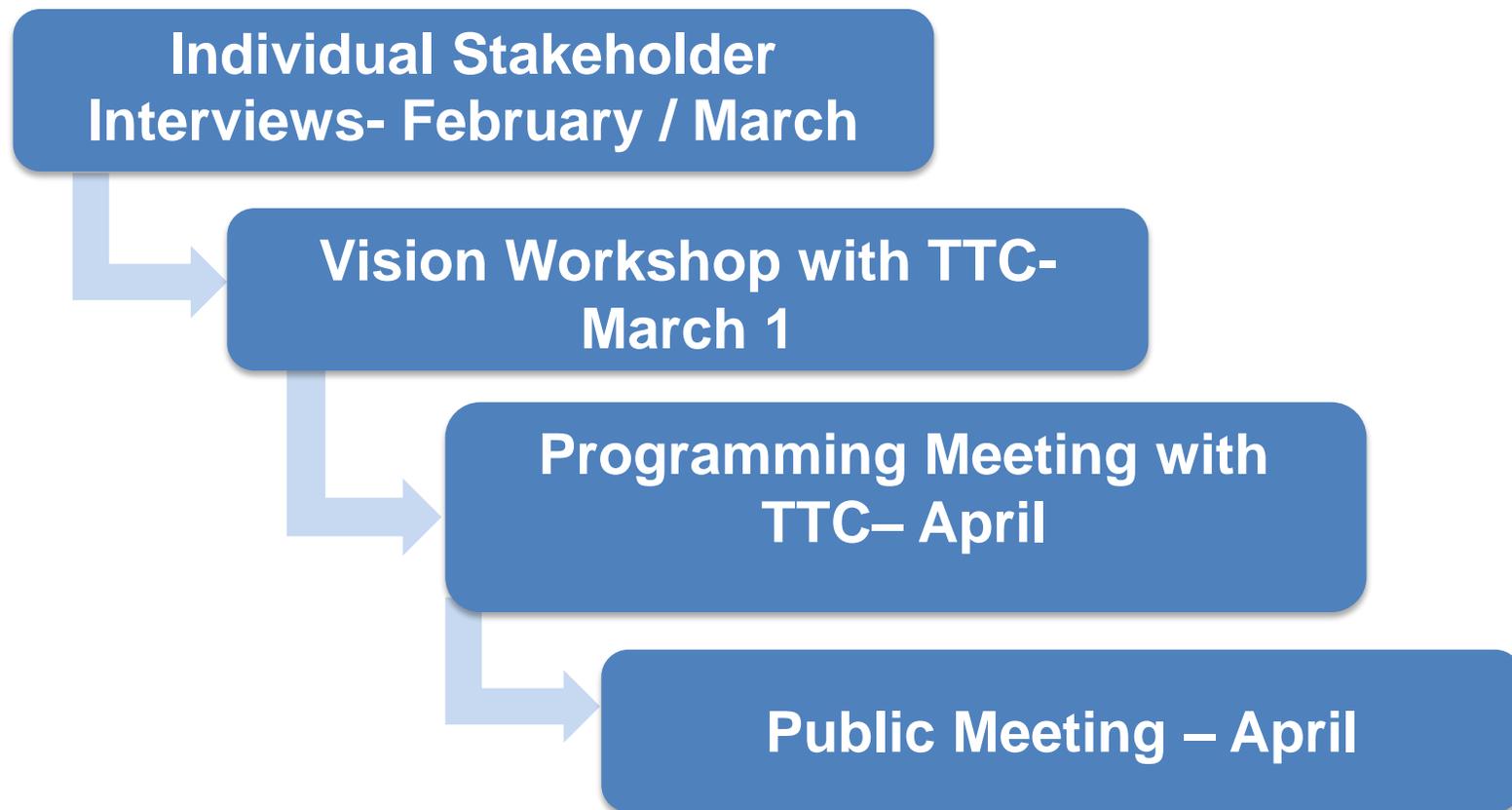
Capital Gateway Master Plan

- Maximize long-term economic development & city-scape opportunities
- Understand project area impacts; explore mitigation strategies





Next Steps





I-84 / I-91 Interchange Coordination





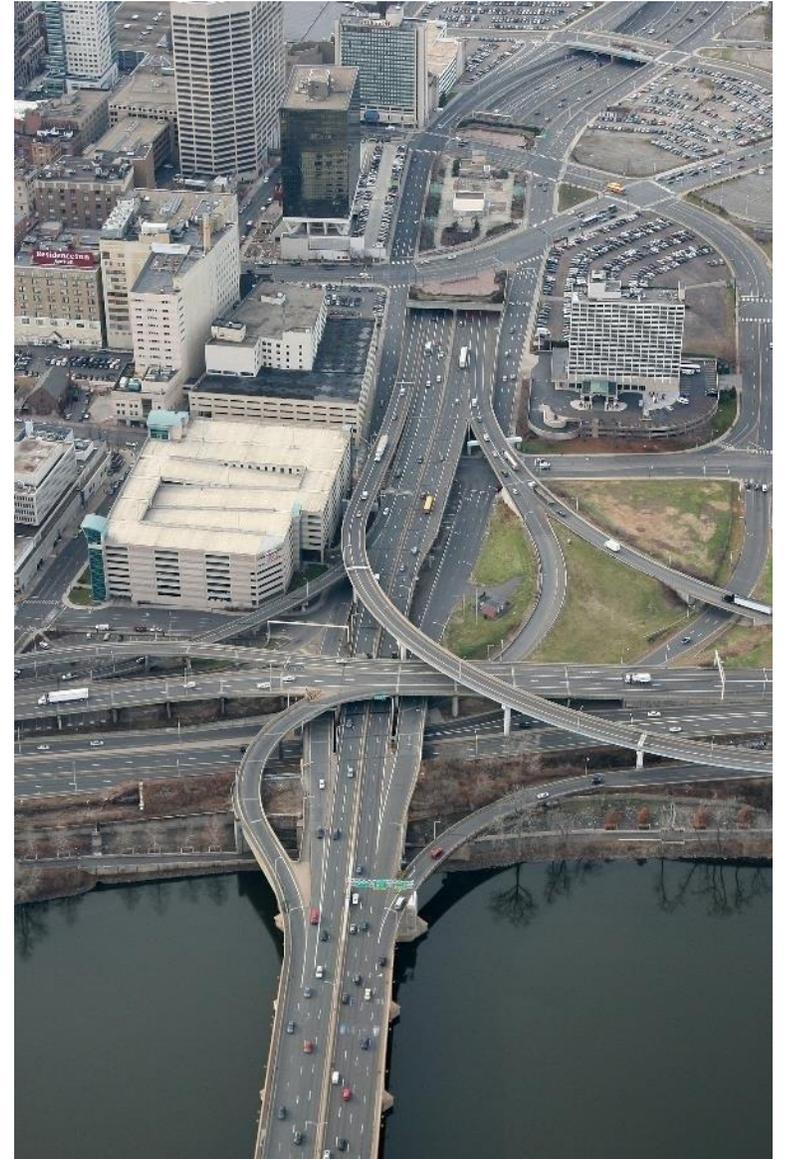
I-84 HARTFORD PROJECT





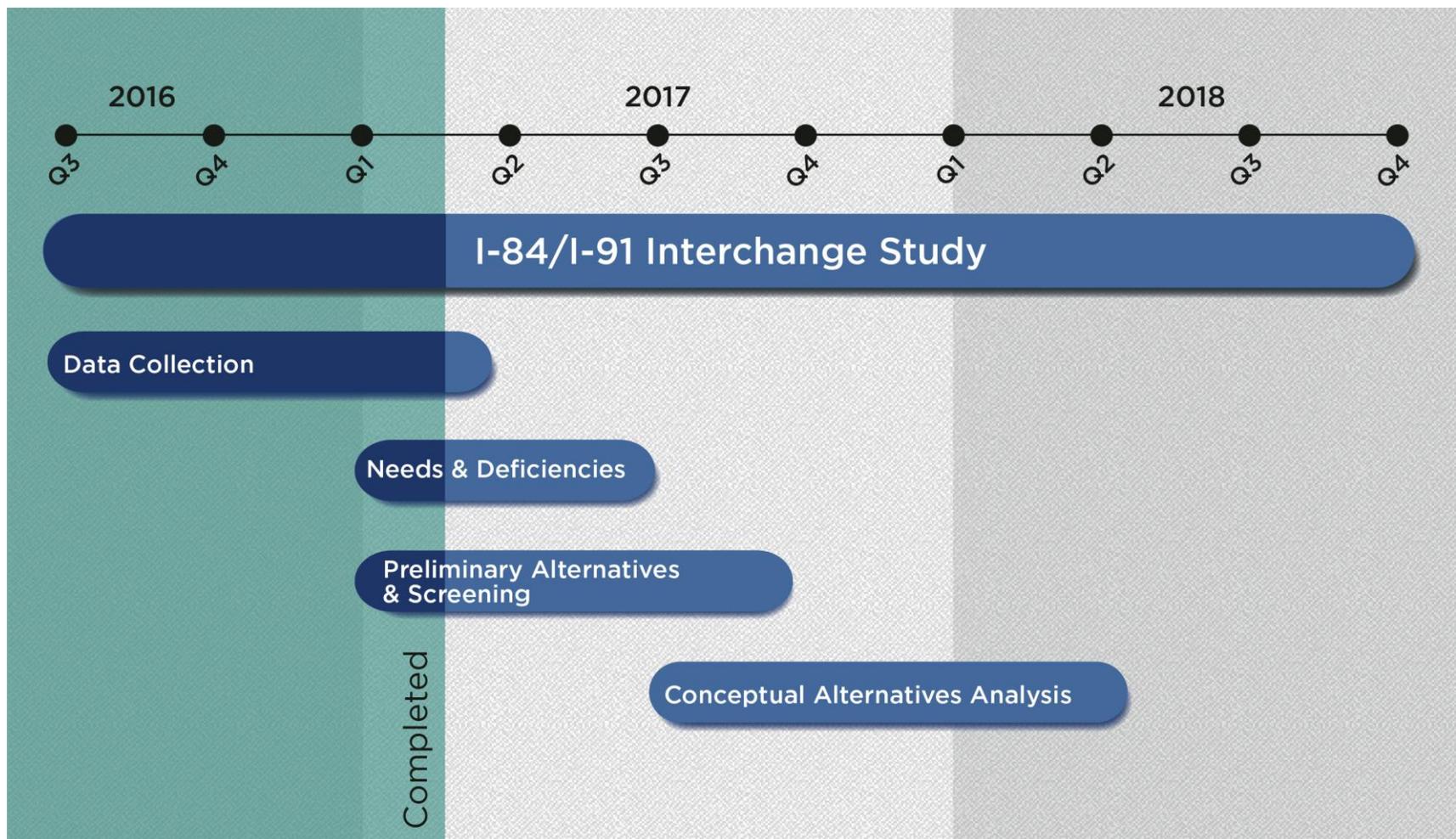
Process / Schedule

- Estimated 18-month duration
- Four preliminary alternatives
 - Screening
- Two alternatives advanced to conceptual design





Process



Expanding Opportunities in the Hartford Region by Rethinking the Transportation Network



Connecticut Department of Transportation
October 2016

A Vision for the Future: Reshaping the Region's Core



- **Rethink transportation** systems to solve regional problems and unlock Hartford and East Hartford's potential
- **Achieve city and regional goals** for near and long-term growth
- **Spur economic development**, reinvestment, jobs, and improved quality of life
- **Reconnect Hartford and East Hartford** to the river and to each other
- **Support new public transit** and new public spaces



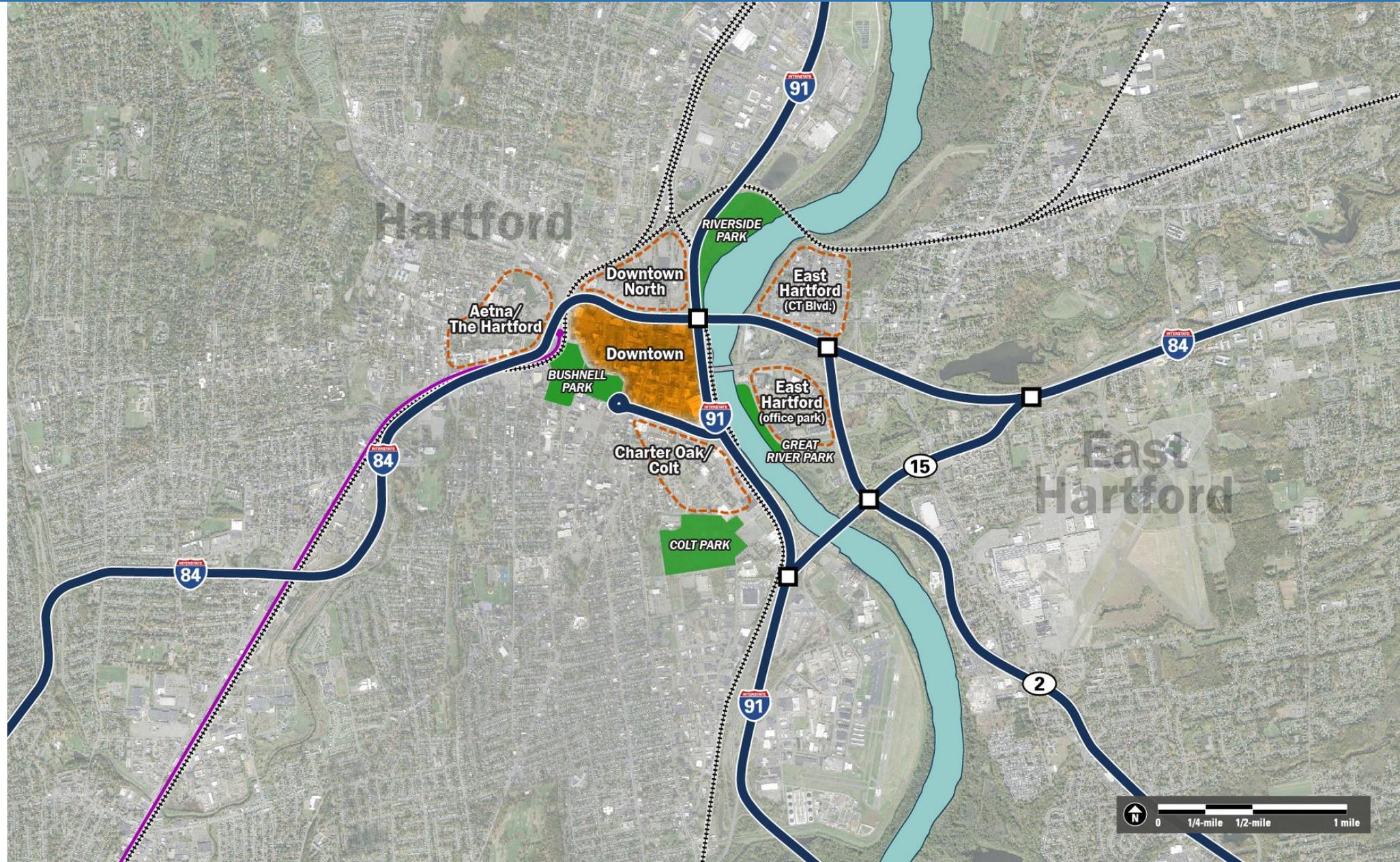
Current Condition: A Constrained and Fragmented Core



- The existing highway network is a constraint on downtown growth
- The network fragments the commercial and civic core – and limits each district's potential

LEGEND

- Highway
- Interchange
- Green space
- Downtown core
- - - Surrounding districts
- ⋯ Rail
- CTfastrak

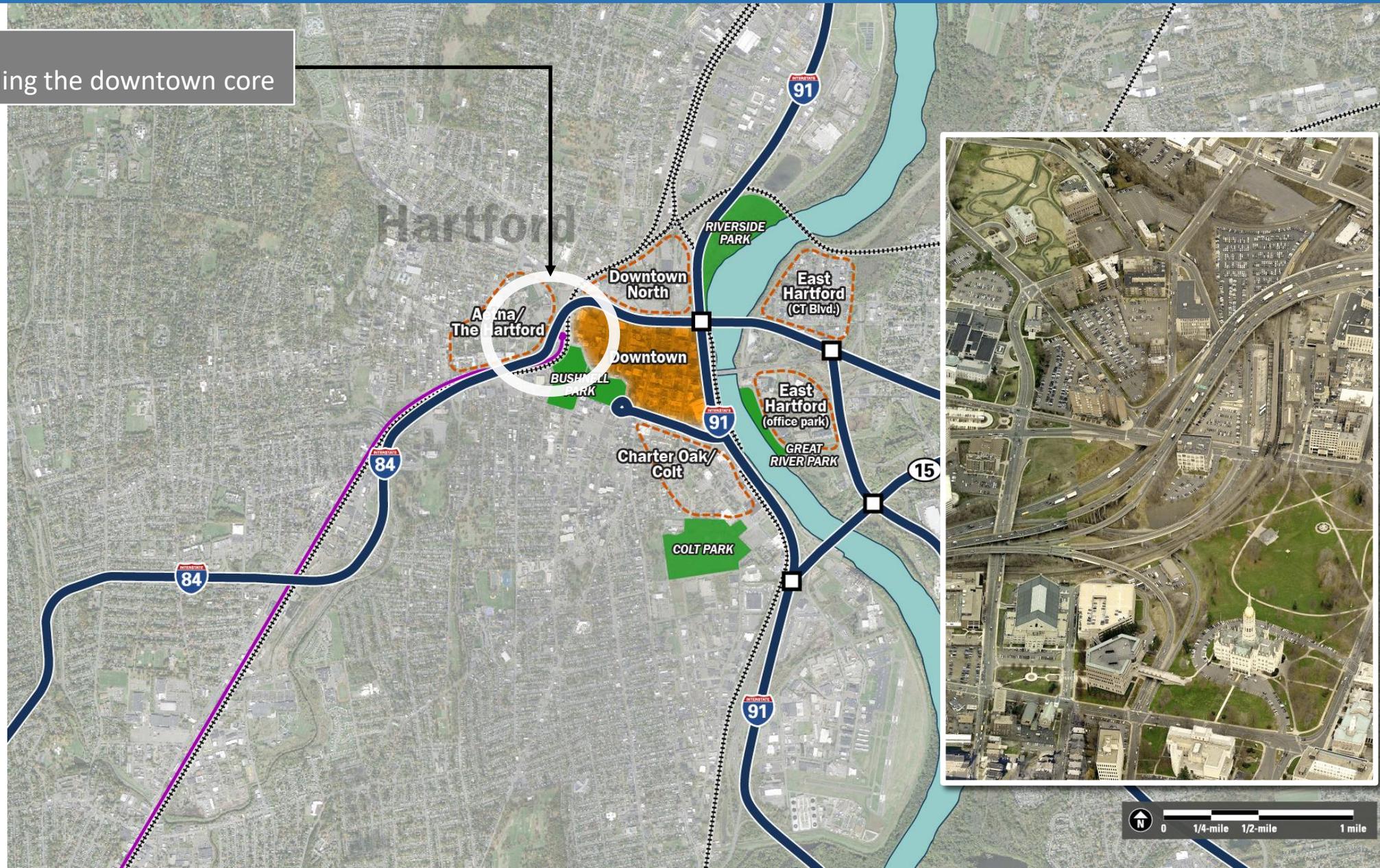


Challenges of Existing Infrastructure



I-84 VIADUCT

Aging infrastructure dividing the downtown core



LEGEND

- Highway
- Interchange
- Green space
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Challenges of Existing Infrastructure



I-84 VIADUCT

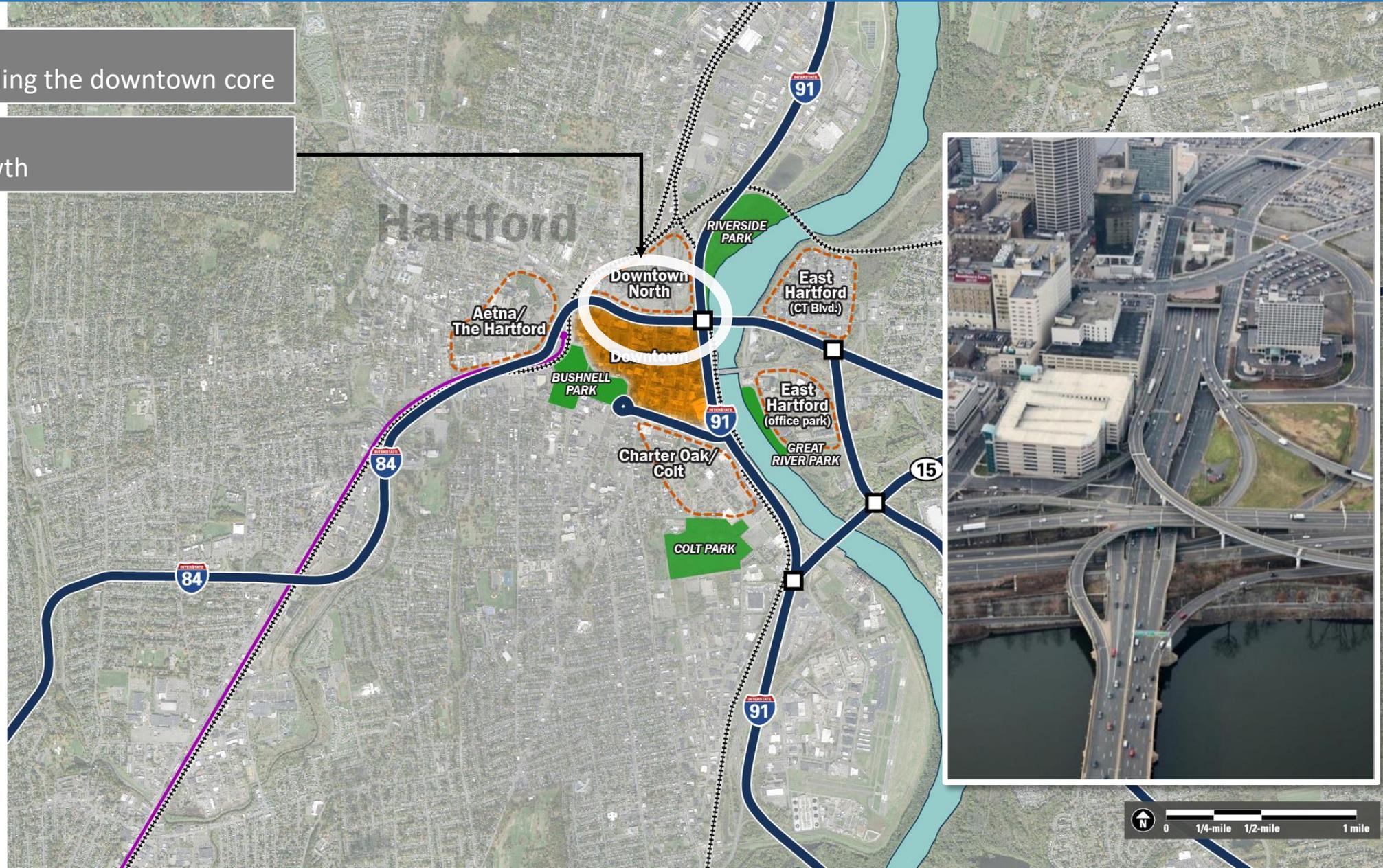
Aging infrastructure dividing the downtown core

I-84 DOWNTOWN

Barrier to economic growth

LEGEND

- Highway
- Interchange
- Green space
- Downtown core
- Surrounding districts
- Rail
- CTfastrak



Challenges of Existing Infrastructure



I-84 VIADUCT

Aging infrastructure dividing the downtown core

I-84 DOWNTOWN

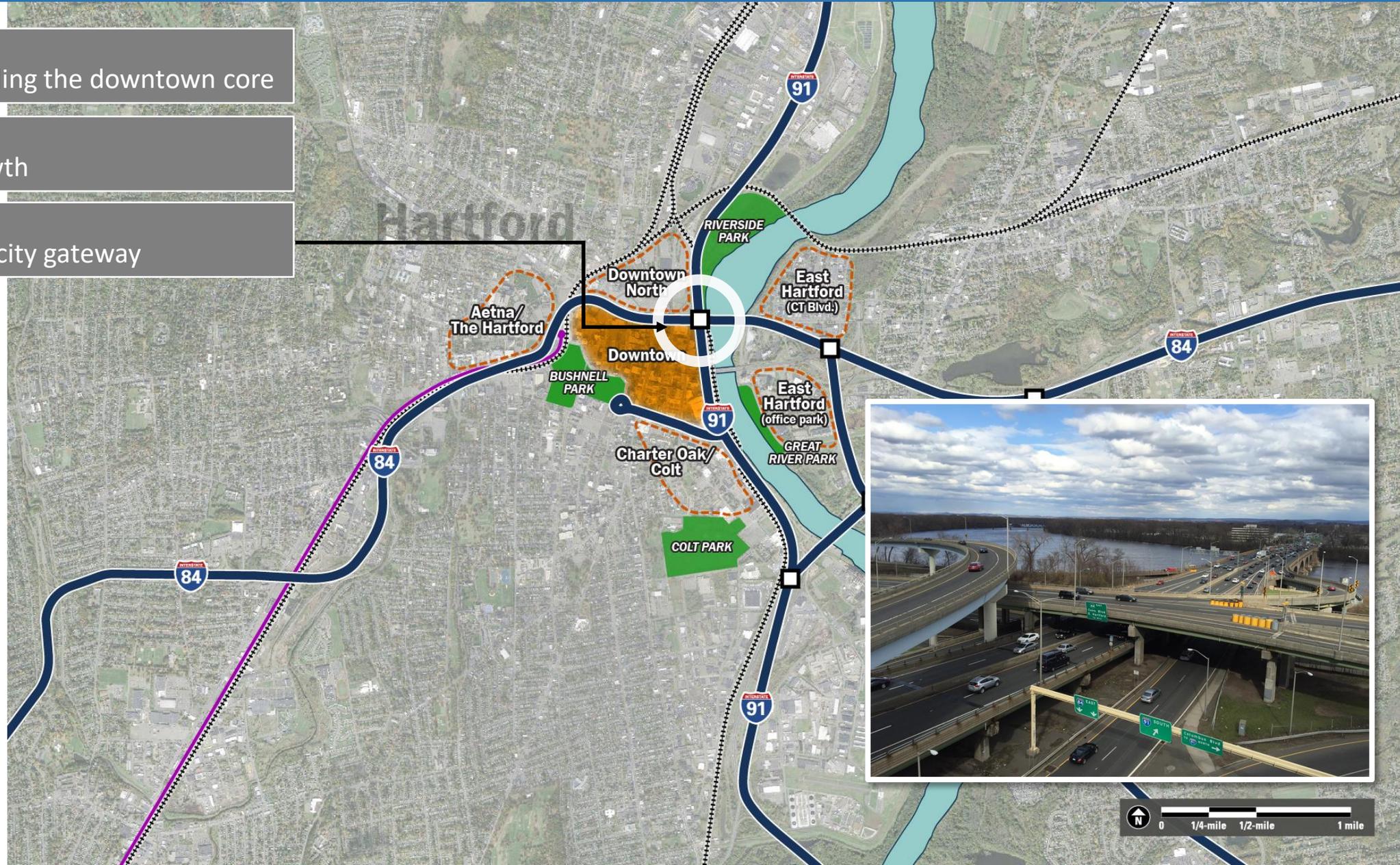
Barrier to economic growth

84/91 INTERCHANGE

Congestion generator at city gateway

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- Highway
- Interchange
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Challenges of Existing Infrastructure



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Aging infrastructure dividing the downtown core

I-84 DOWNTOWN

Barrier to economic growth

84/91 INTERCHANGE

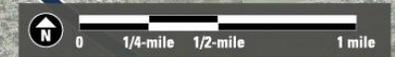
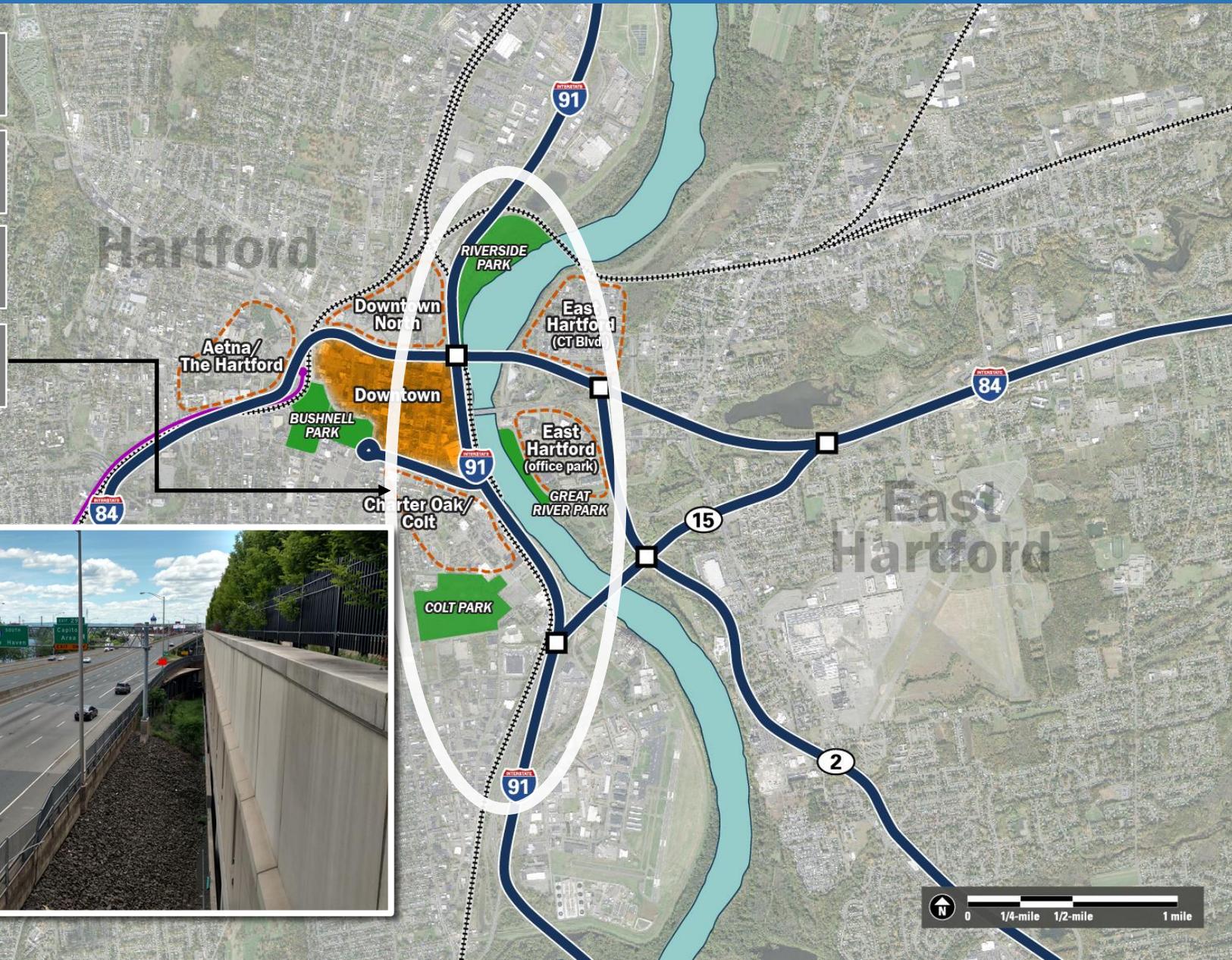
Congestion generator at city gateway

I-91, RAIL CORRIDOR, AND FLOOD CONTROL

Barriers between downtown and the river

LEGEND

- Highway
- Interchange
- Green space
- Downtown core
- Surrounding districts
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Challenges of Existing Infrastructure



I-84 VIADUCT

Aging infrastructure dividing the downtown core

I-84 DOWNTOWN

Barrier to economic growth

84/91 INTERCHANGE

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I-91, RAIL CORRIDOR, AND FLOOD CONTROL

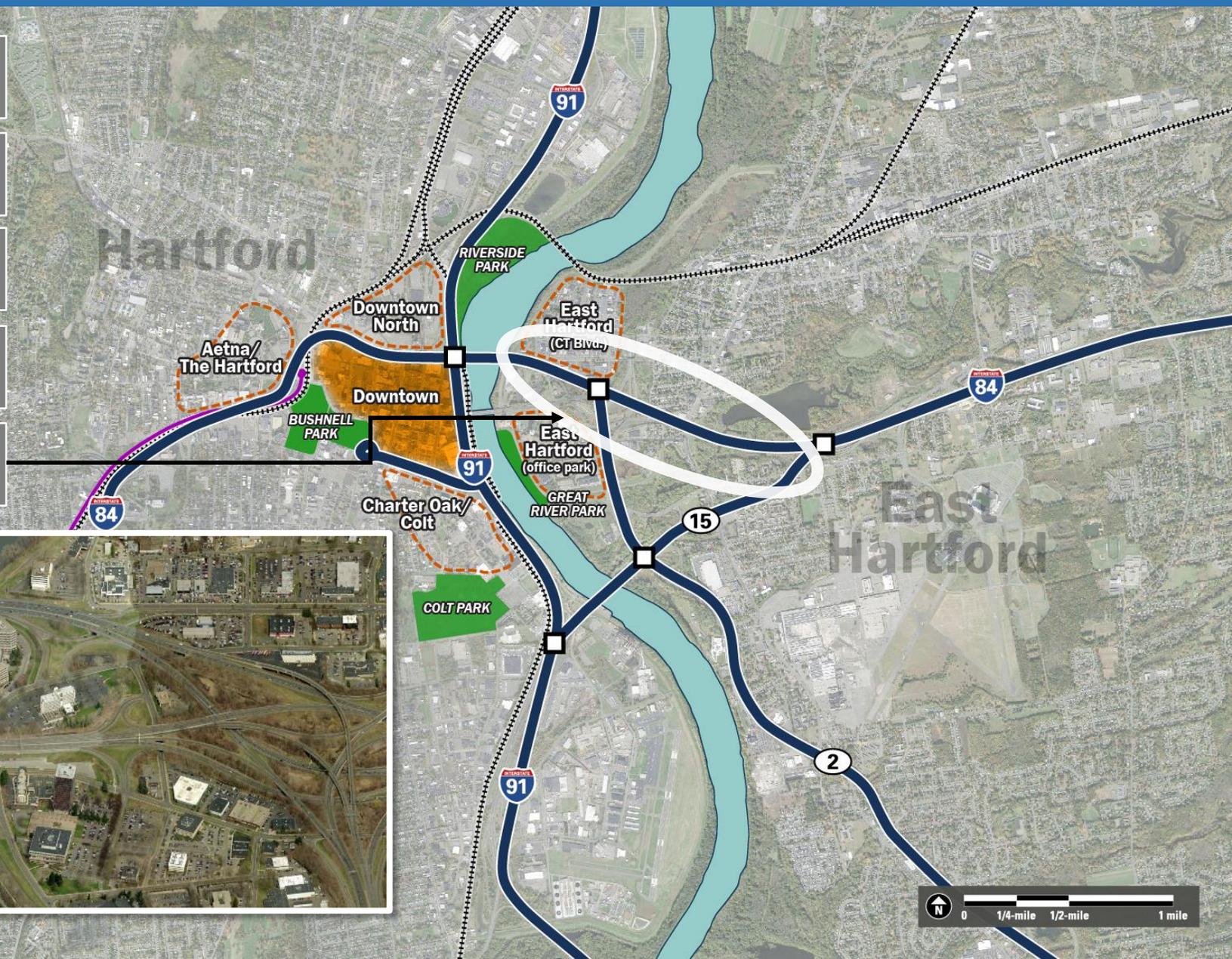
Barriers between downtown and the river

I-84 EAST HARTFORD

Highway infrastructure takes valuable land

LEGEND

- Highway
- Interchange
- Green space
- Downtown core
- Surrounding districts
- Rail
- CTfastrak

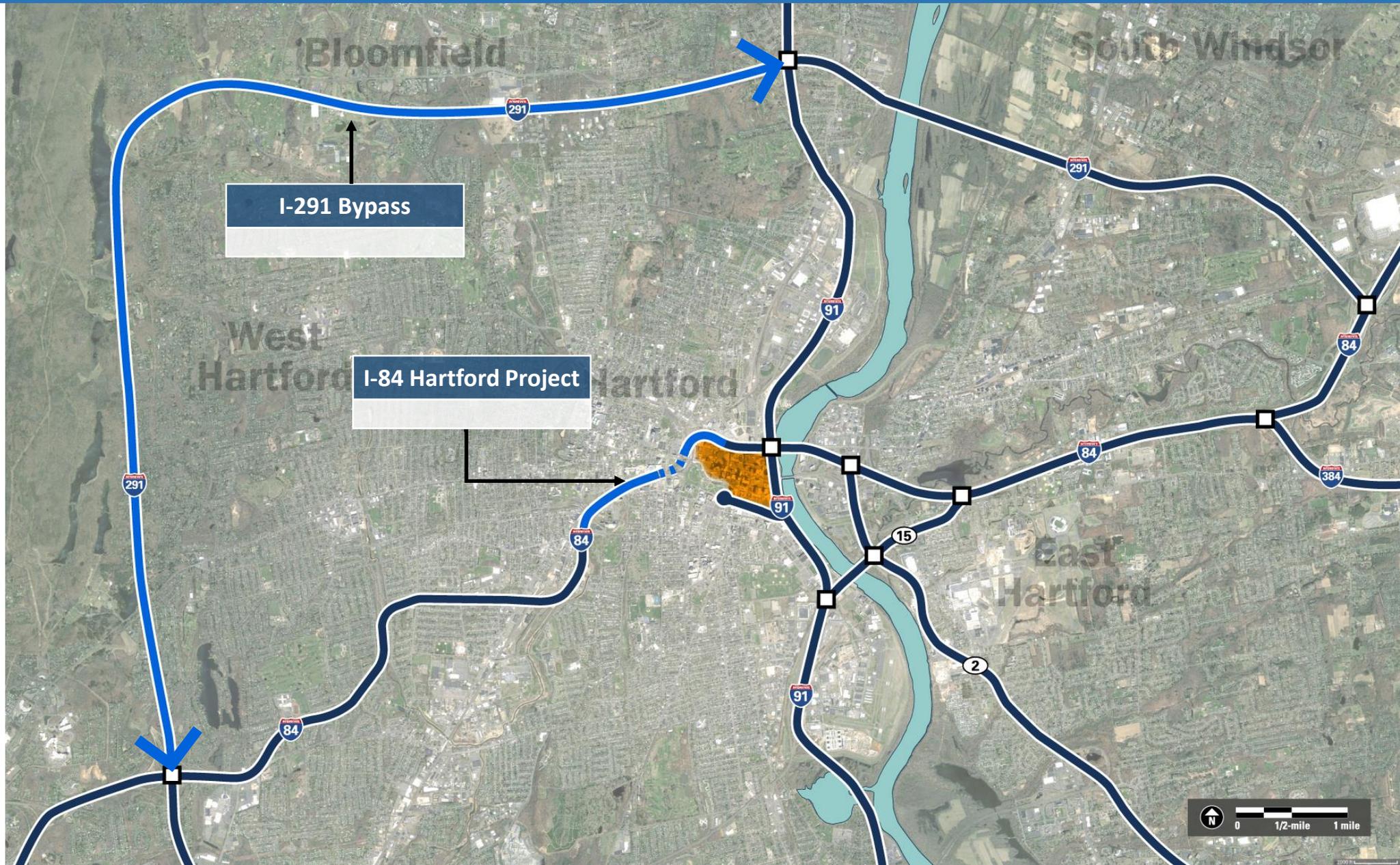


Previous Concept: I-291 Bypass (not implemented)

- **Potential bypass** to reduce the size of I-84 through Hartford
- **Only 5-10% of trips** would have been taken out of city center
- **Opposed** during planning and ultimately shelved

LEGEND

- Highway
- Interchange
- ⋯ Existing highway alignment
- Highway realignment
- ▬ Tunnel/cap



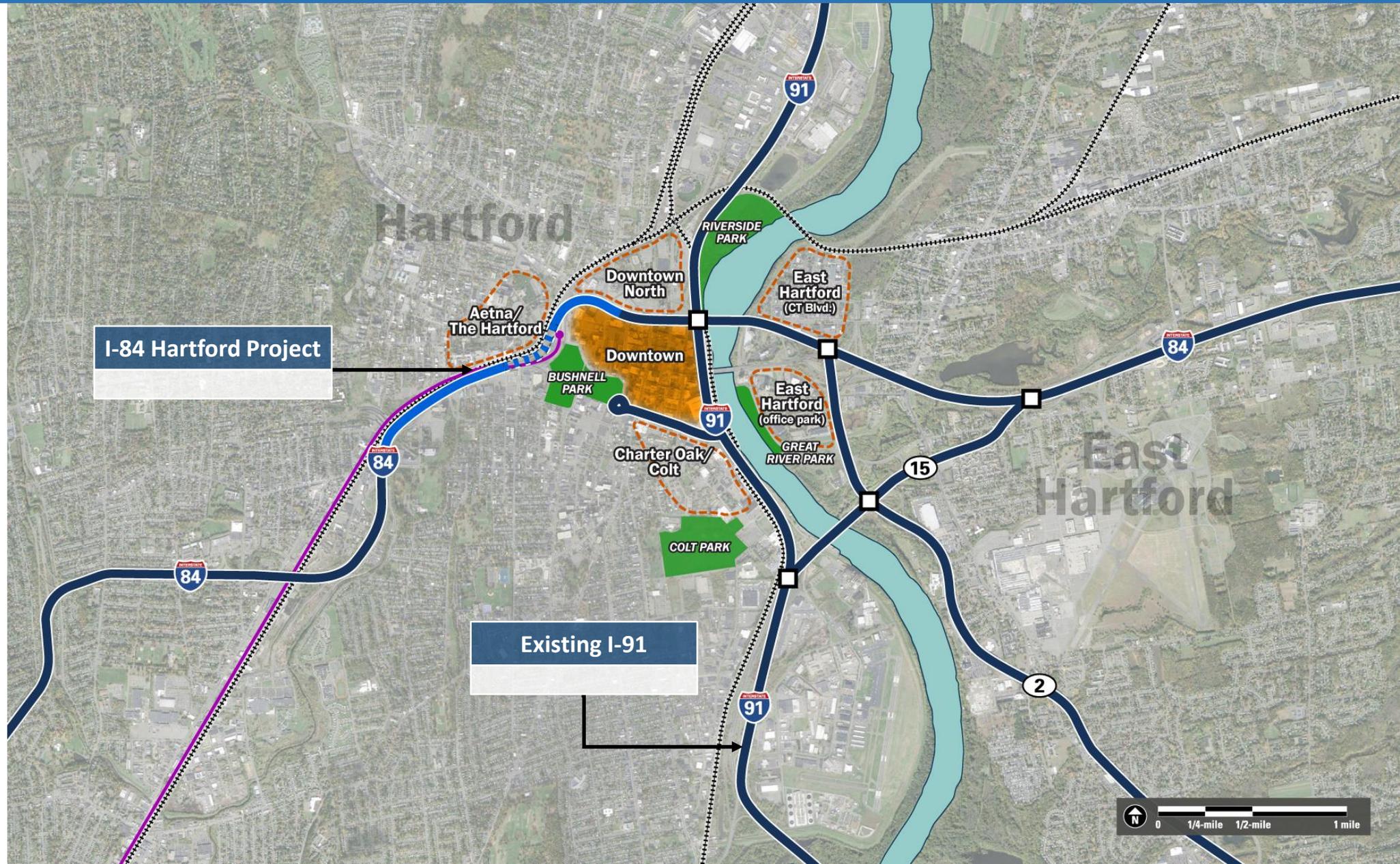
Highway Scenarios Currently Being Considered

Options for I-84 and I-91

Existing Network



- I-84 Hartford Project is ongoing
- I-84 through downtown fragments the city's core
- I-91, the rail line, and the flood wall create a barrier between the city and river



LEGEND

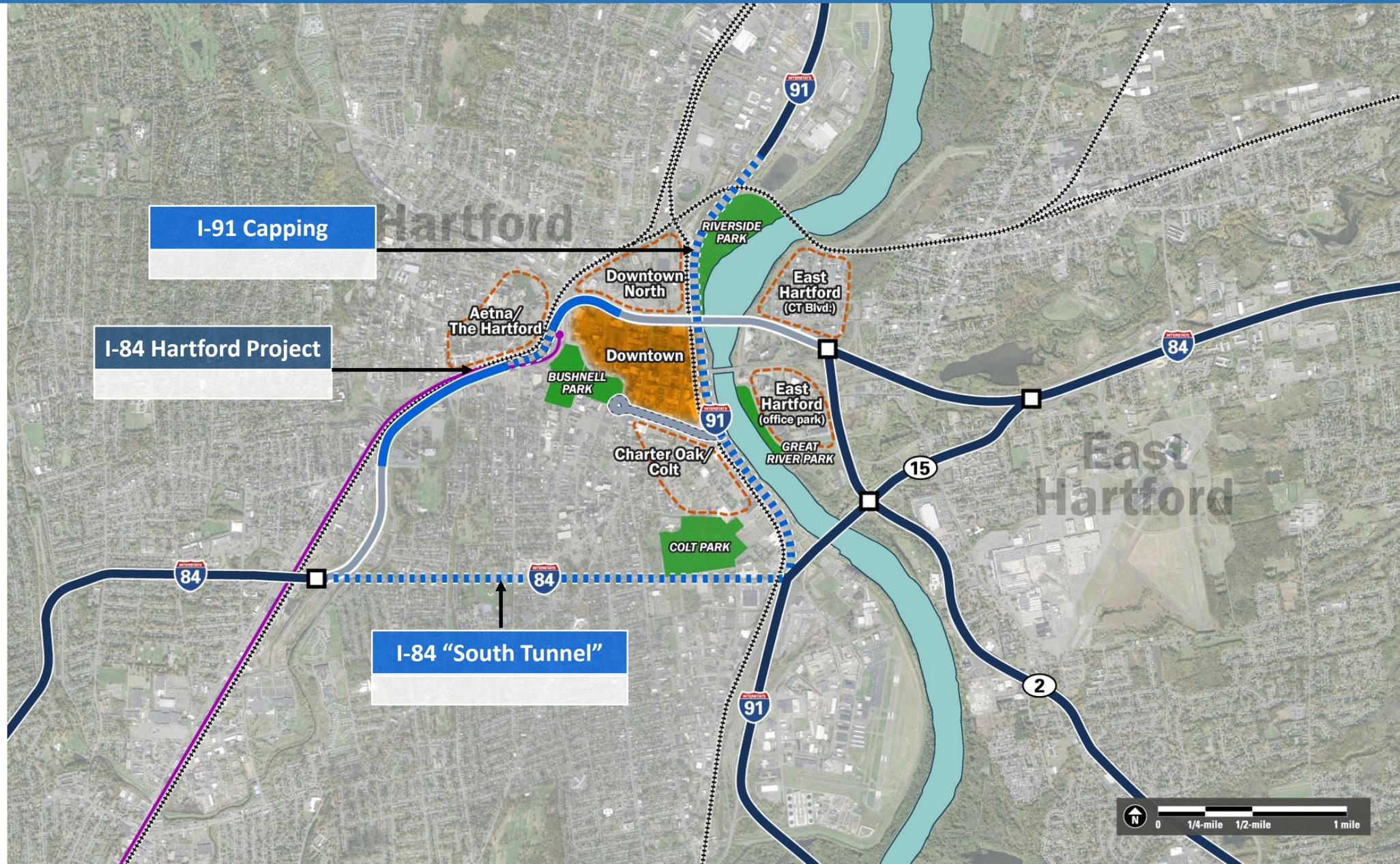
- Highway
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Scenario #1: I-84 “South Tunnel” and I-91 Capping



- A new I-84 “South Tunnel” is shown as a southern bypass between Flatbush Ave. and the Charter Oak Bridge
- I-91 is capped in key locations between the Charter Oak Bridge and Riverside Park



LEGEND

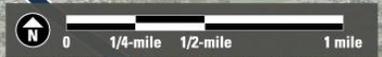
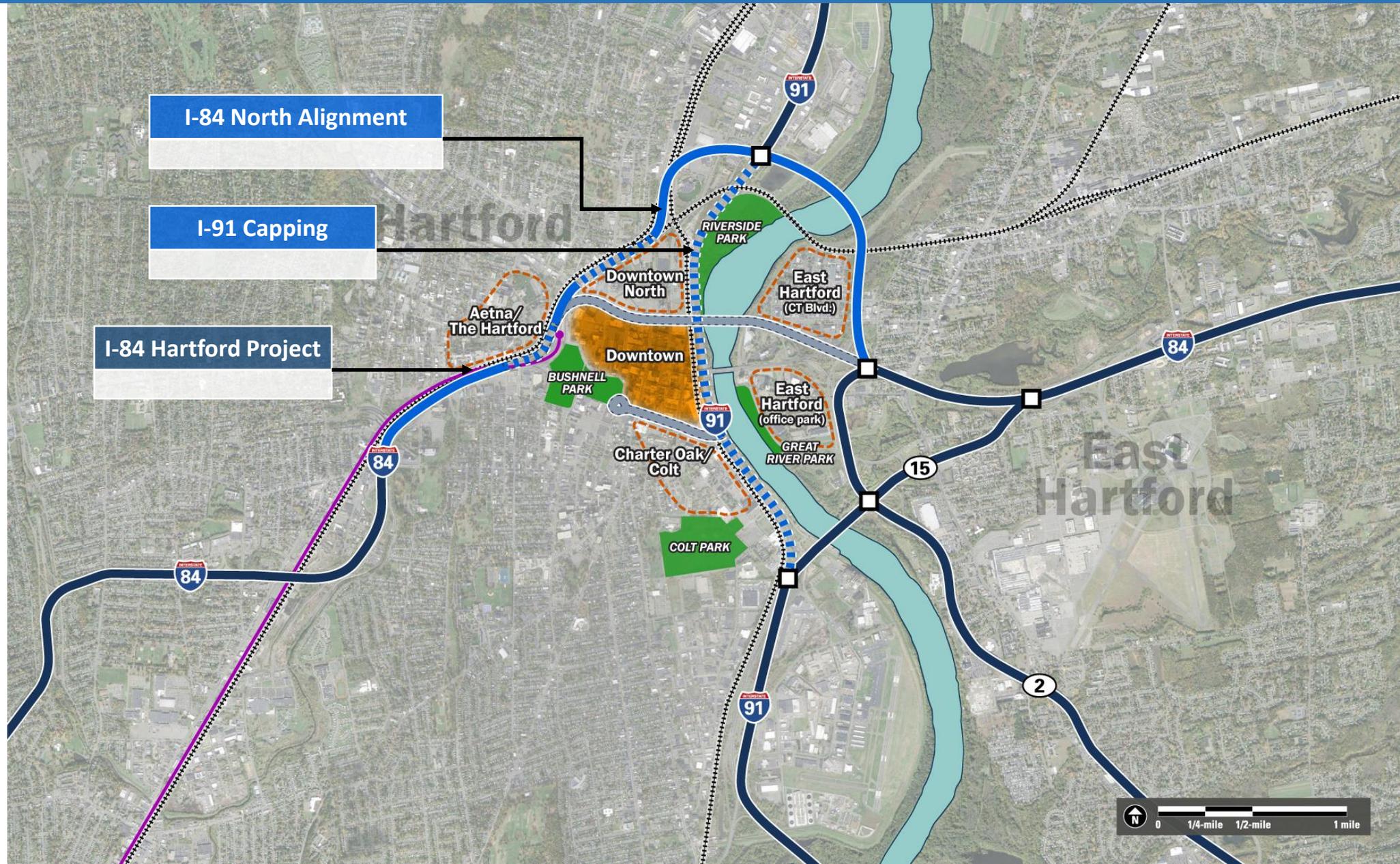
- Highway
- Interchange
- - - Tunnel/cap
- Urban arterial
- Green space
- Downtown core
- - - Surrounding districts
- Rail
- CTfastrak



Scenario #2: I-84 “North Alignment” and I-91 Capping



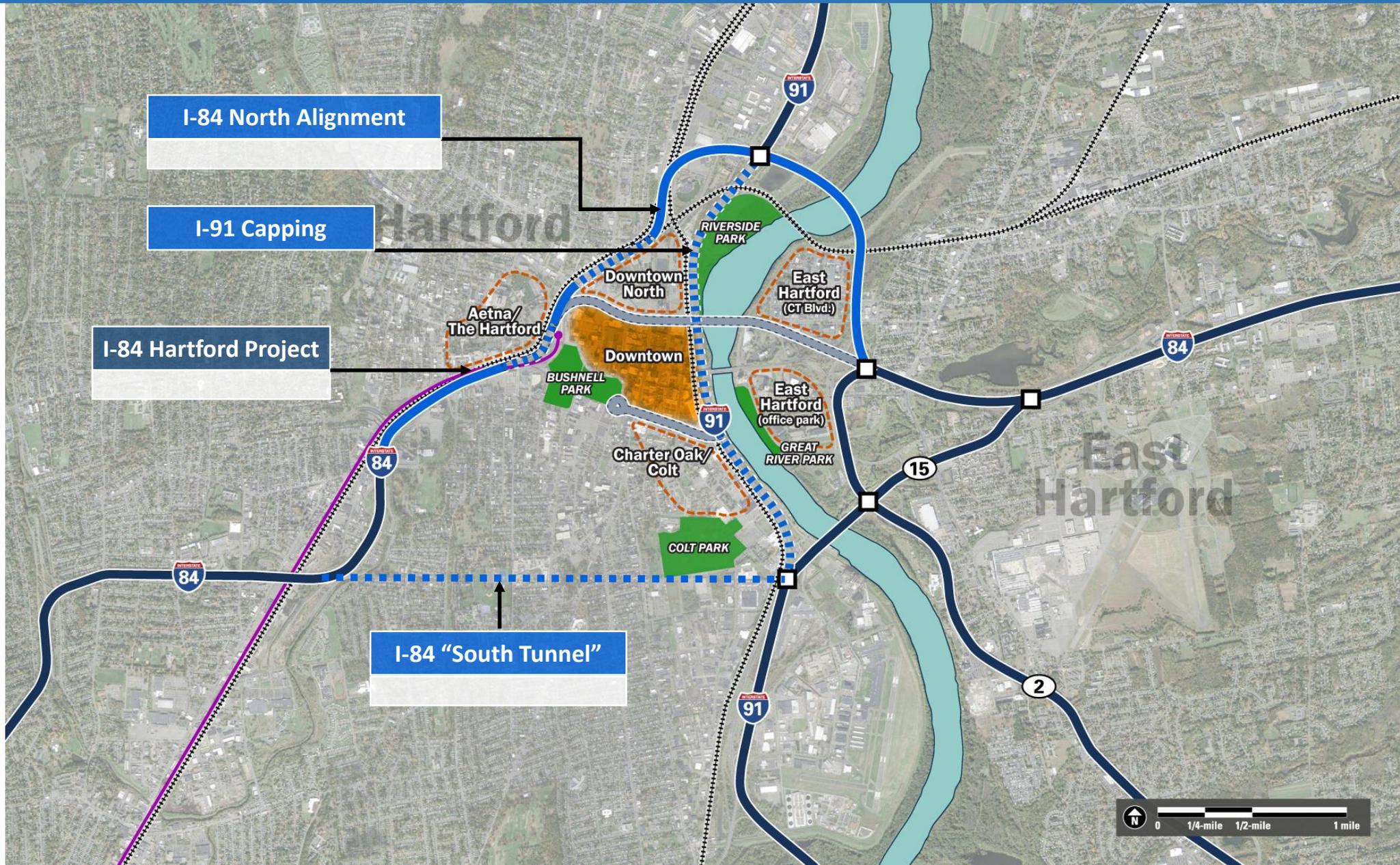
- A new I-84 “North Alignment” is shown that relocates the 84/91 interchange out of the city center
- New bridge over the CT River
- I-91 is capped in key locations



Combined scenarios



- Conceptual level of work to date
- Additional analysis needed to determine feasibility of options or combination of options



LEGEND

- Highway
- Interchange
- ⋯ Existing highway alignment
- Highway realignment
- - - Tunnel/cap
- Urban arterial
- Green space
- Orange Downtown core
- - - Surrounding districts
- ⋯ Rail
- CTfastrak

Reimagining the Riverfront

For Hartford and East Hartford

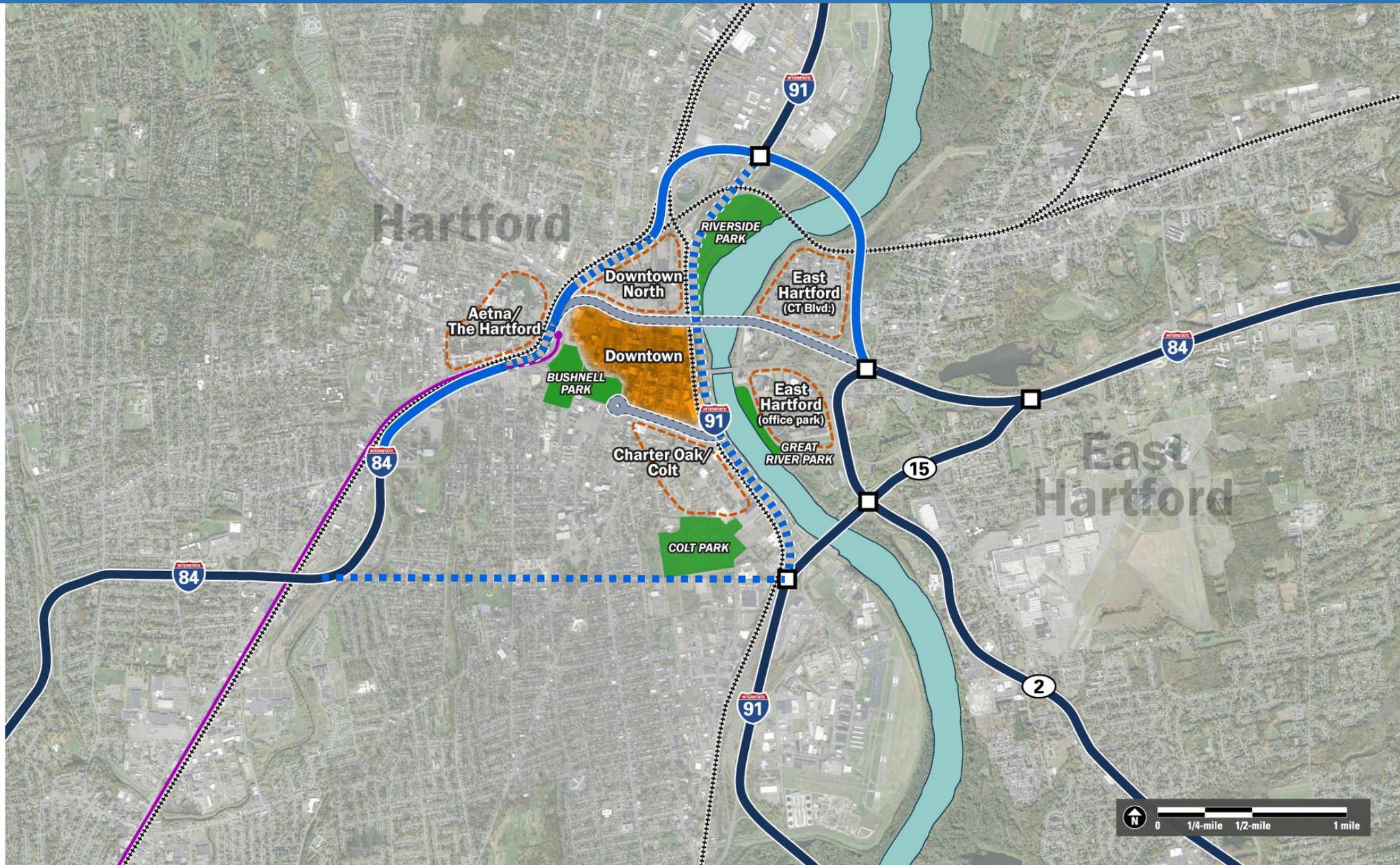
Combined scenarios



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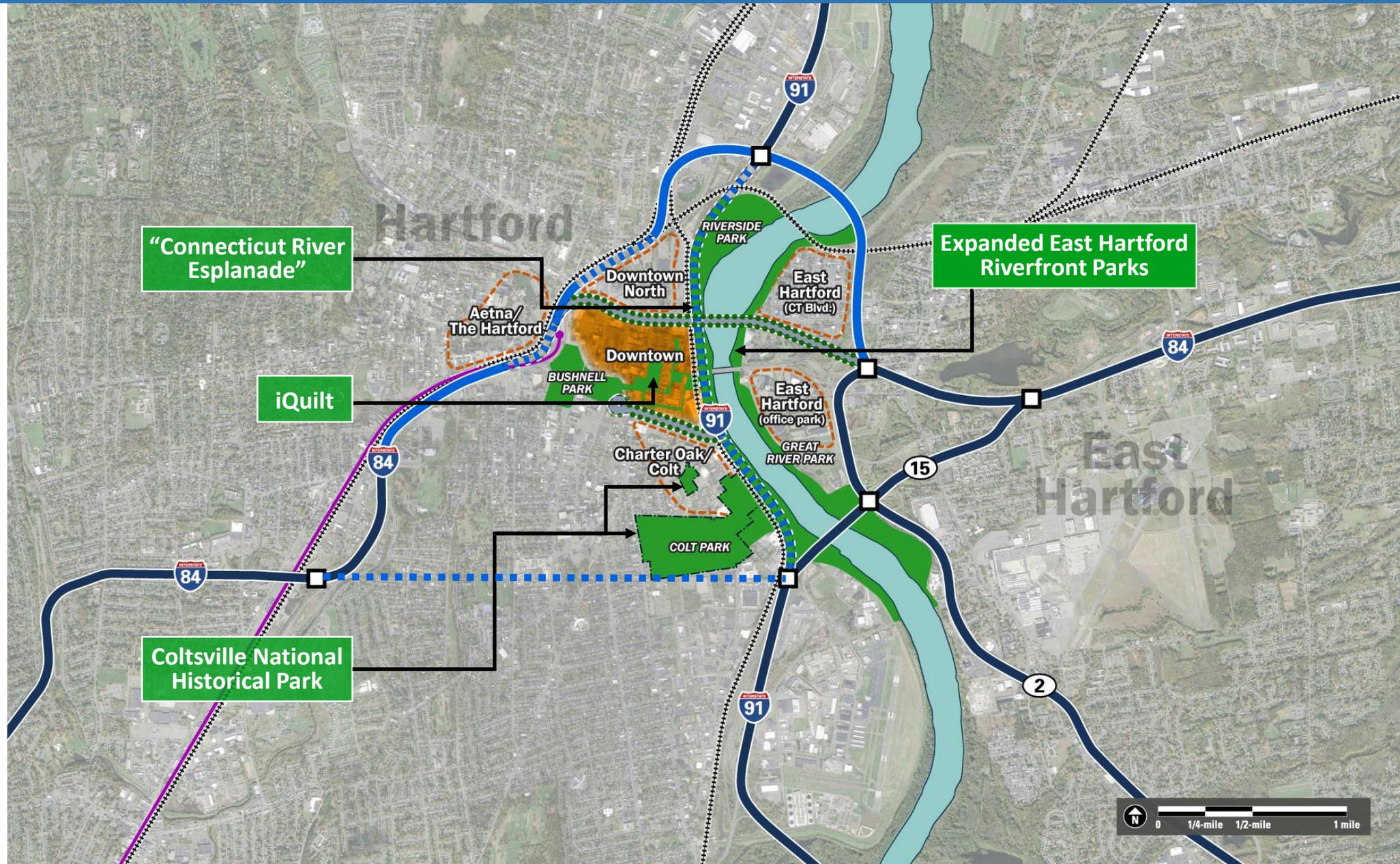
Removing the I-91 barrier creates a new riverfront park



- New “Connecticut River Esplanade”
- Hartford’s reconnection to the water
- Creates an overall network with East Hartford
- Links destinations and creates recreation loops

LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
- Tunnel/cap
- Urban arterial
- Green space
- Downtown core
- Surrounding districts
- Coltsville National Historic District
- Rail
- CTfastrak



Current view



Potential view



Existing flood wall elevation

Connecticut River Esplanade

Colt Armory redeveloped

Public transit

Transit-oriented development

Connecticut River

Riverfront: Existing



Downtown Hartford

**I-91
elevated
barrier**

**Rail/
Flood Wall**

Connecticut River

Riverfront: Potential



Downtown Hartford

Rail

**I-91
under cap
(+ Connecticut
River Esplanade)**

Flood Wall

Connecticut River

Promoting Economic Development

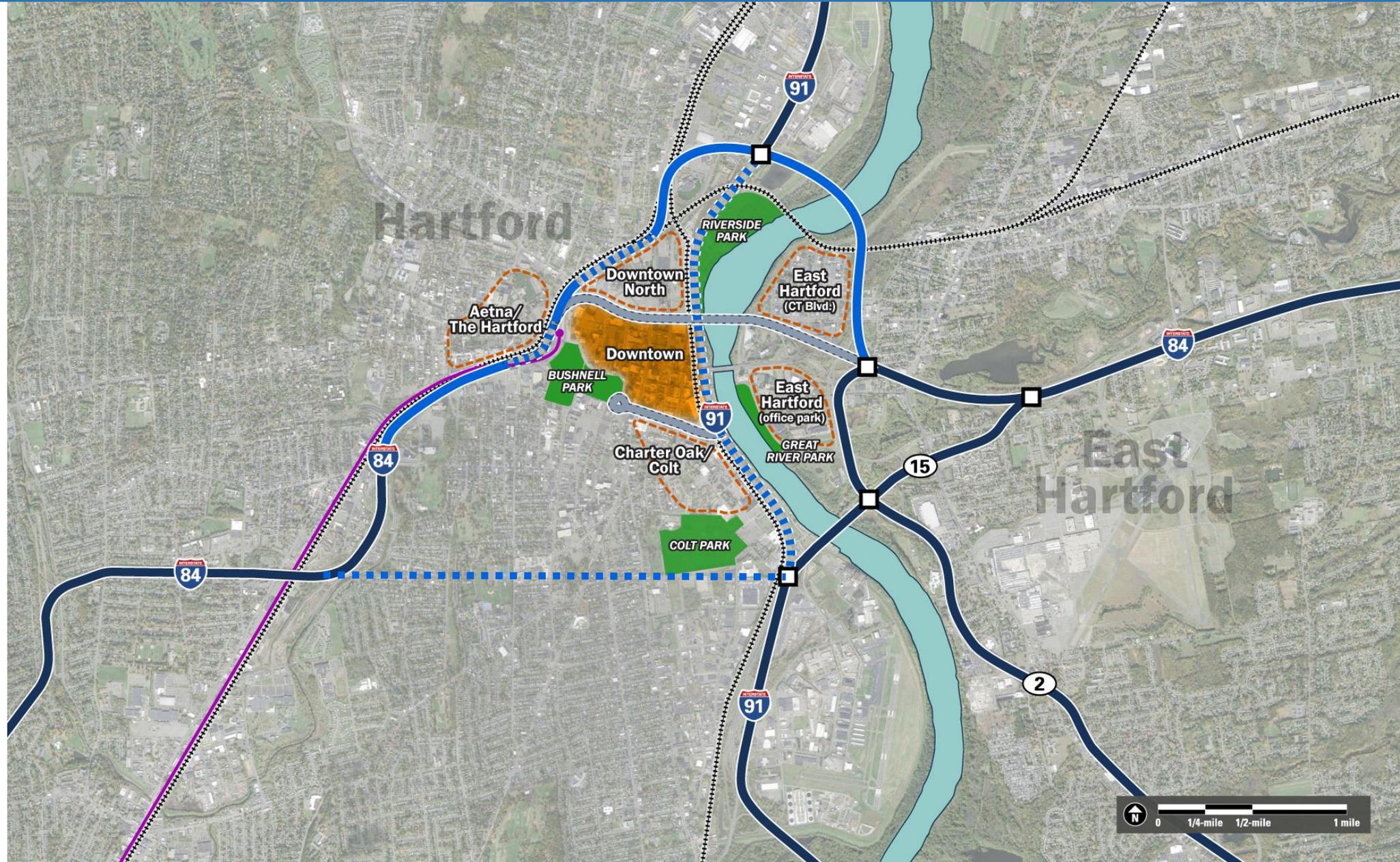
In Hartford and East Hartford

Combined scenarios



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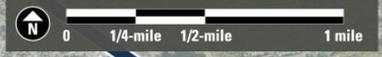
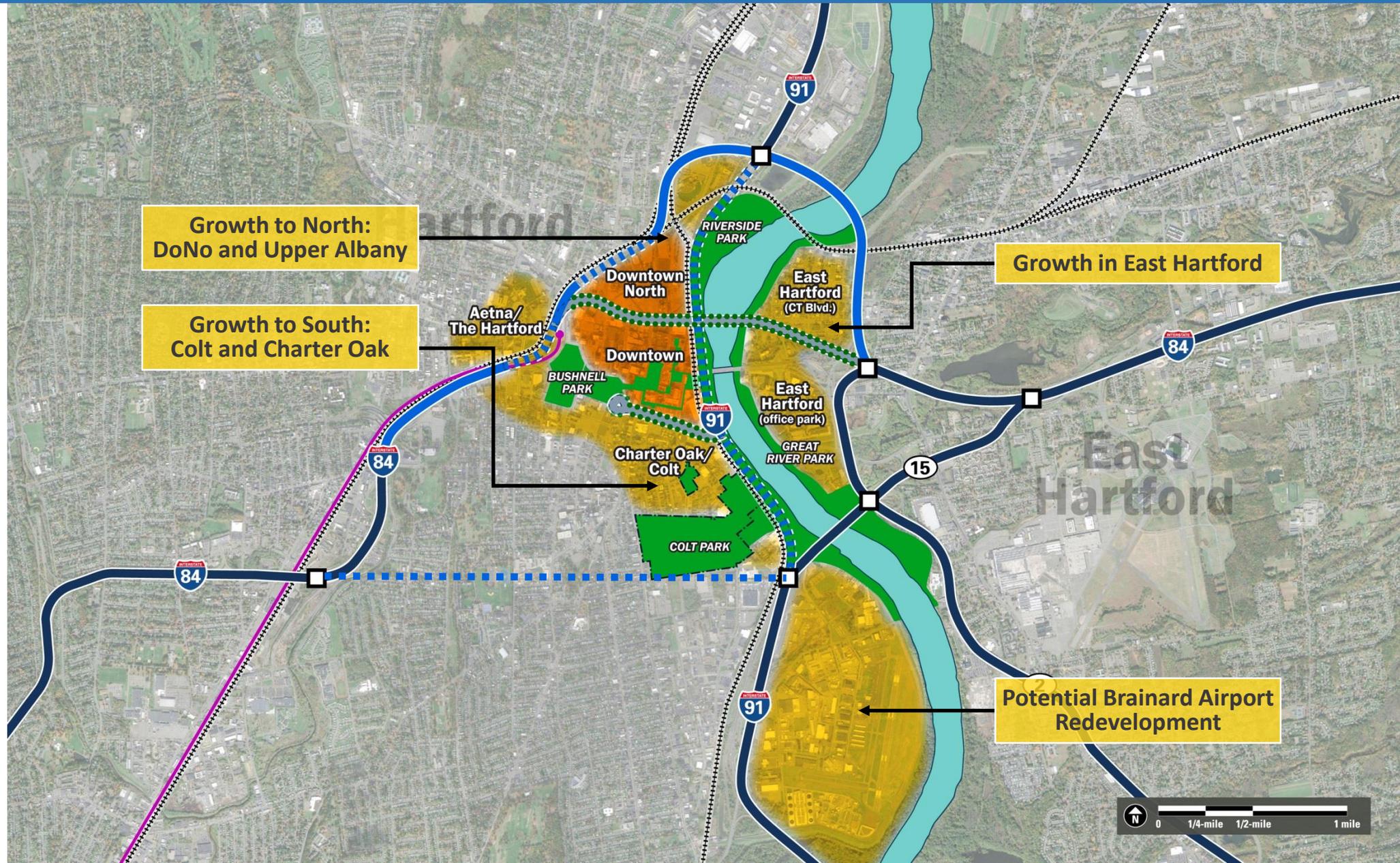
Economic development tied to the green network



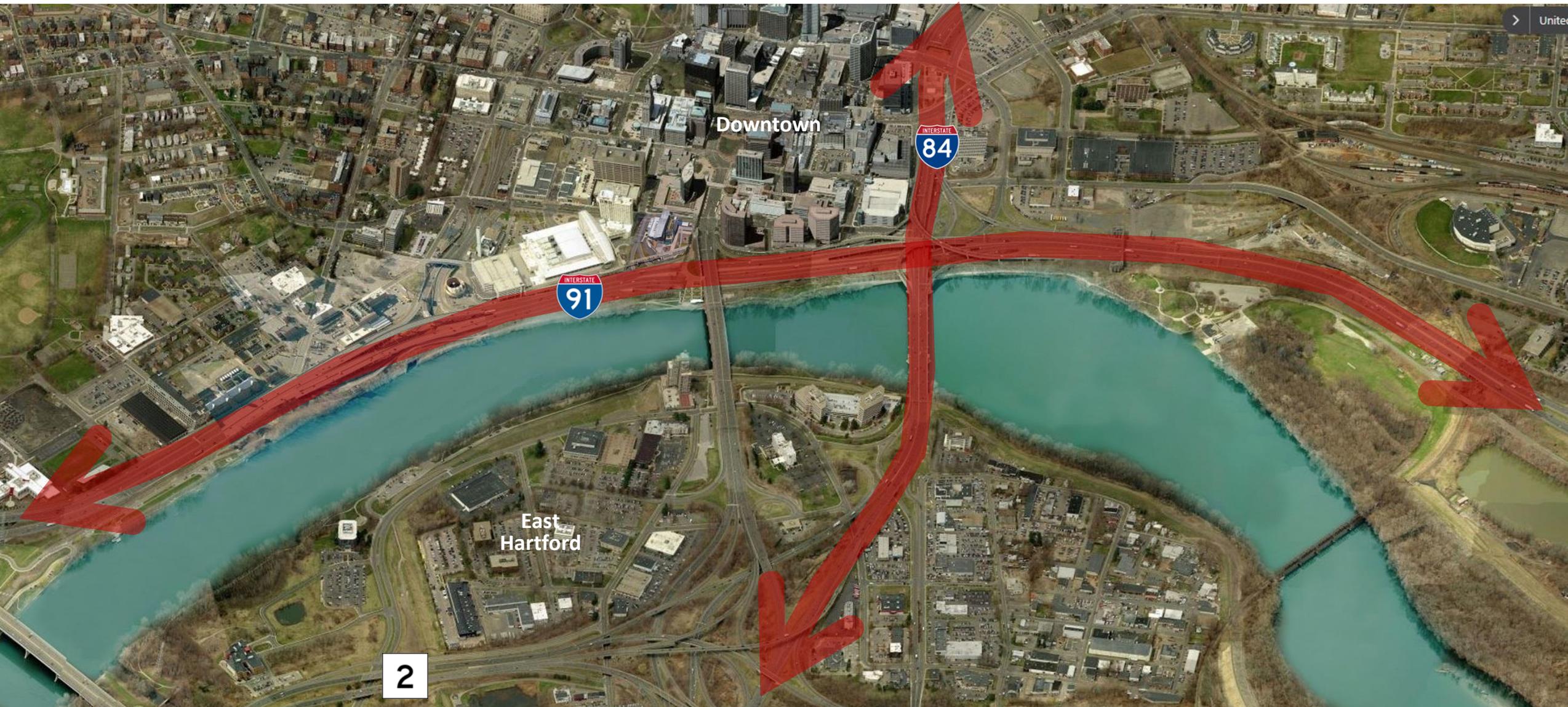
- Growth in Hartford could potentially occur to the north, west, and south
- Growth in East Hartford could occur north and south of CT Blvd. with a mix of uses taking advantage of the waterfront

LEGEND

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- Urban arterial
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- Downtown core
- City growth
- Coltsville National Historic District
- Rail
- CTfastrak

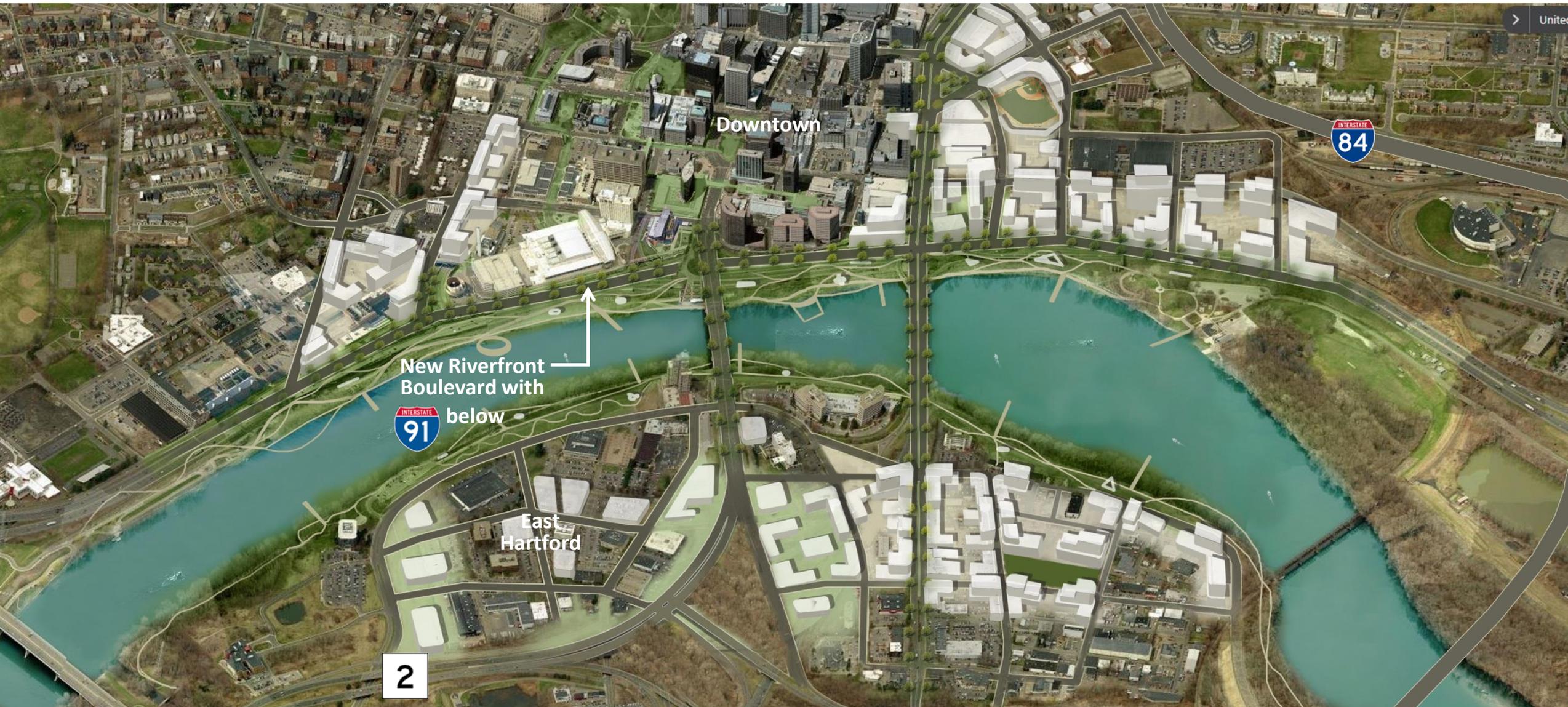


Existing transportation network limits the city's potential



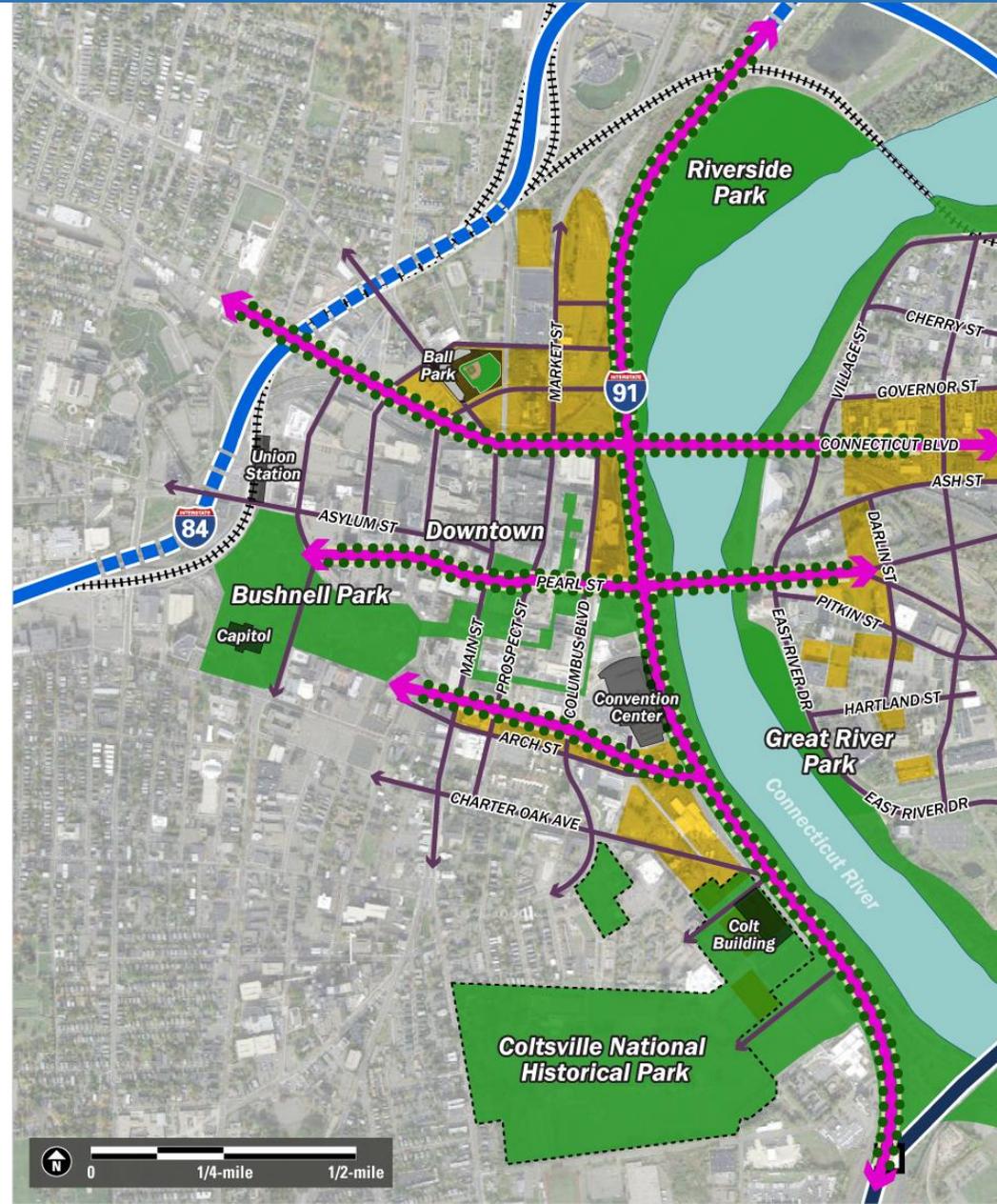
2

Transformed riverfront catalyzes development on both sides



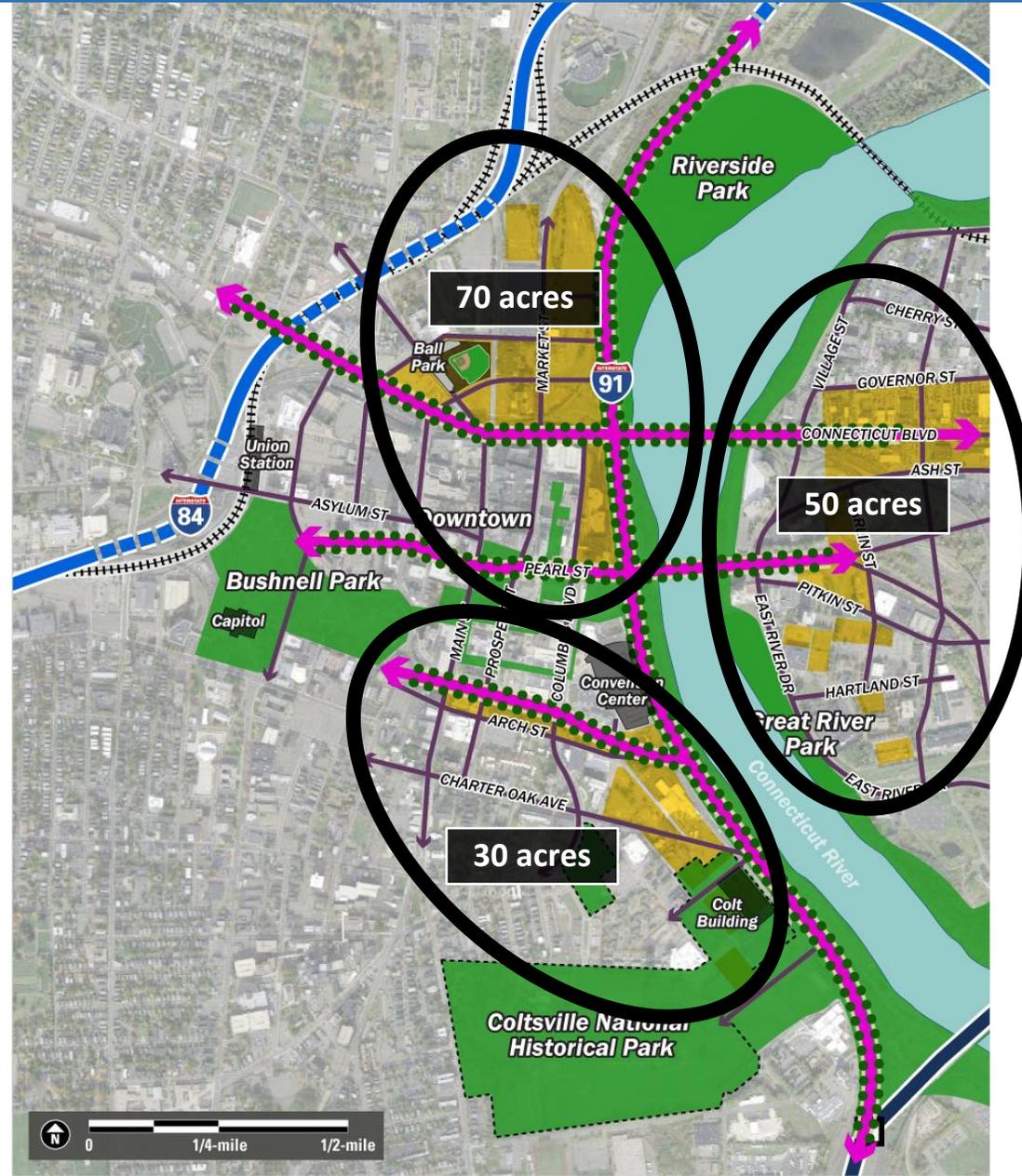
Potential redevelopment sites

- A high-level analysis of sites shows potential areas for city growth and revitalization
- Other areas may be possible
- Current uses, ownership, market demand and development economics will be critical factors



Potential redevelopment sites

- **Approximately 150 acres** of development or redevelopment potential



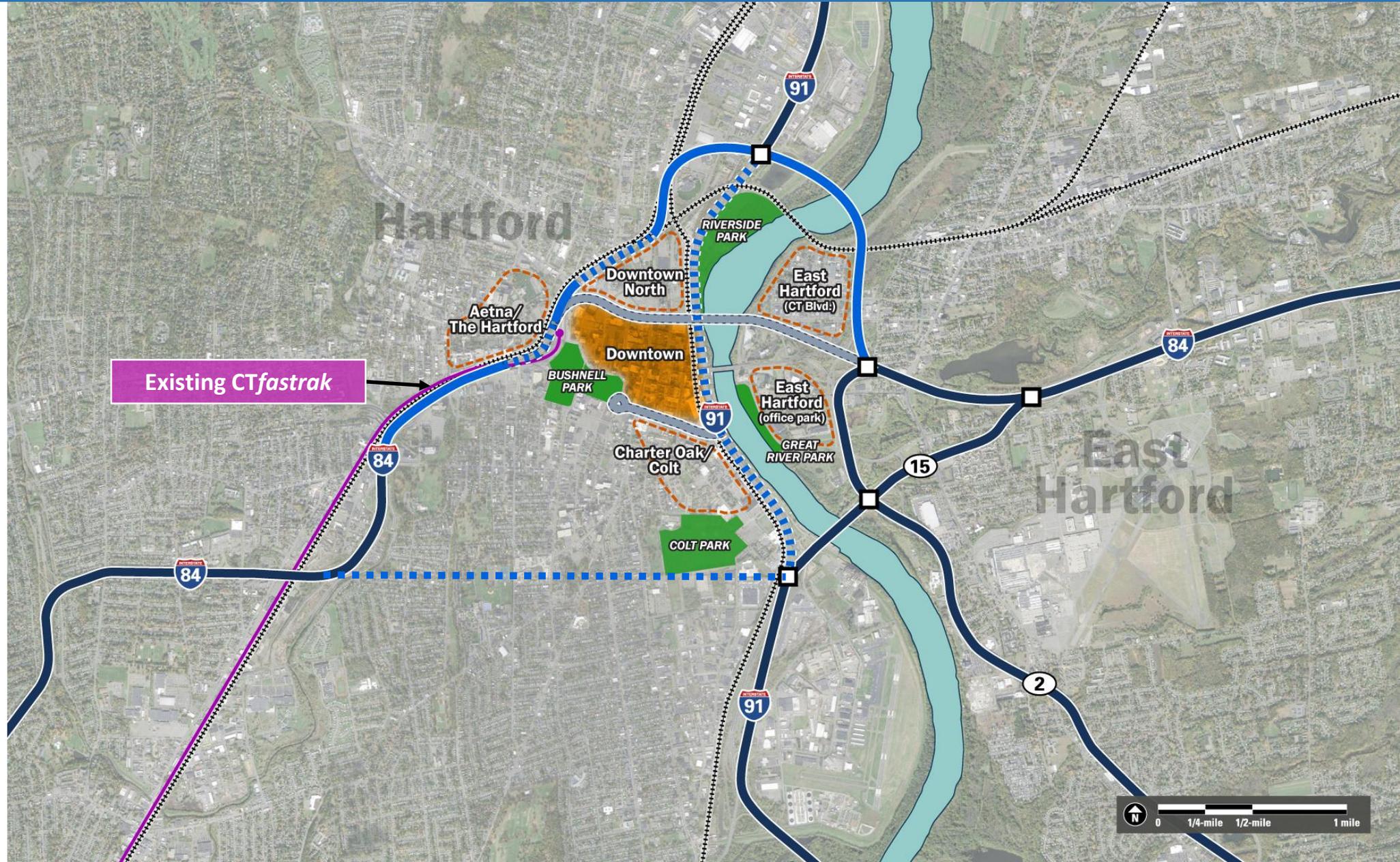
Integrating Public Transit

Making connections east/west and north/south

Combined scenarios



- **CTfastrak** has exceeded ridership goals and expansion to the east is ongoing



LEGEND

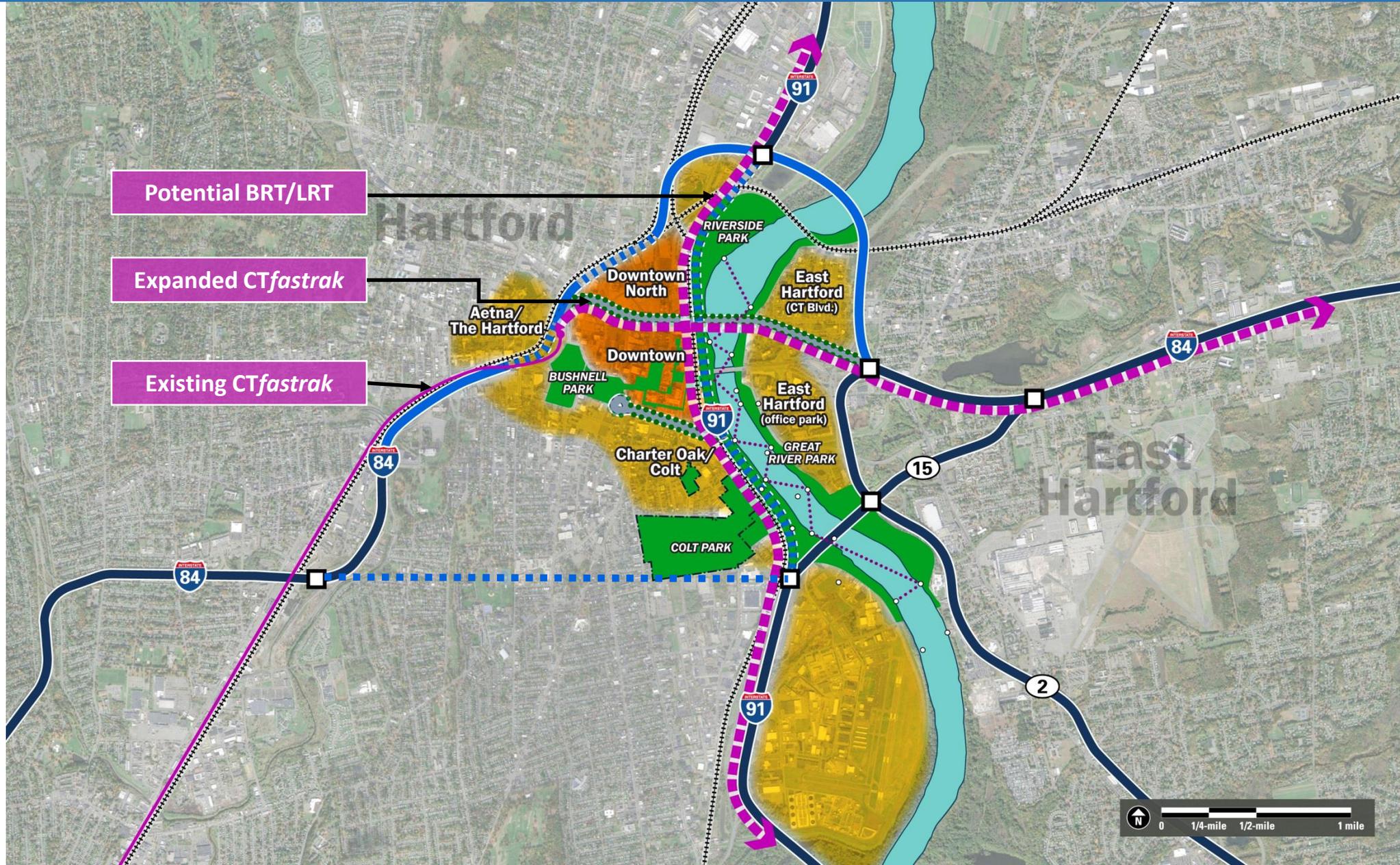
- Highway
- Interchange
- - - Existing highway alignment
- Highway realignment
- Tunnel/cap
- Urban arterial
- Green space
- Downtown core
- - - Surrounding districts
- - - Rail
- CTfastrak



The public transit network can be further enhanced

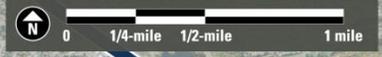


- Enhanced public transit could occur north/south along a new riverfront, tying together key destinations and residential areas



LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
- Tunnel/cap
- Urban arterial
- Green space
- Downtown core
- City growth
- Coltsville National Historic District
- Rail
- CTfastrak
- Expanded/potential BRT
- Water-based transit



Current view



Potential view

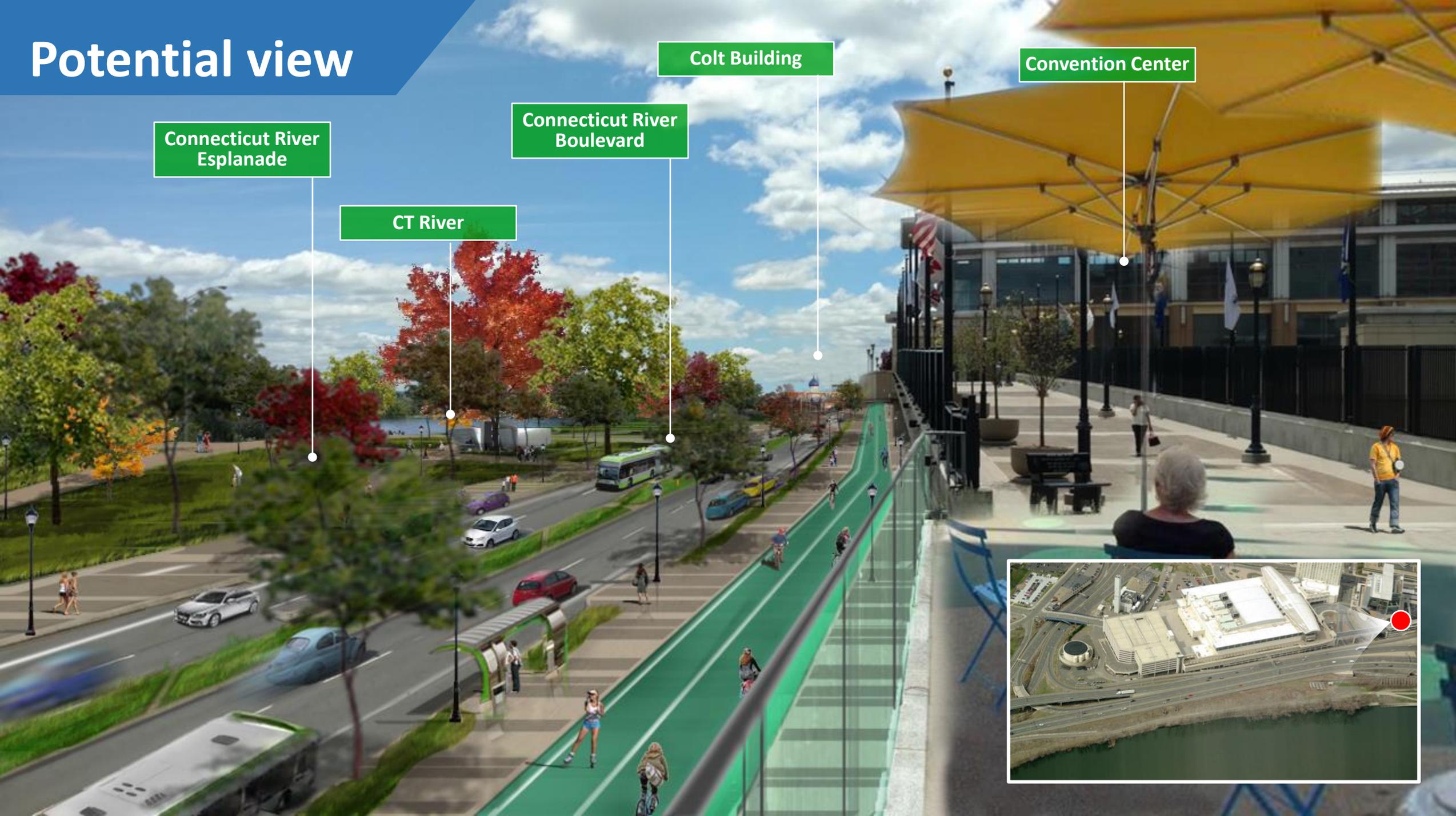
Connecticut River Esplanade

CT River

Connecticut River Boulevard

Colt Building

Convention Center



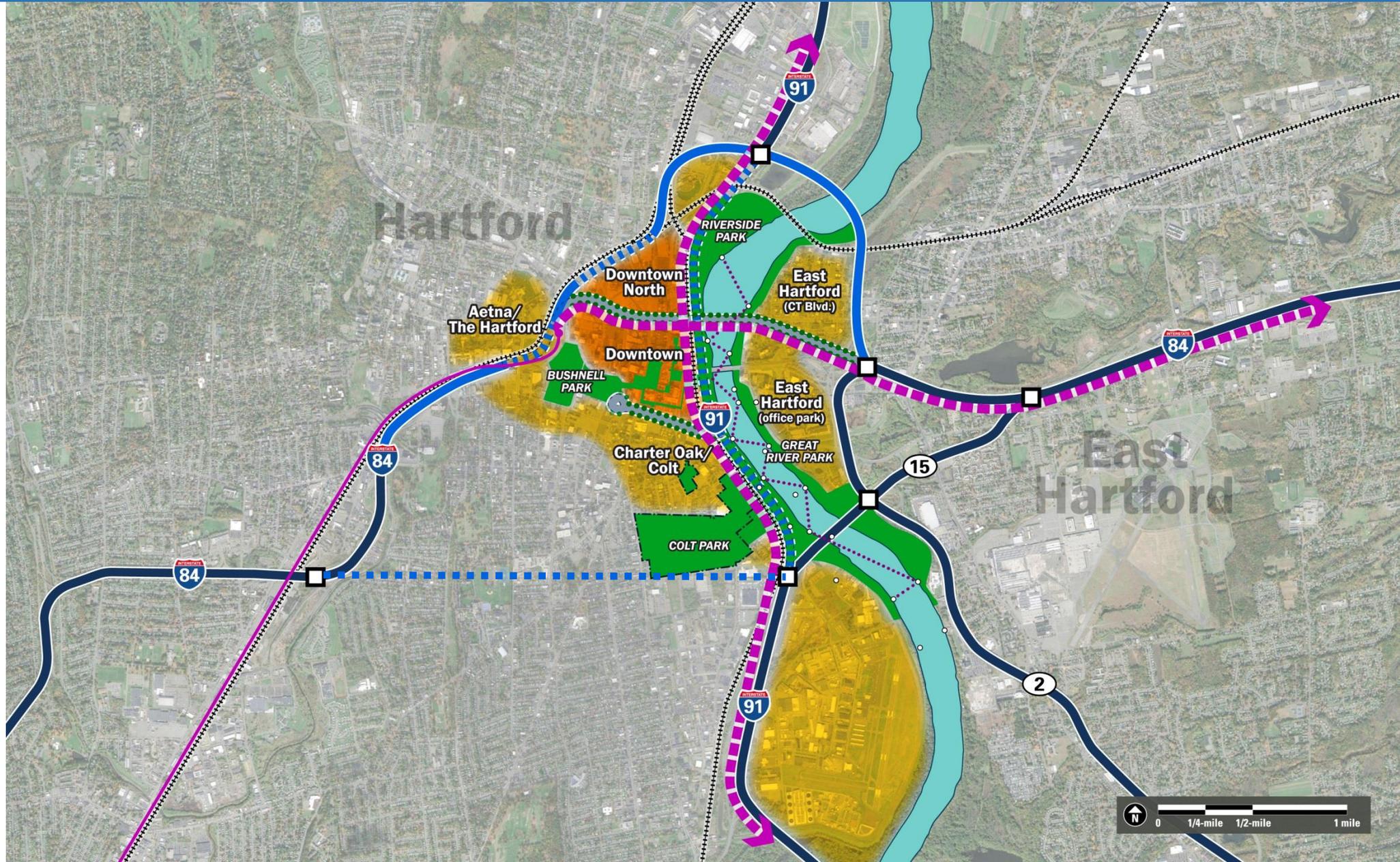
Key Transformations

In Hartford and East Hartford

Key Transformations

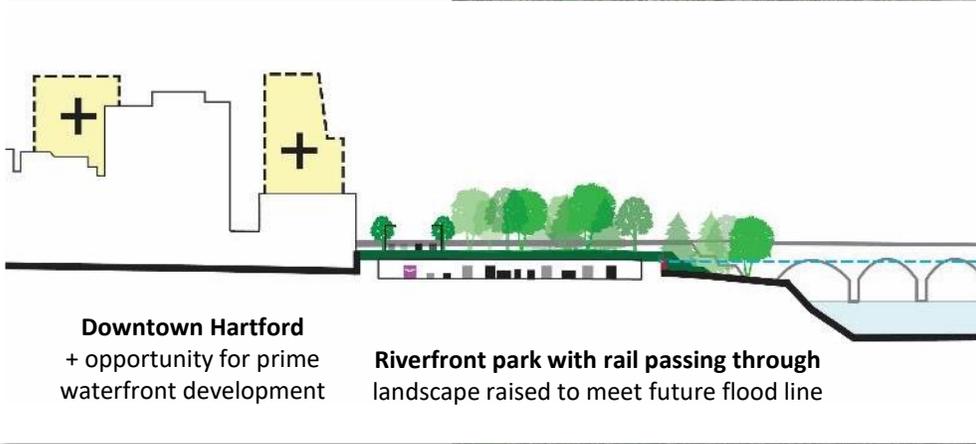
LEGEND

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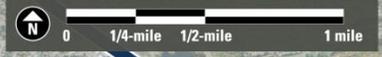
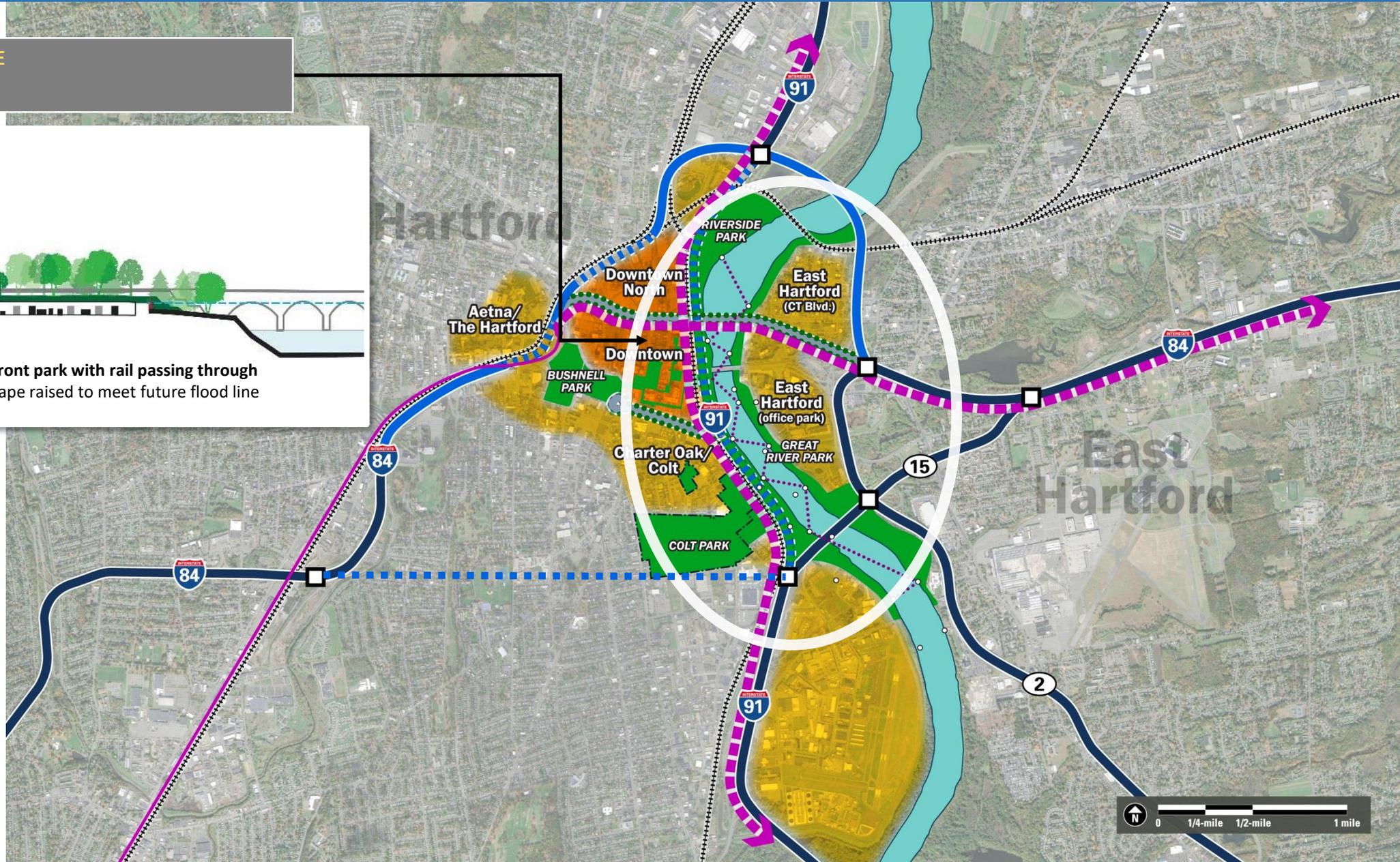
Key Transformations

CONNECTICUT RIVER ESPLANADE World-class waterfront



LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
- Tunnel/cap
- Urban arterial
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Key Transformations

CONNECTICUT RIVER ESPLANADE

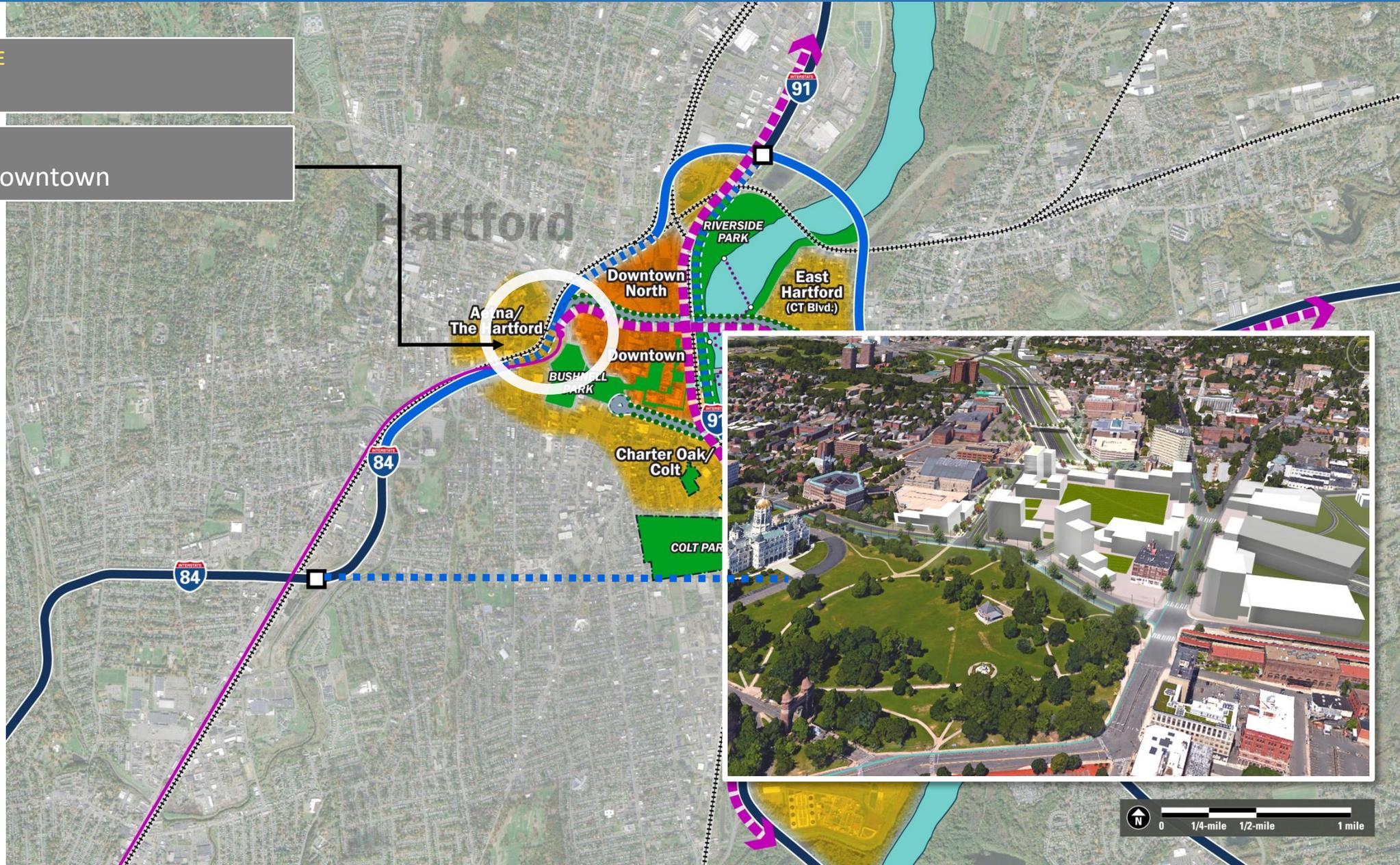
World-class waterfront

I-84 HARTFORD PROJECT

Reconnecting a divided downtown

LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
- Tunnel/cap
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Key Transformations

CONNECTICUT RIVER ESPLANADE

World-class waterfront

I-84 HARTFORD PROJECT

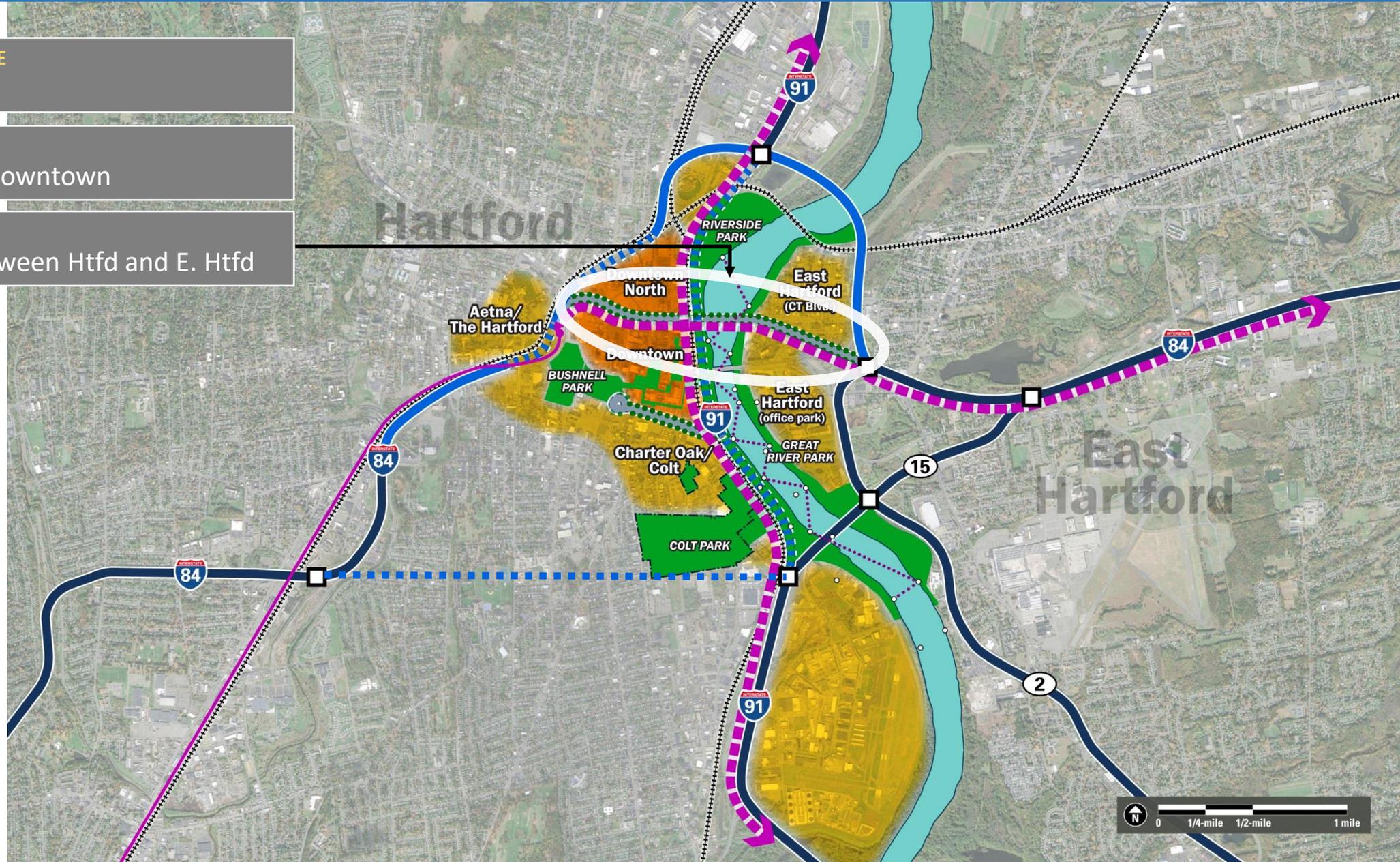
Reconnecting a divided downtown

BULKELEY BOULEVARD

A new "Main Street" between Htfd and E. Htfd

LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
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Key Transformations

CONNECTICUT RIVER ESPLANADE

World-class waterfront

I-84 HARTFORD PROJECT

Reconnecting a divided downtown

BULKELEY BOULEVARD

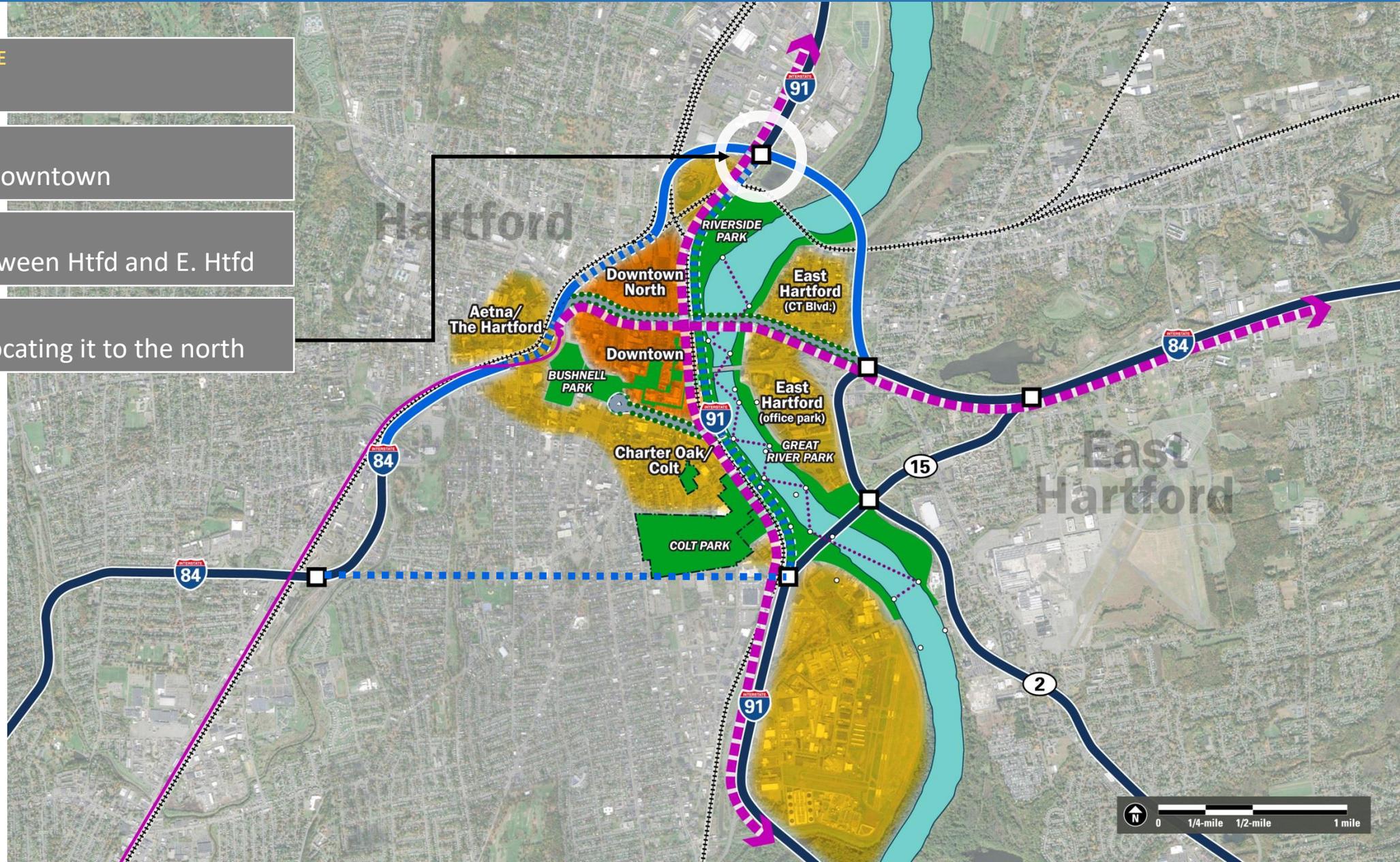
A new “Main Street” between Htfd and E. Htfd

84/91 INTERCHANGE

Easing congestion by relocating it to the north

LEGEND

- Highway
- Interchange
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- Highway realignment
- Tunnel/cap
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- Downtown core
- City growth
- Coltsville National Historic District
- Rail
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- Water-based transit



Tangible Results for Hartford

- **A transformed transportation network** to support urban growth, not constrain it
- **A transformed riverfront** as the centerpiece of a thriving Capitol city
- **Approximately 100 acres of development** in the form of new construction or redevelopment
- **Significant job creation**
- **45 acres of new green space** in the form of a new “Connecticut River Esplanade”



Tangible Results for East Hartford

- **A transformed transportation network** to free up valuable land for growth
- **A transformed riverfront** to expand the amenities of Great River Park and catalyze development
- **Approximately 50 acres of development** in the form of new construction or redevelopment along Connecticut Blvd and the Business Park
- **Significant job creation**
- **Reconnecting to Downtown Hartford** and creating economic and recreational synergies





Needs and Deficiencies

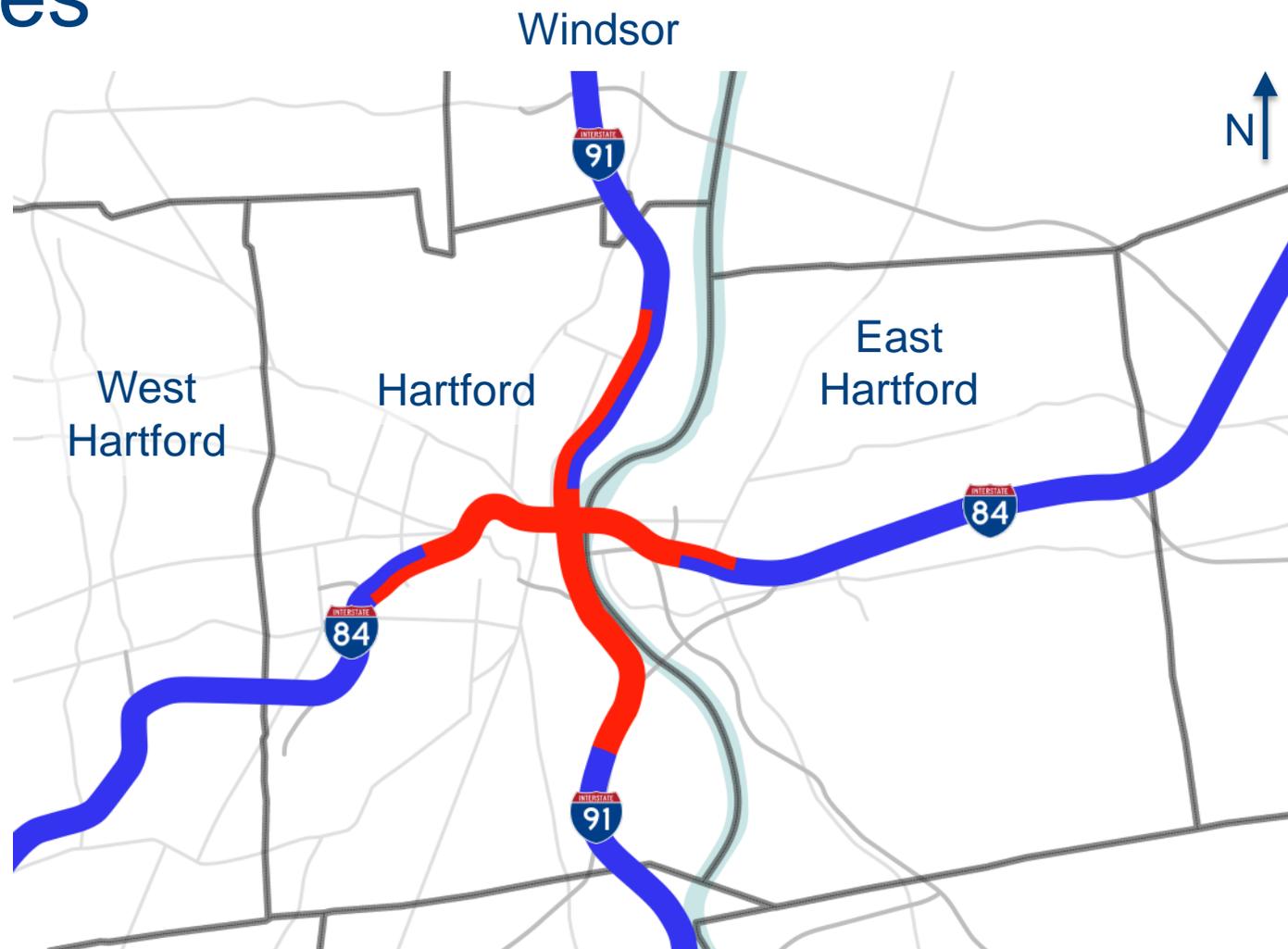
- Poor lane continuity at existing interchange

Legend:

Two through lanes



Three through lanes





Needs and Deficiencies

- Poor lane continuity at existing interchange

Legend:

Two through lanes



Three through lanes



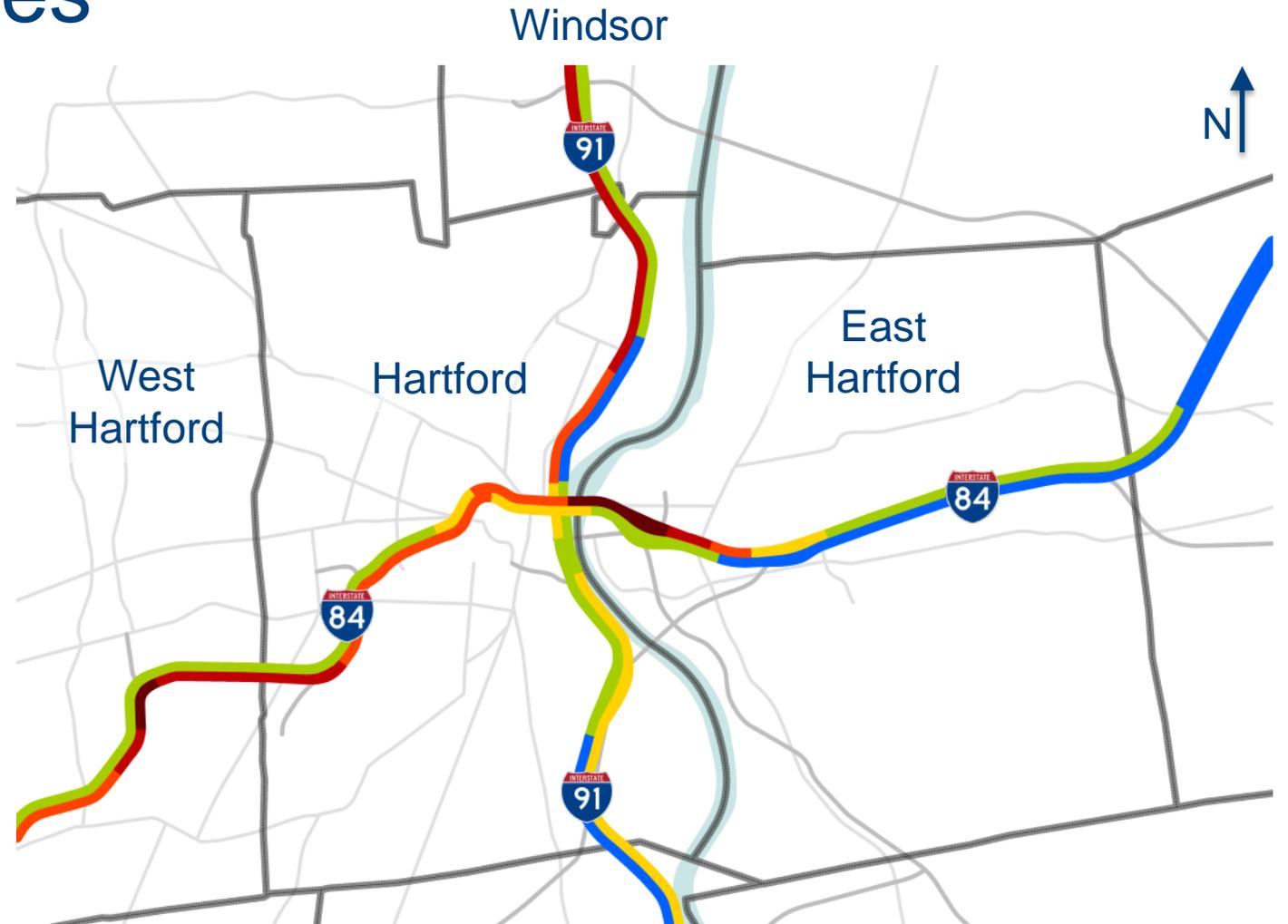


Needs and Deficiencies

- Existing AM travel speeds – I-84 & I-91

Legend:

< 20 mph	
21 – 30 mph	
31 – 40 mph	
41 – 50 mph	
51 – 60 mph	
>60 mph	



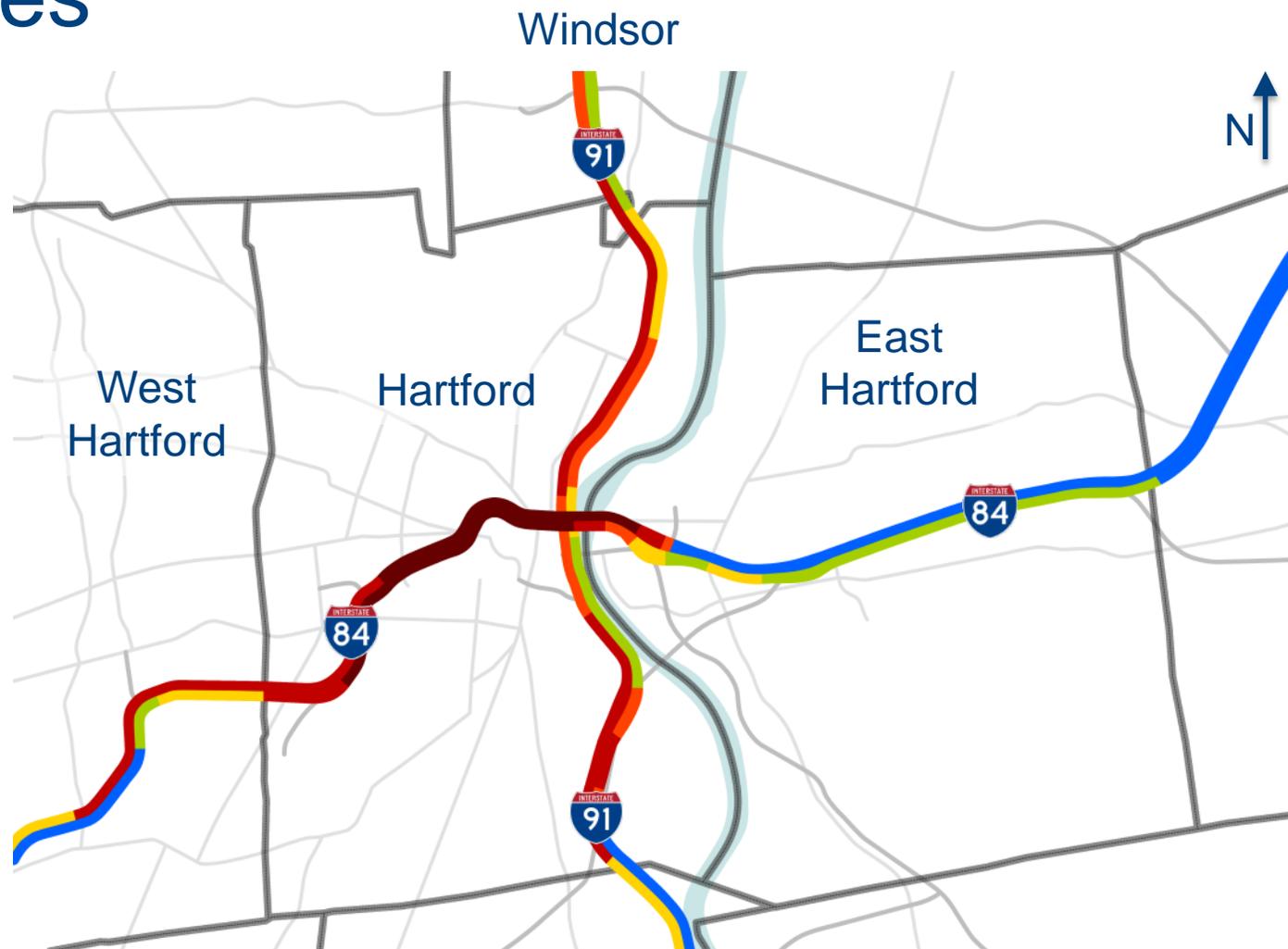


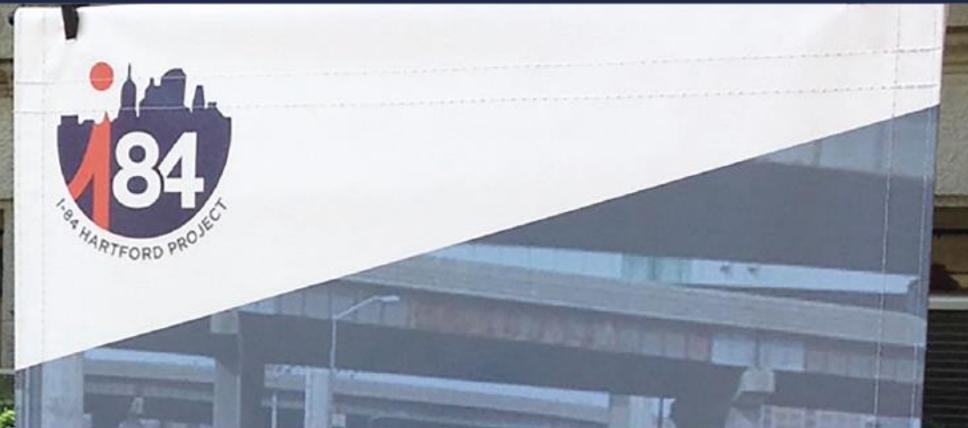
Needs and Deficiencies

- Existing PM travel speeds – I-84 & I-91

Legend:

< 20 mph	
21 – 30 mph	
31 – 40 mph	
41 – 50 mph	
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Outreach

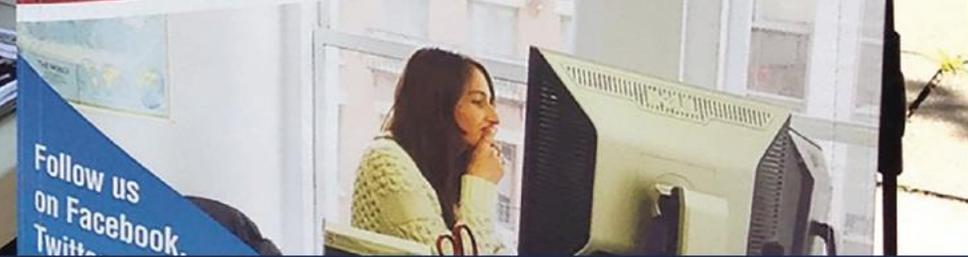
Conditions between
atbush Ave and the
I-91 interchange



Advancing a program
of improvements within
the corridor



Attend
a public meeting
or request a small
group meeting



Follow us
on Facebook.
Twitter



Since Our Last Meetings

- November Open Planning Studio (2)
- NRZ meetings
- Pop up table at events
- School and youth outreach





What To Expect in 2017

- Four PAC meetings
- Working Group meetings, as needed
- Public meetings
- Continued stakeholder and NRZ meetings





Spring 2017 Public Meetings

- Topics:
 - I-84 Hartford Project
 - Multimodal station area
 - I-84 / I-91 Interchange Study





Other Items

- Updated website
- Informational kiosk at Hartford Public Library
- Project table at fairs, festivals
- Surveys
- Youth outreach





School and Youth Outreach

- Broad and diverse populations
 - Students, faculty, families, trainees
- Geographic reach





Example Activities

- Classroom learning
- Bulletin boards
- Special events
- Backpack distribution





I-84 HARTFORD PROJECT





Thank You!

Thank you for your time. We appreciate your commitment to helping us reach the best possible solution for the State of Connecticut, the Capitol Region, and the City of Hartford.

-Your I-84 Hartford Project Team