



# I-84 HARTFORD PROJECT

## I-84 Hartford Project **Open Planning Studio #12**

April 25, 2017





# Meeting Agenda

1. I-84 Hartford Project alternatives update
2. Multimodal station area planning
3. I-84 / I-91 Interchange Study coordination





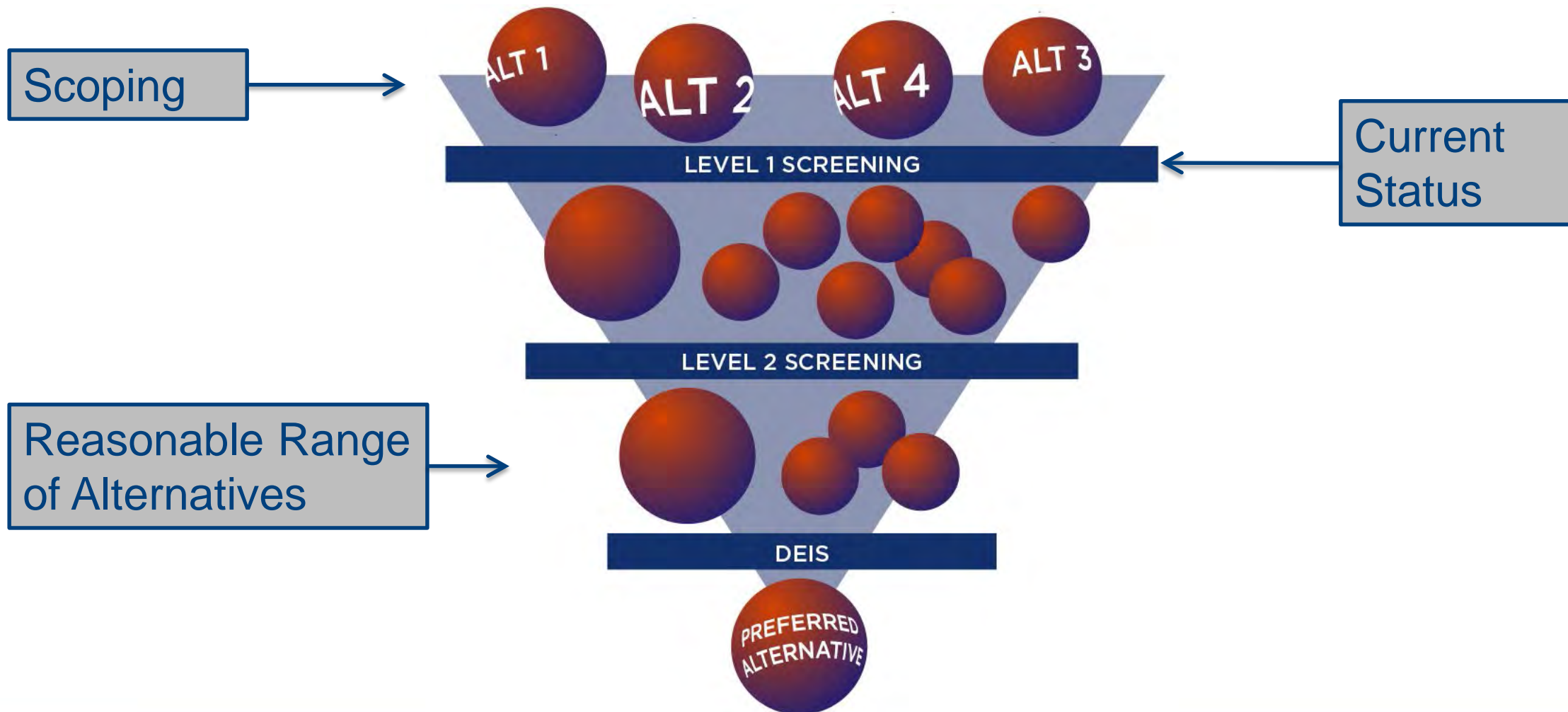
# I-84 Hartford Project Alternatives Update







# Alternatives Screening

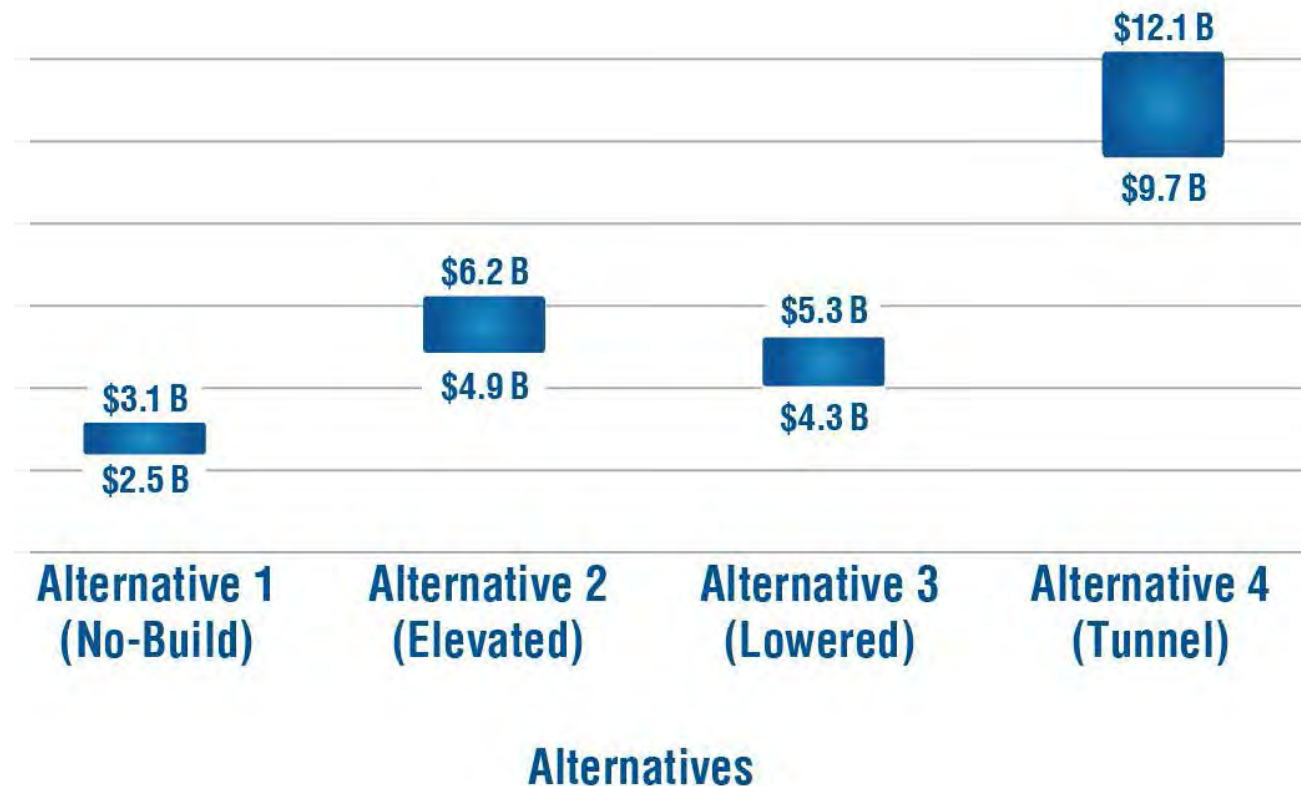






# Project Cost Estimates

- September 2015
  - Based on conceptual ideas
  - Risk workshop
- Early 2017
  - Design of Alt's progressed
  - Risk workshop
  - Cost range for Lowered Highway is unchanged





## On-going Work

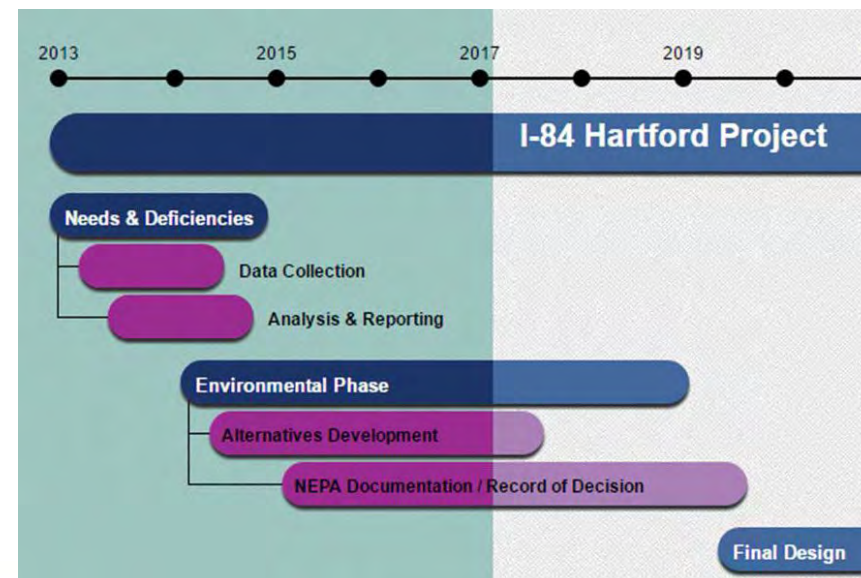
- Continue to refine the Lowered Highway Alternative
  - East end interchange options
  - Stage construction scenarios
- Multimodal station planning
- Environmental documentation process





## Environmental Review Process

- 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







# Multimodal Station Area Planning





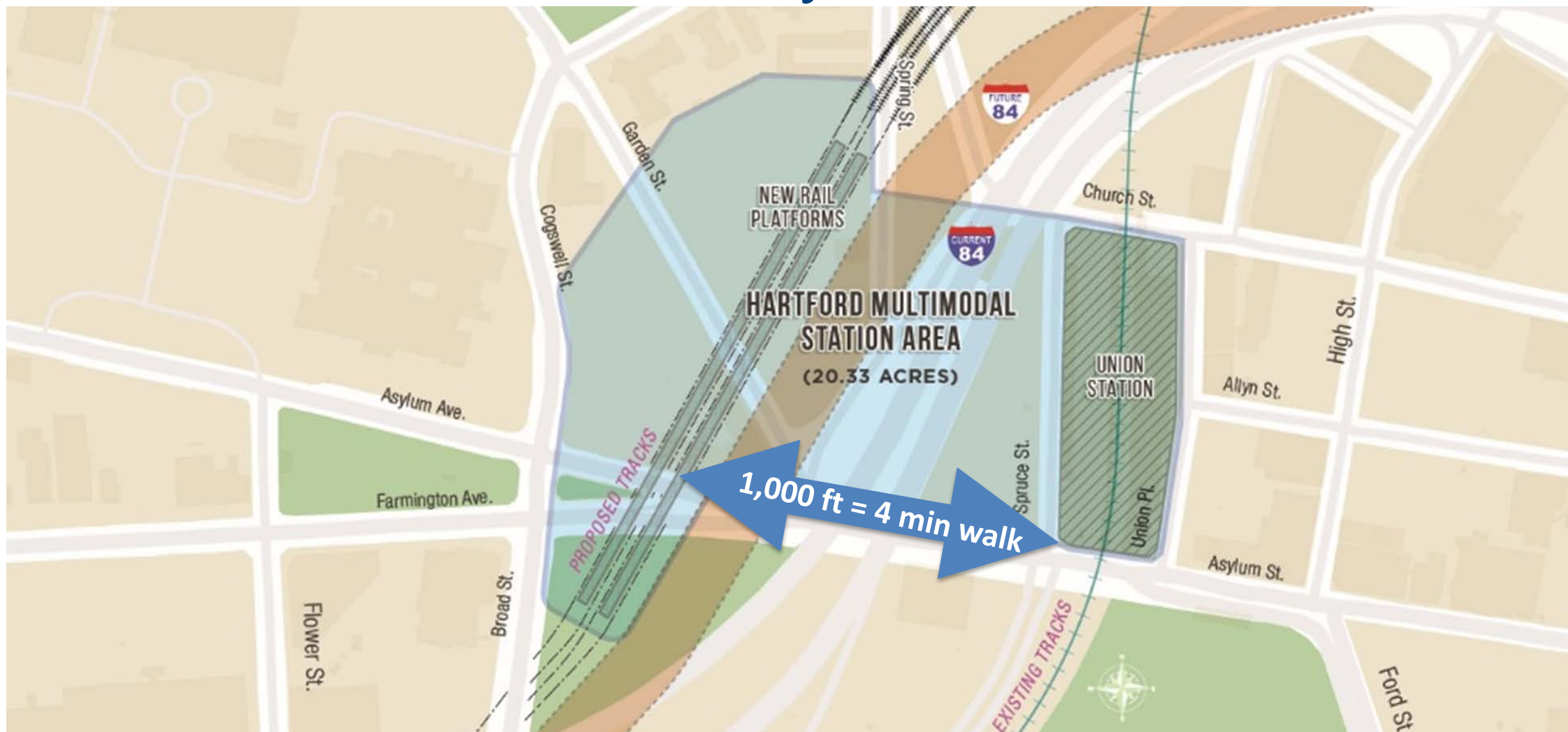


# Railroad Corridor - ~~Proposed~~ Existing





# Multimodal Station Study Area

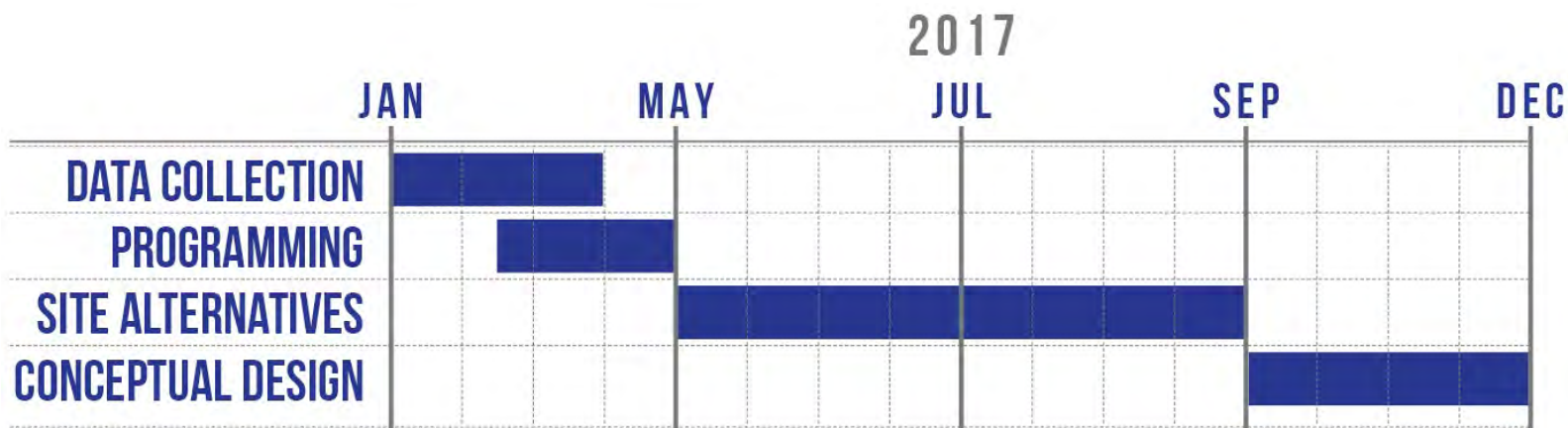






# Hartford Multimodal Station Planning and Design

- 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







# I-84 HARTFORD PROJECT

## Different Modes and Users







# Programming the Hartford Multimodal Station

## Six-step process

1. Establish goals and objectives
2. Research station design requirements
3. Gather / verify relevant information
4. Identify strategies, constraints, and opportunities
5. Determine quantitative requirements
6. Summarize the program





## Gather / Verify Relevant Information

- What is the passenger load for each mode?
- What is transit equipment load / need?
- What are the customer service requirements?
- What are “back-of-house” needs?
- What amenities will be provided?
- What codes will drive programming decisions?
- What are access issues?





# Known Program Elements

- Projected ridership\*
  - Express rail (297,200 annual riders)
  - Corridor rail (1,032,600 annual riders)
  - Regional rail (46,800 annual riders)
- Platform size
  - Two platforms planned
  - 1,000' long, 24' wide, 4' above top of rail
- Parking displacement
  - 197 spaces in Union Station Spruce Street lot
  - Other parking impacts from I-84 Hartford Project (3,675 - 4,390 spaces)

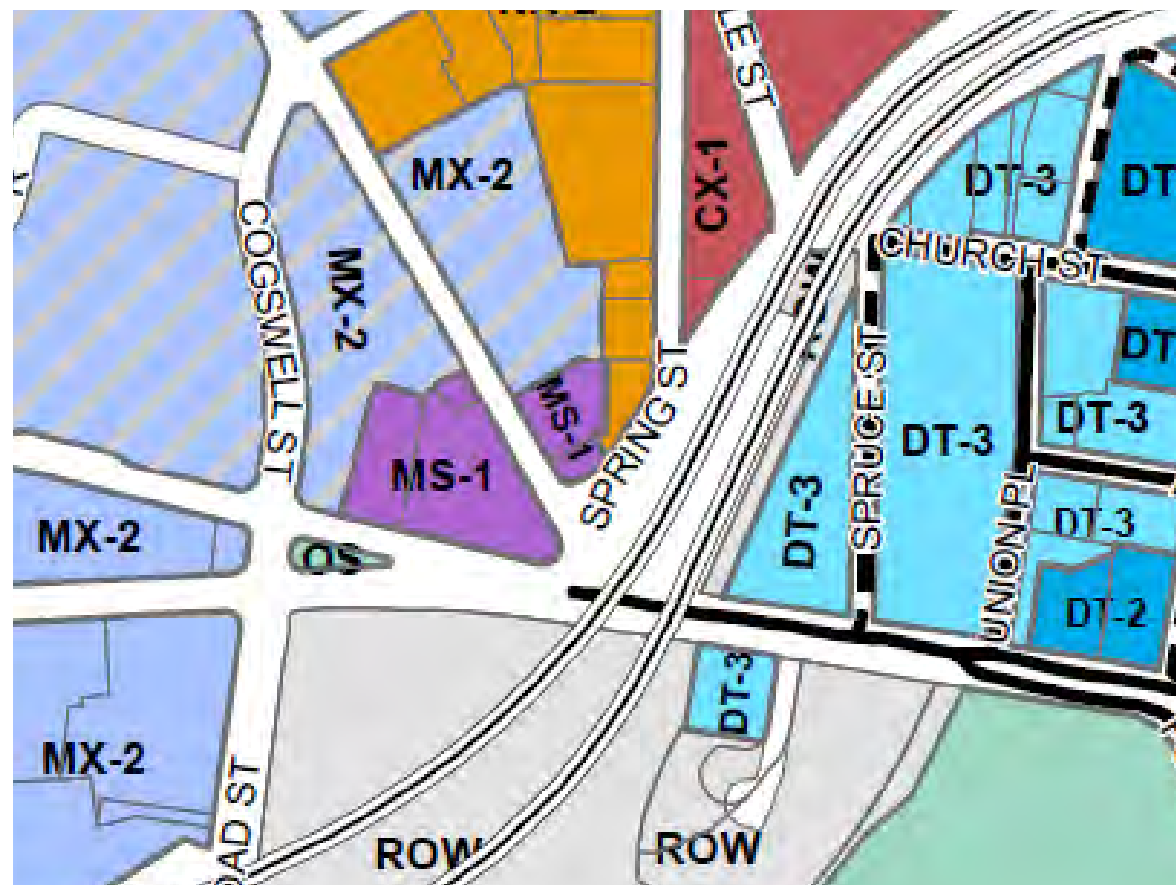


\*Source= NEC FEIS

# Known Program Elements

- Zoning

- New form based code allows for mixed use development
  - Downtown districts - DT-2 / DT-3
  - Main street districts - MS-1 / MS-2
  - Commercial industrial mix districts - CX-1

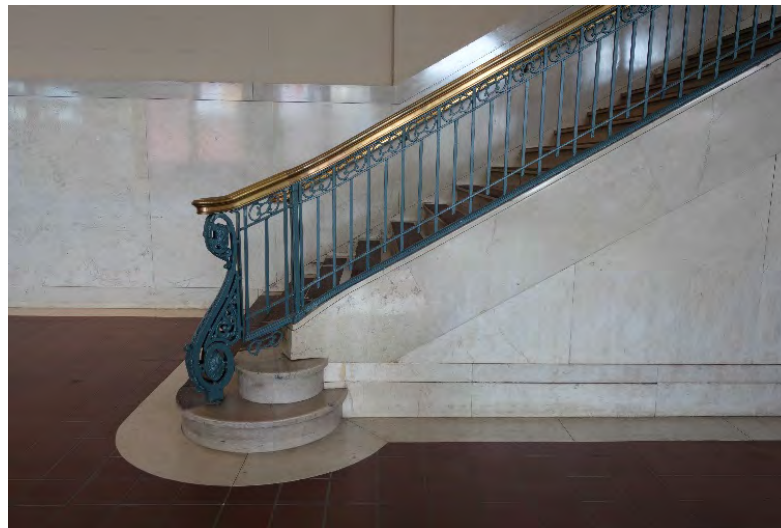






# Known Program Elements

- Union Station
  - National Register of Historic Places





# Transit Oriented Development Opportunities

*What are the best ways to encourage development?*

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

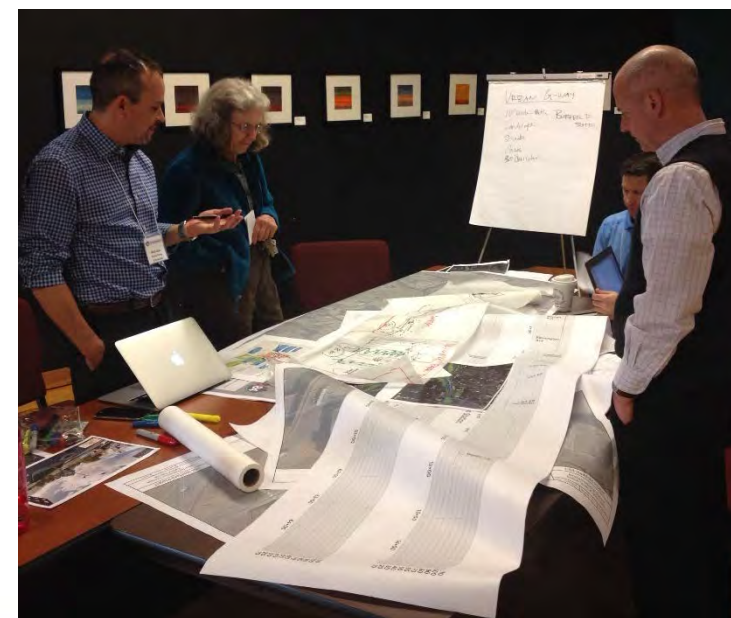






## Participate In Our Workshop!

- View preliminary concepts
- Take the survey
- Tell us your design goals and priorities





## Next Steps

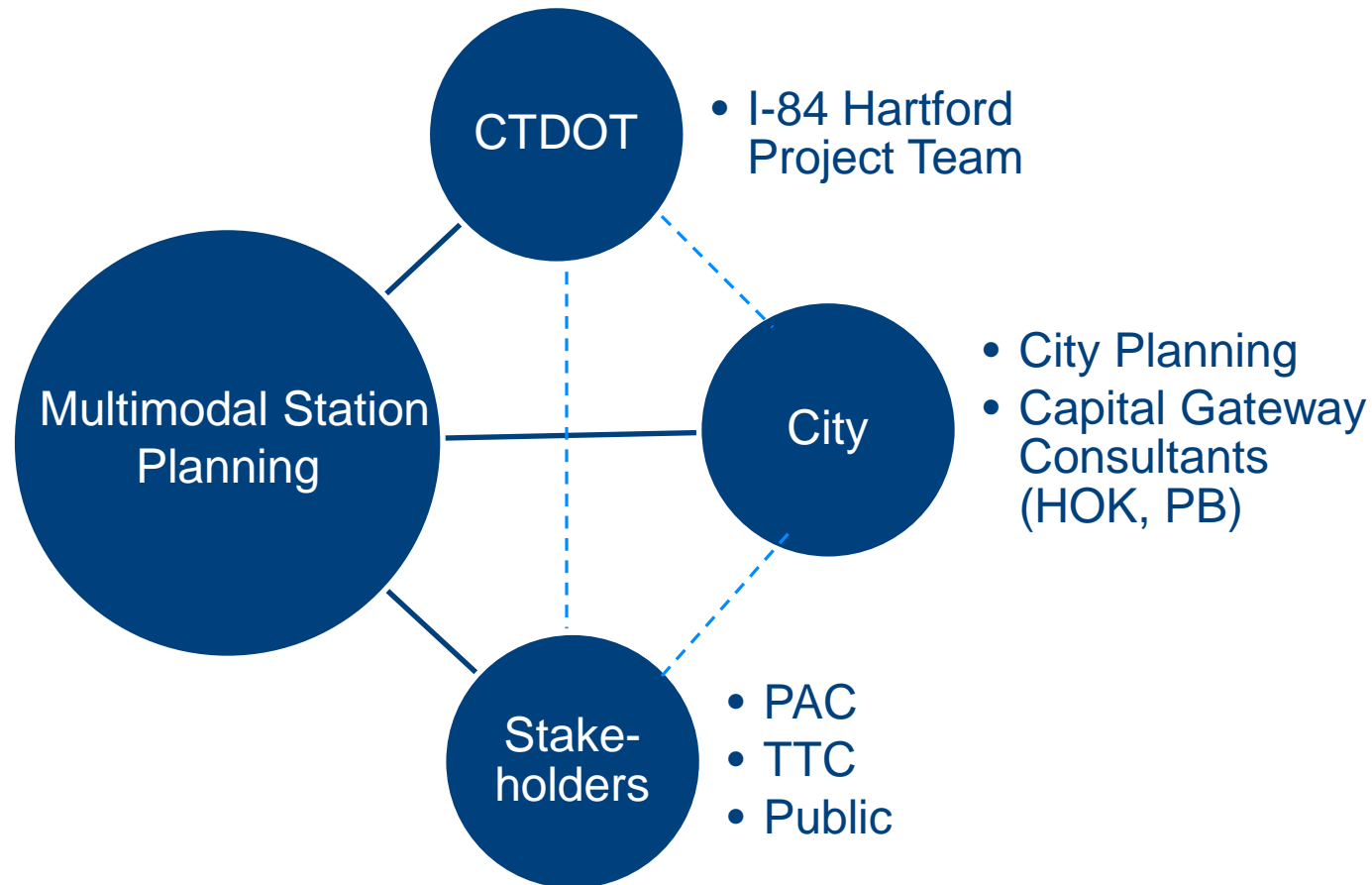
- Complete programming data gathering
- Conceptual site alternatives
- Preferred site concept (September)
- Transit operations discussion (October)
- 15% architectural drawings (December)







# Multimodal Station Planning





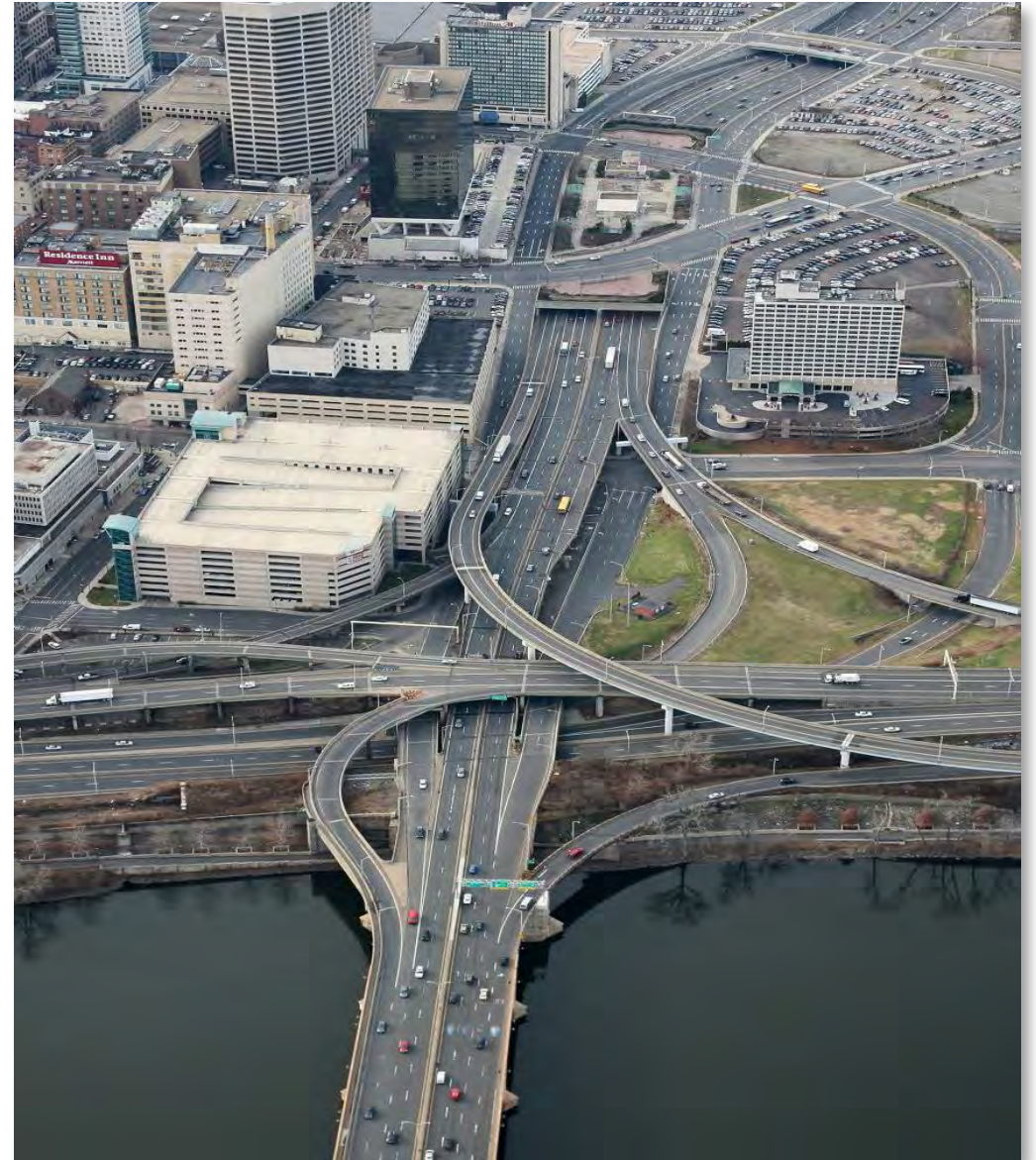
# I-84 / I-91 Interchange Study





# Background

- Constructed in the 1960s; modified in the late 1980s
- Serves 275,000 vehicles per day
- Physical and environmental constraints



# Interchange Deficiencies

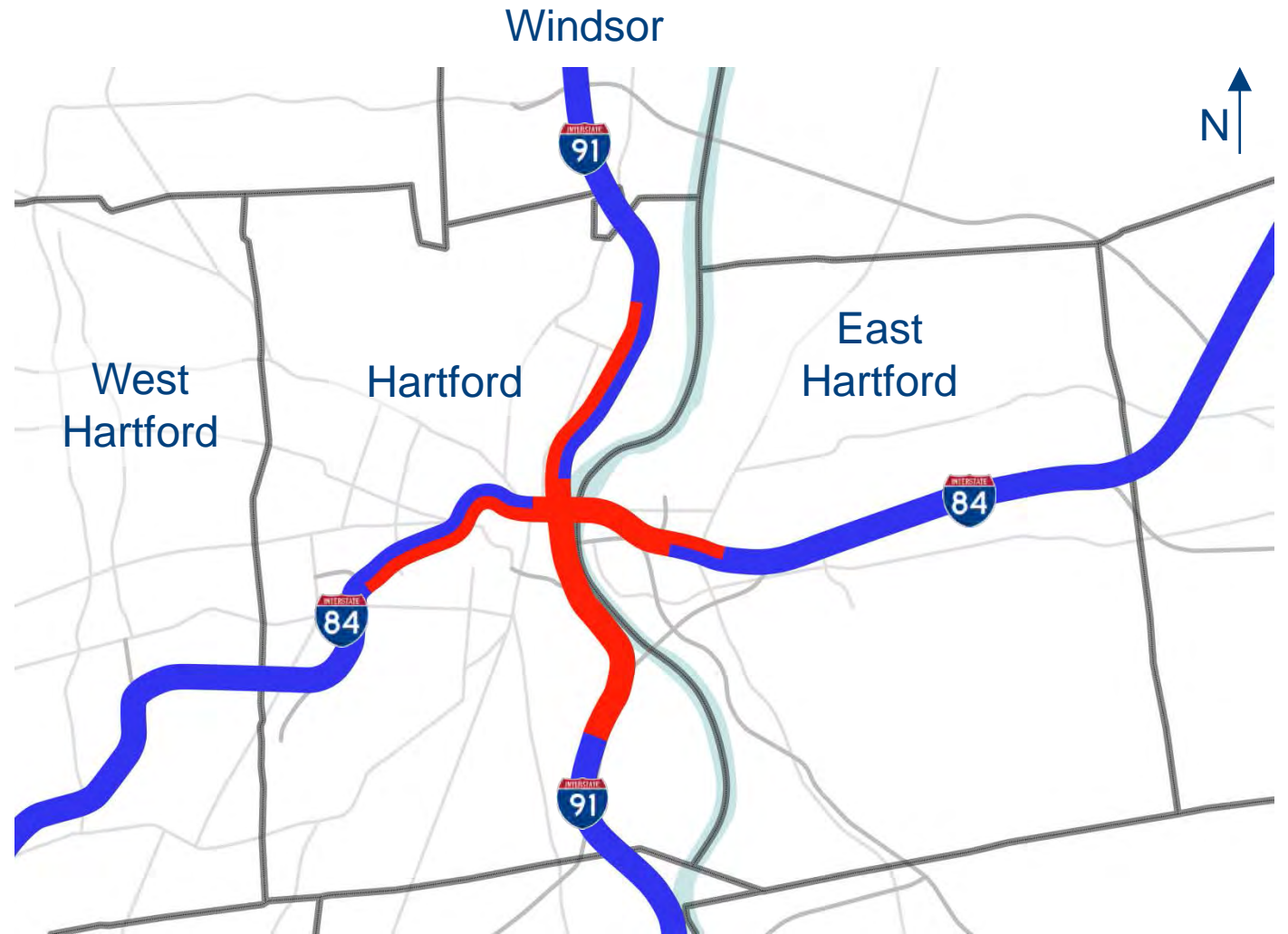
- Highway bottleneck
- Ramp capacity
- Interchange spacing

## Legend:

Two through  
lanes



Three through  
lanes



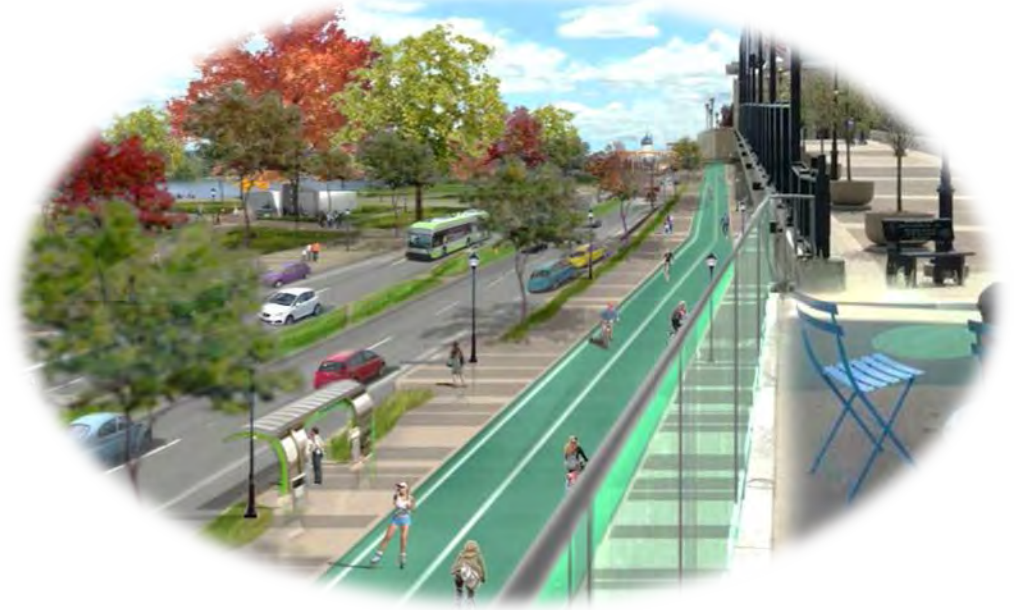




# Study Approach

What is the **vision** for Hartford and East Hartford?

- Improved quality of life
- Enjoyment of the riverfront
- Recaptured land
- Development opportunities
- New public spaces
- Job creation





# Study Approach

Transportation alternatives that could serve the vision:

- Regional and local systems
- Highway, bus, and rail transport
- Intermodal and non-motorized options

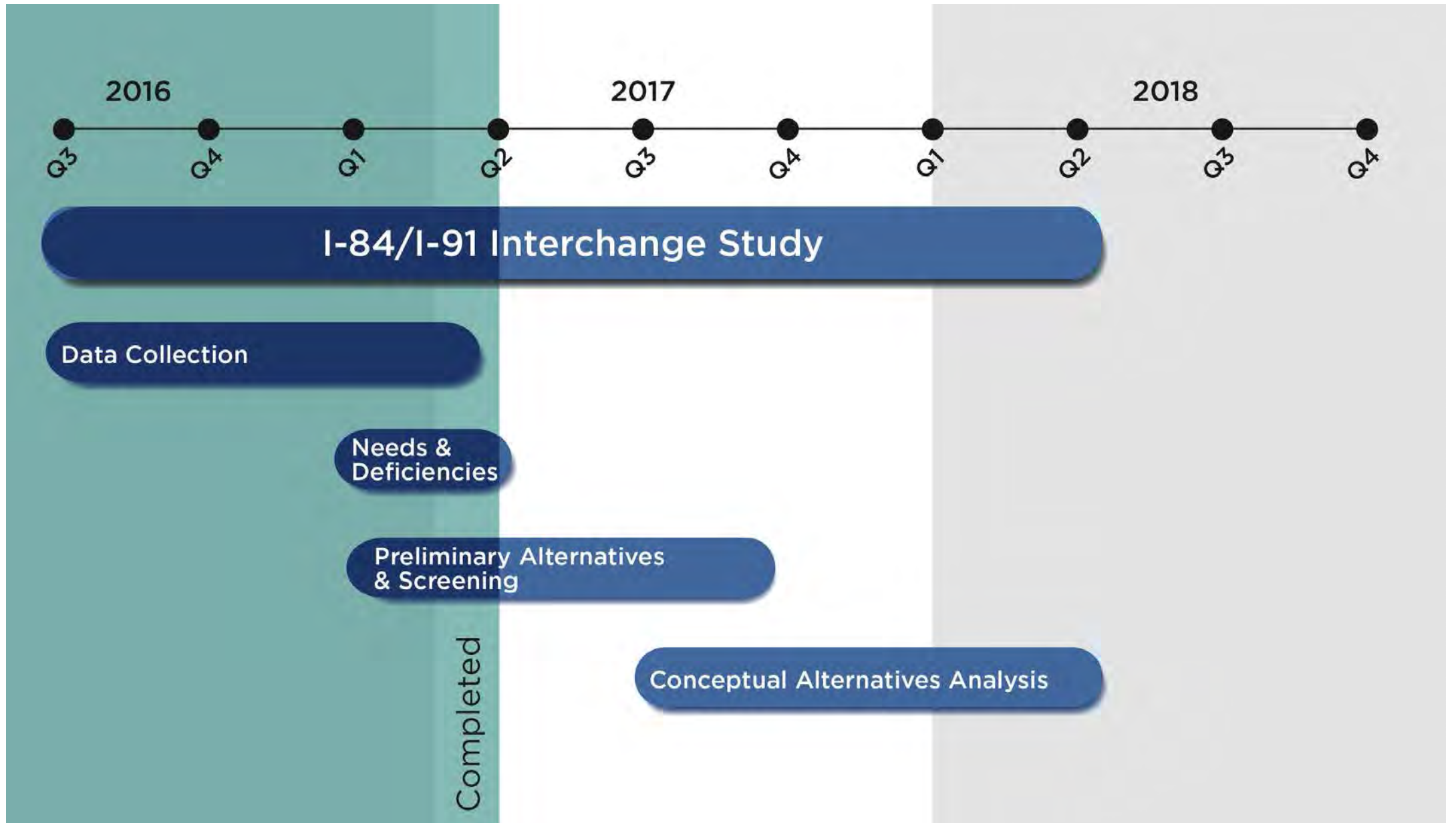
# Process / Schedule

- Estimated 18-month duration
- Three preliminary alternatives
  - Screening
- Remaining alternatives advanced to conceptual design



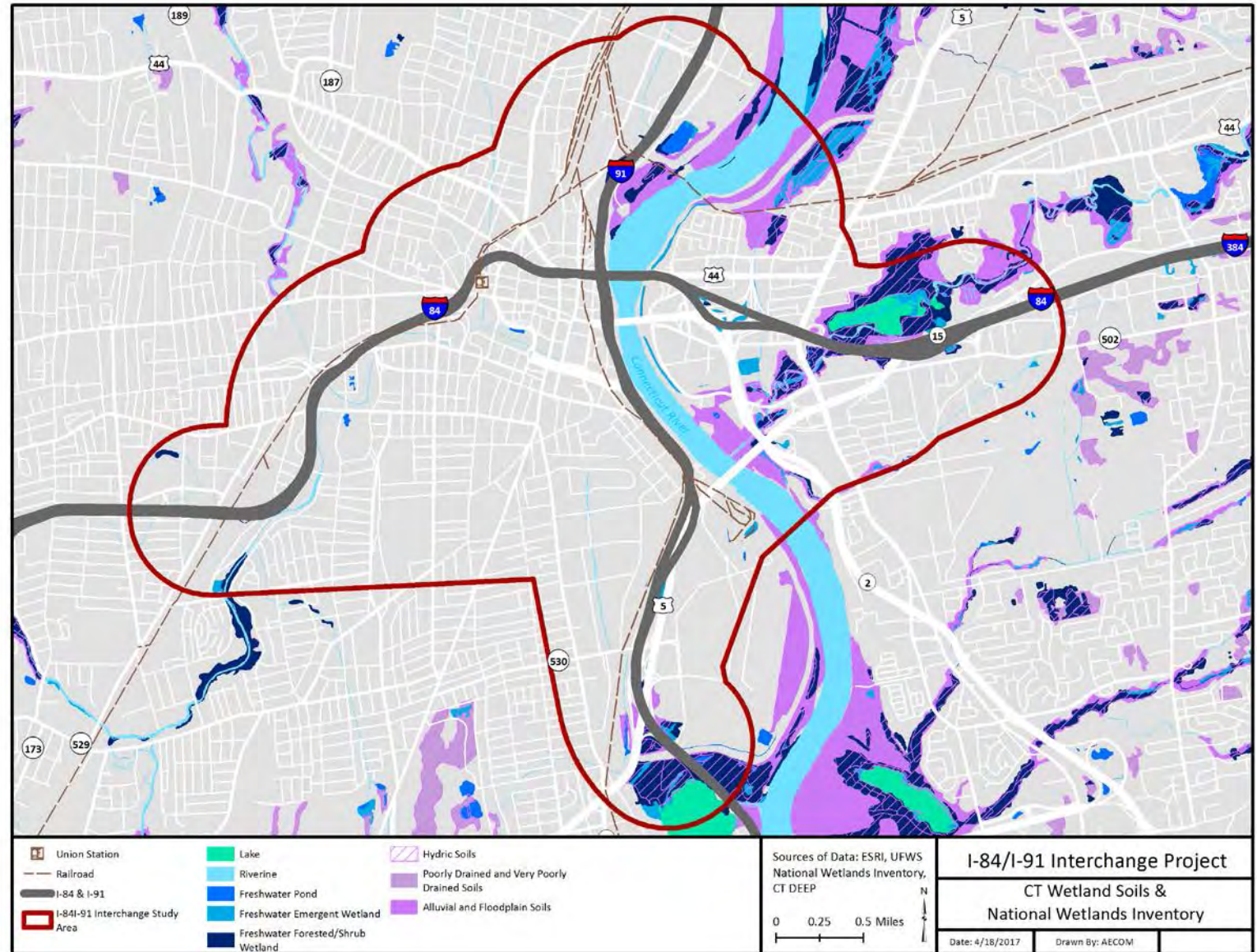


# Process



# Wetlands: CT Soils / National Wetlands Inventory (NWI)

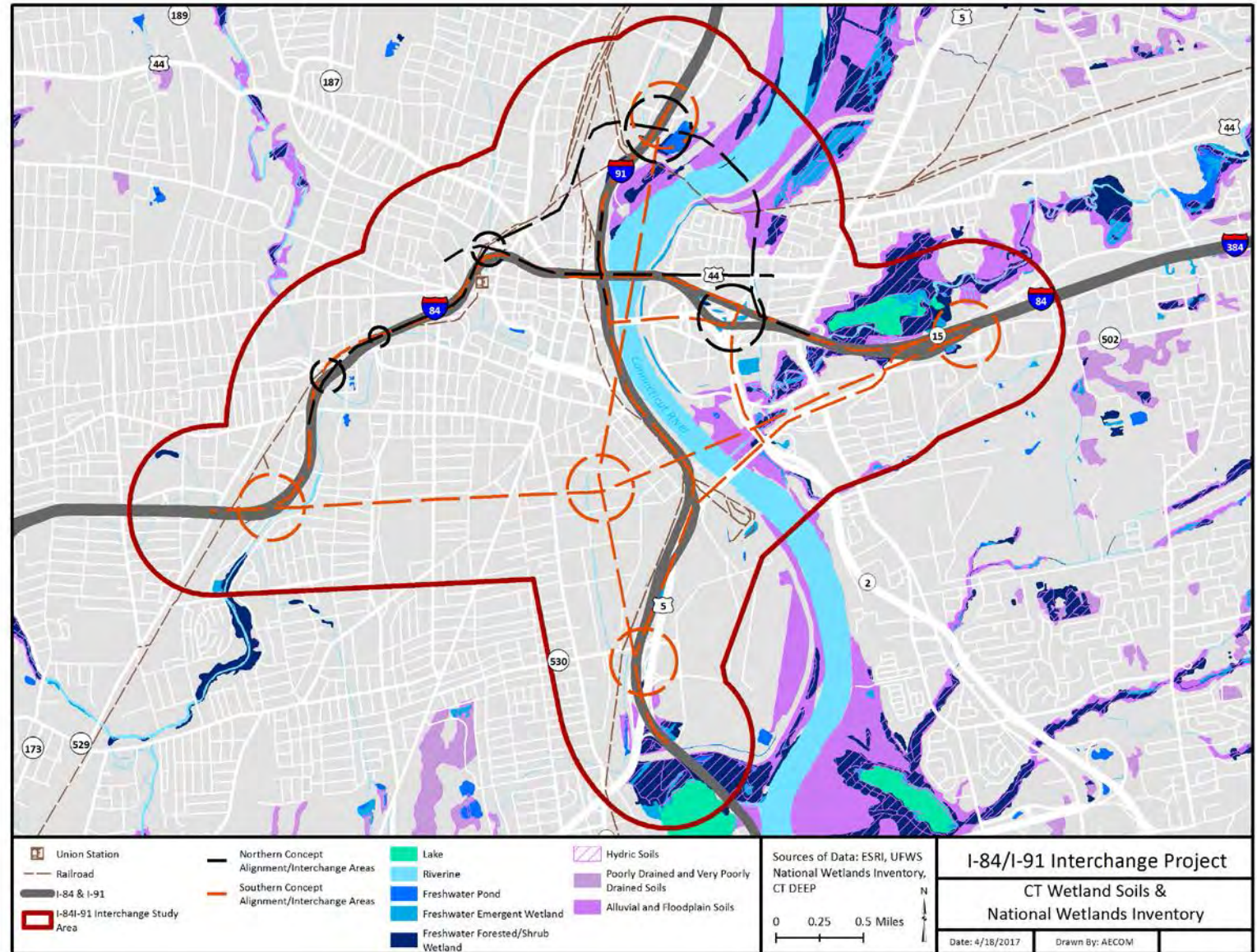
- Study area:
  - ~570 acres inland wetland soils / 390 acres hydric soils (CT DEEP)
  - ~875 acres NWI
- Connecticut and Hockanum Rivers





# Wetlands: CT Soils / National Wetlands Inventory (NWI)

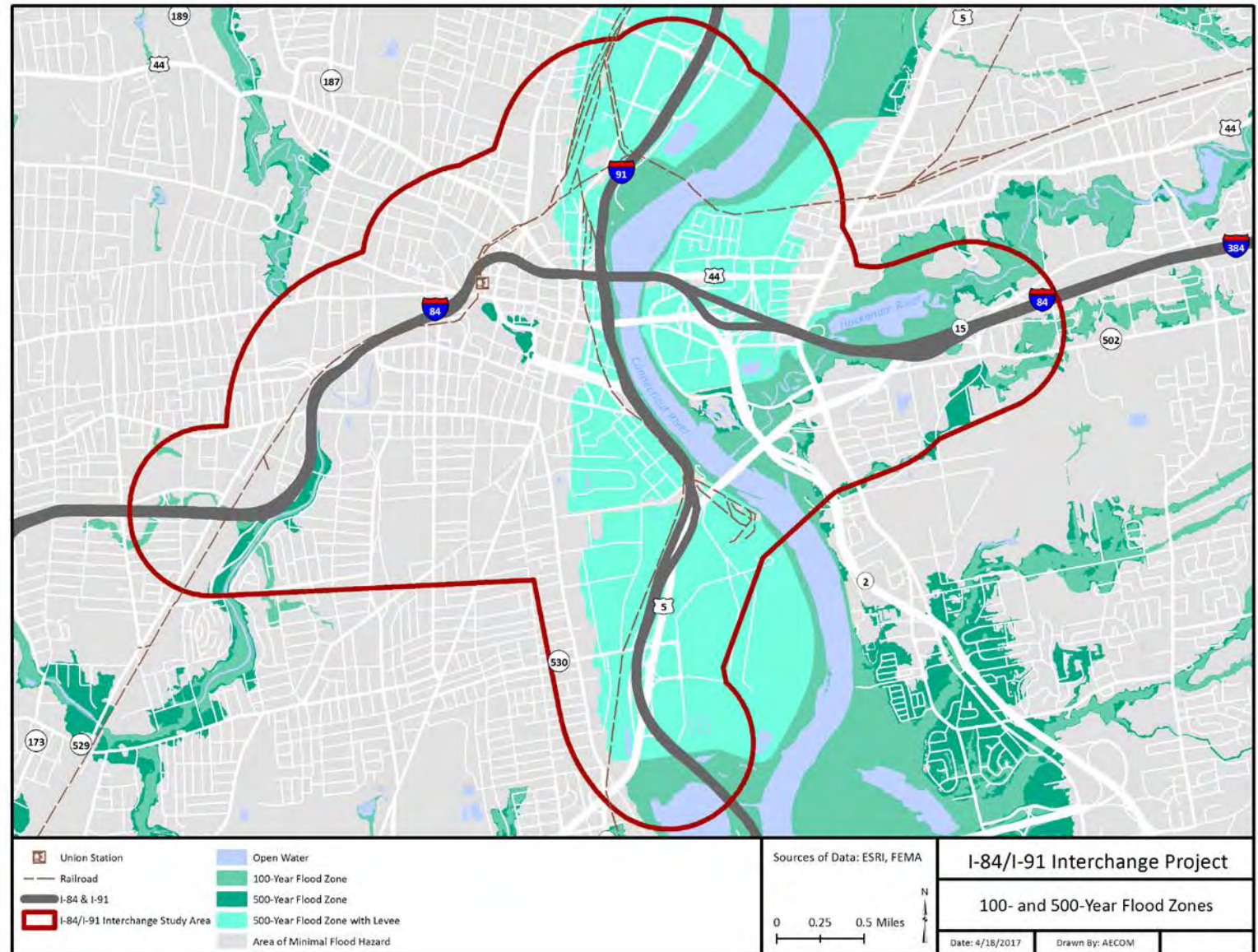
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# Flood Prone Areas

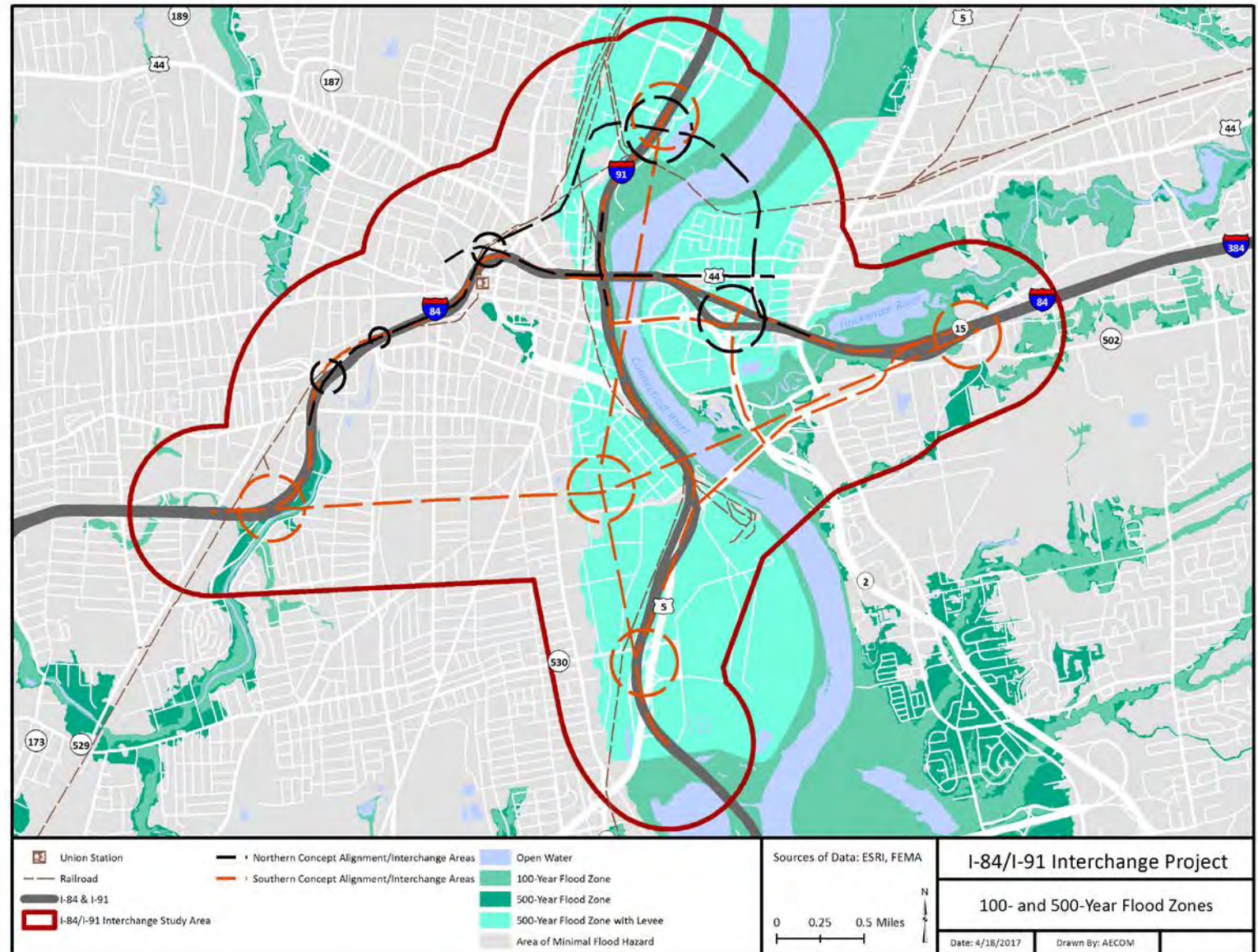
- Study area:
  - ~1,200 acres in 100-year flood zone
  - ~2,230 acres in 500-year flood zone; most protected by levee
- Connecticut and Hockanum Rivers





# Flood Prone Areas

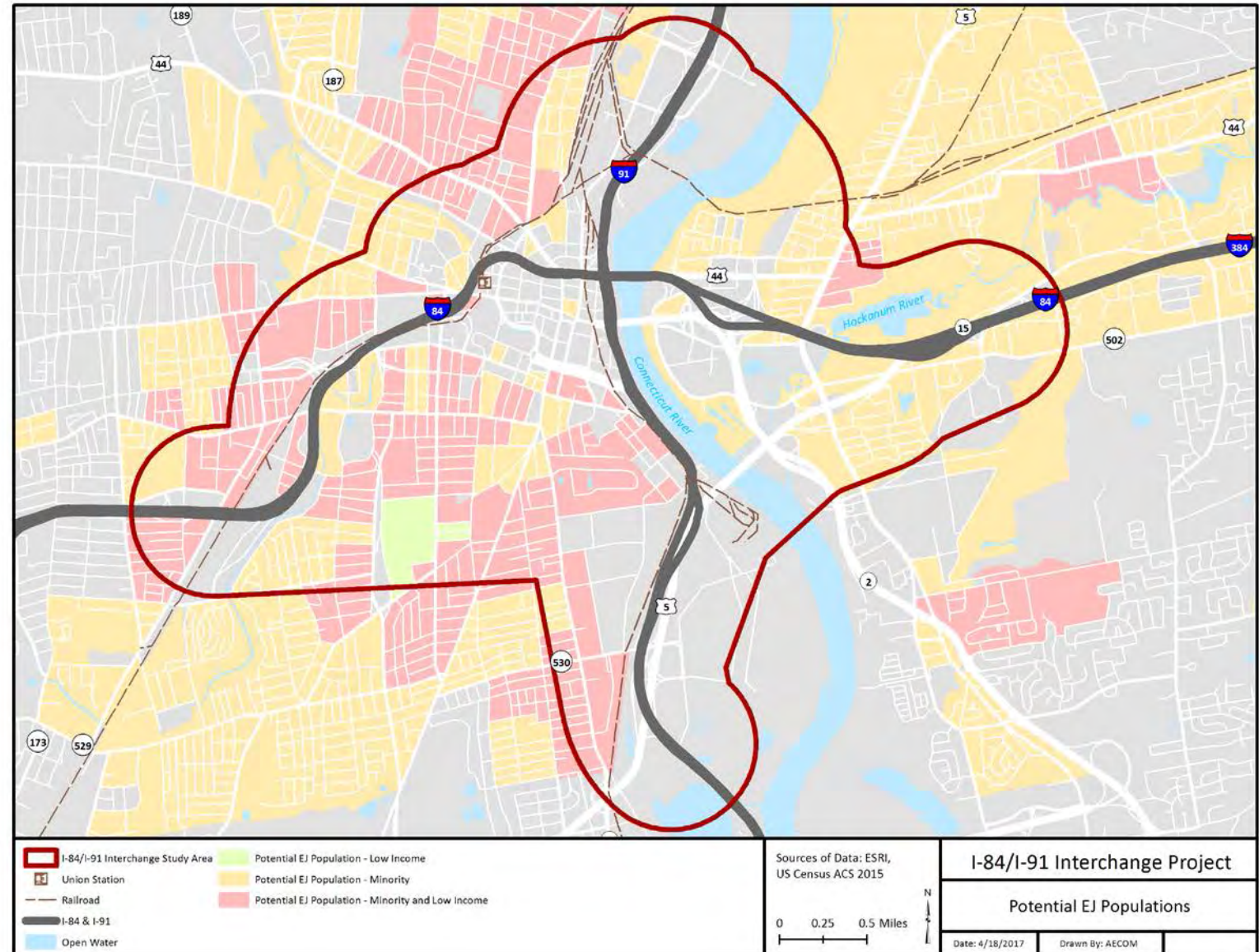
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# Potential EJ Population

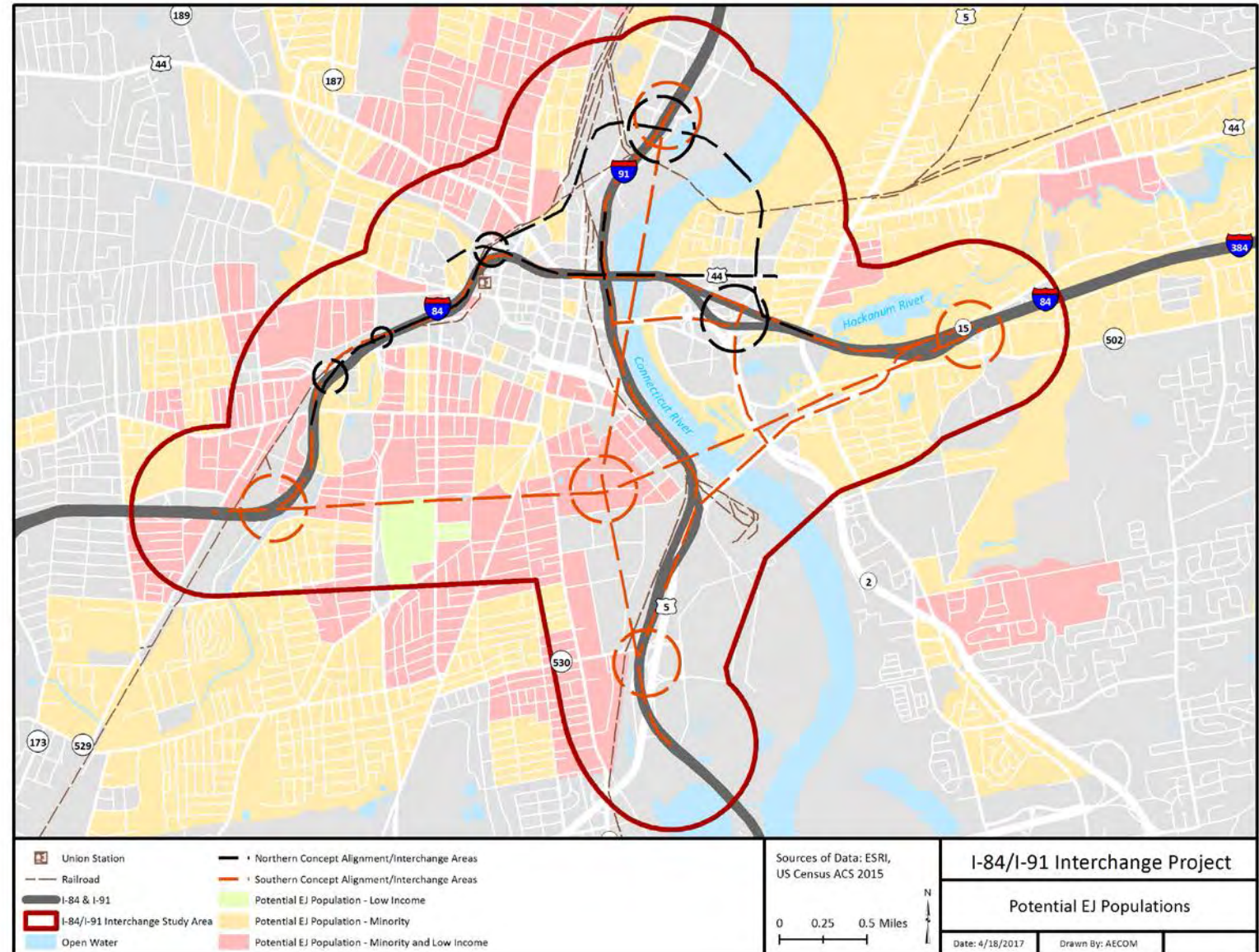
- Minority: ~81% of population
  - Southwest of Downtown and East Hartford
- Low income: ~ 48% of population
  - Southwest of Downtown





# Potential EJ Population

- Minority: ~81% of population
  - Southwest of Downtown and East Hartford
- Low income: ~ 48% of population
  - Southwest of Downtown



# Study Screening Criteria

Each of the preliminary alternatives will be evaluated based on:

- Environmental impacts
- Socio and economic impacts and benefits
- Feasibility
- Mobility
- Cost



# NEPA / CEPA Requirements

- NEPA EIS / CEPA EIE Required
- Potential significant impacts and permitting requirements
- Interchange project has independent utility
- Interchange project has its own Purpose and Need
- Dual NEPA / CEPA document and process



# Expanding Opportunities in the Hartford Region by Rethinking the Transportation Network



*Connecticut Department of Transportation*



# 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





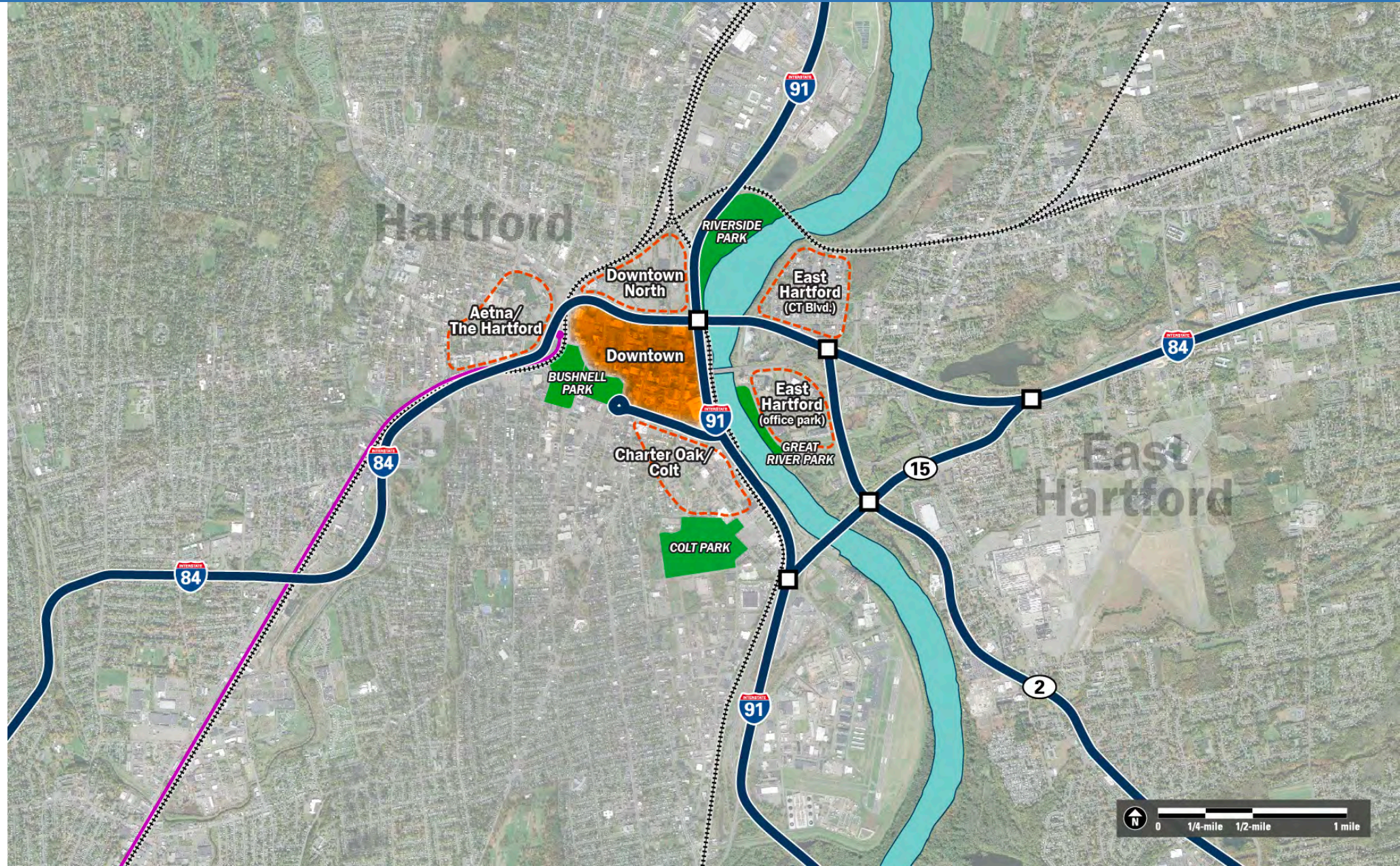
# Current Condition: A Constrained and Fragmented Core



- 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



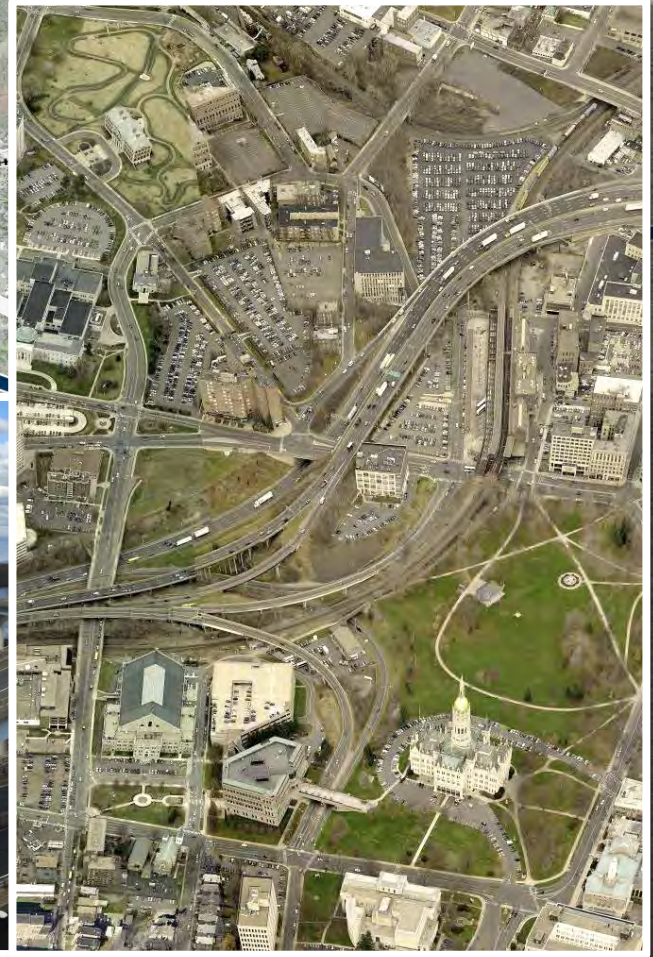
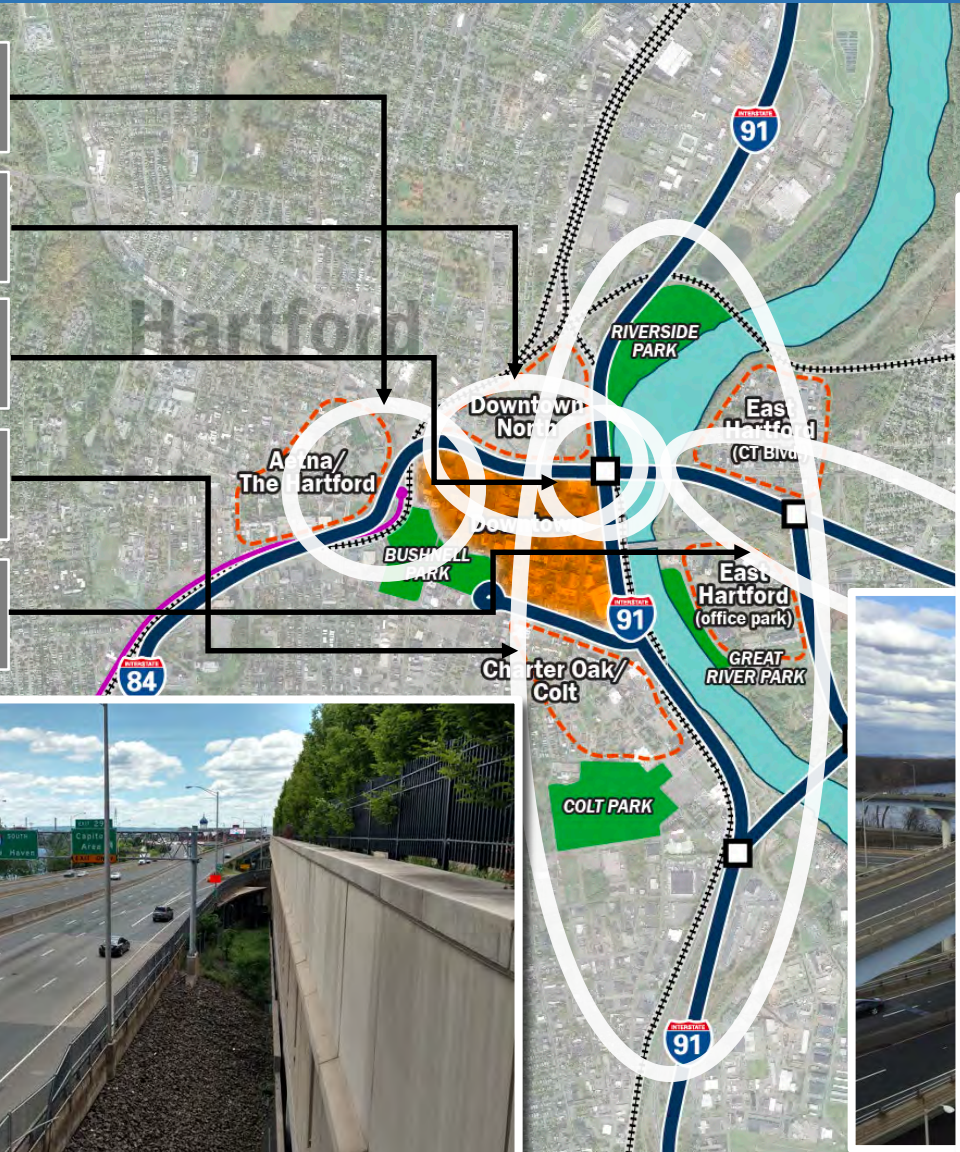
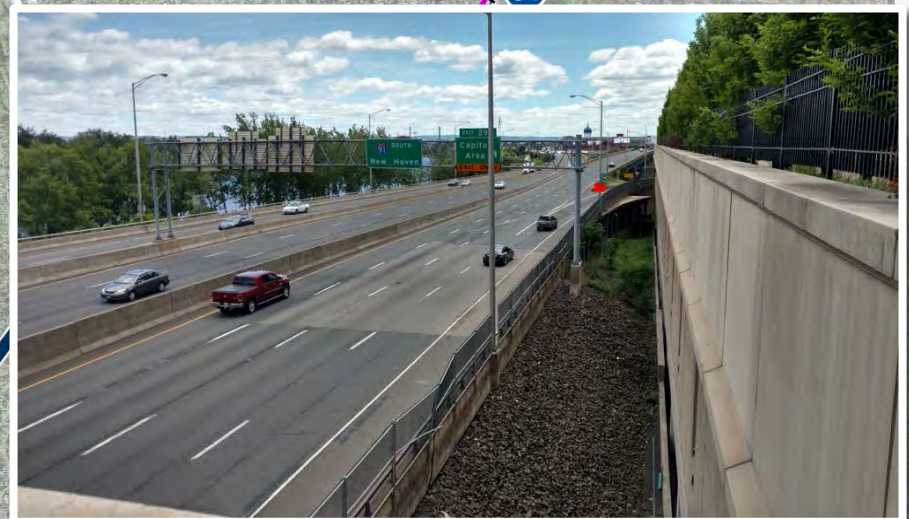


# Challenges of Existing Infrastructure

- I-84 VIADUCT**  
Aging infrastructure dividing the downtown core
- 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
- I-84 EAST HARTFORD**  
Highway infrastructure takes valuable land

**LEGEND**

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



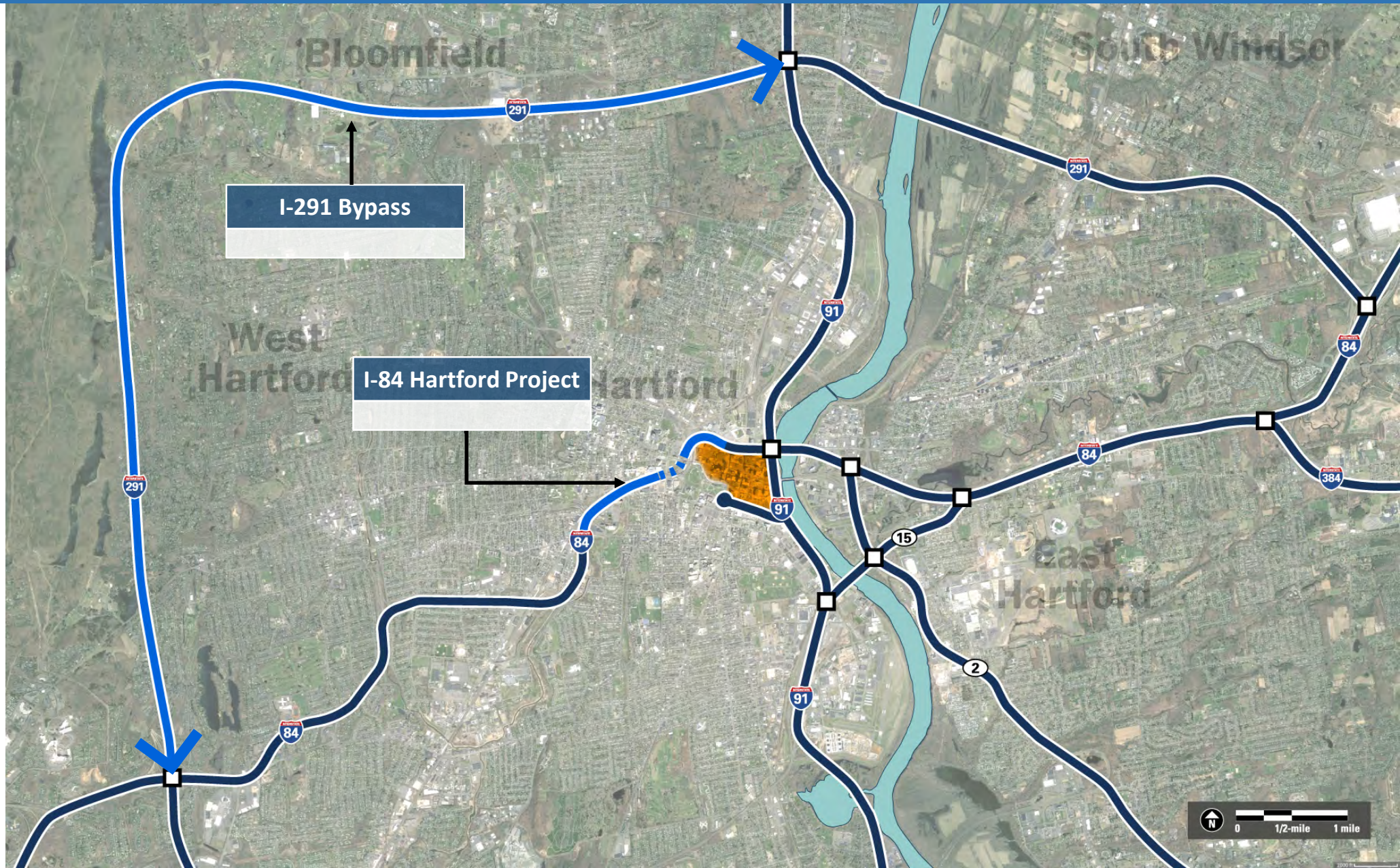


# Previous Concept: I-291 Bypass (not implemented)

- **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

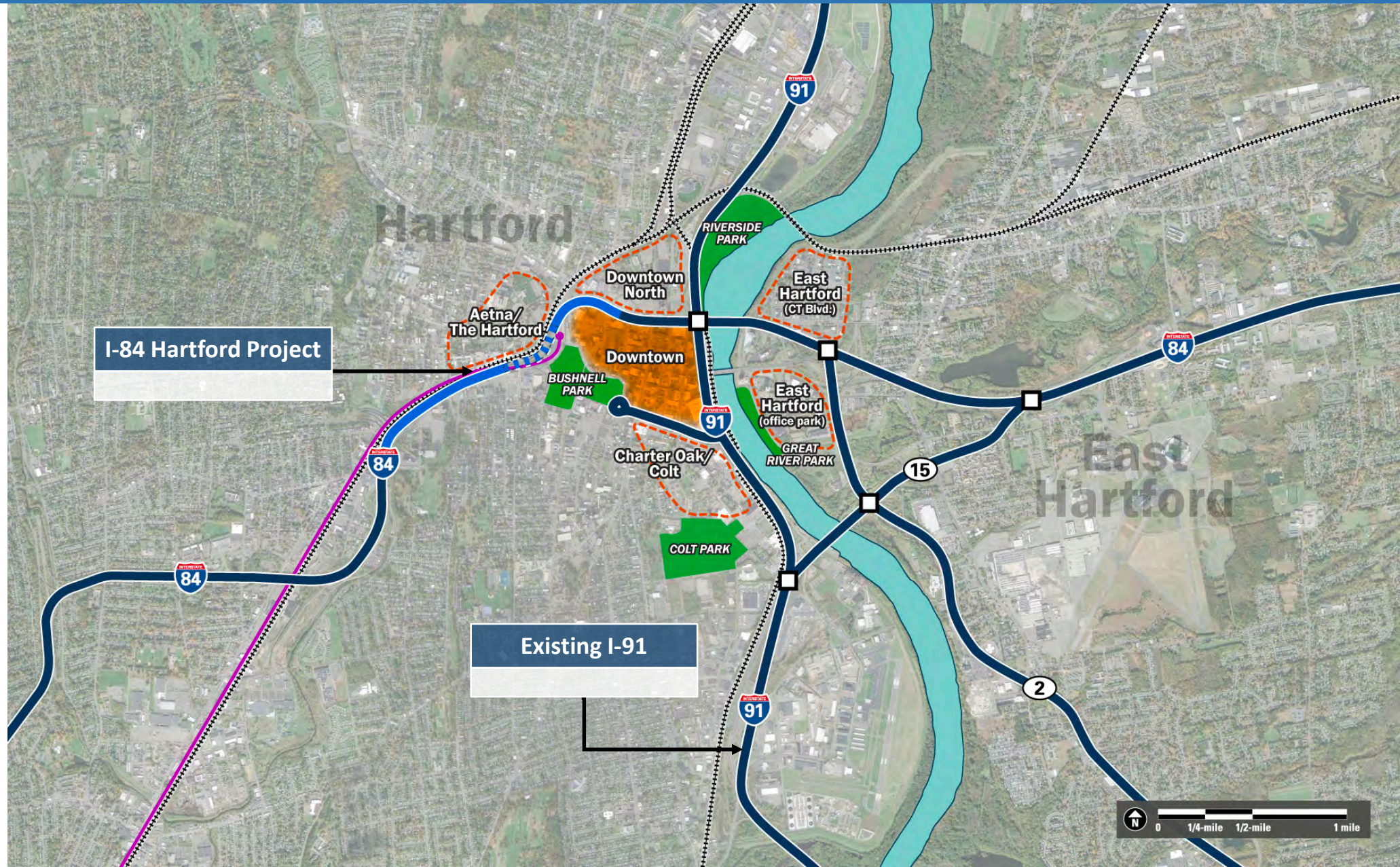
Options for I-84 and I-91



# Existing Network

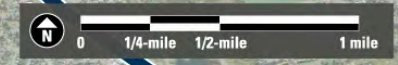


- I-84 Hartford Project is ongoing
- I-84 through downtown fragments the city's core
- I-91, the rail line, and the flood wall create a barrier between the city and river



## LEGEND

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- Green space
- Downtown core
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- ..... Rail
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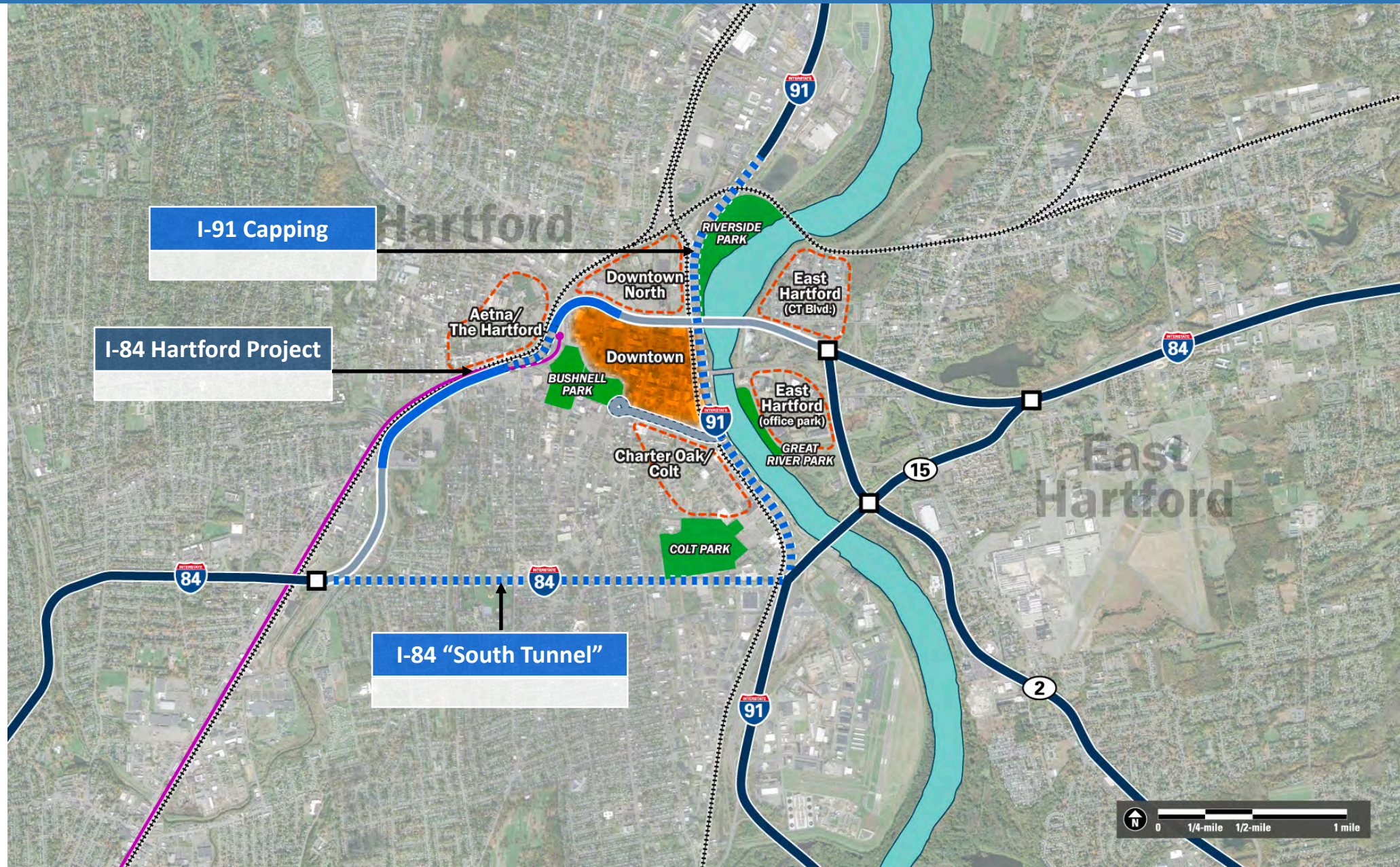
# Scenario #1: I-84 “South Tunnel” and I-91 Capping



- 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





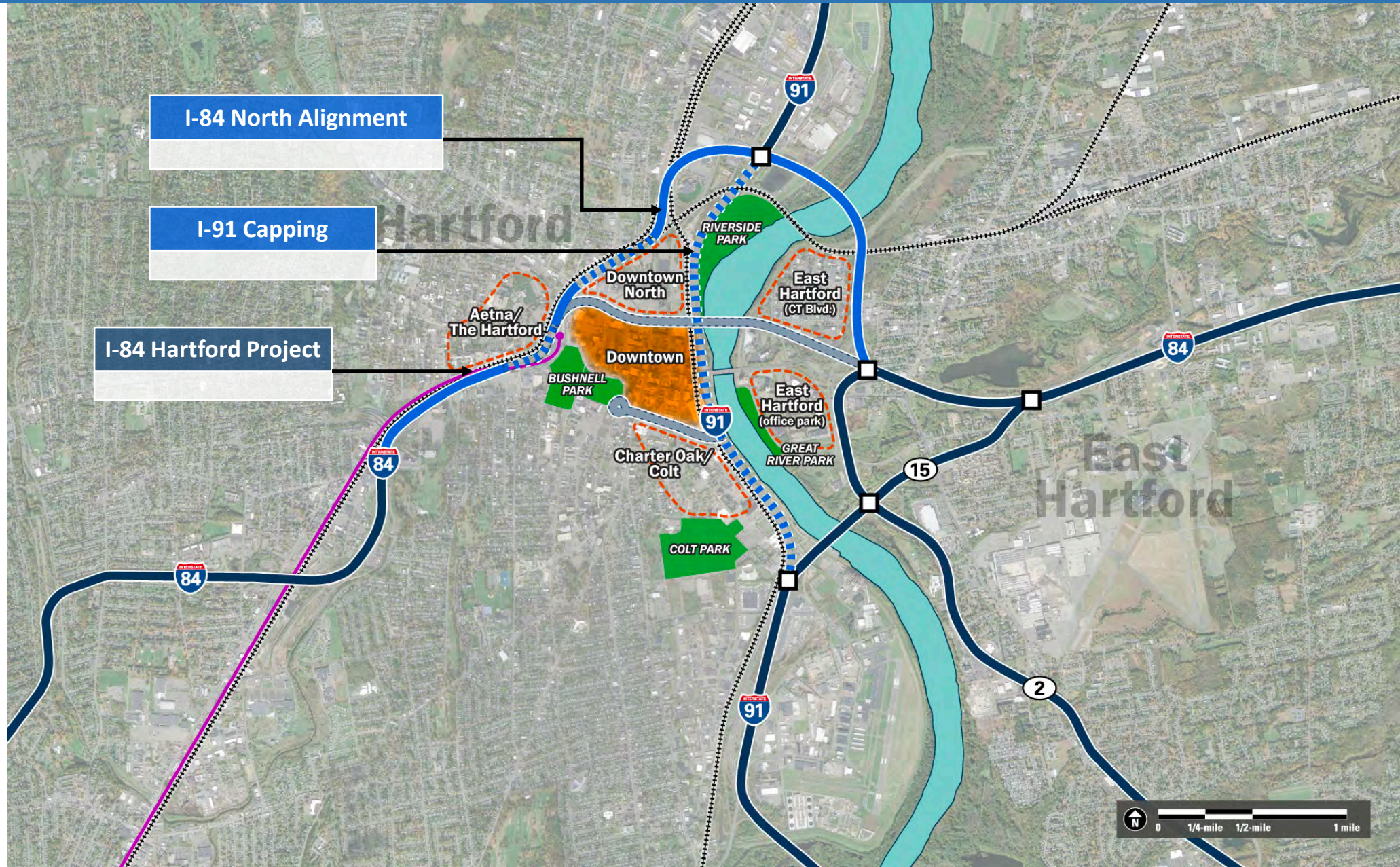
# Scenario #2: I-84 “North Alignment” and I-91 Capping



- 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

## LEGEND

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

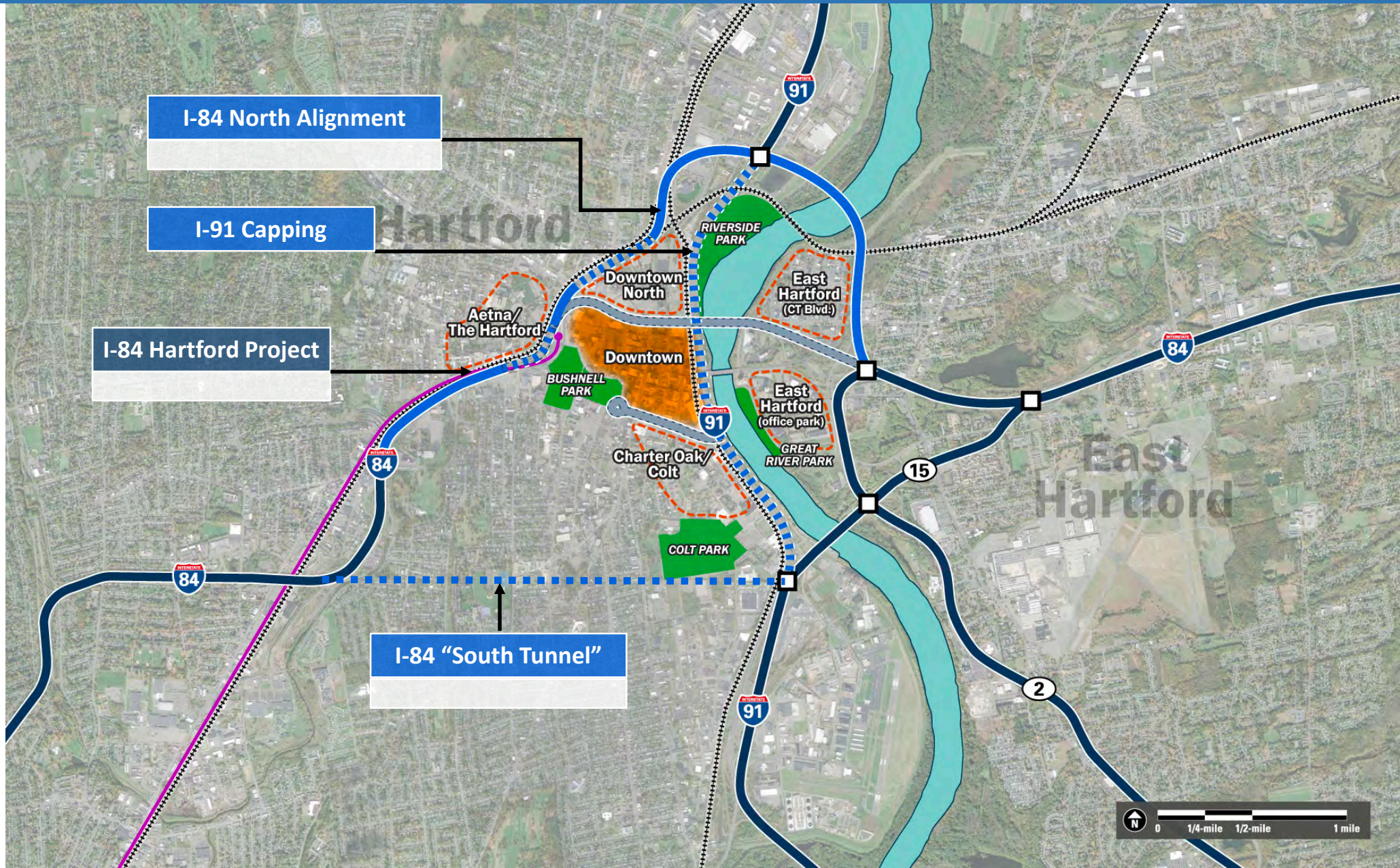




# Combined scenarios

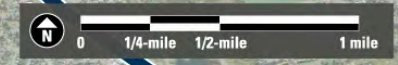


- Conceptual level of work to date
- Additional analysis needed to determine feasibility of options or combination of options



## LEGEND

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





# Reimagining the Riverfront

For Hartford and East Hartford



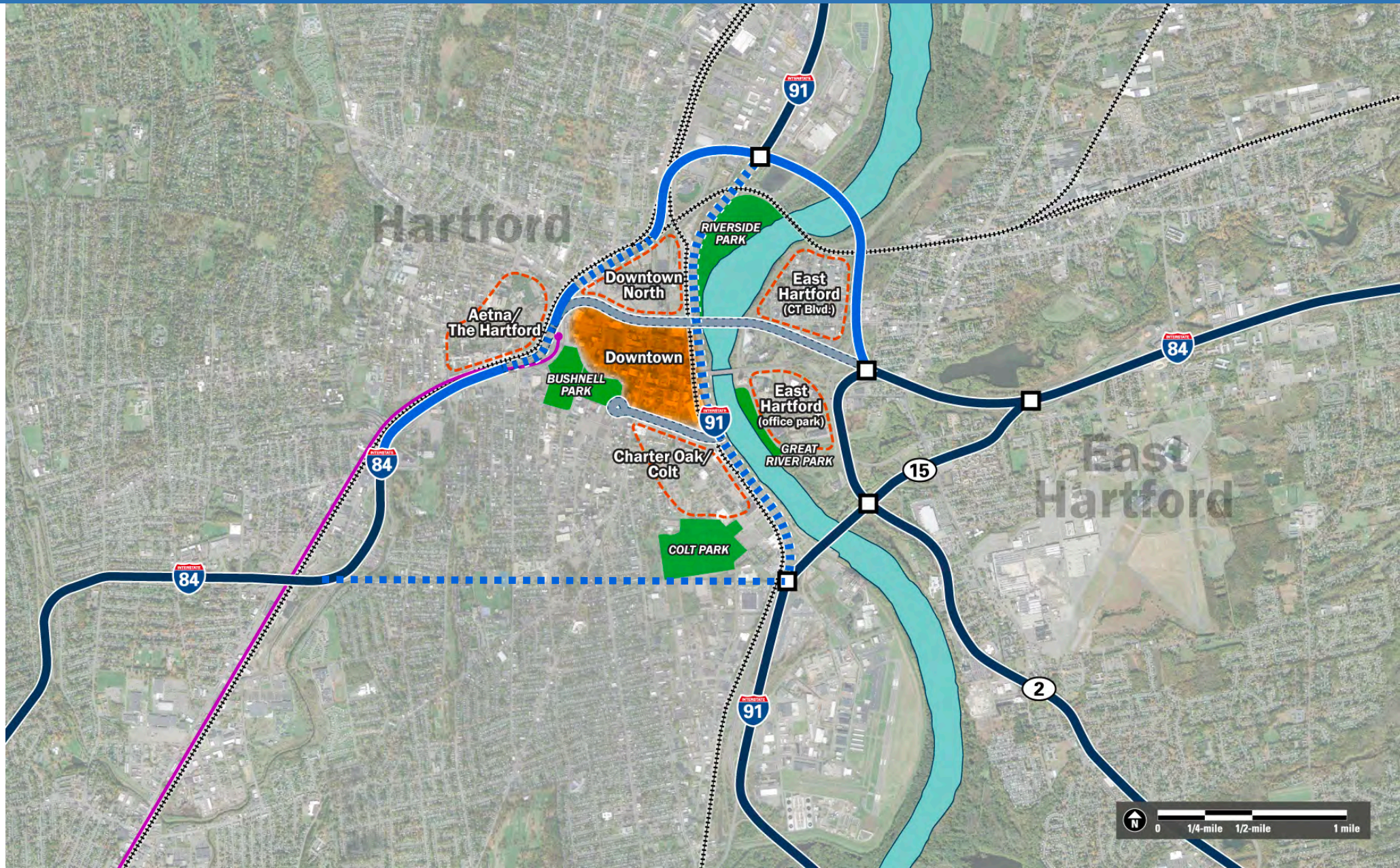
# Combined scenarios



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## LEGEND

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





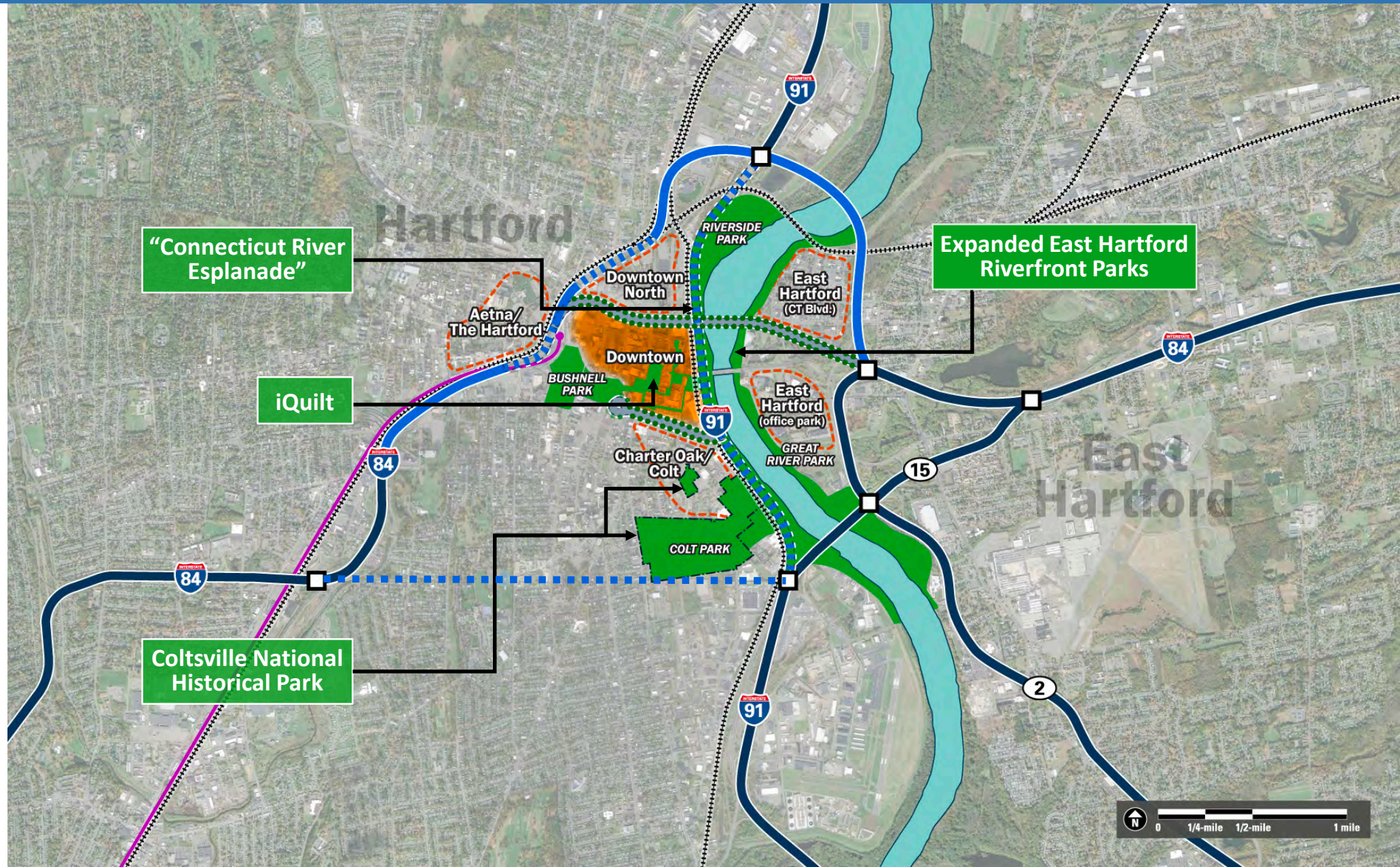
# Removing the I-91 barrier creates a new riverfront park



- 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

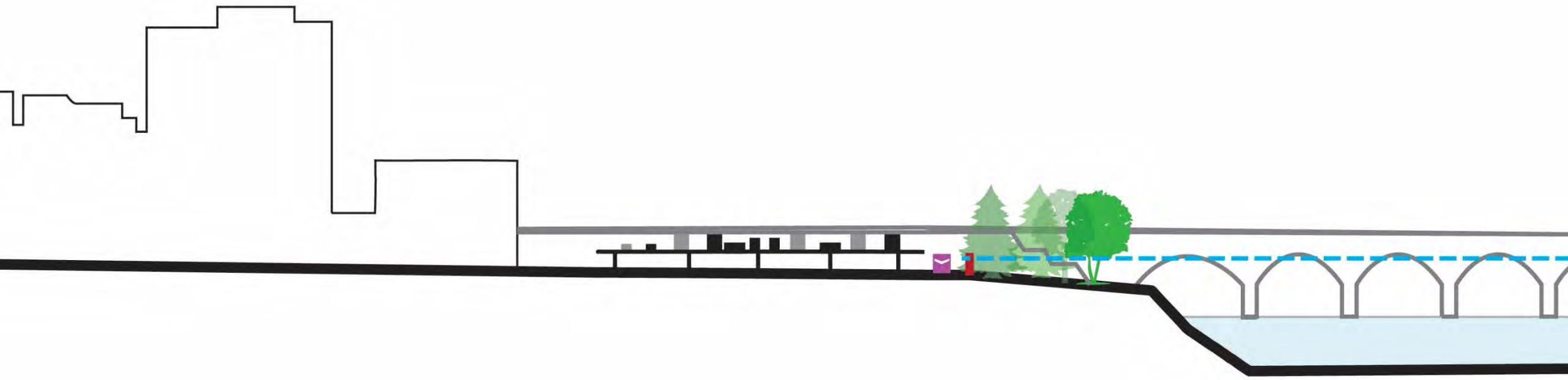
Public transit

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

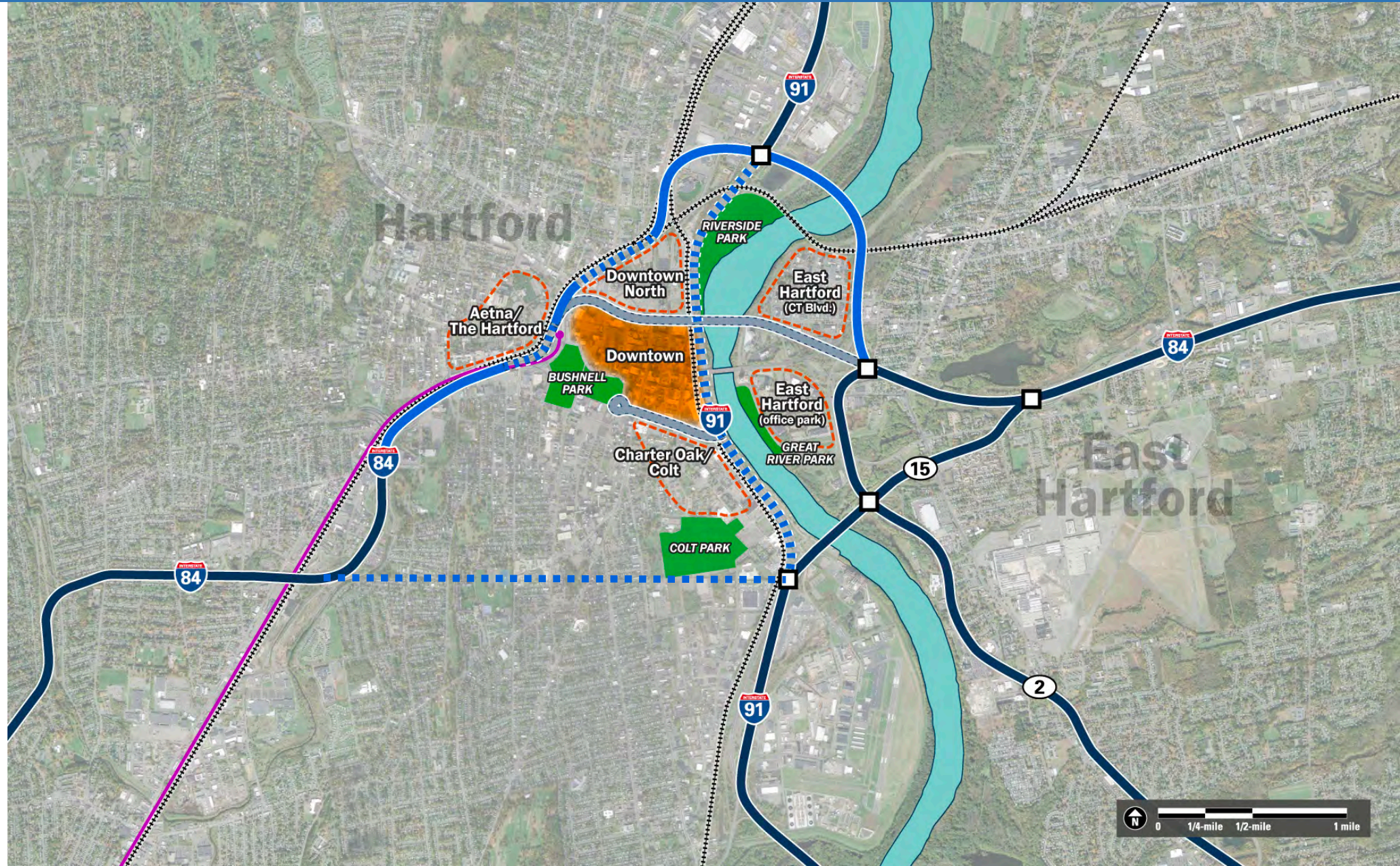


# Combined scenarios



## LEGEND

- Highway
- Interchange
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- Urban arterial
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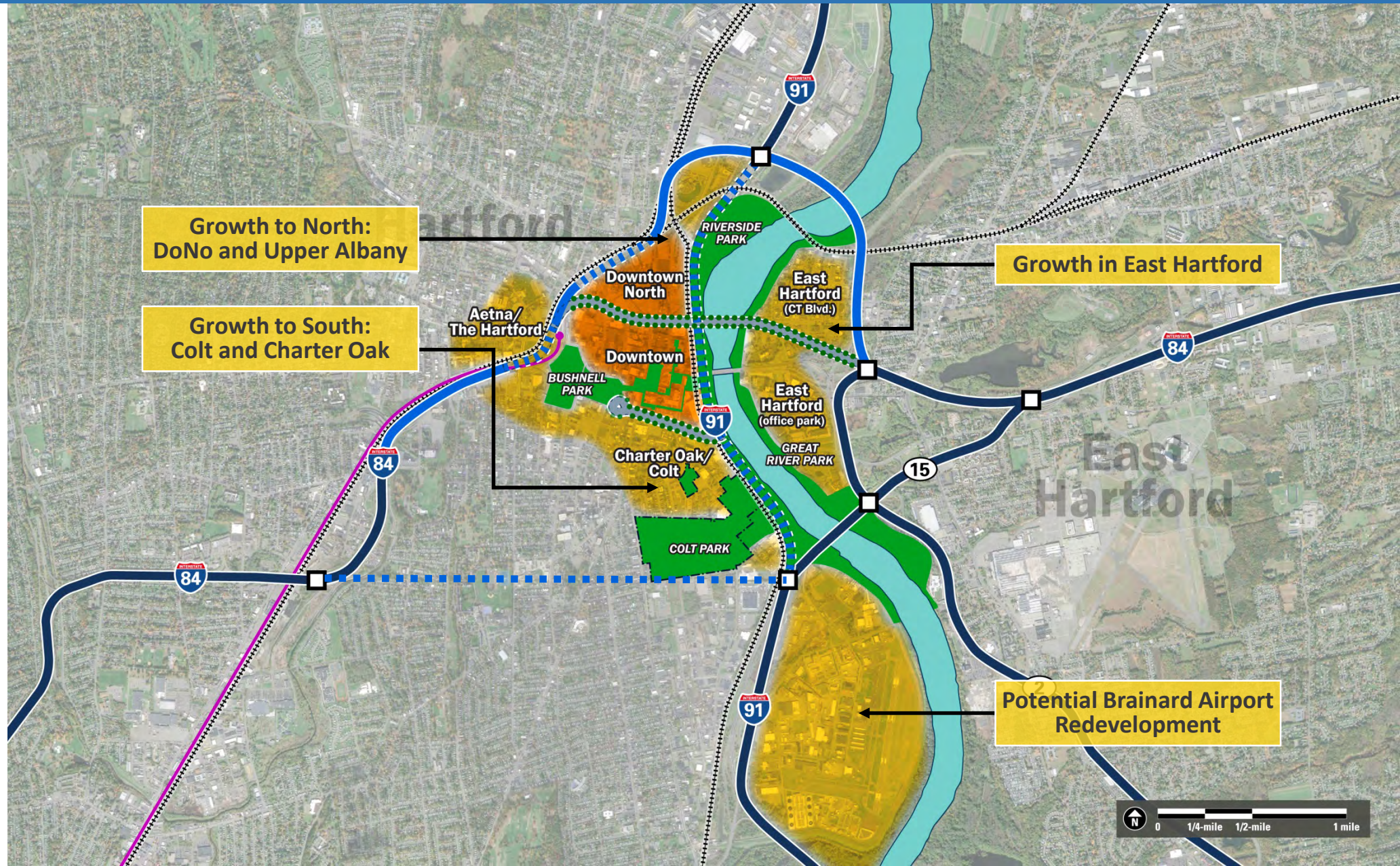


# Economic development tied to the green network

- 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

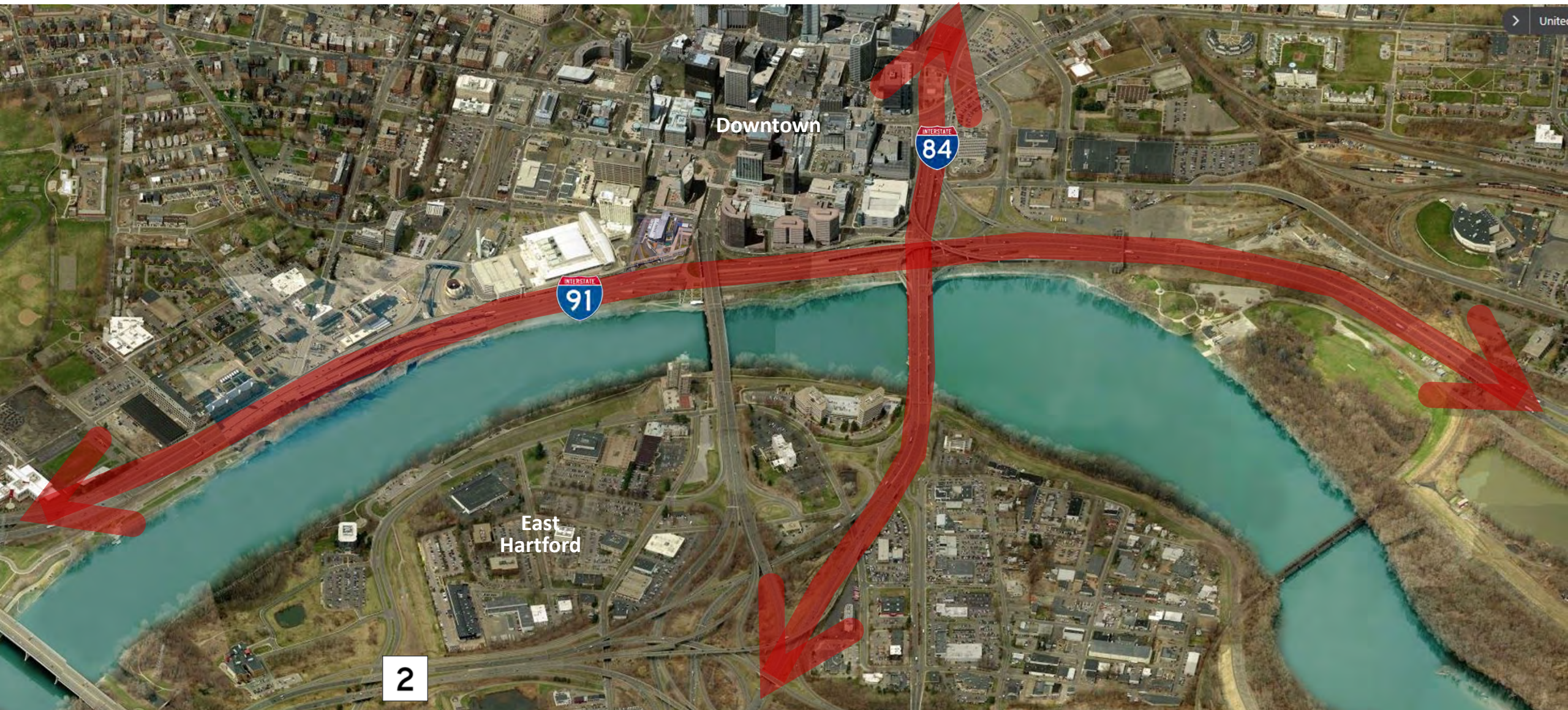
## LEGEND

- Highway
- Interchange
- Existing highway alignment
- Highway realignment
- ▬▬▬ Tunnel/cap
- Urban arterial
- Green space
- Downtown core
- City growth
- Coltsville National Historic District
- ⋯ Rail
- CTfastrak





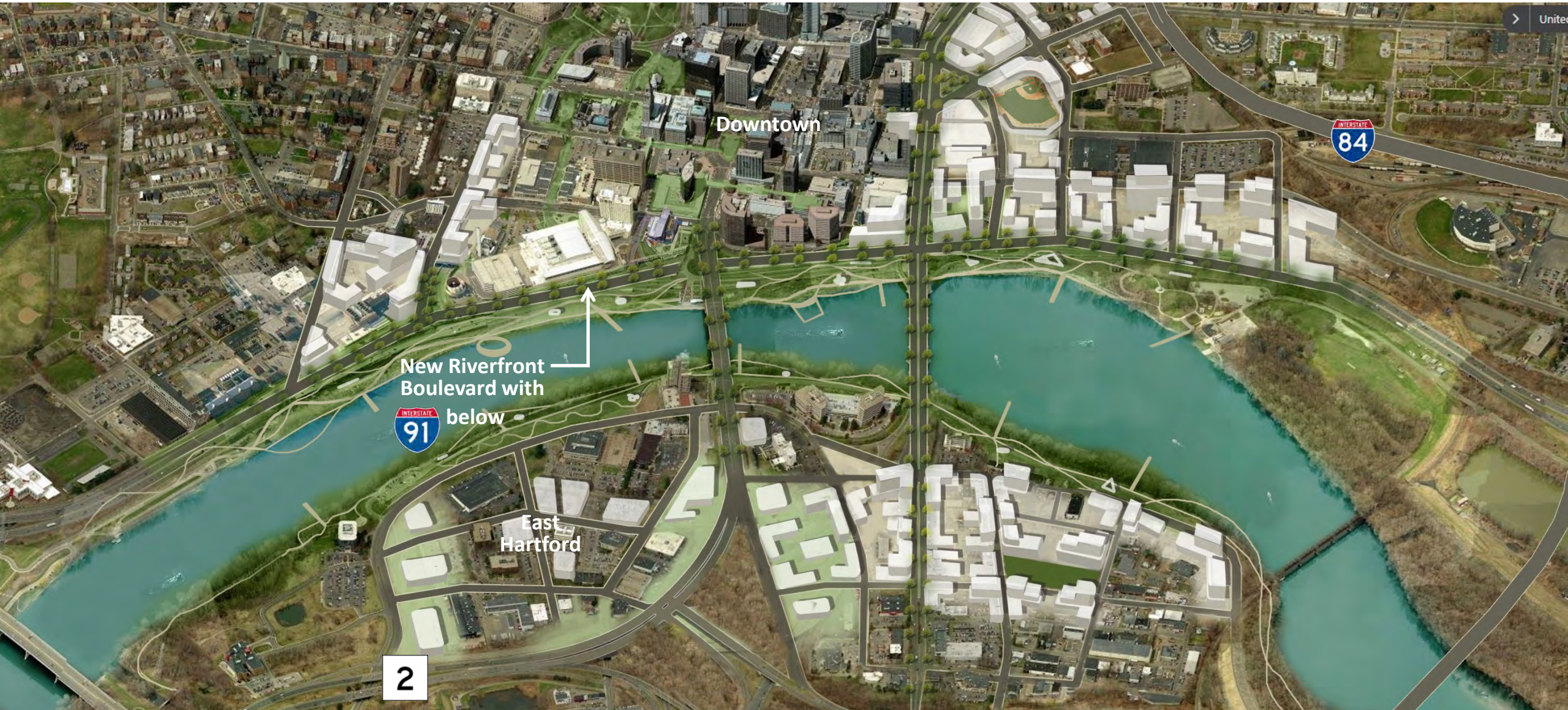
# Existing transportation network limits the city's potential



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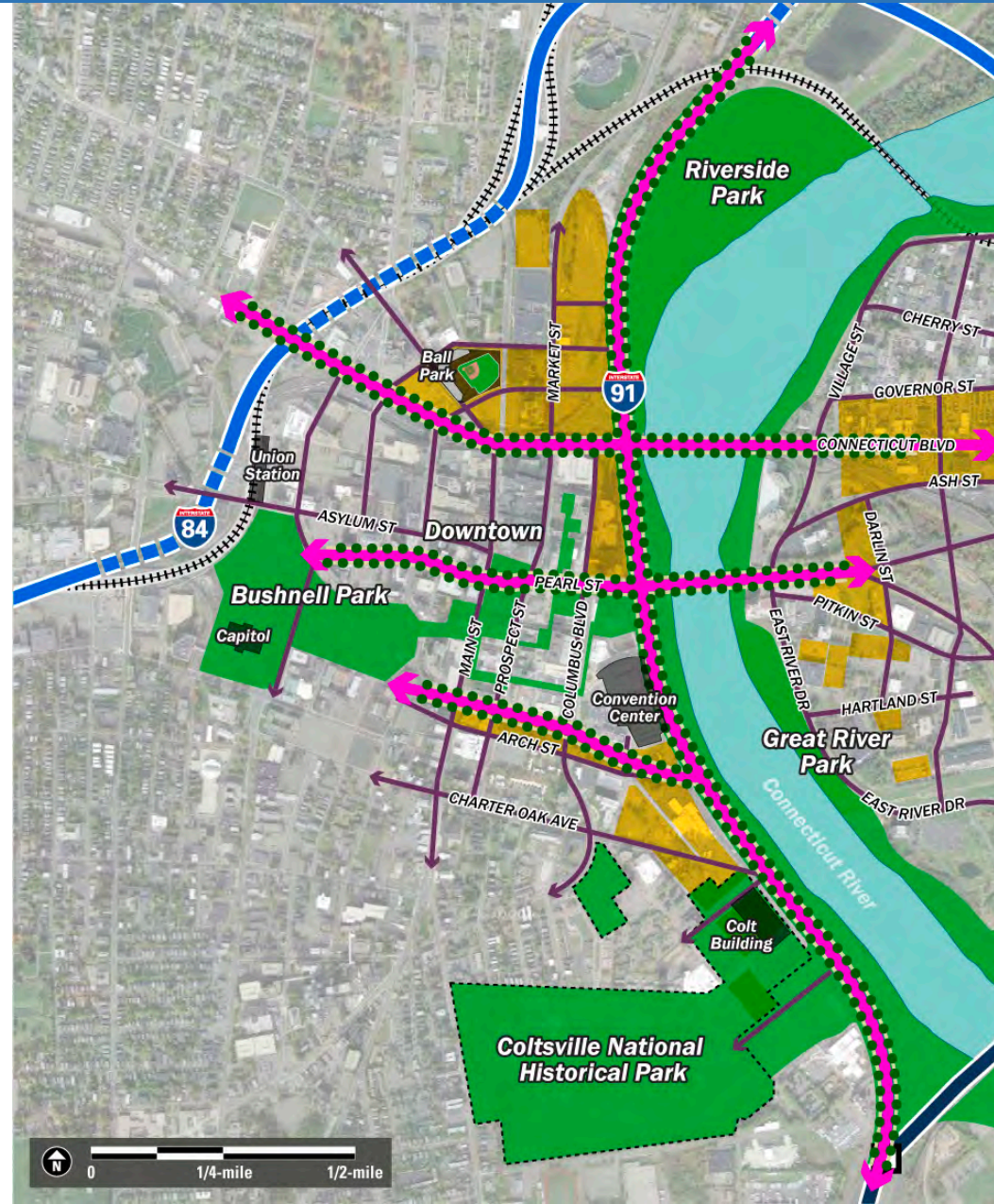
# Transformed riverfront catalyzes development on both sides





# Potential redevelopment sites

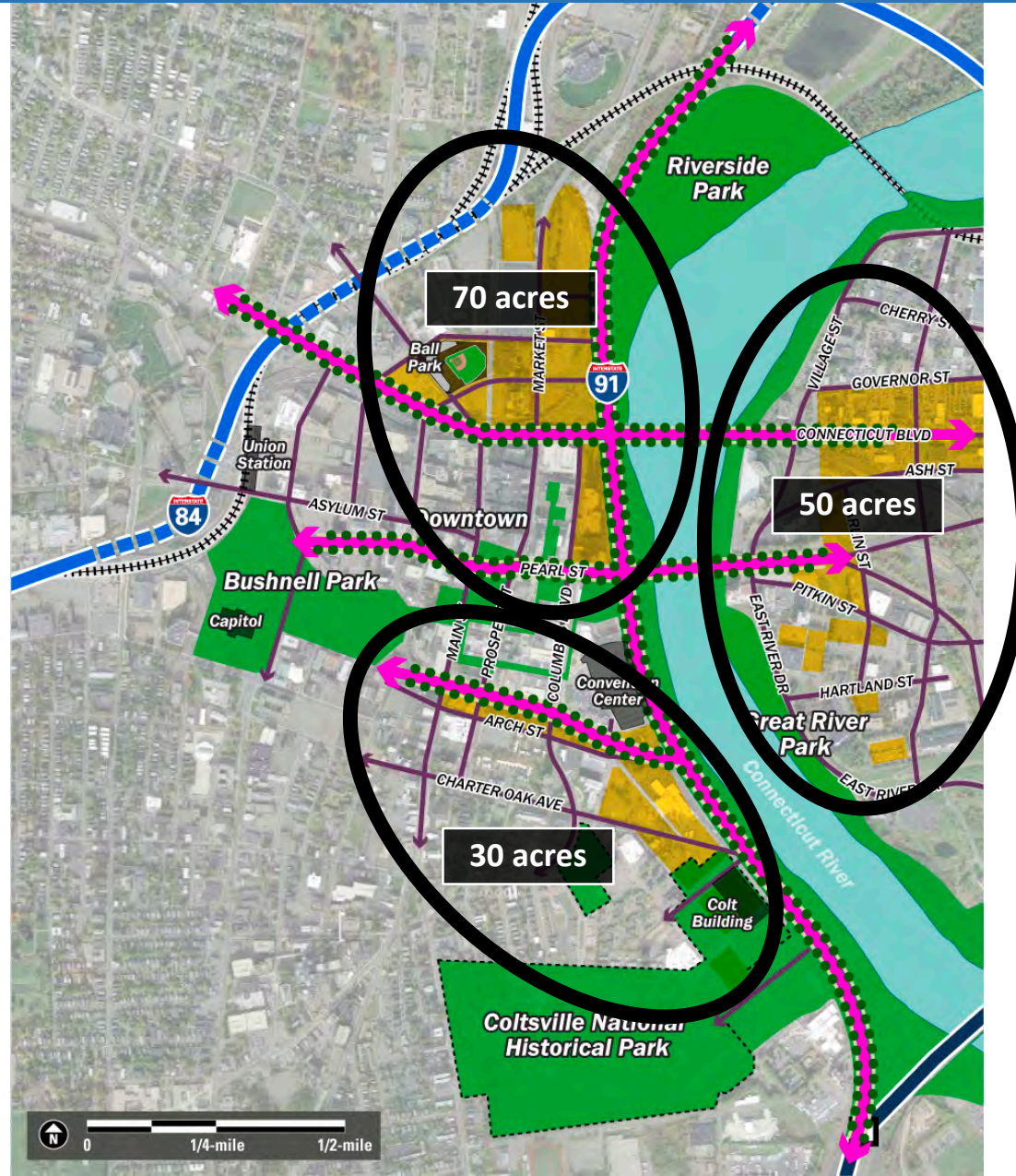
- A high-level analysis of sites shows potential areas for city growth and revitalization
- Other areas may be possible
- Current uses, ownership, market demand and development economics will be critical factors





# Potential redevelopment sites

- Approximately 150 acres of development or redevelopment potential





# Integrating Public Transit

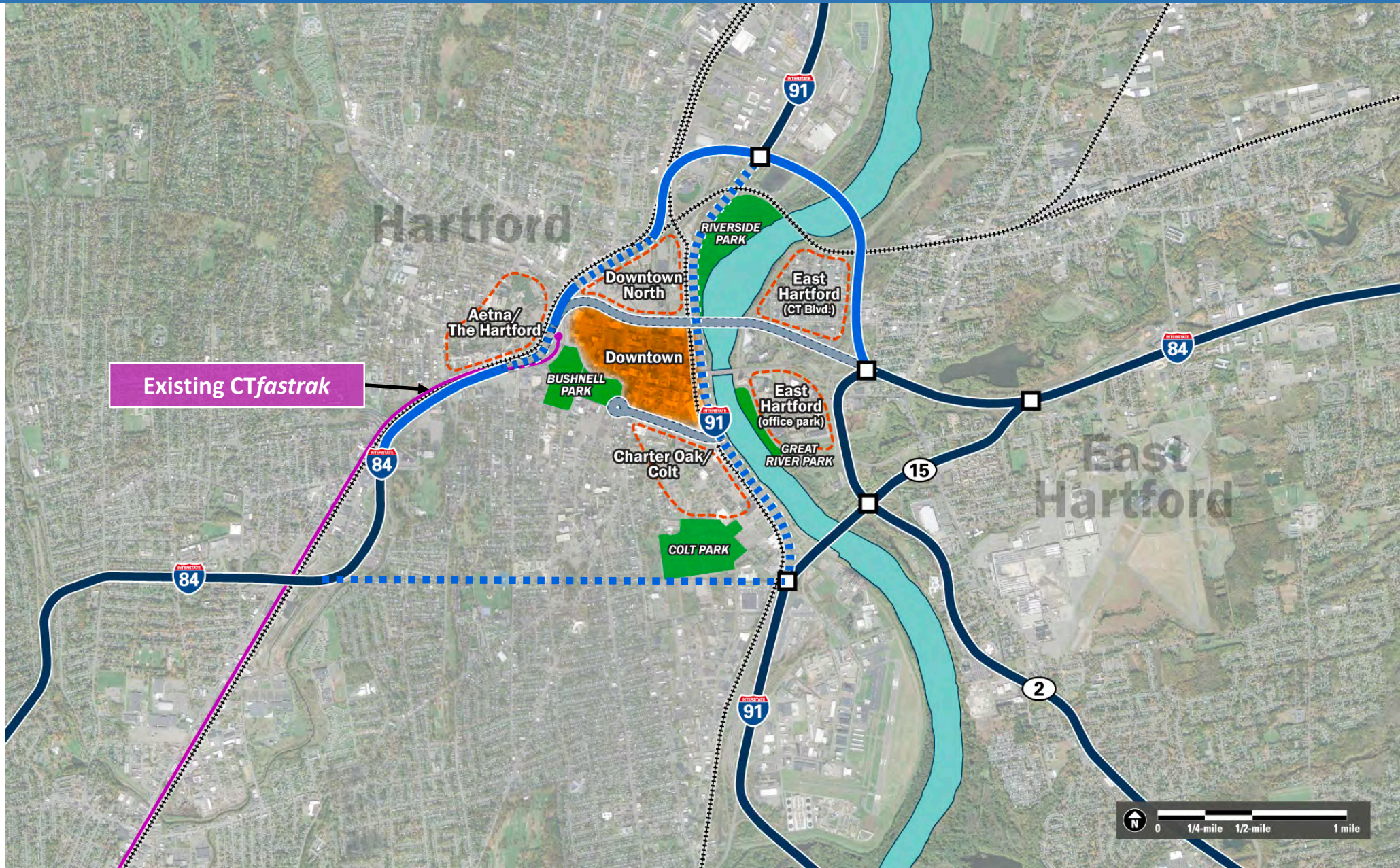
Making connections east/west and north/south



# Combined scenarios

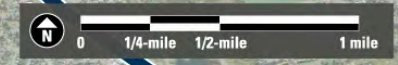


- **CTfastrak** has exceeded ridership goals and expansion to the east is ongoing



## LEGEND

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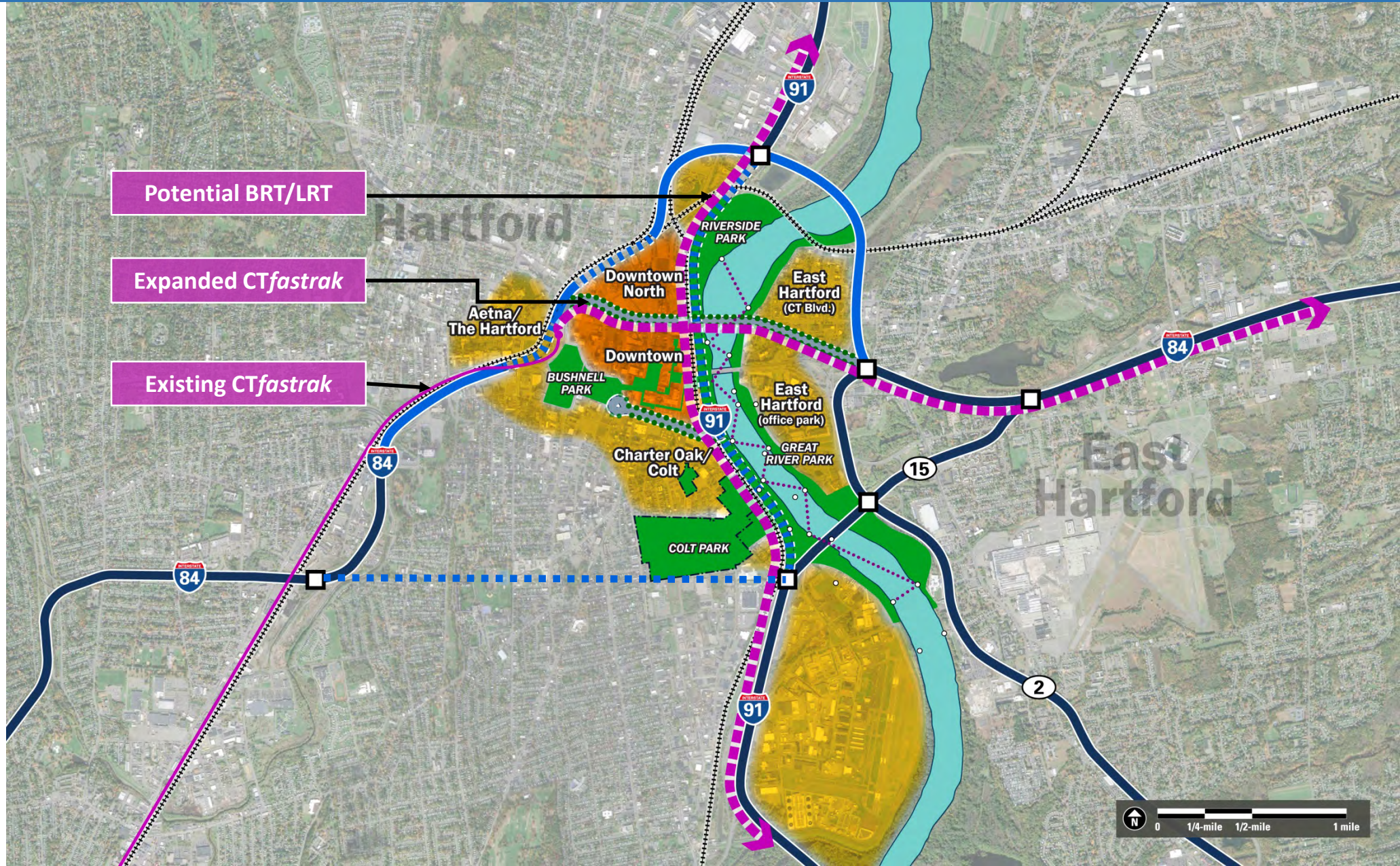




# The public transit network can be further enhanced

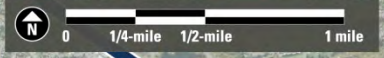


- Enhanced public transit could occur north/south along a new riverfront, tying together key destinations and residential areas



## 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

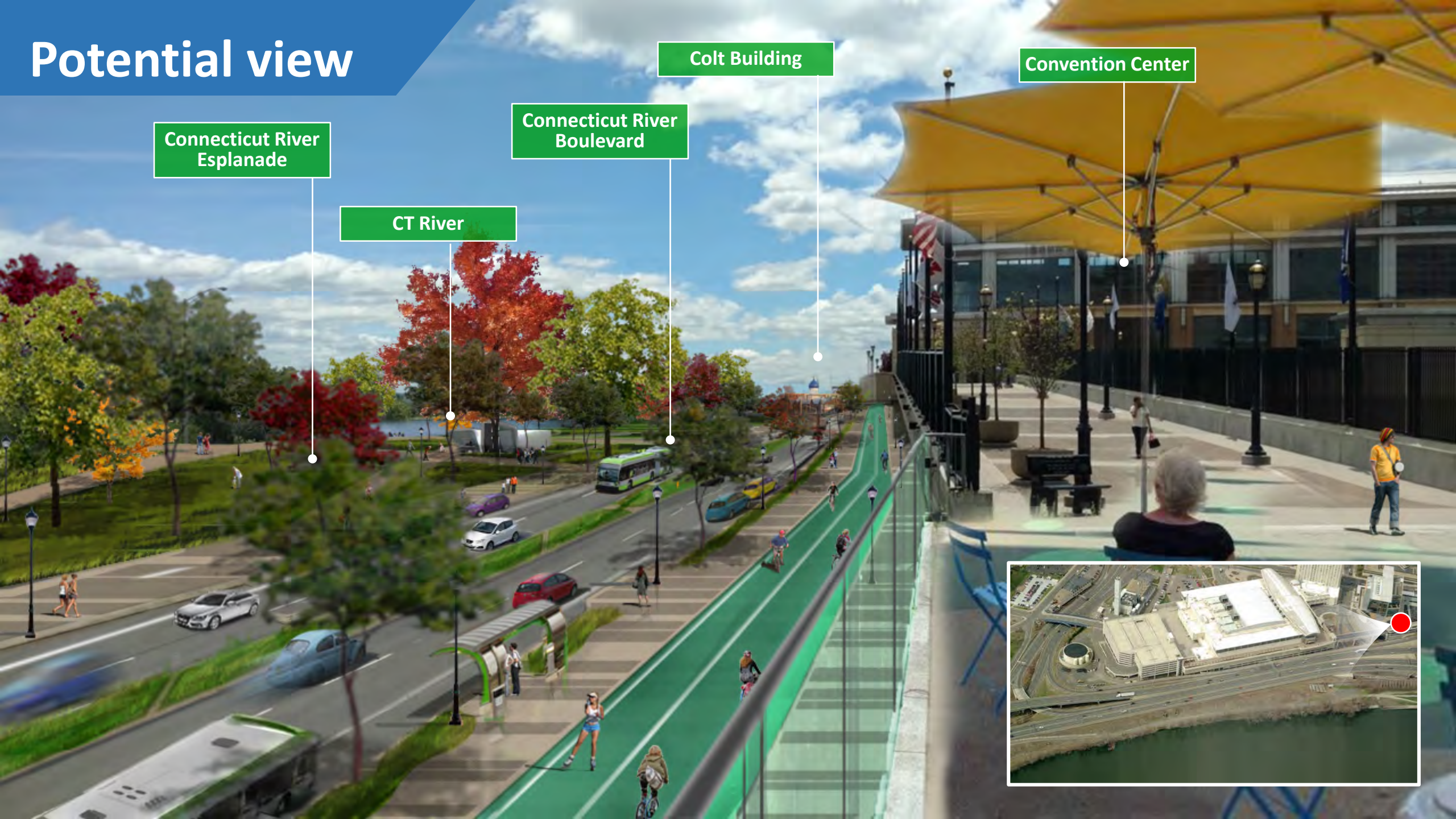
Connecticut River Esplanade

CT River

Connecticut River Boulevard

Colt Building

Convention Center





# Key Transformations

In Hartford and East Hartford



# Key Transformations

## 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

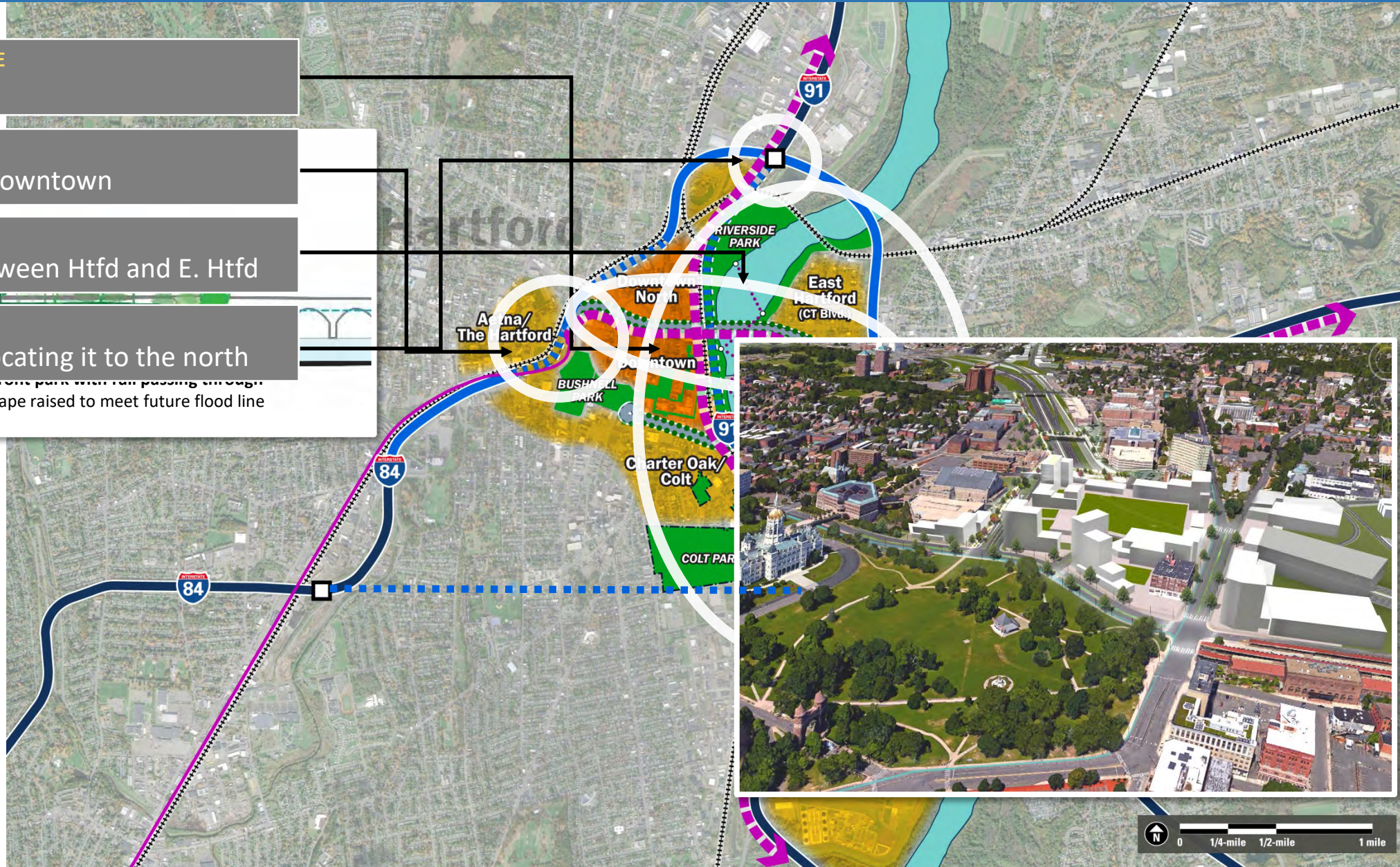
## 84/91 INTERCHANGE

Easing congestion by relocating it to the north

Opportunity for prime waterfront development  
 Investment park with rail passing through  
 landscape raised to meet future flood line

## 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





# 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





# 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”





# Participate In Our Workshop!

- Tell us your vision for transportation in the greater Hartford region
- Share your ideas for how big, or small, this project should be
- Discuss which impacts and opportunities most interest you







# 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*