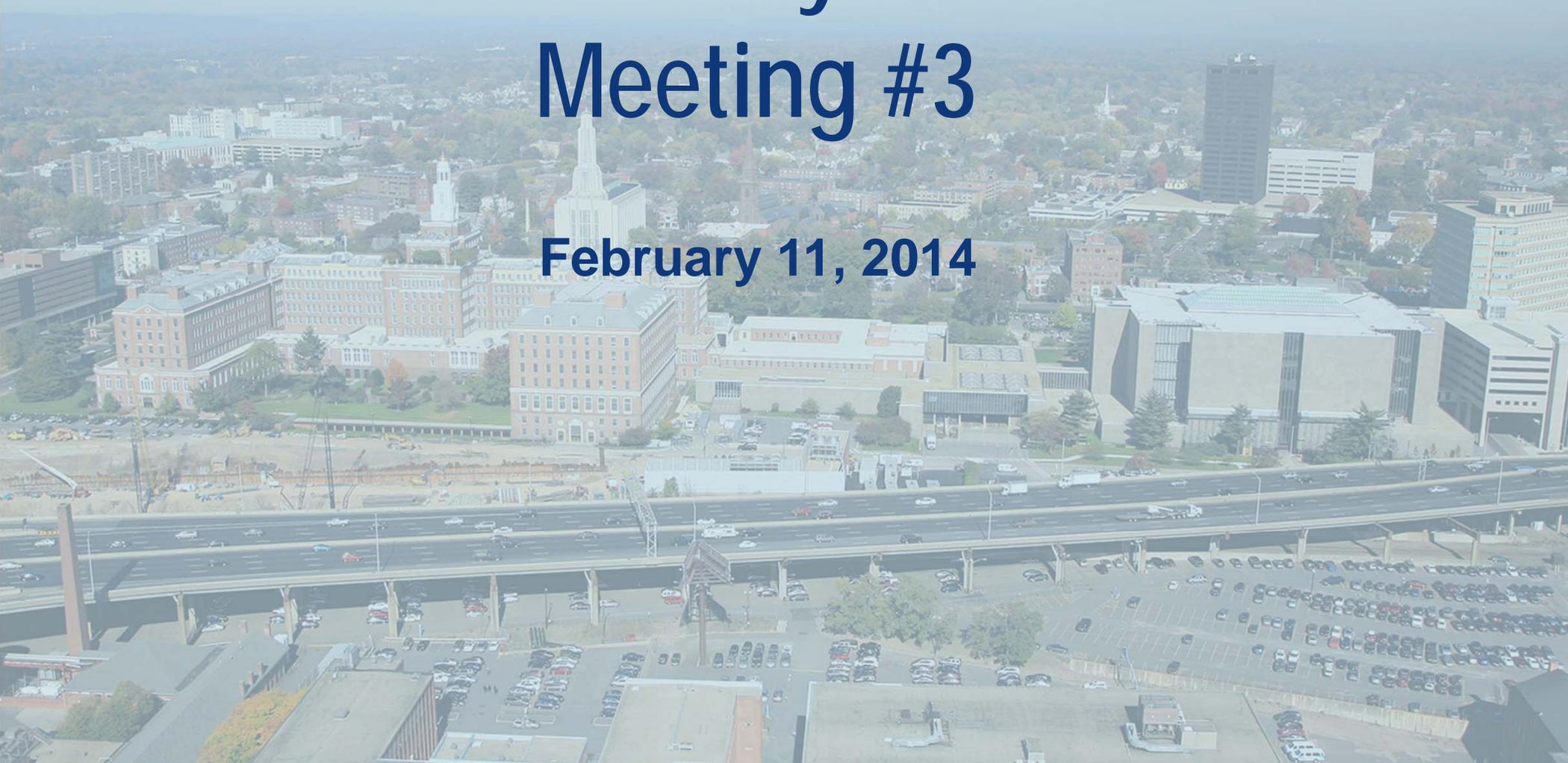




# ***THE I-84 HARTFORD PROJECT***

## **Public Advisory Committee Meeting #3**

**February 11, 2014**



# Agenda

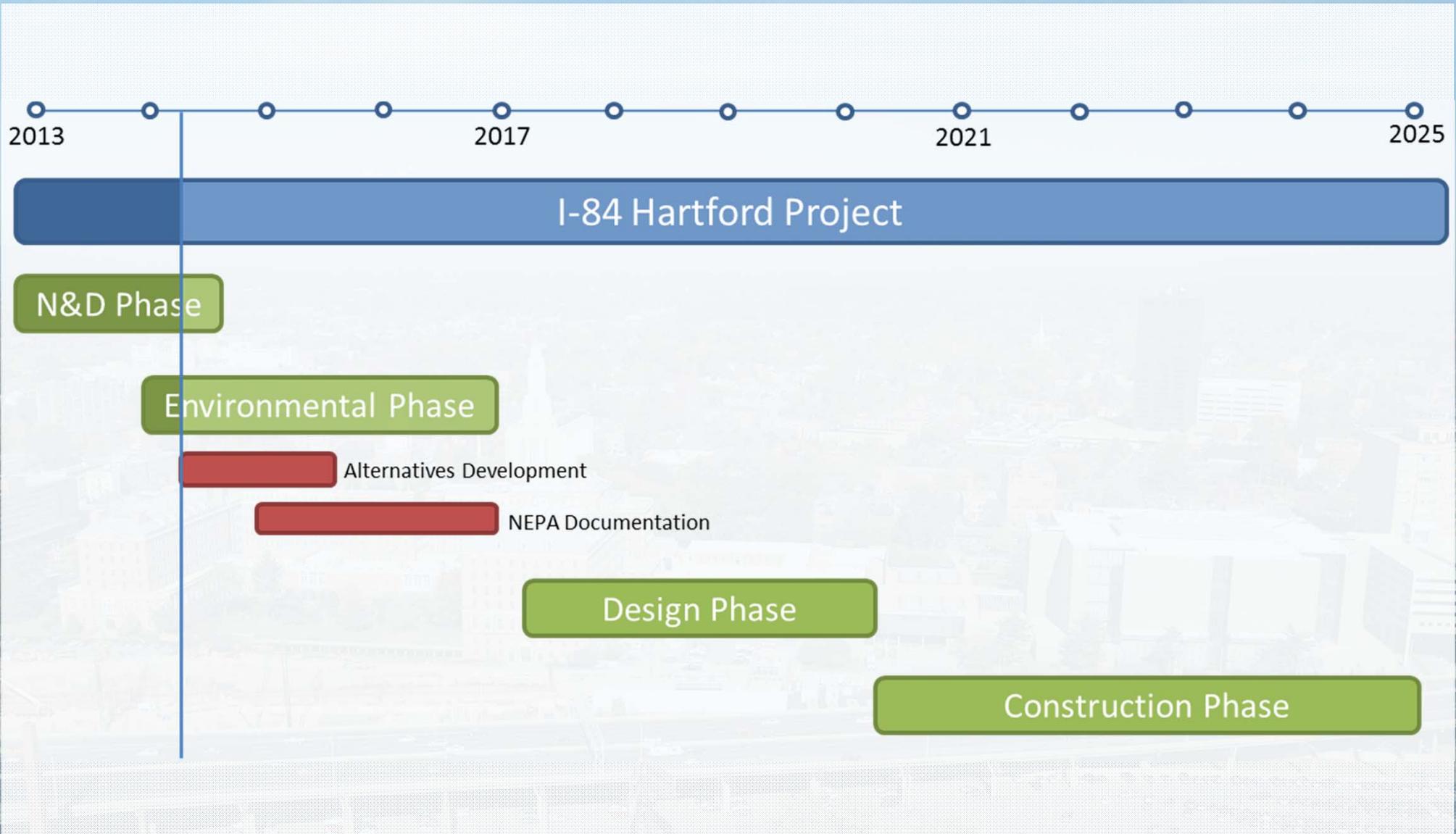
1. Welcome & Meeting Purpose (**5 minutes**)
  - a. Where we are in the process
  - b. Purpose of today's meeting
  
2. Update from P&N Working Group (**10 minutes**)
  
3. Context, Constraints, and Opportunities (**60 minutes**)
  - a) Starting alternatives development – why it is so complex
  - b) Overview of Rail Program
  - c) Rail and I-84 relationship
  - d) NEC FUTURE
  - e) Summary of interrelated projects
  
4. Next steps (**15 minutes**)
  - a) Future topics poll
  - b) Alternatives development workshops

# Purpose of today's meeting

1. Provide PAC members with update from Purpose & Need Working Group
2. Present an overview of various rail programs and other projects that are inter-related to I-84 Hartford
3. Select future presentation topics



# Where are we now?





# *THE I-84 HARTFORD PROJECT*

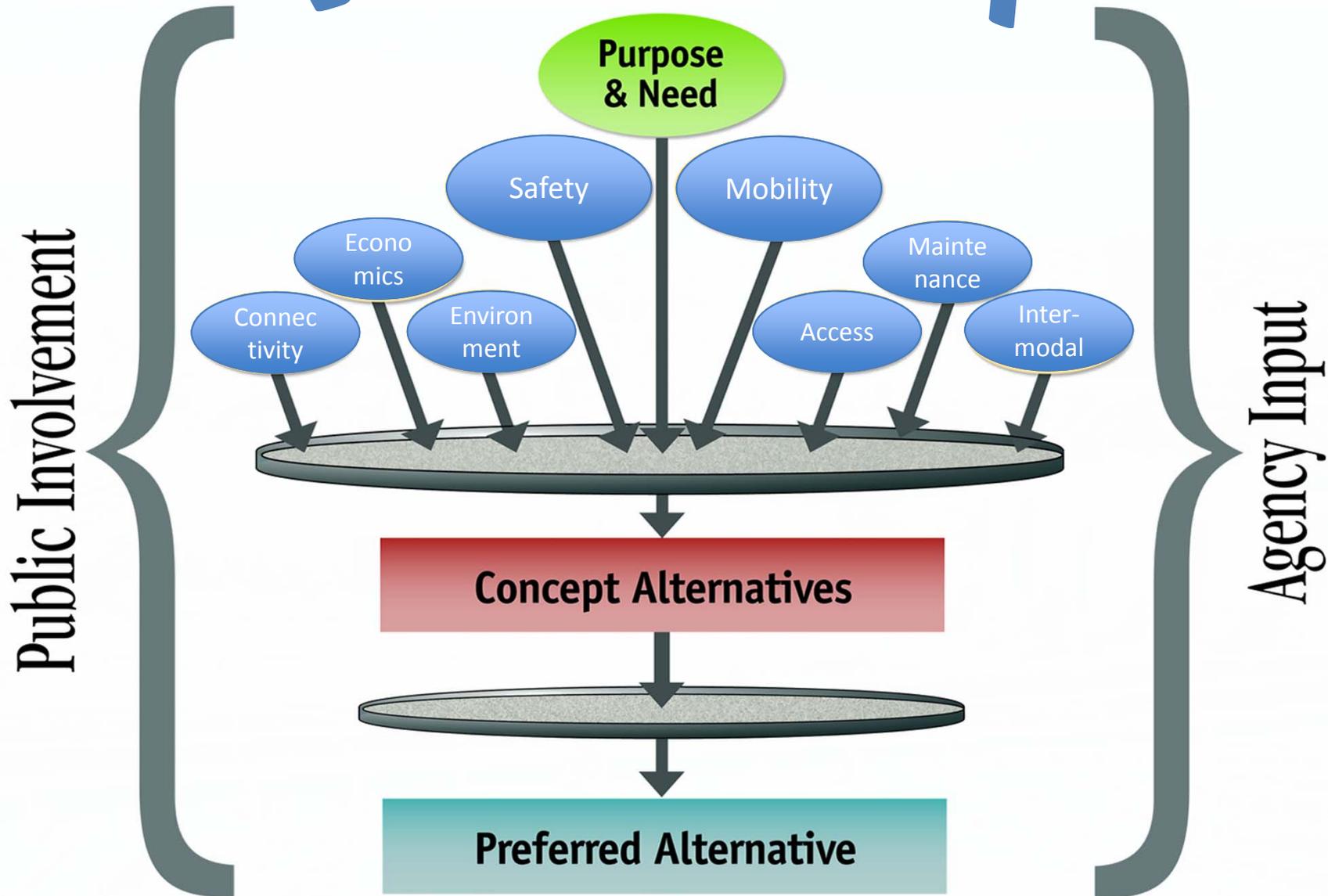
## Update from P&N Working Group



# Update from P&N Working Group

- Two meetings: 12-18-13 and 2-6-14
- Purpose: refine P&N and advise DOT on projects goals and objectives
- Progress:
  - developed project Vision Statement
  - Working on P&N Exec Summary
  - Reviewing goals, objectives and performance measures

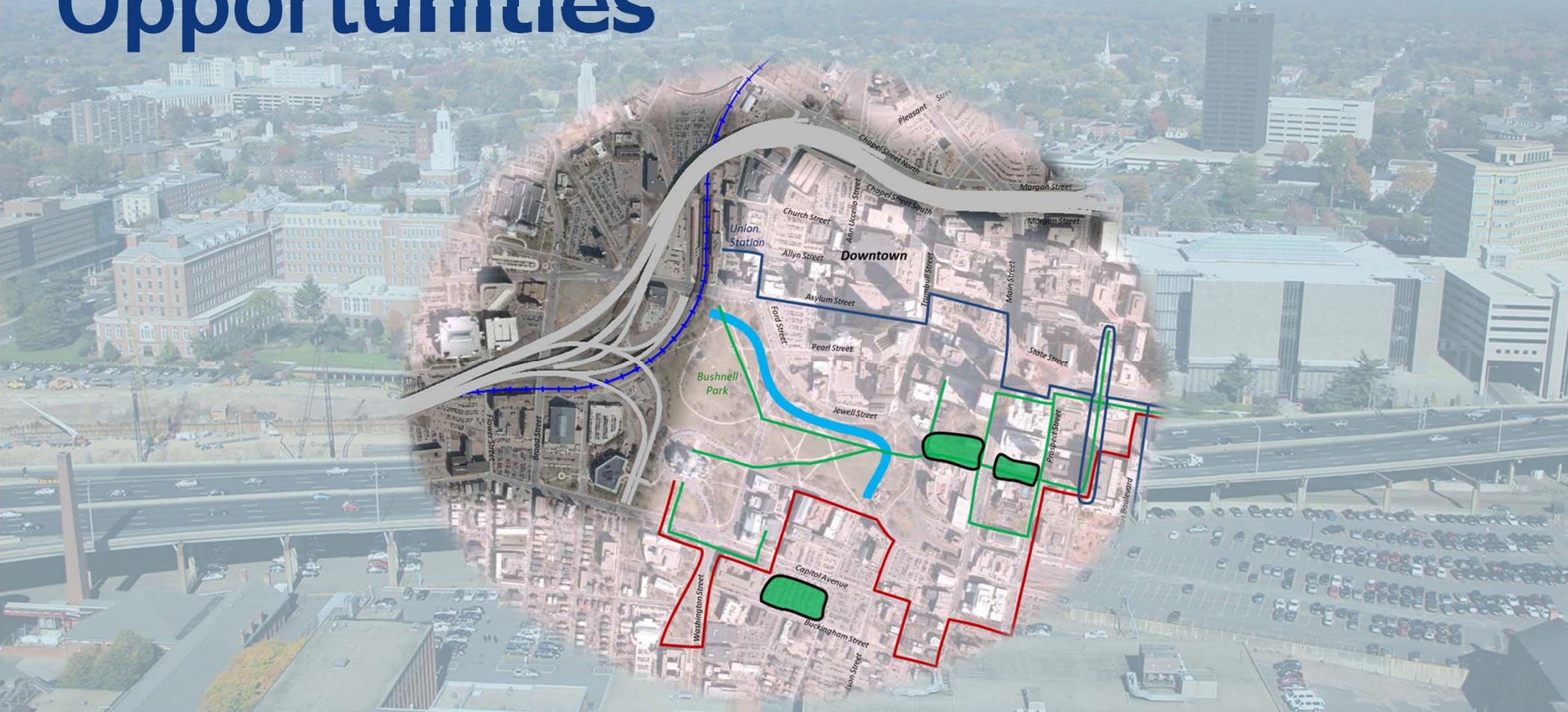
# Vision





# THE I-84 HARTFORD PROJECT

## Context, Constraints, and Opportunities



# Starting Alternatives Development

- Hub of Hartford developed preliminary concepts
- Still completing the Needs & Deficiencies analysis
- Alternatives development not started yet...
  - We need to define the universe before we can begin testing

# Why is the process so complex?

## The I-84 universe...

- Includes feasible highway replacement alternatives within the defined project area that satisfy P&N
- Consists of:
  - Several I-84 mainline alignment options
  - Numerous variables on access, connectivity, and multimodal integration

# Highway options

3 general types exist:

- I-84 on structure
  - Replacement with modern bridges
- I-84 at-grade
  - Requires rail relocation
- I-84 below grade
  - Tunnel or cut sections

The final solution will likely be a hybrid

# Numerous variables

- Alignments can be combined with:
  - Collector/distributor roads
  - Different interchange configurations
  - Tolling options
  - **Rail realignment options**
- Alignments will include:
  - Improved local street network connectivity
  - **Integration with other travel modes**
  - **Compatibility with other projects**



# *THE I-84 HARTFORD PROJECT*

## Overview of Rail Program



# Rail Programs

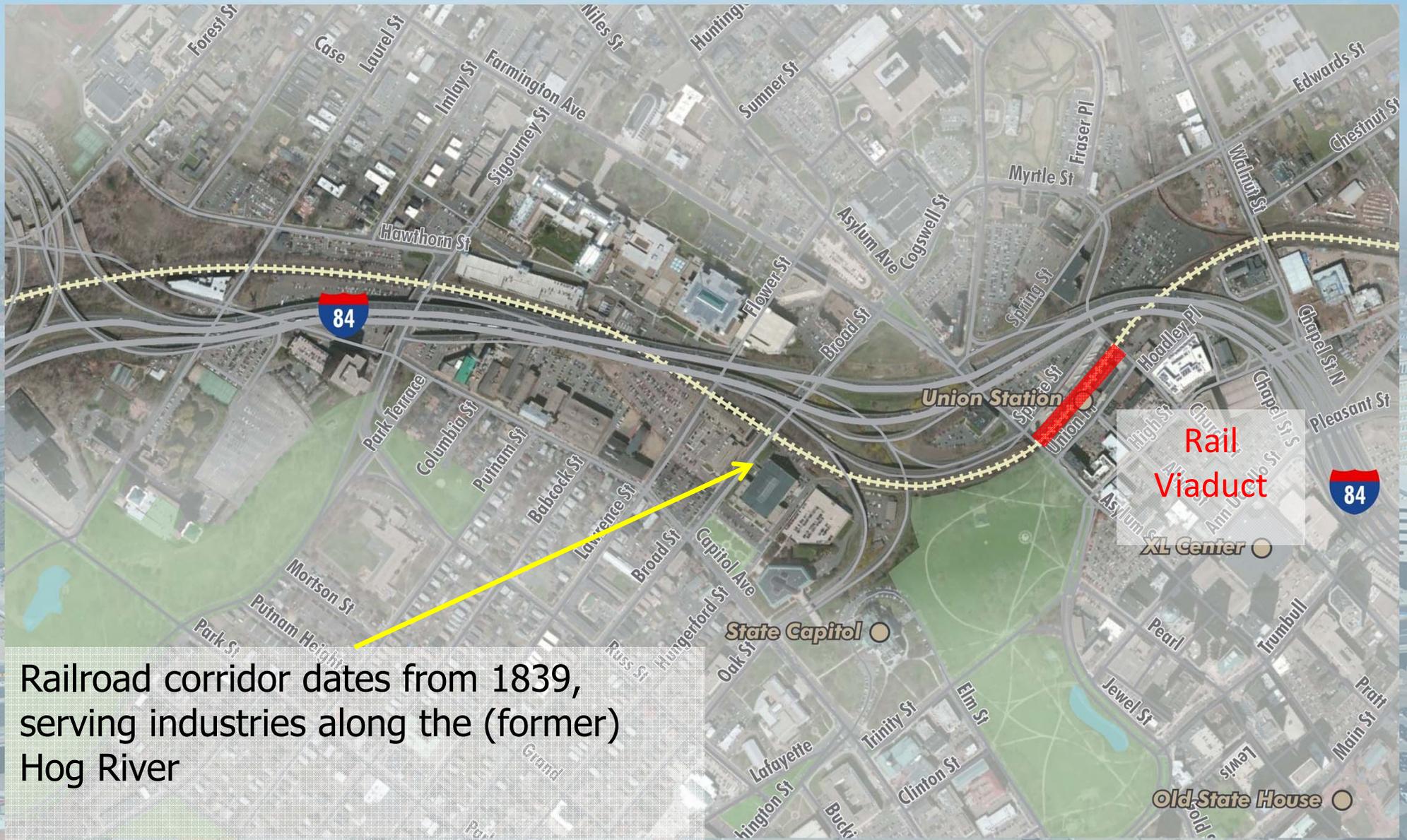
- Ongoing:
  - **NHHS Rail Program**
    - Service to begin in late 2016
- Current Study: (comes from HUB study and NHHS)
  - **Hartford Rail Alternatives Analysis**
    - Evaluating options to maintain, reconstruct or relocate the Hartford rail viaduct
- Future Vision:
  - **NEC FUTURE (led by Federal Railroad Administration)**
    - Examining rail infrastructure investments in the Northeast Corridor through 2040

# NHHS Rail Program Overview

- Program Goals:
  - Enhanced regional rail service for both commuter and intercity travel
  - Frequent service throughout the day
  - Seamless connections to Amtrak & Metro North
  - Accommodate continued growth in local freight rail service

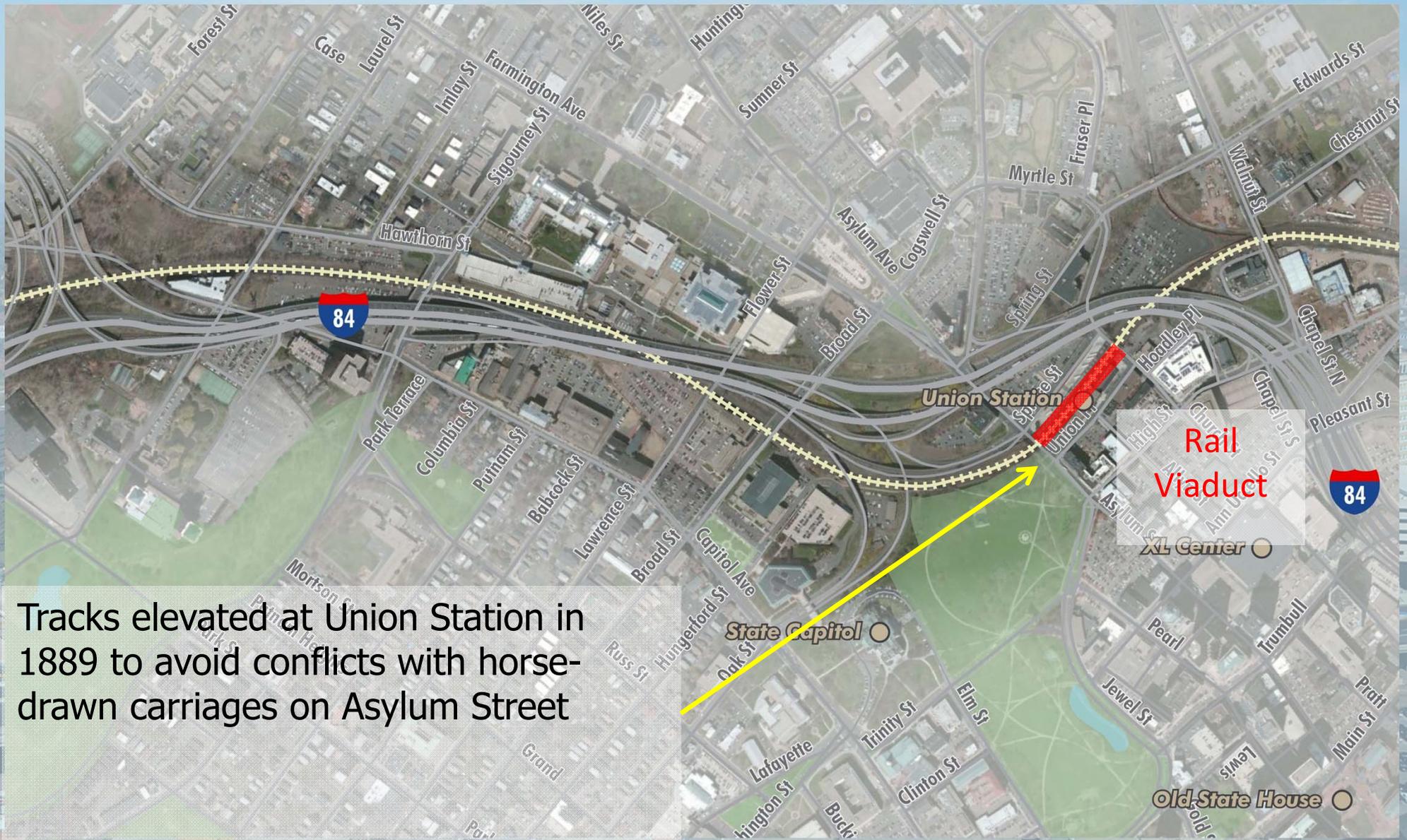


# Highway and Rail are Intertwined



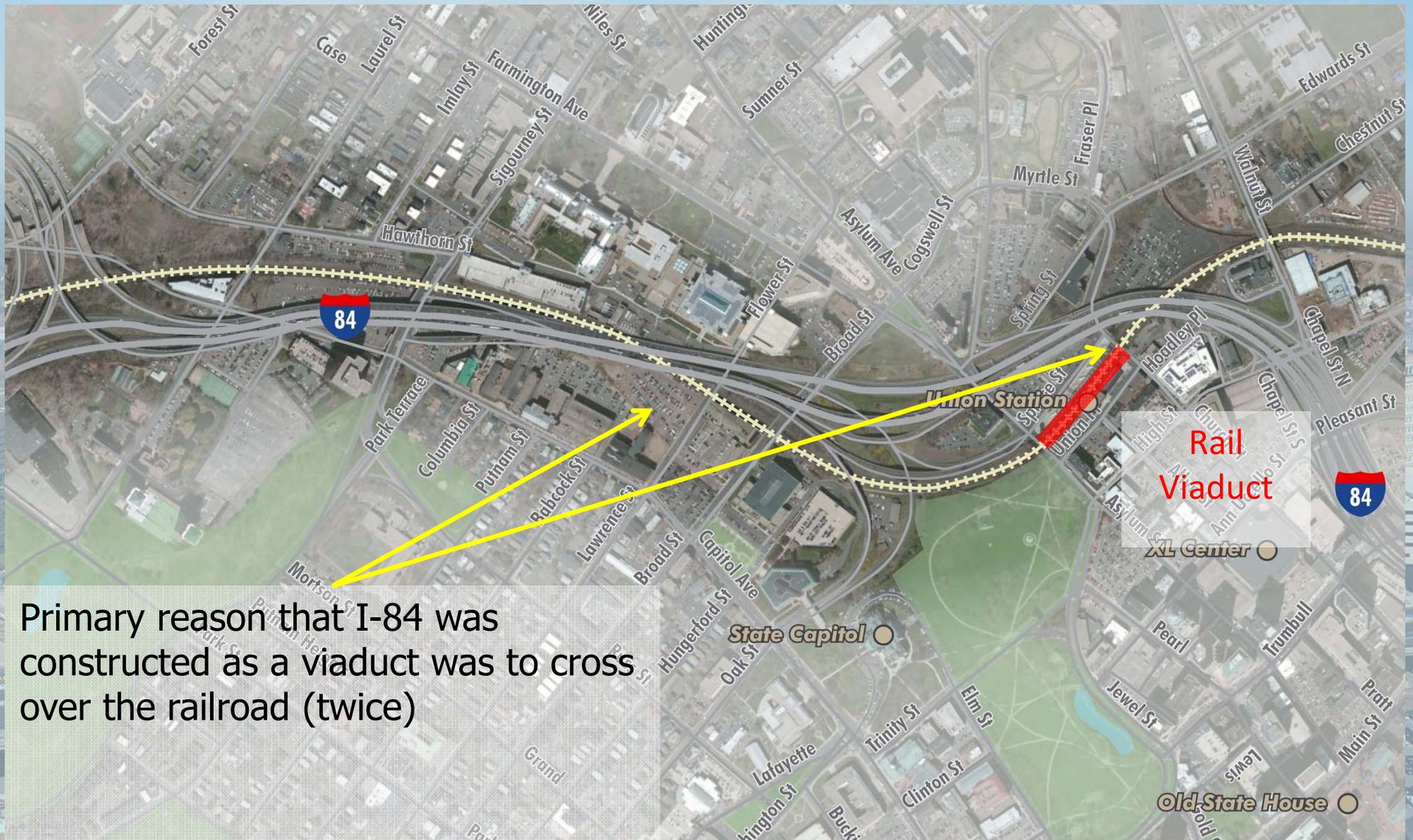
Railroad corridor dates from 1839, serving industries along the (former) Hog River

# Highway and Rail are Intertwined



Tracks elevated at Union Station in 1889 to avoid conflicts with horse-drawn carriages on Asylum Street

# Highway and Rail are Intertwined



Primary reason that I-84 was constructed as a viaduct was to cross over the railroad (twice)

# Highway and Rail are Intertwined

All bridge structures are:

- nearing the end of their useful lives
- require constant and expensive maintenance to stay operational
- have designs that limit operational efficiency
- are critical transportation links



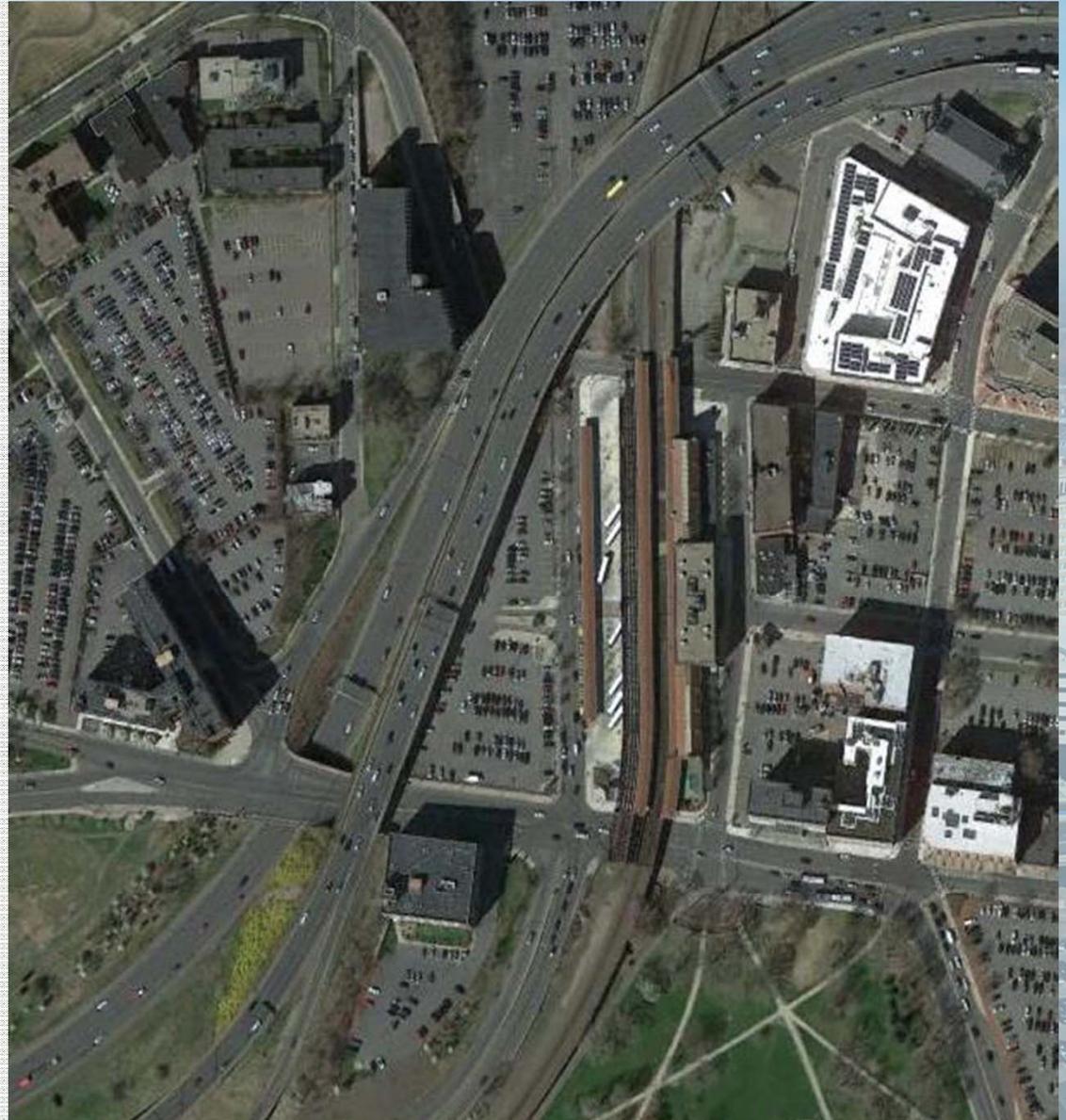
# Highway and Rail are Intertwined

- Previous HUB study of I-84 first considered rail relocation options
- Identified land use, economic development, and neighborhood connectivity benefits of relocation



# Their Futures Are Woven Together

- How to develop the best possible comprehensive solution?
- How to accommodate needs of both highway and rail?
- How to take advantage of the tremendous opportunity to reshape a vital urban district?



# Hartford Rail Viaduct

- 674 feet long
- 27 bridge spans
- Immediately adjacent to Union Station



# Hartford Rail Viaduct

- Only one of four tracks remains in service
- Freight trains restricted to 10 mph across structure
- Single operational track severely restricts train movements



# Hartford Rail Viaduct

- Upgrades excluded from initial NHHS system improvements
  - Long-term options are wide-ranging
  - Opportunity to integrate with I-84 improvements



# Union Station

- Limited platform upgrades planned to support NHHS service



# The Need

Facilitate the additional service anticipated as part of the NHHS program and growing freight operations

Rail Mobility

Serviceability

Connectivity



# The Need

Rail Mobility

Serviceability

Connectivity



Viaduct requires frequent repairs to maintain condition

# The Need

Rail Mobility

Serviceability

Connectivity

The highway / rail corridor divides neighborhoods in Hartford, yet the Union Station area is a growing transit hub

# Key Hartford Rail Needs Summary

- **Number of tracks:** Minimum two tracks
  - **Width of rail corridor:** 80' envelope (2 tracks)
  - **Platform length:** 800' - 1200' platform on tangent track
  - **Station:** New station needed if rail is relocated away from existing station
- 
- **NEC FUTURE:**
    - NEC FUTURE is FRA's program – examining impacts of faster trains, better connections, and alternative alignments
    - Two to four future below-grade high-speed rail tracks
    - Station platform and associated facilities below NHHS station
    - Doesn't impact the I-84 Hartford Project, other than to preserve underground access route

# NEC FUTURE Program Overview

- Initiated in 2012 by Federal Railroad Administration with support of the Northeast Corridor Commission
- Includes a Tier 1 Environmental Impact Statement (EIS) and a Service Development Plan
- Focus on improving passenger rail service along the Washington-Boston Northeast Corridor



# NEC FUTURE Preliminary Alternatives





# ***THE I-84 HARTFORD PROJECT***

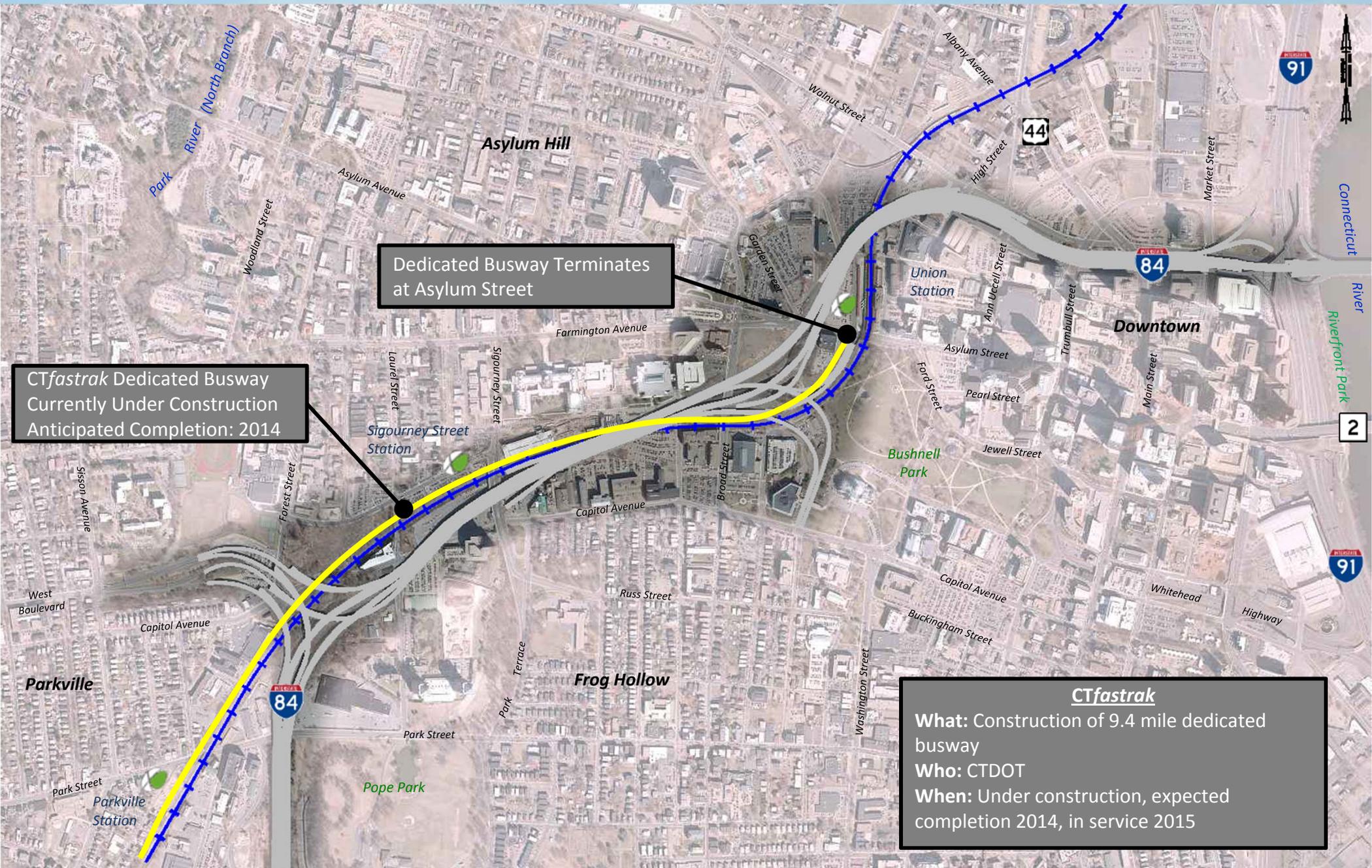
## **Inter-related Projects**



# Railroad



# CTfastrak

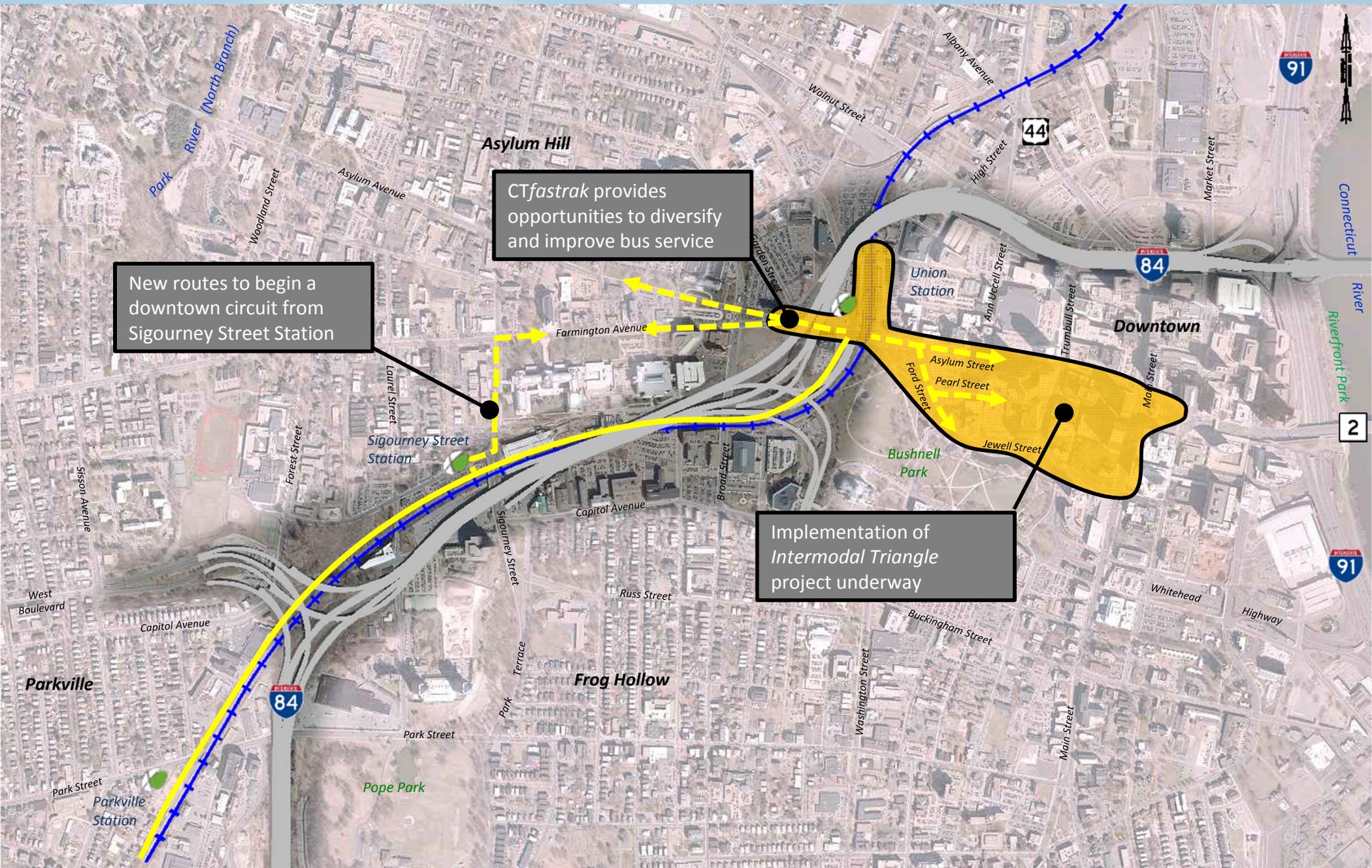


CTfastrak Dedicated Busway  
Currently Under Construction  
Anticipated Completion: 2014

Dedicated Busway Terminates  
at Asylum Street

**CTfastrak**  
**What:** Construction of 9.4 mile dedicated busway  
**Who:** CTDOT  
**When:** Under construction, expected completion 2014, in service 2015

# Opportunities to Improve Bus Service

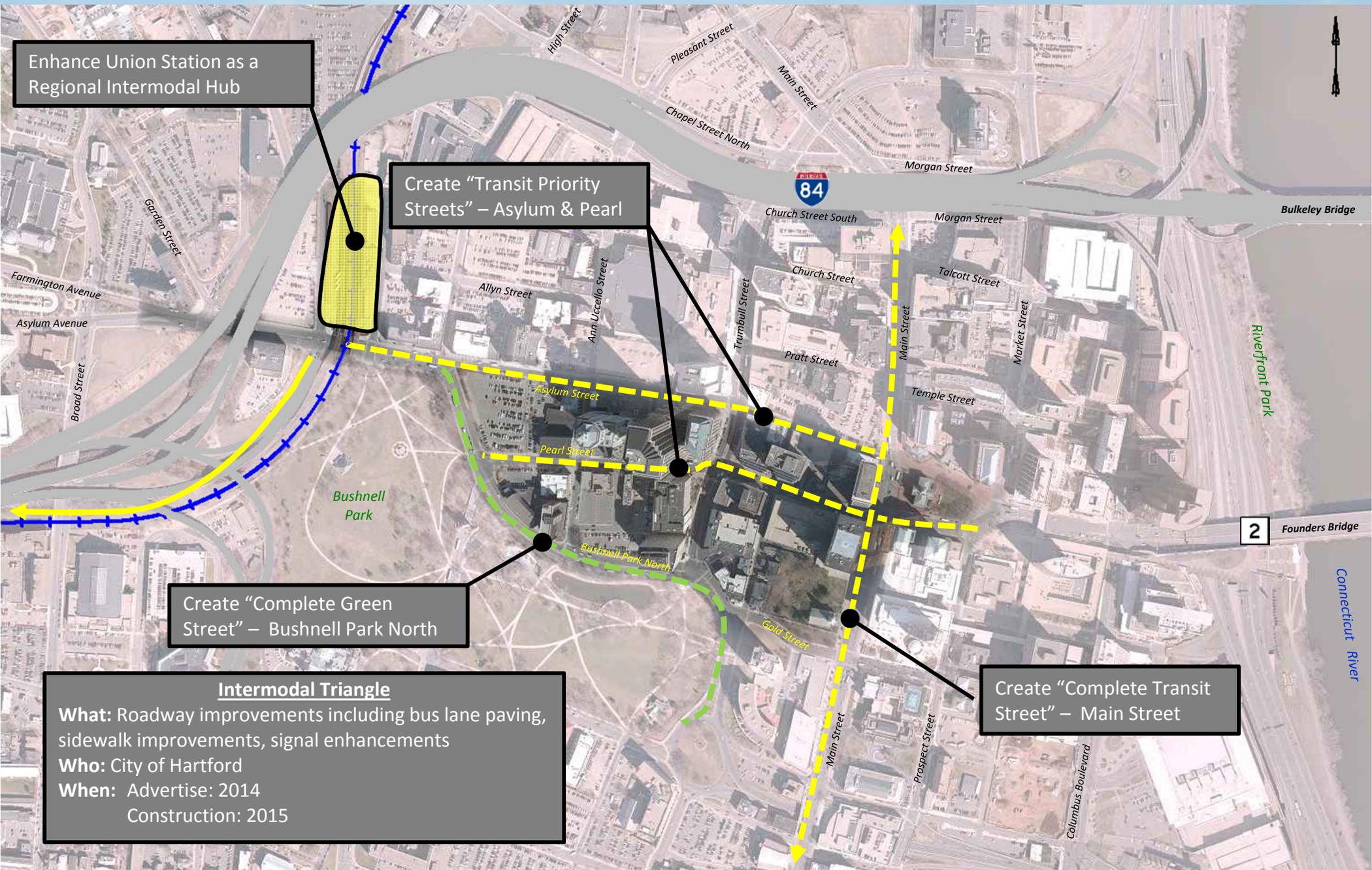


CTfastrak provides opportunities to diversify and improve bus service

New routes to begin a downtown circuit from Sigourney Street Station

Implementation of Intermodal Triangle project underway

# Intermodal Triangle



Enhance Union Station as a Regional Intermodal Hub

Create "Transit Priority Streets" – Asylum & Pearl

Create "Complete Green Street" – Bushnell Park North

Create "Complete Transit Street" – Main Street

**Intermodal Triangle**  
**What:** Roadway improvements including bus lane paving, sidewalk improvements, signal enhancements  
**Who:** City of Hartford  
**When:** Advertise: 2014  
Construction: 2015

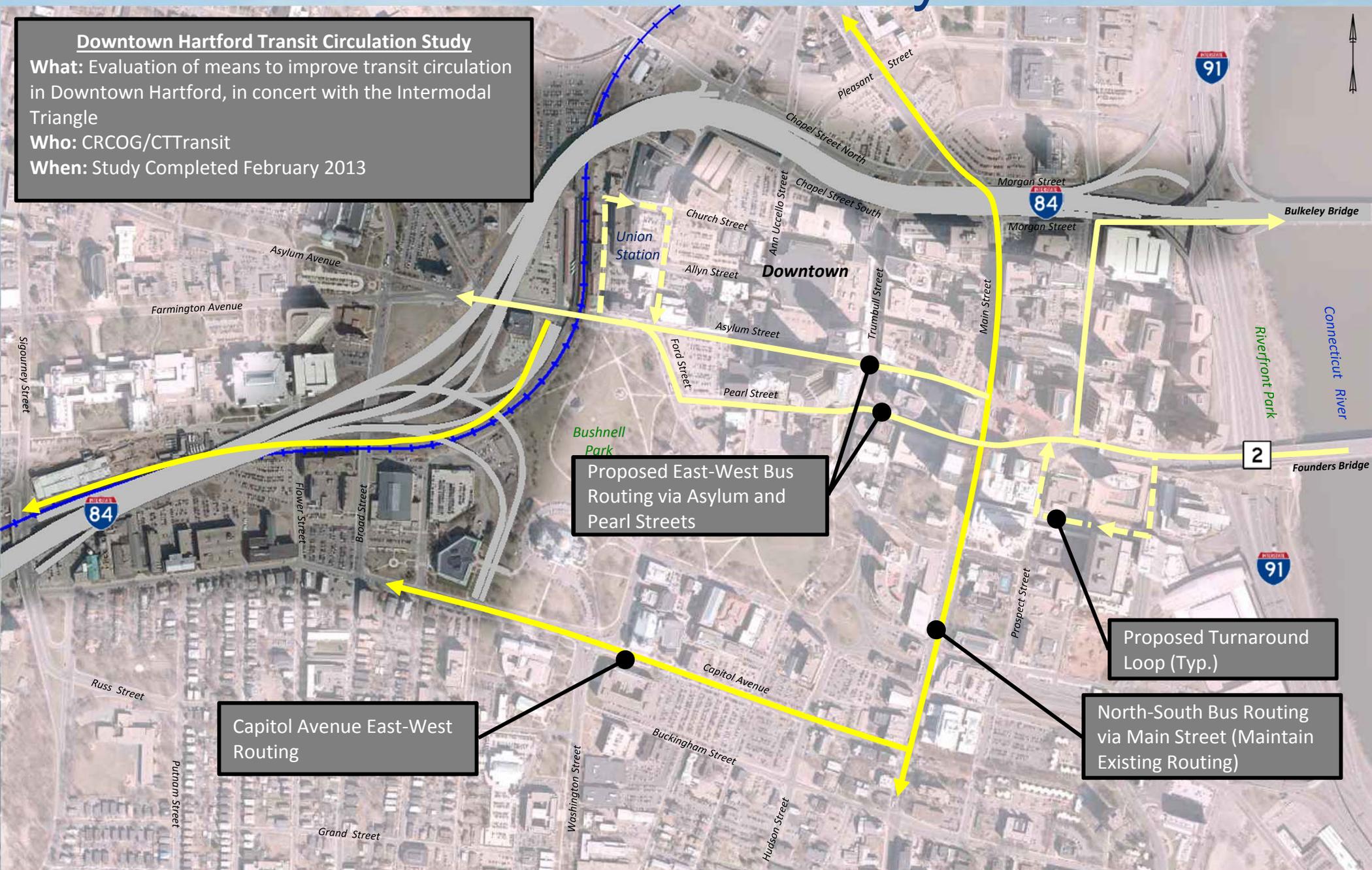
# Downtown Hartford Transit Circulation Study

## Downtown Hartford Transit Circulation Study

**What:** Evaluation of means to improve transit circulation in Downtown Hartford, in concert with the Intermodal Triangle

**Who:** CRCOG/CTtransit

**When:** Study Completed February 2013



# iQuilt

## The iQuilt Plan

**What:** Urban Design Master Plan focusing on making a more culturally vibrant, environmentally sustainable, and economically prosperous.

**Who:** iQuilt Partnership/City of Hartford

**When:** Study Completed January 2012

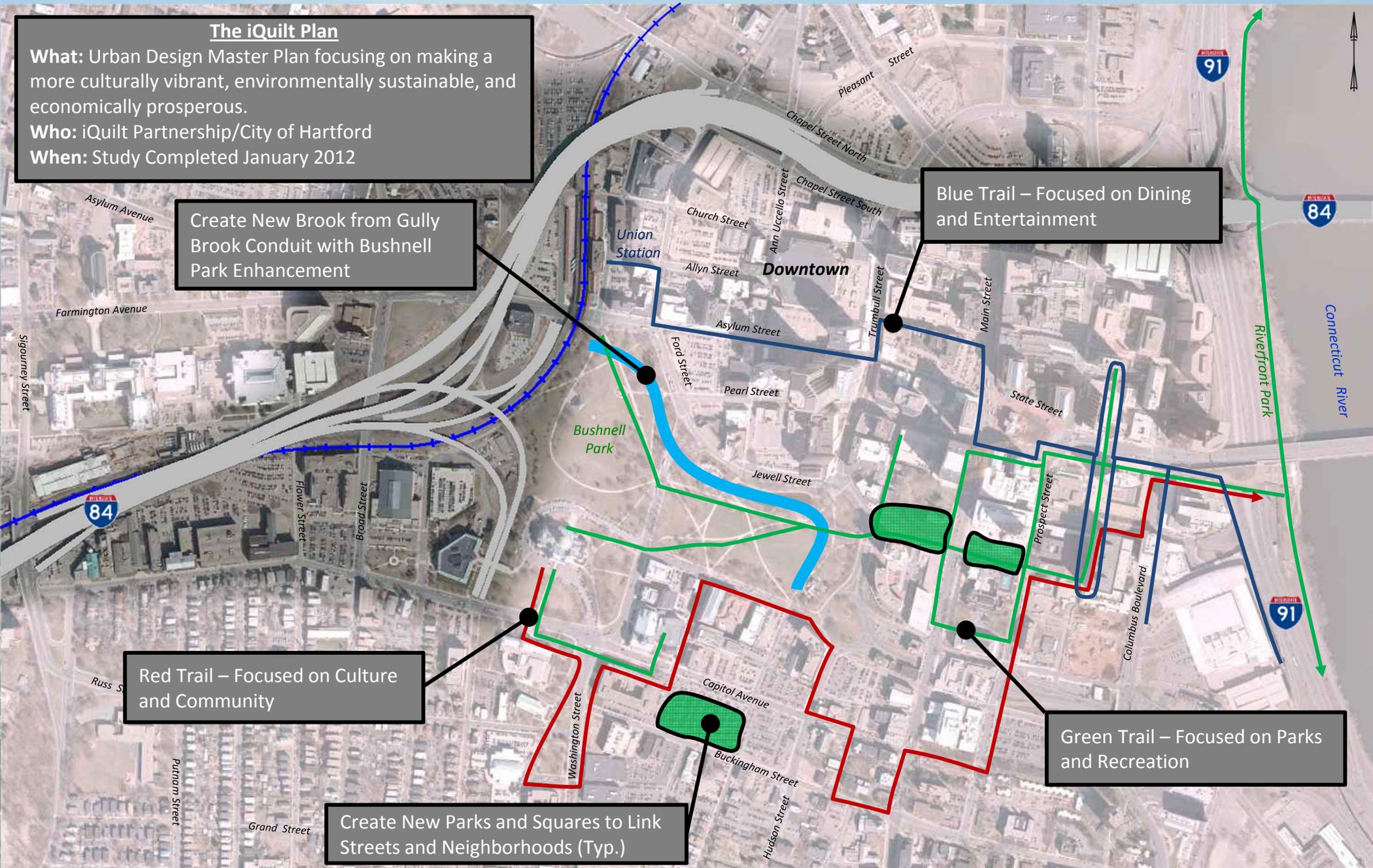
Create New Brook from Gully Brook Conduit with Bushnell Park Enhancement

Blue Trail – Focused on Dining and Entertainment

Red Trail – Focused on Culture and Community

Green Trail – Focused on Parks and Recreation

Create New Parks and Squares to Link Streets and Neighborhoods (Typ.)



# Other Local Street Projects

## Farmington Avenue Streetscape Project

**What:** Complete Streets/Streetscape Improvements  
**Who:** City of Hartford  
**When:** Phase 1 – Construction – 2014  
Phase 2 - Planning

## Farmington-Asylum Trident

**What:** Intersection Improvements  
**Who:** CTDOT  
**When:** Conceptual Planning underway

## Sigourney Station Pedestrian Upgrades

**What:** Pedestrian upgrades around the CTfastrak station – Linked to Capitol Avenue Streetscape project  
**Who:** GHTD (Greater Hartford Transit District)  
**When:** Construction - 2015

## Capitol Avenue: Streetscape Projects

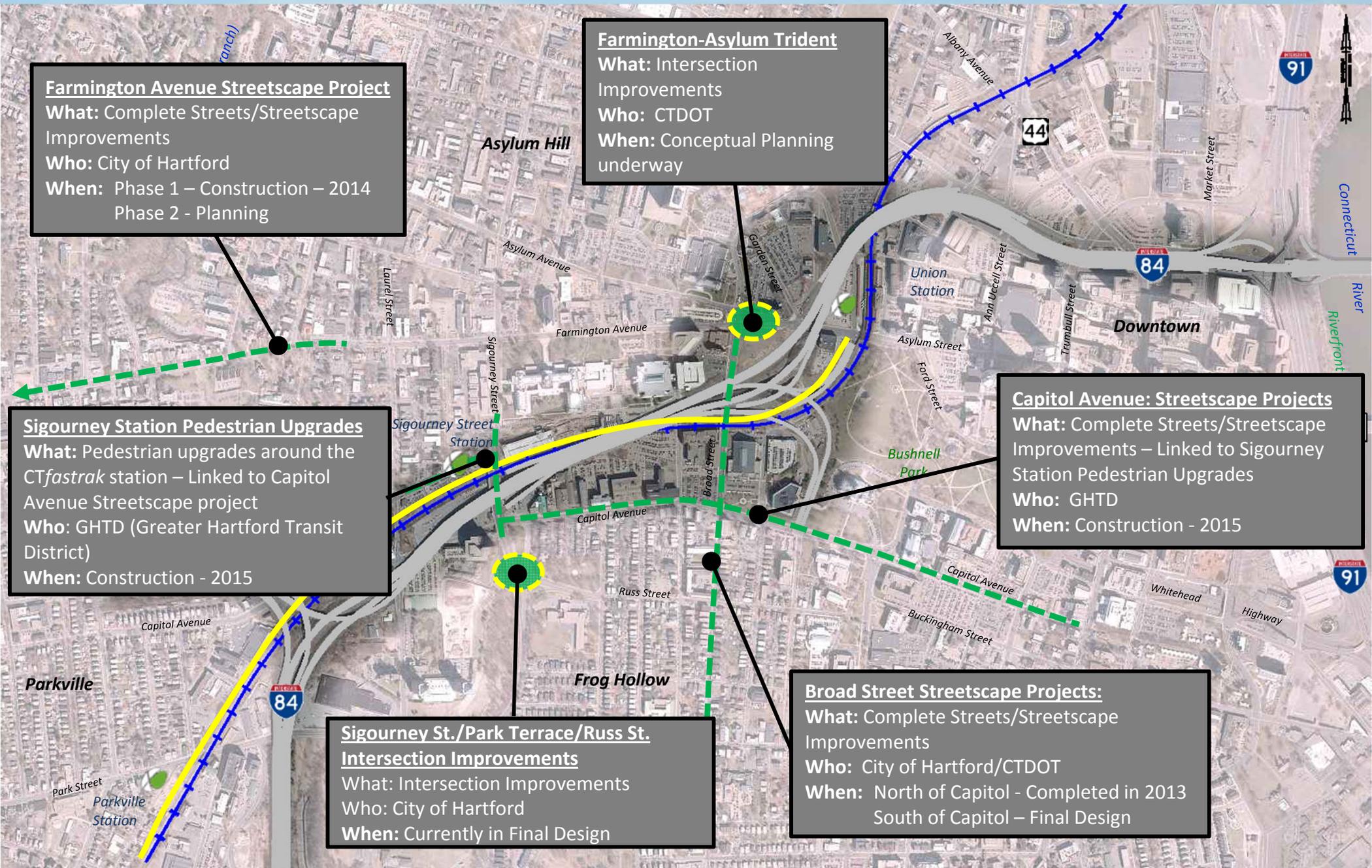
**What:** Complete Streets/Streetscape Improvements – Linked to Sigourney Station Pedestrian Upgrades  
**Who:** GHTD  
**When:** Construction - 2015

## Sigourney St./Park Terrace/Russ St. Intersection Improvements

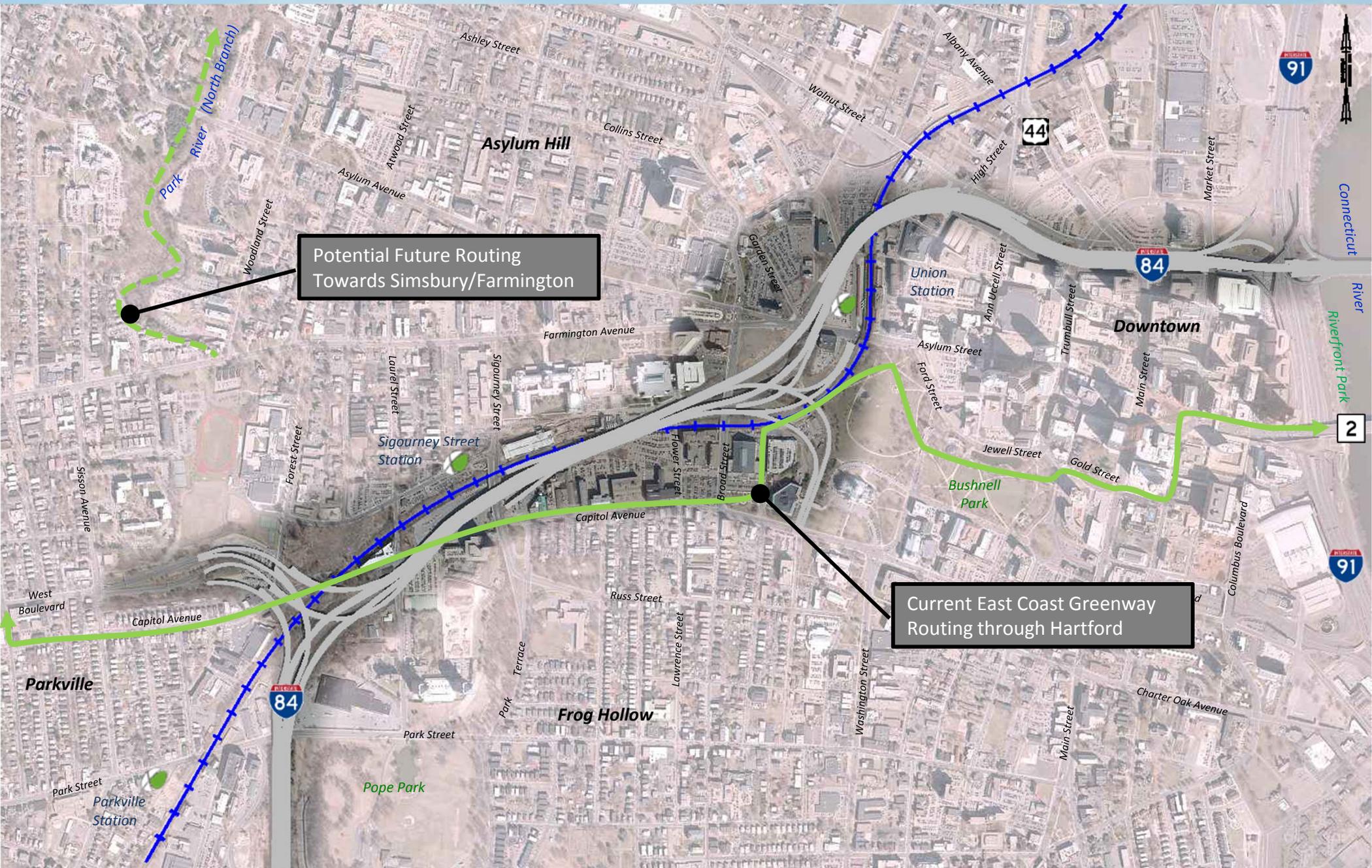
**What:** Intersection Improvements  
**Who:** City of Hartford  
**When:** Currently in Final Design

## Broad Street Streetscape Projects:

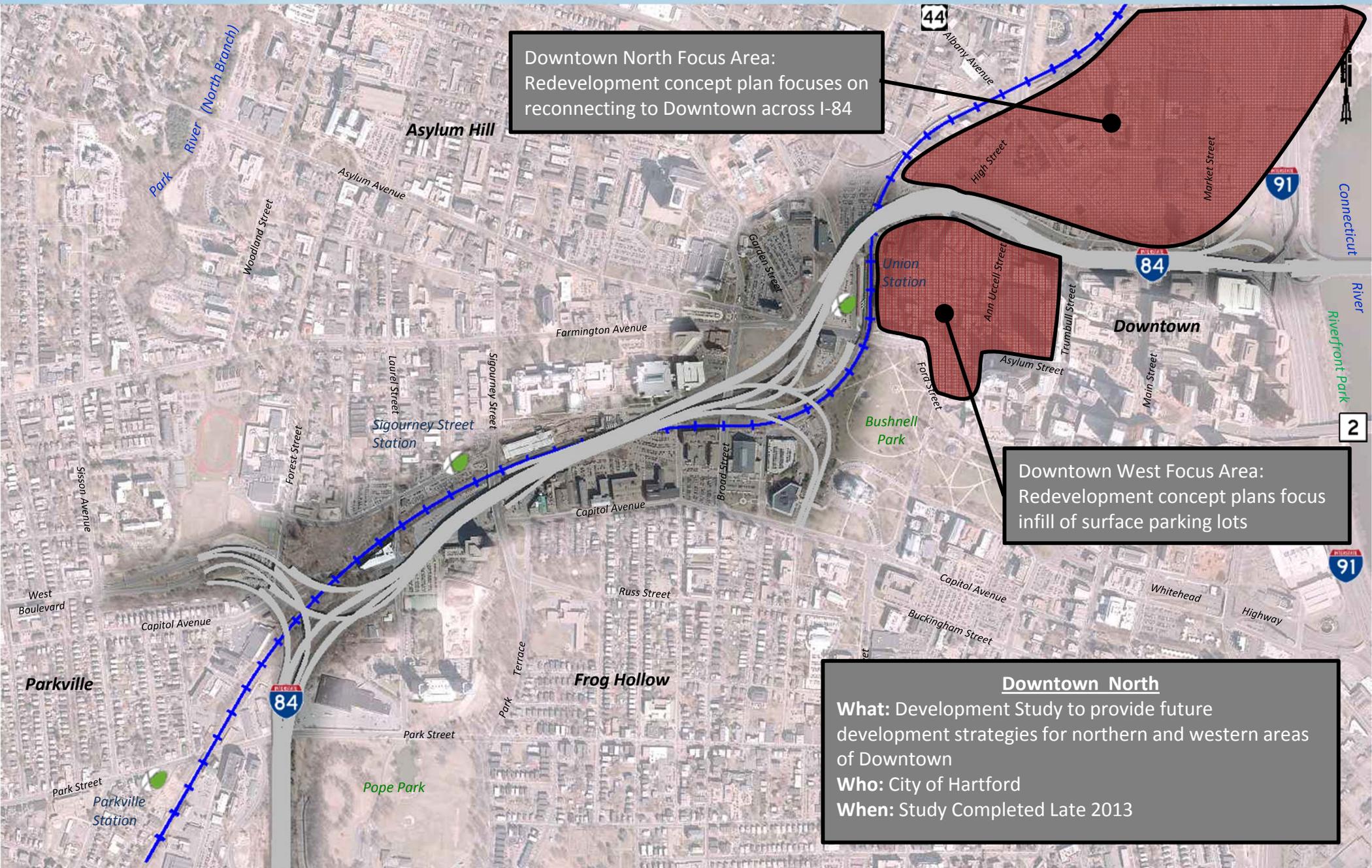
**What:** Complete Streets/Streetscape Improvements  
**Who:** City of Hartford/CTDOT  
**When:** North of Capitol - Completed in 2013  
South of Capitol – Final Design



# East Coast Greenway



# Development Studies



**Downtown North Focus Area:**  
Redevelopment concept plan focuses on reconnecting to Downtown across I-84

**Downtown West Focus Area:**  
Redevelopment concept plans focus infill of surface parking lots

**Downtown North**  
**What:** Development Study to provide future development strategies for northern and western areas of Downtown  
**Who:** City of Hartford  
**When:** Study Completed Late 2013

# Other Projects

## – POCD – One City One Plan 2020

- Adopted in June 2010
- Encourages sustainable development, complete streets, removal of surface parking

## – Bicycle Plan

- Goal to create a continuous bikeway network to connect neighborhoods with parks and open spaces.
- Running concurrent with Parks and Open Space System Plan

## – Parks and Open Space System Plan

- Create a plan for fully functional parks and open space within the City
- Provide guidance regarding proposed improvements, future needs and expansions

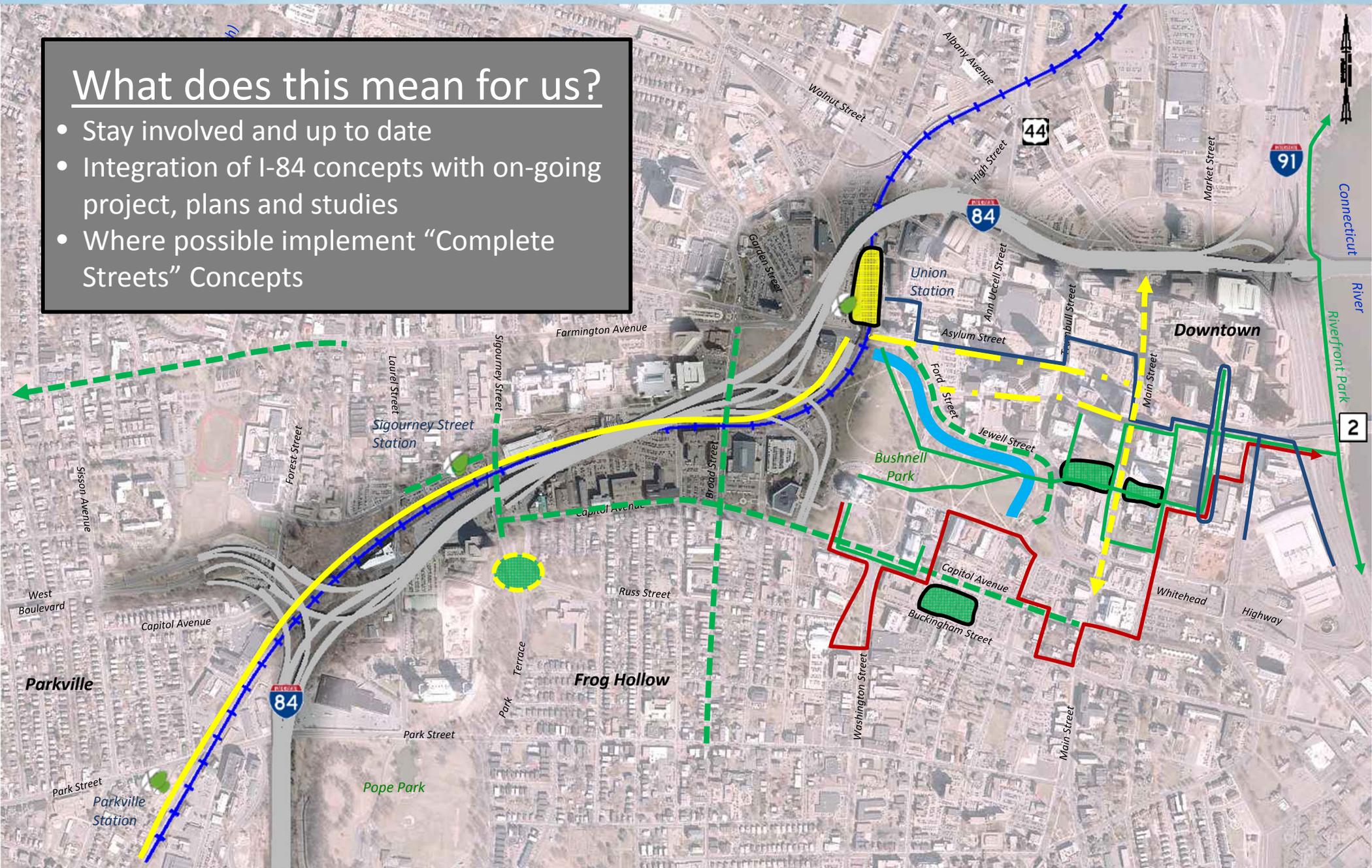
# Other Projects

- City of Hartford's Signal System Upgrade
  - Phase 1 – Complete, to be implemented in 2014
  - Phase 2 – TBD
- Urban Design Guidelines
  - Establish development guidelines which support the goals and objectives of the One City, One Plan POCD
- Comprehensive Transit Service Analysis Study
  - CRCOG study to review transit services throughout the Greater Hartford region
  - Study to begin in 2014

# Inter-Related Projects

## What does this mean for us?

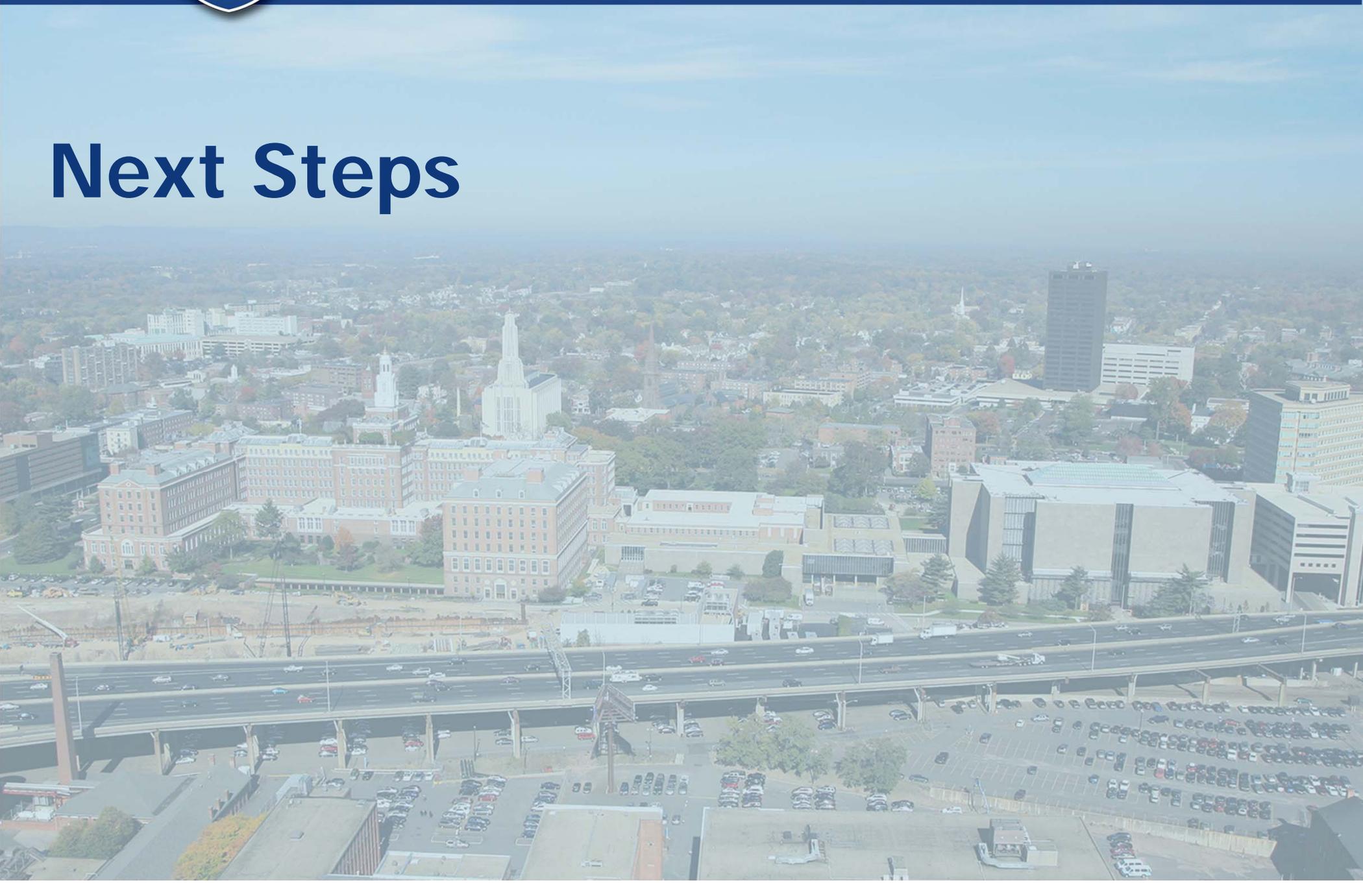
- Stay involved and up to date
- Integration of I-84 concepts with on-going project, plans and studies
- Where possible implement “Complete Streets” Concepts





# ***THE I-84 HARTFORD PROJECT***

## **Next Steps**



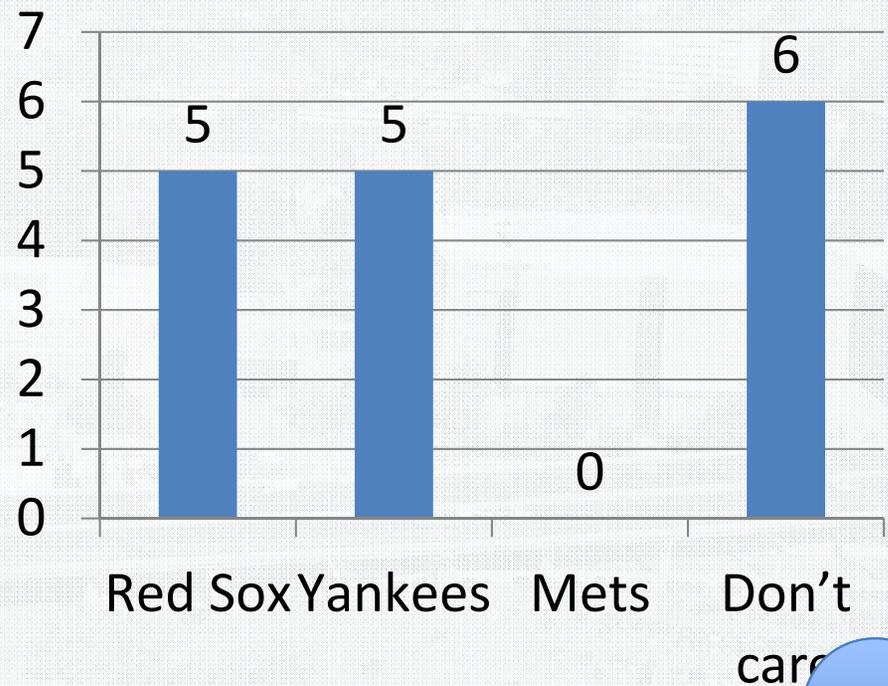
# Next Steps

- Future PAC Meetings
  - Proposed format
  - Future topics poll
- Alternatives development workshops
  - Public informational meeting
  - Working groups

# Test question

What is your favorite baseball team

1. Red Sox
2. Yankees
3. Mets
4. Don't care



# Future topics poll

- Traffic volume forecasts
- Highway safety
- Needs & deficiencies
- Urban design opportunities
- Environmental process (NEPA)
- Tolling/congestion management
- Initial alternatives

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Traffic volume forecasts

What is a travel demand model? What does it consider? How does it predict travel? What are the growth inputs/assumptions? How does it deal with other modes?

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Highway safety

How many accidents on mainline and ramps? Where are the biggest problems? What are the causes? How can we improve safety in the corridor for all users?

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Needs & Deficiencies

Geometric conditions, environmental constraints, traffic data, parking, travel modes, etc.

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Urban design opportunities

Transit-Oriented-Development initiatives, bicycle plans, Complete Streets, land development potential, neighborhood connectivity.

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Environmental process (NEPA)

What is the purpose of it, how does it work, what are the requirements, and what areas will be explored.

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Tolling and congestion management

What are the facts? What is the study that's going on? What is it trying to determine? How might tolling work in this corridor? How might it affect the I-84 alternatives?

# Future topics poll

Please rate the following item on a scale from 1 to 5:

## Initial alternatives

Working meeting to begin putting lines on a map and exploring options to address Needs & Deficiencies.

# Ranked list of responses

- 4.4 Urban design opportunities
- 4.3 Initial alternatives
- 4.3 Needs & Deficiencies
- 4.1 Tolling and congestion management
- 3.9 Traffic volume forecasts
- 3.7 Highway safety
- 2.9 Environmental process (NEPA)

# Thank You!

We deeply appreciate your time and your commitment to helping us reach the best possible solution for the State, the region and the City.

*Your I-84 Hartford Project Team*