



# I-84 HARTFORD PROJECT

## OPS Wrap up

February 26, 2016





# I-84 HARTFORD PROJECT

## History







# Some history...

- Rail line built in 1830s
- I-84 built in 1960s
  - Designed to avoid impacting rail
  - Resulting design is mostly elevated







# I-84 adopted E-W Highway alignment





## A product of its time...

- I-84 was conceived prior to NEPA/federal regulations
- Soon after it was built, many realized that its effect on Hartford was not all positive



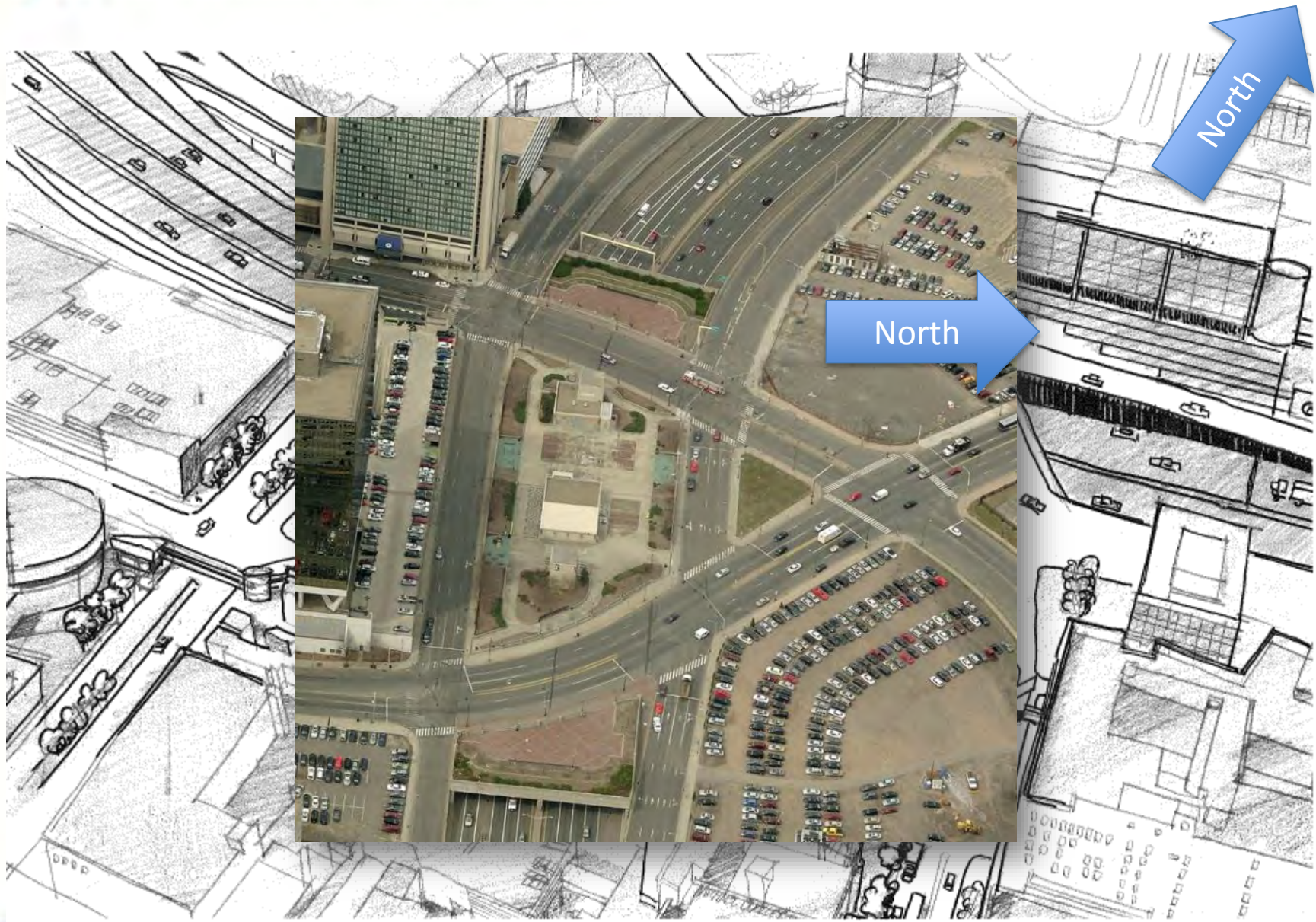
*“The impact of the I-84 freeway upon the physical environments into which it was introduced has been both dramatic and overwhelming.” - 1970 CTDOT & FHWA*

- The I-84 Hartford Project provides an opportunity to rethink the previous design





# I-84 HARTFORD PROJECT







# Missed Opportunities





# Missed Opportunities



Image Date: June 2011





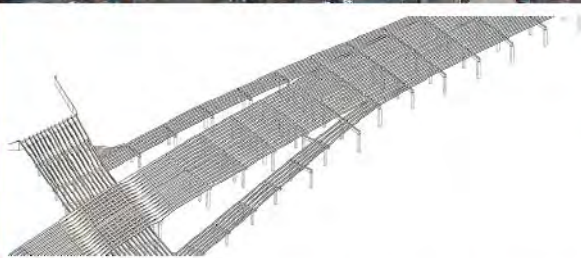
## Why is the project needed?

- Bridge Structure Deficiencies
- Traffic and Safety Deficiencies
- Mobility Deficiencies

## Goals and Objectives

- Ensure long-term serviceability of corridor
- Maximize public investment in corridor
- Ensure better integration of the interstate with the urban environment

# Bridge Structural Deficiencies



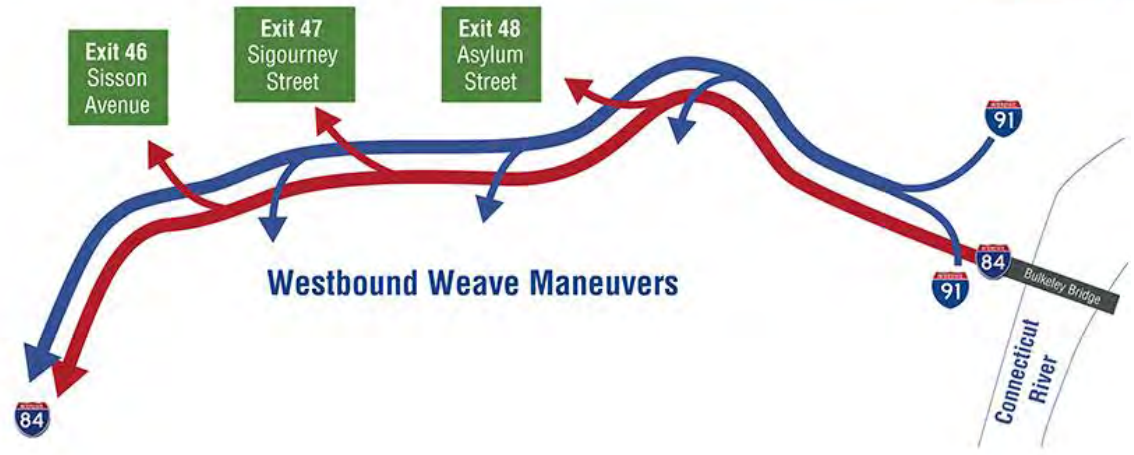
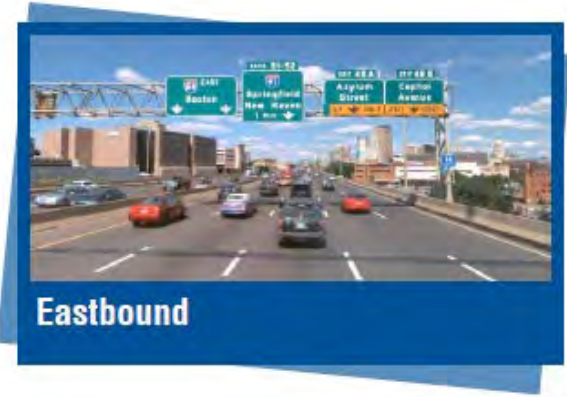
- Many of these bridges are reaching the end of their intended lifespan
- CTDOT spent over \$60M on repairs since 2004
- Bridges are safe to drive over but deterioration will continue





# Operational Deficiencies

- Left-hand on- and off-ramps
- Multiple lane drops (“exit only”)
- Weave sections
- 8 full or partial interchanges in less than 3 miles





# Safety Deficiencies



— Accident rate four times the state average

- Narrow shoulder widths
- Nearly two accidents per day
- Significant traffic delays
- Poor pedestrian and bike accessibility on local streets



# Community Challenges



Image at left and top left courtesy of Heather Brandon



Image courtesy of Barbara Steele

Image courtesy of Archives and Special Collections, UConn Library







What we've heard this week...



# Public Advisory Committee

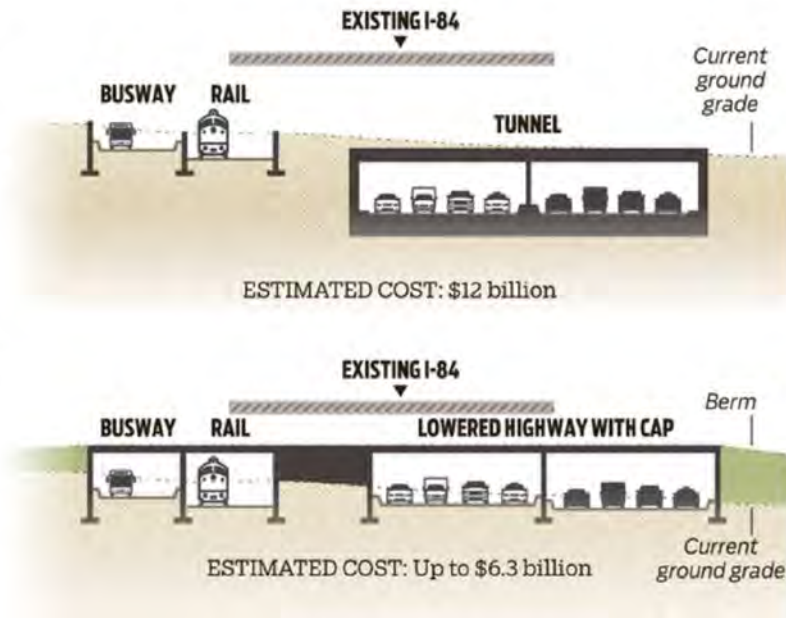




## Hartford Courant

### New Alternative To Replace I-84 Viaduct: Capped Highway

Cross-section views illustrate two visions for a new Hartford I-84 crossing. One would be a traditional tunnel entirely below the current ground level; the other would be a "capped highway" built into a shallow depression in the ground and then covered by embankments and landscaping or buildings above a roof structure.



Wes Rand / Hartford Courant



By **Don Stacom** · Contact Reporter



# Traffic & Parking WG







# Urban Design WG





# Bicycle, Pedestrian & Transit WG







# I-84 HARTFORD PROJECT

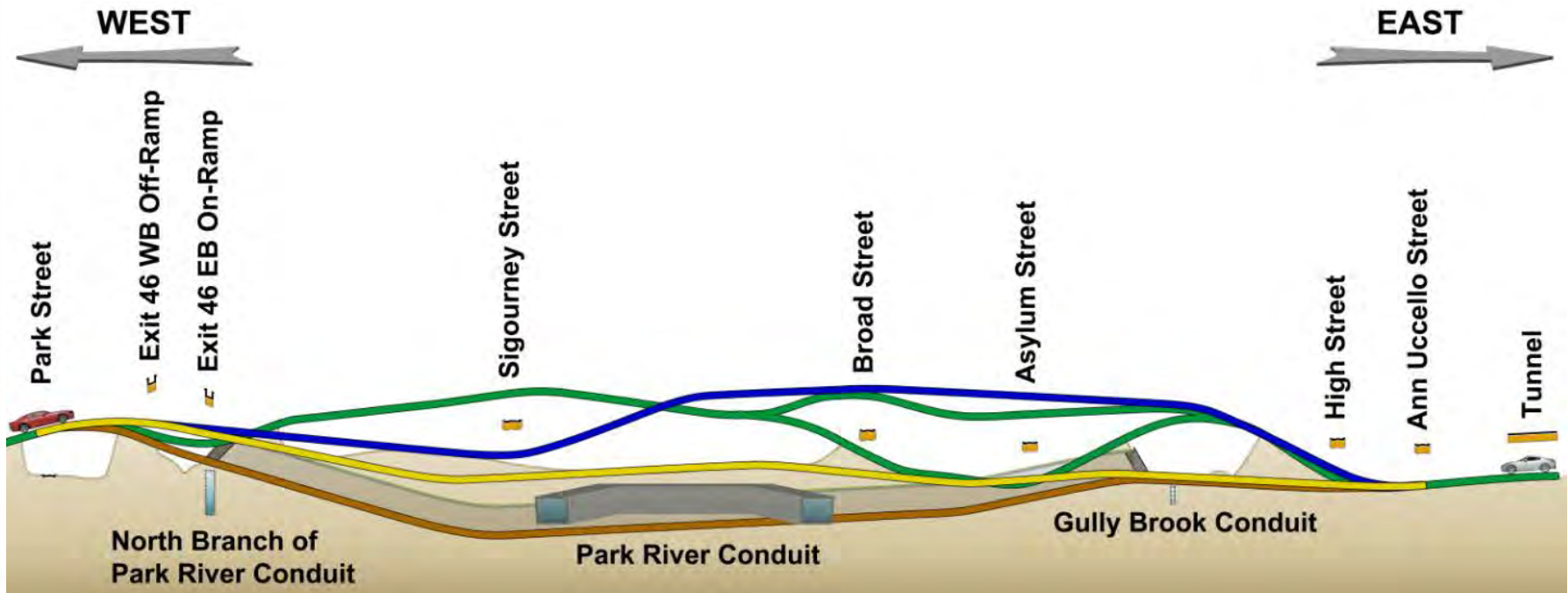
## Alternatives Update

A look back...

- Over 150 alternatives
- Alternative 2 (Elevated Highway) does not satisfy Purpose & Need
- Alternative 4 (Tunneled Highway) has heavy impacts and prohibitively high costs
- About a dozen 'favorable' alternatives remain

# Mainline Alternatives

- Alternative 1 (No-Build) Green
- Alternative 2 (Elevated) Blue
- Alternative 3 (Lowered) Yellow
- Alternative 4 (Tunnel) Brown







# Various Ramp Options



10 WESTERN  
OPTIONS

SIGOURNEY STREET

Trumbull & High Street  
Interchanges Closed

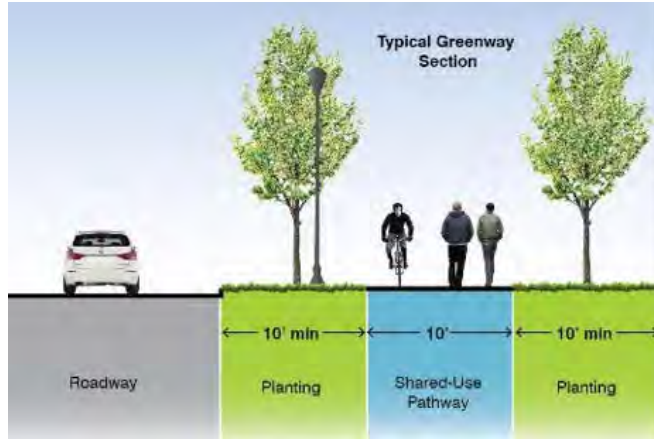
X X

15 EASTERN  
OPTIONS



# I-84 HARTFORD PROJECT

## Mobility Screening





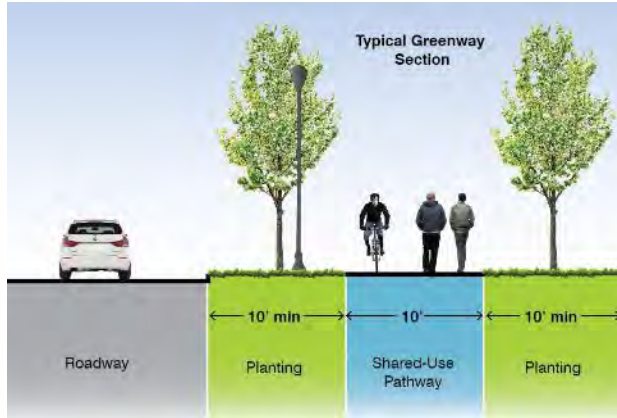


# Mobility Assessment

- Project Team is currently working on ideas to improve bicycling, walking, and transit service
- Urban Design is tightly interrelated to this effort and also ongoing
- The Project will provide significant opportunity to change the way local streets look, feel, and become part of the community over time

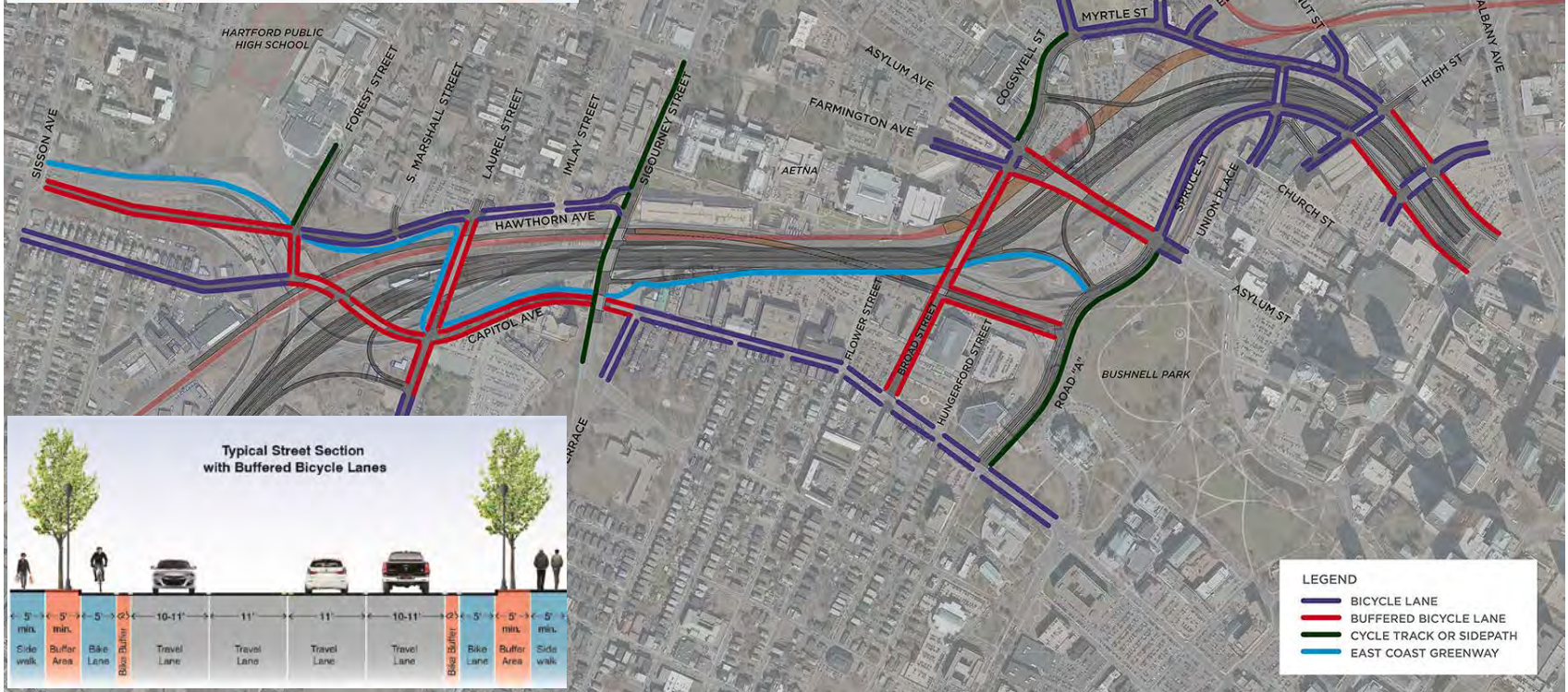
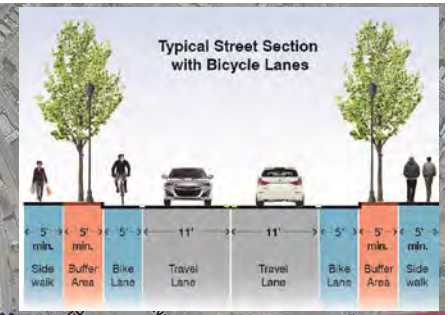
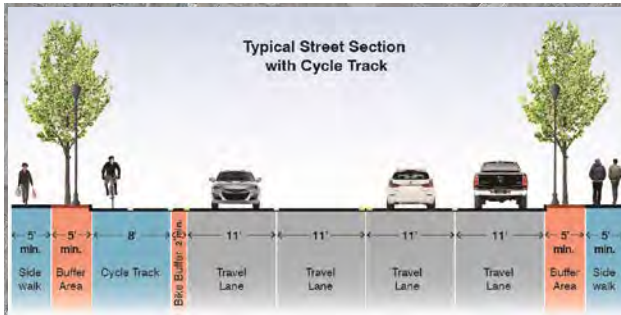


# East Coast Greenway





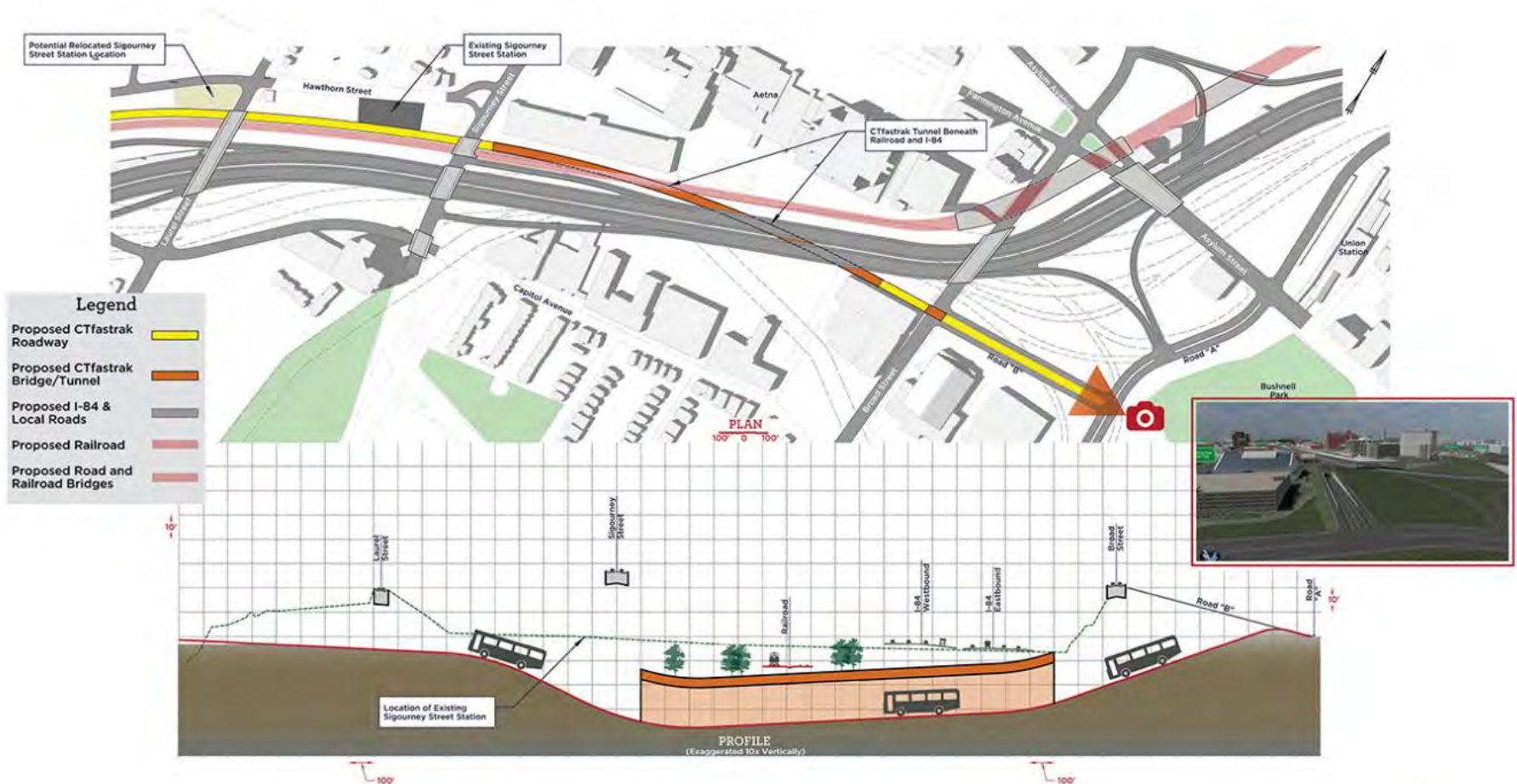
## On-Street Bicycle Network



- LEGEND**
- BICYCLE LANE
  - BUFFERED BICYCLE LANE
  - CYCLE TRACK OR SIDEPATH
  - EAST COAST GREENWAY



## CTfastrak Modifications







# Hartford Railroad Alternatives Study

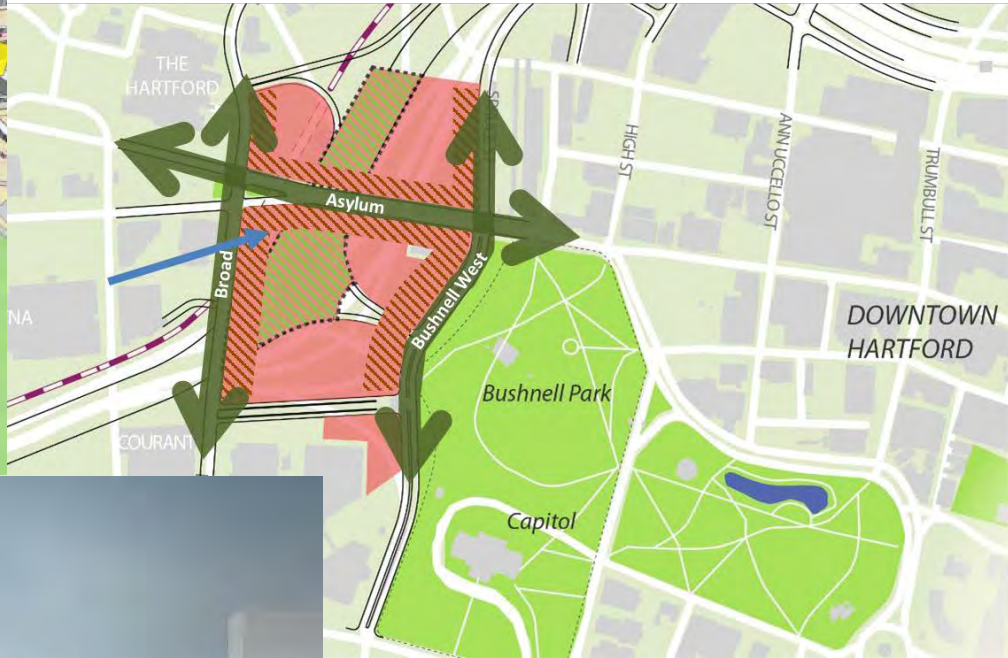
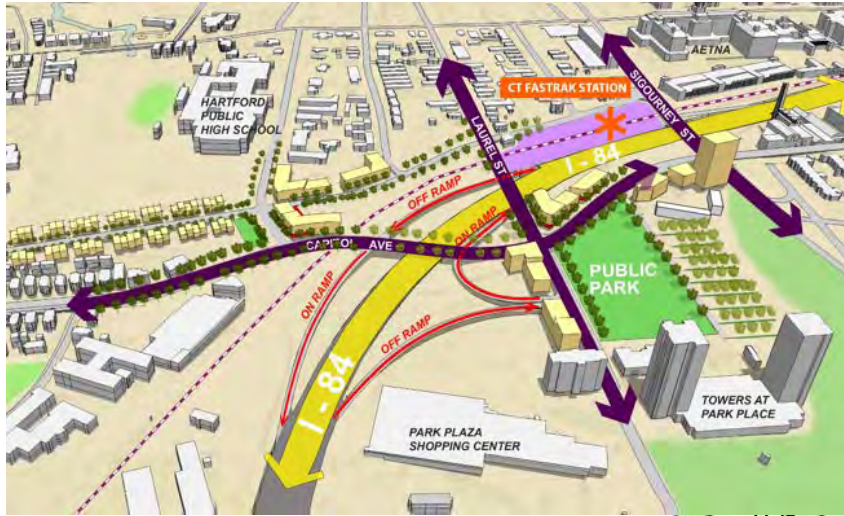
- Assessed rail viaduct
- Examined a range of alignments
- Concluded that rail relocation is feasible AND preferred
- Will be incorporated into the I-84 Hartford Project moving forward





# I-84 HARTFORD PROJECT

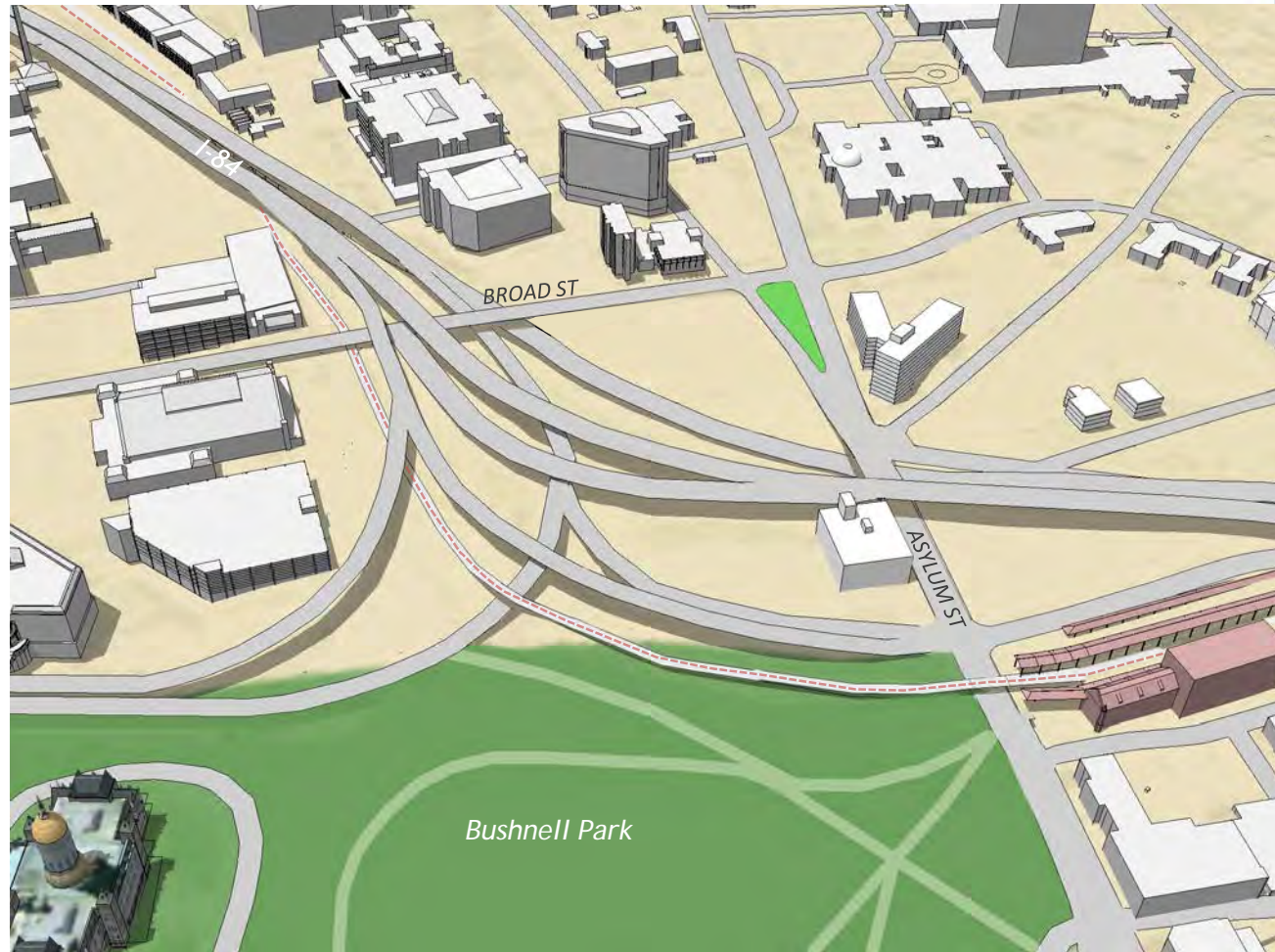
## Urban Design Opportunities







## Existing Conditions – Elevated Highway





## Base Scenario: Lowered Highway Alternative (No Cap)

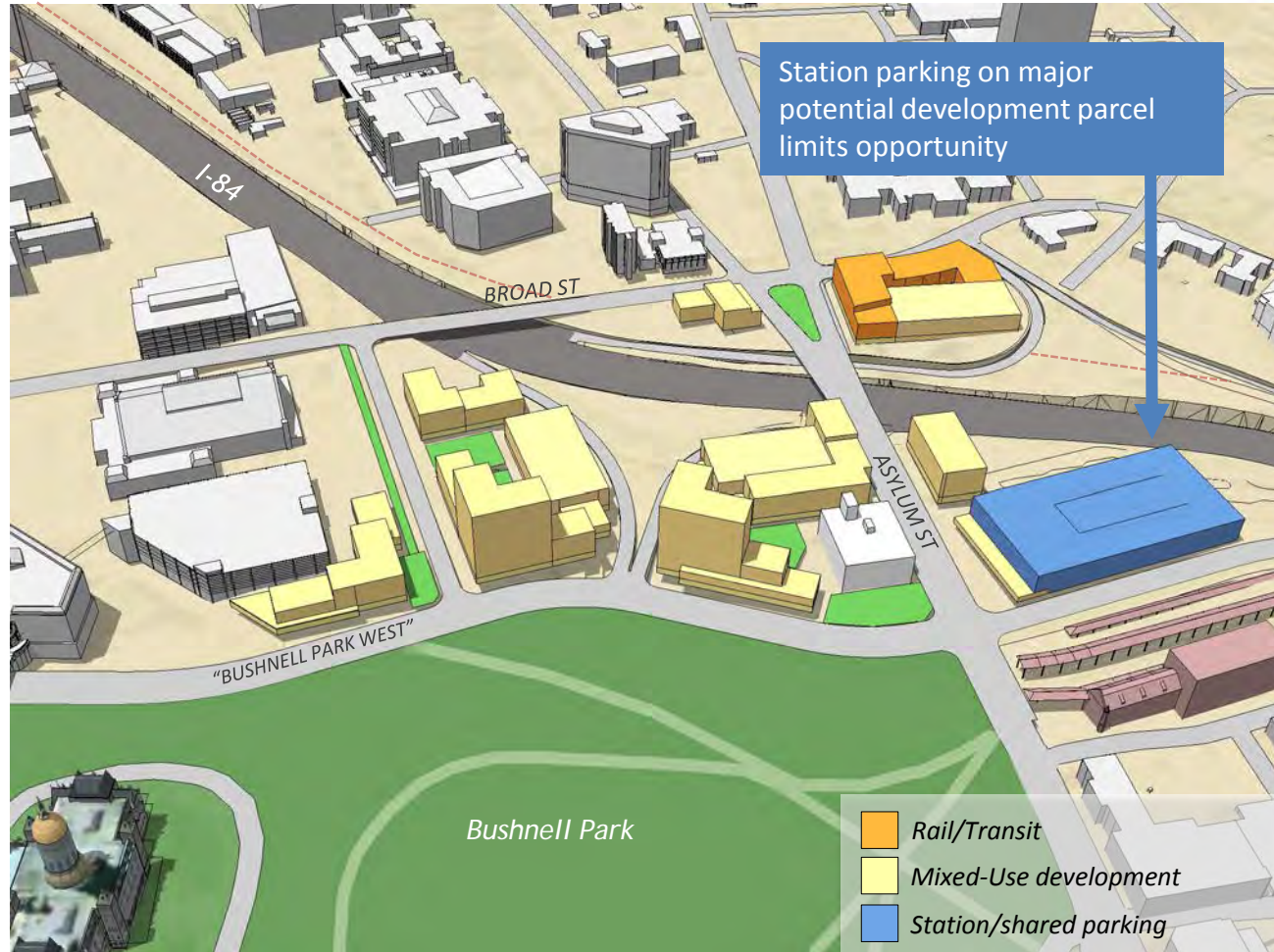
- Open land areas
- Bridges over highway at Broad and Asylum
- Rail moved west of I-84
- New park frontage road: "Bushnell Park West"





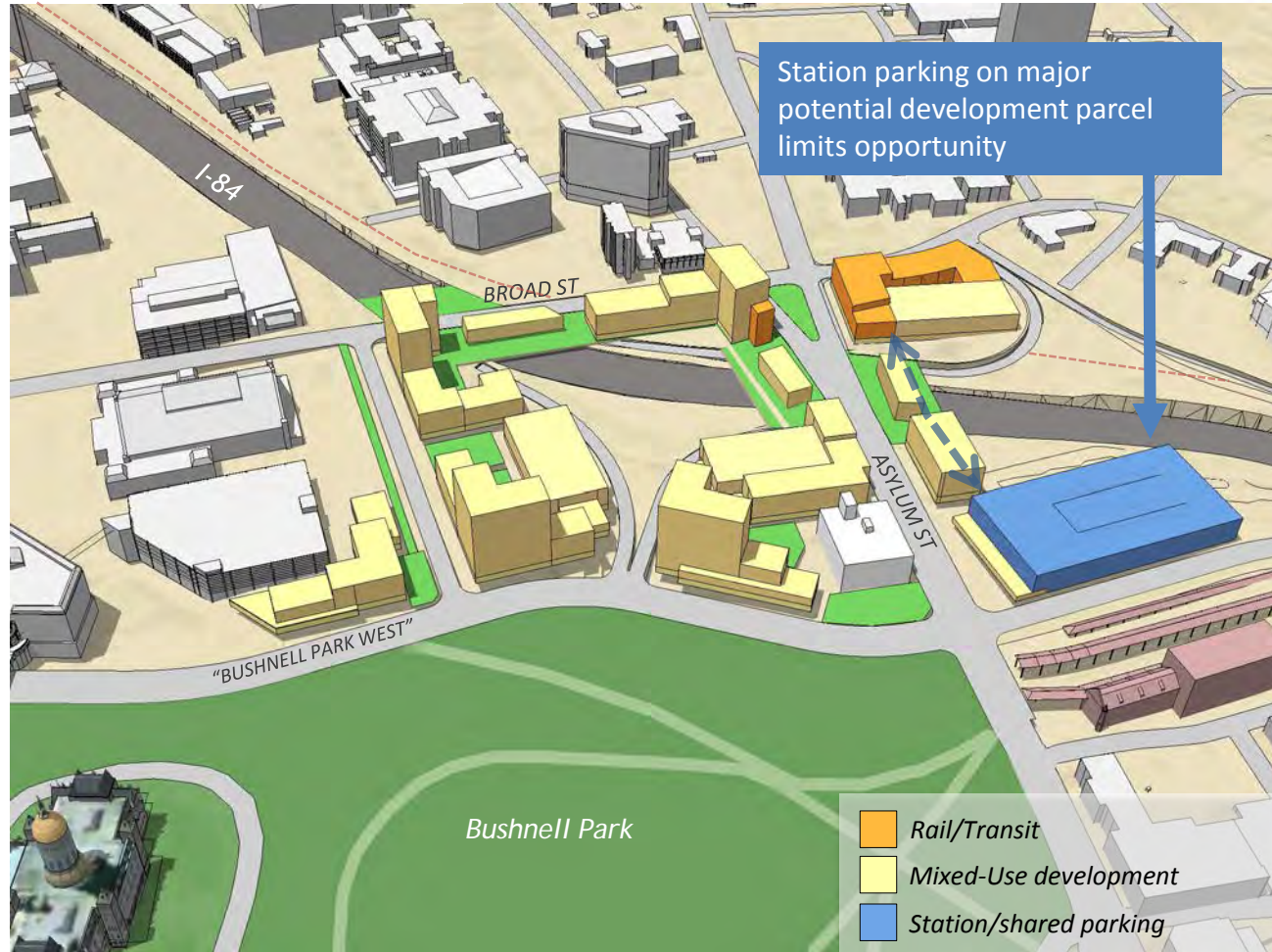
## Scenario #1: Development on Solid Land Only

- Large gaps in Asylum/Broad corridors
- Fragmented urban fabric
- Challenging corner parcel at Farmington and Broad
- Noise impacts
- Good park frontage
- ***Missed opportunity to connect Asylum Hill to Downtown and Frog Hollow through continuous urban fabric***



## Scenario #2: Small Highway Decks

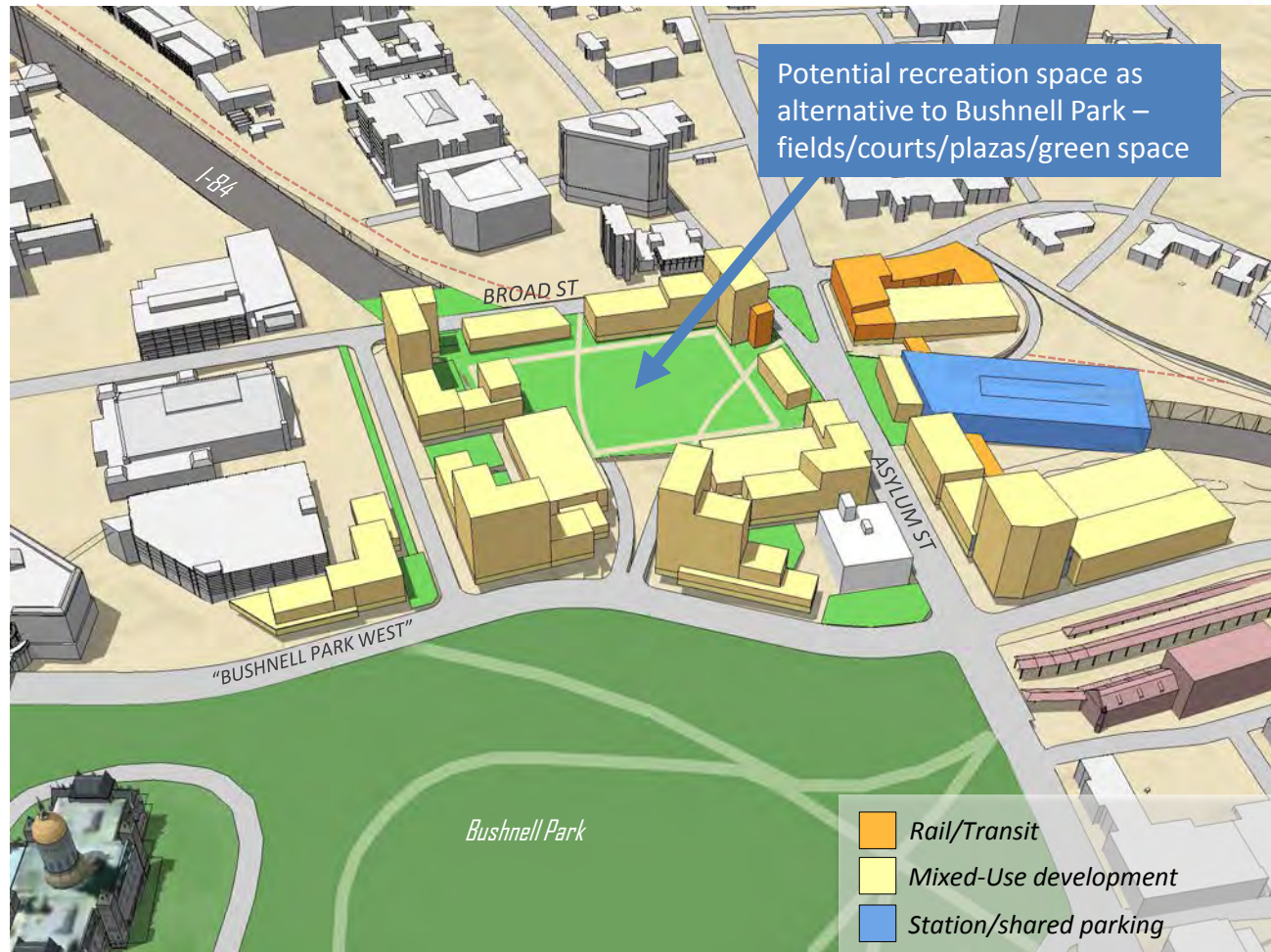
- Connects Asylum corridor
- Connects Broad corridor
- Overcomes sense of crossing a highway
- Provides continuous urban experience
- Open space, plazas, or rail station access on decks
- Good park frontage
- *Improved conditions but not perfect*





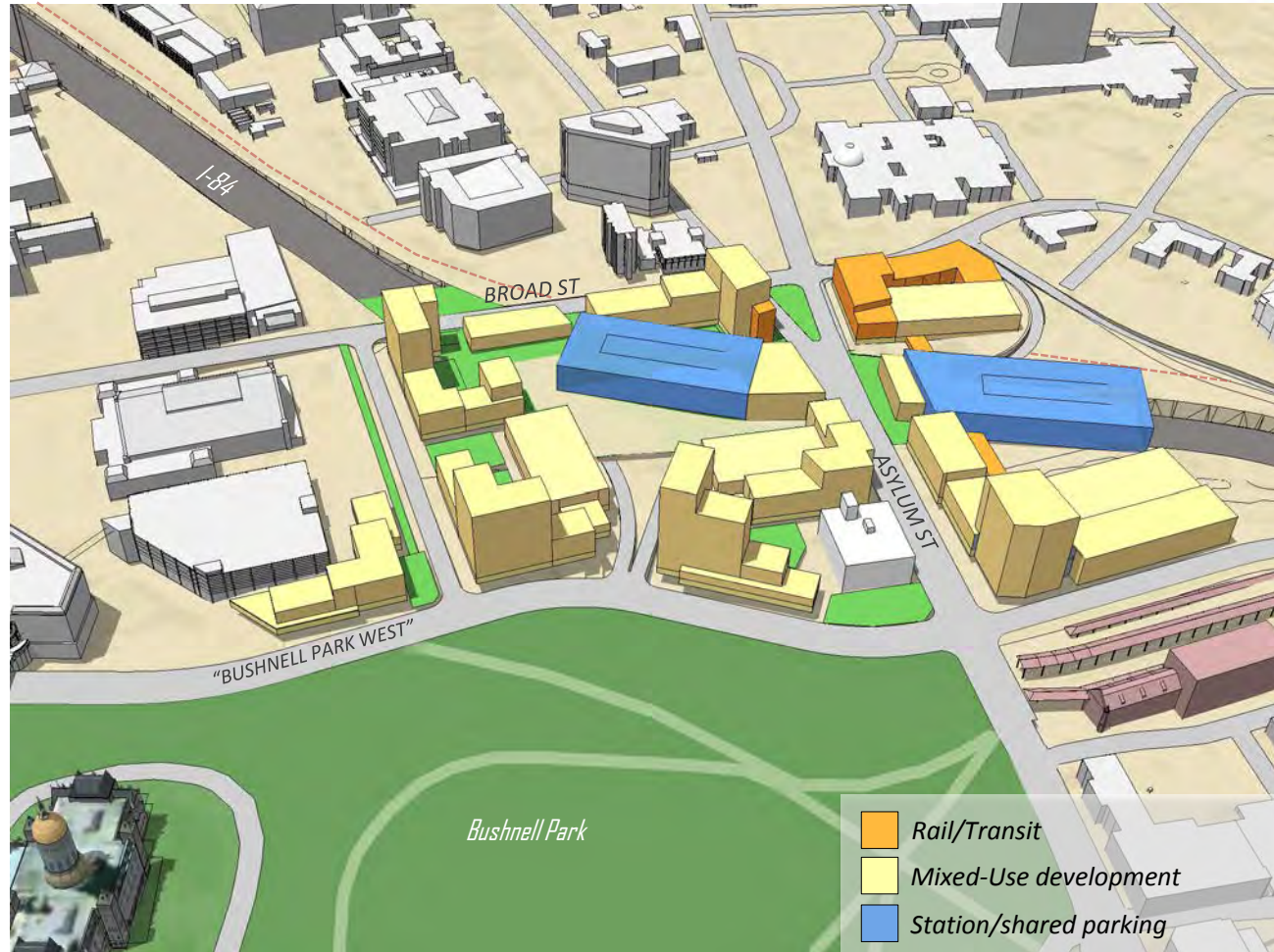
## Scenario #3A: Asylum/Broad Cap

- Public garage directly linked to new rail annex
- Allows development flexibility on other parcels
- Allows flexibility on cap
- Parking shared with surrounding private development and transit
- *Optimal enhancements for continuity of urban fabric, public space, parking, and development opportunity*



## Scenario #3B: Asylum/Broad Cap

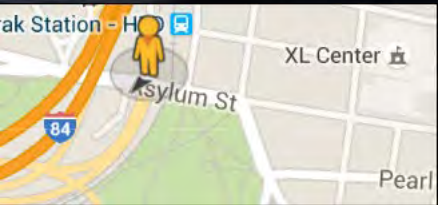
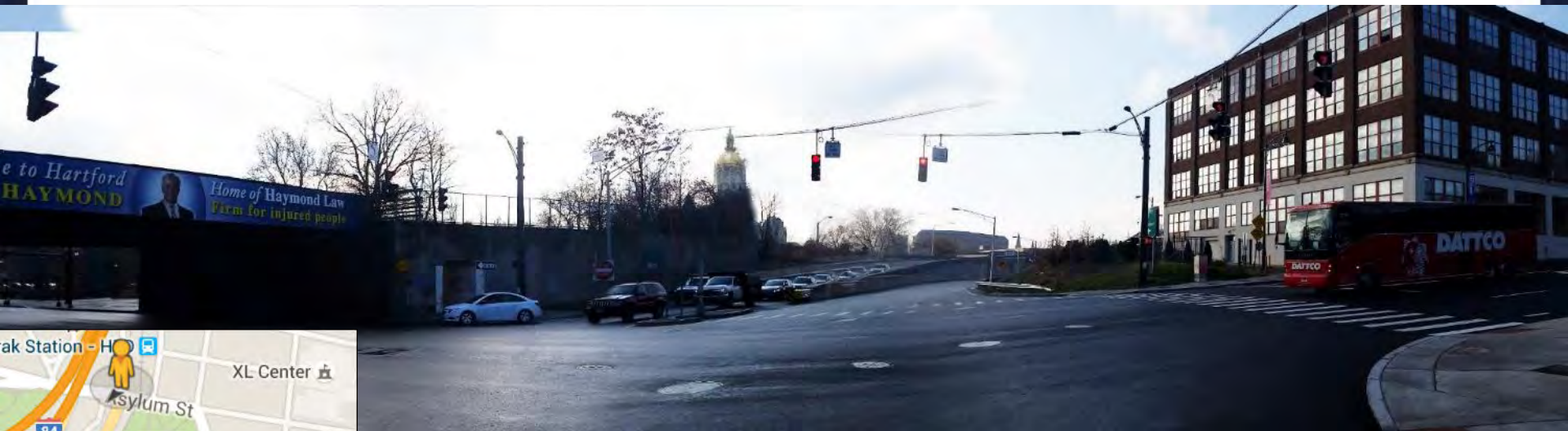
- Centralized public garages
- Allows development flexibility on other parcels
- Parking shared with surrounding private development and transit
- *Optimal enhancements for continuity of urban fabric, public space, parking, and development opportunity*







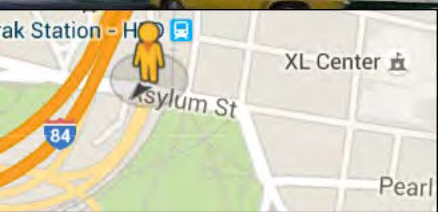
# Street-view Visualizations



Spruce / Asylum intersection looking towards Capitol: Existing



# Street-view Visualizations

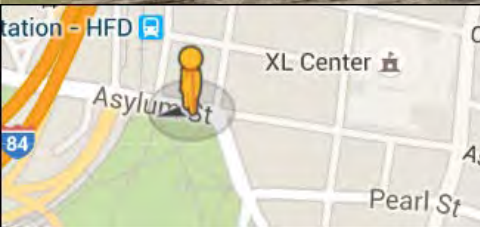


Spruce / Asylum intersection looking towards Capitol: **Potential**





# Street-view Visualizations



Asylum Street looking west towards rail viaduct: Existing



# Street-view Visualizations



Asylum Street looking west towards rail viaduct: **Potential**





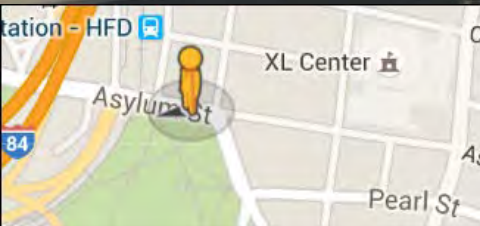
# Street-view Visualizations



Asylum Street looking east towards rail viaduct: Existing



# Street-view Visualizations

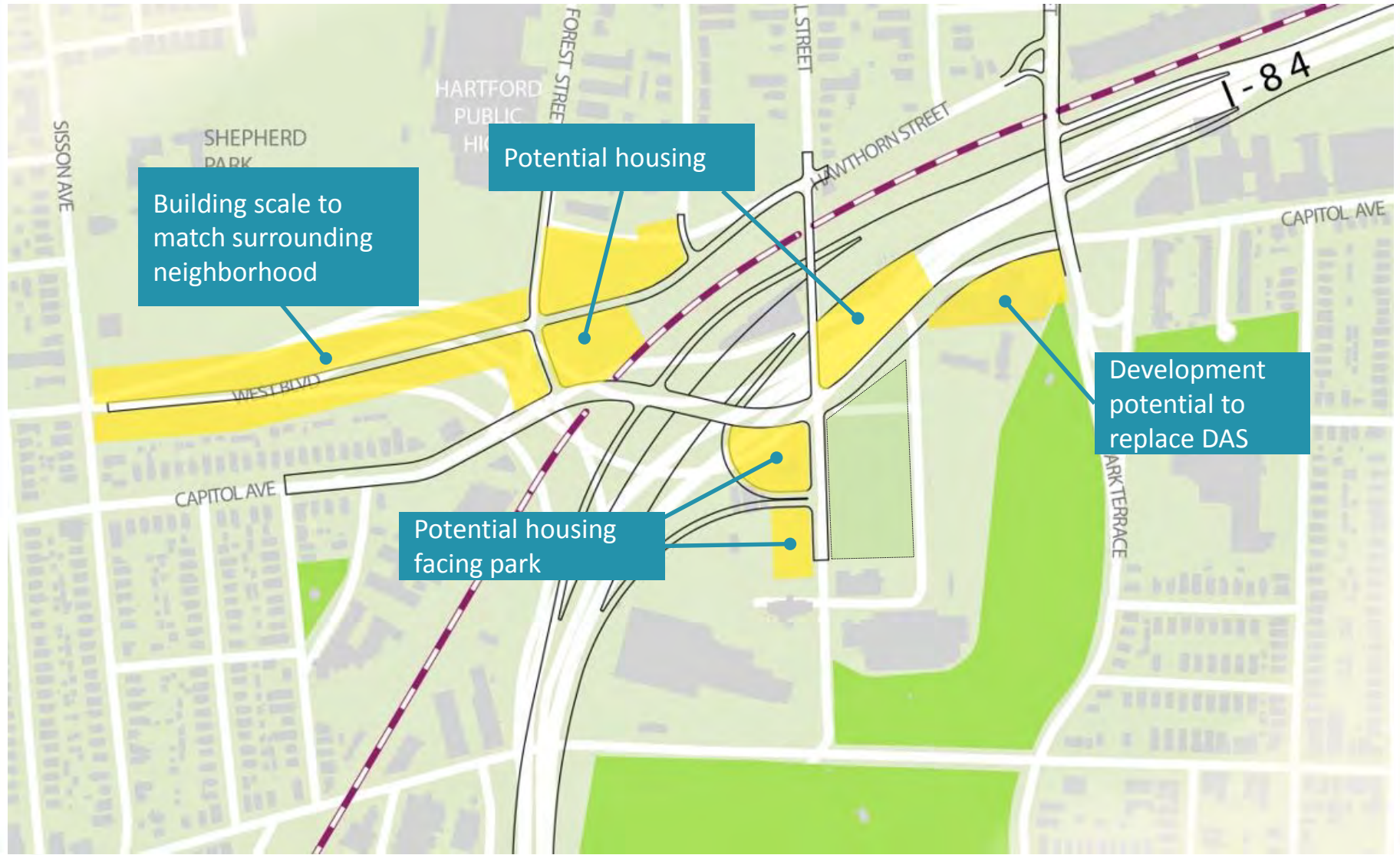


Asylum Street looking east towards rail viaduct: **Potential**





## Sisson Avenue - Urban Design Analysis



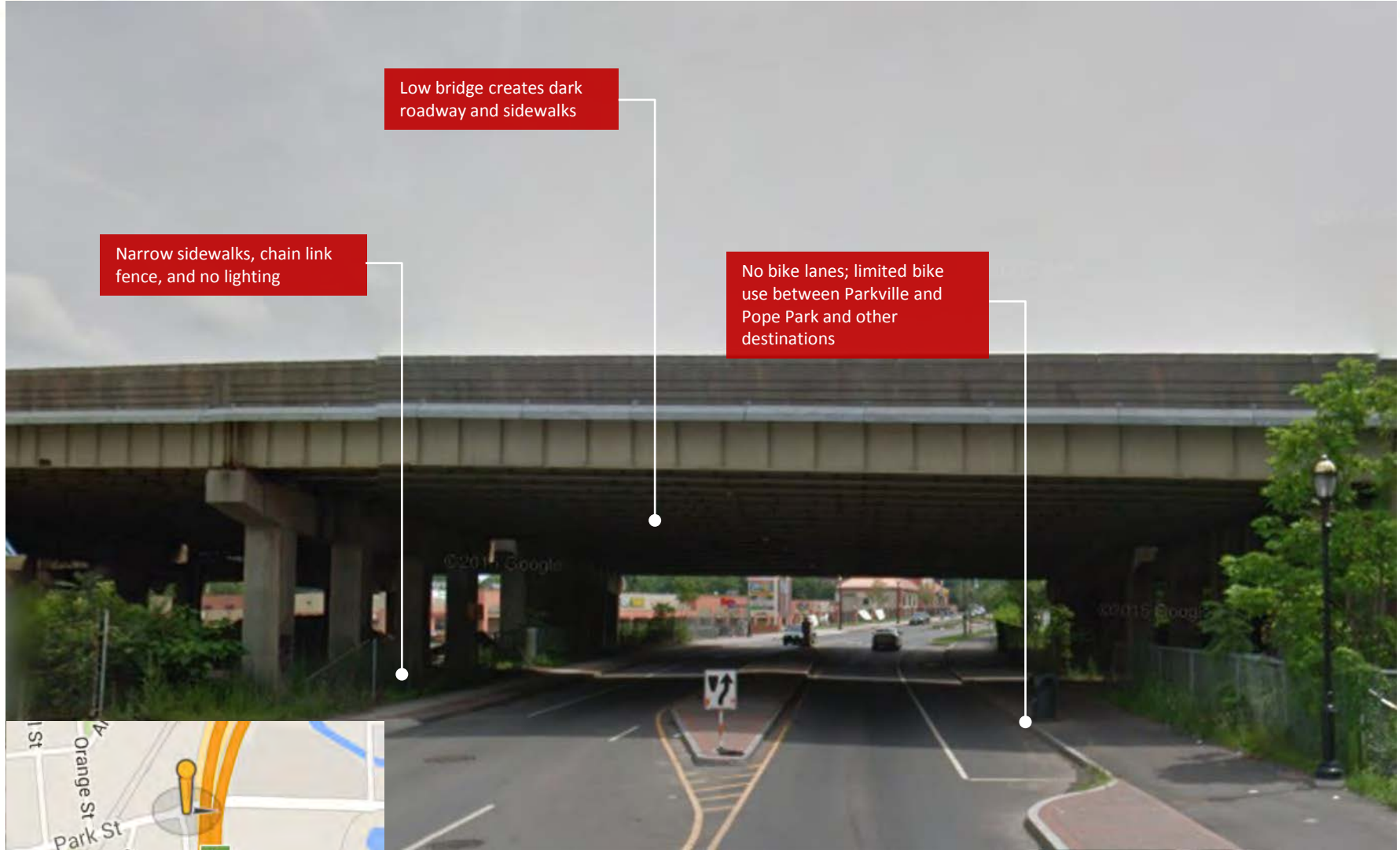








# I-84 HARTFORD PROJECT



Low bridge creates dark roadway and sidewalks

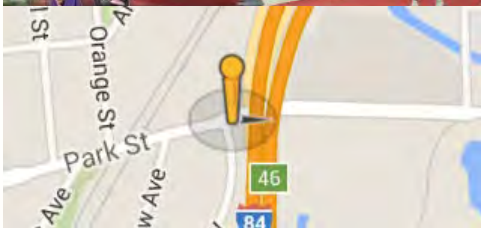
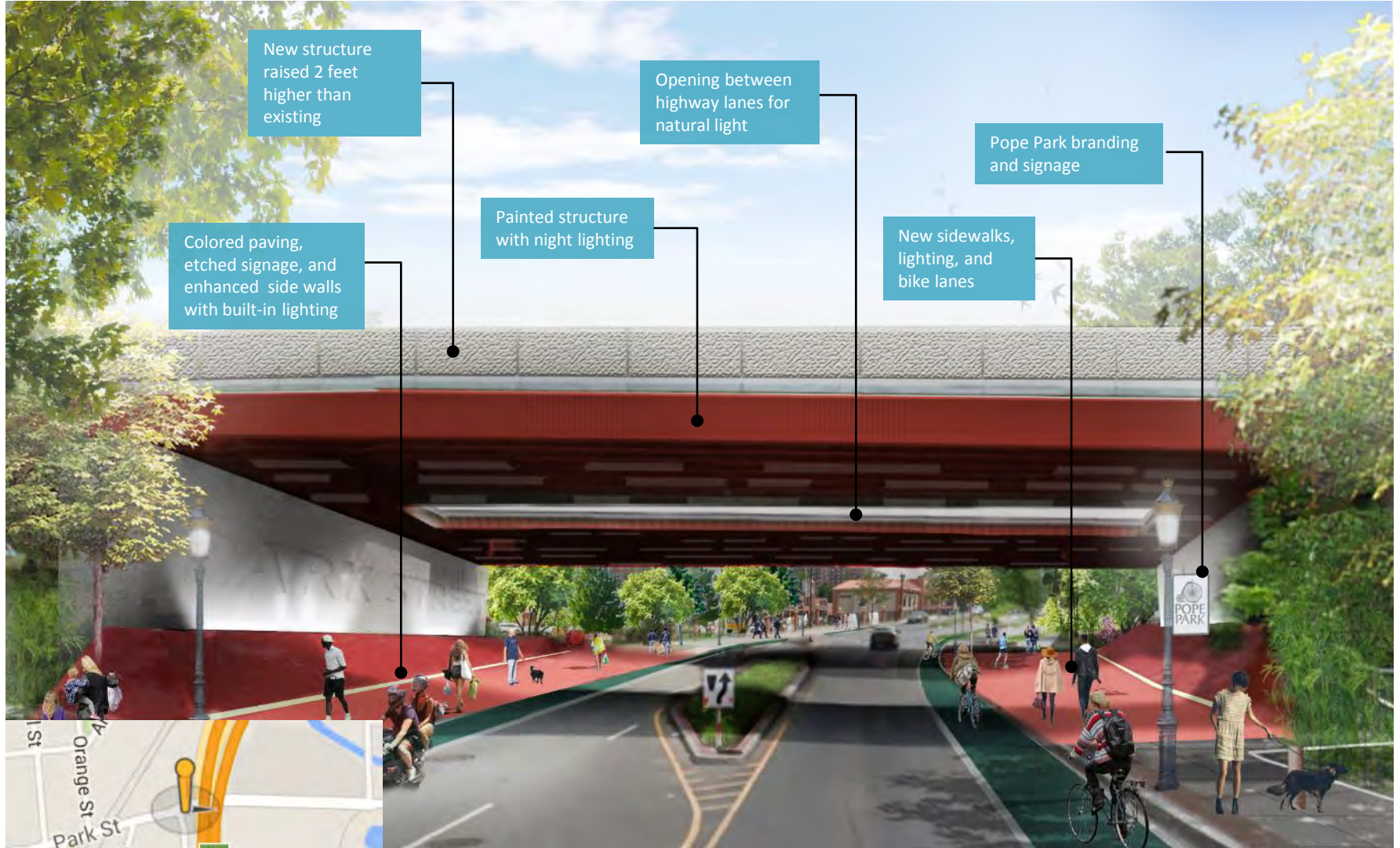
Narrow sidewalks, chain link fence, and no lighting

No bike lanes; limited bike use between Parkville and Pope Park and other destinations

Park Street looking east towards I-84 overpass: Existing



# I-84 HARTFORD PROJECT



Park Street looking east towards I-84 overpass: **Potential**





# I-84 HARTFORD PROJECT



Park Street looking east towards I-84 overpass: **Potential**





# New Alternative: Capped Highway

*New Idea!*



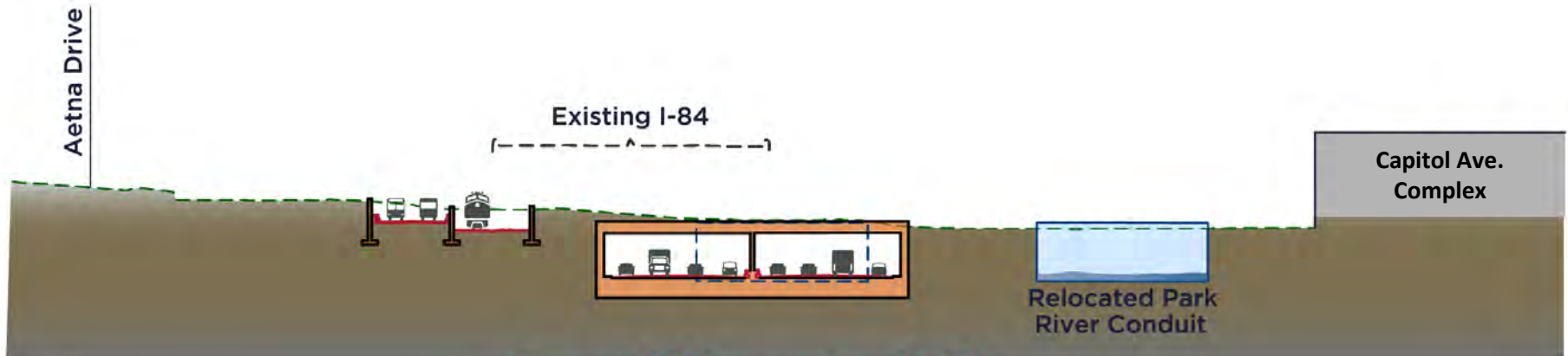


## New Alternative: Capped Highway

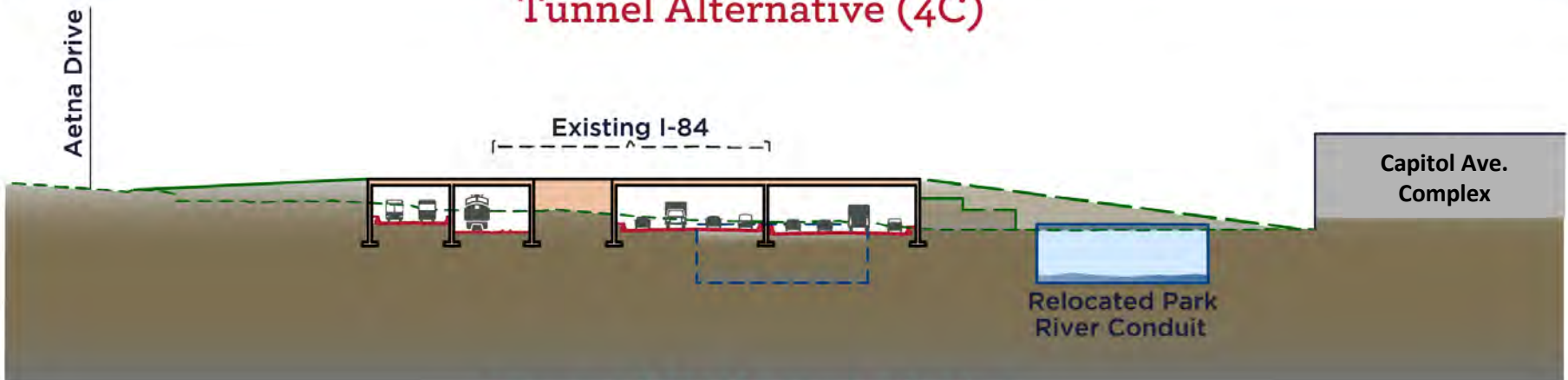
With continued input from the community, we looked for solutions to provide the benefits of a tunnel at a lower cost. The new alternative that we are presenting today is a result of that effort.



# New Alternative: Capped Highway



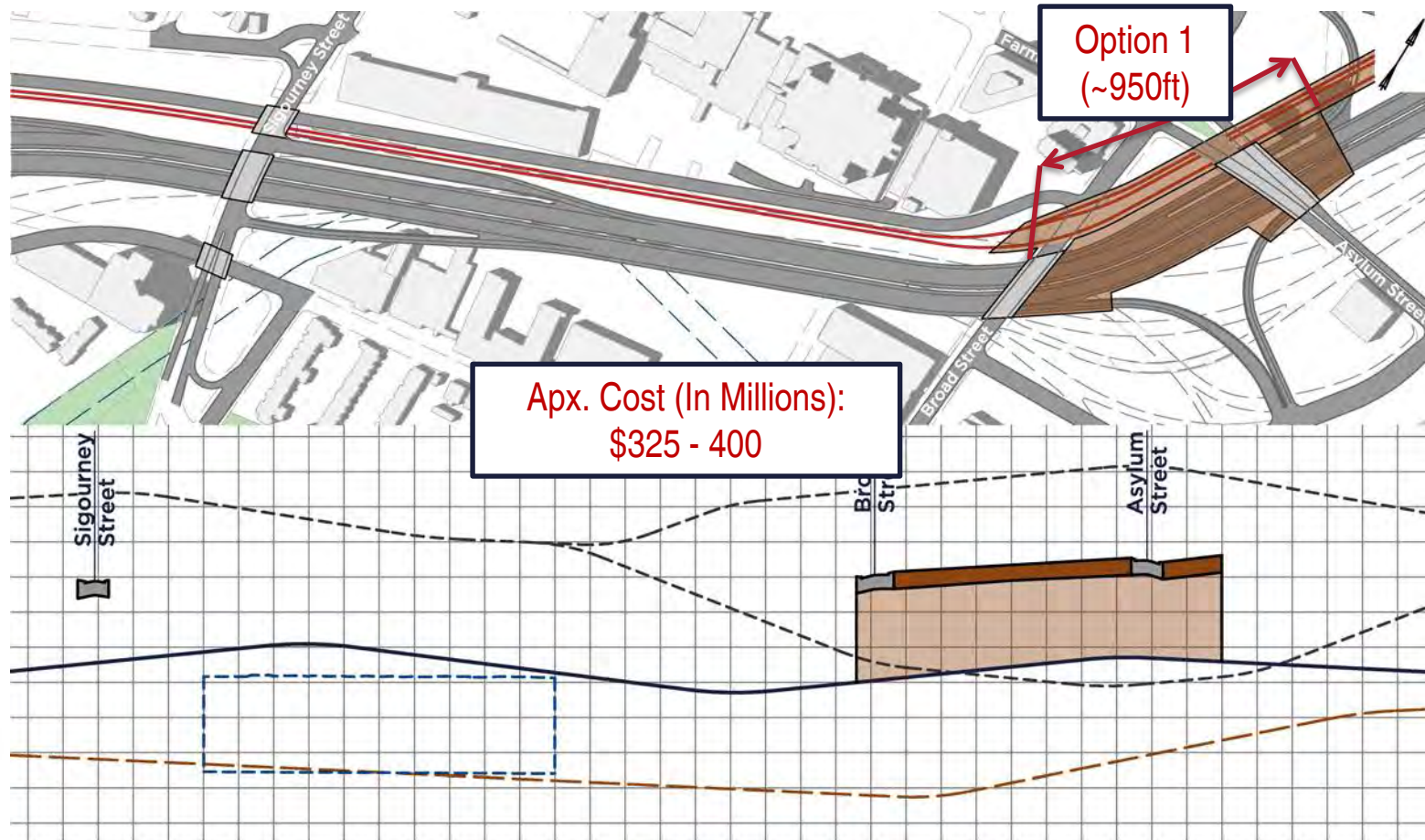
Tunnel Alternative (4C)



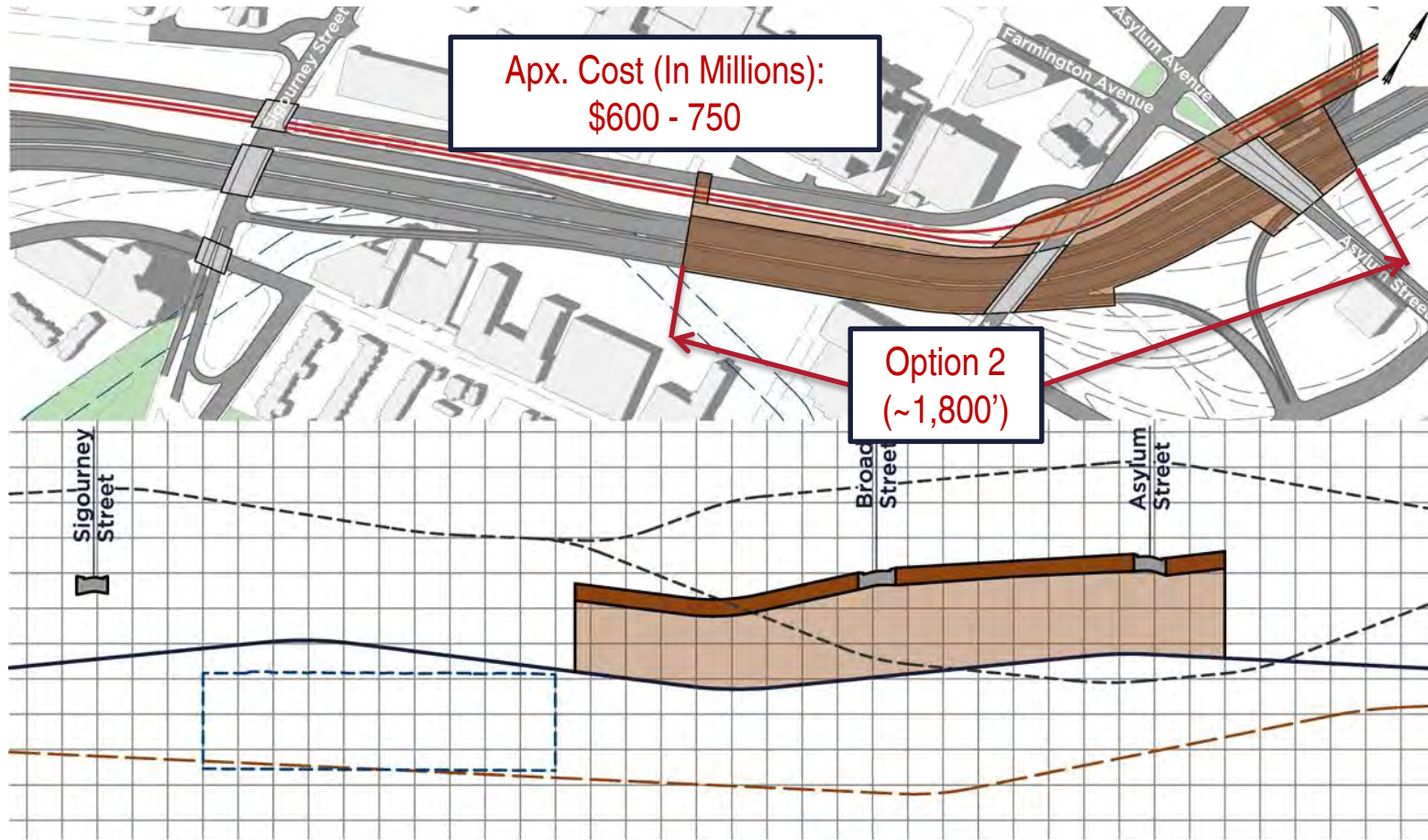
Lowered Highway with Cap



# New Alternative: Capped Highway

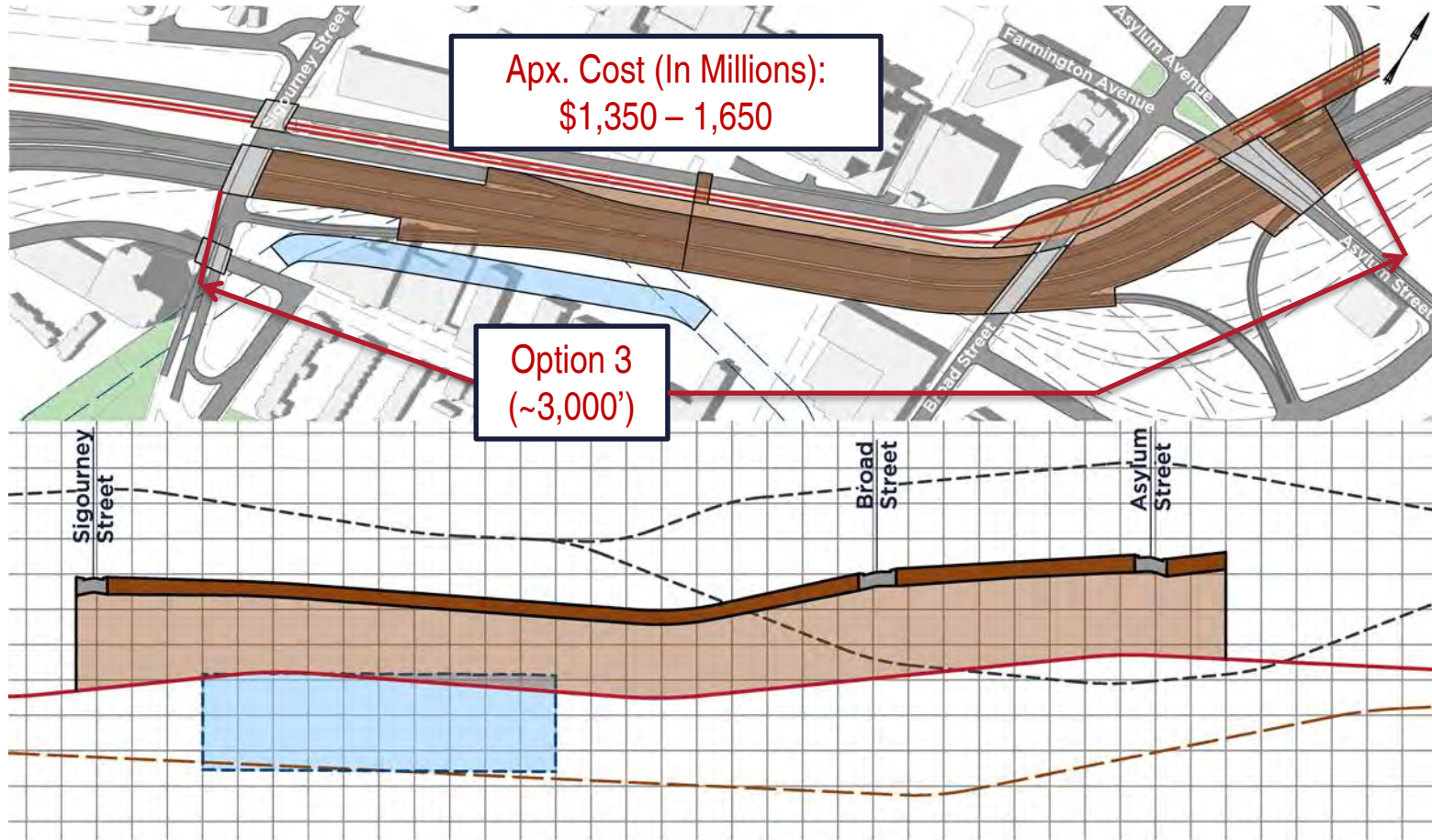


# New Alternative: Capped Highway





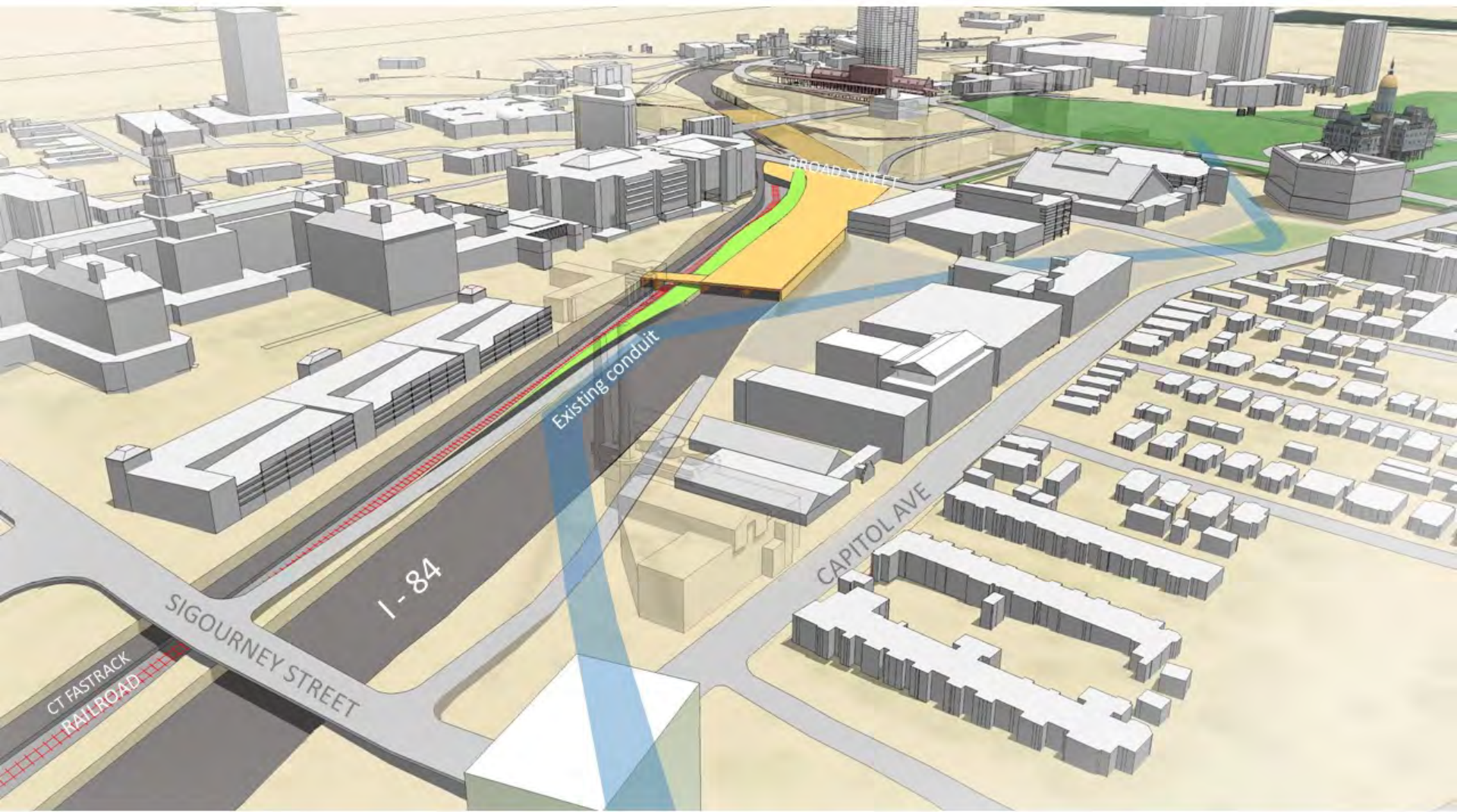
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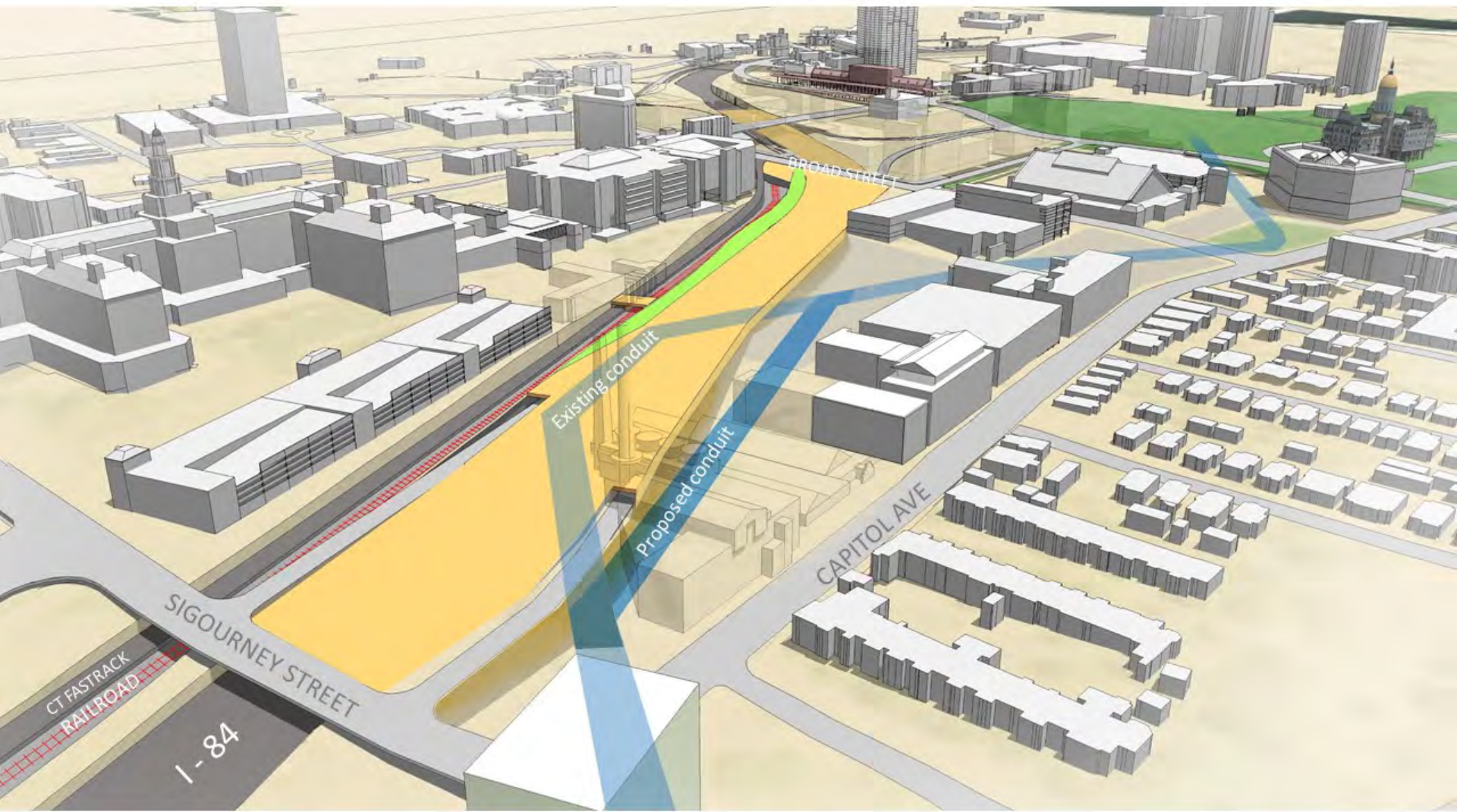
# New Alternative: Capped Highway







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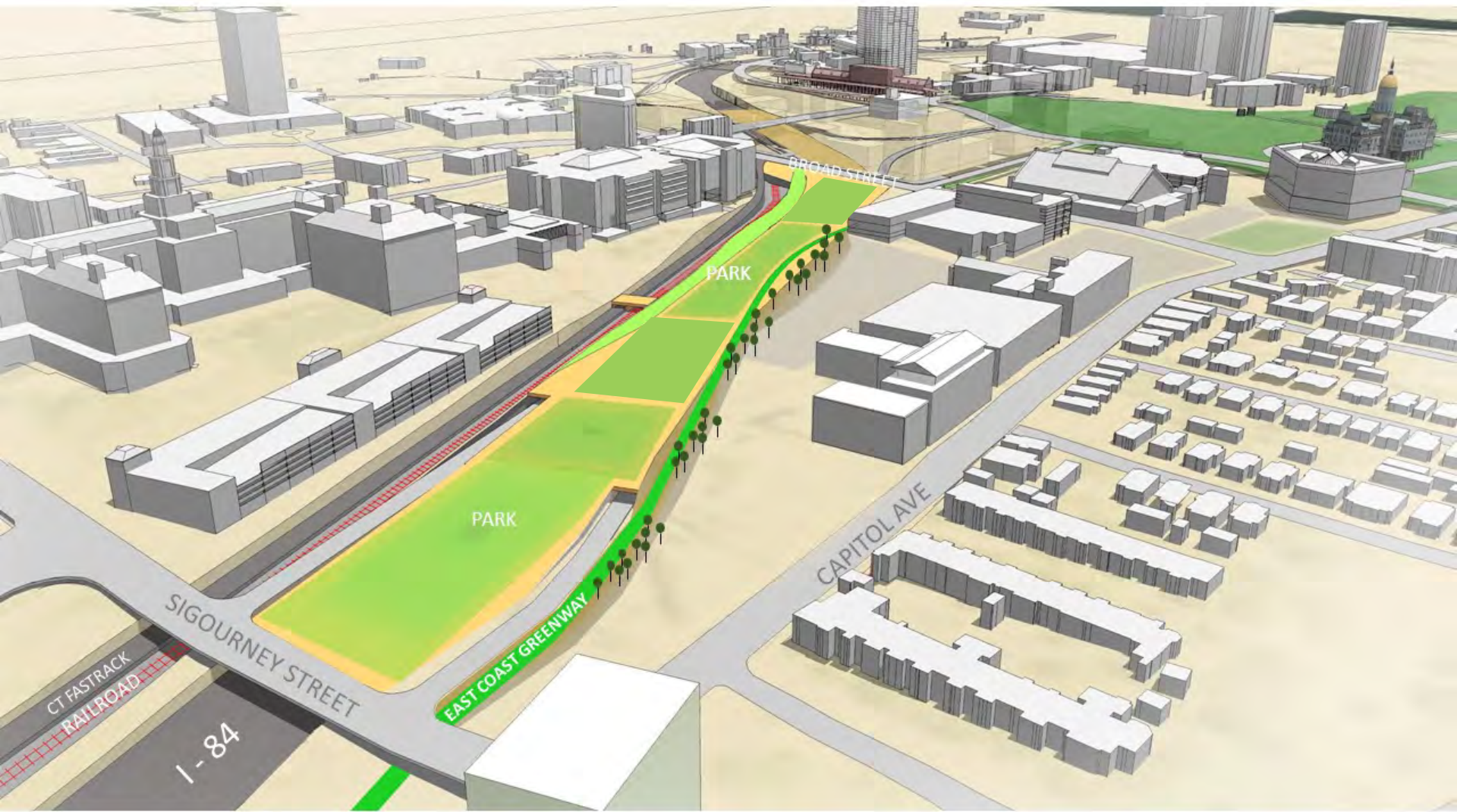
# New Alternative: Capped Highway







# New Alternative: Capped Highway





## New Alternative: Capped Highway

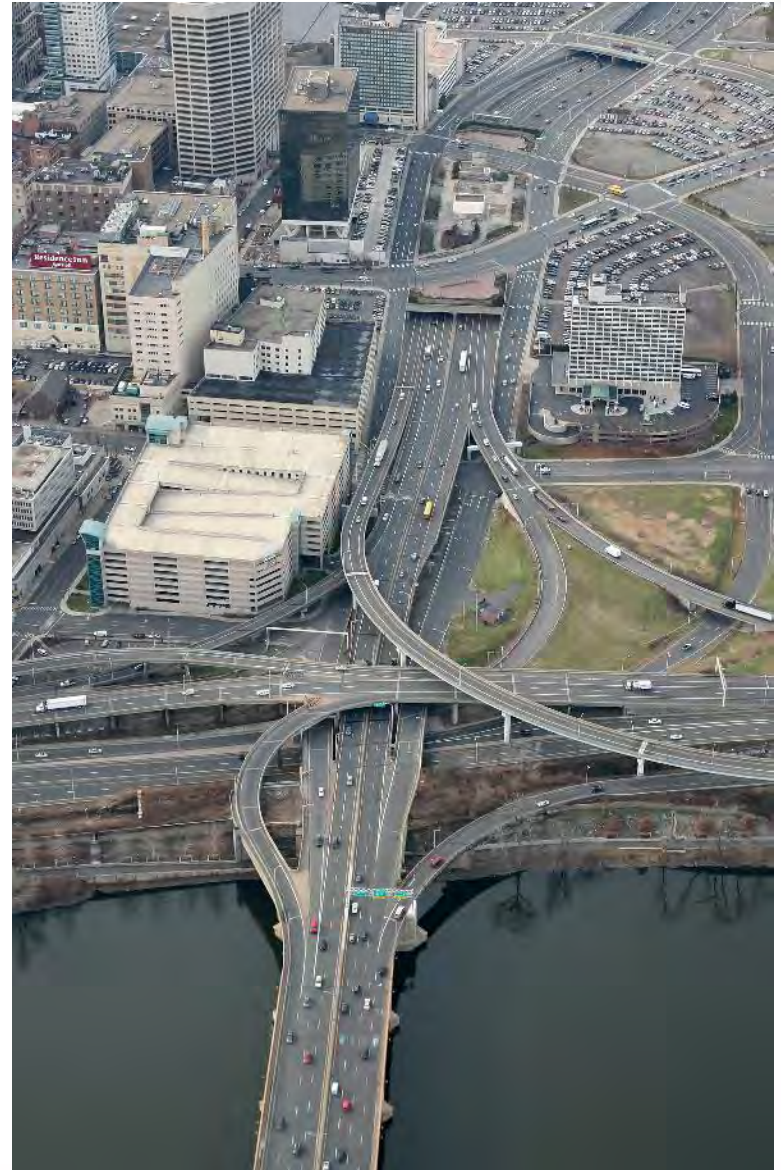
- Capping the highway will give the appearance of a tunnel at a lower cost
- Various options for capping – including length and use
- Benefits vs. costs/building impacts will be assessed
- Much still needs to be learned





## I-84/I-91 Interchange Study

- Traffic analysis
- Congestion relief strategies
- Possible relocation of I-84





# I-84 / I-91 Interchange Bottleneck

- Serves 275,000 vehicles / day
- I-84 has two through lanes in each direction
- I-91 has two through lanes in each direction







## I-84 / I-91 Interchange Study





# I-84 / I-91 Interchange Study

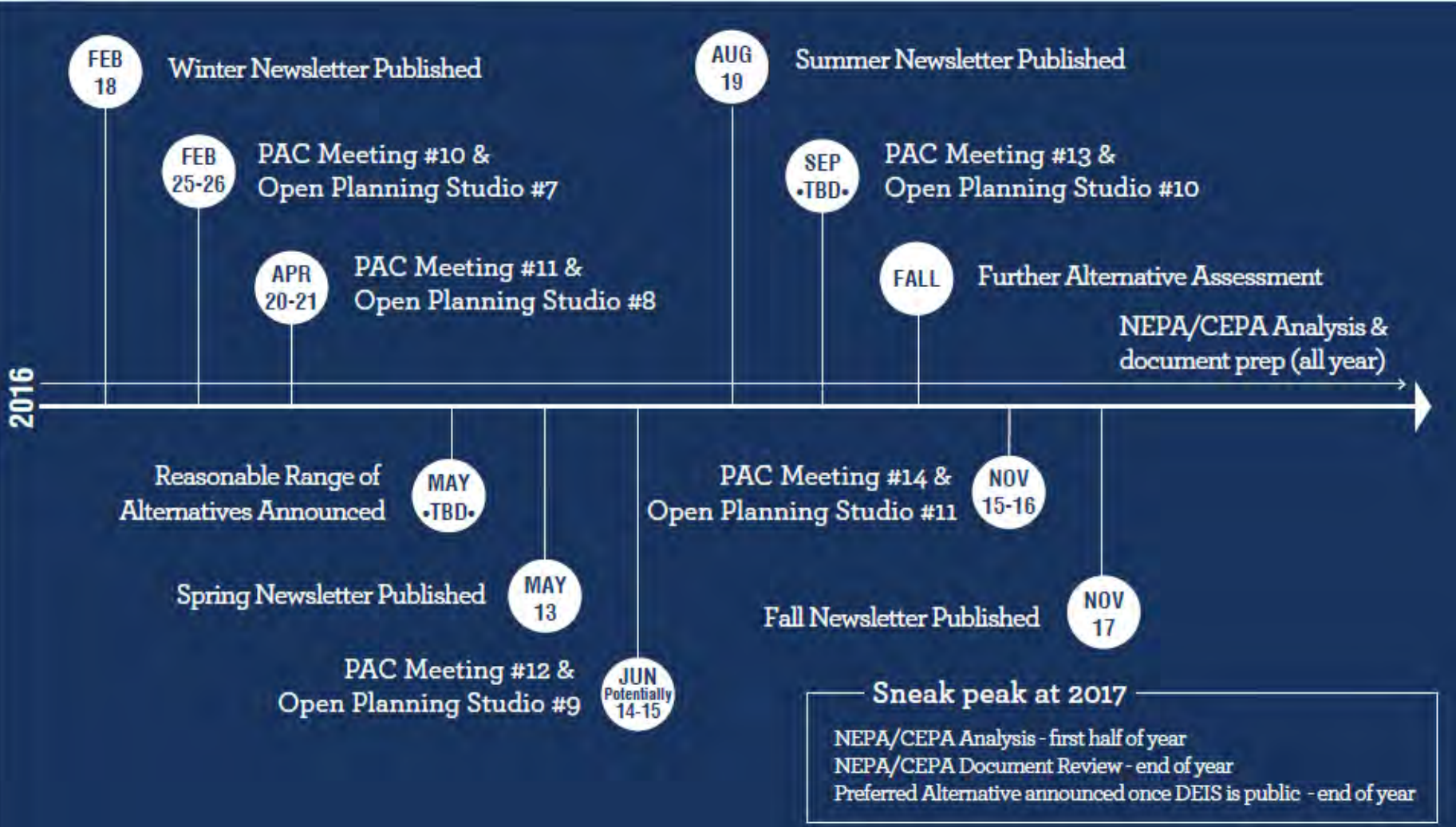


Potential repurposing of existing I-84 through Downtown Hartford





# 2016 - Year at a Glance





## Discussion





## I-84 HARTFORD PROJECT

*Thank you for your time!*

*Your I-84 Hartford Project Team*