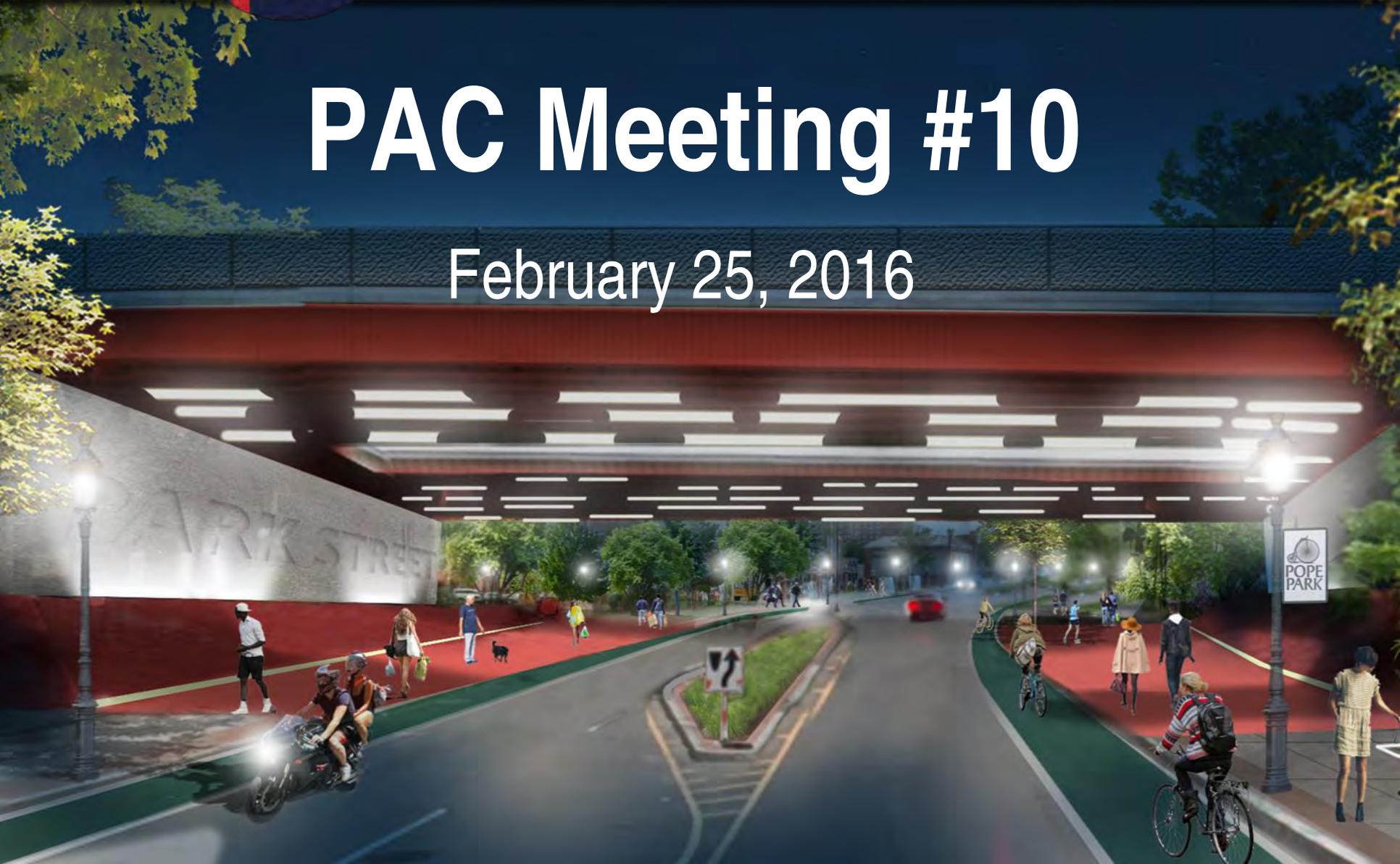




I-84 HARTFORD PROJECT

PAC Meeting #10

February 25, 2016





Meeting Purpose

The I-84 Hartford Project Team is refining alternatives and continuing the conversation on eliminating some from further consideration. The purpose of today's meeting is to present our latest findings and get your feedback.



Meeting Agenda

1. Alternatives Analysis Update

- a. General Overview
- b. Lowered Alternative revisions
- c. Tunnel Alternative discussion
- d. Bicycle, pedestrian and public transportation
- e. Urban design opportunities

2. I-84 / I-91 Interchange Study

3. 2016 Year at a Glance

- a. Major milestones
- b. Public Involvement Activities

4. Next steps



Major PI Events in Fall 2015

- October 20-29 Public Meetings – Manchester, Hartford and West Hartford
- November 2 Agency Coordination Meeting
- November 10 Freight Round Table
- November 16 OPS @ Hartford Public Library – Mark Twain Branch
- November 17 PAC meeting
- December 2 East Hartford Public Meeting
- December 10 OPS @ Conference of Churches



I-84 HARTFORD PROJECT

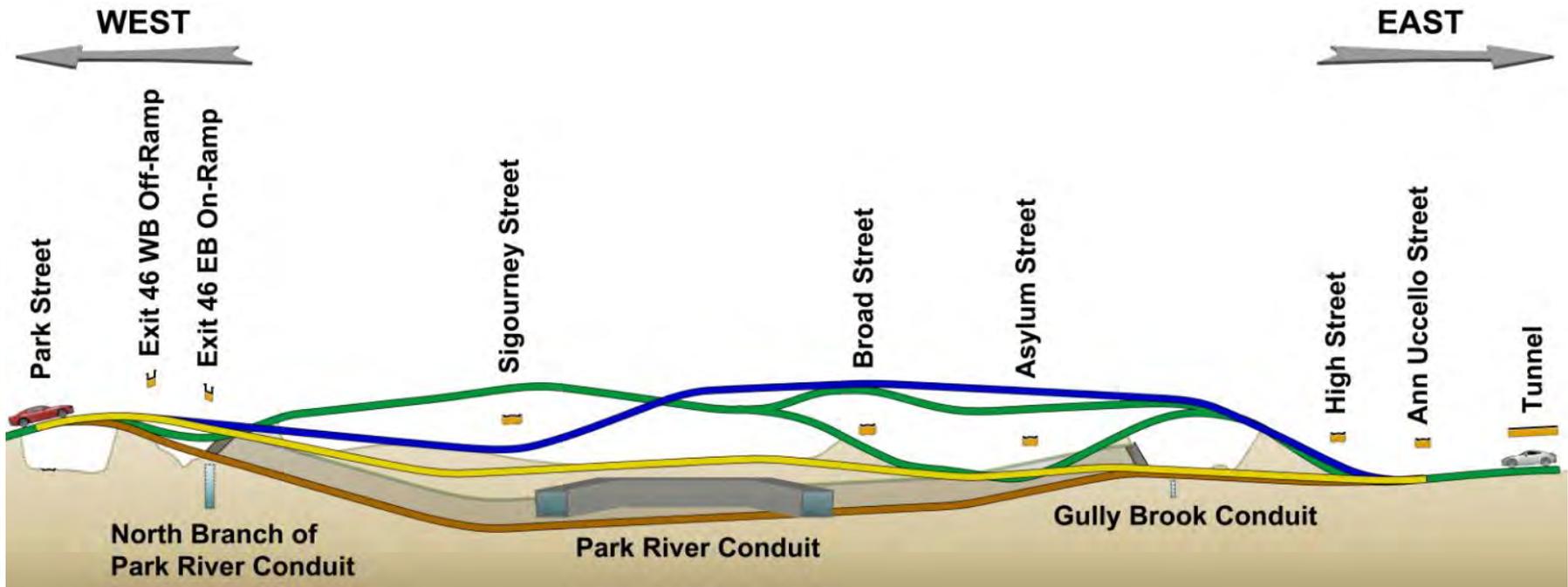
Alternatives Update

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



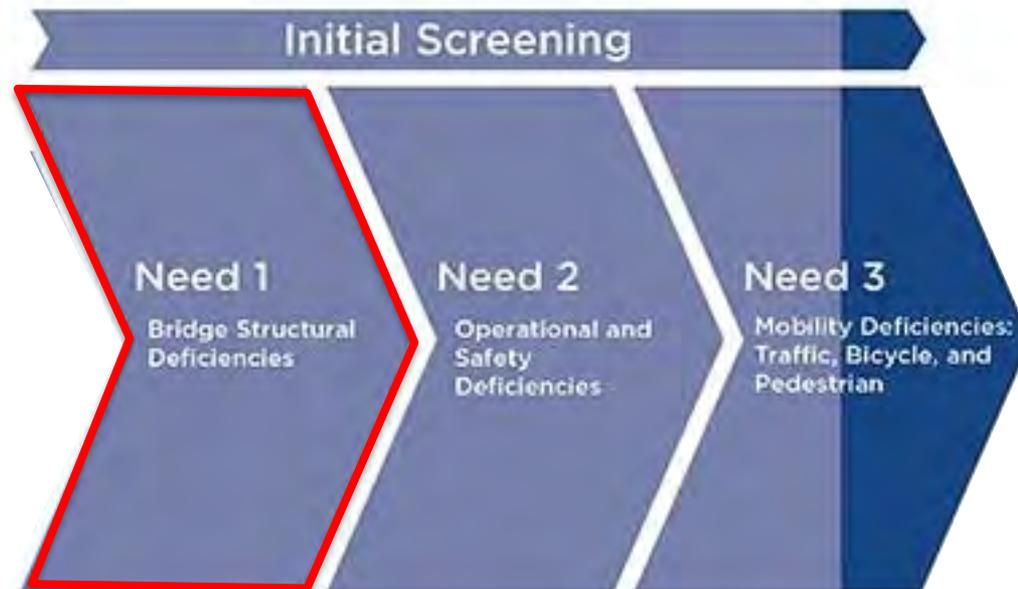


Various Ramp Options



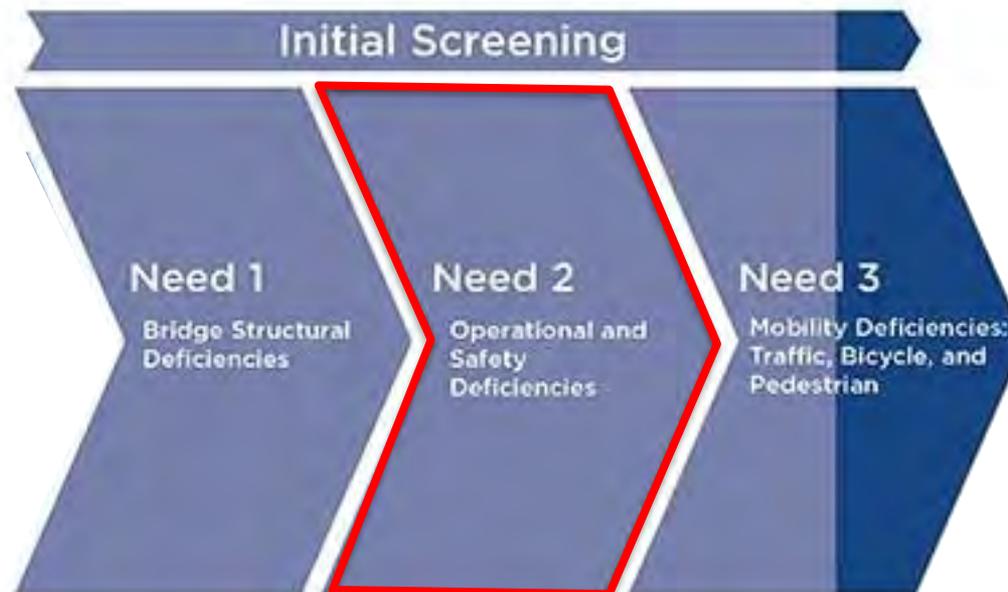
Initial Screening

1. Does the option address *bridge structure deficiencies*?



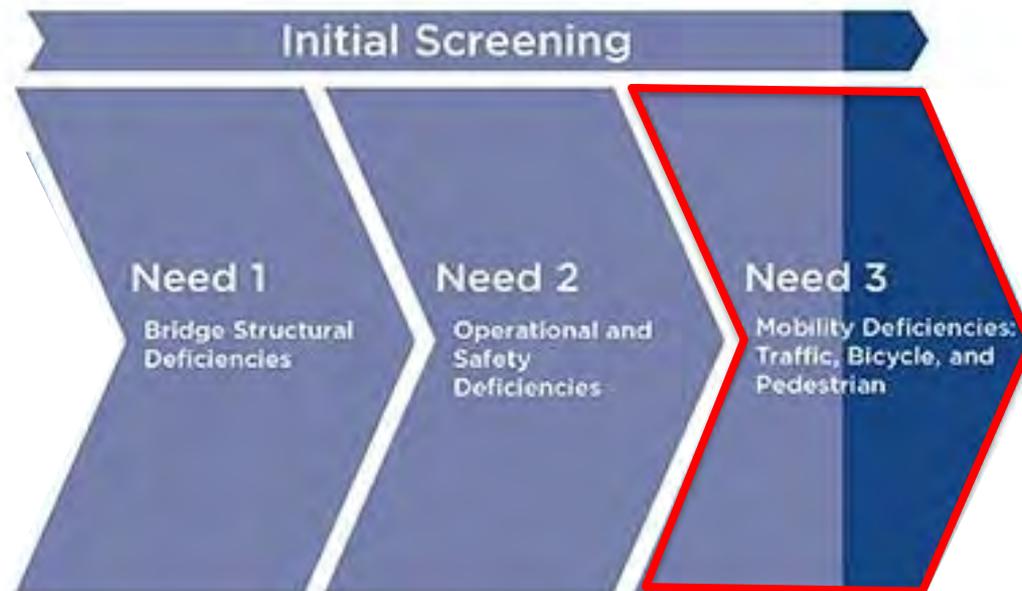
Initial Screening

2. Does the option address *operational and safety deficiencies*?



Initial Screening

3. Does the option address *mobility deficiencies*, including *traffic performance and bicycle and pedestrian accommodations*?





Need 3: Mobility

- 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



The Lowered Highway- Updates and Revisions



Refinements to the Lowered Highway

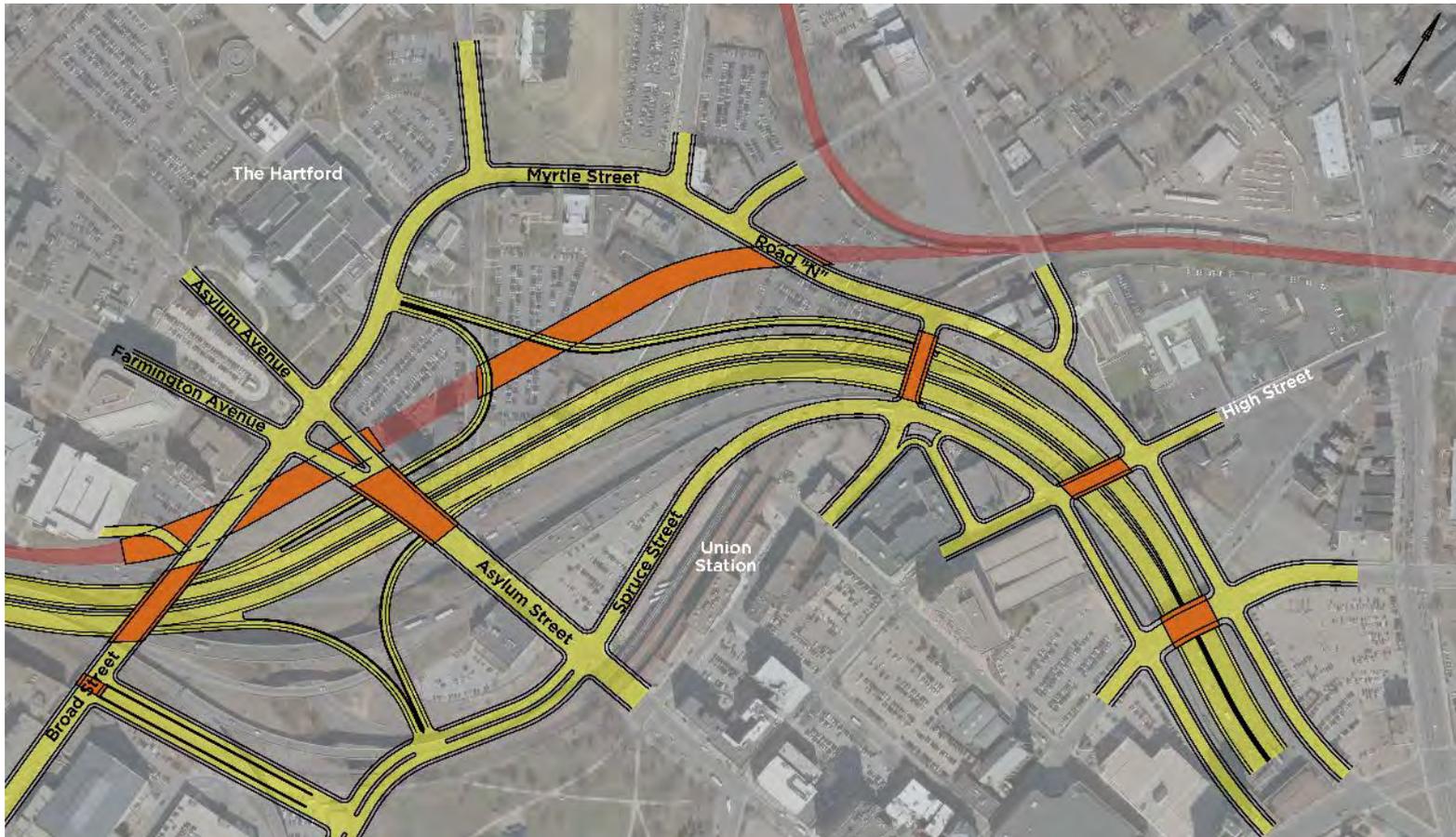
We wanted to explore options that...

- Add more local streets to the network
- Create larger development parcels
- Move the RR closer to Union Station
- Locate ramp termini away from The Hartford's main entrance





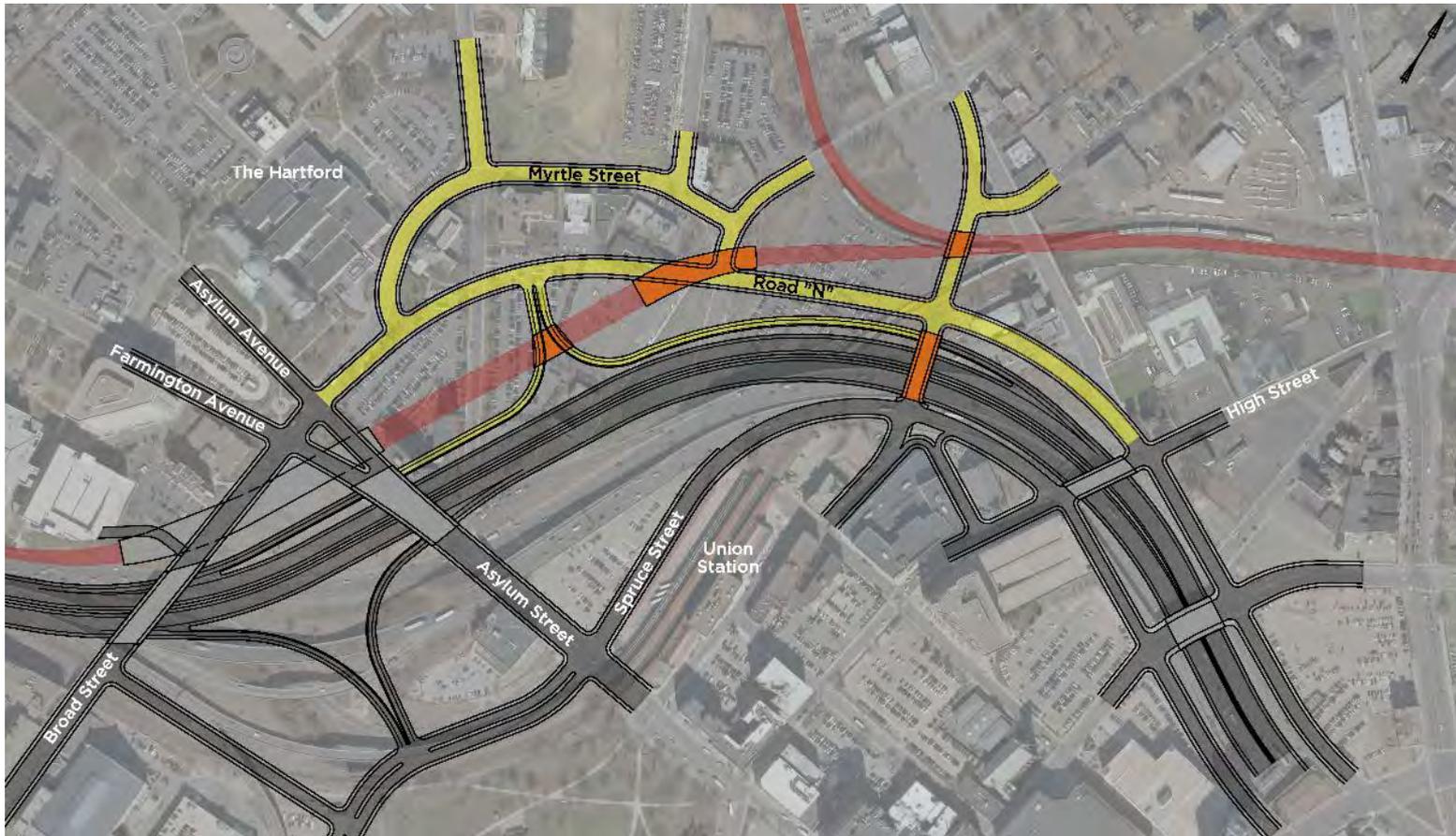
Eastern Option 3B-E2(S) As Originally Presented





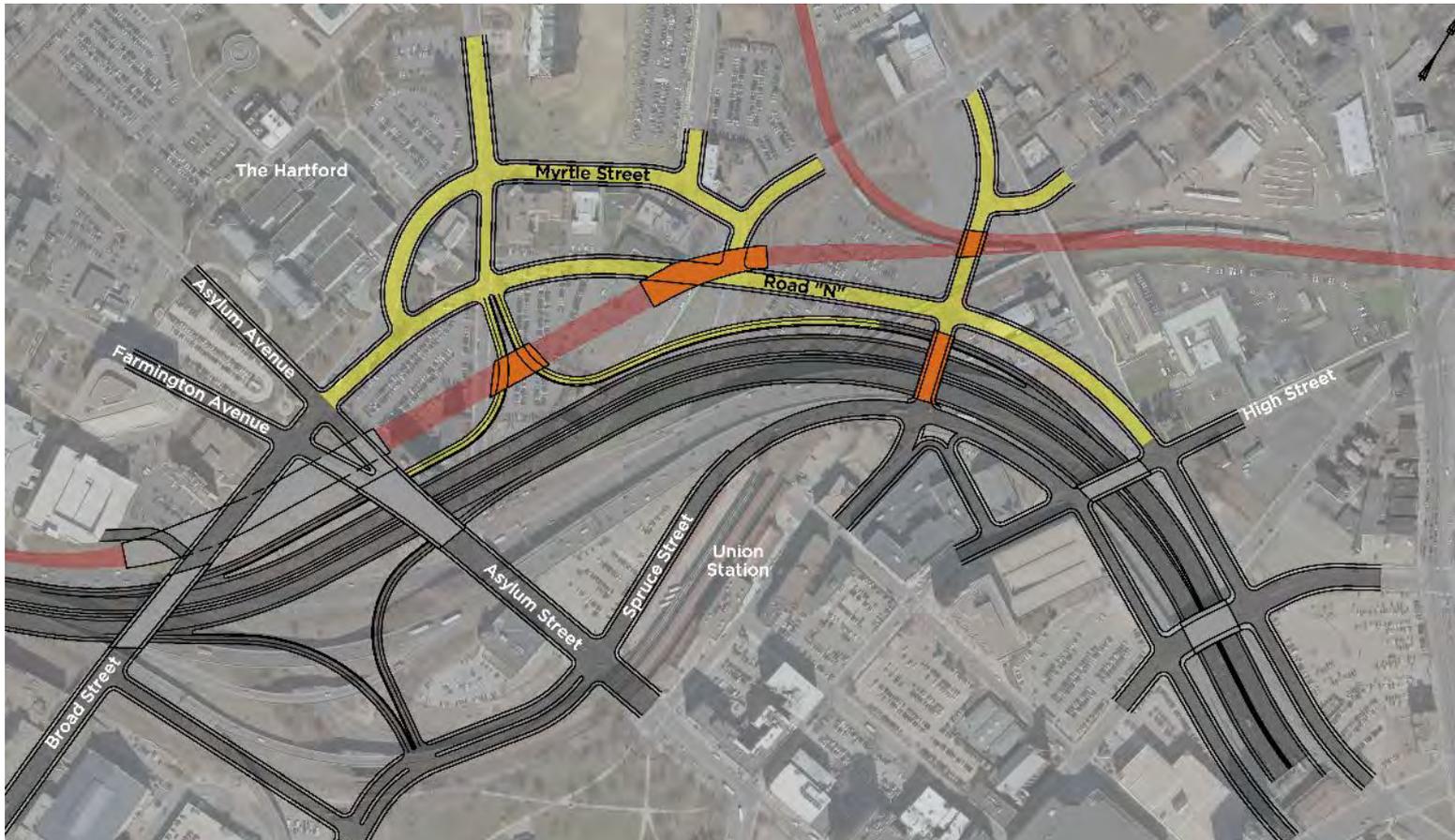
Eastern Refinement 1

Realign Frontage Road and Ramps



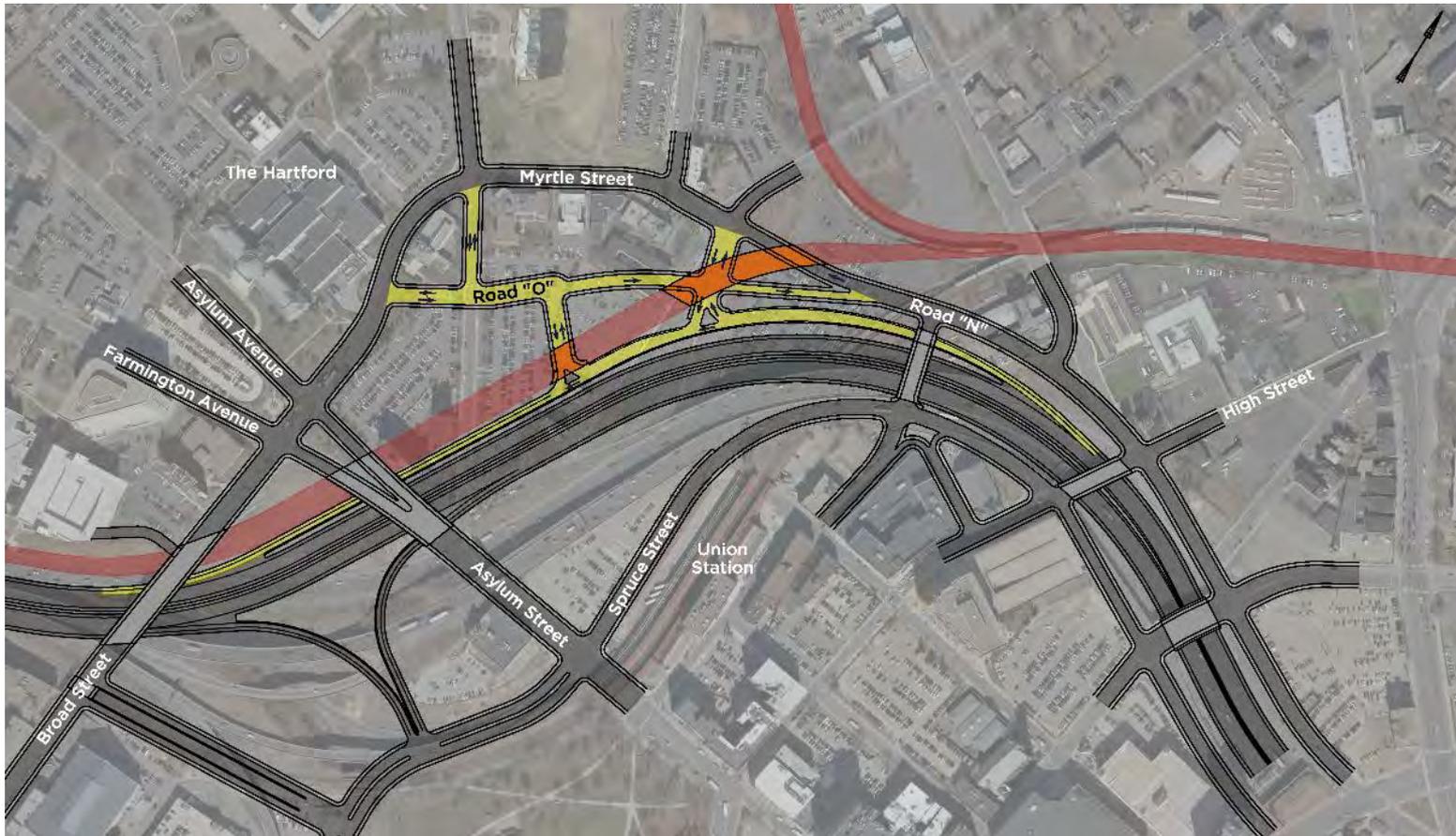


Eastern Refinement 2 Align Ramps with Garden St.





Eastern Refinement 3 Frontage Road

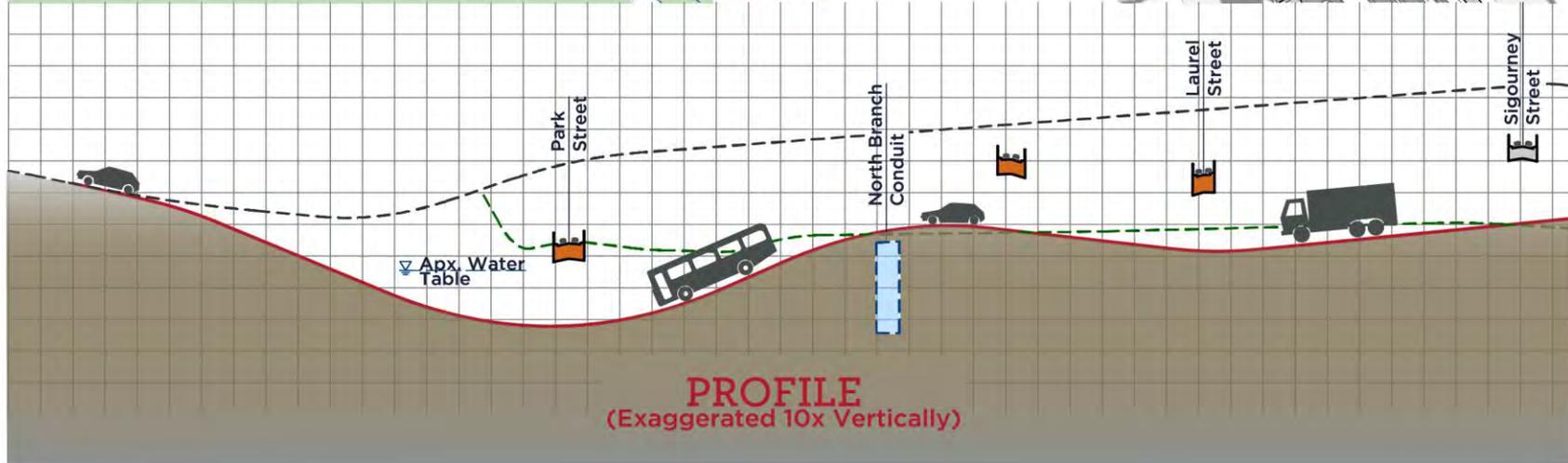


Refinements to western alignment

- Existing I-84 bridge over Park Street creates an unpleasing gateway to Pope Park
- Design team investigated lowering the highway under Park Street

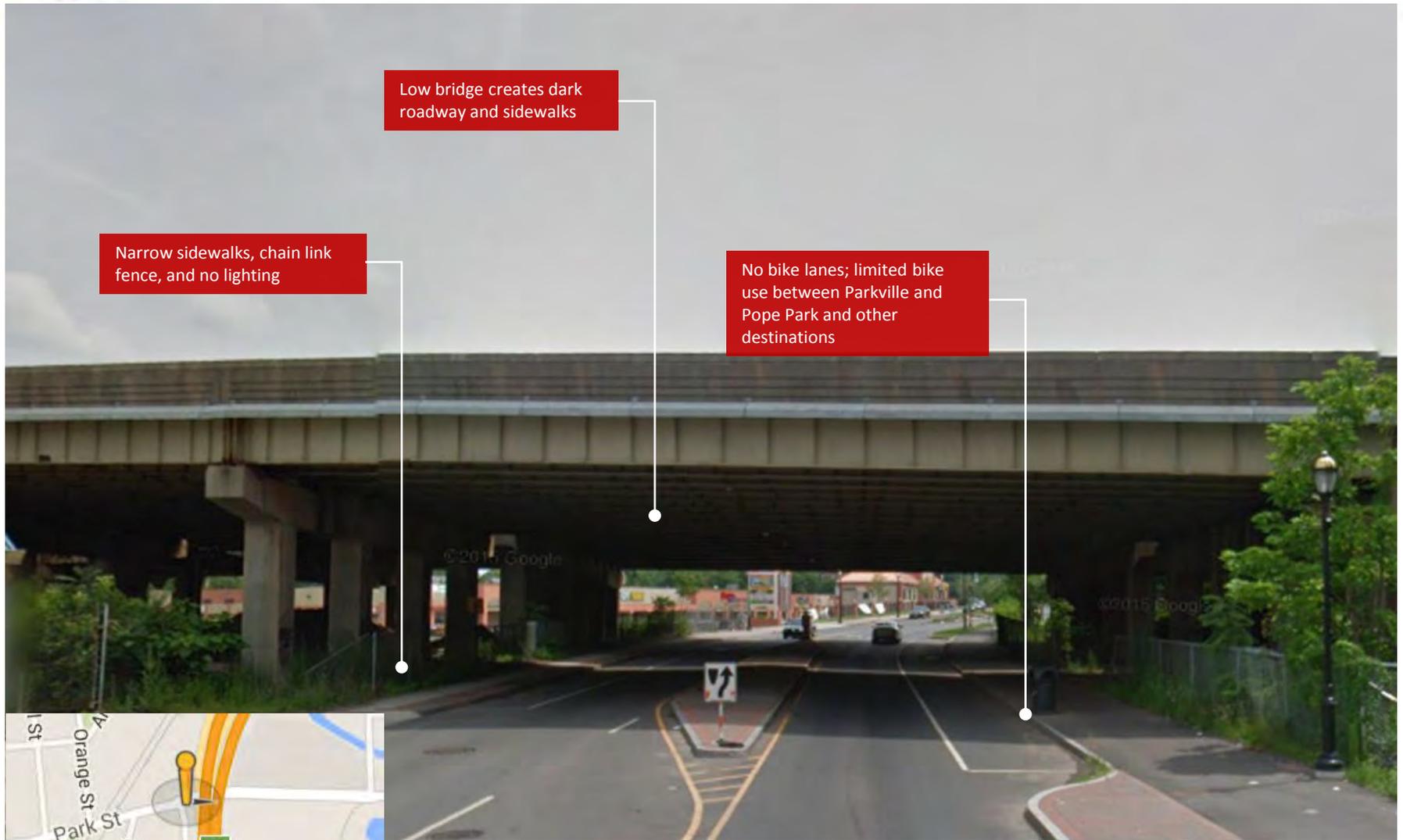


Western Refinement





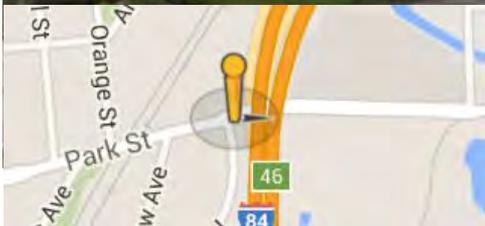
I-84 HARTFORD PROJECT



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**



Refinements to western alignment

- Profile is challenging and would not provide clearance for widened Park Street bridge
- Lowering highway below ground water table and adjacent Park River would be undesirable
- Other treatments may provide a more 'open' feel traveling under the bridge on Park Street



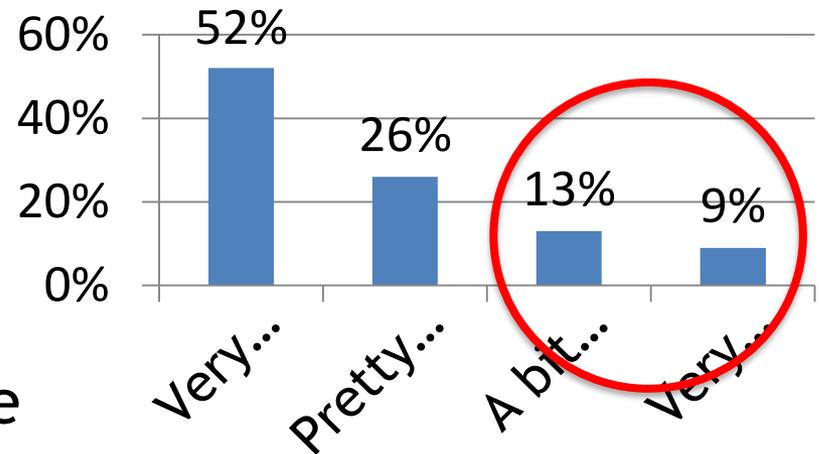
The Tunnel- Updates and Revisions



Tunnel Discussion

How comfortable do you feel about removing Alternative 4 (Tunnel) from further consideration?

- Very comfortable
- Pretty comfortable
- A bit uncomfortable
- Very uncomfortable



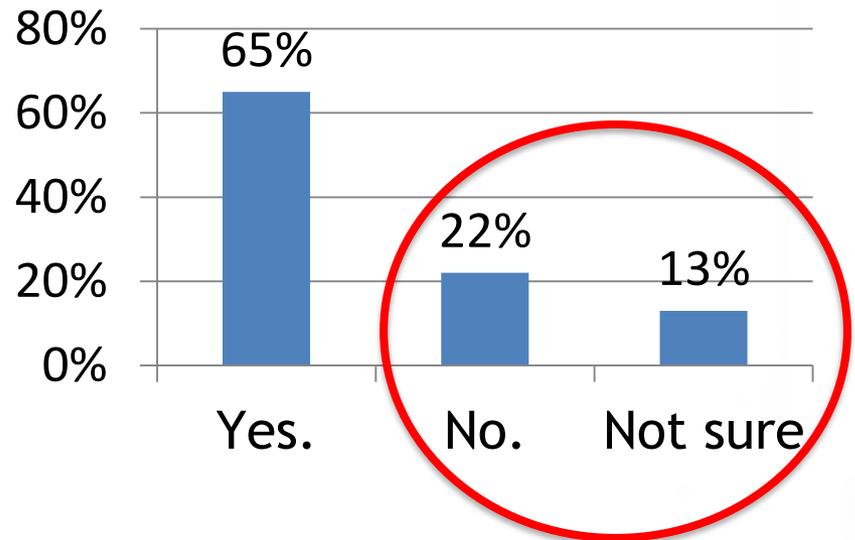
About 1/4 of PAC uncomfortable with removing tunnel

Tunnel Discussion

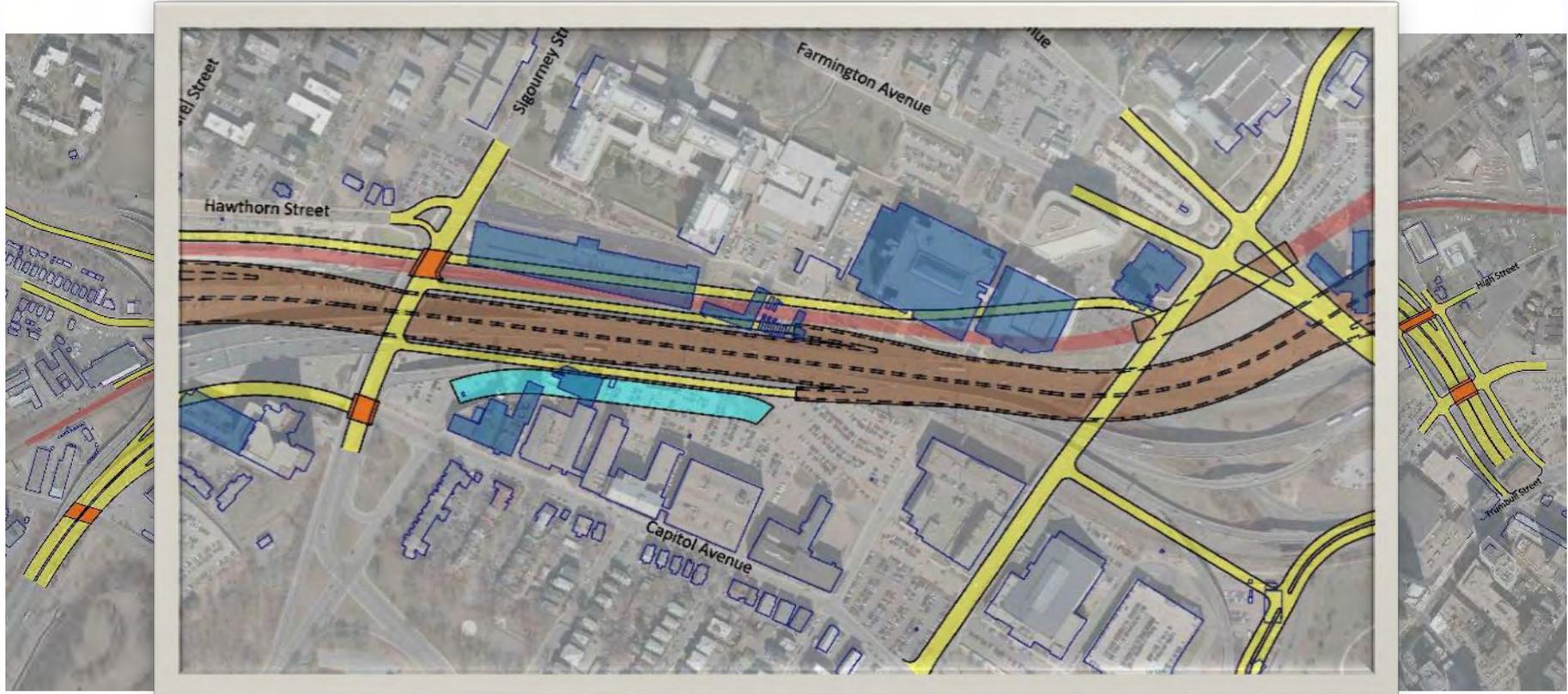
Do you feel that we have done enough to communicate both the benefits and the limitations of a tunnel option?

- Yes
- No
- Not sure

About a third of PAC feel that more discussion is needed



Tunnel Alternative 4C-2(S)



- Interchange ramps at Sigourney Street
- Acceptable traffic operations
- Significant property impacts



Urban Design Assessment

- Land over the highway not well-suited to support future development:
 - Behind buildings and adjacent to the rail line
 - Poor access and visibility
 - Cost premiums a major financial obstacle
- Well-suited for a linear park / open space
- Could also accommodate parking
- Potentially mitigates noise / visual impacts

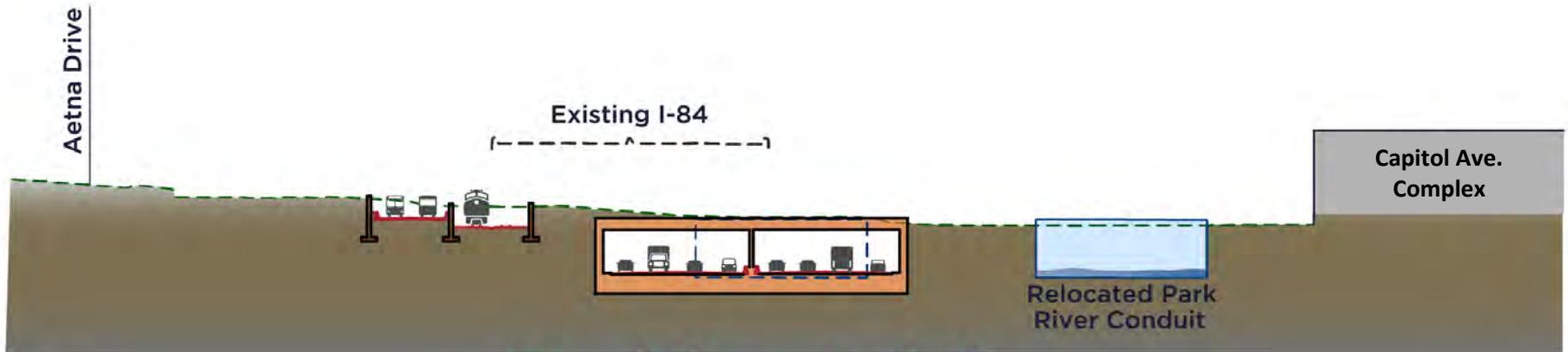
New Alternative: Capped Highway

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.

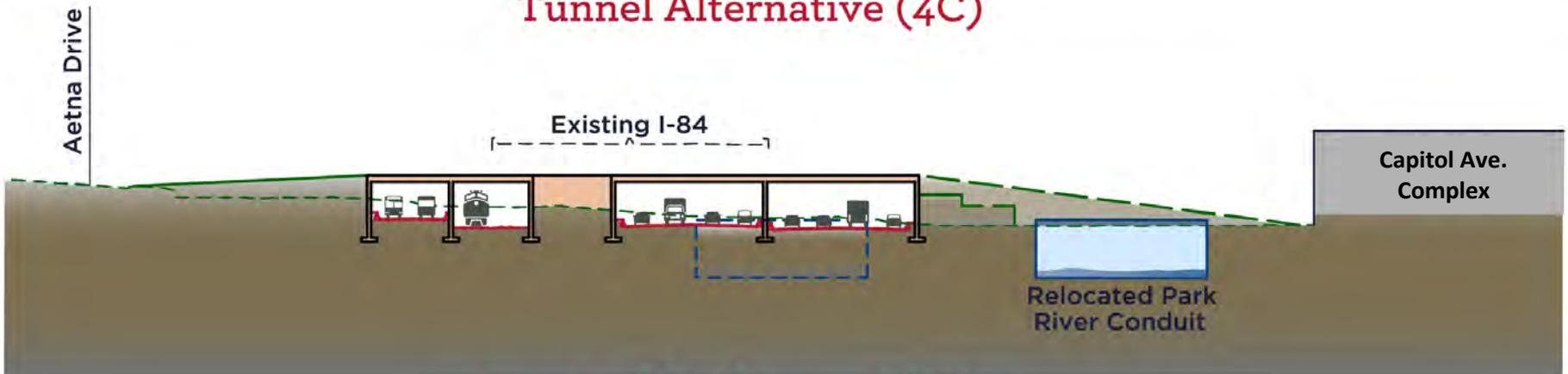




New Alternative: Capped Highway

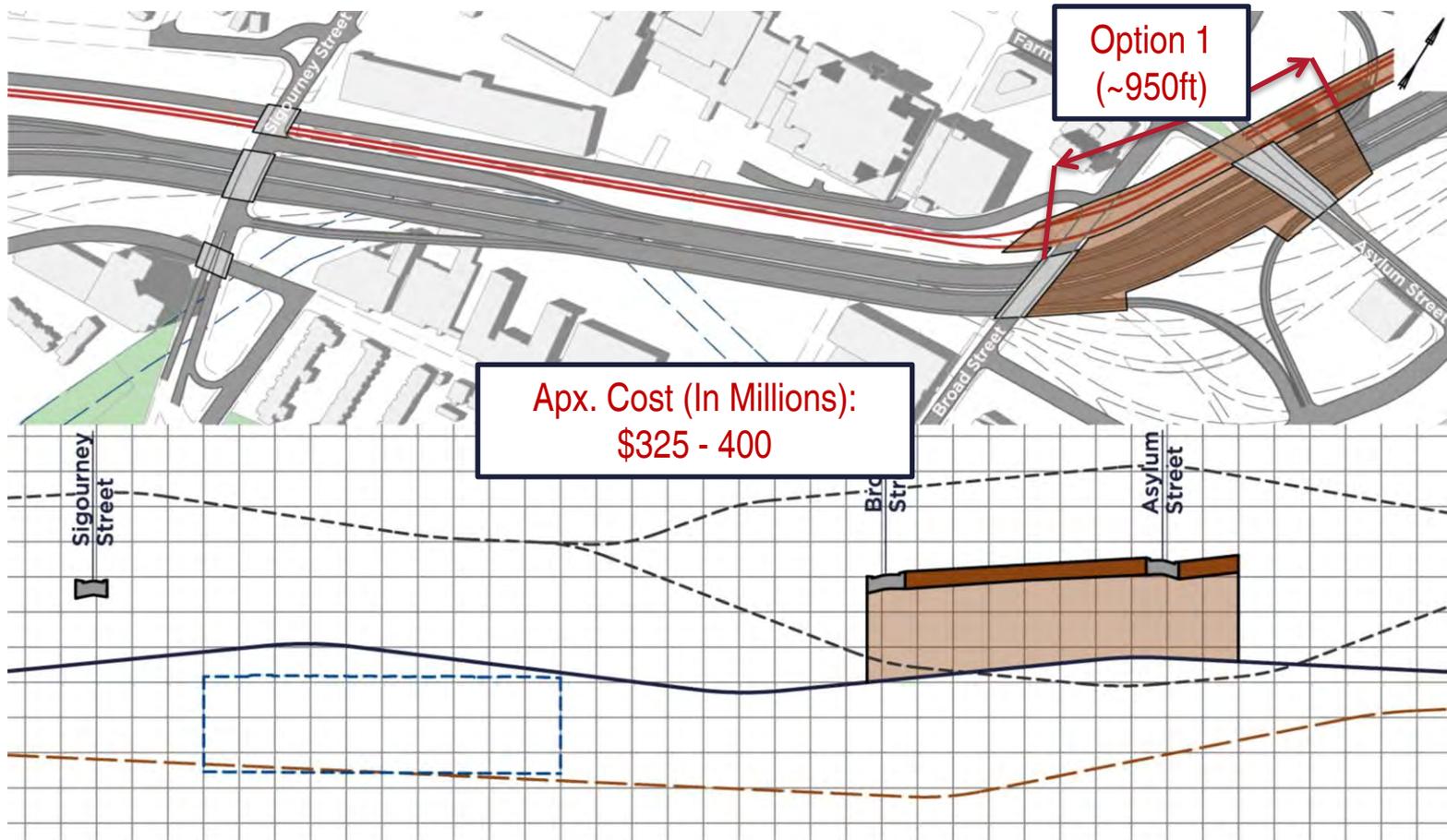


Tunnel Alternative (4C)



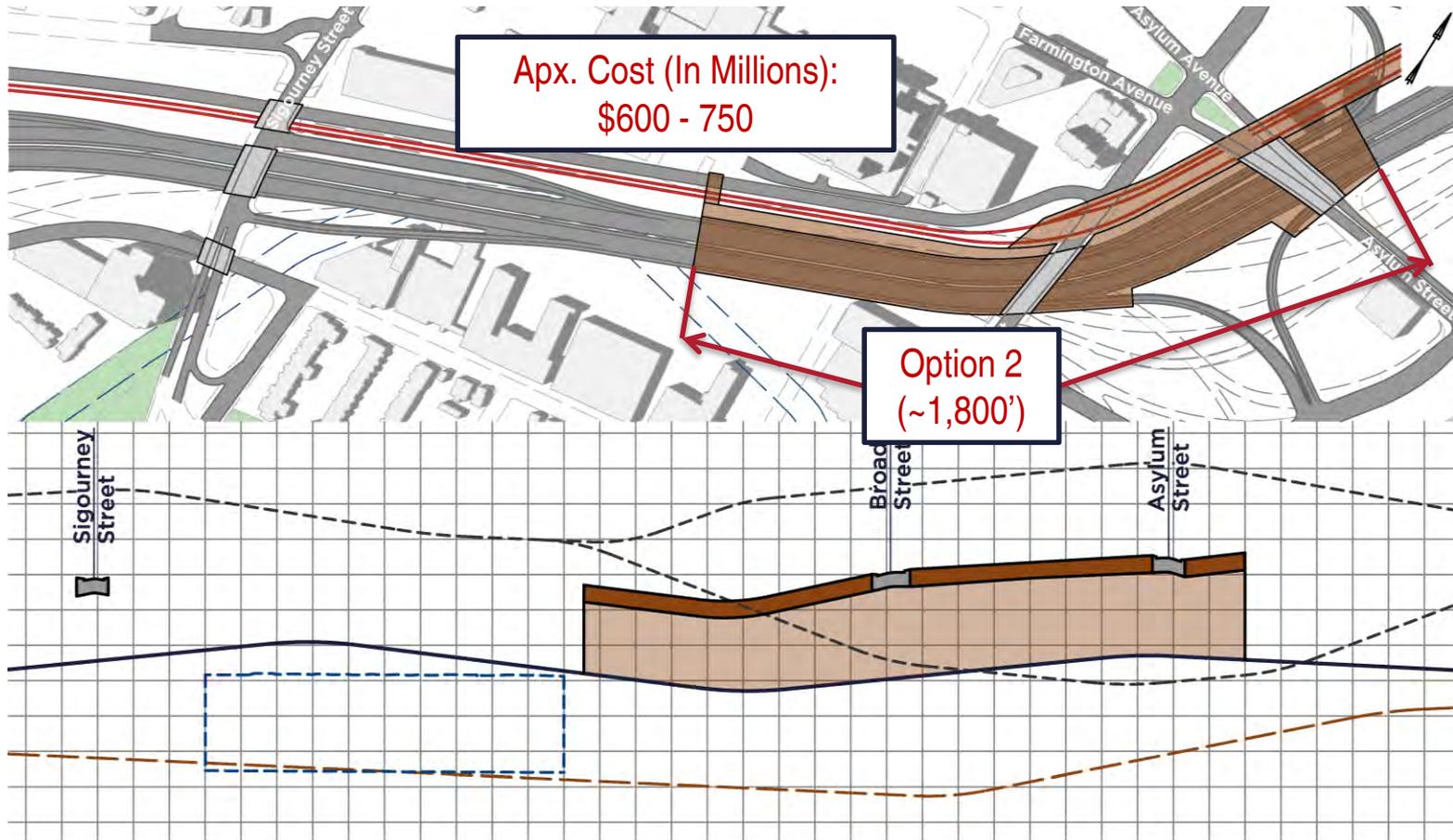
Lowered Highway with Cap

New Alternative: Capped Highway

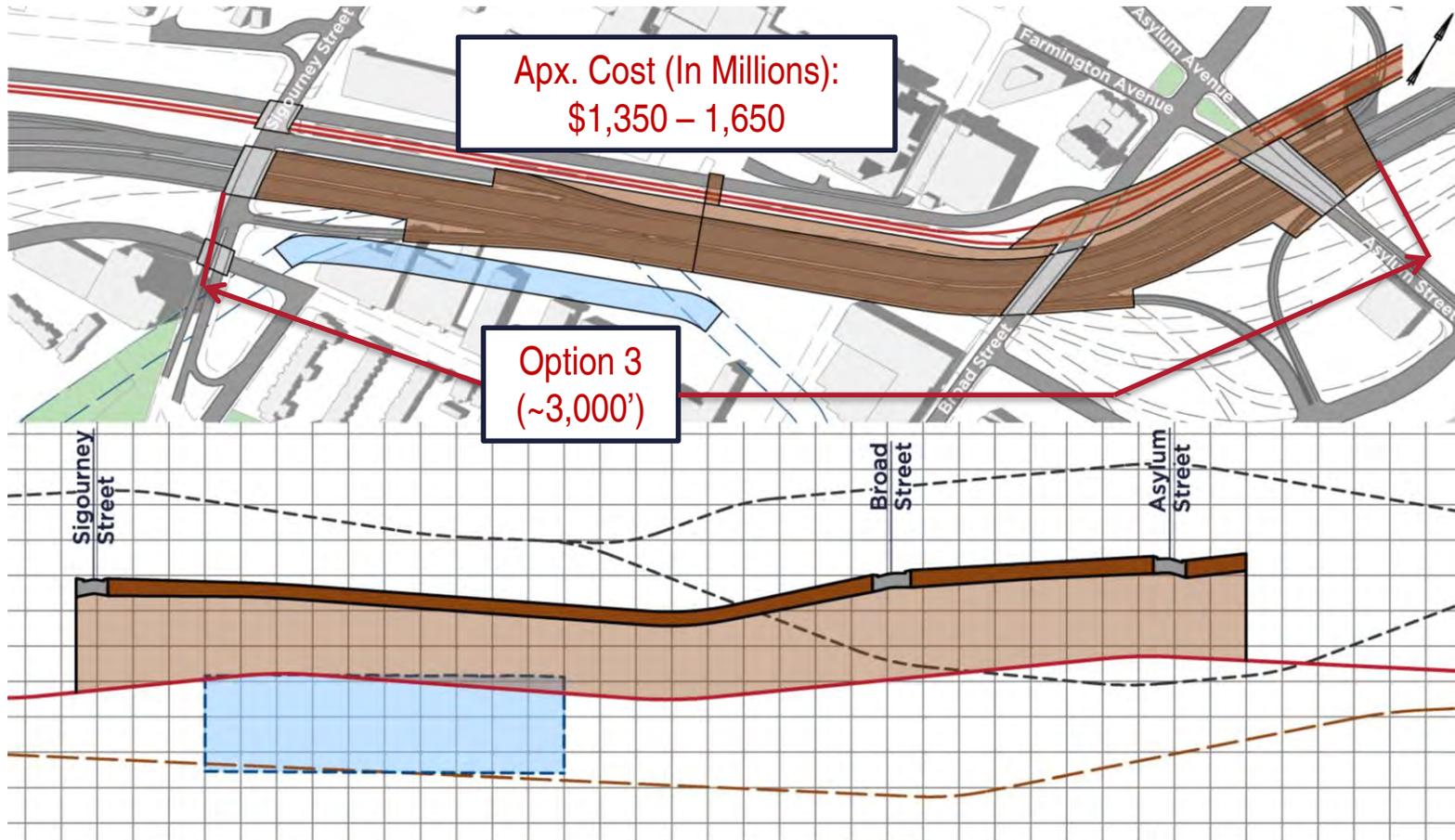




New Alternative: Capped Highway

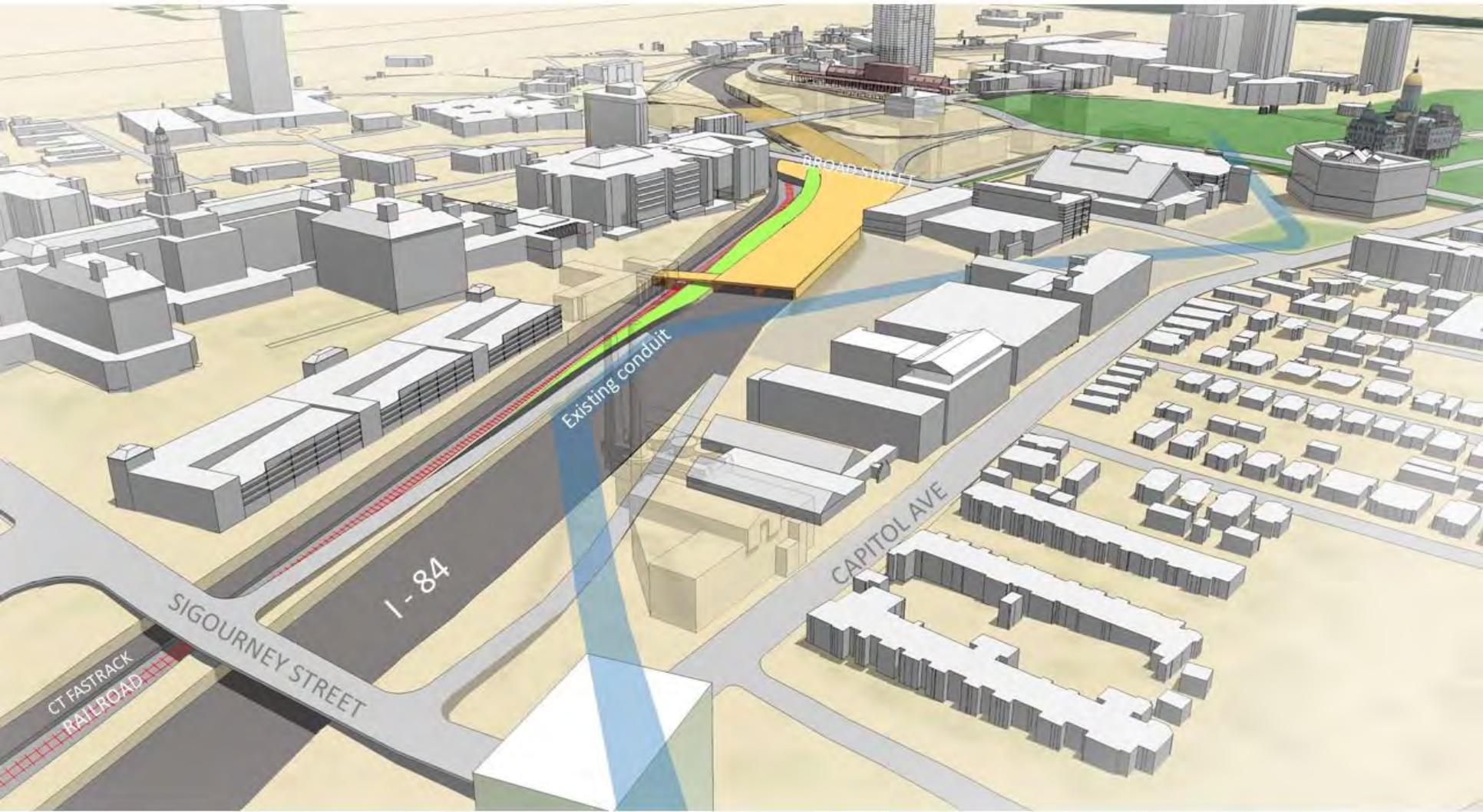


New Alternative: Capped Highway



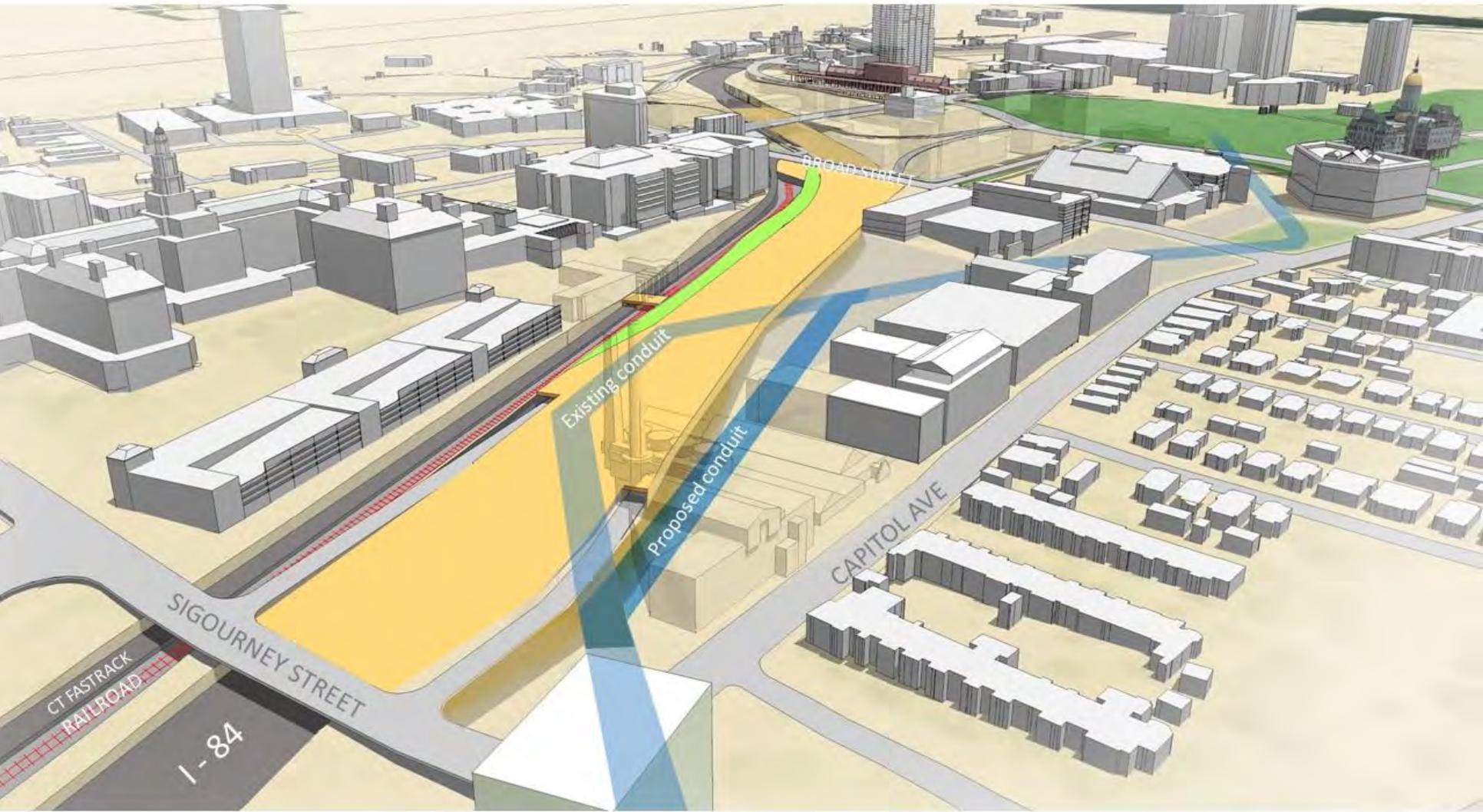


New Alternative: Capped Highway





New Alternative: Capped Highway





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



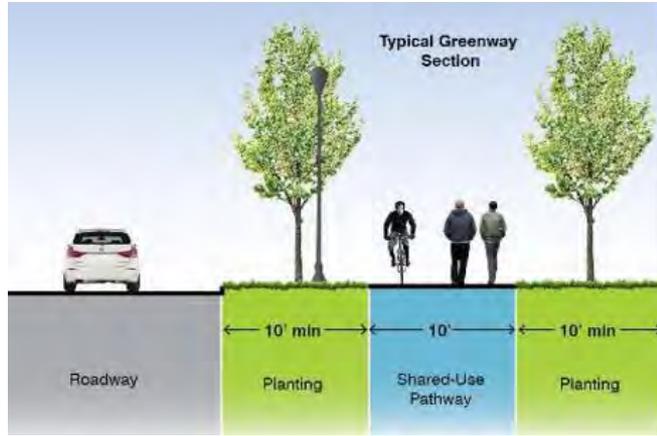
Questions/Next Steps

- Are you comfortable having the Team continue to develop this new alternative?
- Are you still concerned with eliminating Alternative 4 from further consideration?
- Next Steps:
 - Continued coordination with City
 - Monthly meetings with Urban Design WG
 - Continued concept development



I-84 HARTFORD PROJECT

Mobility Screening



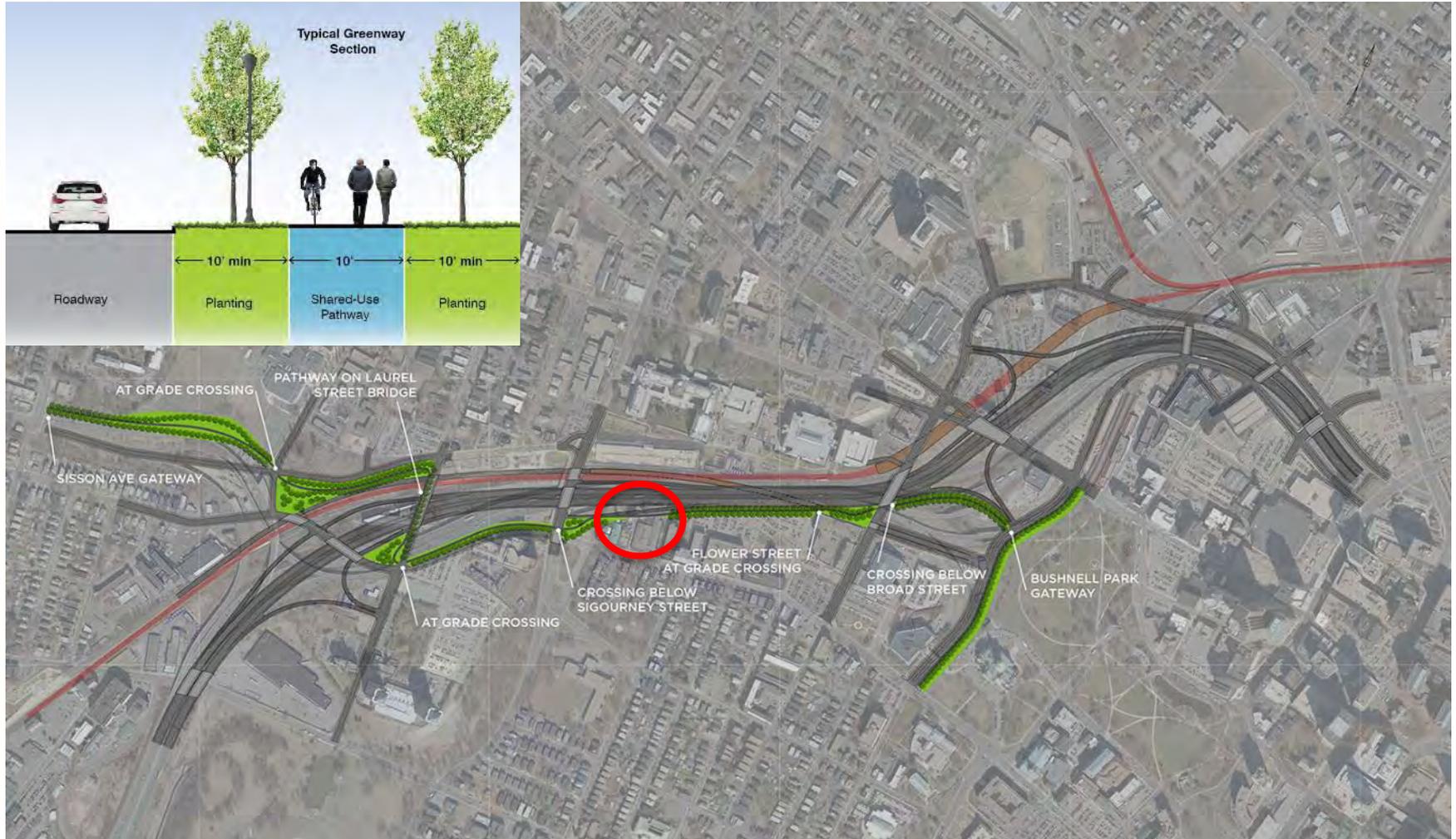
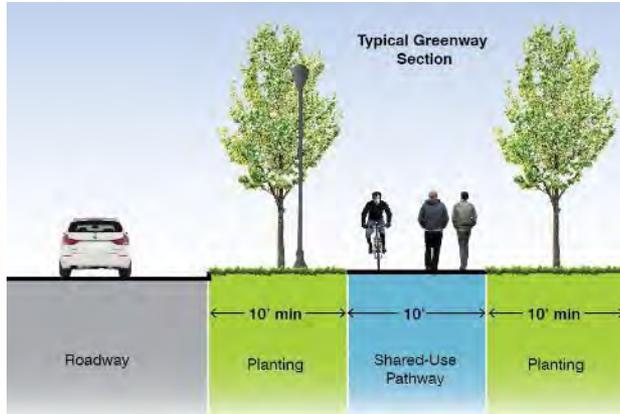


Continued Mobility Screening

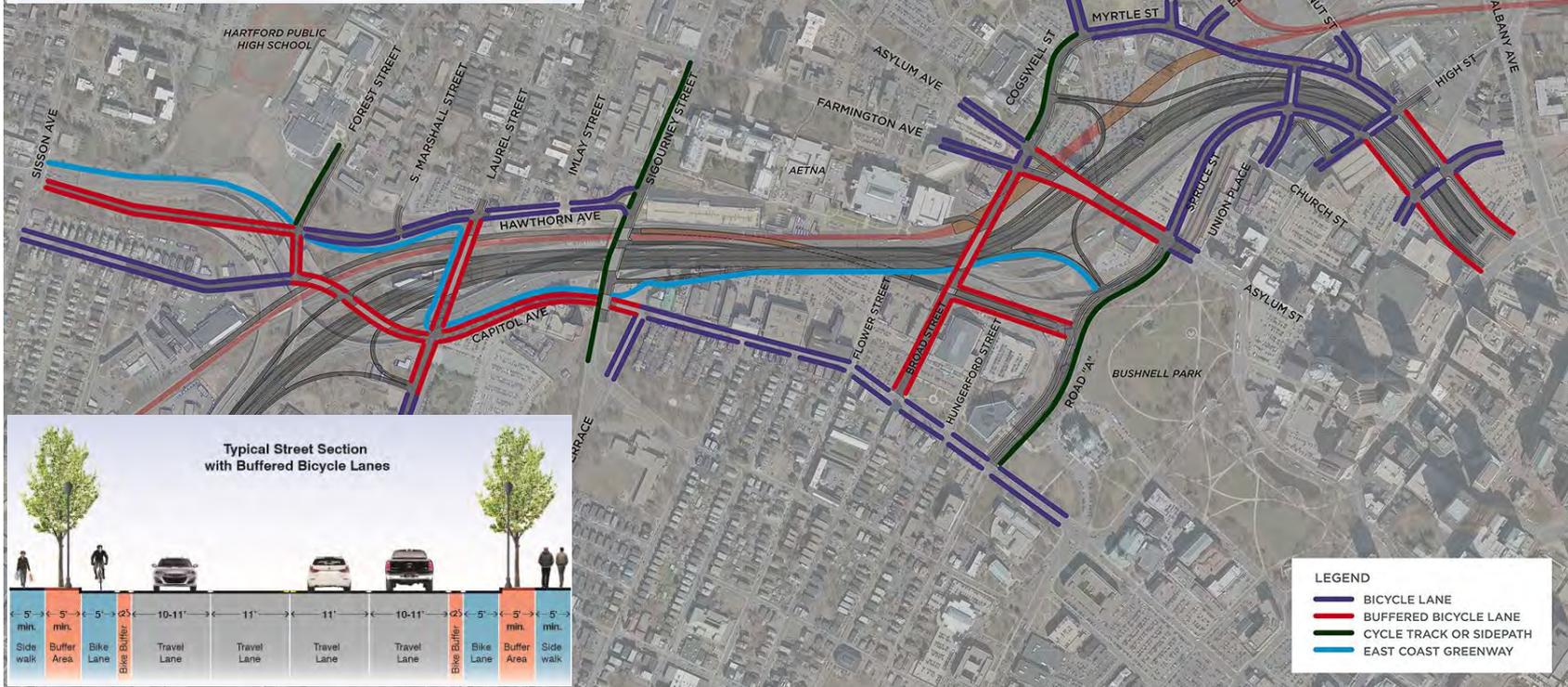
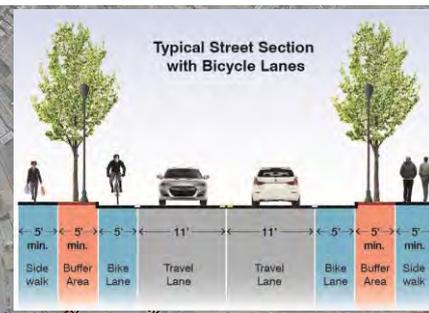
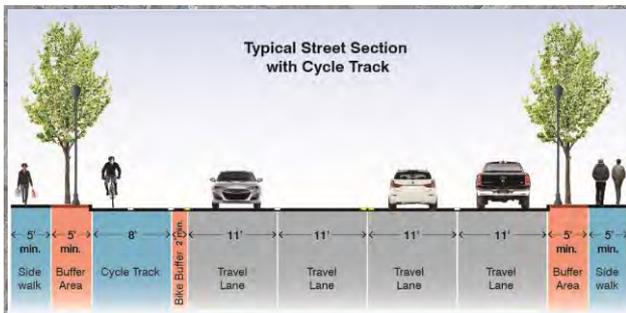
- East Coast Greenway
- On-street bicycle accommodation and Complete Streets
- Hartford Line and **CTfastrak** integration
- Potential development opportunities
- Urban design opportunities



East Coast Greenway



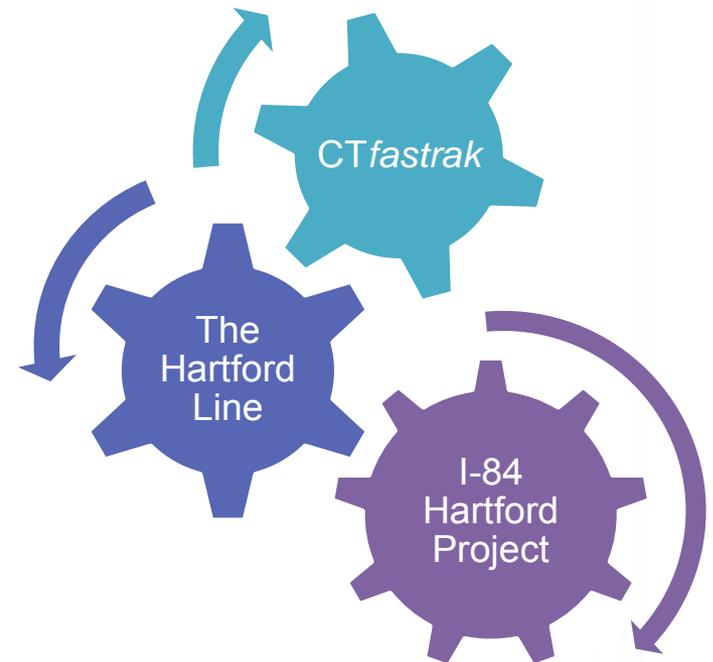
On-Street Bicycle Network



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

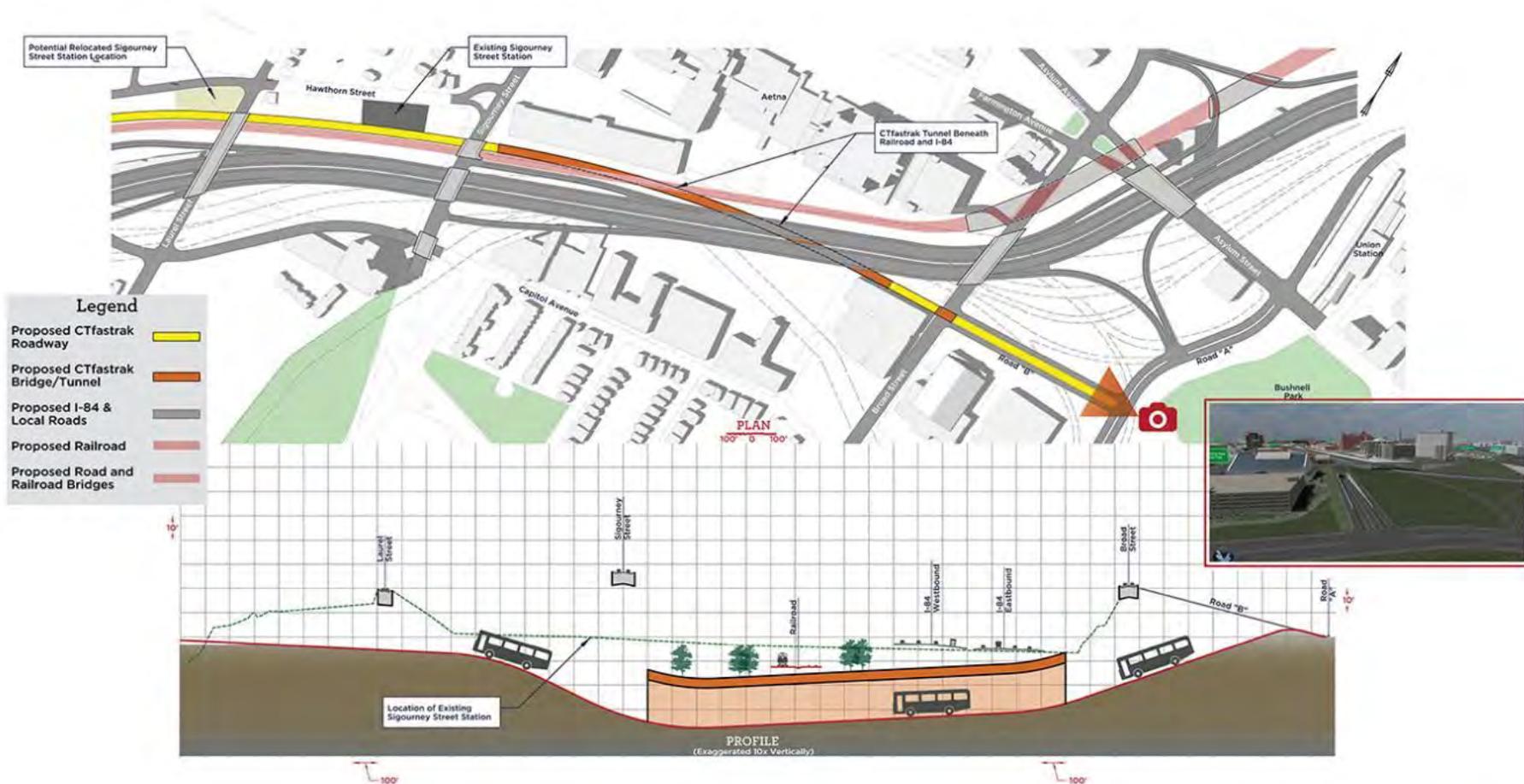
Public Transportation Integration

- Neither the highway nor the rail can be “solved” without the other
- **CTfastrak** and Hartford Line service will be important travel options that must be operational during construction





CTfastrak Modifications





Hartford Railroad Alternatives Study

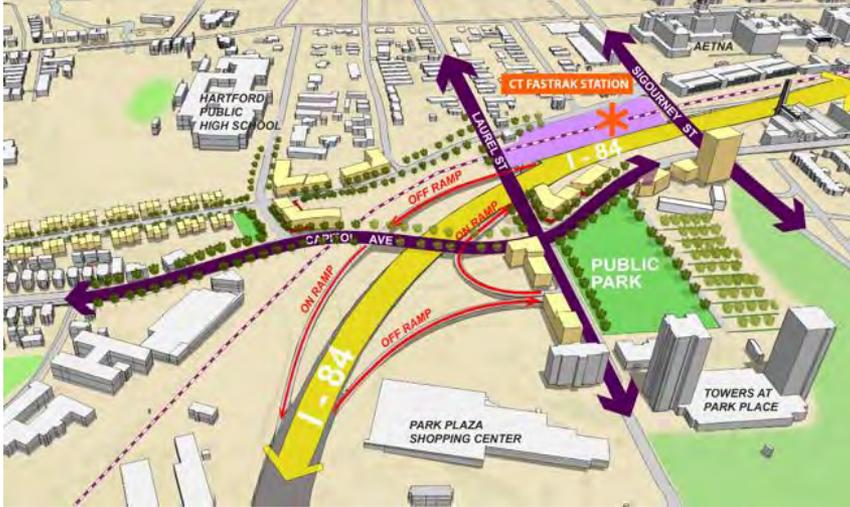
- Assessed rail viaduct
- Examined a range of alignments
- Concluded that rail relocation is feasible AND preferred
- Will be incorporated into the I-84 Hartford Project moving forward





I-84 HARTFORD PROJECT

Development Opportunities





I-84 Urban Design Goals

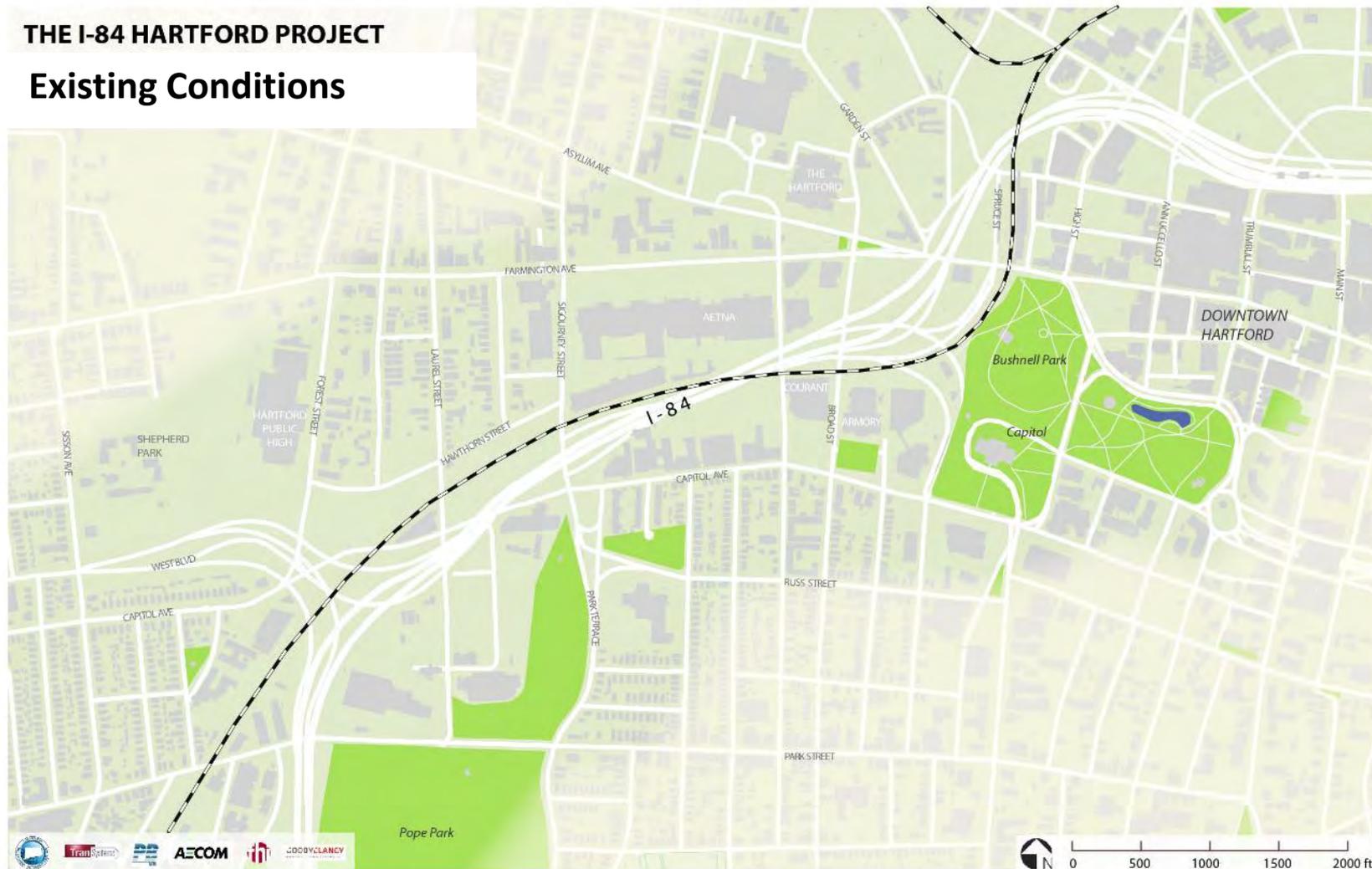
- Reconnect the City across the highway
- Strengthen the character and functioning of districts on either side of the highway
- Promote TOD around Union Station
- Integrate highway access points within urban fabric



I-84 HARTFORD PROJECT

THE I-84 HARTFORD PROJECT

Existing Conditions

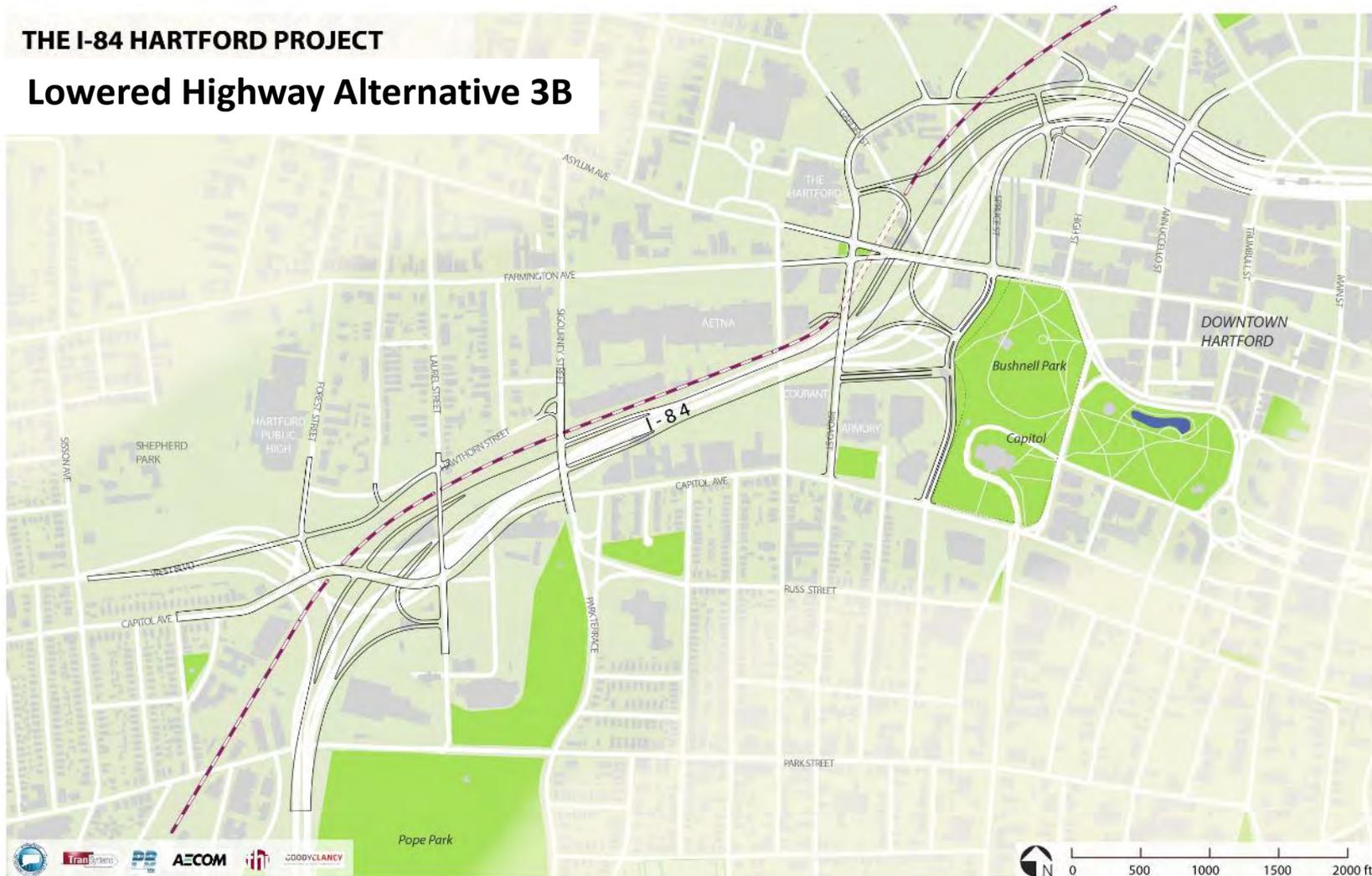




I-84 HARTFORD PROJECT

THE I-84 HARTFORD PROJECT

Lowered Highway Alternative 3B





I-84 HARTFORD PROJECT

THE I-84 HARTFORD PROJECT

Potential Land Areas for Development





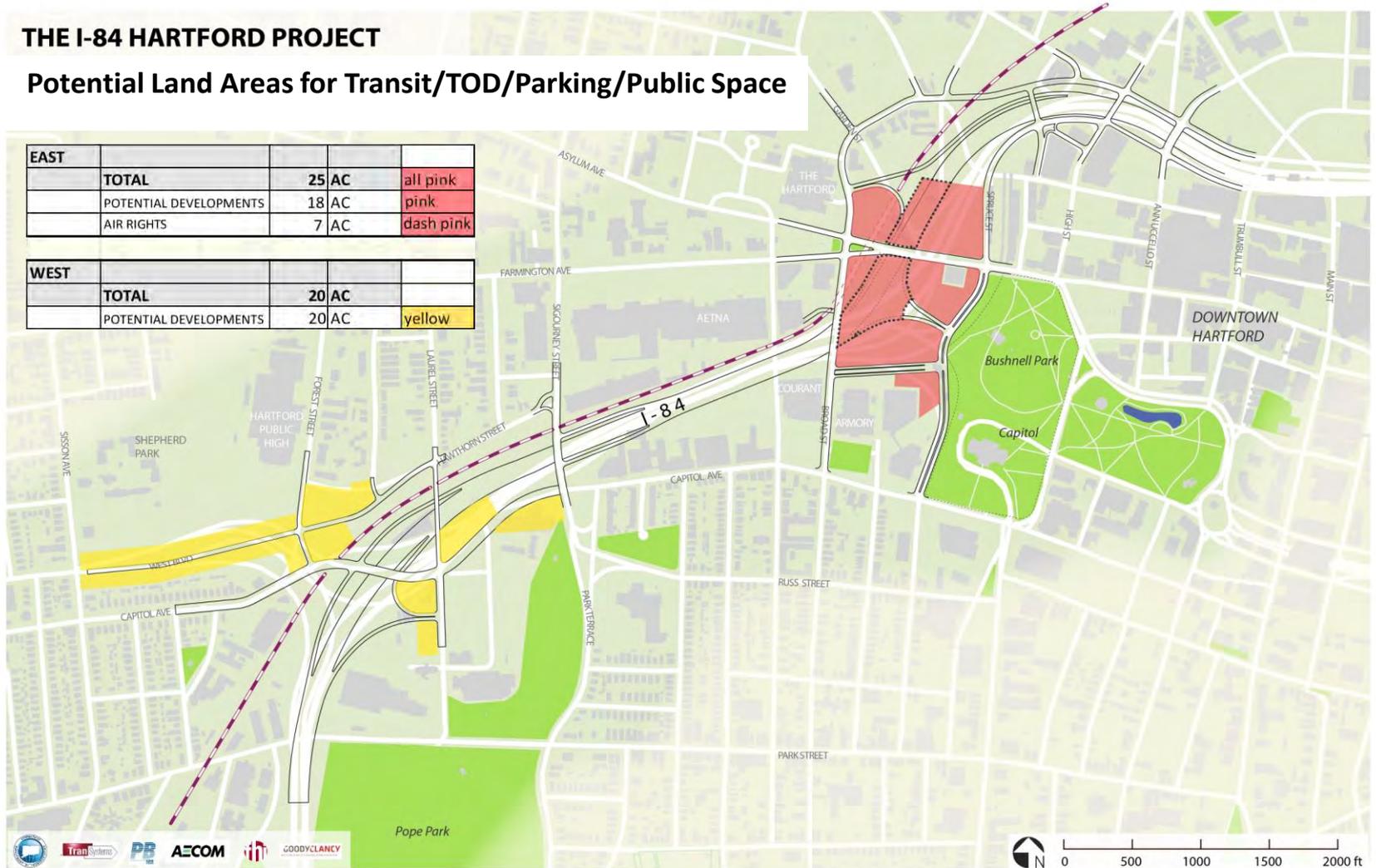
I-84 HARTFORD PROJECT

THE I-84 HARTFORD PROJECT

Potential Land Areas for Transit/TOD/Parking/Public Space

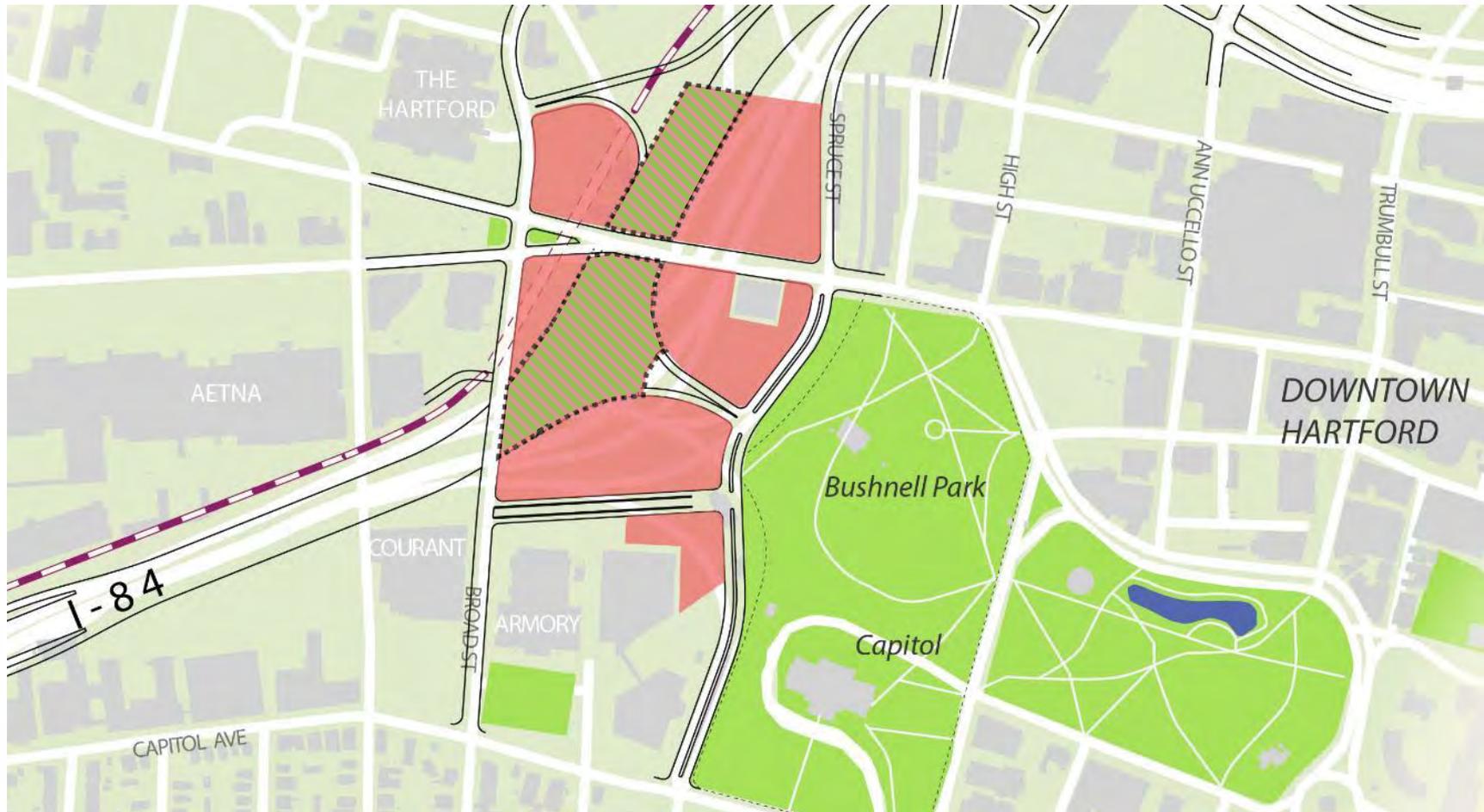
EAST			
	TOTAL	25 AC	all pink
	POTENTIAL DEVELOPMENTS	18 AC	pink
	AIR RIGHTS	7 AC	dash pink

WEST			
	TOTAL	20 AC	
	POTENTIAL DEVELOPMENTS	20 AC	yellow





Asylum/Broad - Urban Design Analysis



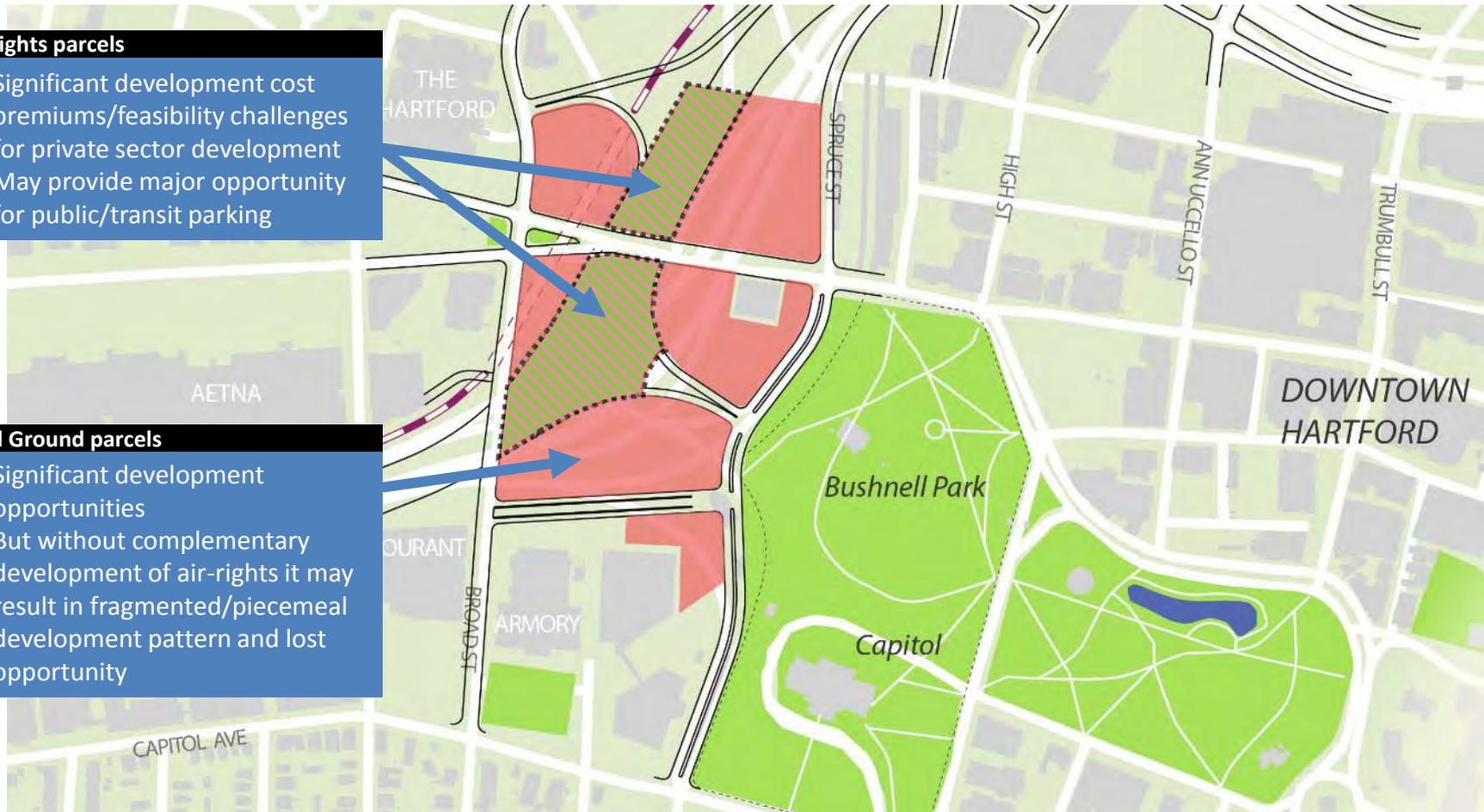
Asylum/Broad – Air-Rights and Solid Ground Parcels

Air-rights parcels

- Significant development cost premiums/feasibility challenges for private sector development
- May provide major opportunity for public/transit parking

Solid Ground parcels

- Significant development opportunities
- But without complementary development of air-rights it may result in fragmented/piecemeal development pattern and lost opportunity



Asylum/Broad - Urban Design Analysis

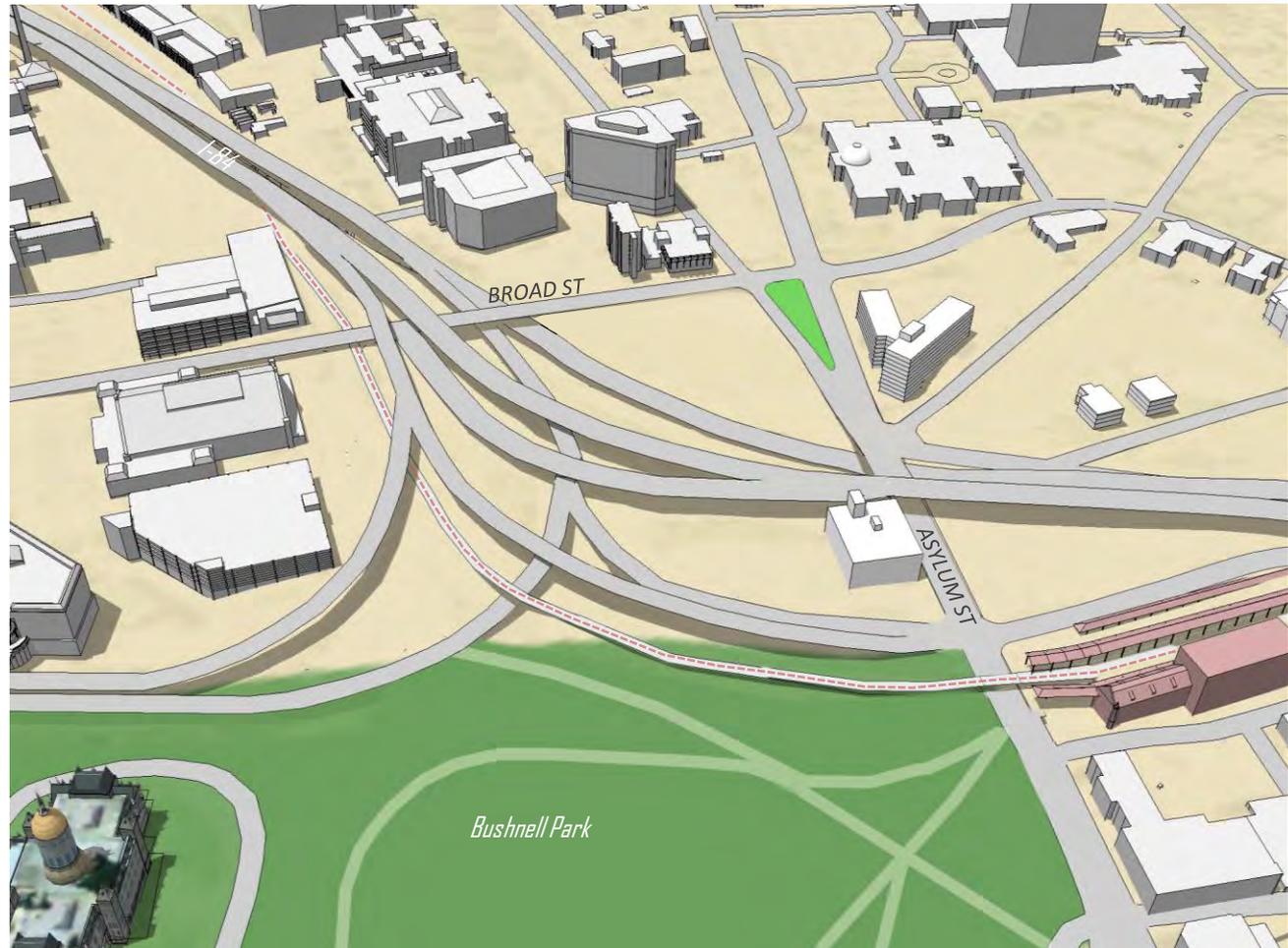
Principles of strong street edges

- Development fronting onto public streets
- Parking behind development
- Create generous pedestrian and bike space amenities along street
- Create inviting, walkable corridors





Existing Conditions – Elevated Highway





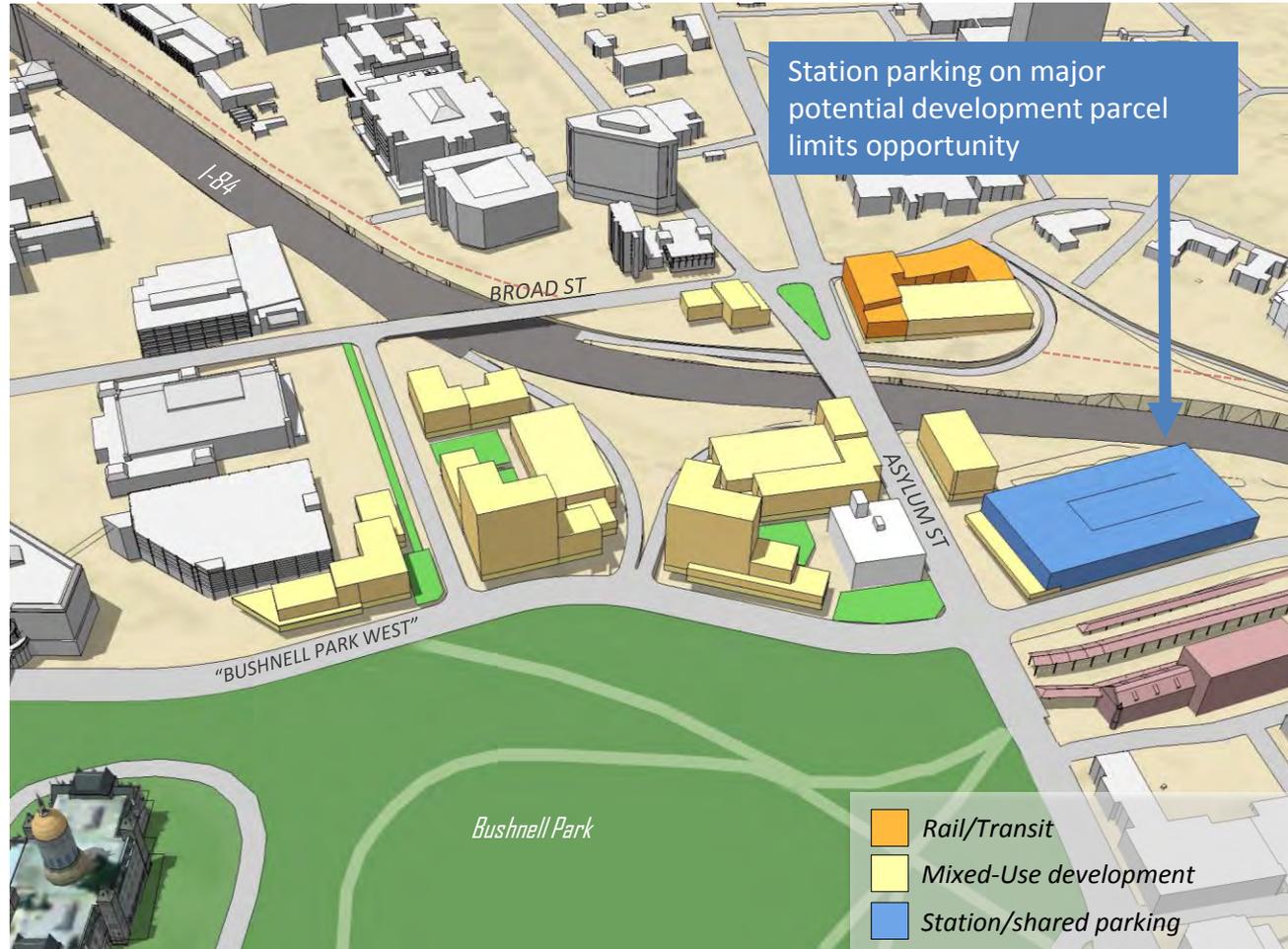
Base Scenario: Lowered Highway Alternative (No Cap)

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



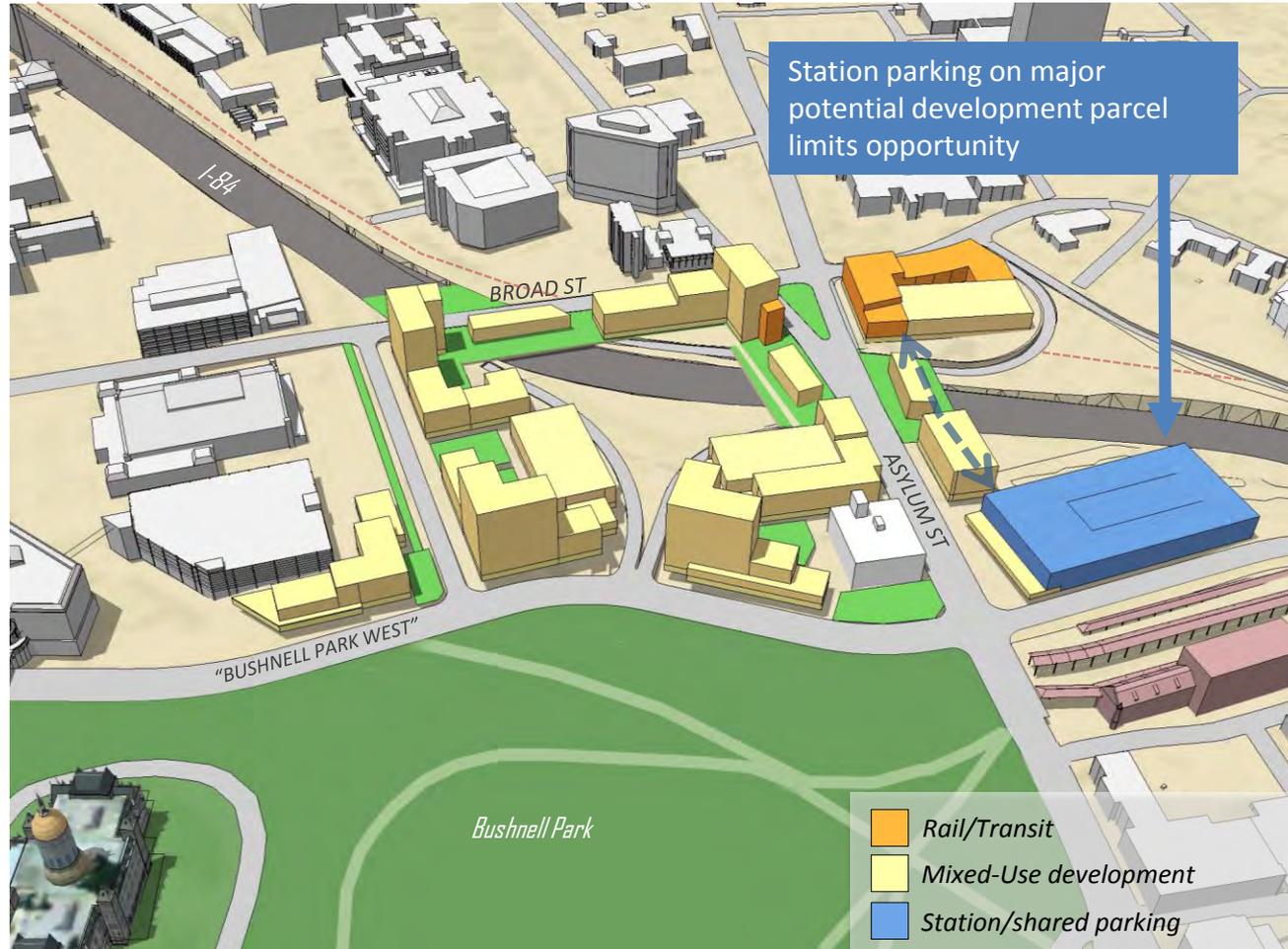
Scenario #1: Development on Solid Land Only

- 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***



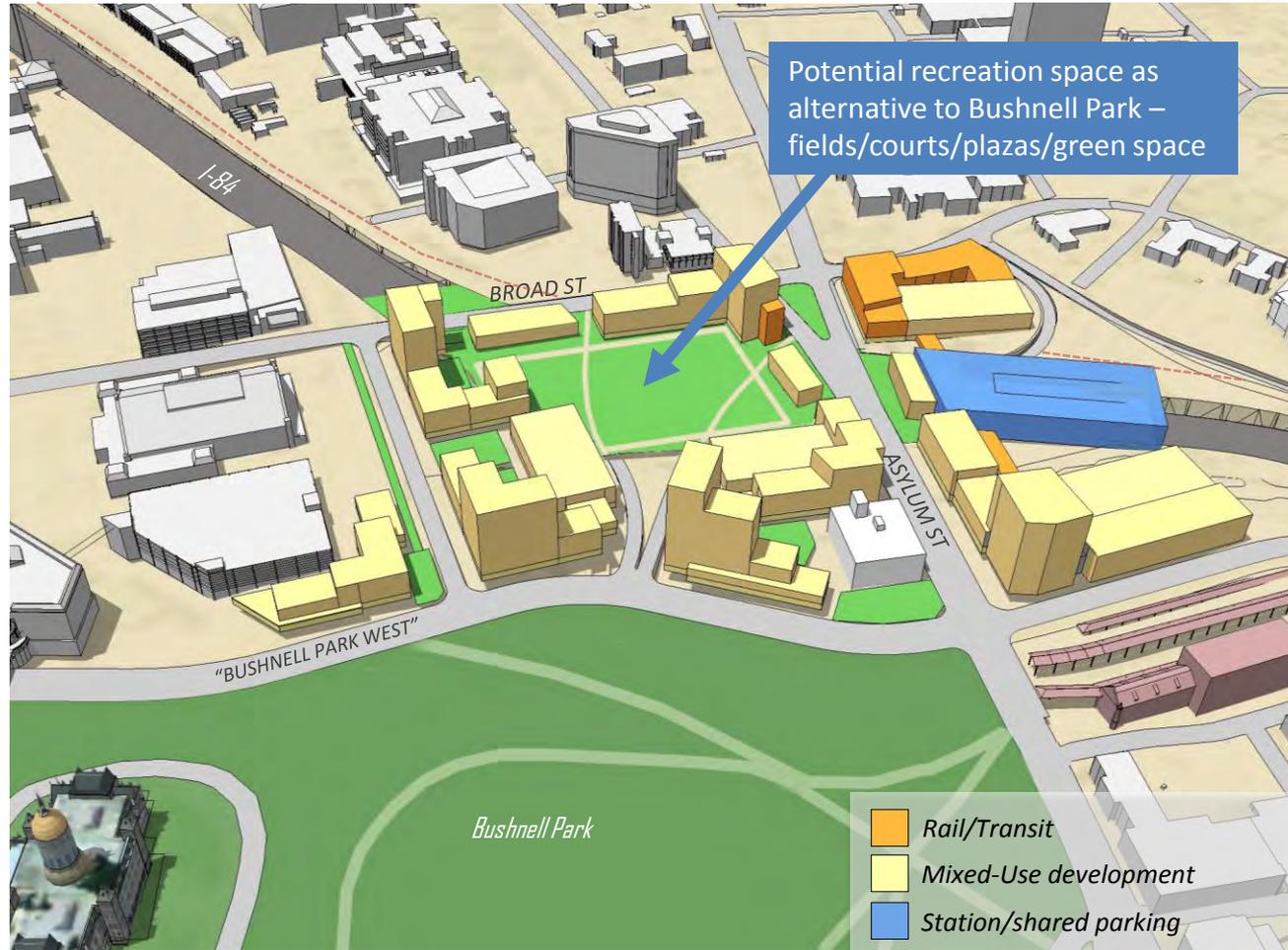
Scenario #2: Small Highway Decks

- 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*



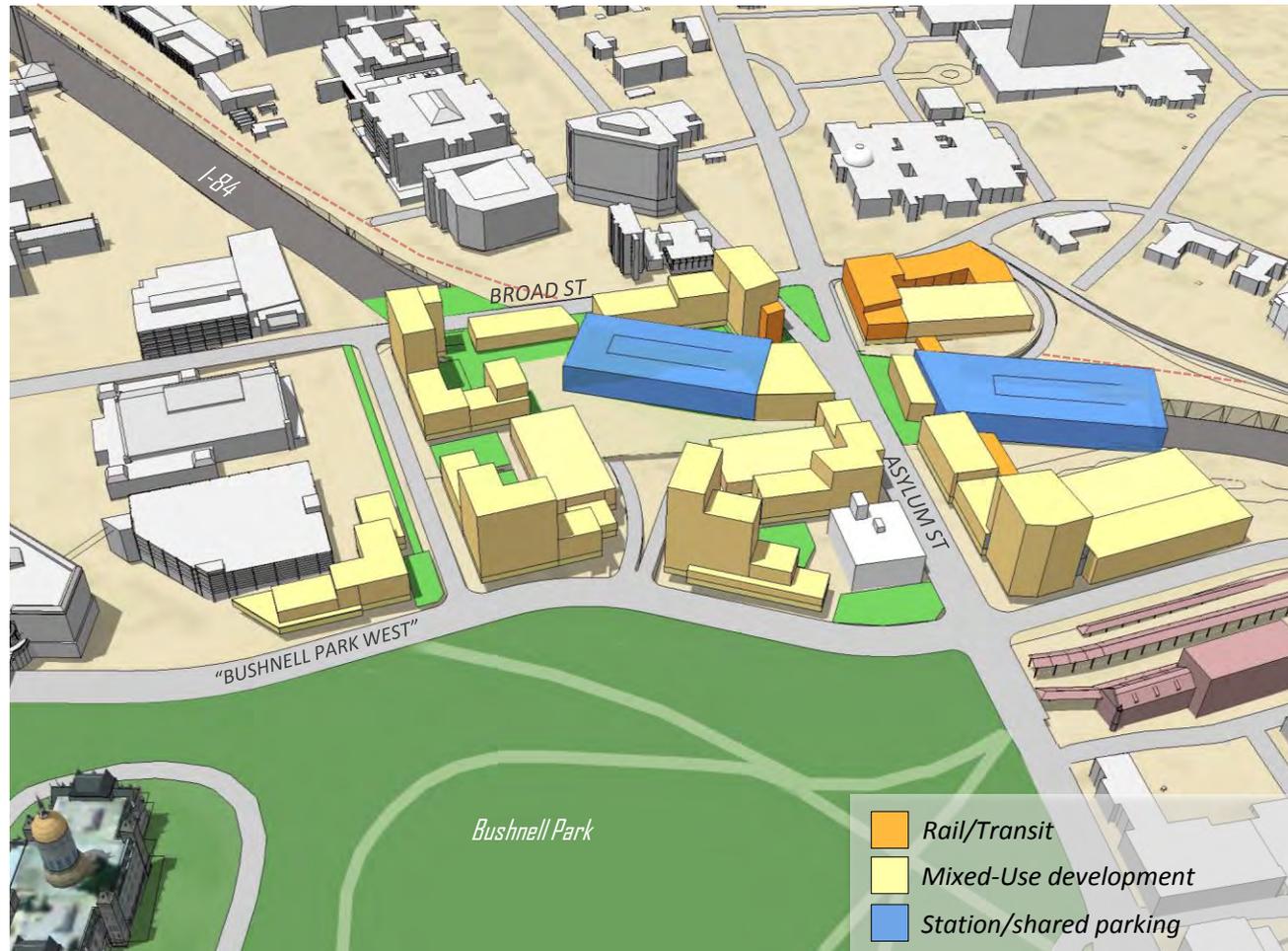
Scenario #3A: Asylum/Broad Cap

- 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*



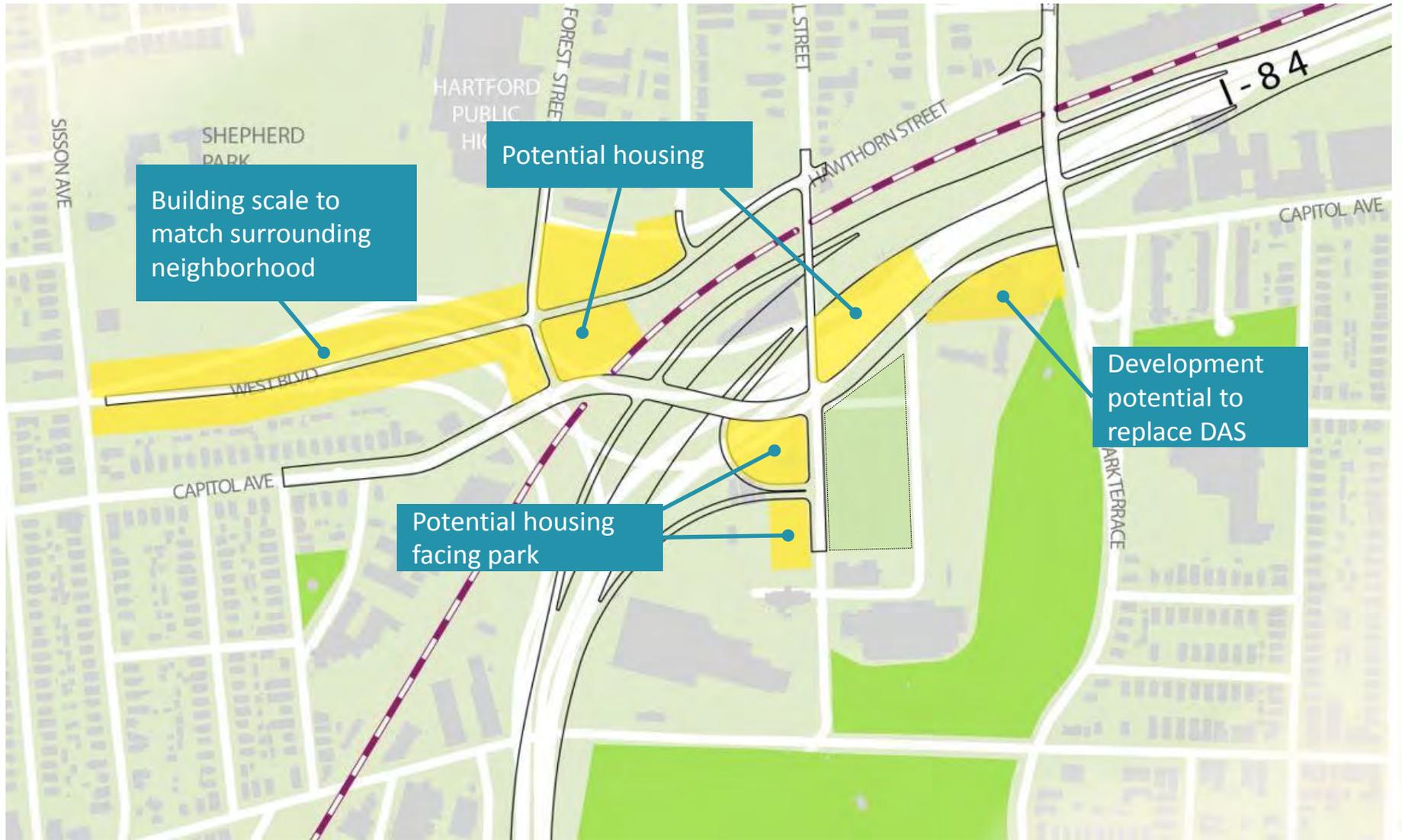
Scenario #3B: Asylum/Broad Cap

- 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*



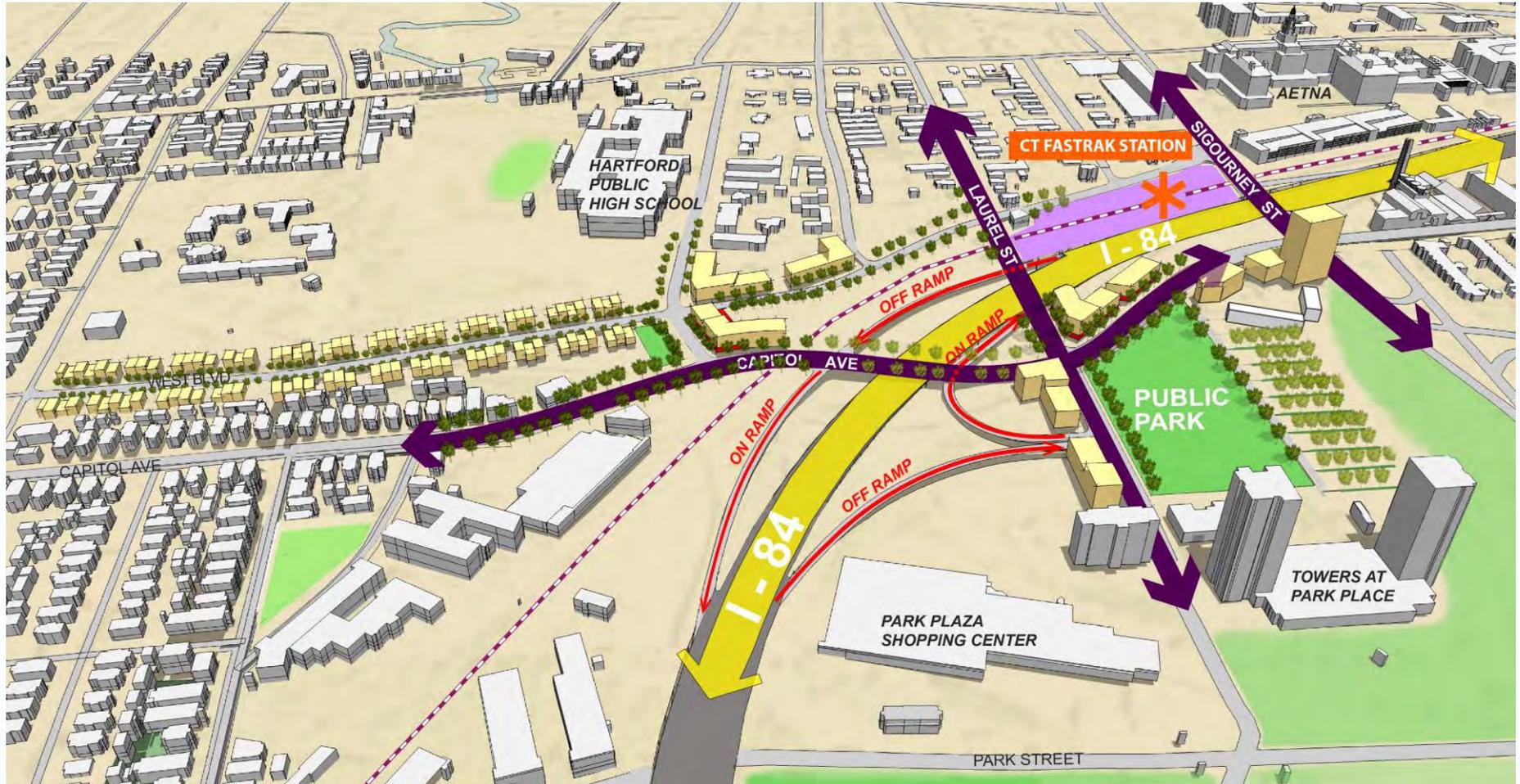


Sisson Avenue - Urban Design Analysis



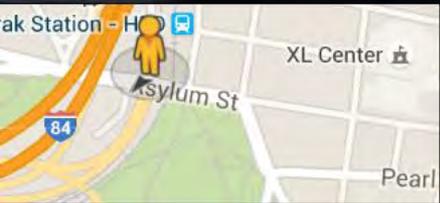


Asylum/Broad - Urban Design Analysis





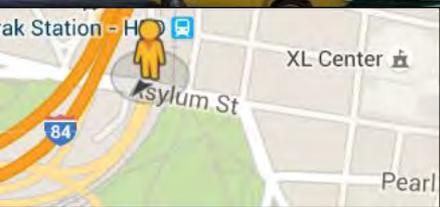
Street-view Visualizations



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**



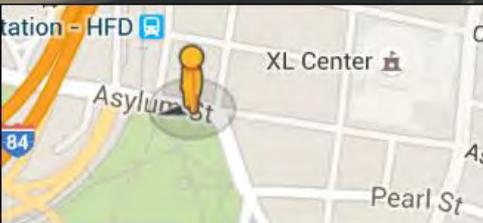
Street-view Visualizations



Asylum Street looking east towards rail viaduct: Existing



Street-view Visualizations

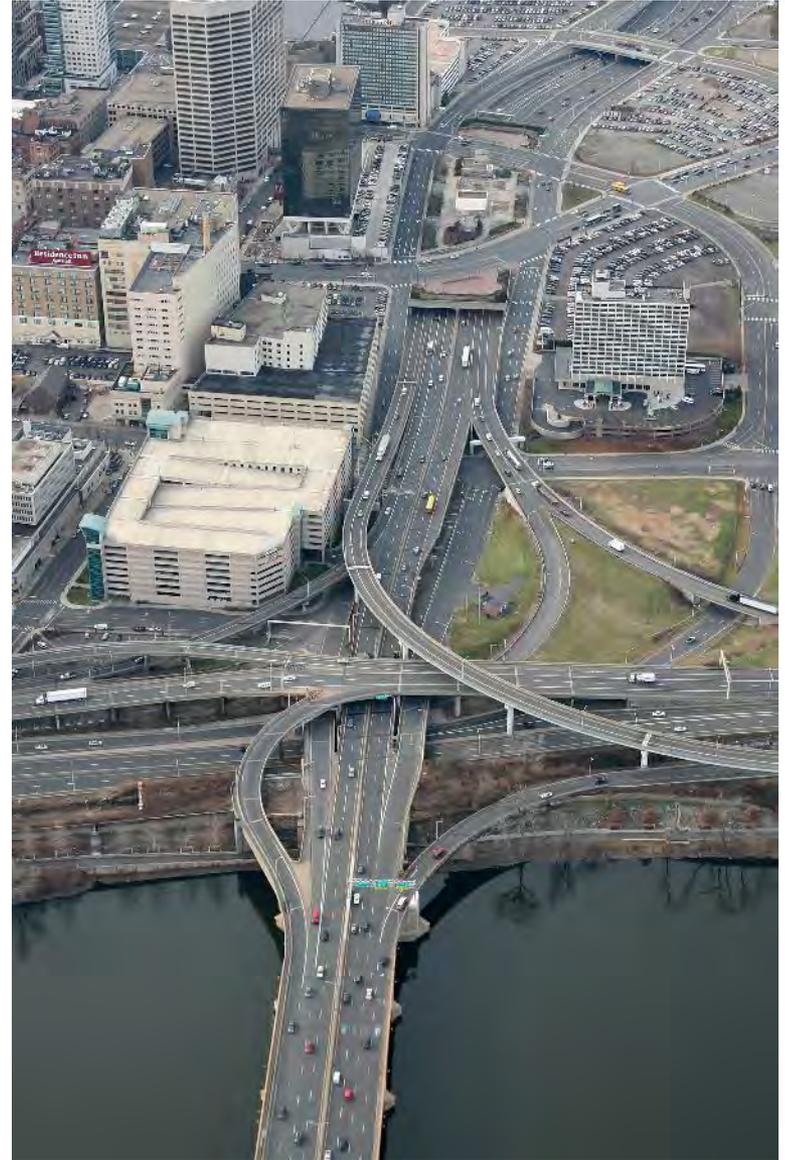


Asylum Street looking east towards rail viaduct: **Potential**



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





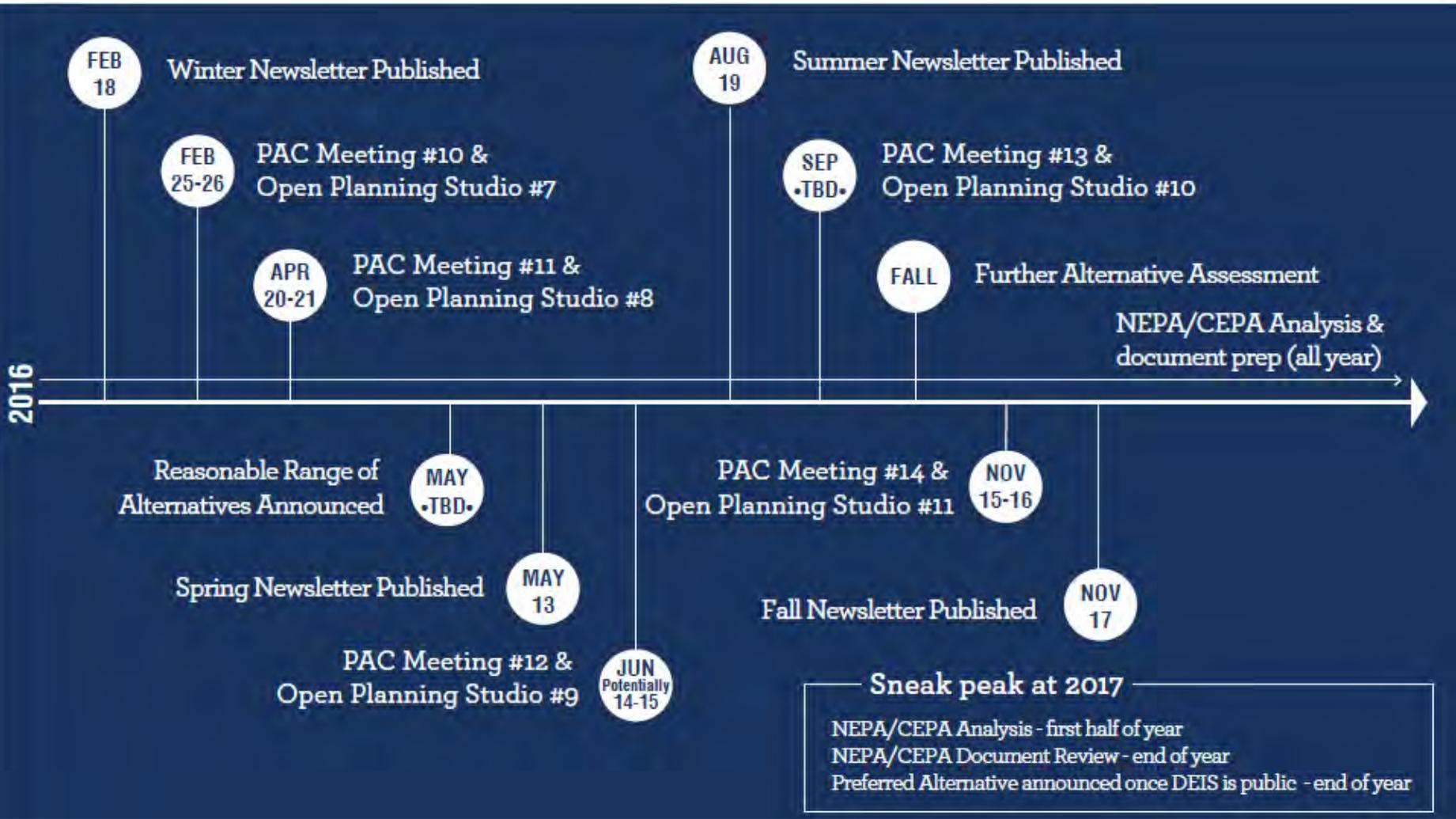
I-84 / I-91 Interchange Study



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