



THE I-84 HARTFORD PROJECT

Open Planning Studio PAC Meeting

April 27, 2015



THE I-84 HARTFORD PROJECT



Welcome!



U.S. Department of Transportation
Federal Highway Administration



CRCOG **CAPITOL REGION COUNCIL OF GOVERNMENTS**
Working together for a better region.



Agenda

1. Introduction

- What is the Open Planning Studio?
- Defining the Preliminary Alternatives
- How we determined the alignment options?
- What we will do this week

2. Alternative Interchange Options

- Quick preview of many options

3. Enhanced Visualizations

- A few examples of context sensitive design options
- Images of potential street views



The I-84 Open Planning Studio

- Make the development of alternatives transparent and inclusive
- Build support as the Project progresses for the ultimate identification of a preferred alternative
- Fully identify and respond to concerns from a broad range of stakeholders and attempt to address those concerns in the alternatives
- Engage community groups that have been historically disenfranchised in the process of selecting transportation alternatives

Defining the I-84 Alternatives

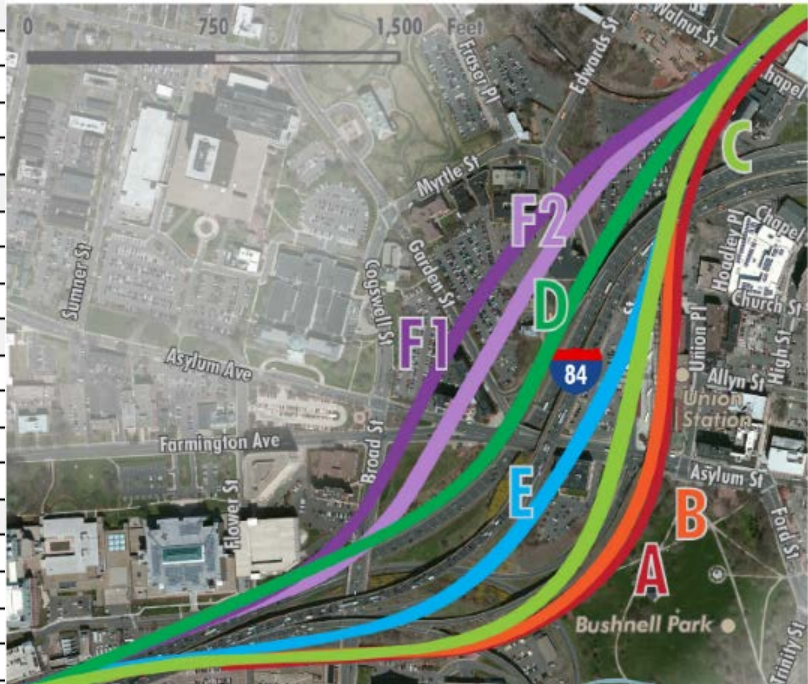
We began with identifying corridor options that addressed the interrelationship between I-84 and the railroad, as first explored by the HUB Study



Defining the I-84 Alternatives

We studied various horizontal and vertical configurations, using the latest highway and railroad design standards and safety criteria

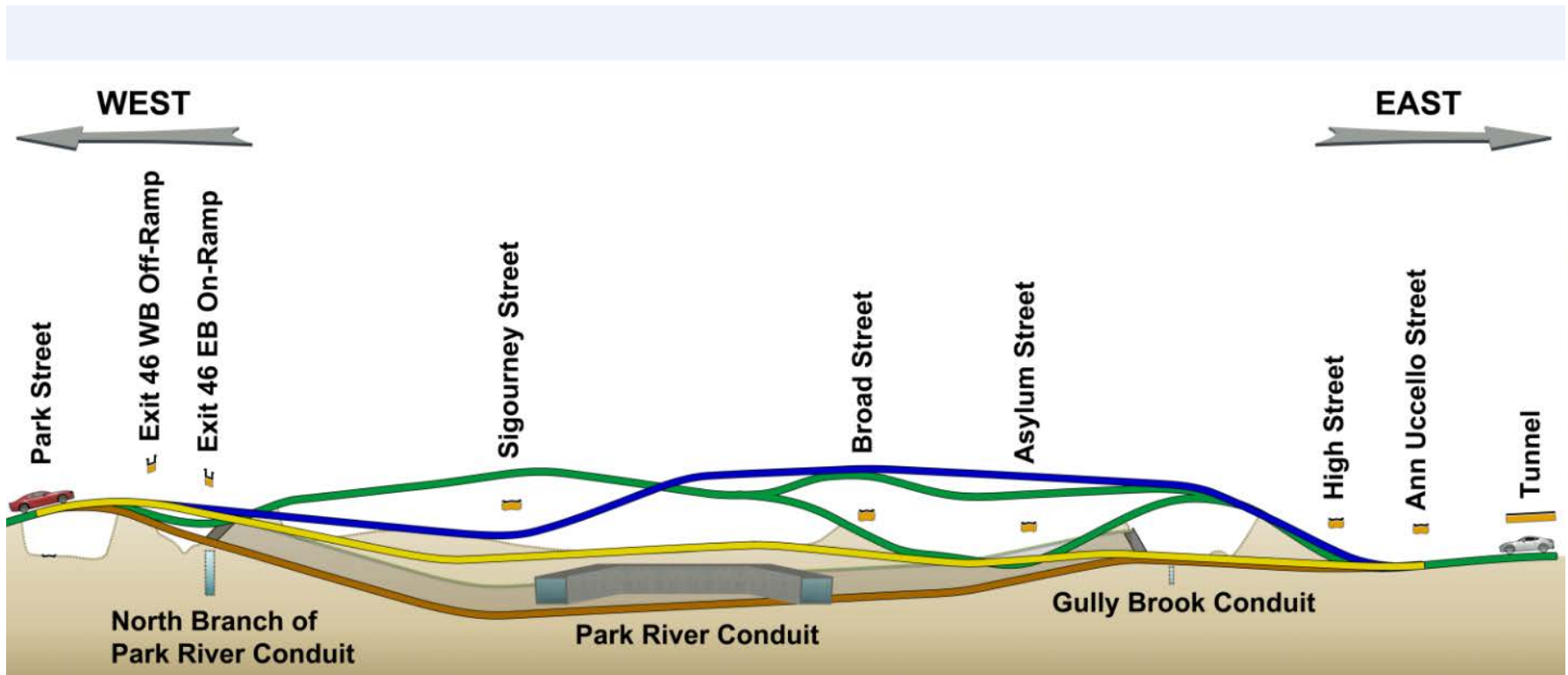
		Alternative						
		A	B	C	D	E	F1	F2
Key Characteristics	Future Alignment of Rail Infrastructure							
	<u>Maintenance</u> of Existing Rail Infrastructure	✓						
	<u>Reconstruction</u> of Rail Infrastructure		✓					
	Rail <u>Relocation</u> South of I-84			✓				
	Rail <u>Relocation</u> North of I-84							
	Vertical Alignment of Future I-84							
	I-84 remains in place (elevated)	✓	✓	✓				
	I-84 rebuilt at or below ground level (open cut)							
	I-84 rebuilt at least partially in a tunnel			✓				
Physical Attributes	Track and Rail Operations							
	Number of tracks	1	2	2				
	Gauntlet track for oversized freight trains		✓	✓				
	Rail service maintained during construction	✓	✓	✓				
	Future connection to Griffin Line possible			✓				
	Station Infrastructure							
	Renovation to current station building	✓	✓					
	New station building location			✓				
	Platform location relative to ground	Above	Above	Above				
Longer platform than existing		✓	✓					





Defining the I-84 Alternatives

We presented these Preliminary Alternatives (“No Build”, “Elevated”, “Lowered” and “Tunnel”) in late January at the Public Scoping Meeting



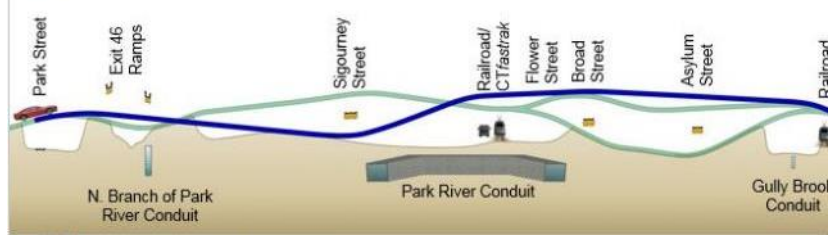


Preliminary Alternatives

Alternative 1: No-Build



Alternative 2: Elevated Highway



Alternative 3: Lowered Highway

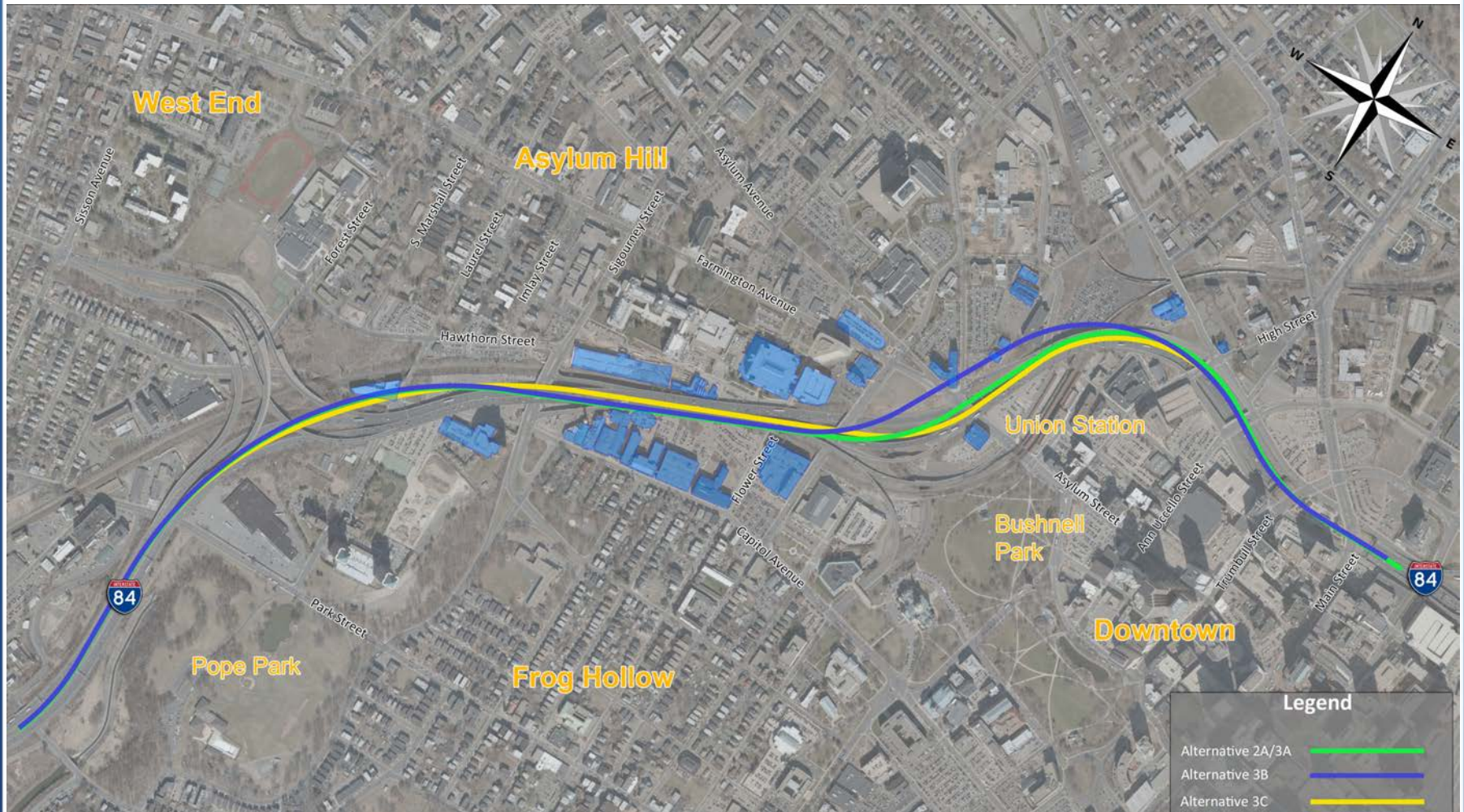


Alternative 4: Tunneler Highway





Alternatives 2 and 3





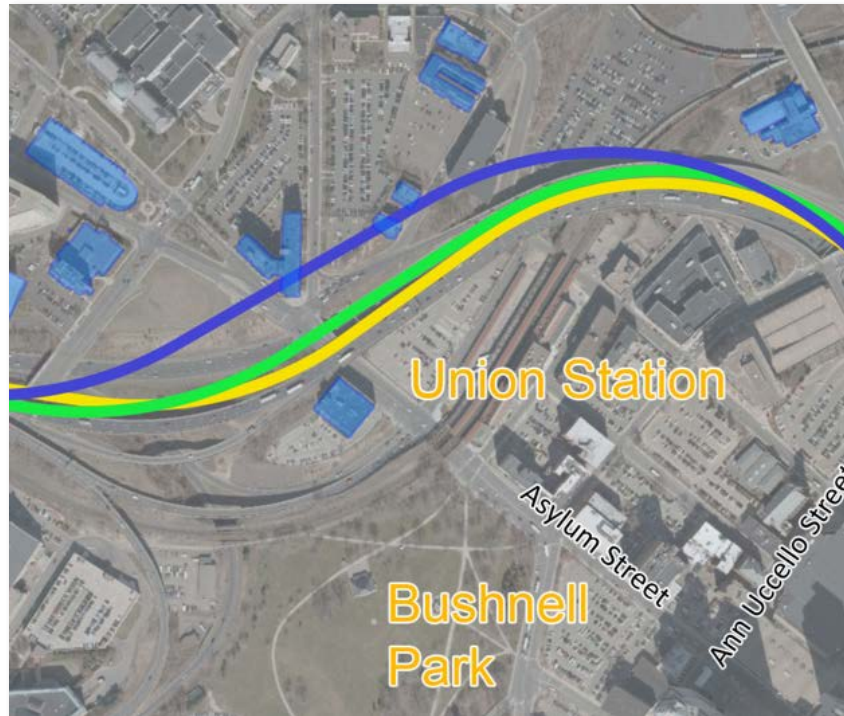
Alternative 4





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How we determined the alignment options





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Alternatives 2A and 3A

- Minimum Alignment Shift for Stage Construction
- Minimize Property Impacts

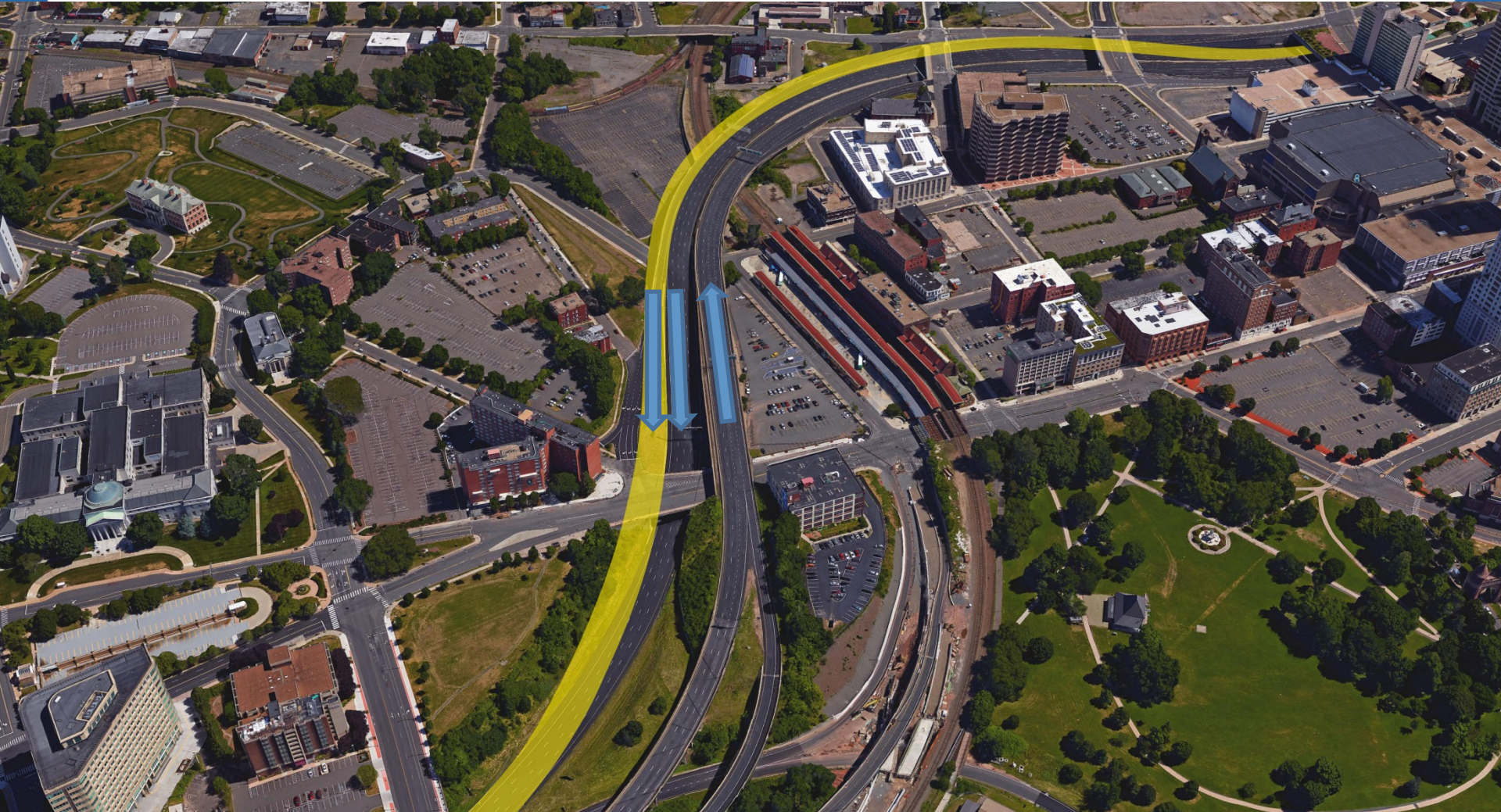


Alternatives 2A and 3A



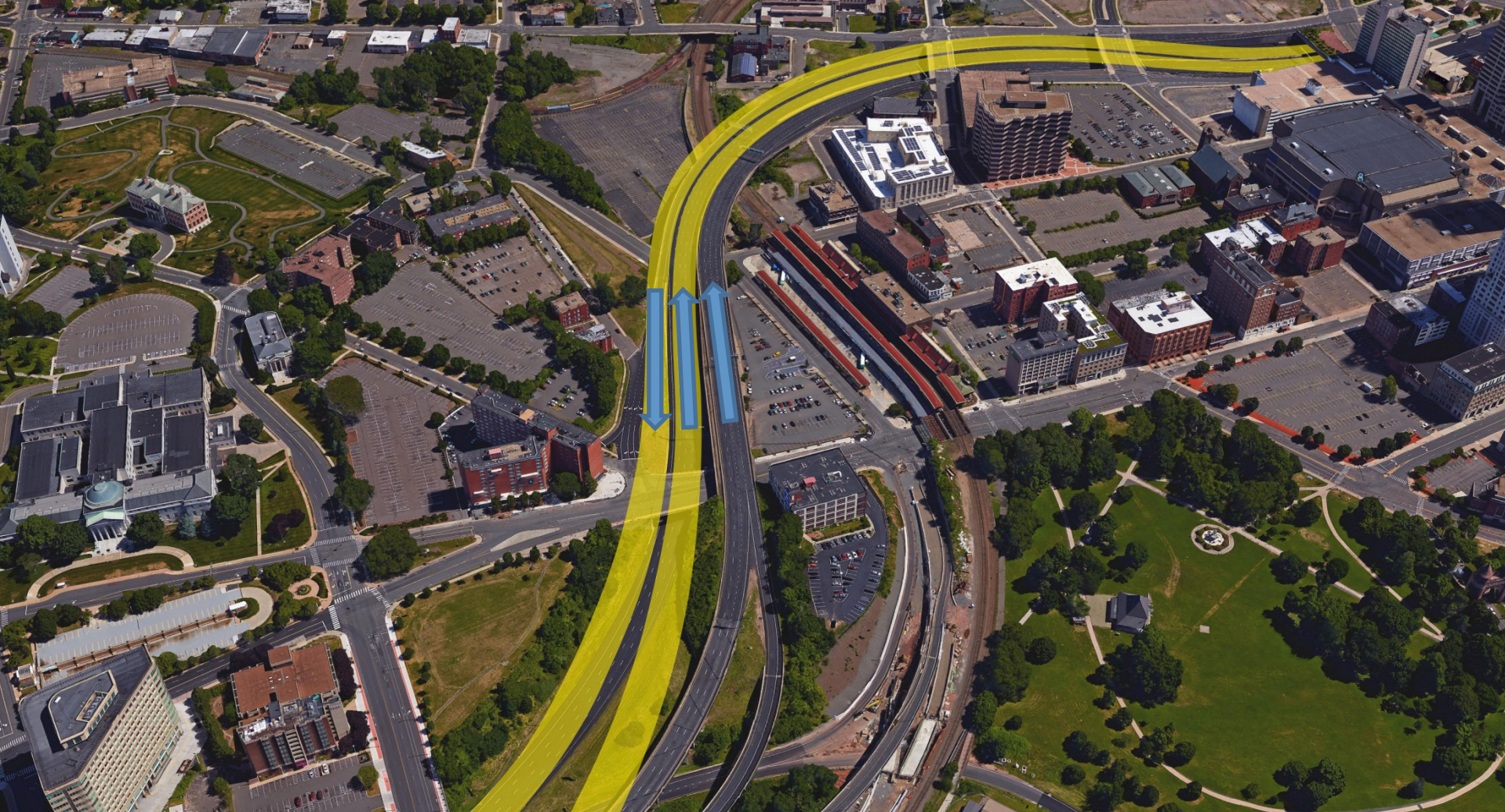


Alternatives 2A and 3A





Alternatives 2A and 3A





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Alternative 3B

- Revised Alignment to fix deficient horizontal curve
- Stage Construction Advantages
- Creates better opportunities for interchange development



Alternative 3B





Alternative 3B





Alternative 3B





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Alternative 3C

- Effort to minimize/eliminate property impacts
- No consideration for stage construction



Alternative 3C





Alternative 3C





Alternative 4A

- Stage Construction to the north
- Easiest to build = shortest construction duration
- No relocation of the Park River Conduit
- Significant Property Impacts

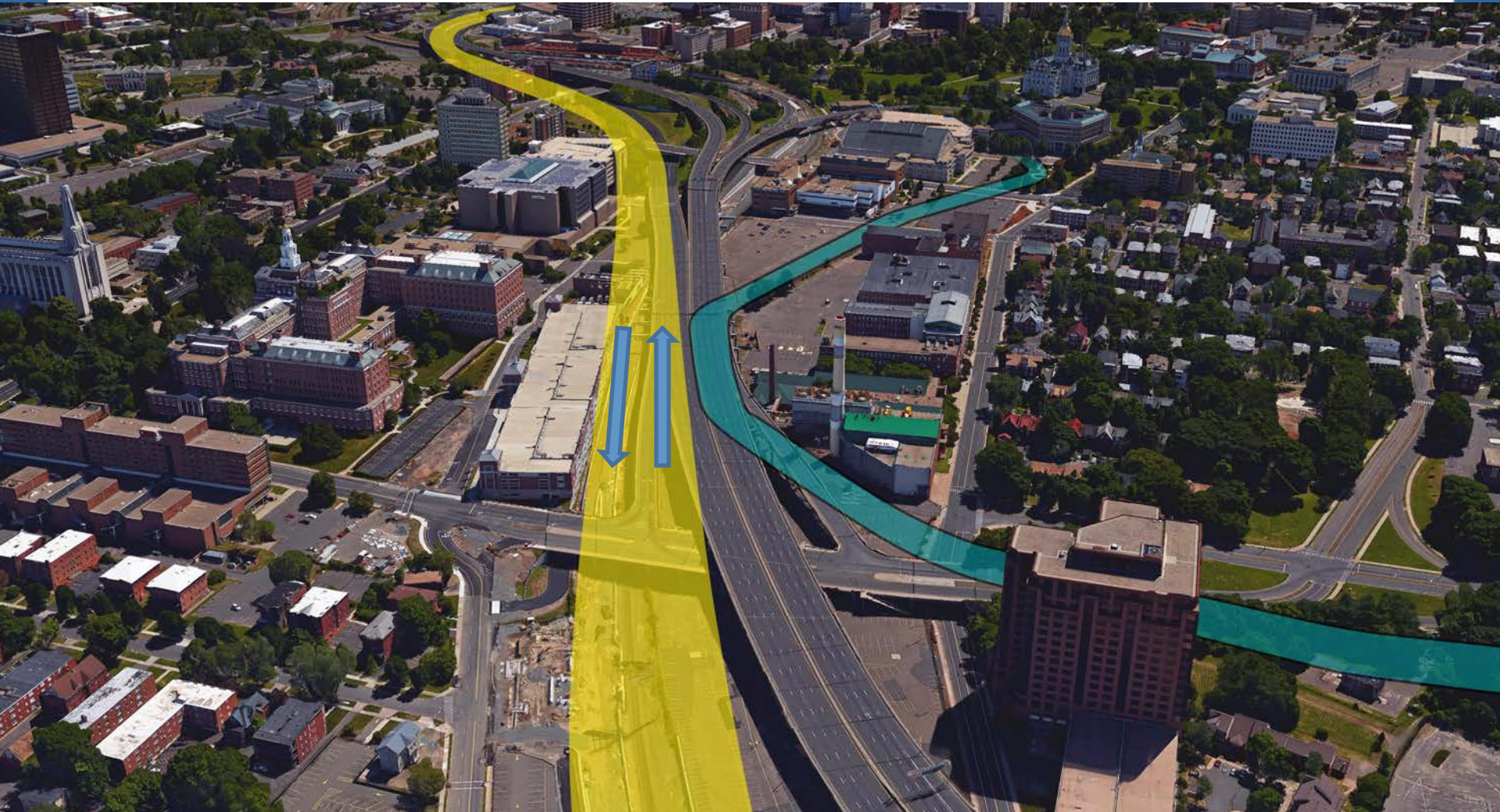


Alternative 4A





Alternative 4A





Alternative 4B

- Stage Construction to the south
- More complicated to build = longer construction duration
- Relocation of the Park River Conduit
- Significant Property Impacts

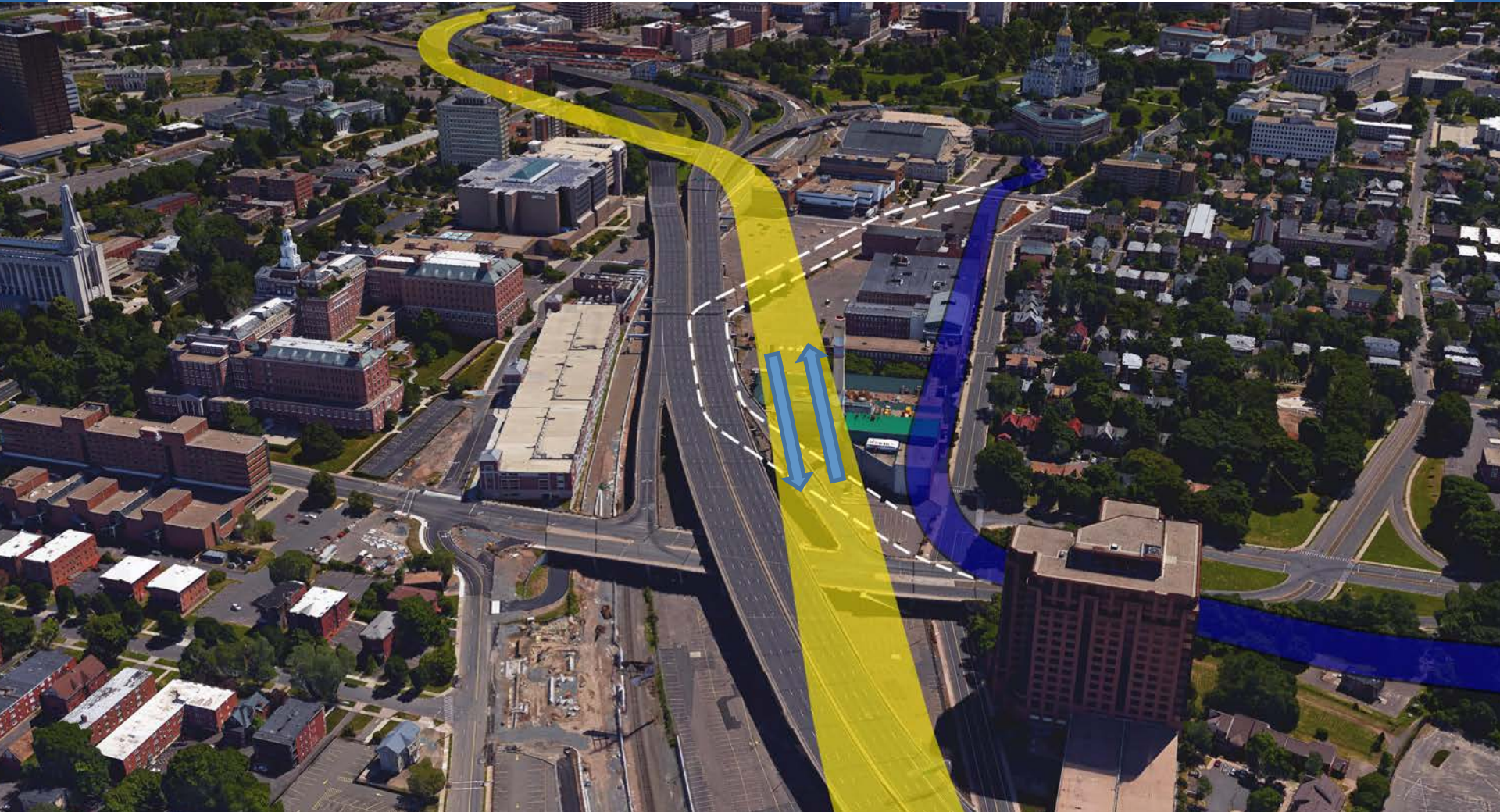


Alternative 4B





Alternative 4B





Alternative 4C

- On existing highway alignment
- Most difficult to build = longest construction duration
- Least amount of property impacts for tunnel alternatives

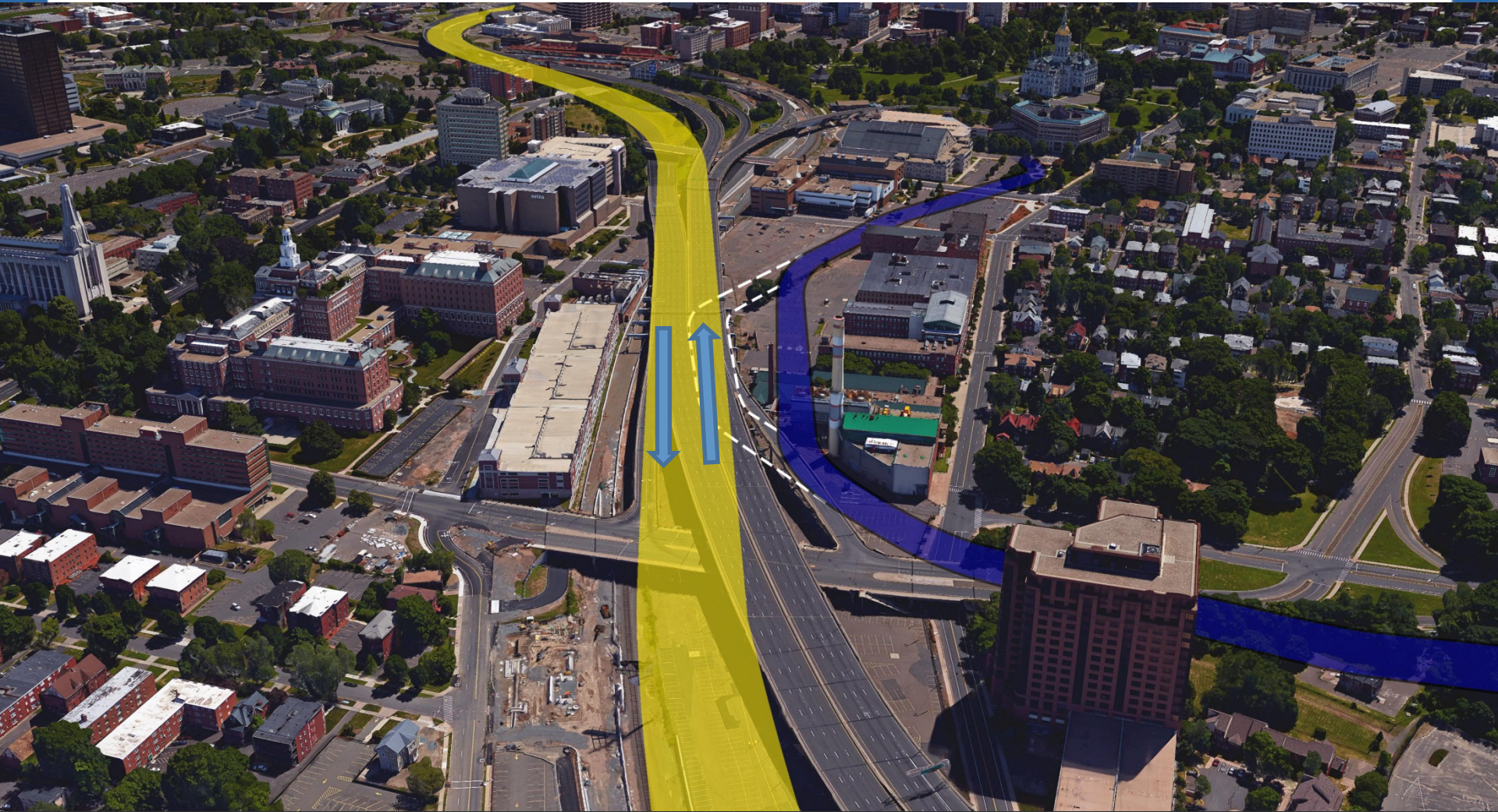


Alternative 4C





Alternative 4C





Naming Convention

3B - E4 (S)



Naming Convention

3B - E4 (S)

Alternative
(Mainline Alignment)



Naming Convention

3B - E4 (S)

Eastern
Interchange Option



Naming Convention

3B - E4 (S)

Sigourney Street
Ramps



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The options...and what we expect from you





This week...

We want to spent the next several days working with you to understand which alternatives and options are most desirable in terms of balancing benefits and impacts

	Mon, April 27 th	Tues, April 28 th	Wed, April 29 th	Thurs, April 30 th	Fri, May 1 st	Sat, May 2 nd
9am - Noon		Traffic & Parking Discussion 9am 	Urban Design Discussion 9am 	Leadership Greater Hartford Discussion 7:30am 	Air Quality, Noise, & Vibration Discussion 9am 	
Noon - 4:30 pm	Project Advisory Committee Meeting 12pm 	Downtown Business Improvement District Discussion 1:30pm 	Bicycle, Pedestrian, & Transit Discussion 1pm 	Historic & Cultural Resources Discussion 1pm 	Interactive Student Session 3pm 	Public Presentation on Workshop Findings 11am 
6pm - 8:30 pm	Behind the Rocks & Frog Hollow Neighborhood Focused Discussion 6pm 	Public Workshop 6pm 	Downtown & Clay Arsenal Neighborhood Focused Discussion 6pm 	Parkville, West End, & Asylum Hill Neighborhood Focused Discussion 6pm Bike Tour 6:30pm 		



Many Alignment Options

Options developed so far...

- Elevated Highway: 3 options
- Lowered Highway (east): 9 options
- Lowered Highway (west): 6 options
- Tunnel: 3 options



Quick Score

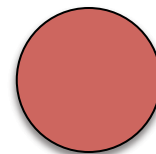
Basic Criteria

Highway Benefit – Impact to highway operations and safety

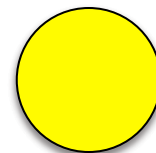
Local Street Benefit – Impact local street operations, multimodal integration, and connectivity

Property Impacts – Impact to existing property

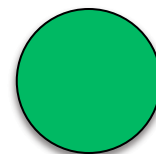
Relative Performance



Low



Moderate



High



Elevated Highway

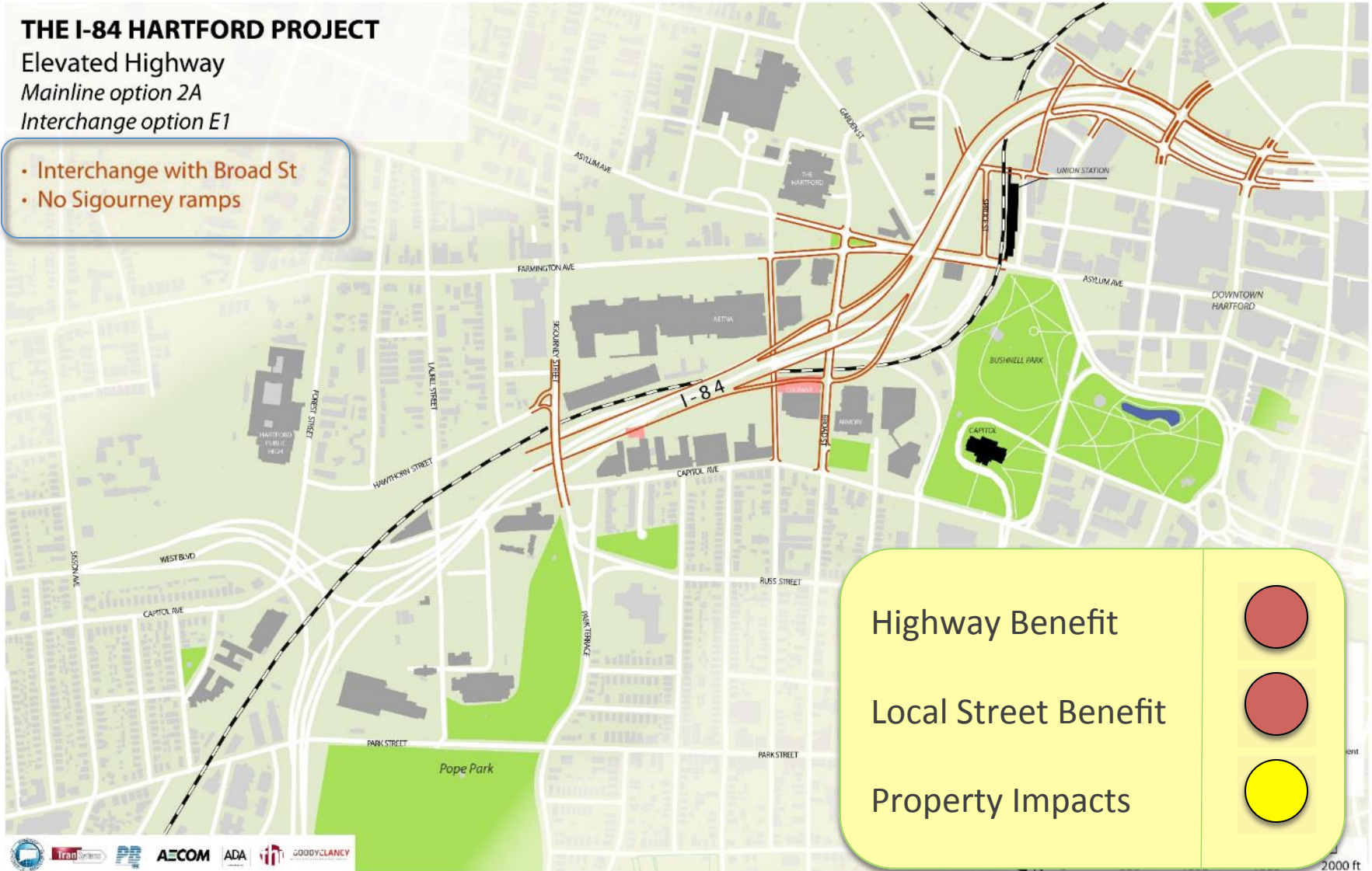
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Elevated Highway

Mainline option 2A

Interchange option E1

- Interchange with Broad St
- No Sigoourney ramps





Elevated Highway

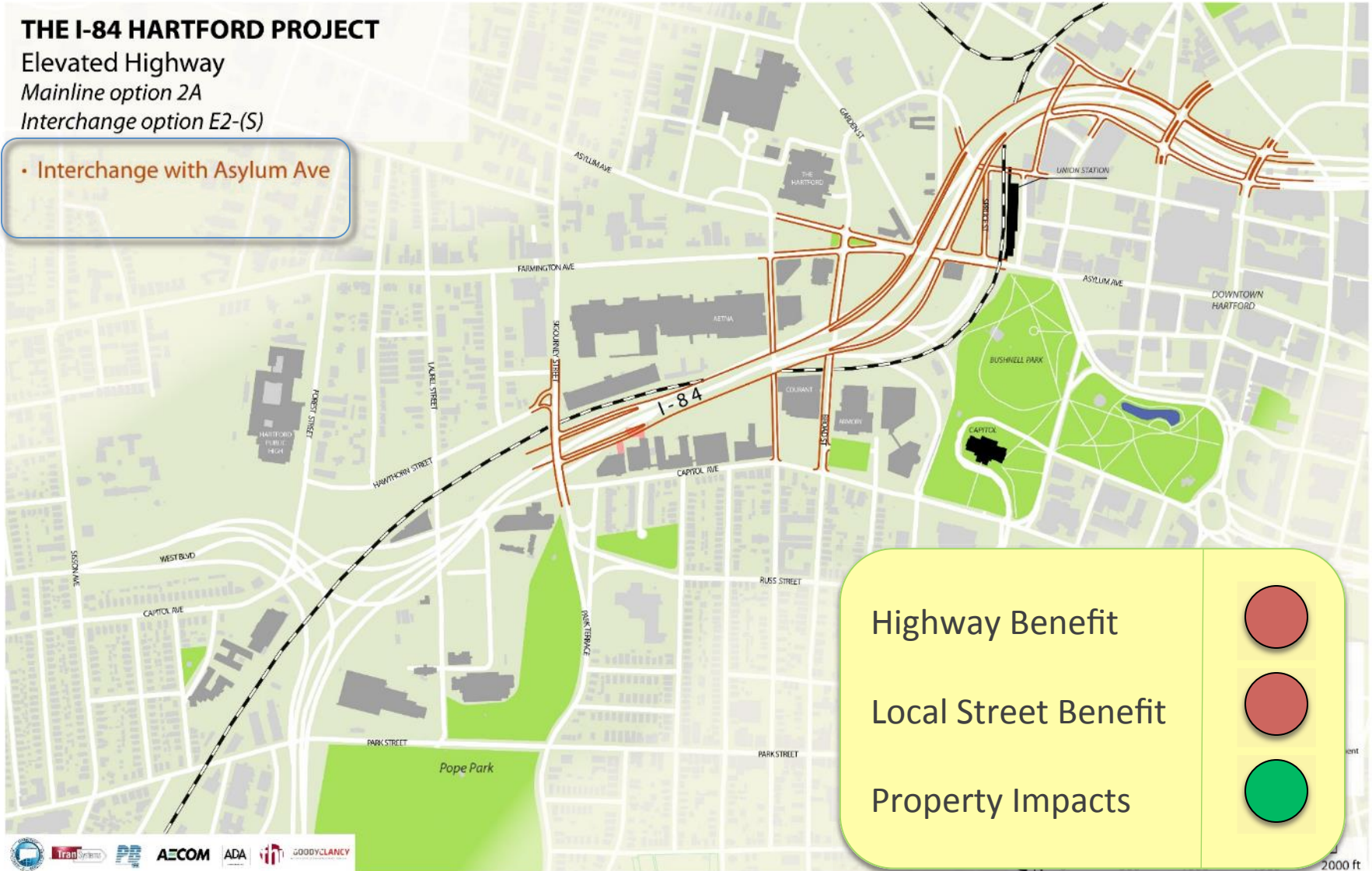
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Elevated Highway

Mainline option 2A

Interchange option E2-(S)

- Interchange with Asylum Ave





Elevated Highway

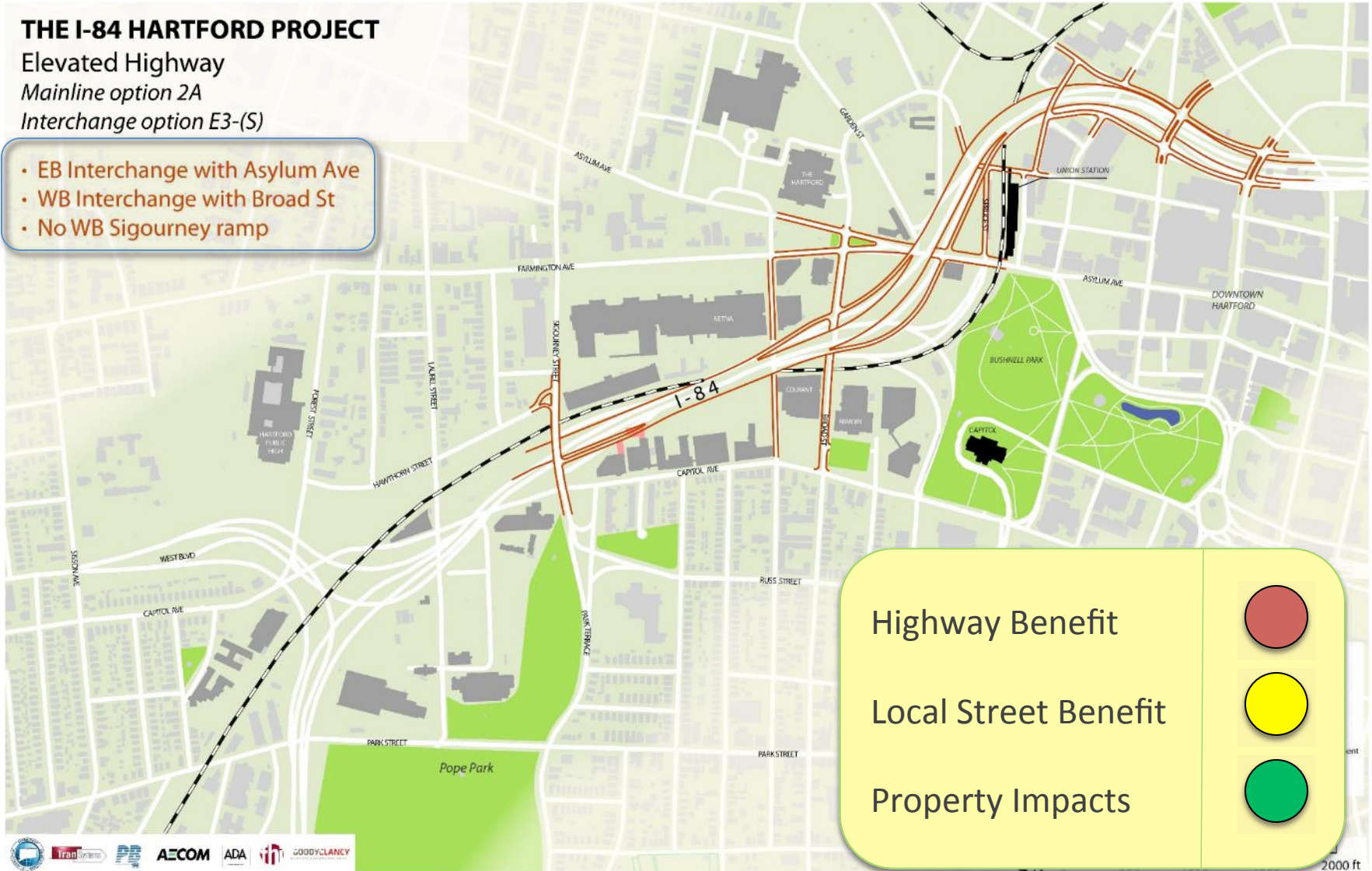
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Elevated Highway

Mainline option 2A

Interchange option E3-(S)

- EB Interchange with Asylum Ave
- WB Interchange with Broad St
- No WB Sigourney ramp



Highway Benefit



Local Street Benefit



Property Impacts





Lowered Highway

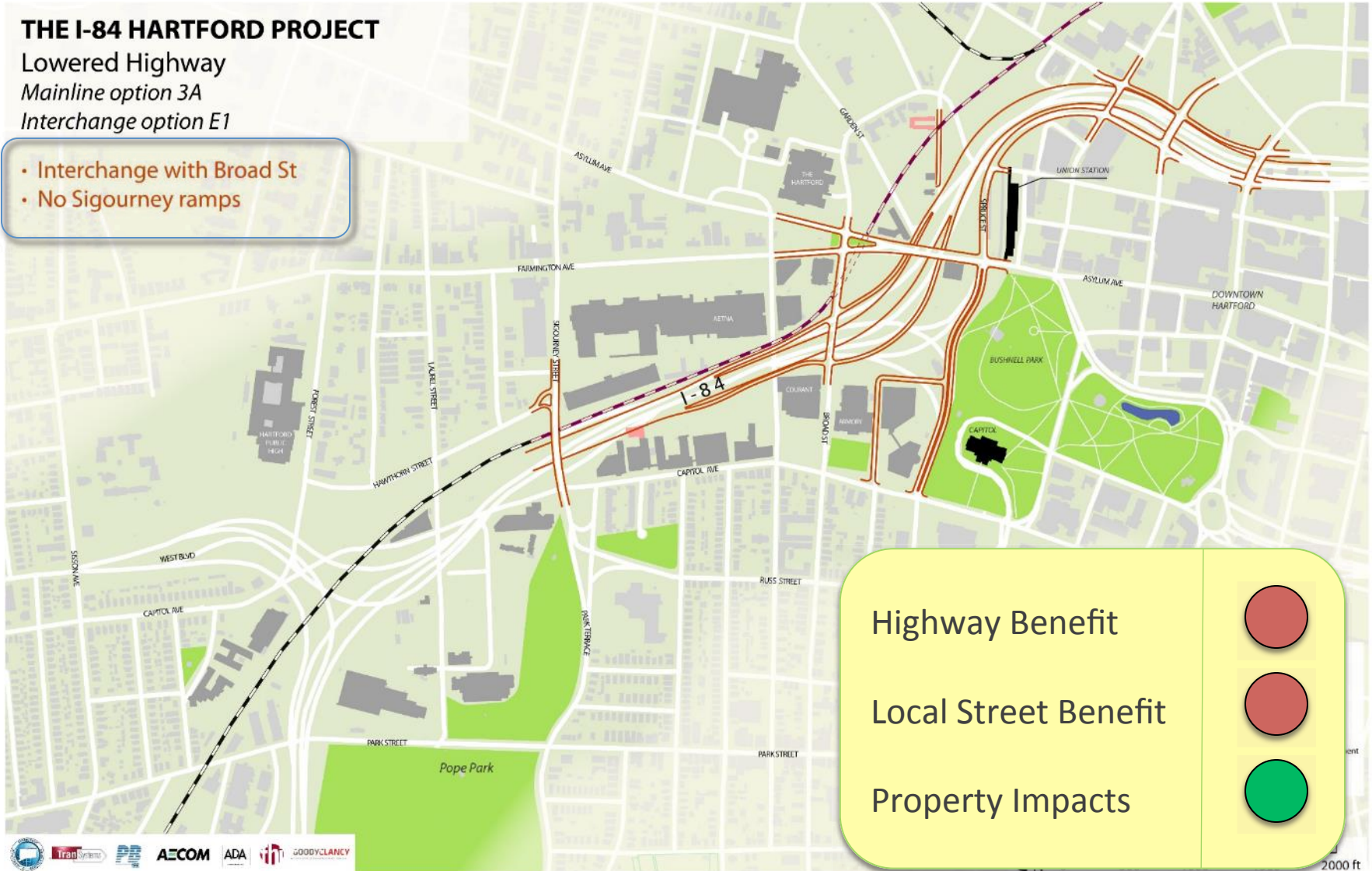
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Lowered Highway

Mainline option 3A

Interchange option E1

- Interchange with Broad St
- No Sigoynrey ramps





Lowered Highway

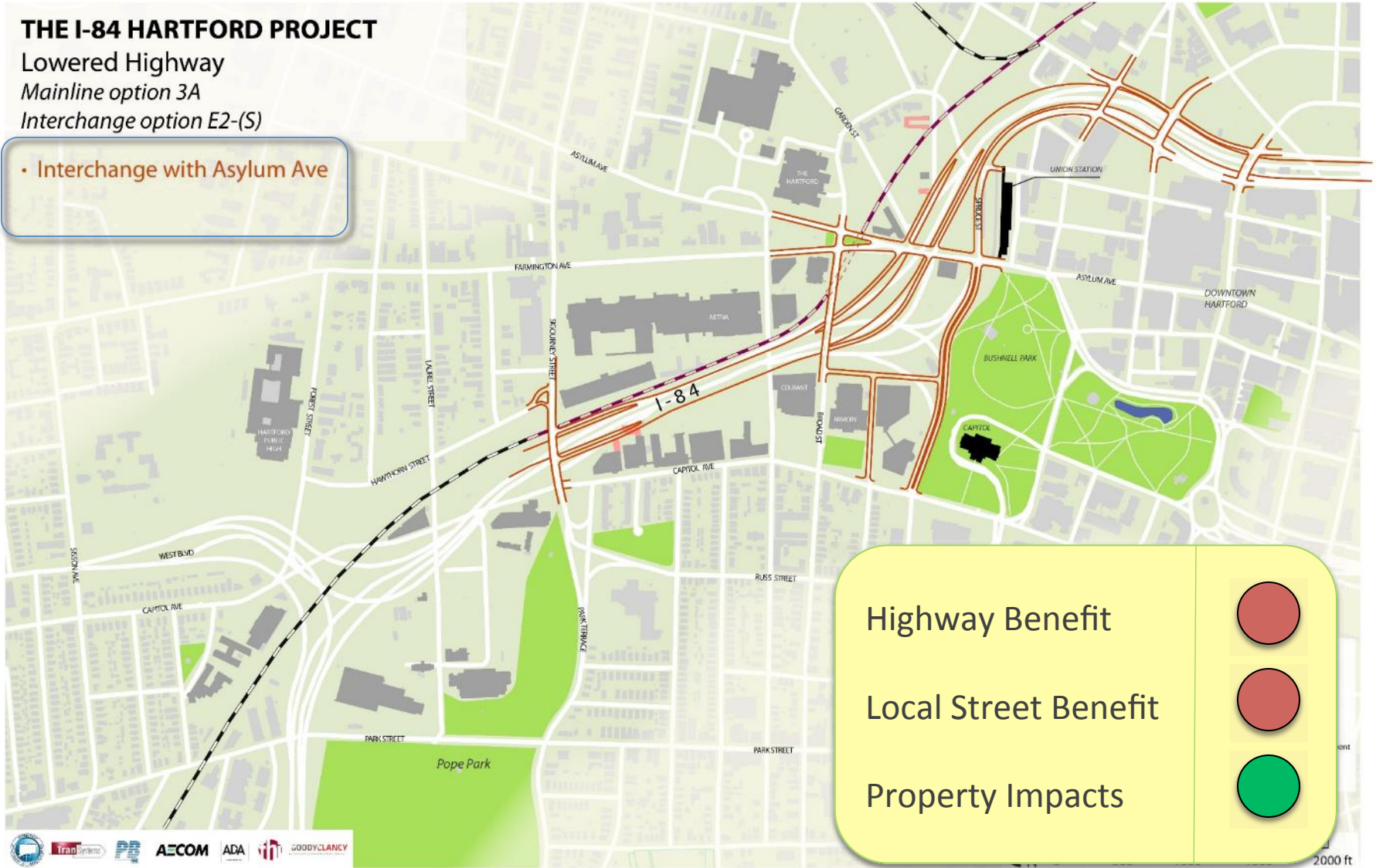
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Lowered Highway

Mainline option 3A

Interchange option E2-(S)

- Interchange with Asylum Ave





Lowered Highway

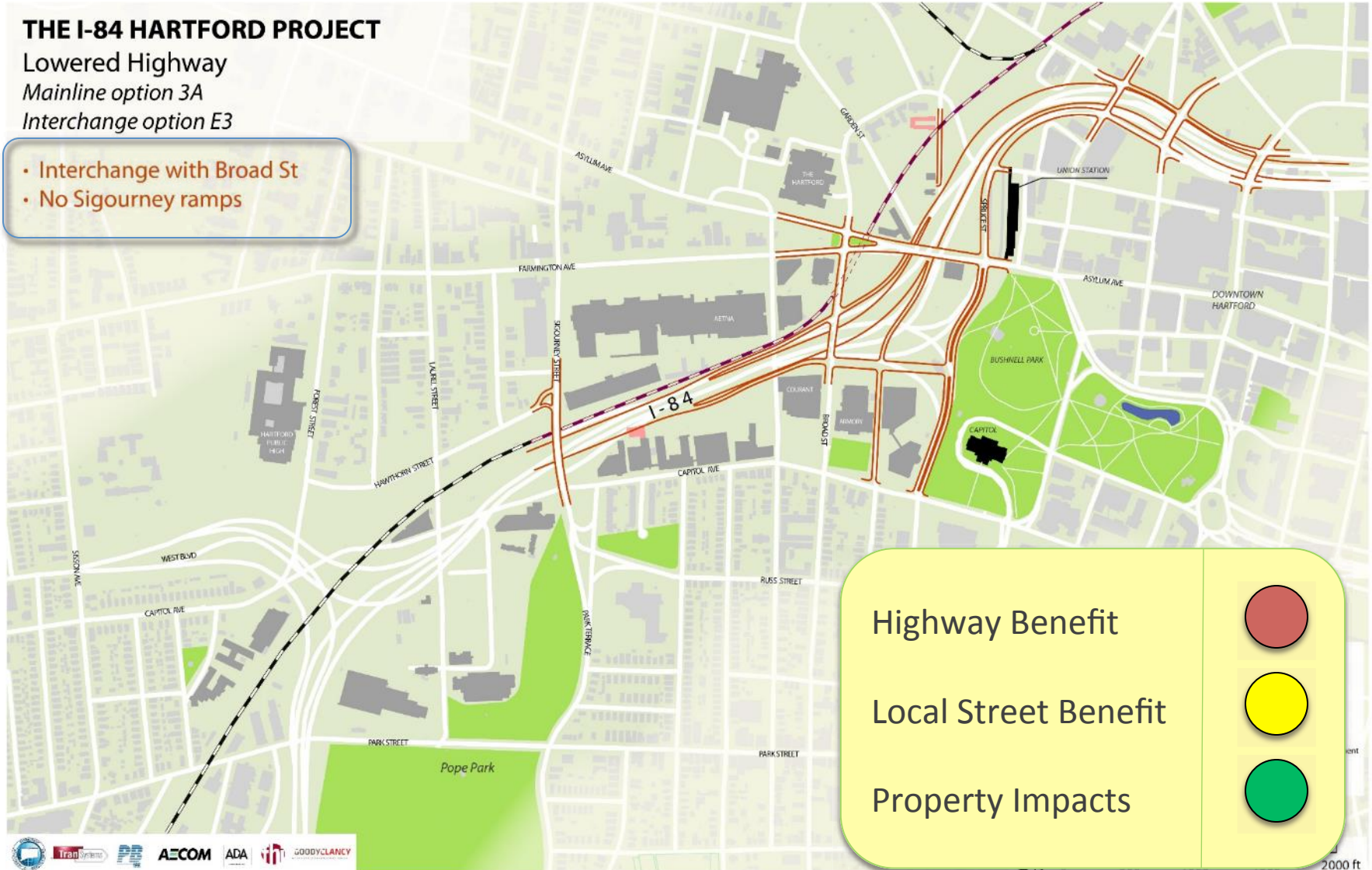
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Lowered Highway

Mainline option 3A

Interchange option E3

- Interchange with Broad St
- No Sigoourney ramps



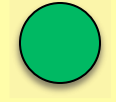
Highway Benefit



Local Street Benefit



Property Impacts



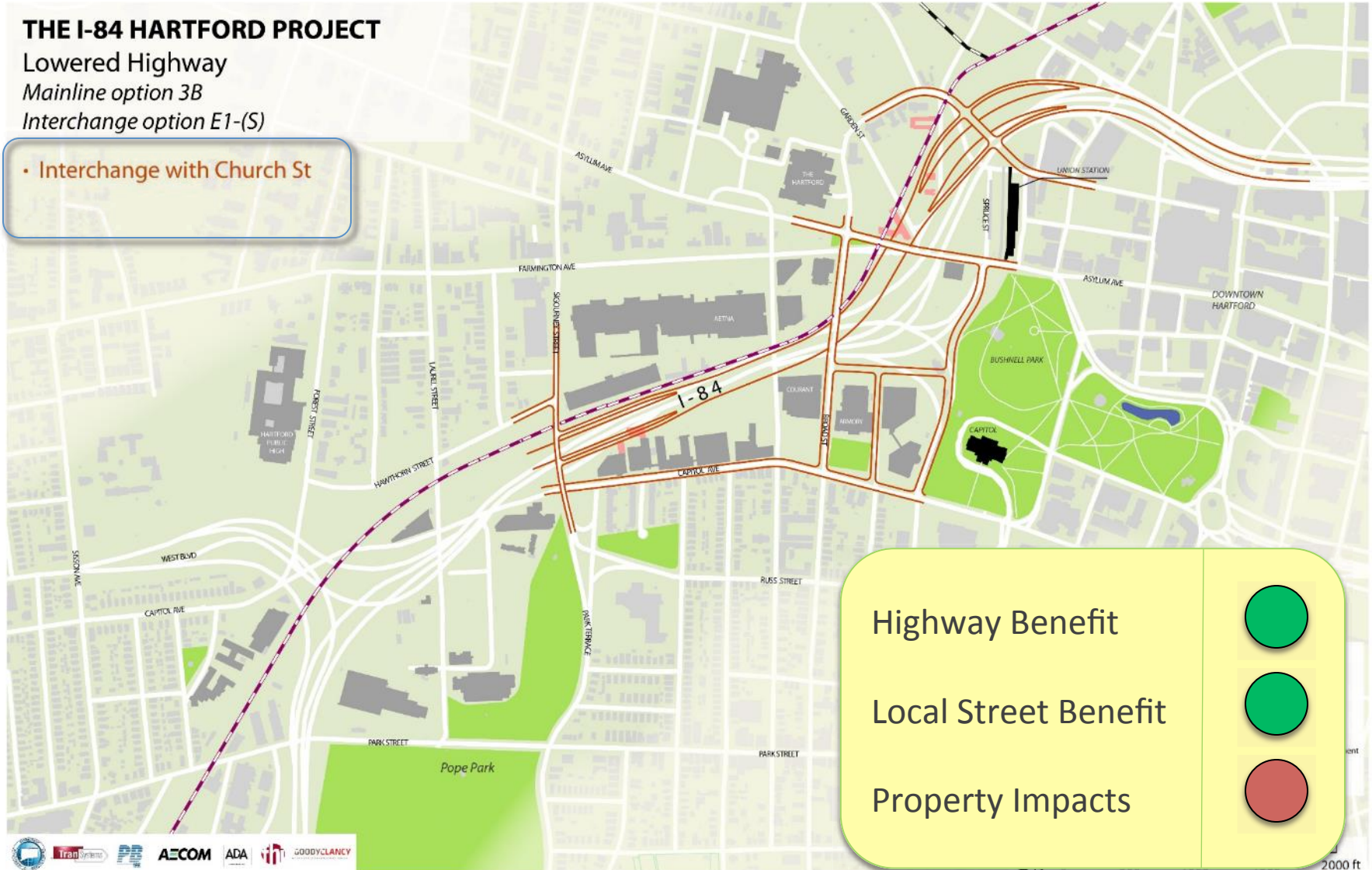


Lowered Highway

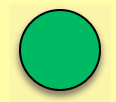
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Lowered Highway
Mainline option 3B
Interchange option E1-(S)

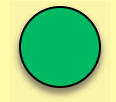
- Interchange with Church St



Highway Benefit



Local Street Benefit



Property Impacts



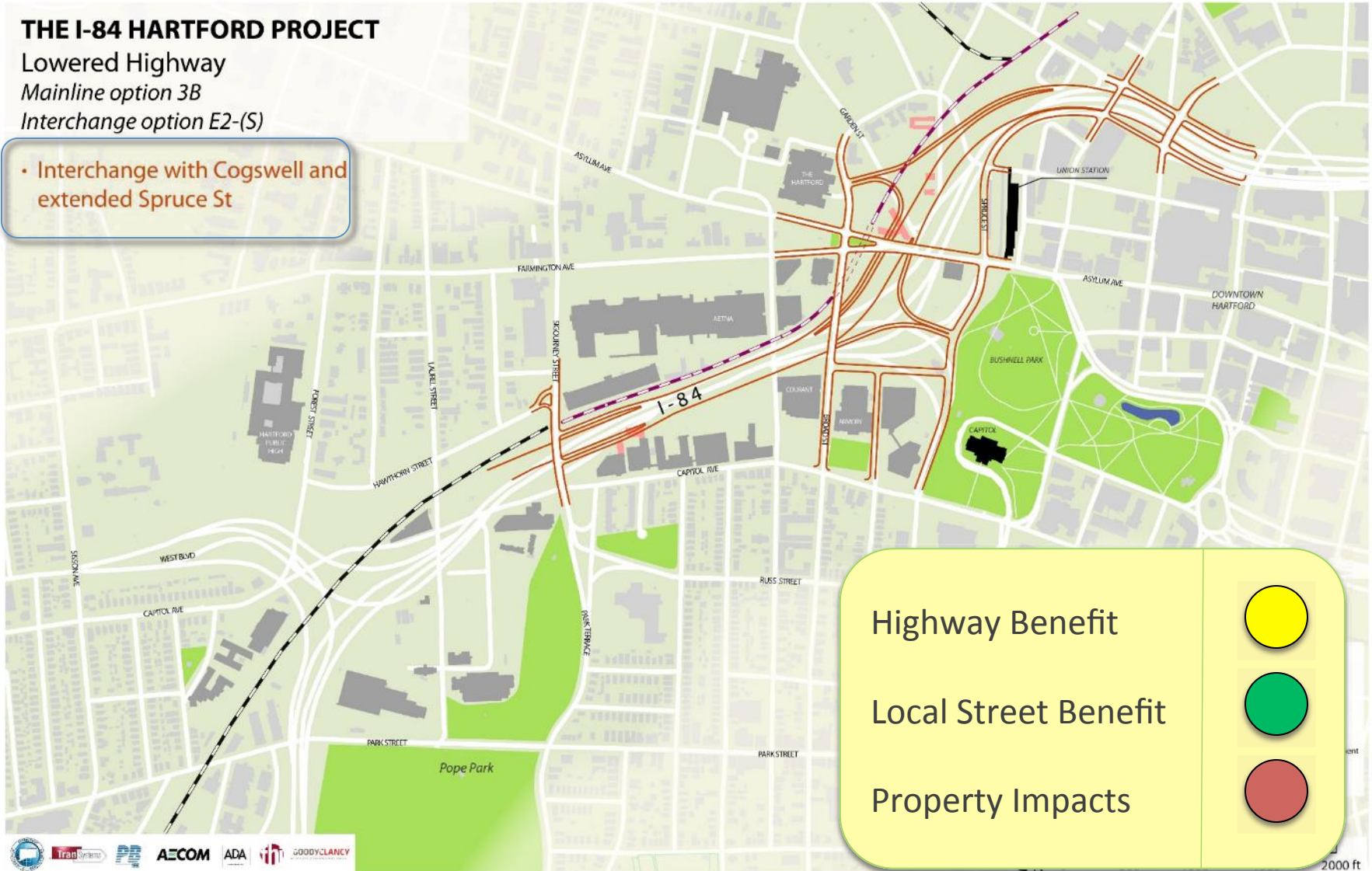


Lowered Highway

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Lowered Highway
Mainline option 3B
Interchange option E2-(S)

- Interchange with Cogswell and extended Spruce St



Highway Benefit



Local Street Benefit



Property Impacts





Lowered Highway

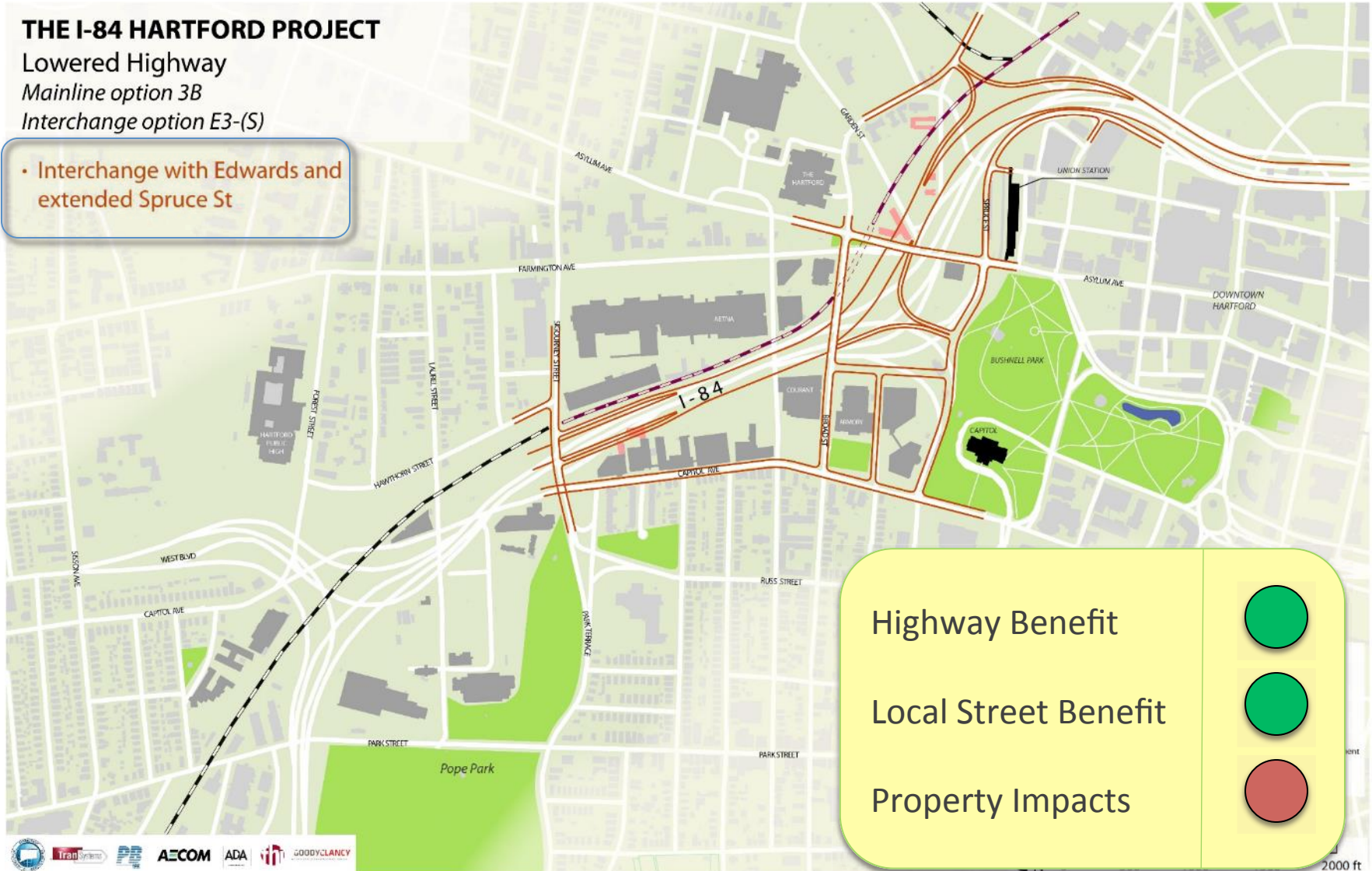
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Lowered Highway

Mainline option 3B

Interchange option E3-(S)

- Interchange with Edwards and extended Spruce St



Highway Benefit



Local Street Benefit



Property Impacts



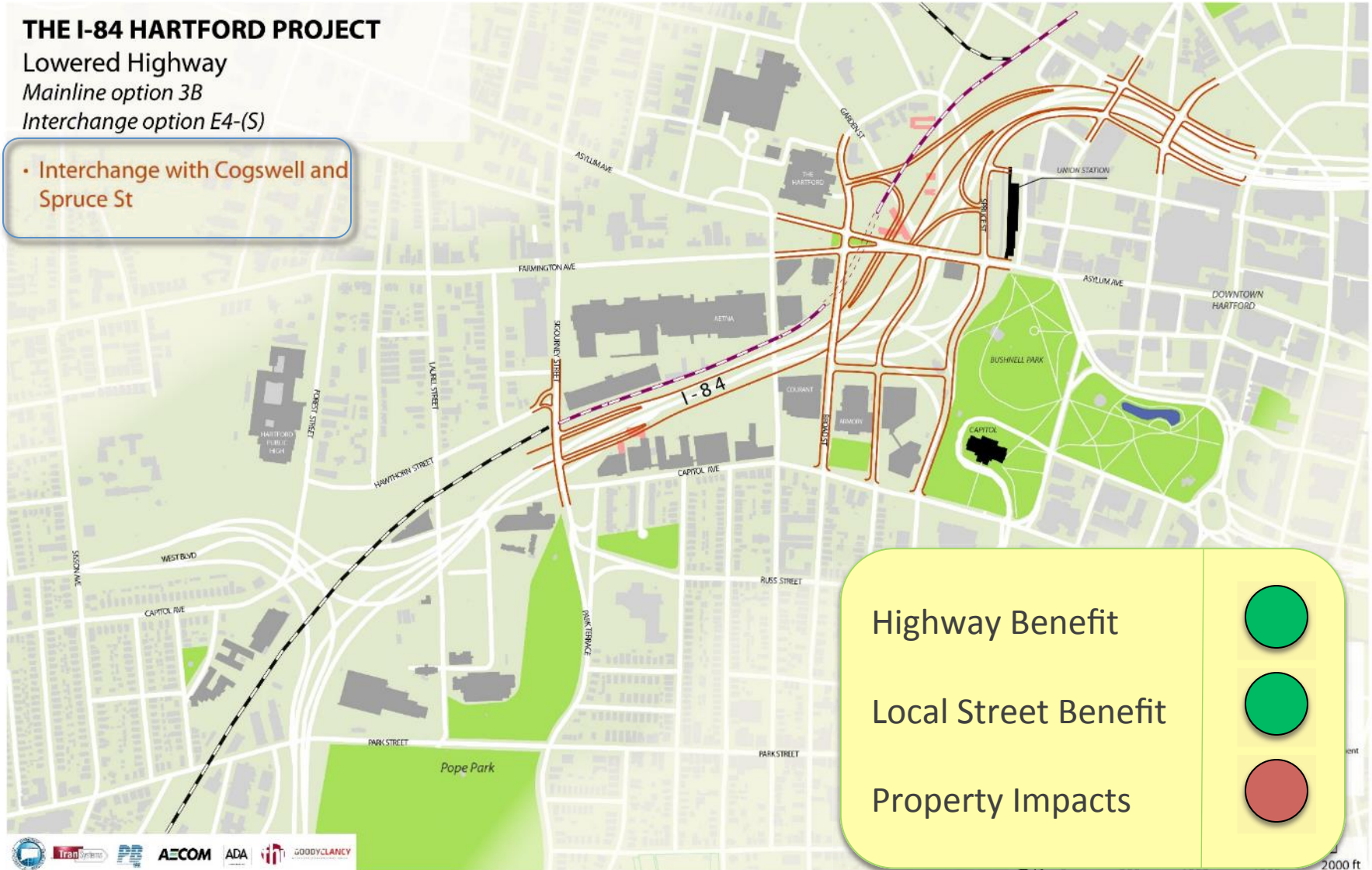


Lowered Highway

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Lowered Highway
Mainline option 3B
Interchange option E4-(S)

- Interchange with Cogswell and Spruce St



Highway Benefit	
Local Street Benefit	
Property Impacts	



Lowered Highway

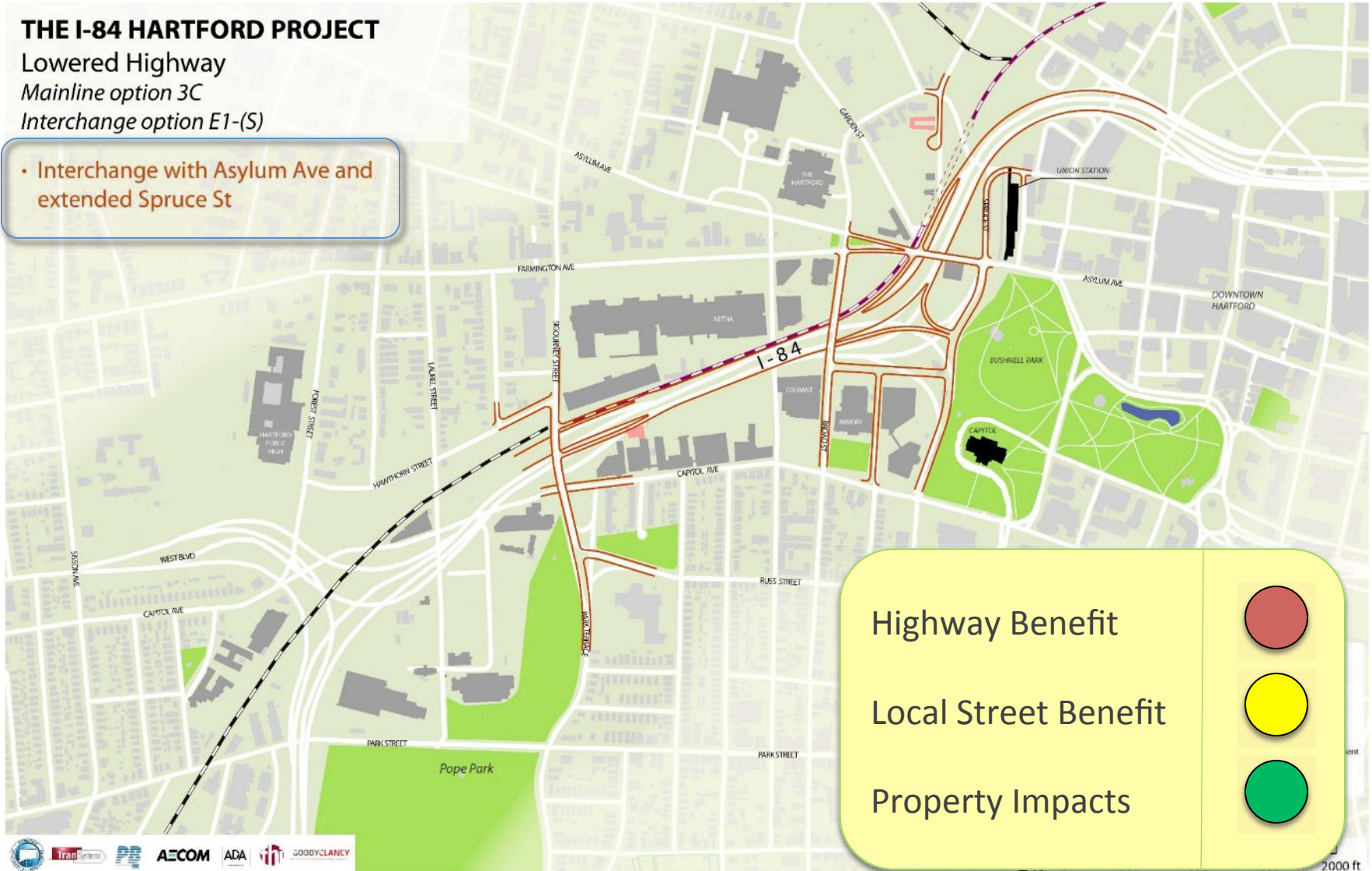
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Lowered Highway

Mainline option 3C

Interchange option E1-(S)

- Interchange with Asylum Ave and extended Spruce St





Lowered Highway

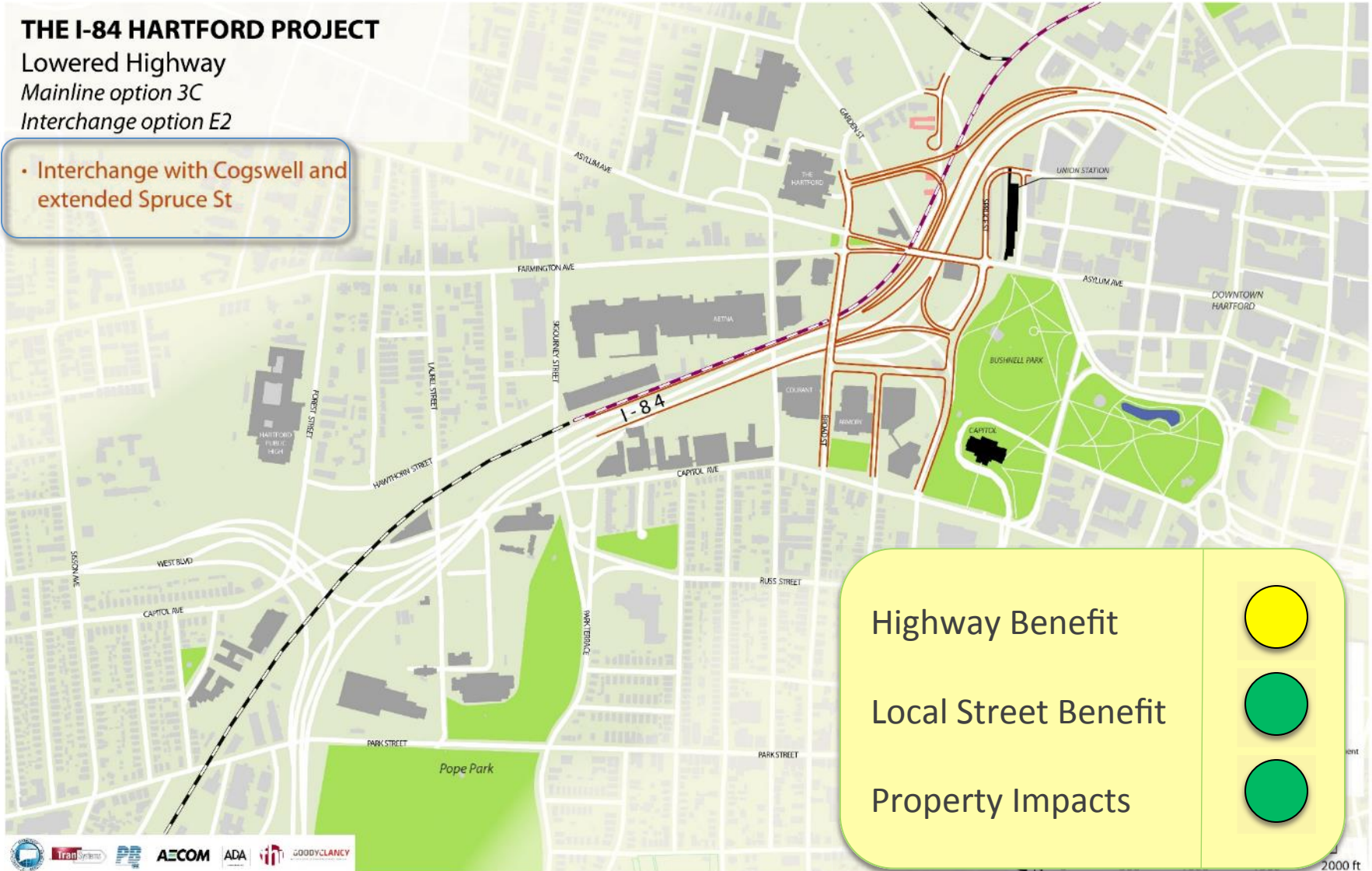
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Lowered Highway

Mainline option 3C

Interchange option E2

- Interchange with Cogswell and extended Spruce St



Highway Benefit



Local Street Benefit



Property Impacts



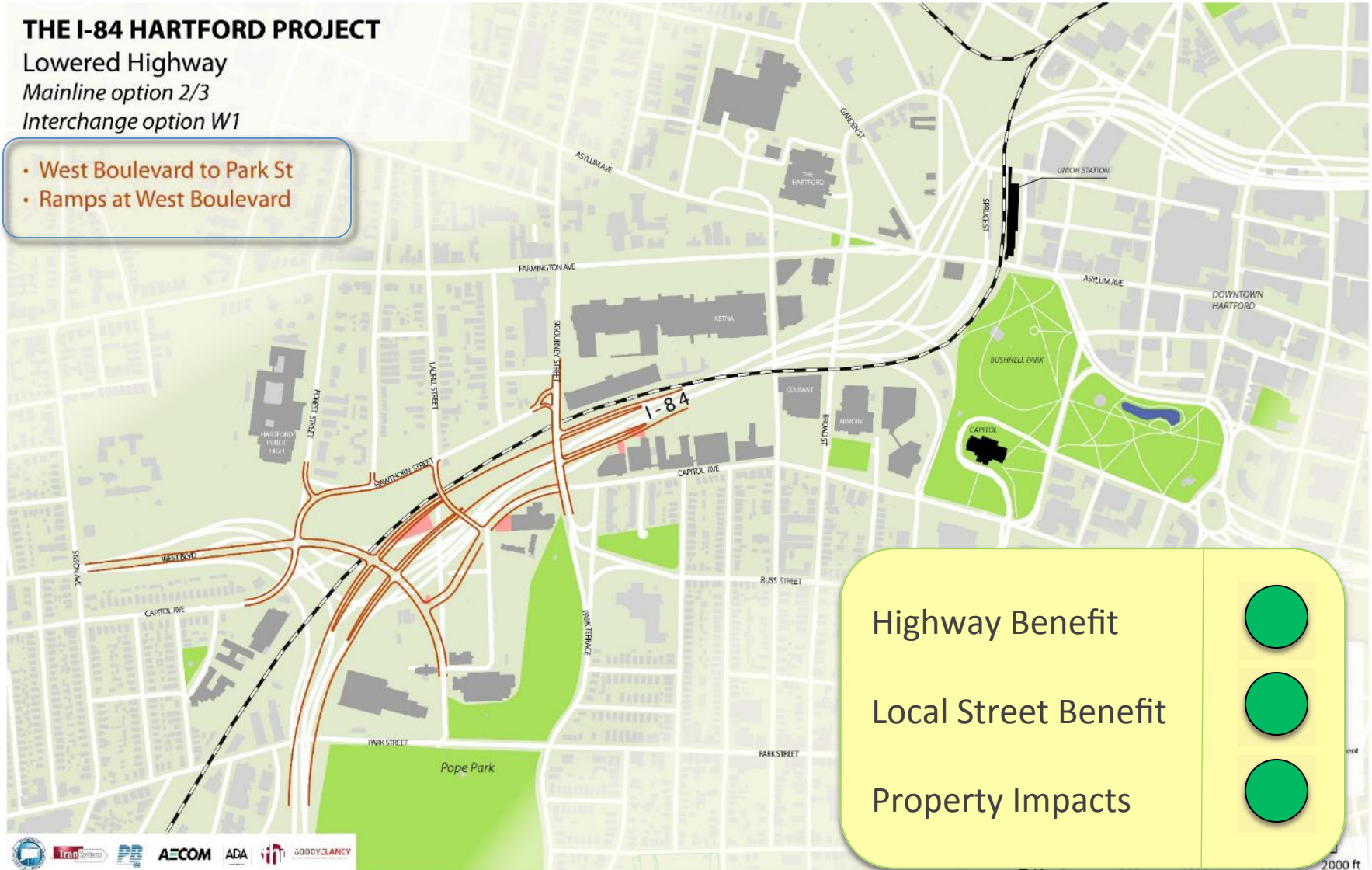


West Side Configurations

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Lowered Highway
Mainline option 2/3
Interchange option W1

- West Boulevard to Park St
- Ramps at West Boulevard



Highway Benefit

Local Street Benefit

Property Impacts

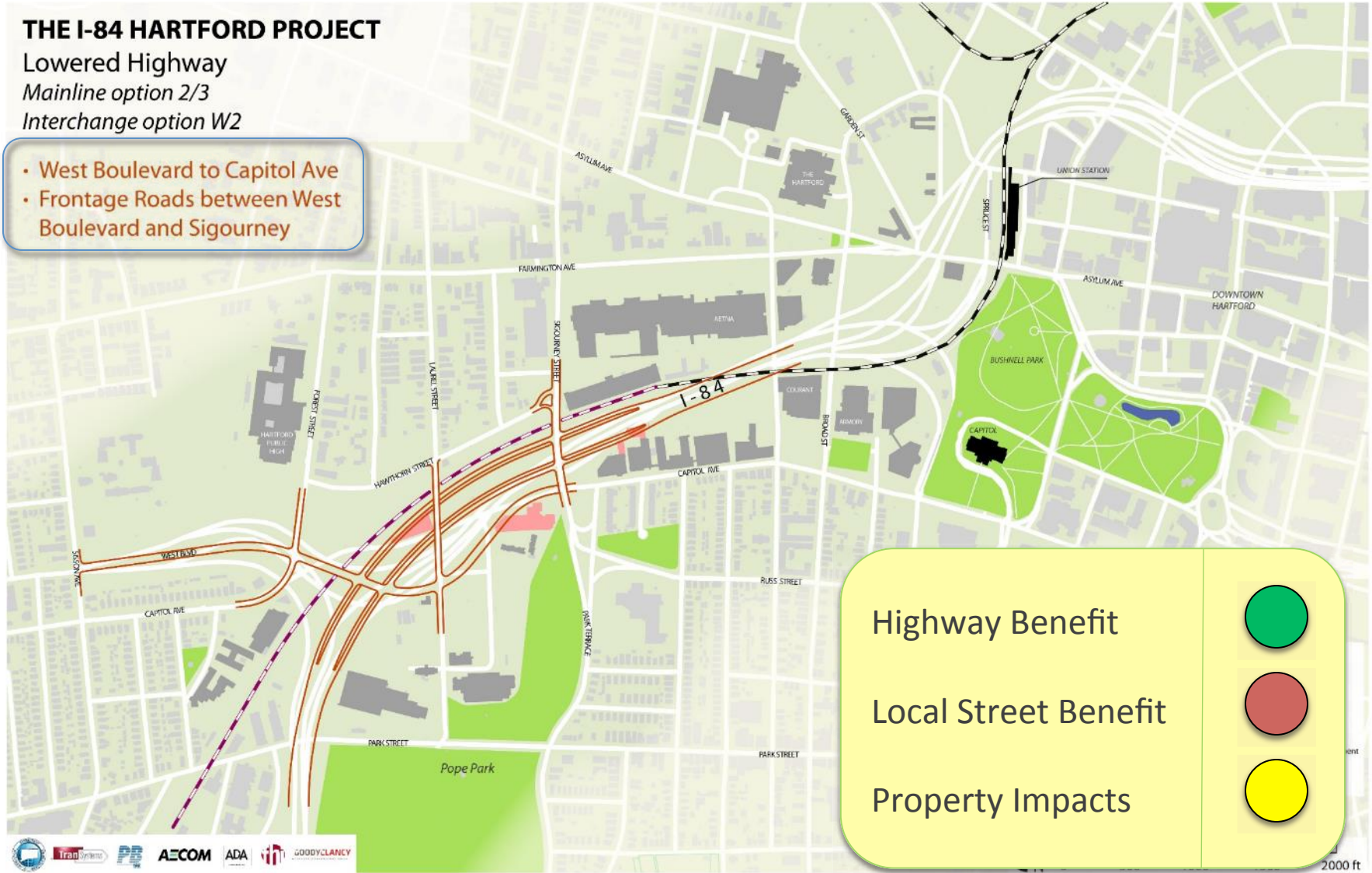


West Side Configurations

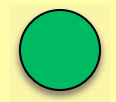
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Lowered Highway
Mainline option 2/3
Interchange option W2

- West Boulevard to Capitol Ave
- Frontage Roads between West Boulevard and Sigourney



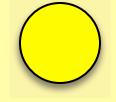
Highway Benefit



Local Street Benefit



Property Impacts



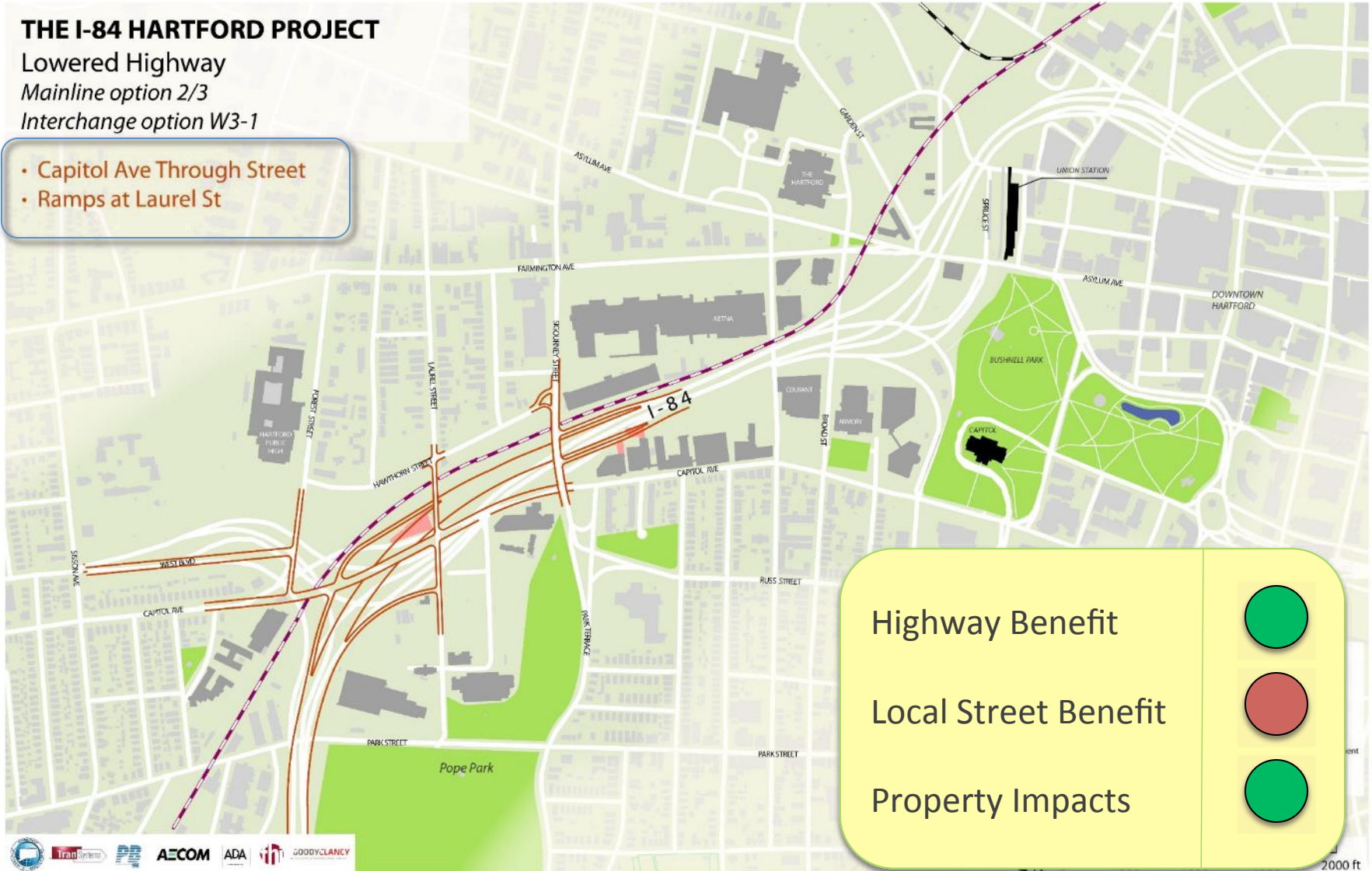


West Side Configurations

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Lowered Highway
Mainline option 2/3
Interchange option W3-1

- Capitol Ave Through Street
- Ramps at Laurel St



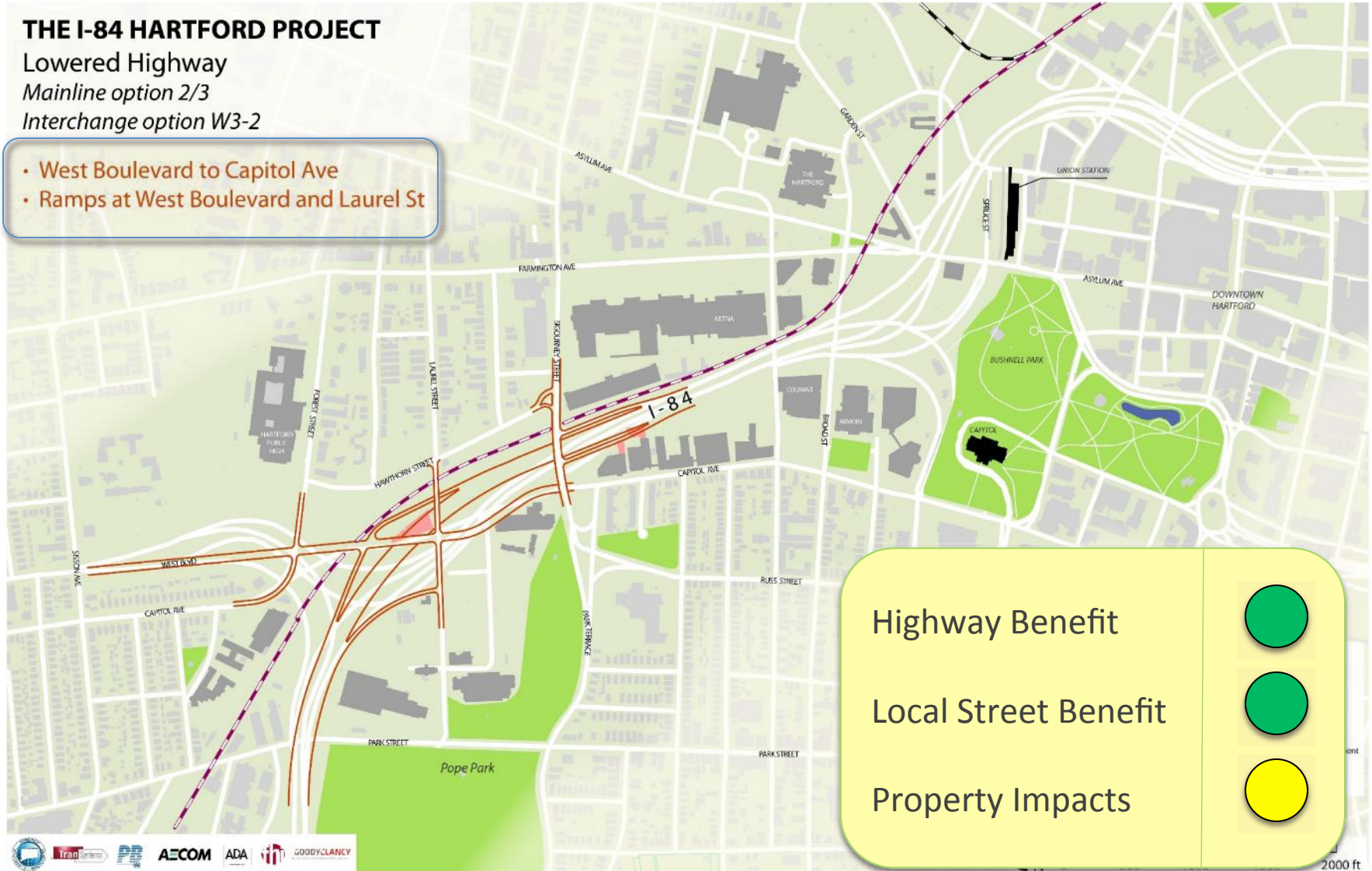


West Side Configurations

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Lowered Highway
Mainline option 2/3
Interchange option W3-2

- West Boulevard to Capitol Ave
- Ramps at West Boulevard and Laurel St



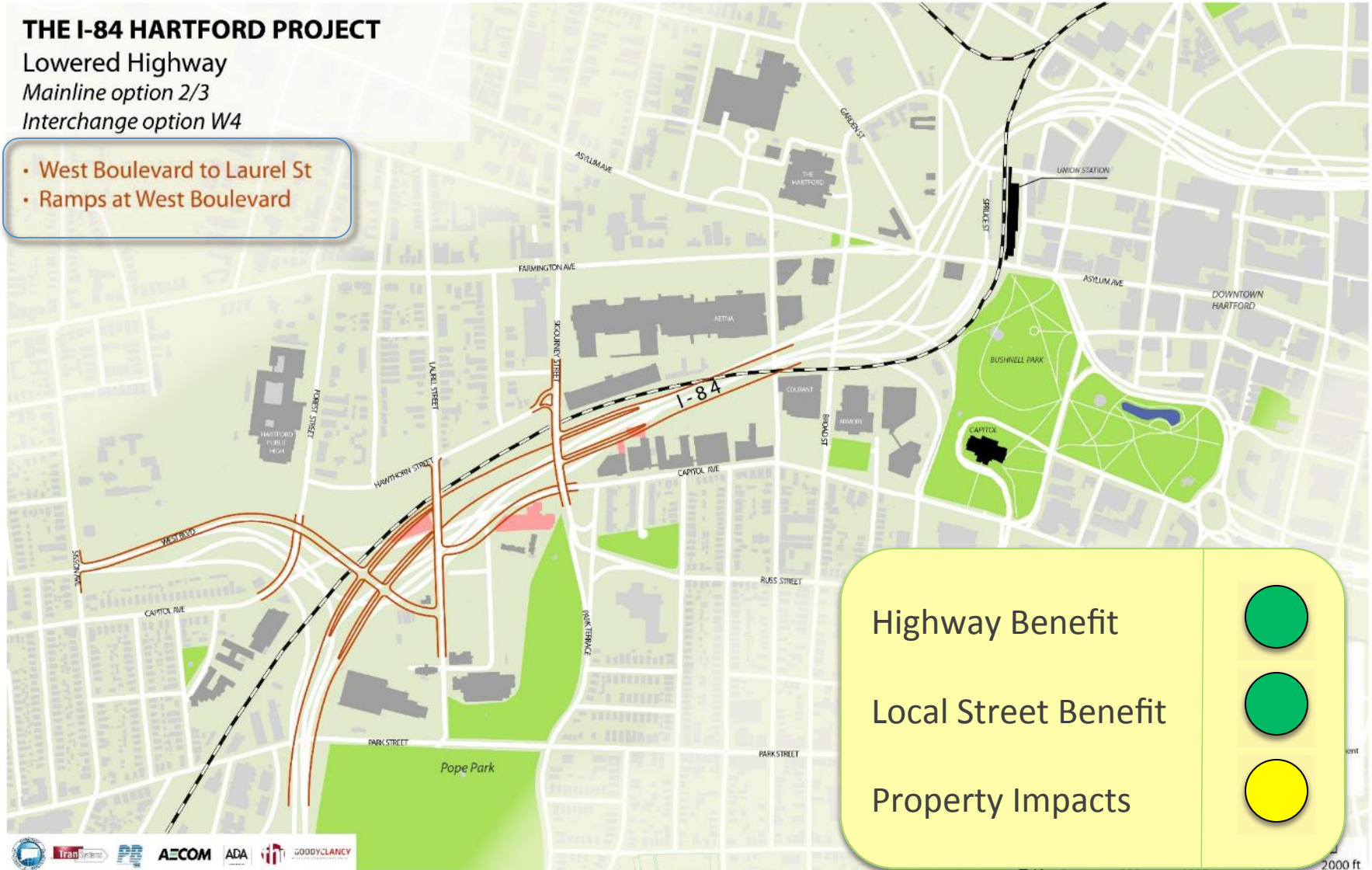


West Side Configurations

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Lowered Highway
Mainline option 2/3
Interchange option W4

- West Boulevard to Laurel St
- Ramps at West Boulevard



Highway Benefit

Local Street Benefit

Property Impacts

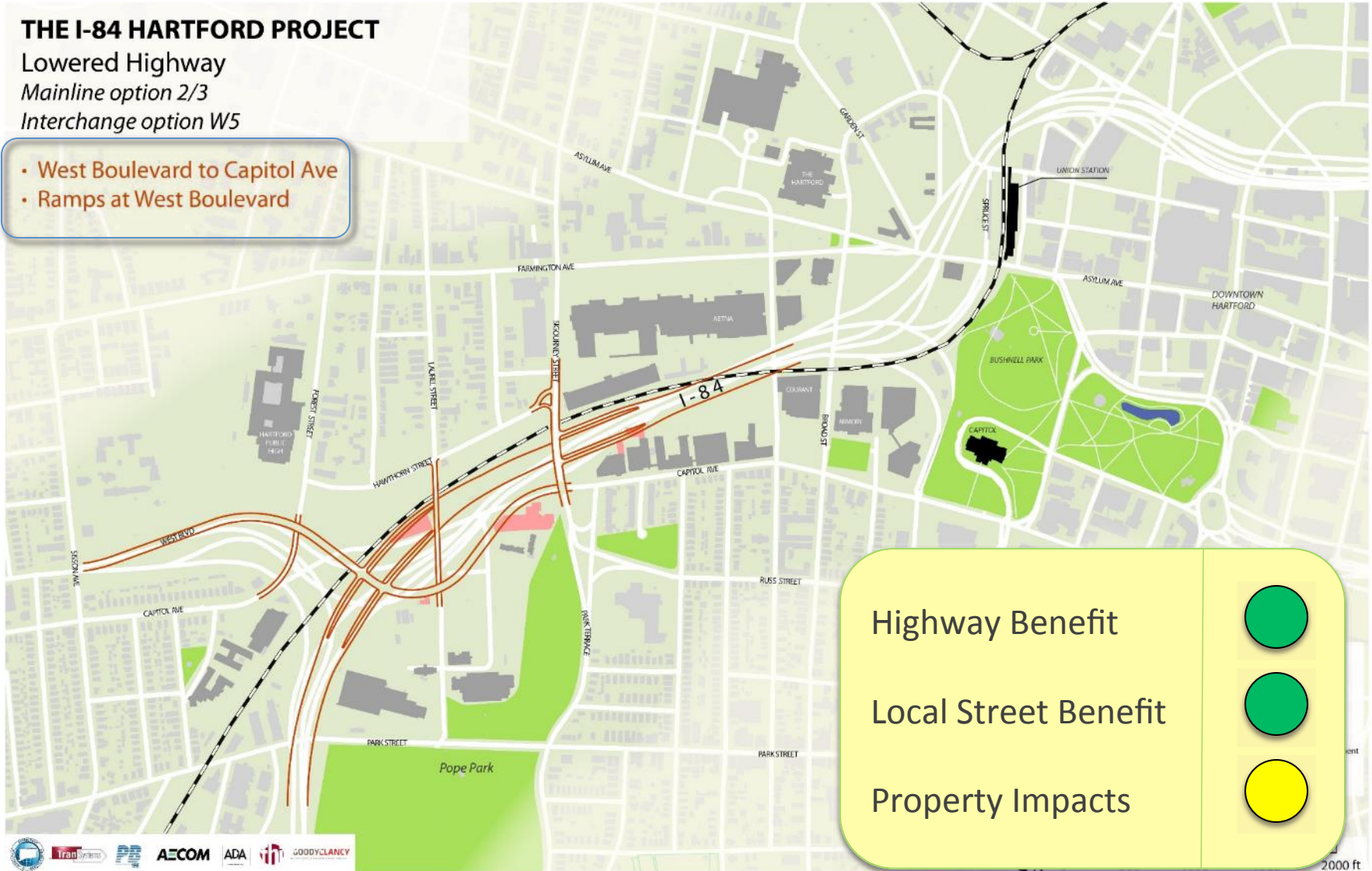


West Side Configurations

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Lowered Highway
Mainline option 2/3
Interchange option W5

- West Boulevard to Capitol Ave
- Ramps at West Boulevard





Tunnel

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Tunnel

Mainline option 4A

- Tunnel to the north of highway





Tunnel

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Tunnel

Mainline option 4B

- Tunnel to the south of highway





Tunnel

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Tunnel

Mainline option 4C

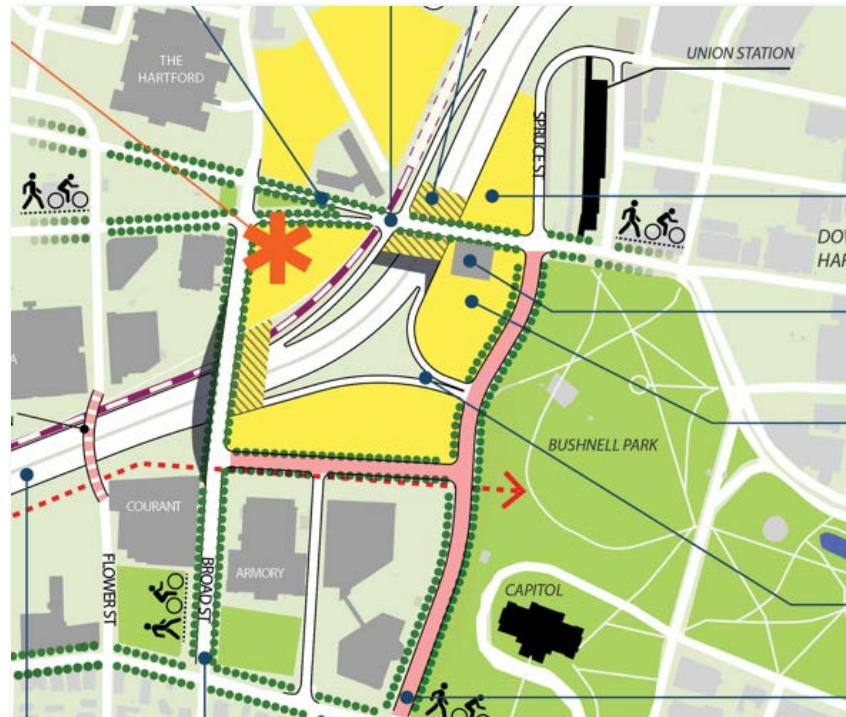
- Tunnel underneath highway





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Urban opportunities





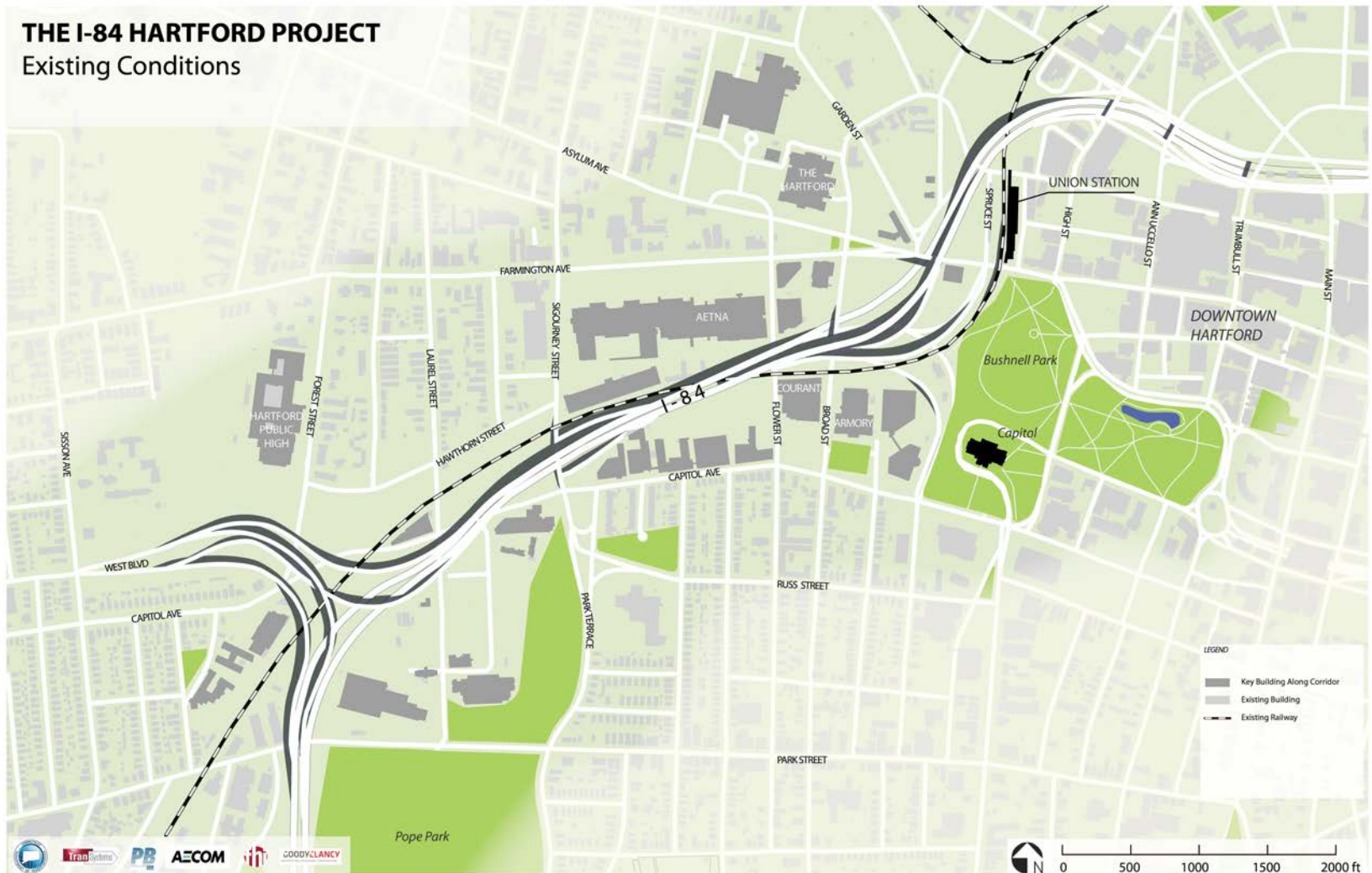
Urban Context

- We have selected a combination of different Mainline and Interchange Options to analyze as part of the Open Planning Studio
- These are not our “final” or “preferred” options but rather a variety of ways to look at the benefits and impacts to the City and to gather your input and feedback



Existing Conditions

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Existing Conditions

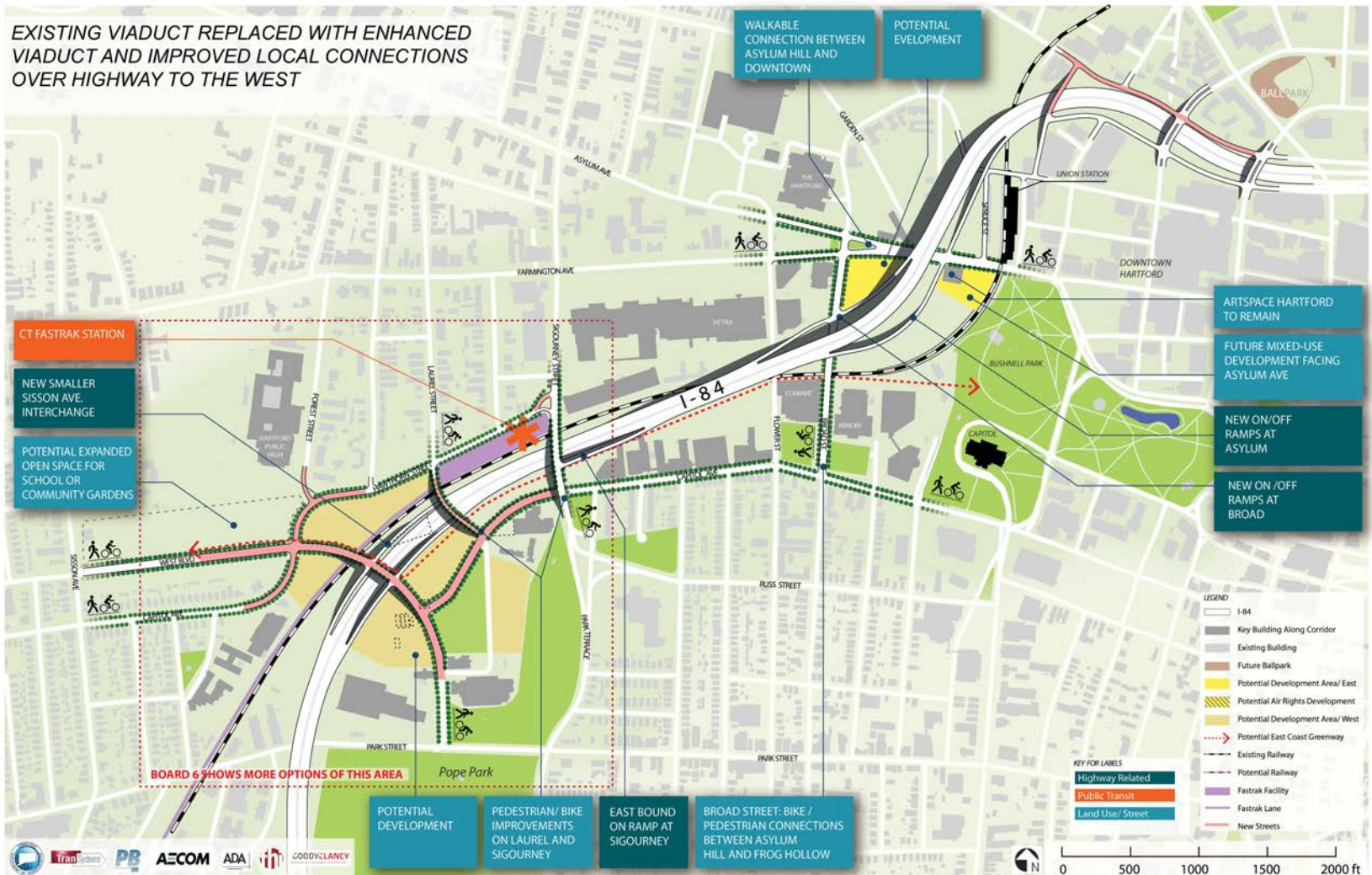




Elevated Highway

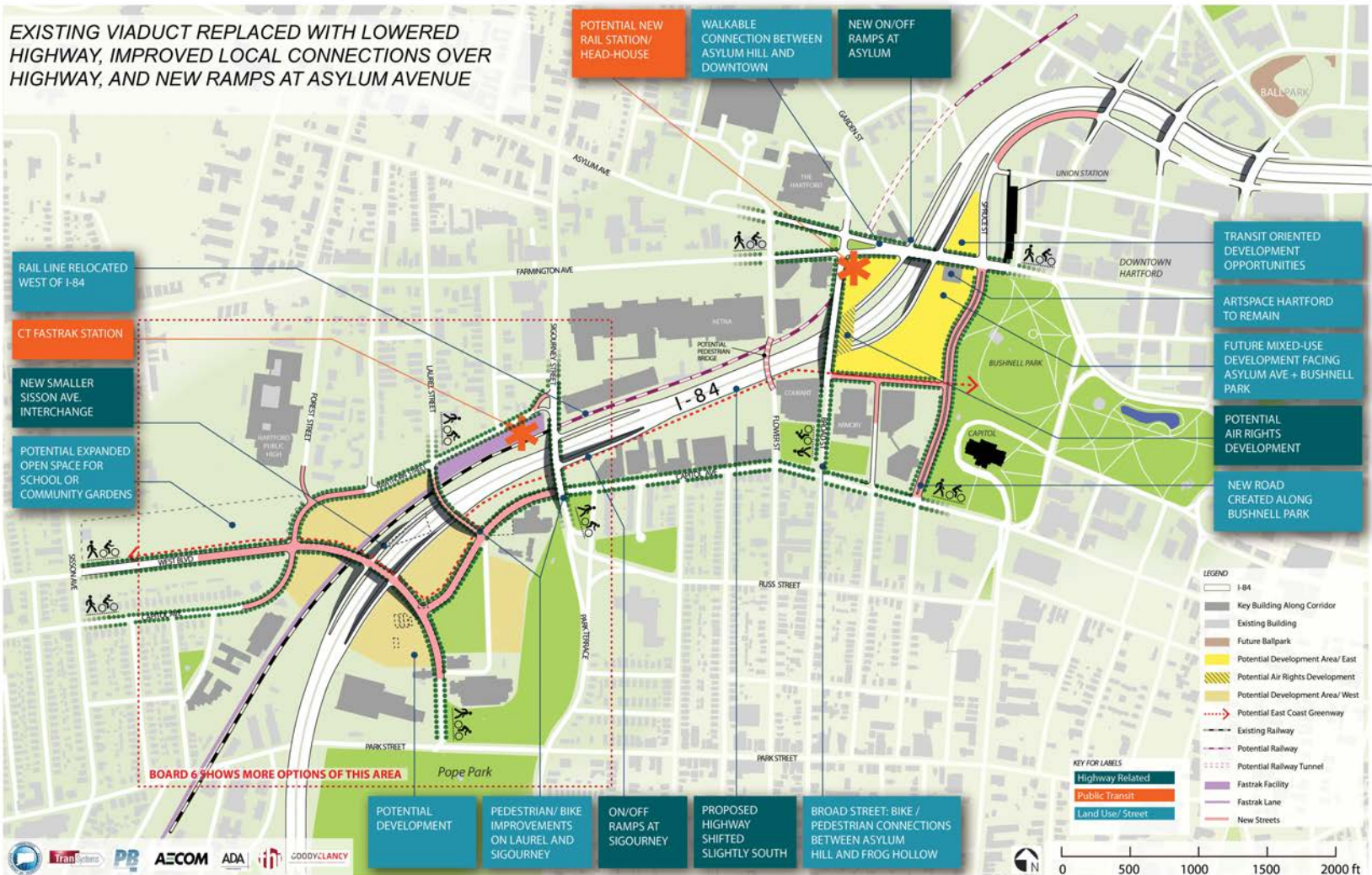
Mainline Option 2A – Interchange Option E3(S)

EXISTING VIADUCT REPLACED WITH ENHANCED VIADUCT AND IMPROVED LOCAL CONNECTIONS OVER HIGHWAY TO THE WEST



Lowered Highway

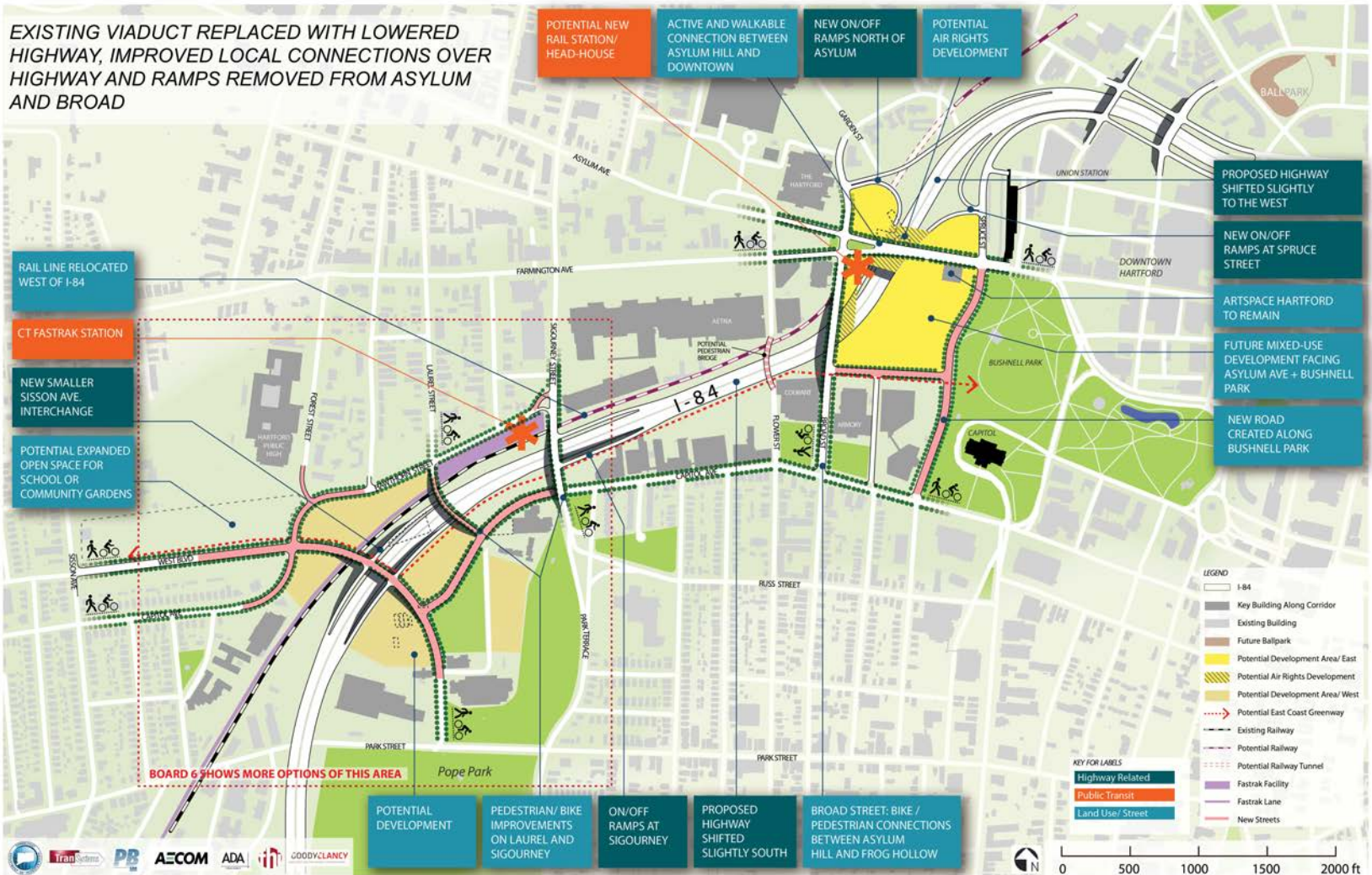
Mainline Option 3A – Interchange Option E2(S)



Lowered Highway

Mainline Option 3B – Interchange Option E4(S)

EXISTING VIADUCT REPLACED WITH LOWERED HIGHWAY, IMPROVED LOCAL CONNECTIONS OVER HIGHWAY AND RAMPS REMOVED FROM ASYLUM AND BROAD





Lowered Highway

Mainline Option 3C – Interchange Option E1(S)

EXISTING VIADUCT REPLACED WITH LOWERED HIGHWAY, IMPROVED LOCAL CONNECTIONS OVER HIGHWAY AND NEW WESTBOUND RAMPS ON ASYLUM

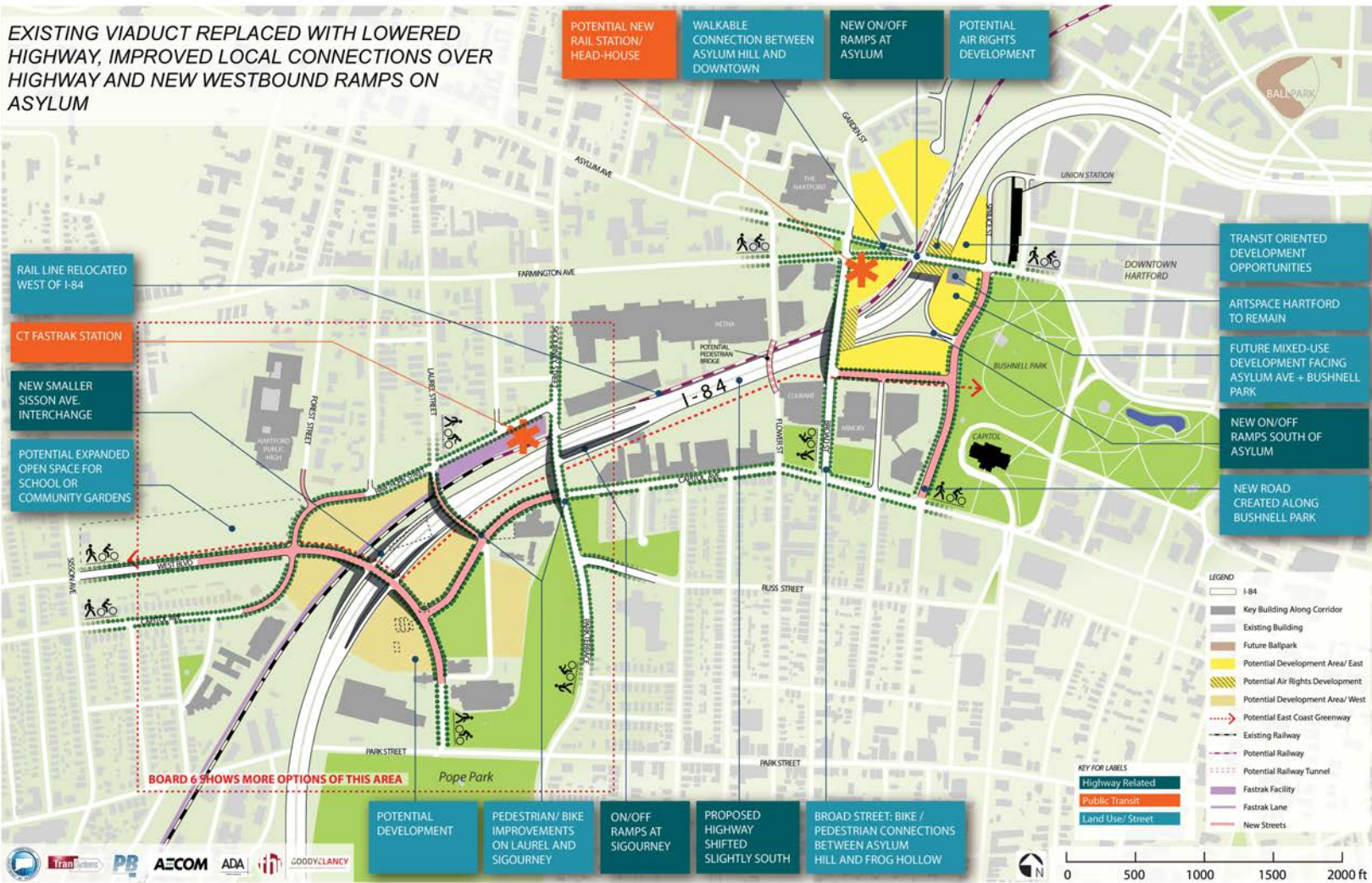
POTENTIAL NEW RAIL STATION/ HEAD-HOUSE
WALKABLE CONNECTION BETWEEN ASYLUM HILL AND DOWNTOWN
NEW ON/OFF RAMPS AT ASYLUM
POTENTIAL AIR RIGHTS DEVELOPMENT

RAIL LINE RELOCATED WEST OF I-84
CT FASTRAK STATION
NEW SMALLER SISSON AVE. INTERCHANGE
POTENTIAL EXPANDED OPEN SPACE FOR SCHOOL OR COMMUNITY GARDENS

TRANSIT ORIENTED DEVELOPMENT OPPORTUNITIES
ARTSPACE HARTFORD TO REMAIN
FUTURE MIXED-USE DEVELOPMENT FACING ASYLUM AVE + BUSHNELL PARK
NEW ON/OFF RAMPS SOUTH OF ASYLUM
NEW ROAD CREATED ALONG BUSHNELL PARK

BOARD 6 SHOWS MORE OPTIONS OF THIS AREA

POTENTIAL DEVELOPMENT
PEDESTRIAN/ BIKE IMPROVEMENTS ON LAUREL AND SIGOURNEY
ON/OFF RAMPS AT SIGOURNEY
PROPOSED HIGHWAY SHIFTED SLIGHTLY SOUTH
BROAD STREET: BIKE / PEDESTRIAN CONNECTIONS BETWEEN ASYLUM HILL AND FROG HOLLOW

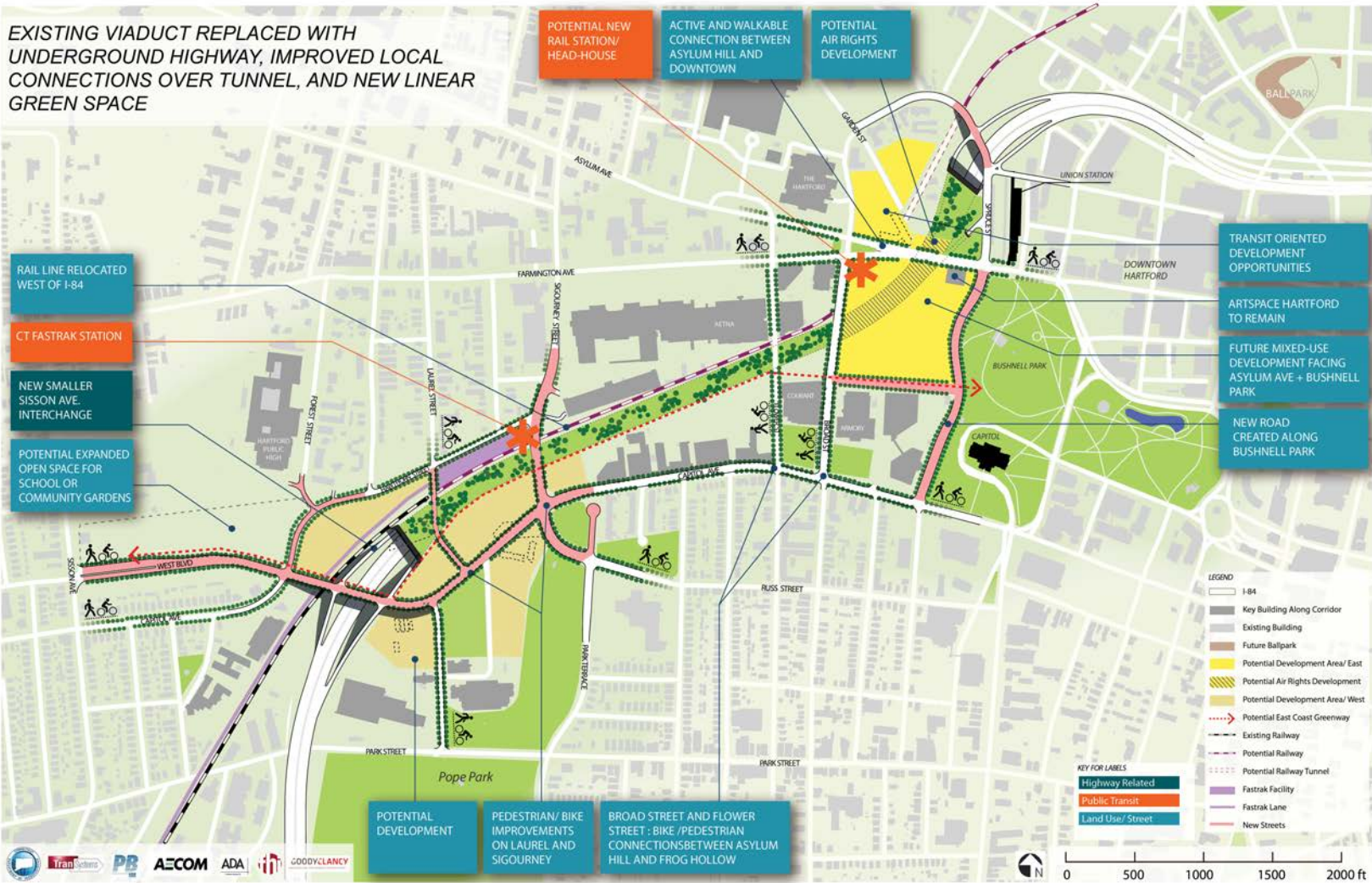




Tunnel

Mainline Option 4C

EXISTING VIADUCT REPLACED WITH UNDERGROUND HIGHWAY, IMPROVED LOCAL CONNECTIONS OVER TUNNEL, AND NEW LINEAR GREEN SPACE



West Options

SISSON AVENUE RAMPS REPLACED WITH SMALLER RAMPS THAT TAKE UP LESS LAND AREA AND A VARIETY OF OPTIONS AND OPPORTUNITIES FOR LOCAL STREET CONNECTIONS



**WEST BLVD TO PARK ST
(2/3 W1)**

- Existing Sisson ramps removed
- Replaced with smaller diamond interchange
- West Blvd continuous over I-84 to Pope Park
- Capitol Ave west of I-84 connects to Hawthorn
- Capitol Ave east of I-84 ends at West Blvd



**CAPITOL AVE THROUGH STREET
(2/3 W3-1)**

- Existing Sisson ramps removed
- Replaced with smaller on/off ramps
- Capitol Ave continuous over I-84 from west to east
- West Blvd ends at Forest Street
- Park Street goes over I-84



WEST BLVD THROUGH STREET (2/3 W5)

- Existing Sisson ramp
- Replaced with smaller diamond interchange
- West Blvd continuous over I-84 connecting to Capitol Ave
- Capitol Ave west of I-84 connects to Forest

LEGEND

- I-84
- Key Building Along Corridor
- Existing Building
- Potential Development Area/ West
- Potential East Coast Greenway
- Existing Railway
- Potential Railway
- Fastrak Facility
- Fastrak Lane
- New Streets



Street Level Views

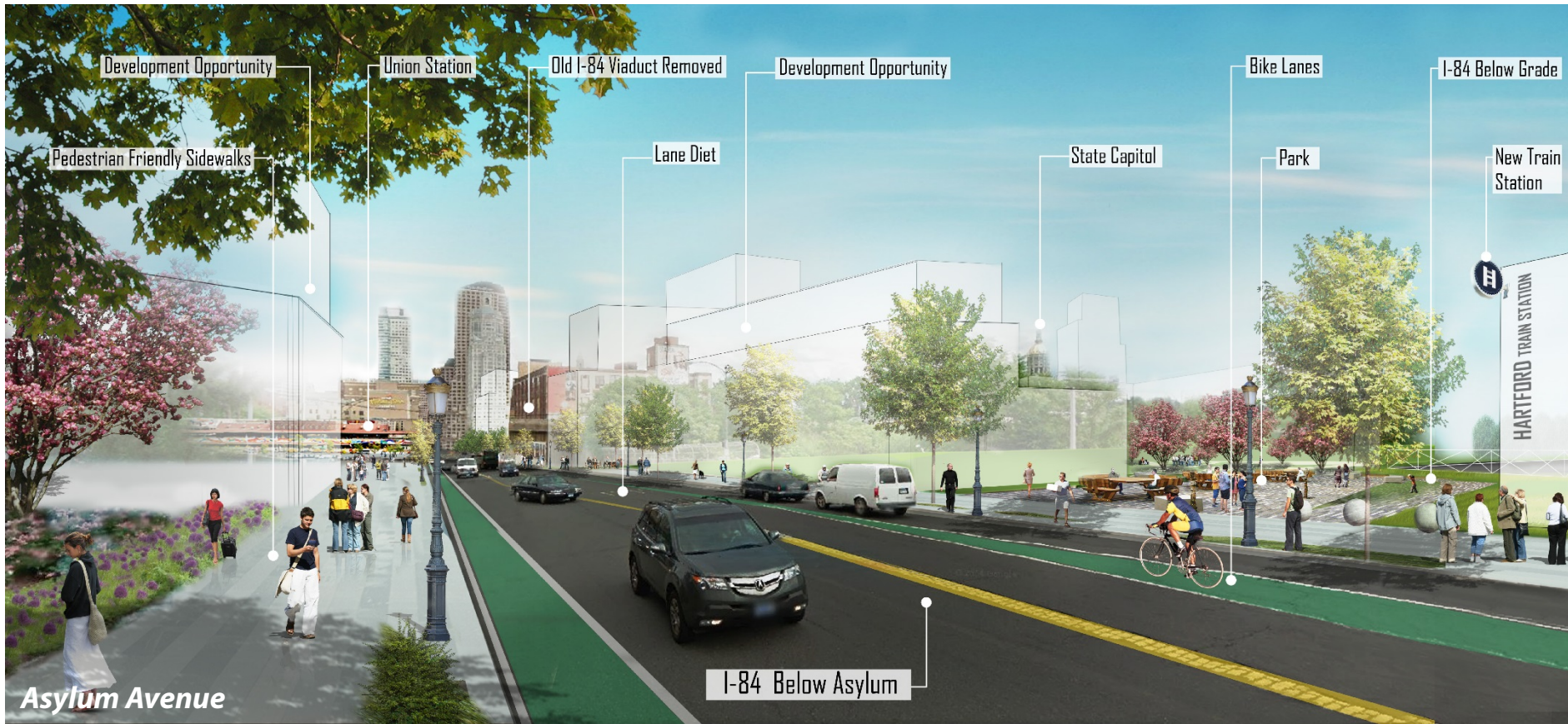
Asylum Avenue – Existing view looking east towards Downtown





Street Level Views

Asylum Avenue – Potential view looking east towards Downtown





Street Level Views

Broad Street – Existing view looking south towards Armory





Street Level Views

Broad Street – Potential view looking south towards Armory





Street Level Views

Sigourney St. – Existing view looking south to Park Terrace





Street Level Views

Sigourney St. – Potential view looking south to Park Terrace





Street Level Views

Capitol Ave. – Existing view looking east towards Sigourney





Street Level Views

Capitol Ave. – Potential view looking east towards Sigourney





Aerial View

Sisson ramps – Existing aerial view looking north





Aerial View

Sisson ramps – Potential aerial view with lowered highway





What we know so far...

- Many of the alternatives and options address a majority of the Purpose and Need (P/N) – some fall short
- Many P/N objectives achieved: a safer highway, better access to and from Downtown, walkable and bikable streets, transit-oriented development opportunities, opening up Bushnell Park, removing physical and visual barriers, and reconnecting City neighborhoods and people
- But no perfect solutions: there are unavoidable impacts



Thank You!

Thank you for coming. We deeply appreciate your time and 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



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Questions? Comments?



U.S. Department of Transportation
Federal Highway Administration



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Working together for a better region.