



I-84 HARTFORD PROJECT

I-84 Hartford Project

Public Safety Roundtable Presentation

February 26, 2016



I-84 HARTFORD PROJECT



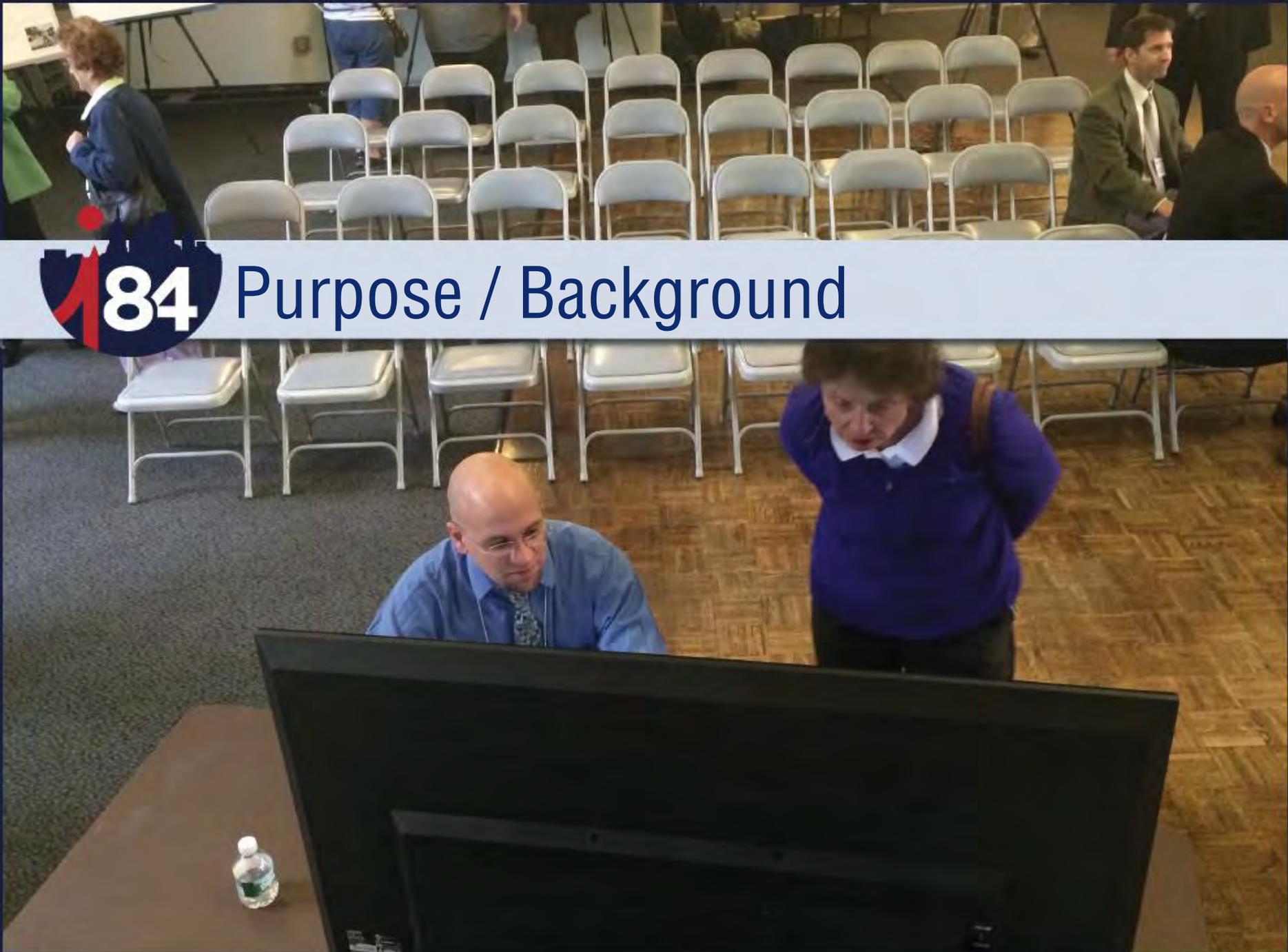


Presentation Overview

1. Purpose / background of roundtable
2. Alternatives overview
3. Lowered highway possibilities (west)
4. Lowered highway possibilities (east)
5. I-84 Construction Considerations
6. I-84 / I-91 Interchange Study
7. Learn more / next steps



Purpose / Background





Meeting Purpose

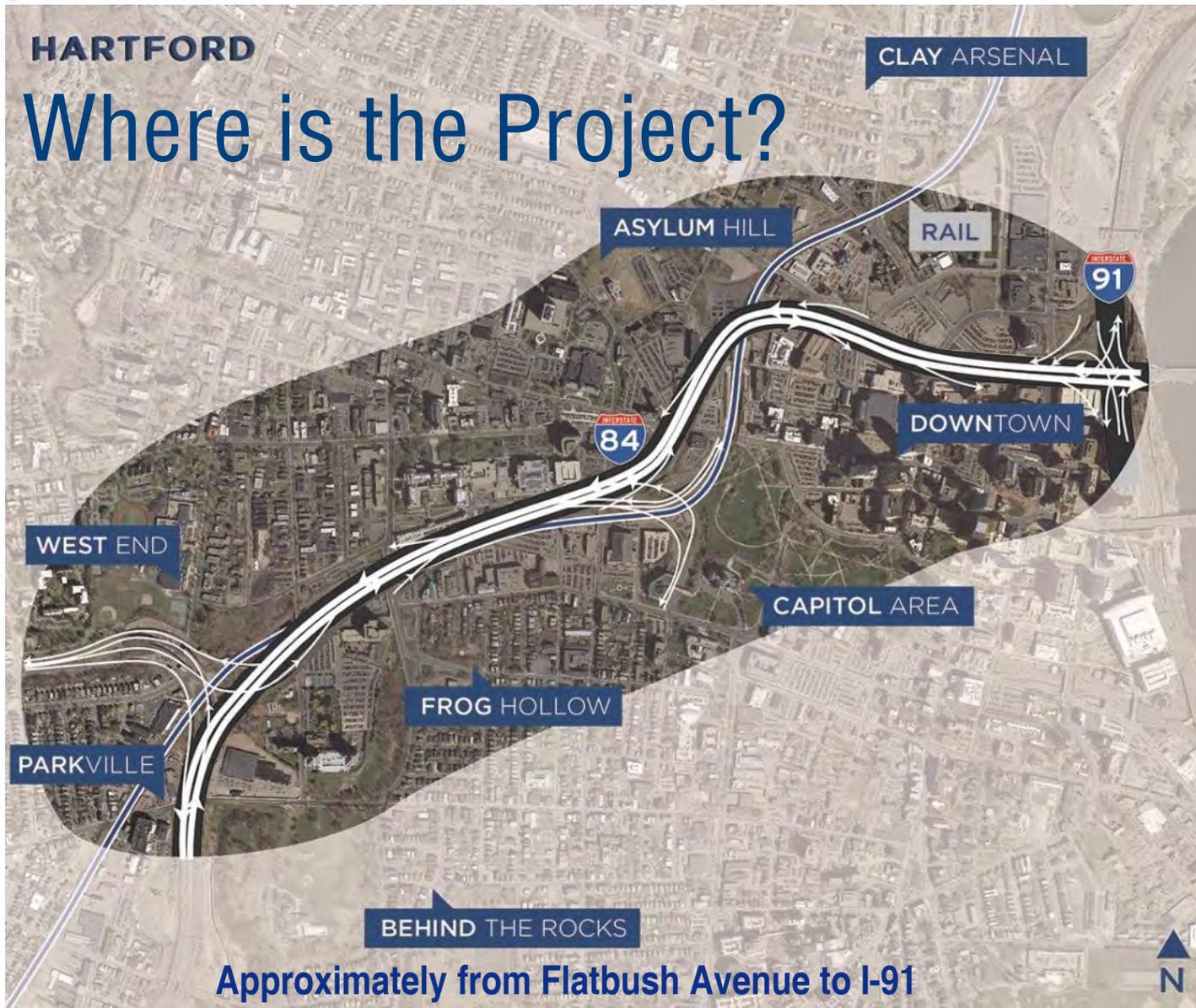
- Share information about the I-84 Hartford Project
- Learn more about public safety needs
- Gather interests / concerns related to I-84 Hartford Project





HARTFORD

Where is the Project?



Approximately from Flatbush Avenue to I-91

Why Is It Needed?

Purpose and Need

- Bridge deficiencies
- Operational and safety deficiencies
- Mobility deficiencies – moving people and goods



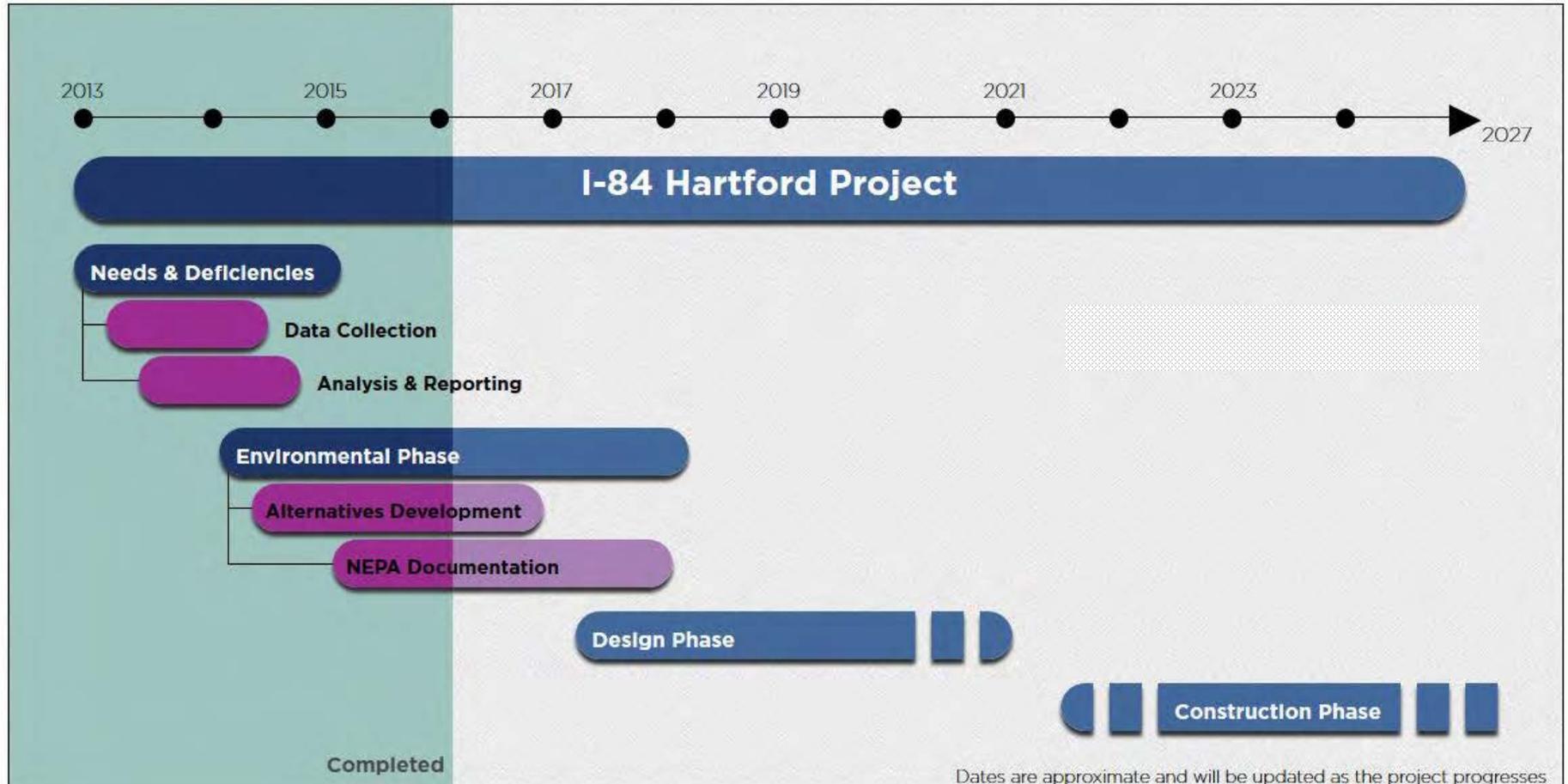
Operations and Safety

- Eight full / partial interchanges
- Weaves
- Lane drops
- Sharp curves
- Narrow Shoulders
- High crash rates





Project Schedule



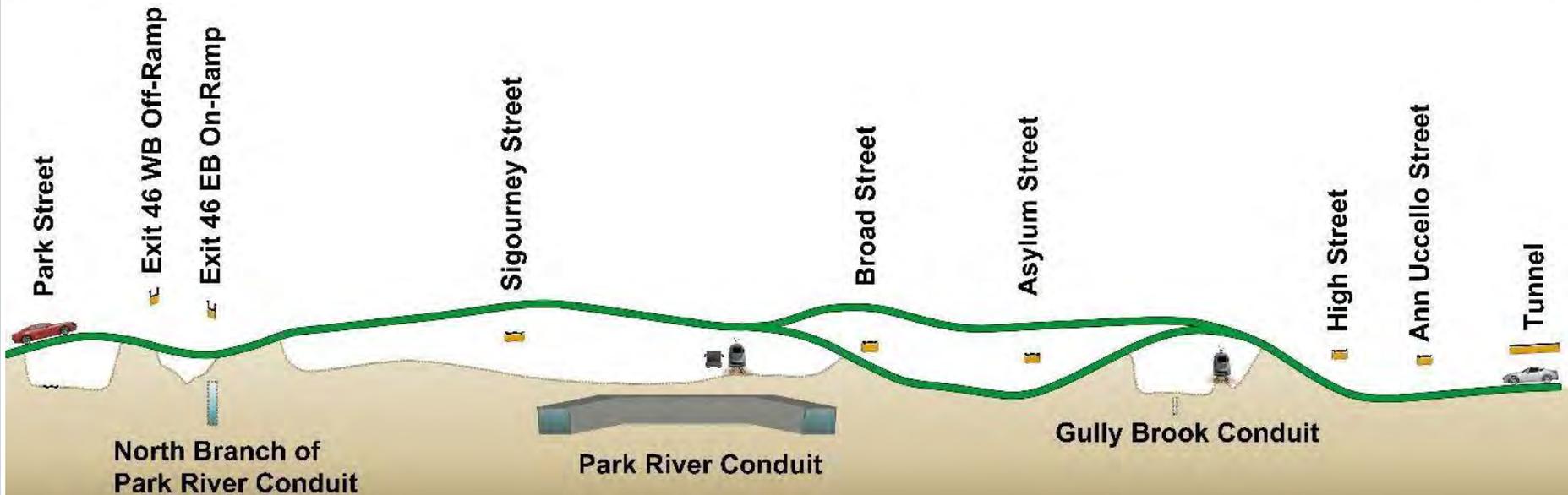


Alternatives Overview

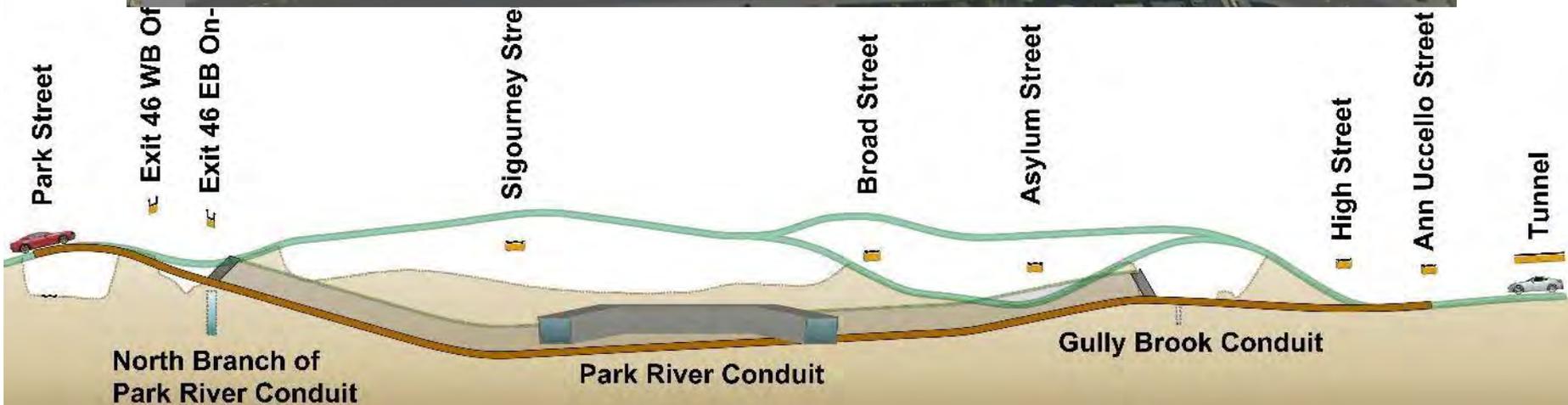


Mainline Alternatives

- Alternative 1: No Build
- Alternative 2: (Elevated Highway)
- Alternative 3: (Lowered Highway)
- Alternative 4: (Tunneled Highway)



Alternative 4: Tunneler Highway

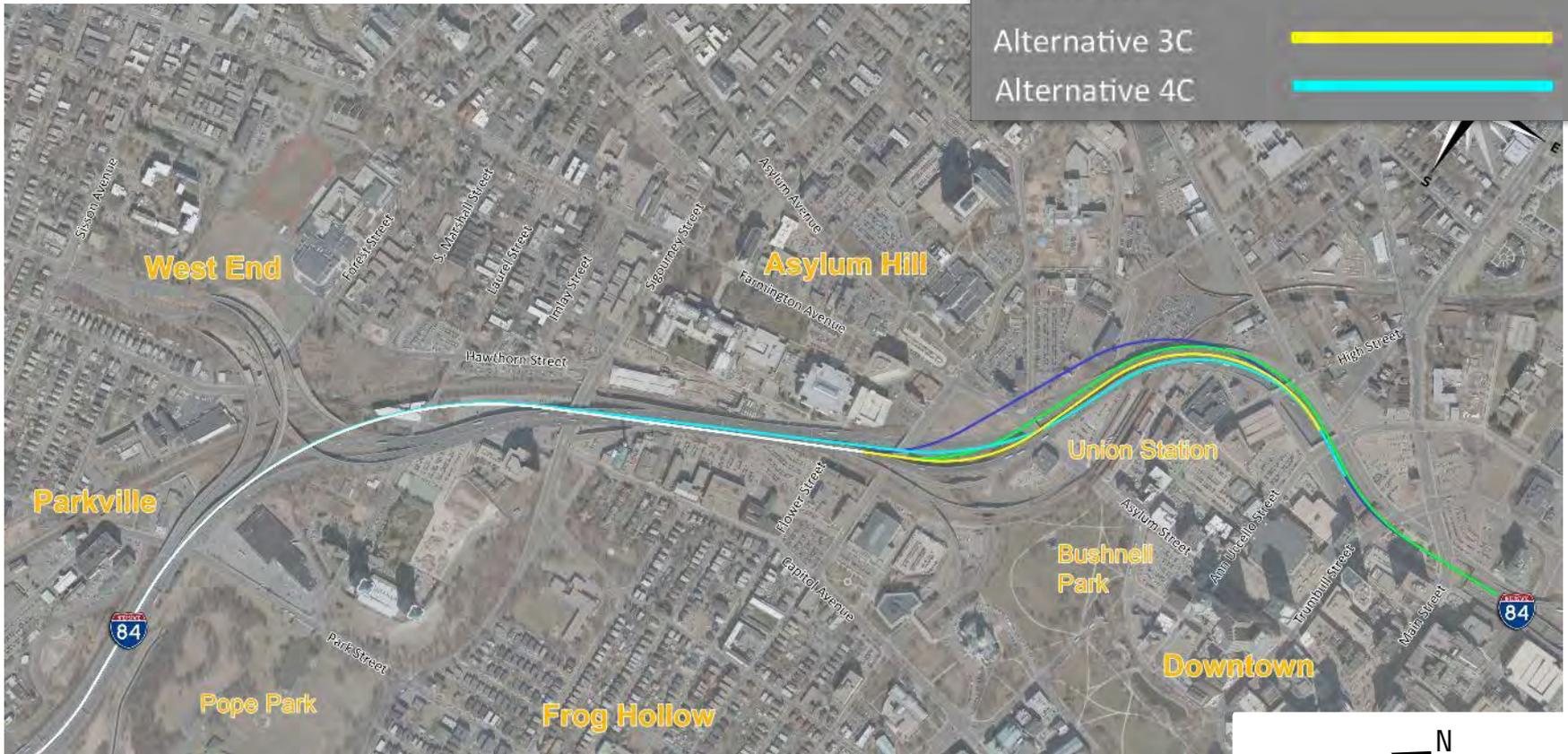




Mainline Alternatives

Legend

- Alternatives 2A/3A 
- Alternative 3B 
- Alternative 3C 
- Alternative 4C 



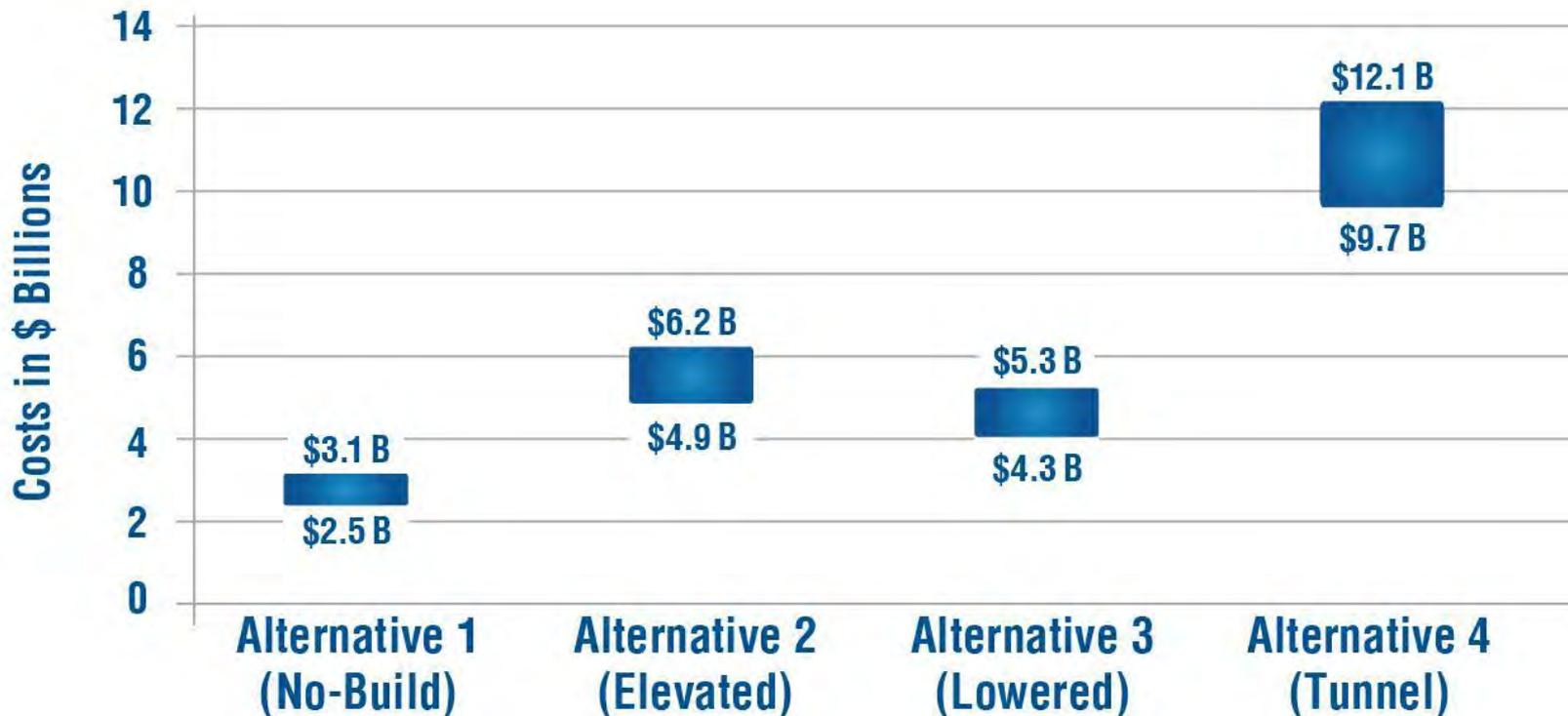
Various Ramp Options





Cost Estimates

Estimates represented in future dollars to the mid-point of construction.



Alternatives



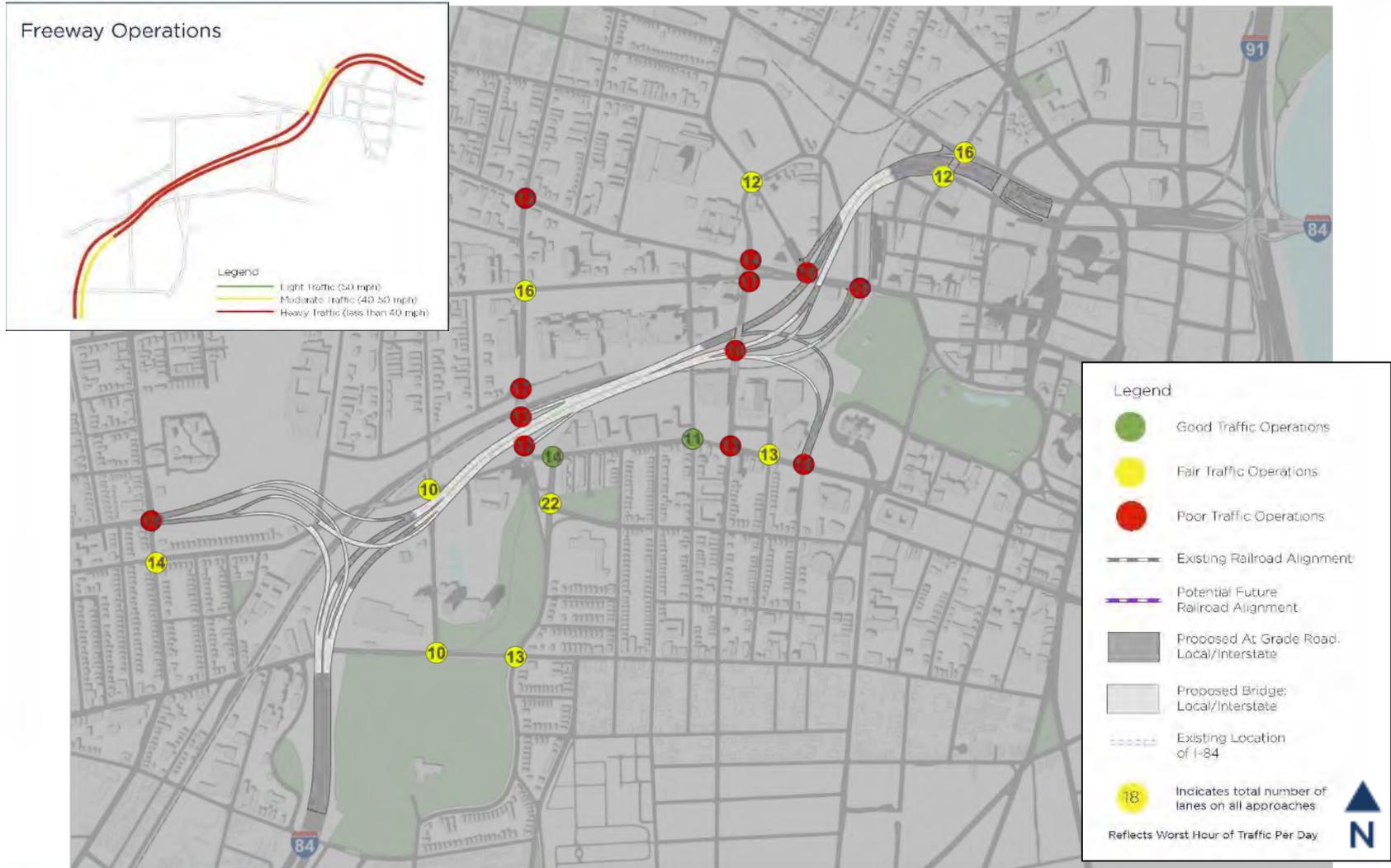
Preliminary Traffic Analyses

- Perform I-84 mainline analysis
- Analyze local road intersections



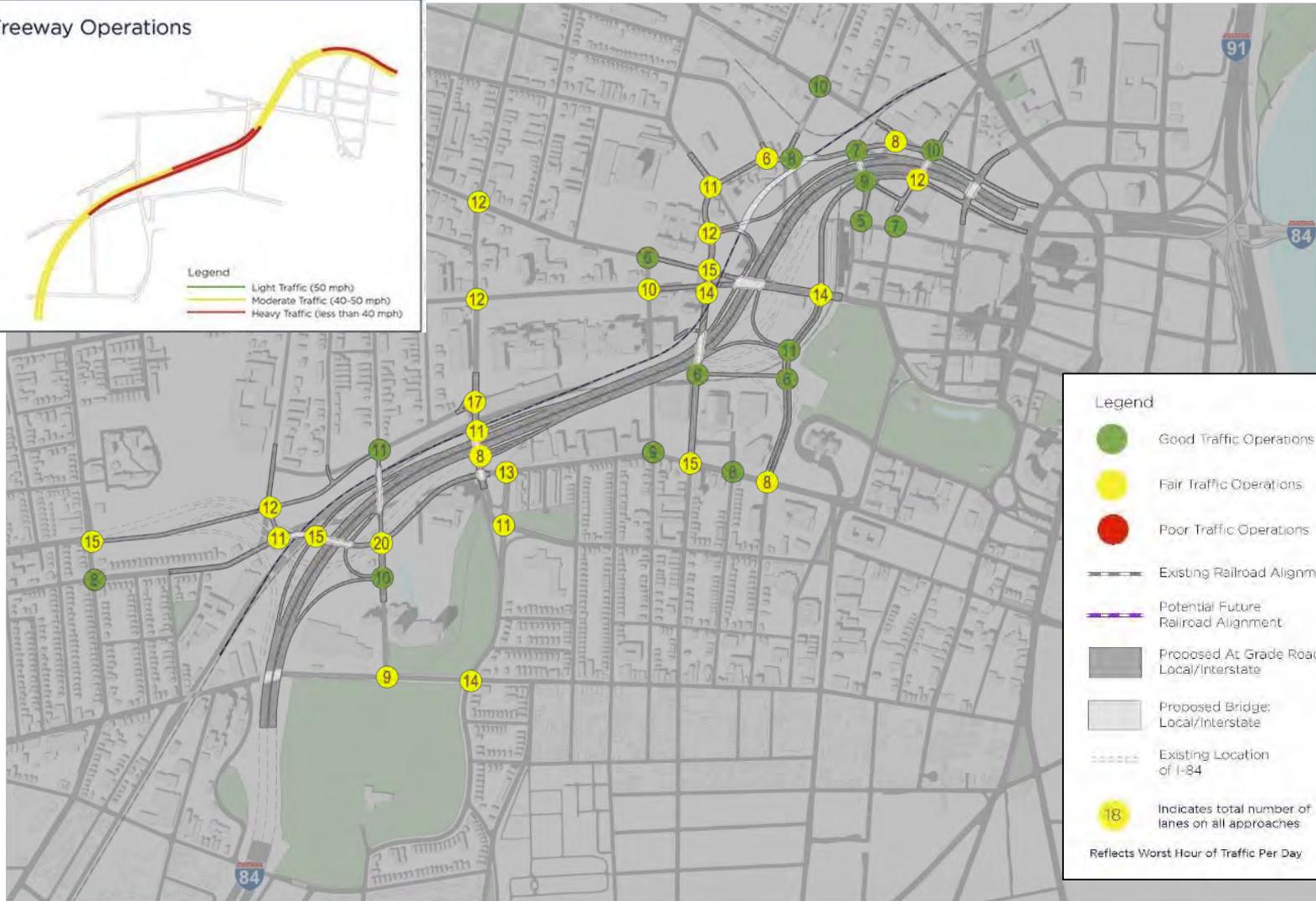
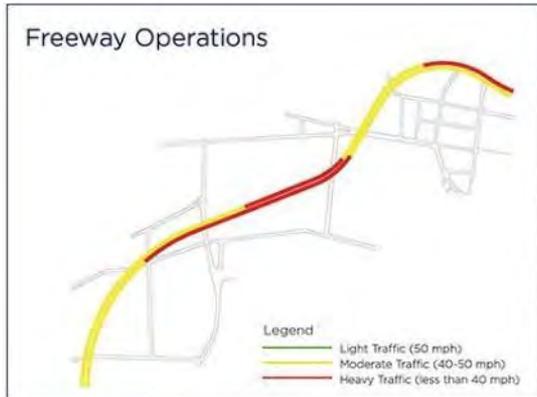


Existing Conditions



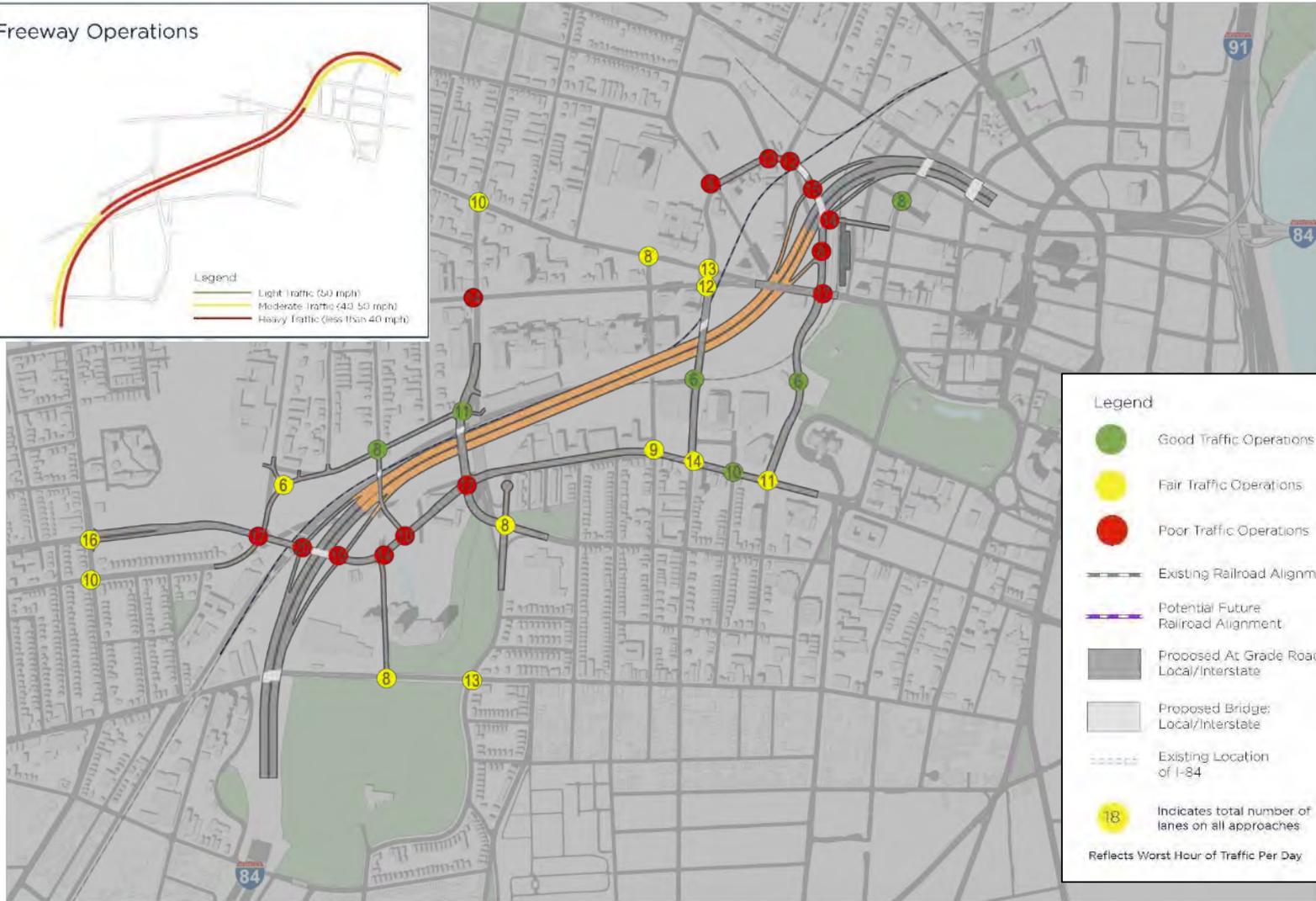


Lowered Highway





Tunnel (Alternative 4C-1)

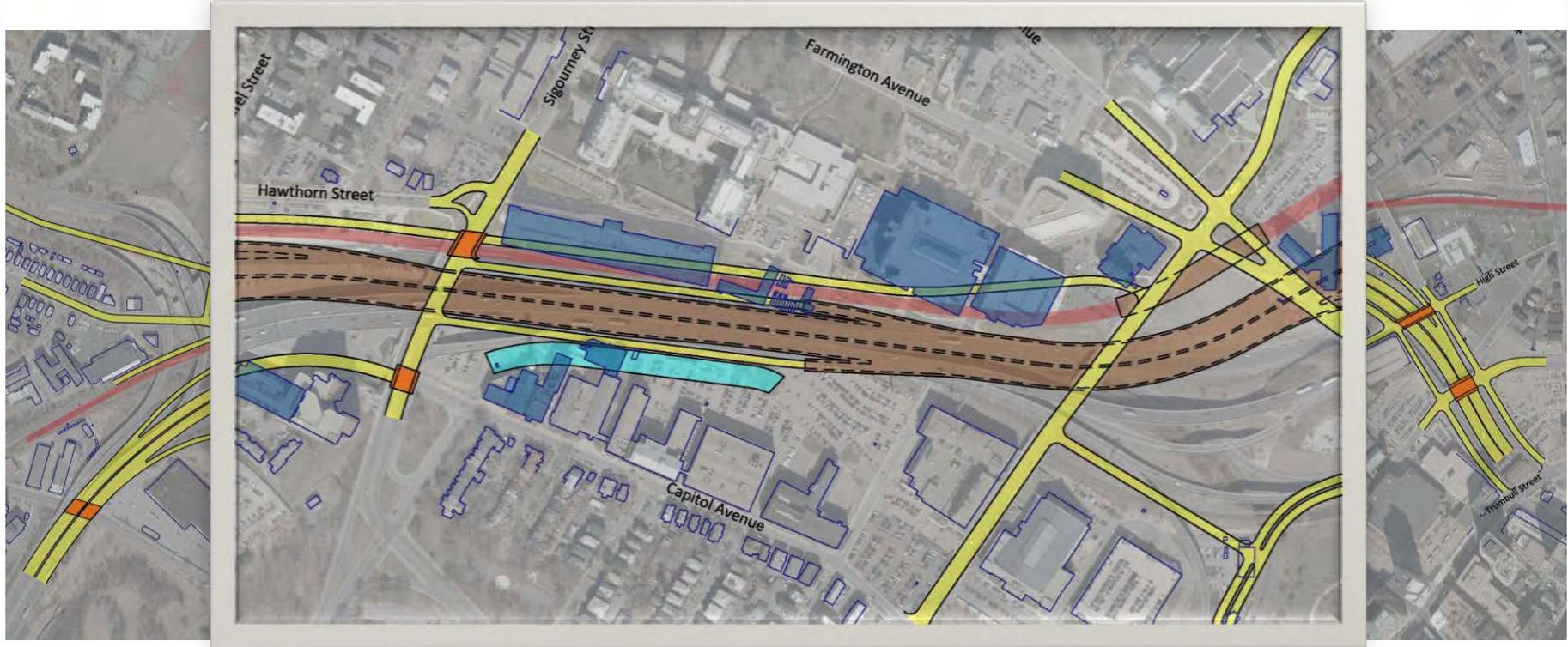


Legend

- Good Traffic Operations
- Fair Traffic Operations
- Poor Traffic Operations
- Existing Railroad Alignment
- Potential Future Railroad Alignment
- Proposed At Grade Road: Local/interstate
- Proposed Bridge: Local/interstate
- Existing Location of I-84
- 18 Indicates total number of lanes on all approaches

Reflects Worst Hour of Traffic Per Day

Tunnel (Alternative 4C-2)



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



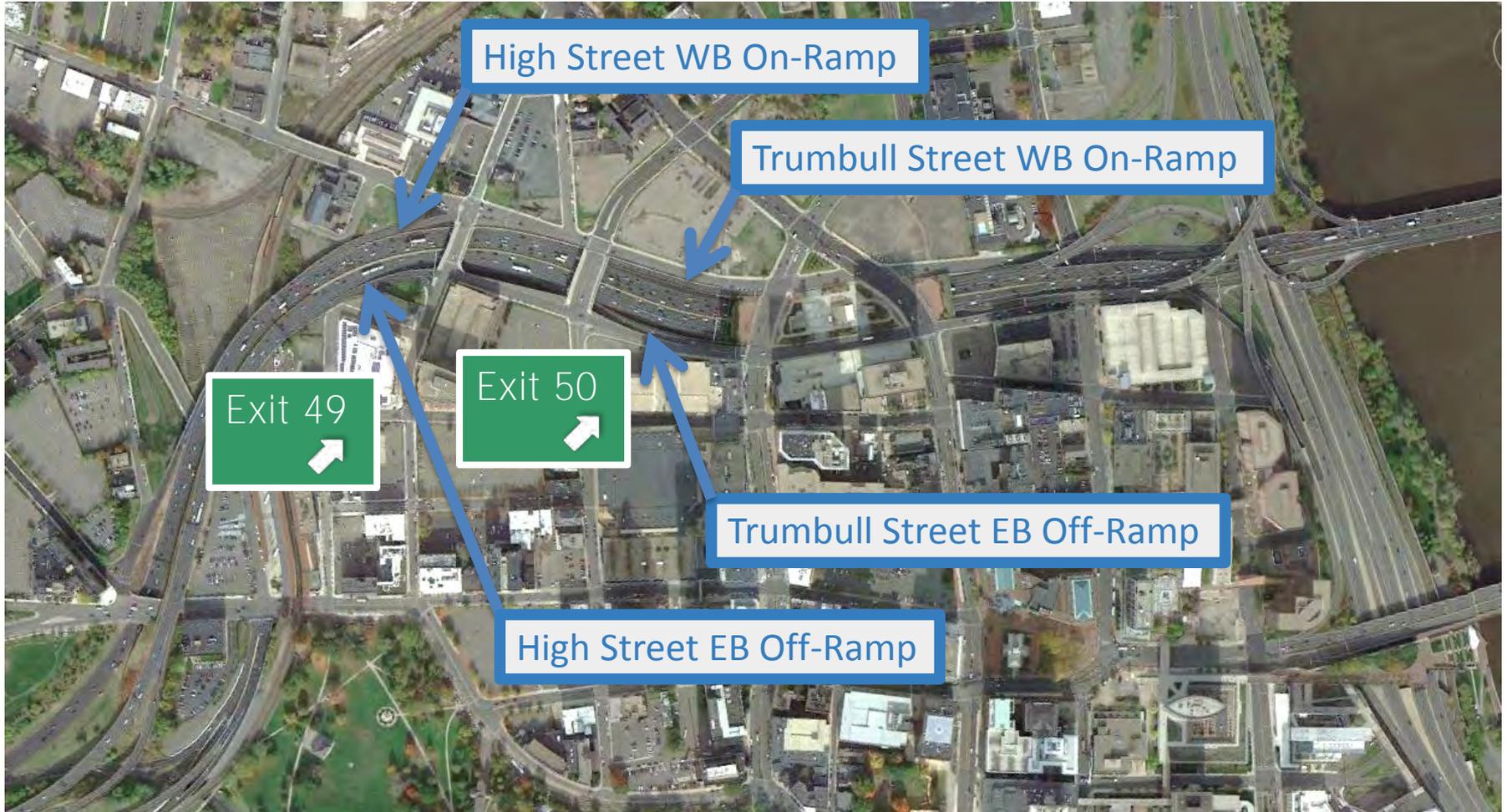
Mainline Analysis Tells Us:

- Interchange spacing affects the mainline
- Poor intersections affect the mainline





Proposed Ramp Closures



Intersection Analysis Tells Us:

- Prefer ramps near Sigourney Street
- Create new roads to add redundancy
- Better mainline operations = improve intersections
- More walkable/bikeable corridors can be achieved





Lowered Highway Possibilities (West)



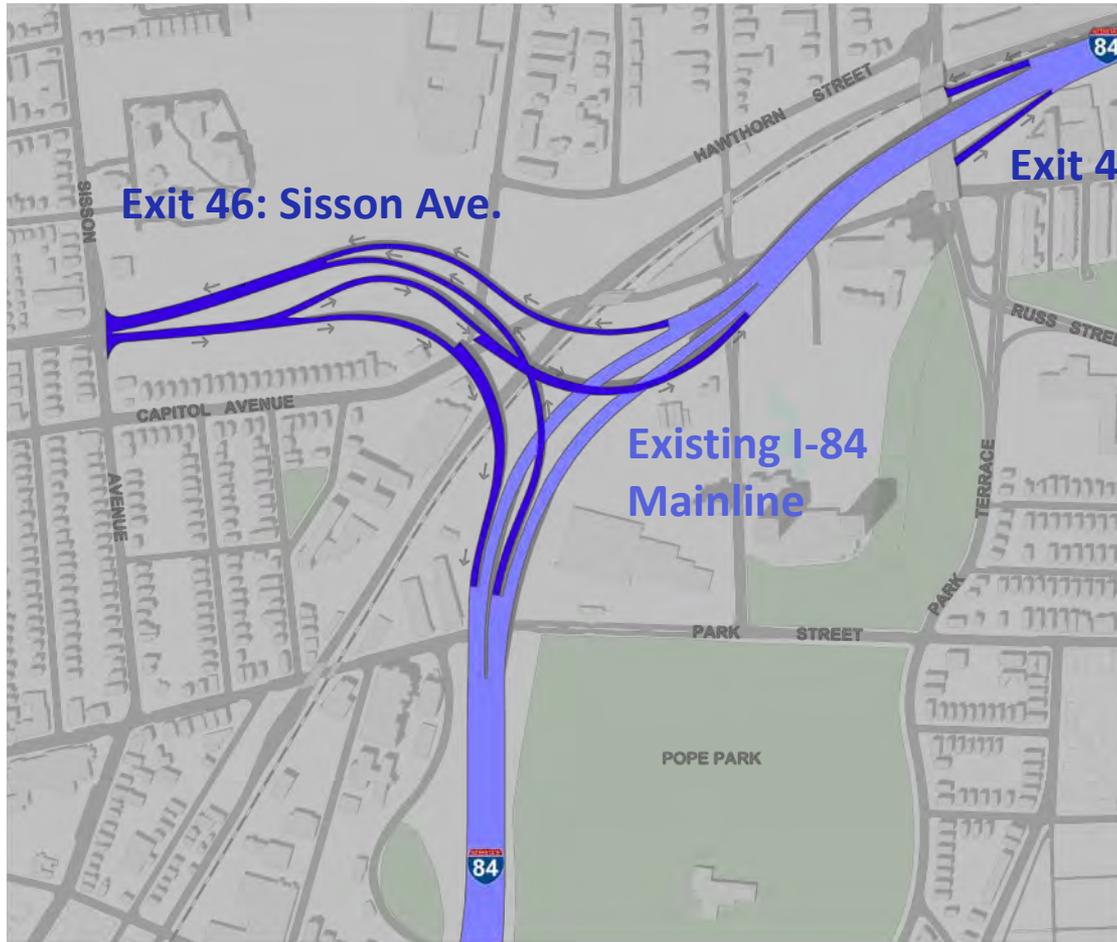


Existing Conditions (West)





Existing Mainline and Ramps (West)



Exit 47: Sigourney St.

Exit 46: Sisson Ave.

Existing I-84
Mainline



Option W3-3

Proposed Mainline and Ramps



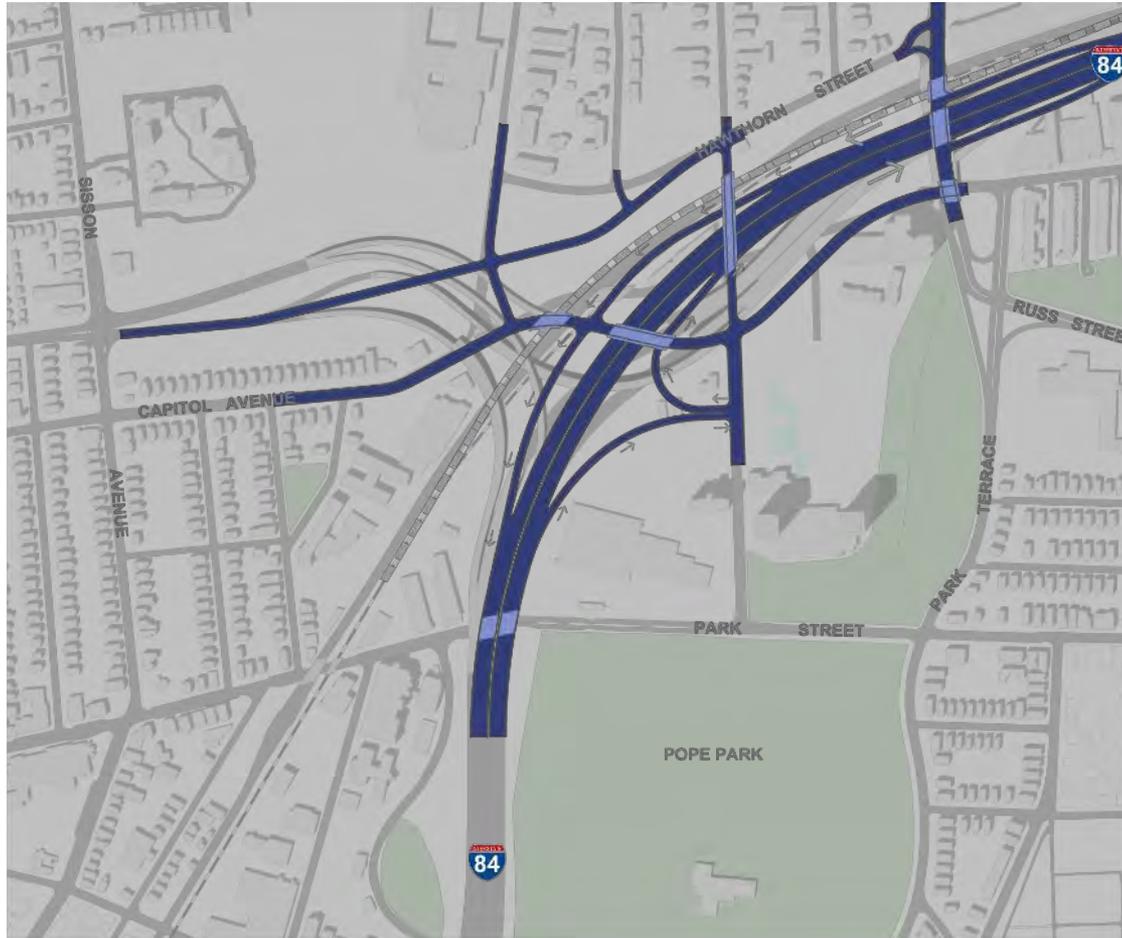
Preliminary

Subject to change based upon ongoing analysis and design



Option W3-3

Proposed Roadway Layout



Preliminary

Subject to changed based upon ongoing analysis and design



Option W3-3

Potentially Impacted Buildings



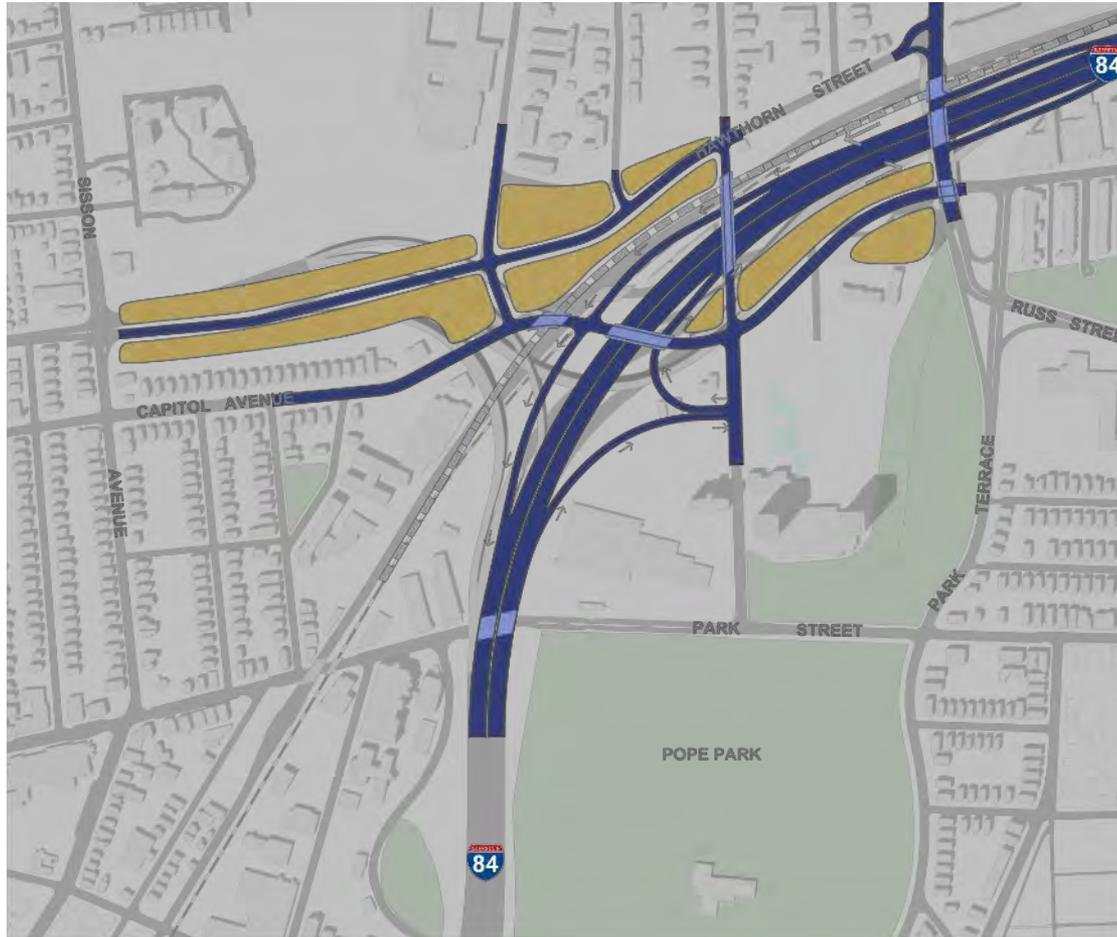
Preliminary

Subject to change based upon ongoing analysis and design



Option W3-3

Potentially Available Land (~15 acres)



Preliminary

Subject to change based upon ongoing analysis and design





Option W3-3

Potential Complete Streets



CONCEPTUAL - FOR ILLUSTRATIVE PURPOSES ONLY

Subject to changed based upon ongoing analysis and design



Sisson Ramps

Existing Aerial View Looking North





Sisson Ramps

Potential Aerial View Looking North





Realigned Capitol Avenue

Existing Street View Looking East





Realigned Capitol Avenue

Potential Street View Looking East





Lowered Highway Possibilities (East)



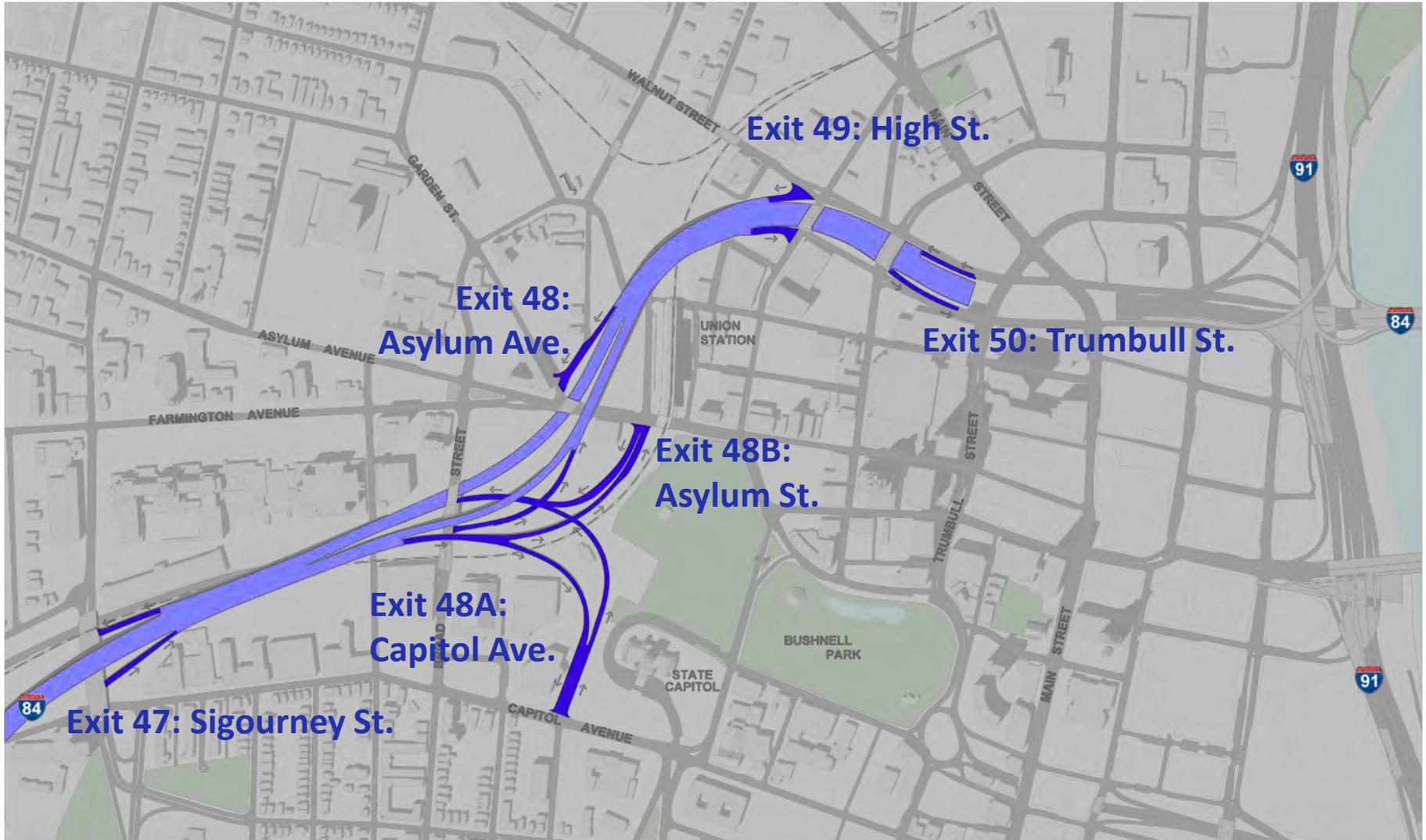


Existing Conditions (East)





Existing Mainline and Ramps (East)



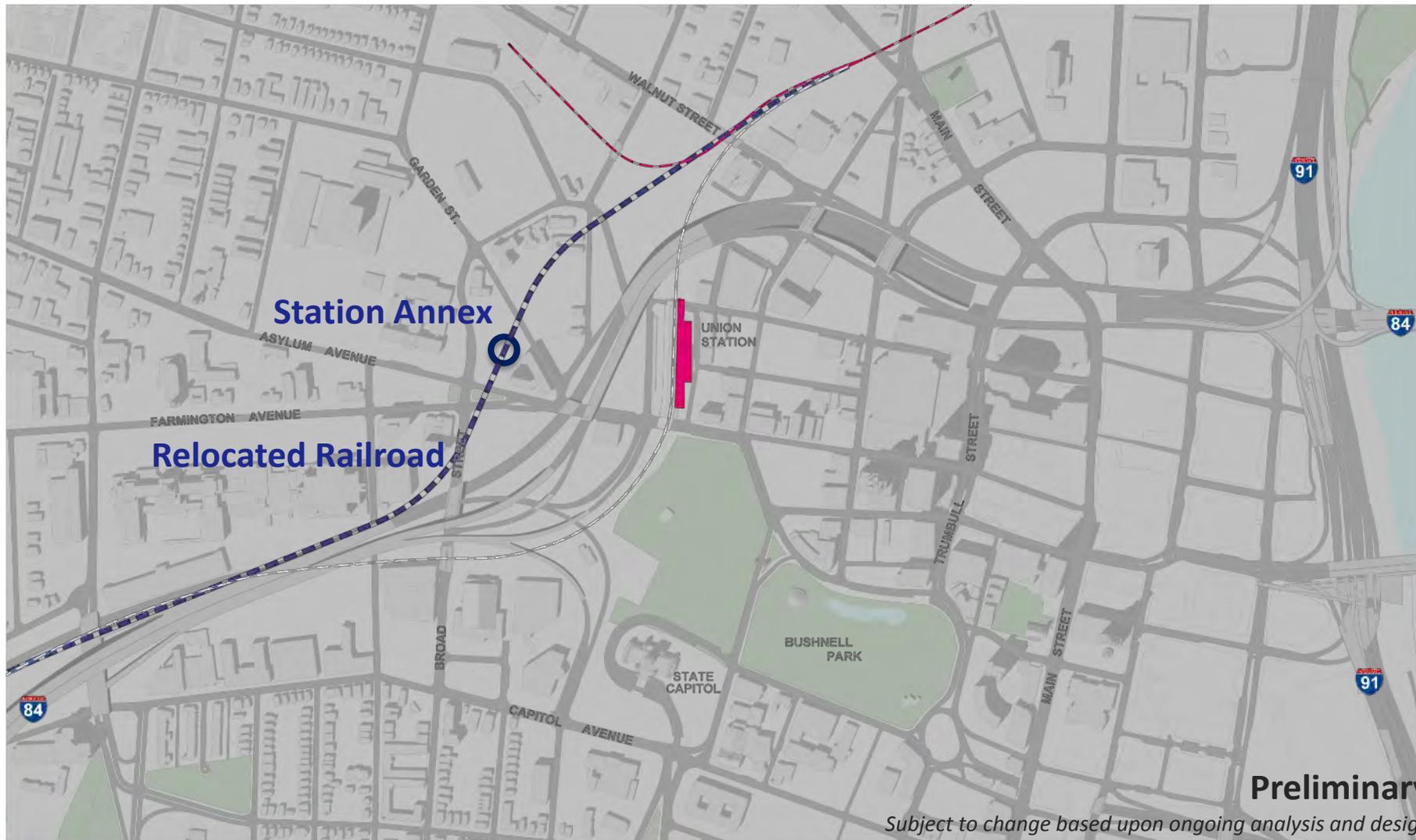


Existing Railroad (East)





Relocated Railroad and New Station Annex



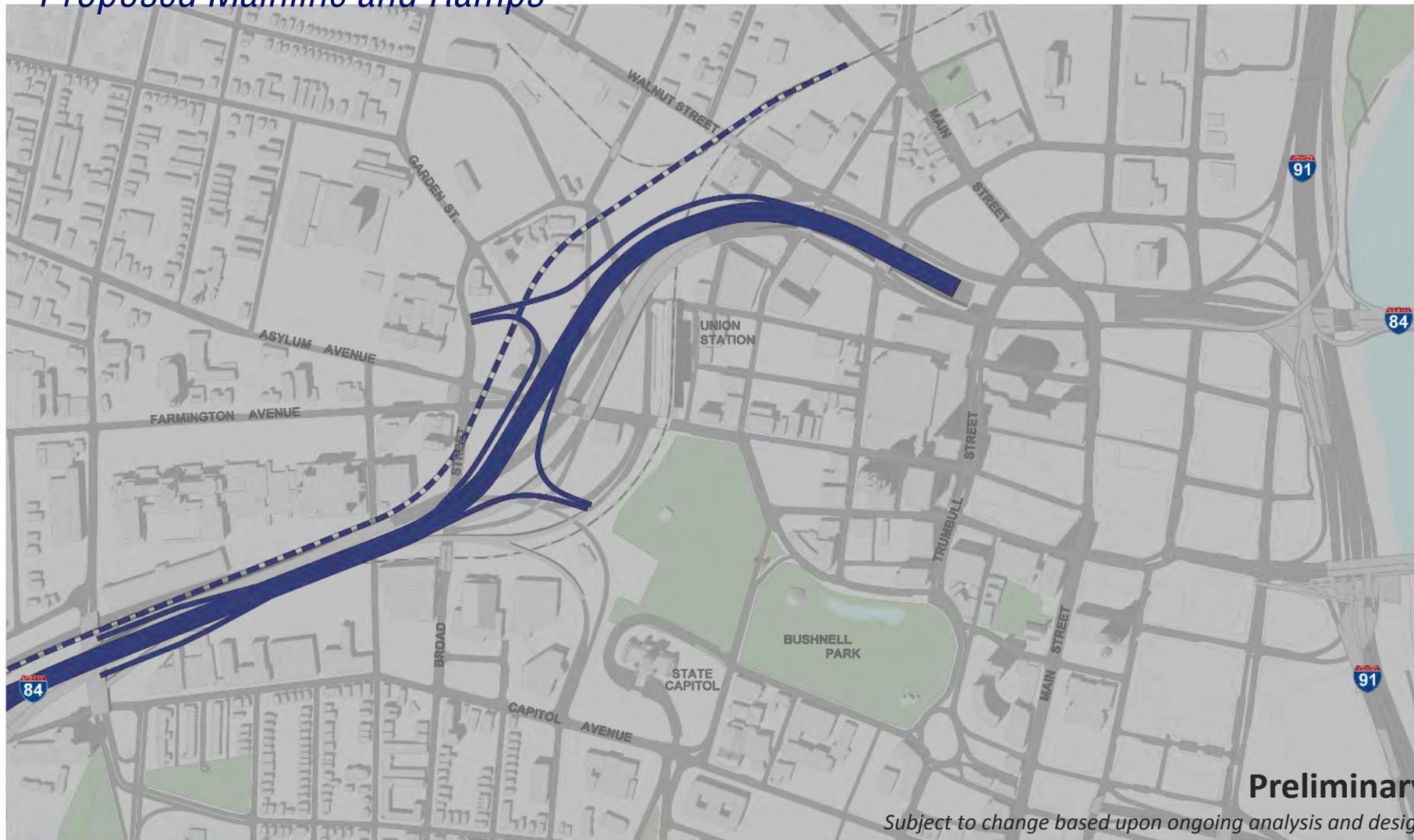
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Option 3B: E2(S)

Proposed Mainline and Ramps



Preliminary

Subject to change based upon ongoing analysis and design



Option 3B: E2(S)

Proposed Roadway Layout



Preliminary

Subject to change based upon ongoing analysis and design



Option 3B: E2(S)

Potentially Impacted Buildings



Preliminary

Subject to change based upon ongoing analysis and design



Option 3B: E2(S)

Potential CT *fastrak* Realignment



Preliminary

Subject to change based upon ongoing analysis and design



Option 3B: E2(S)

Potentially Available Land (~15 acres)



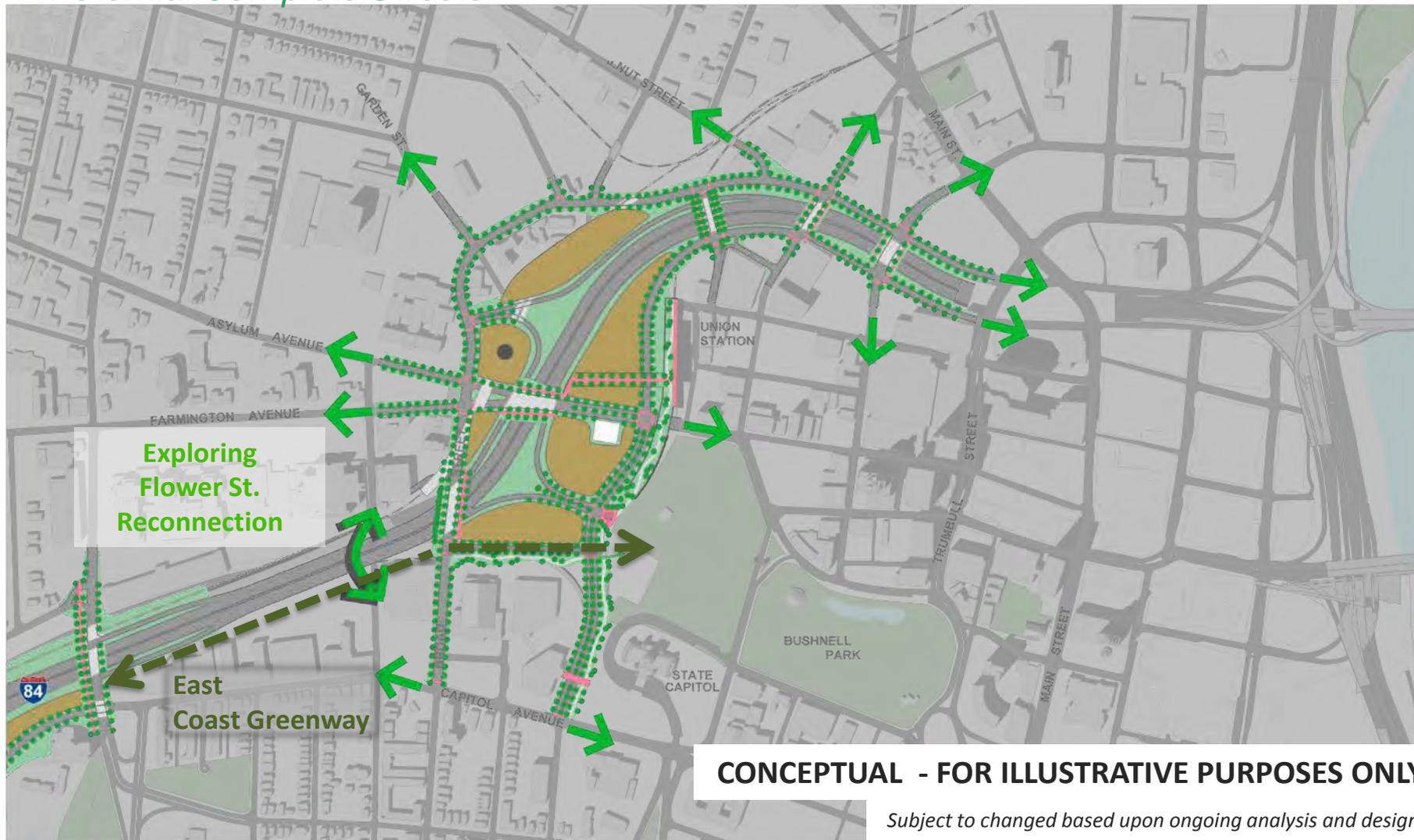
Preliminary

Subject to change based upon ongoing analysis and design



Option 3B: E2(S)

Potential Complete Streets





Lowered Options W3-3 & 3B E2(S)



Preliminary

Subject to change based upon ongoing analysis and design



Asylum Avenue

Existing View Looking East Toward Downtown





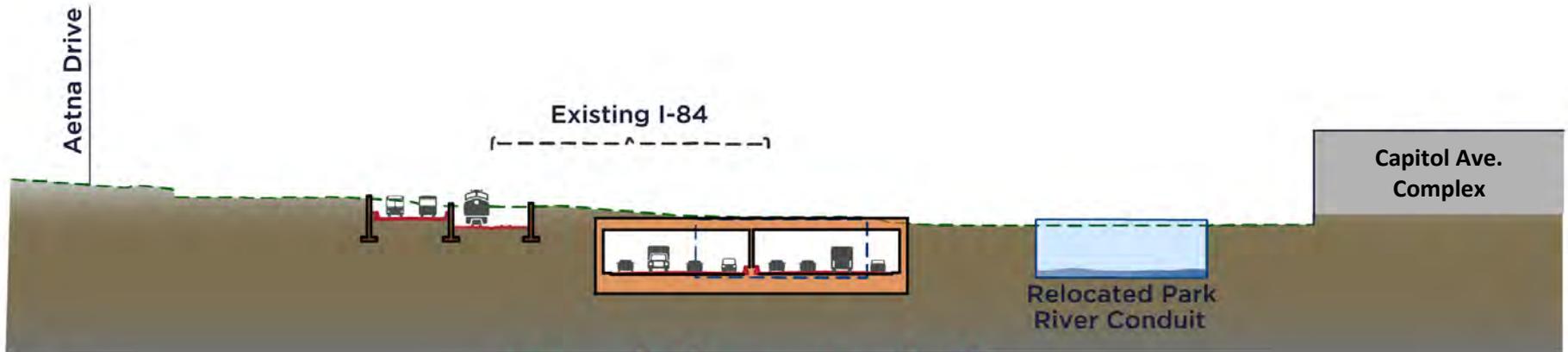
Asylum Avenue

Potential View Looking East Toward Downtown

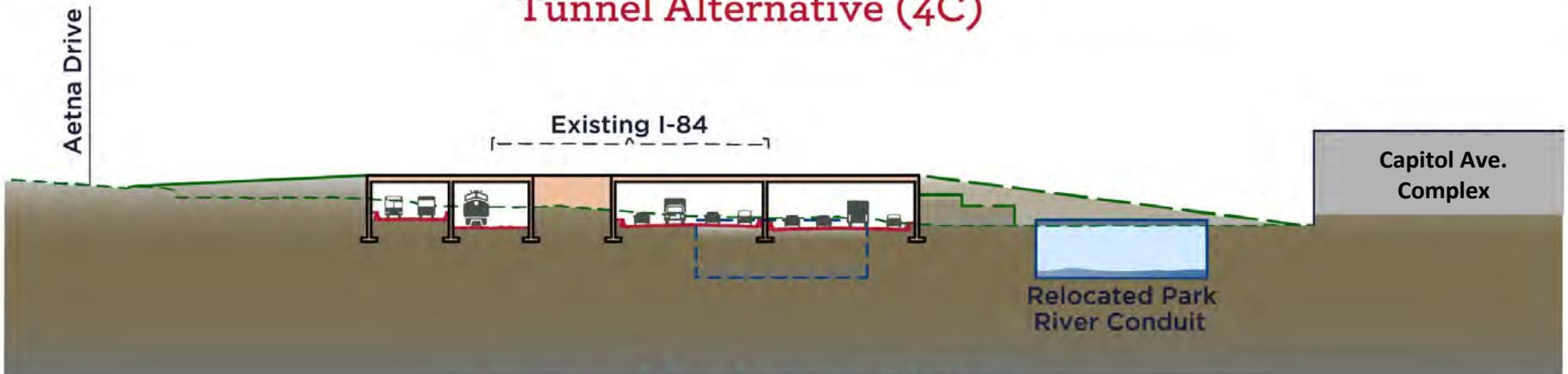




New Alternative: Capped Highway



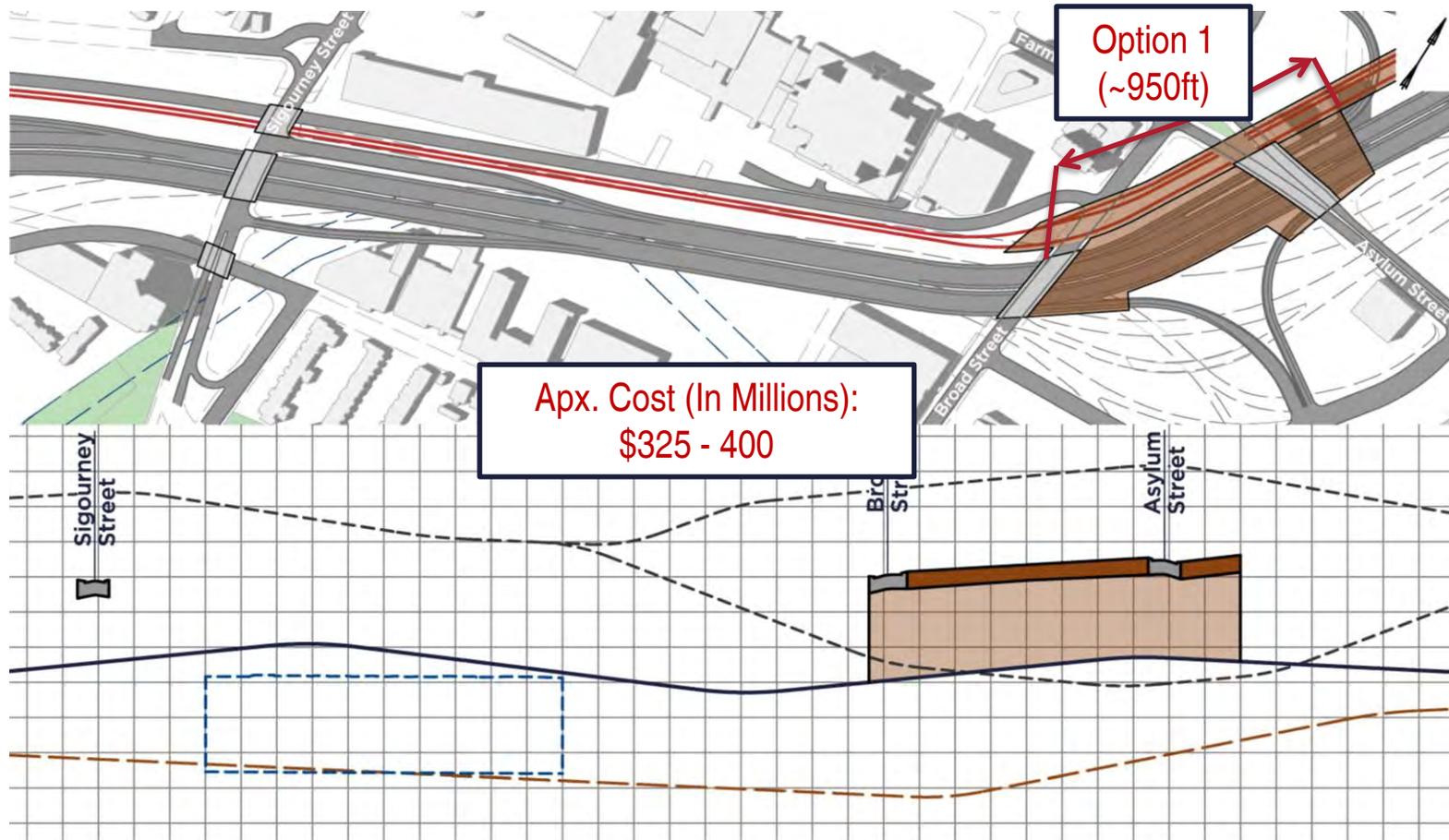
Tunnel Alternative (4C)



Lowered Highway with Cap

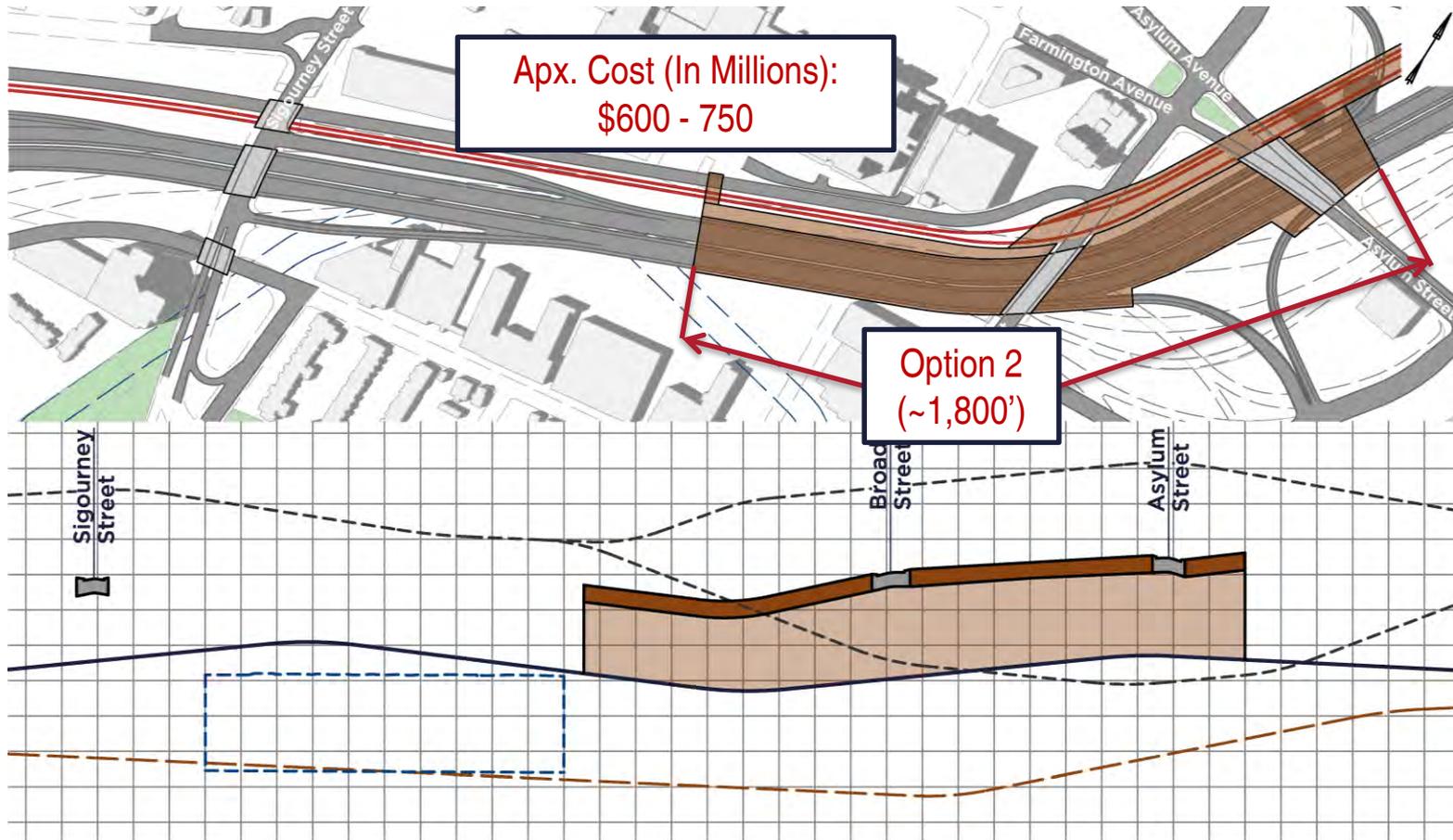


New Alternative: Capped Highway

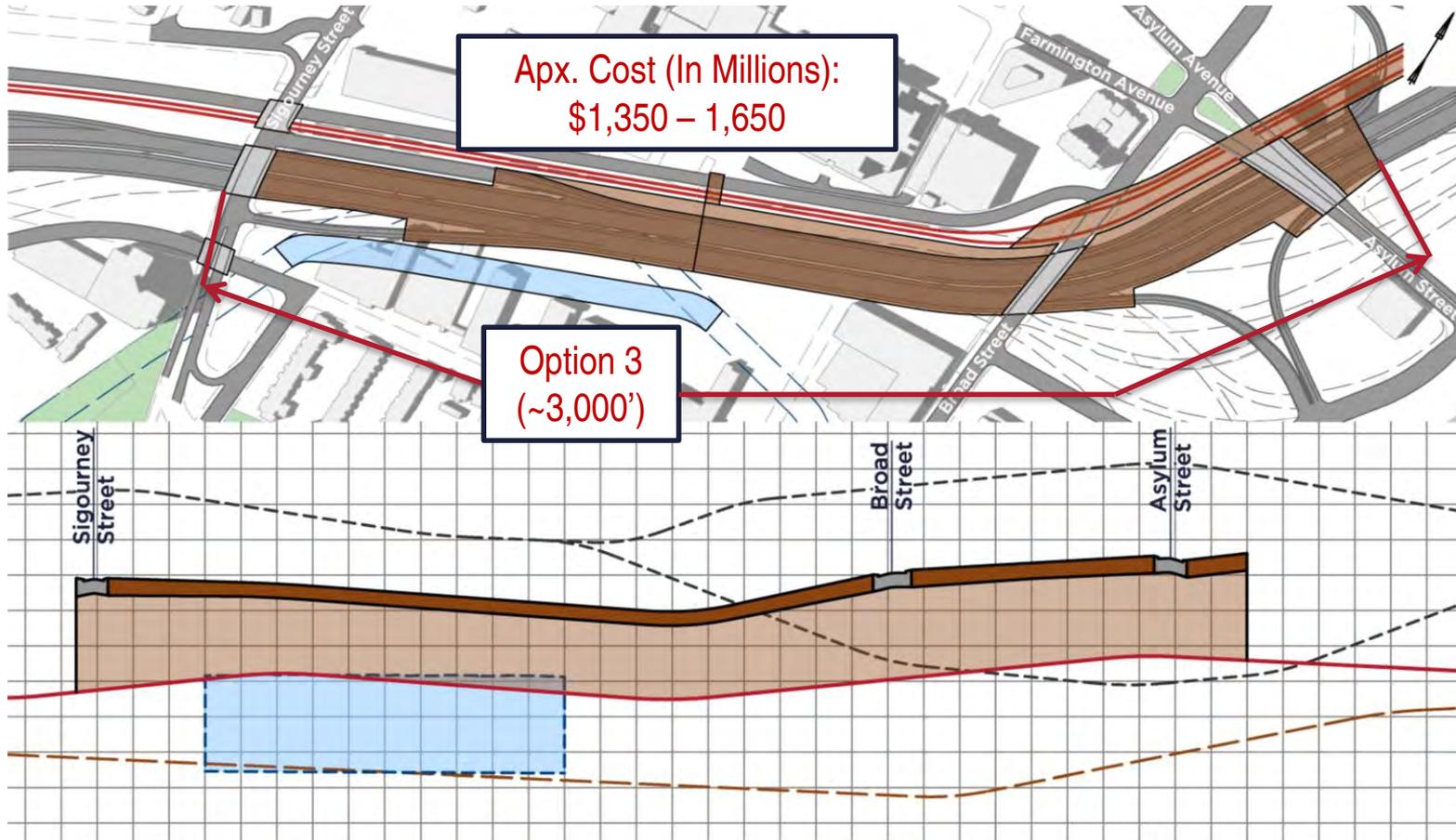




New Alternative: Capped Highway

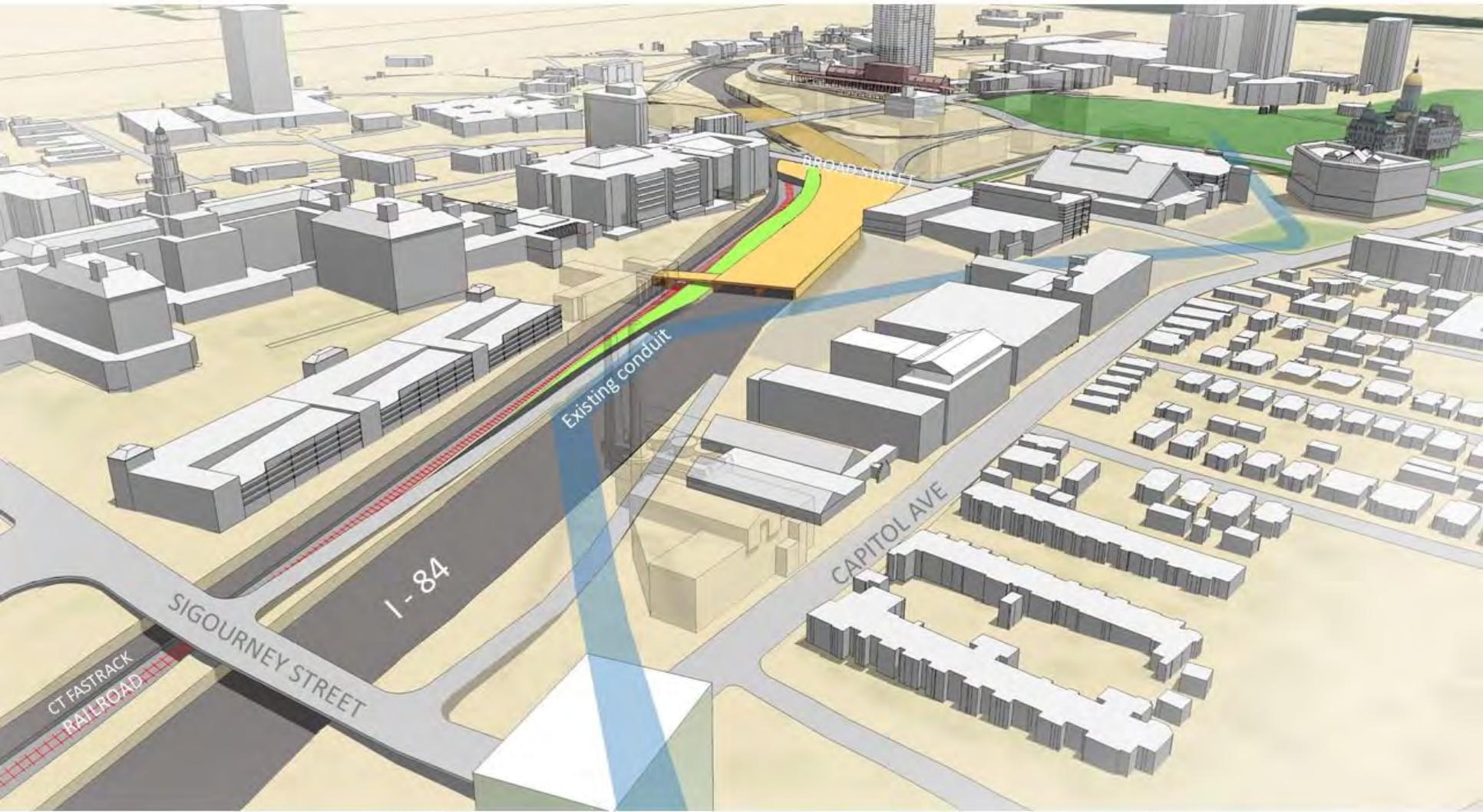


New Alternative: Capped Highway



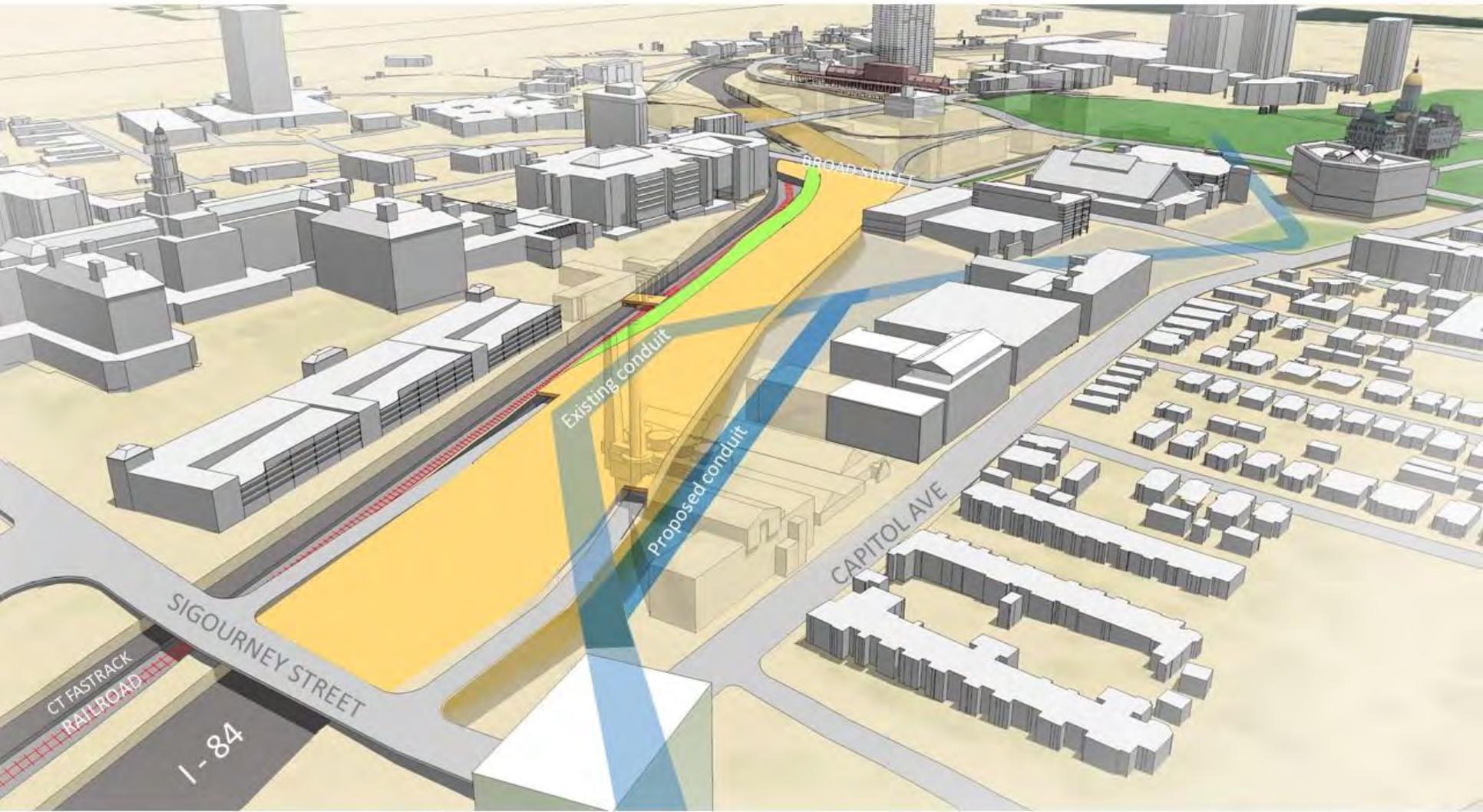


New Alternative: Capped Highway





New Alternative: Capped Highway





New Alternative: Capped Highway





New Alternative: Capped Highway





I-84 Construction Considerations

Conventional Construction

- Typically has longer duration
- Bridge elements are constructed on site
- Maintain traffic
- Requires temporary construction, increasing cost



Accelerated Construction Technologies

- Typically has shorter duration
- Many elements are constructed offsite, called prefabrication
- Unconventional methods of maintaining traffic



Example of ACT: I-84 Southington, CT





Maintaining Traffic During Construction

- Influences alignment (on vs. off alignment)
- Affects construction approach

Alignment 3B



Alignment 3C

Section or Lane Closures on I-84

- Expedite construction
- Minimize / avoid property impacts
- Reduce community / economic impacts
- Reduce costs
- Save time



Case Study: SmartFix40

- 2.5 miles of I-40 in Knoxville, TN
- Carries 103,000 vehicles/day
- Left-hand on-ramps/short weaves



Case Study: SmartFix40

- Conducted extensive public outreach
- Improved local road network
- Closed I-40 for 14 months for accelerated construction (versus 3+ years estimated for conventional construction)



Case Study: SmartFix40

What did they build?

- One cut-and-cover tunnel
- 25 bridges
- 48 retaining walls
- 7,500 linear feet of noise walls





Case Study: SmartFix40

*“The number one reason for closing the interstate...is time, but by rerouting traffic around the construction site, **we’re also proving safer conditions for motorists and workers.** This project will be the benchmark for future urban projects.”*

- TDOT Commissioner

*“It was one of the first projects where TDOT took a step back and really considered the total impact and user costs, not just the construction costs. **‘What is this project going to cost the total economy if construction dragged out for another couple of years?’**”*

-Project Manager

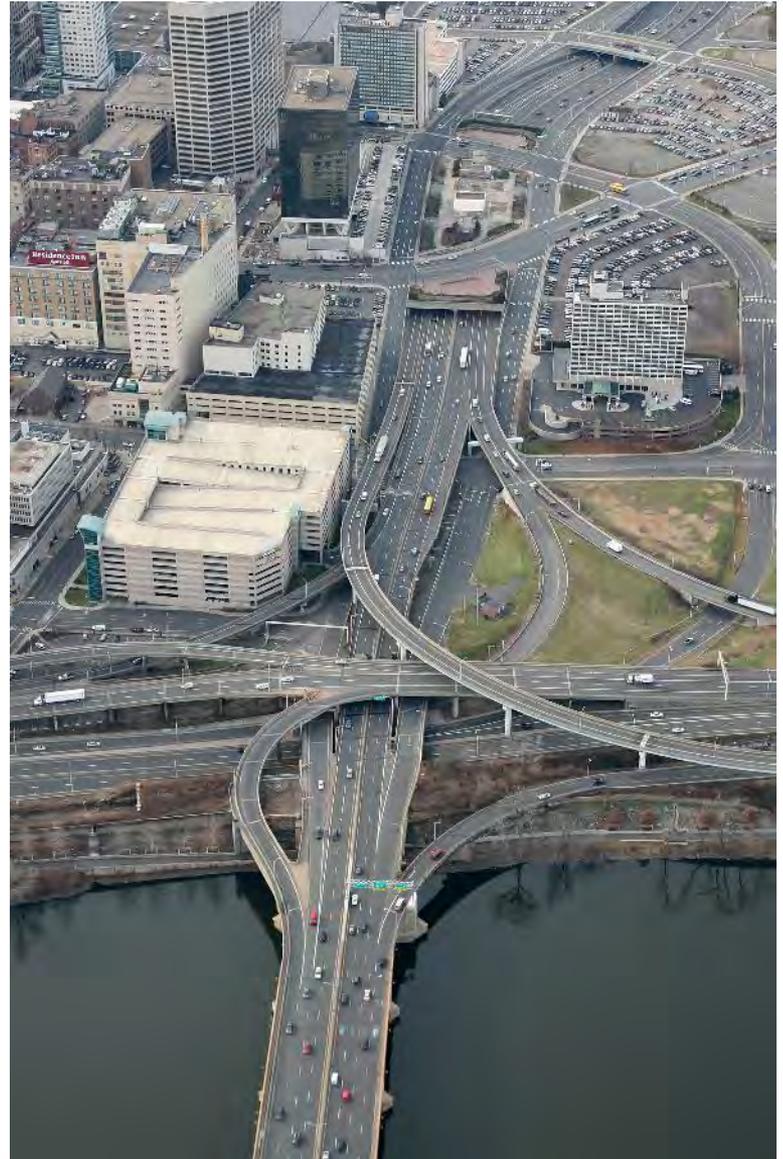


I-84/I-91 Interchange Study



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



Learn More/Next Steps





Visit our Interactive Alternatives Webpage

- View and assess the alternatives
- Provide feedback, ask questions
- i84hartford.com

The screenshot displays a web interface for the I-84 Hartford project. It features several map panels showing different highway alignments (Alternative 2/3 W2, Alternative 2/3 W3-1, Alternative 2/3 W4) and a detailed cross-section of the highway alignment. The cross-section shows the highway alignment above ground level, with various street crossings (Sigourney Street, Broad Street, Asylum Street, High Street, Ann Uccello Street) and conduits (North Branch of Park River Conduit, Park River Conduit, Gully Brook Conduit). A legend indicates the alignment types: Elevated, Lowered, and Tunnel. Other considerations include Avoid property impacts, Minimize property impacts, and Maximize safety and mobility. The interface also includes a search bar, a 'View larger' button, and a 'Partial Interchange Laurel, WB Dir, West Blvd, CC' label.

OPEN PLANNING STUDIO
View materials from our August 12th event.

INTERACTIVE ALTERNATIVES ANALYSIS

HARTFORD TIMELINE
Read a brief history of transportation in Hartford.

RELATED PROJECTS
View map and descriptions of other projects related to I-84.

3D INTERACTIVE MODEL
Explore the project area.

**Interactive Alternatives Analysis:
Evaluating the Alternatives**



Next Steps

- Continue to assess the alternatives
- Further assess bicycle and pedestrian
- Narrow / eliminate options (first quarter 2016)
- Conduct additional stakeholder outreach



Public Input Is Crucial!



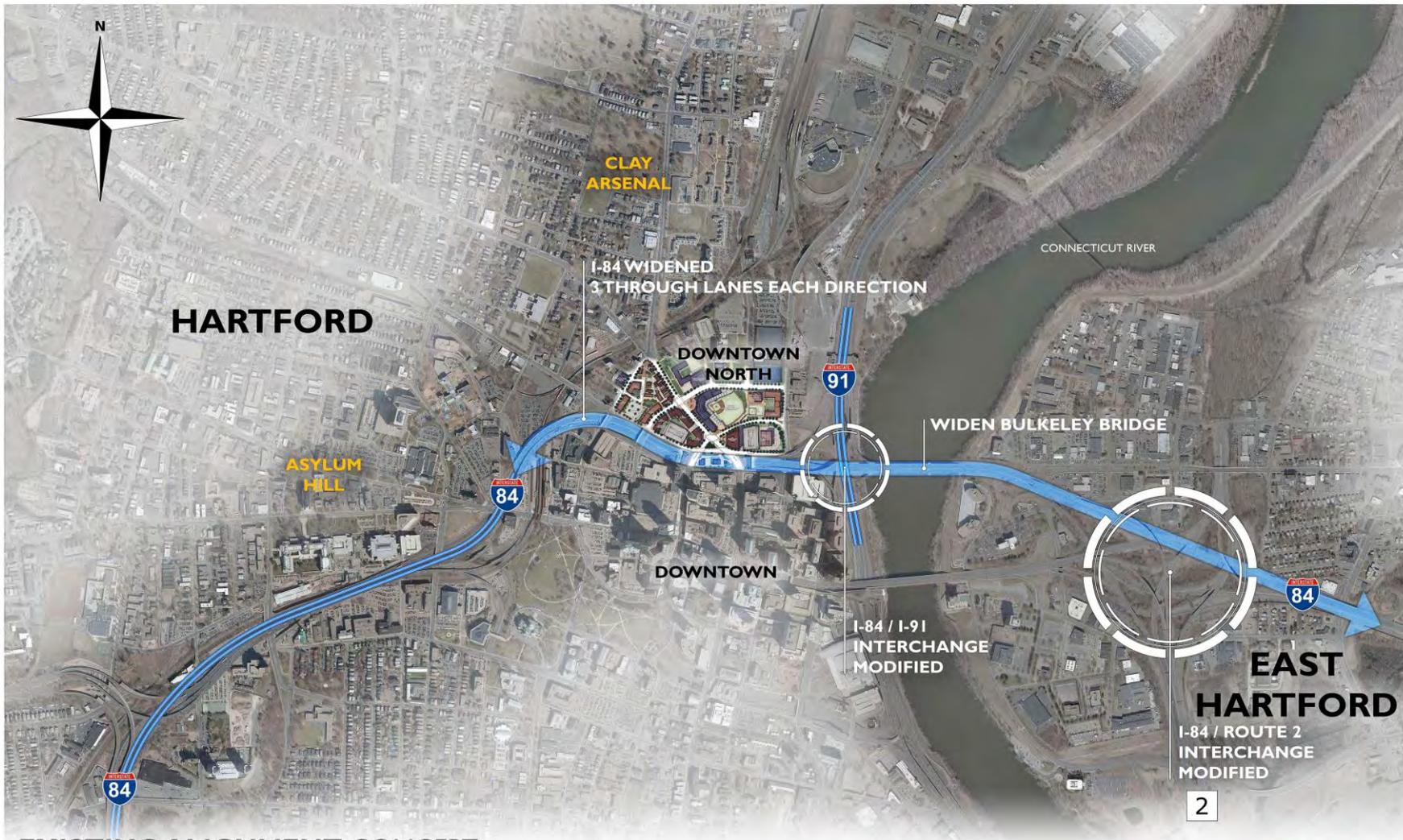
I-84 HARTFORD PROJECT

Thank you!





I-84 HARTFORD PROJECT



EXISTING ALIGNMENT CONCEPT

I-84 CAPACITY IMPROVEMENTS

INTERSTATE 84 | HARTFORD, CT



EXPERIENCE | Transportation



I-84 HARTFORD PROJECT



NORTHERN RELOCATION CONCEPT

I-84 CAPACITY IMPROVEMENTS

INTERSTATE 84 | HARTFORD, CT



EXPERIENCE | Transportation



I-84 HARTFORD PROJECT

