



THE I-84 HARTFORD PROJECT

Traffic & Parking Working Group Meeting # 2

November 18, 2014



Agenda

- Welcome / Introductions
- Brief Presentation
 - Road vs street function primer
 - Trip origins and destinations
 - Major traffic generators
 - Parking supply density and utilization
- Conceptual Planning Work Session
 - Potential parking impacts and mitigation ideas
 - Ramp location pros and cons
 - City street improvement ideas
- Next Steps / Future Meetings

Quiz: Define Mobility

The movement of people from place to place
→ many people think of this:



Quiz: Define Accessibility

Ability to access many destinations by as many people as possible → many people think of this:





Mobility –vs- Accessibility



I-84



Most City Streets

Function of roads

- High mobility
- Connect economic centers
- Facilitate commerce



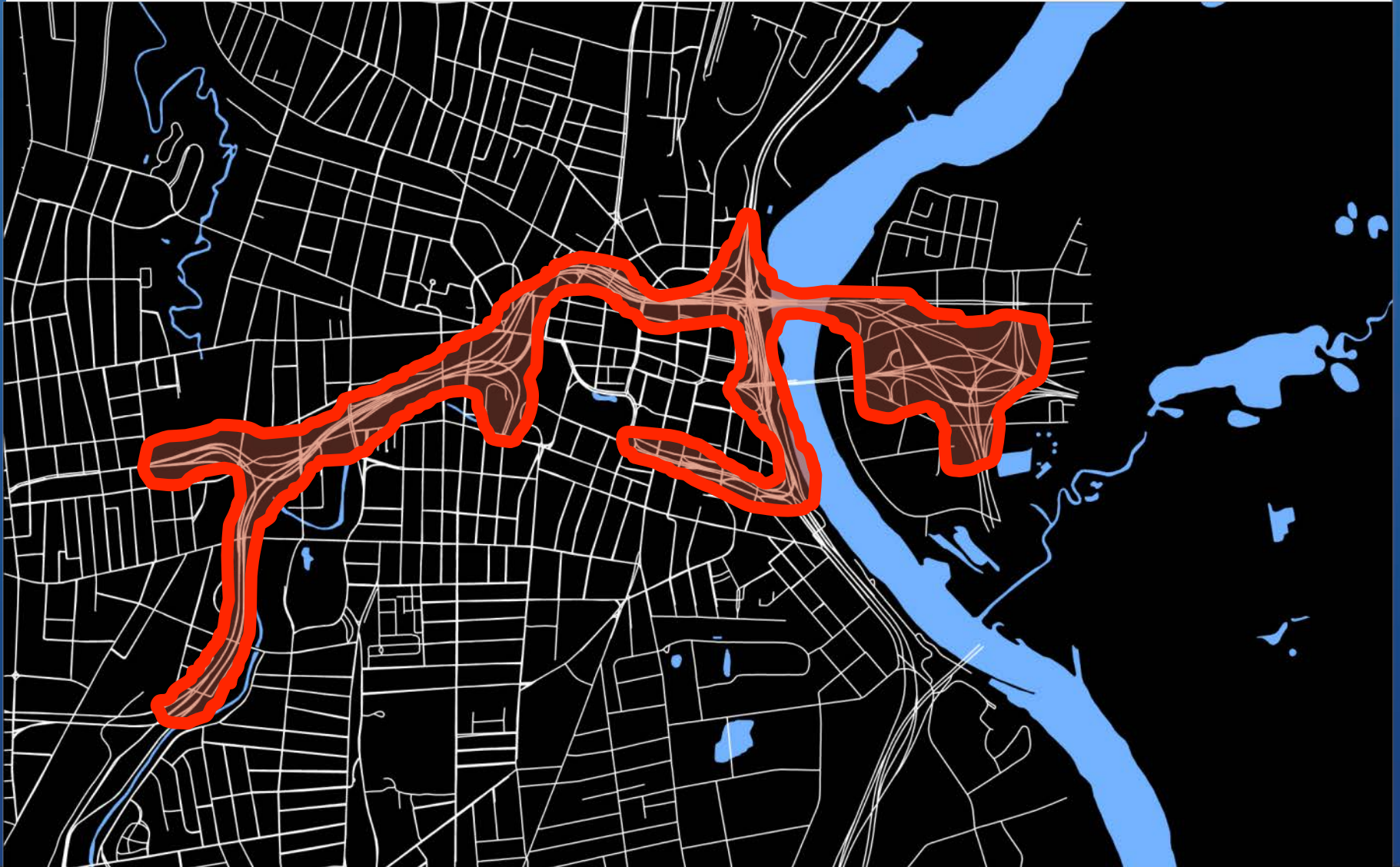
Function of streets

- High access
- Facilitate public interaction
- Minimize need for auto mobility





Hartford's network





Where the road meets the street



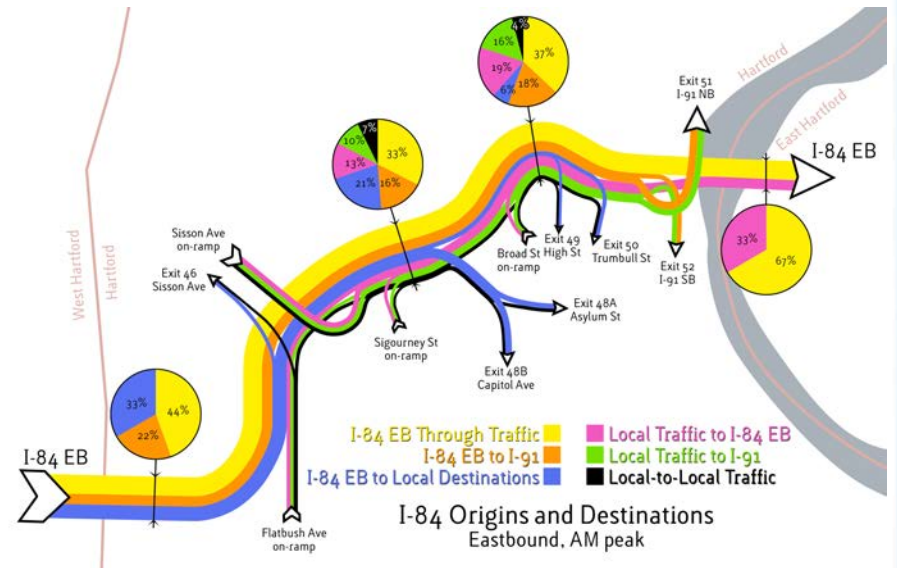
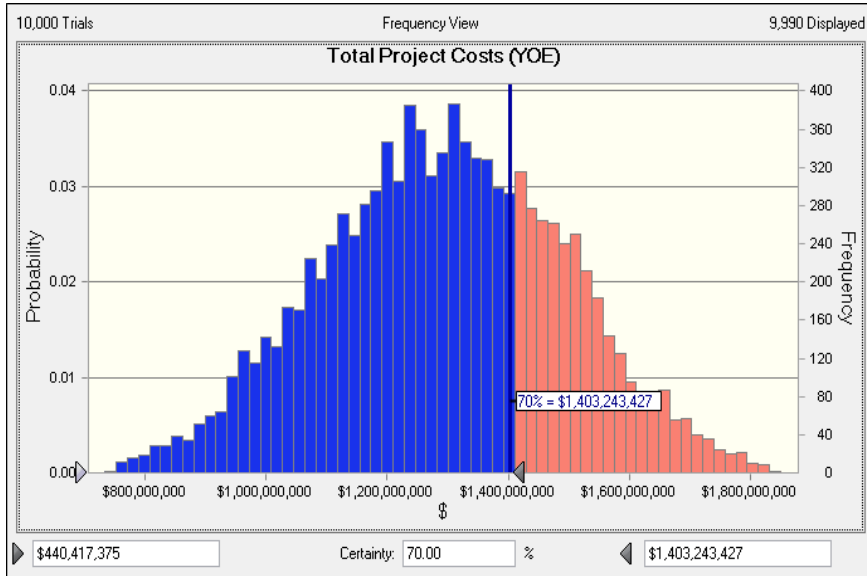
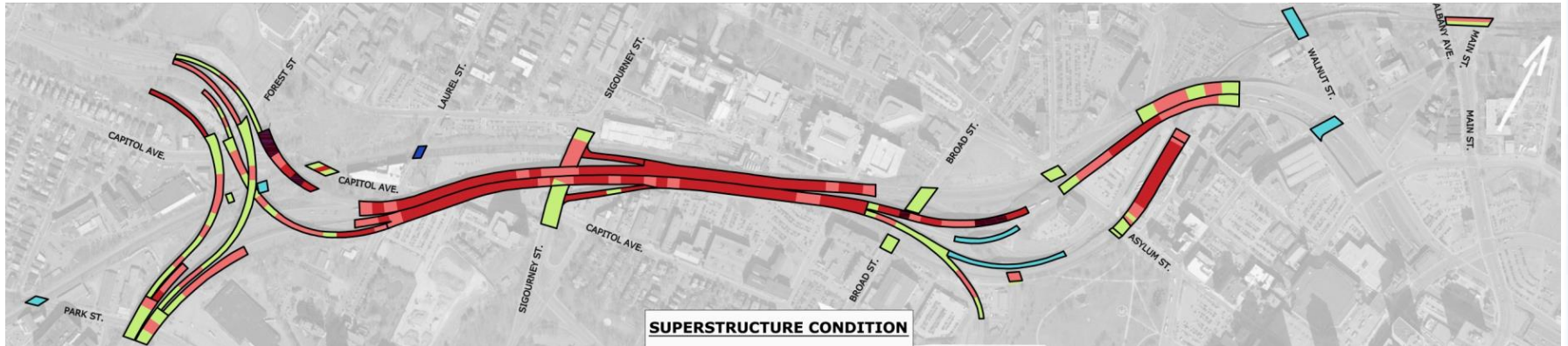
How to make better roads

- Minimize friction
 - Limit access
 - Straight alignment/standard geometry
 - Forgiving design
- We know how to do this well





Direct measurement



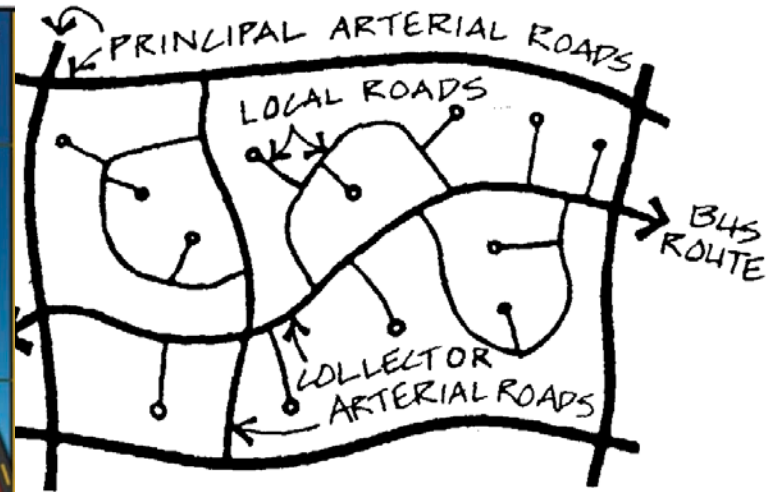
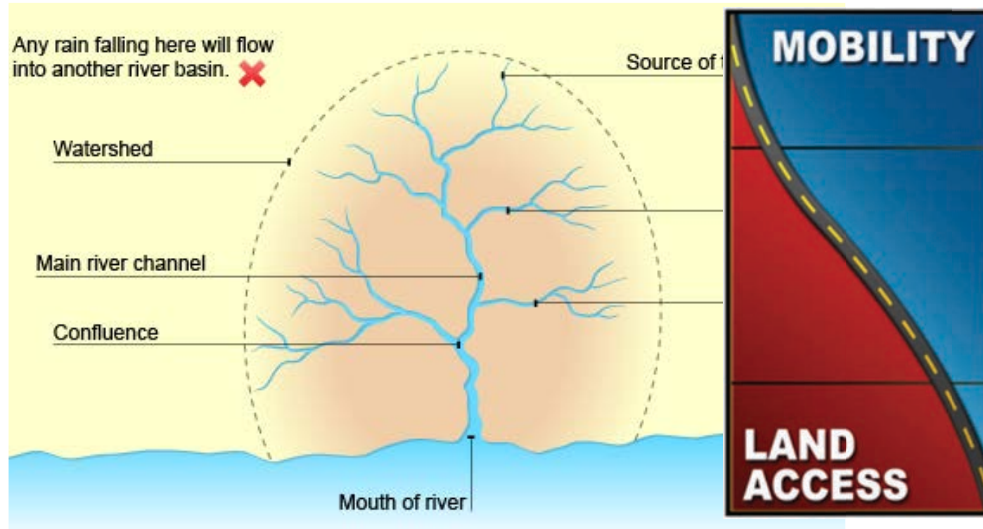
How to make better streets

- Increase network (parallel streets)
- Design for slow traffic speed
- Maximize non-auto travel options
- Design to suit context
- Strategically manage parking
- Mitigate confluences

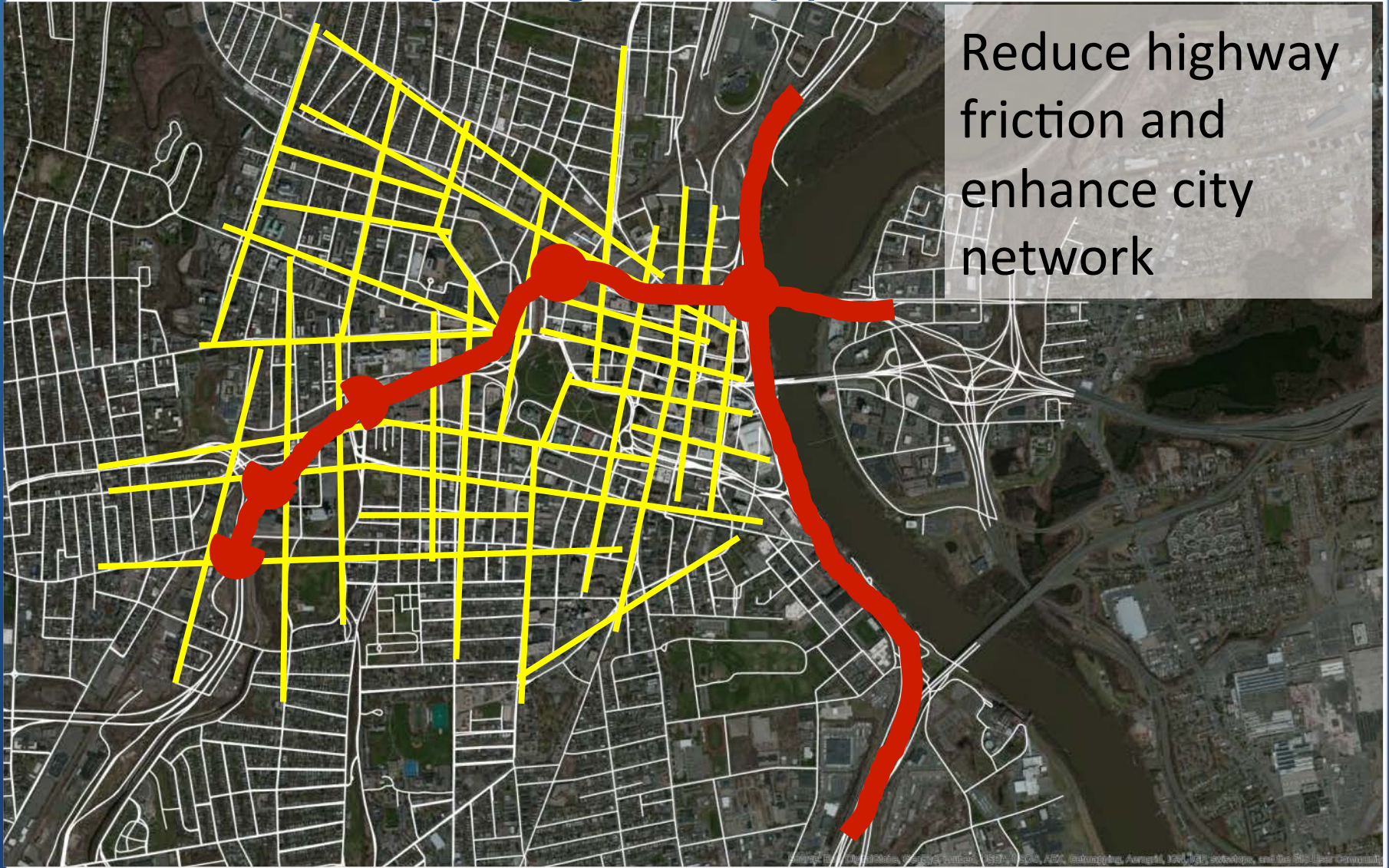


→ Make people the center of the solution!

What are confluences?



Synergistic approach



Reduce highway friction and enhance city network



But we have project limits





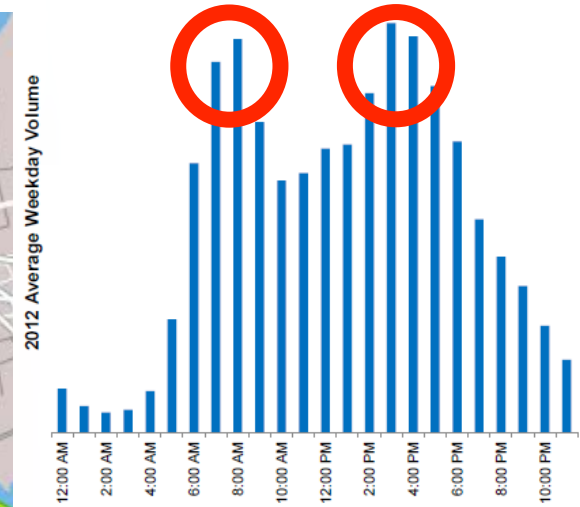
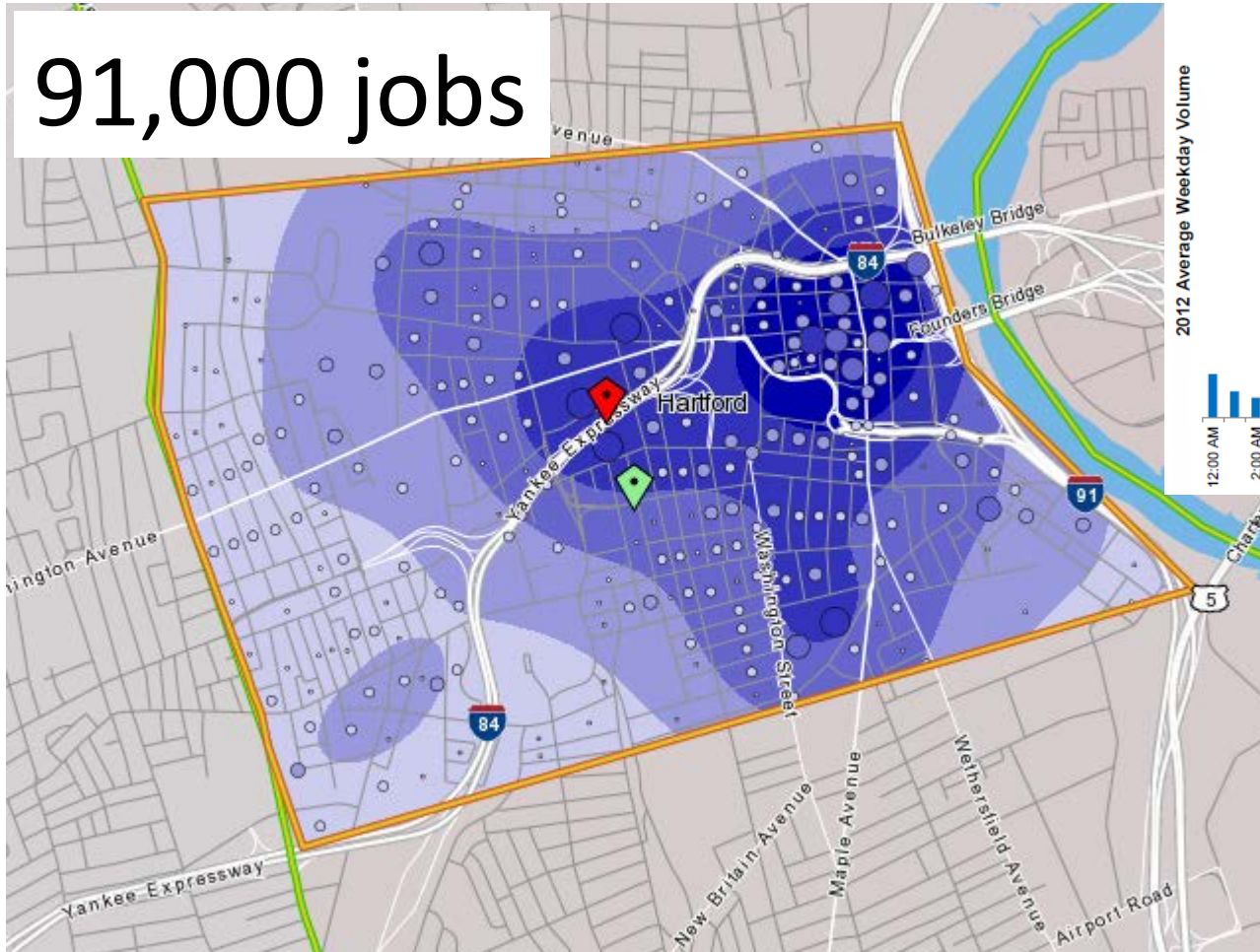
What can be done?





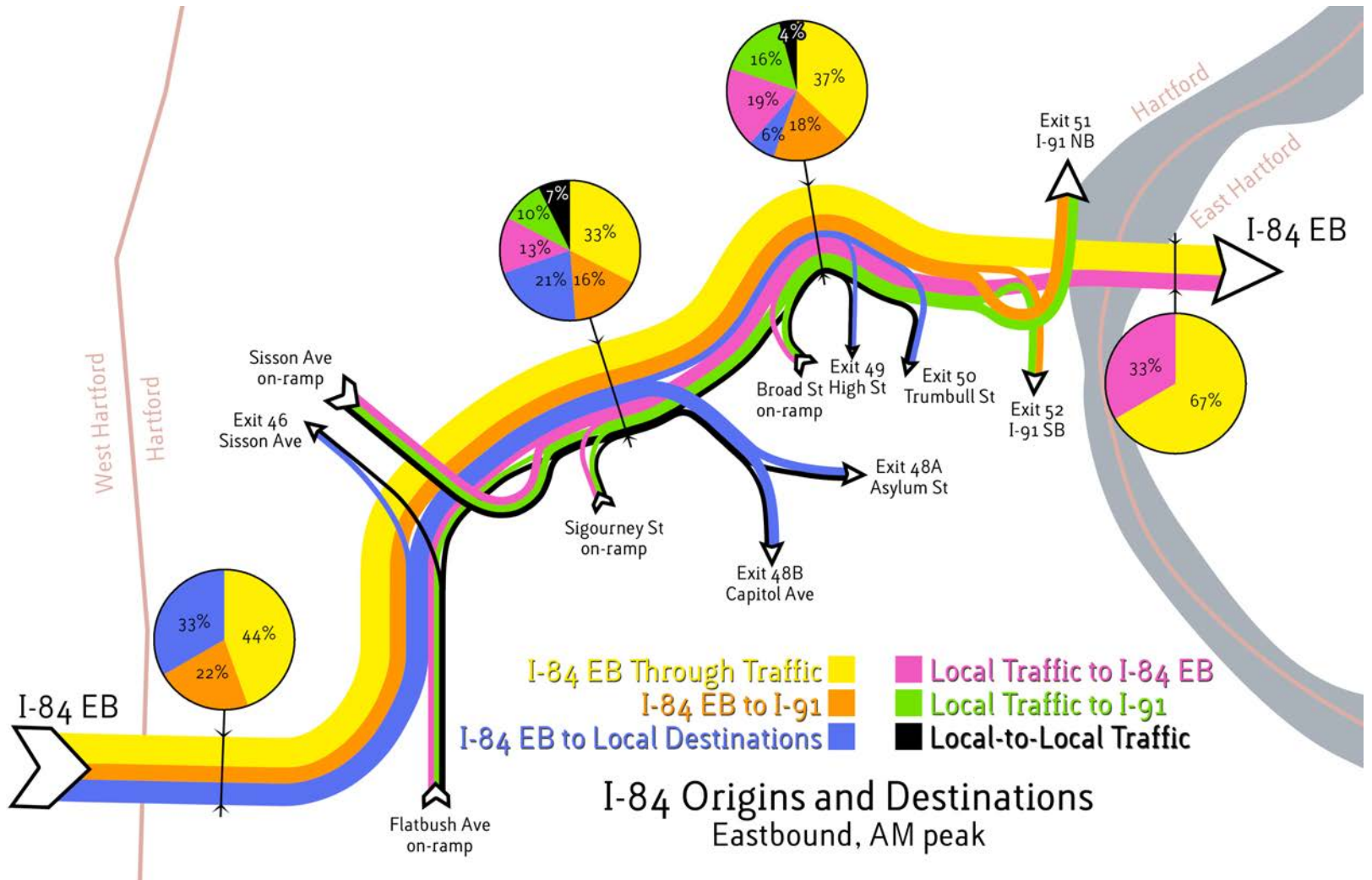
An employment destination

91,000 jobs



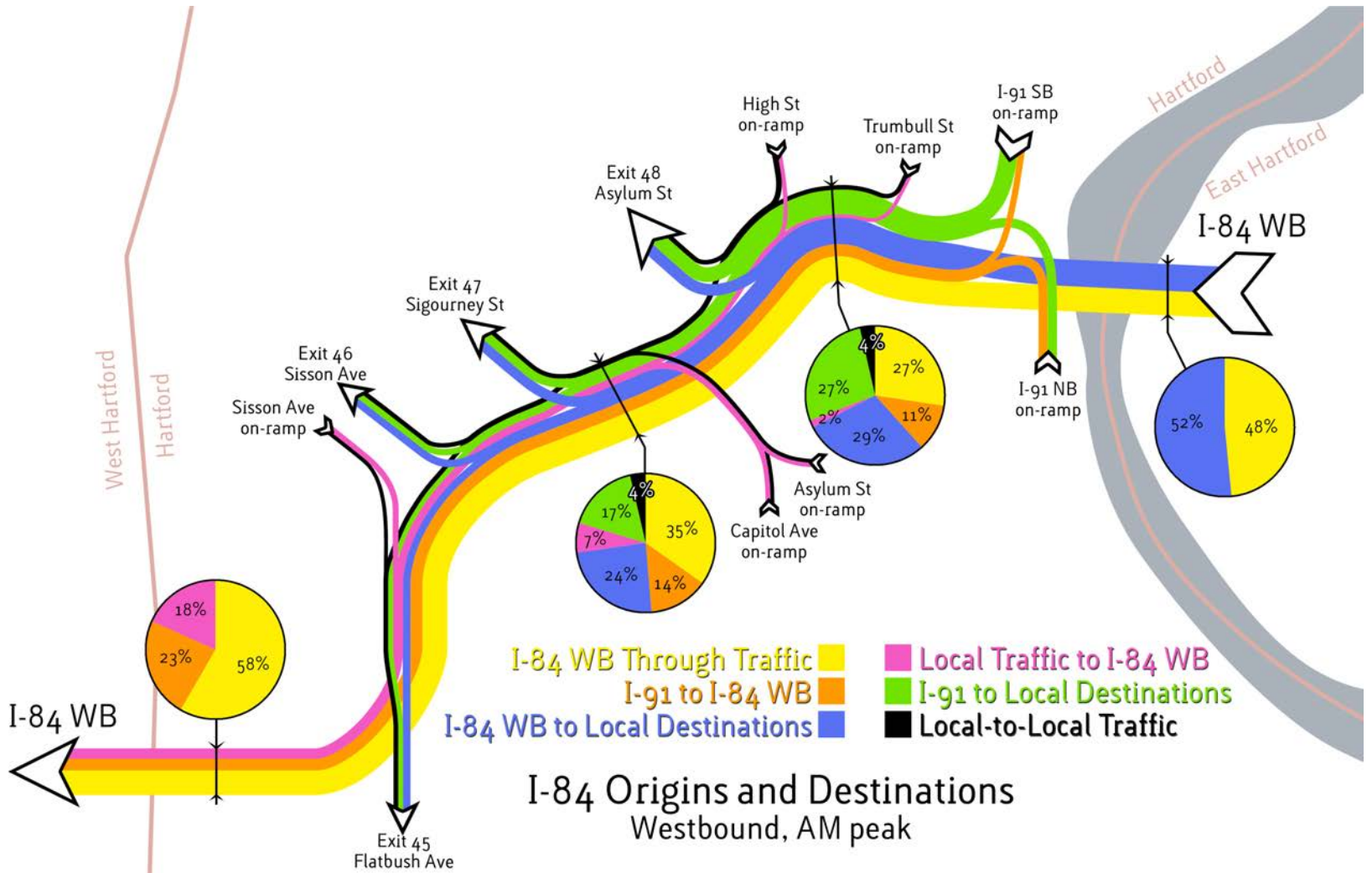


Eastbound AM trips



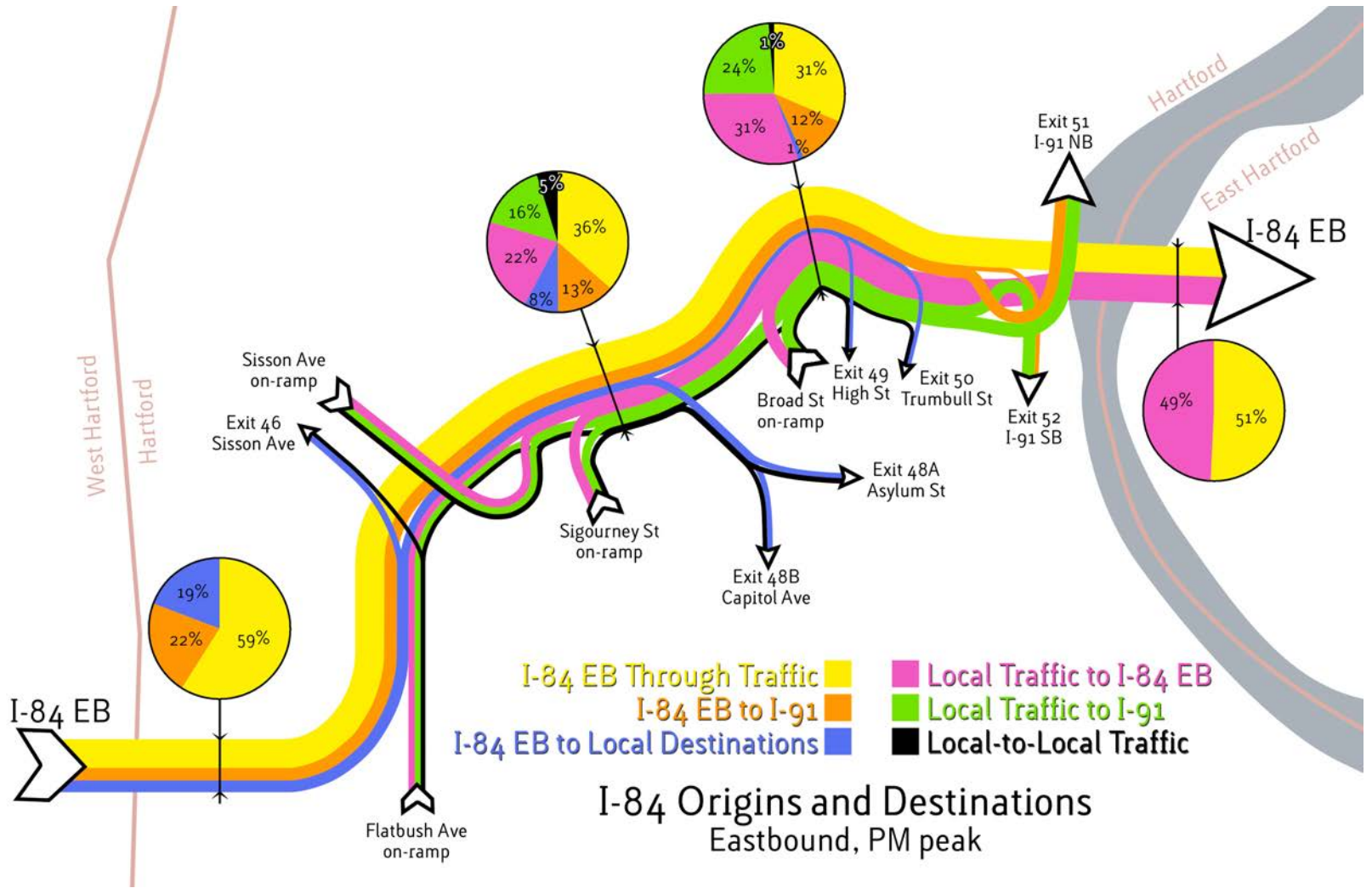


Westbound AM trips



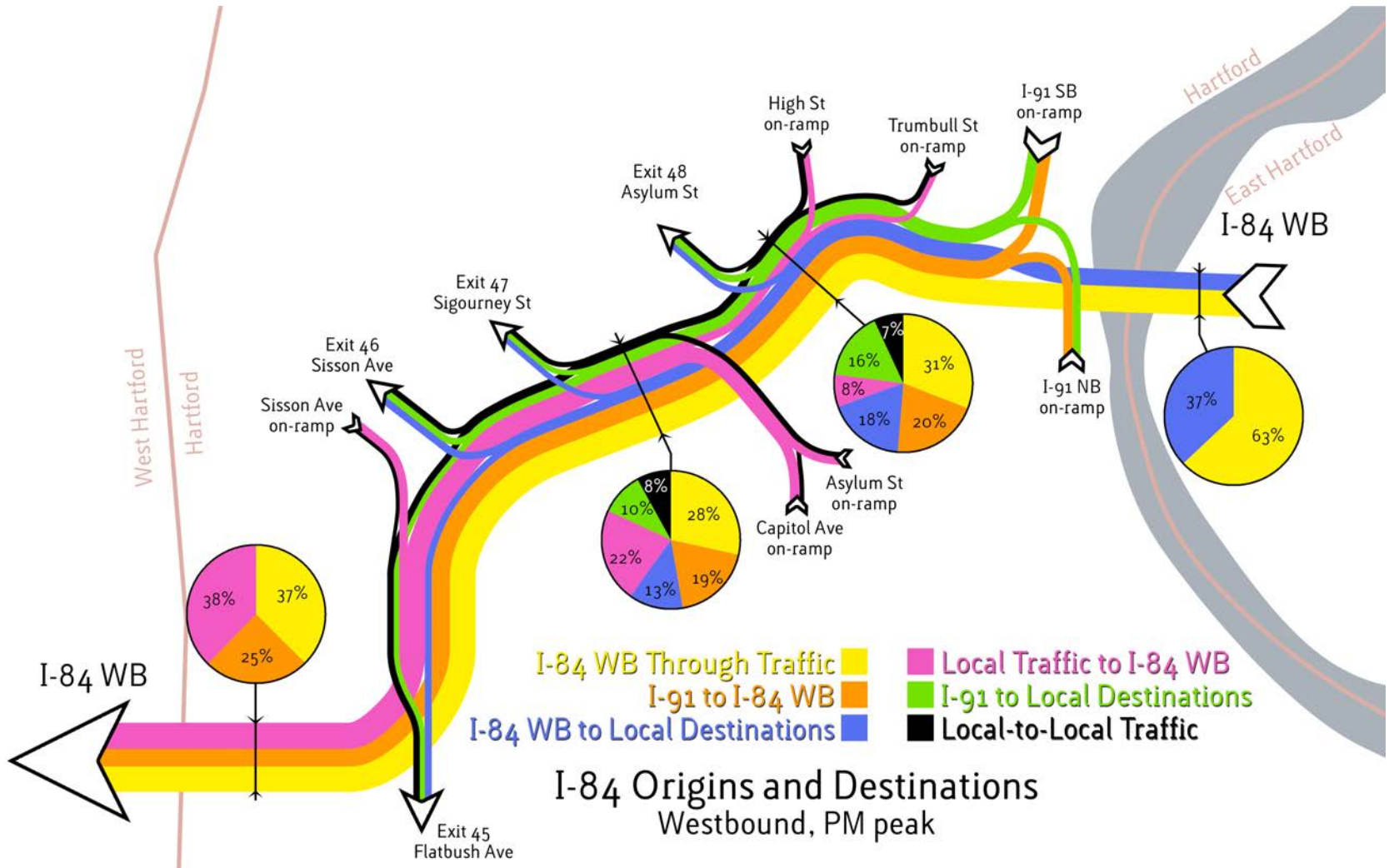


Eastbound PM trips



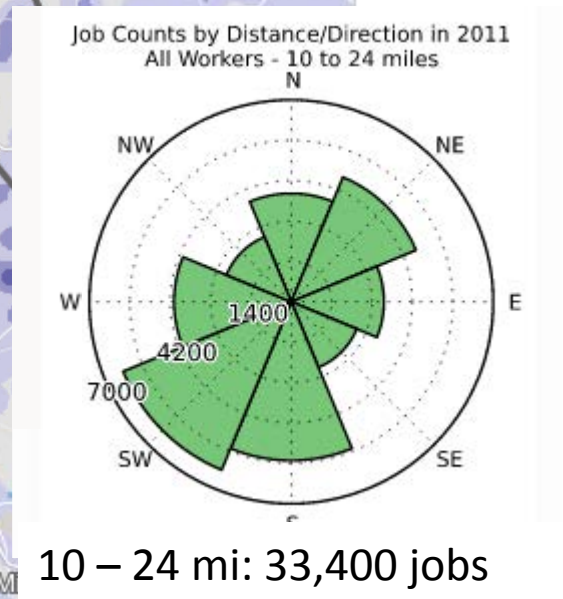
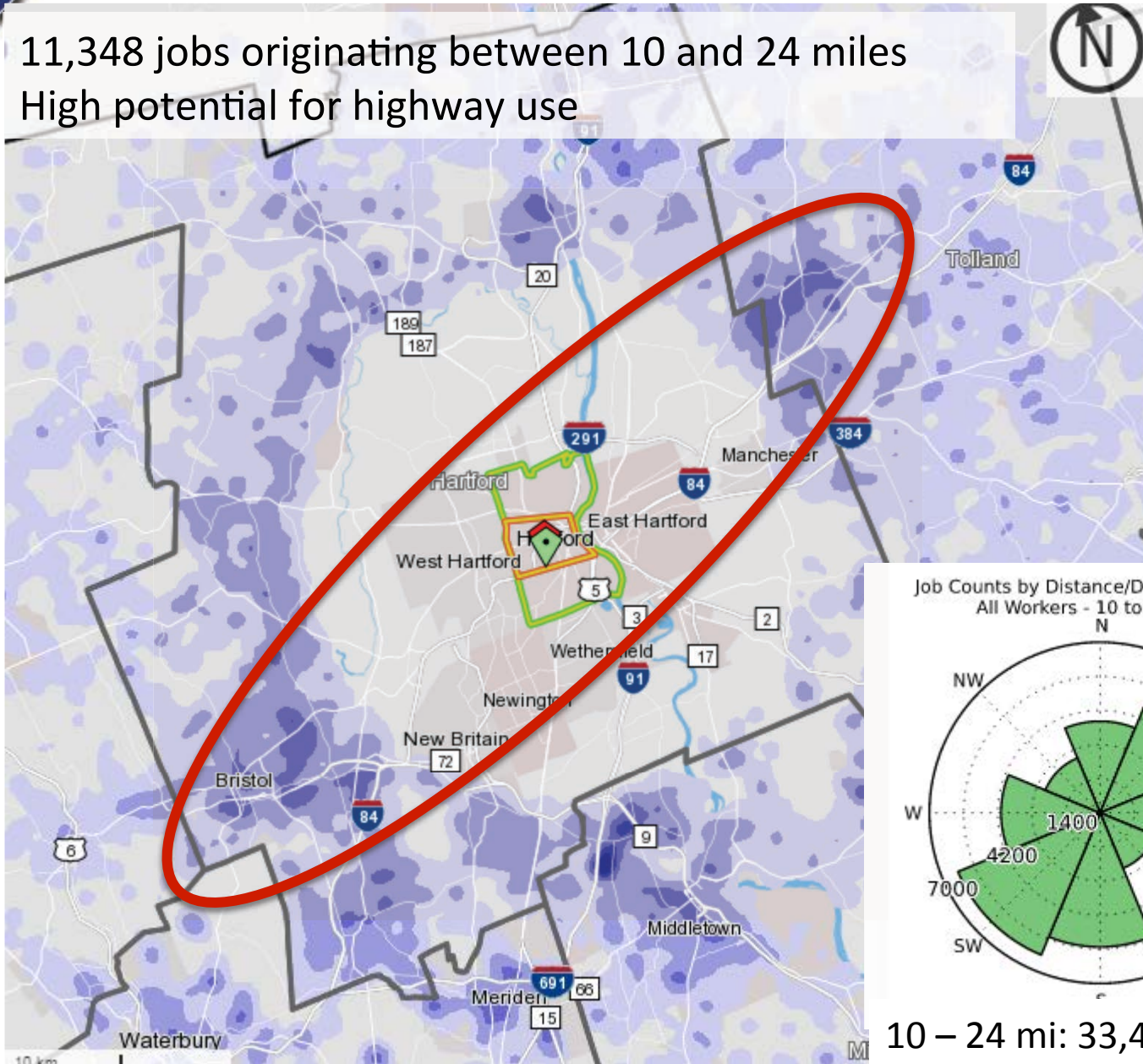


Westbound PM trips



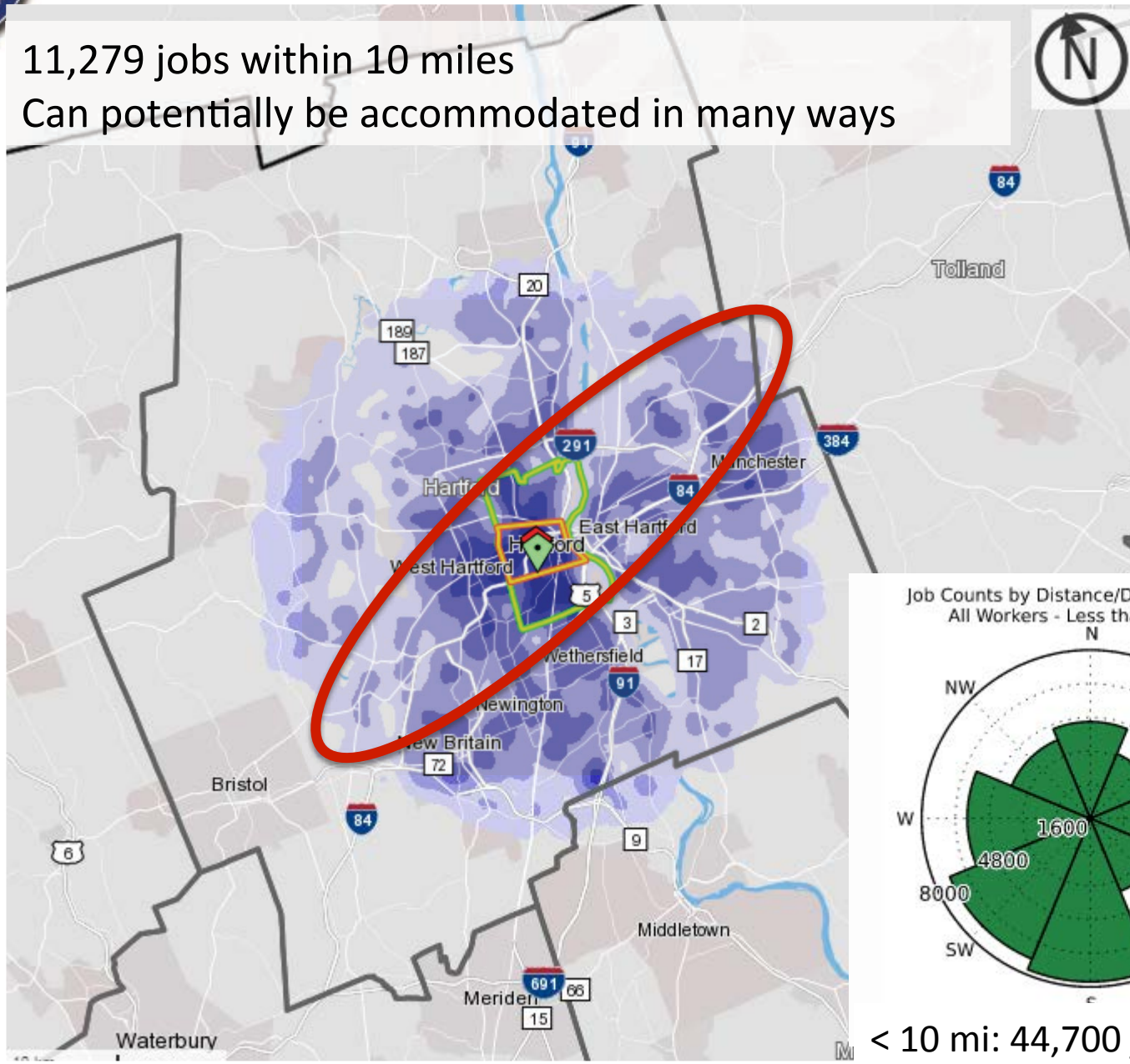


11,348 jobs originating between 10 and 24 miles
High potential for highway use

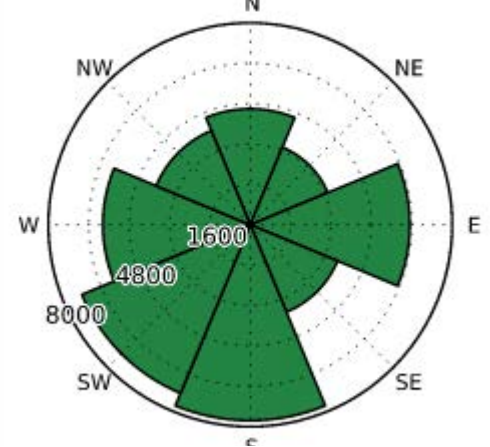




11,279 jobs within 10 miles
Can potentially be accommodated in many ways



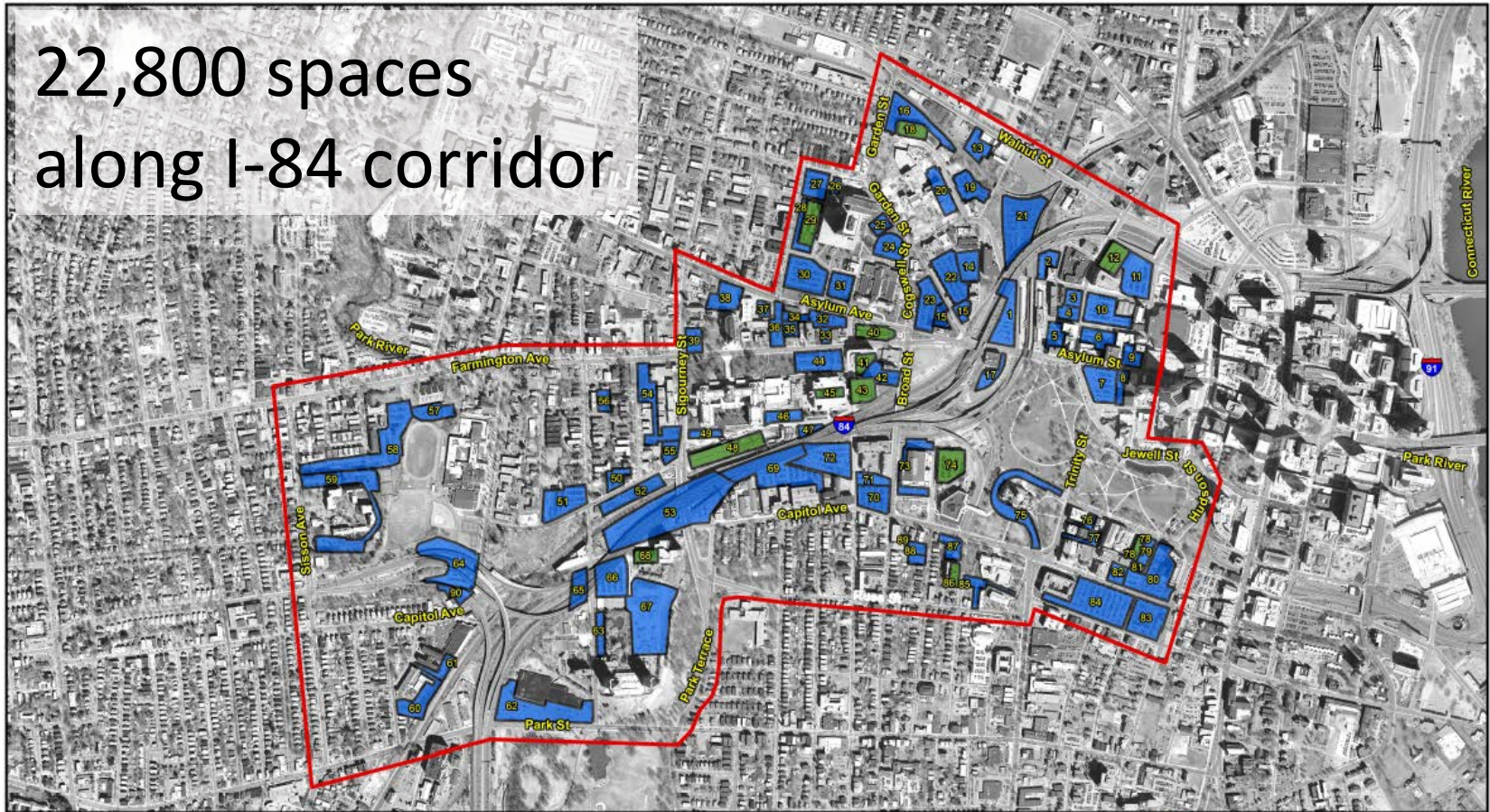
Job Counts by Distance/Direction in 2011
All Workers - Less than 10 miles



< 10 mi: 44,700 jobs

Parking is a destination

22,800 spaces
along I-84 corridor



LEGEND

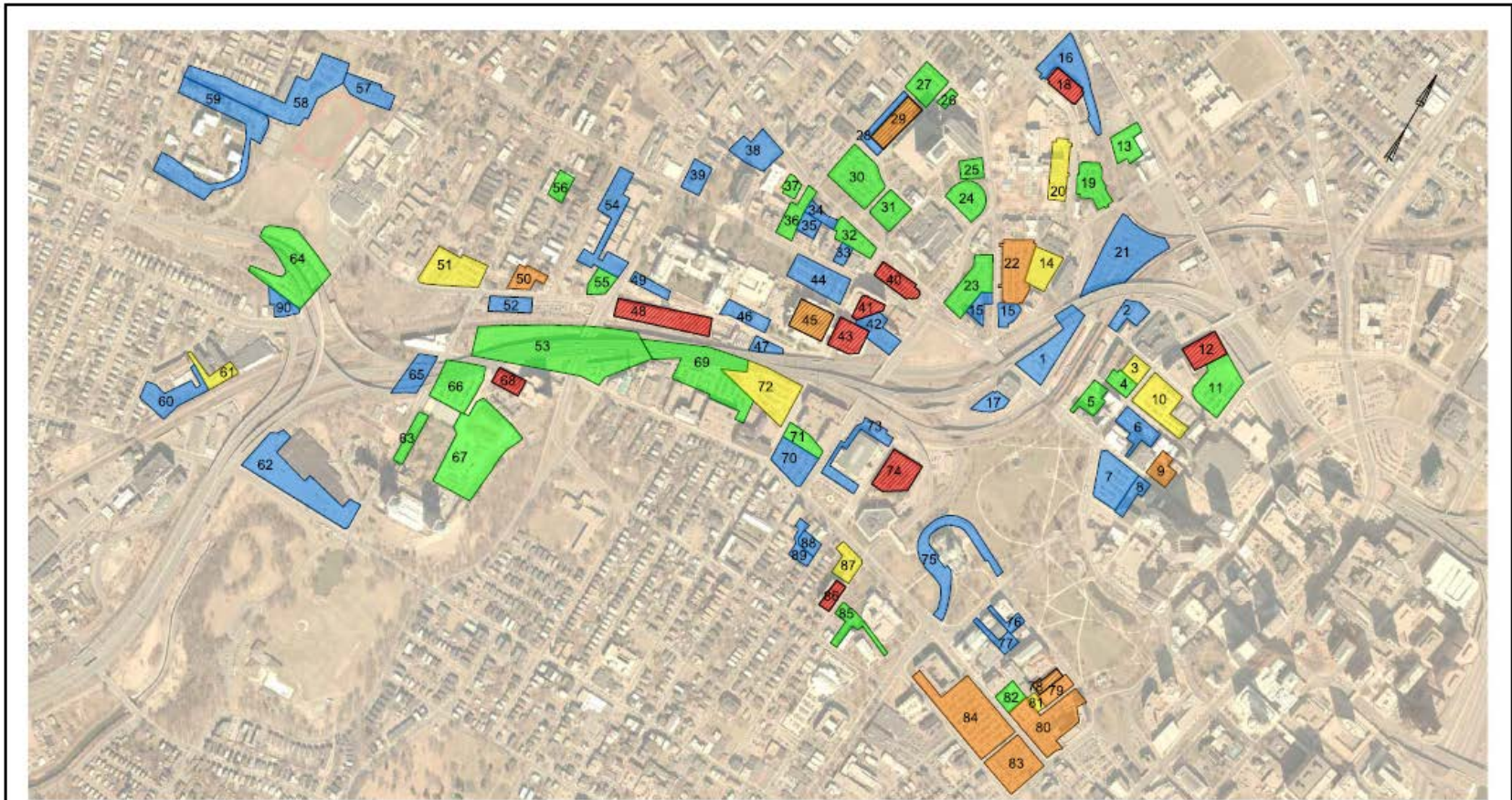
- Parking Lot
- Parking Garage
- Parking-Bicycle-Pedestrian Study Area



Sources of Data: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, swisstopo, and the GIS User Community

	The I-84 Hartford Project
Off-Street Parking Facilities Map	
Date: 6/26/2014	Drawn by: Parsons Brinckerhoff
Figure 2-4	

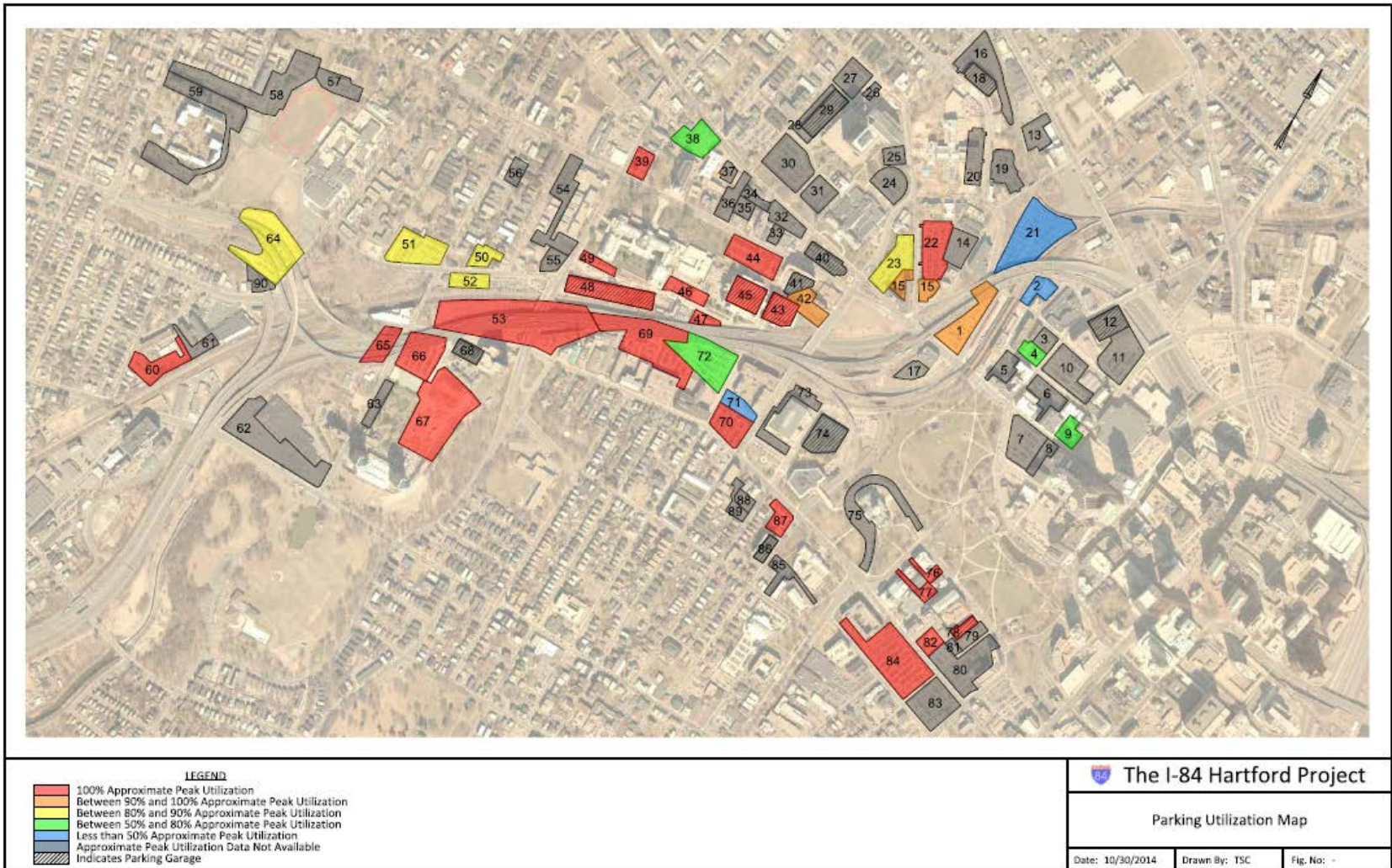
Parking density



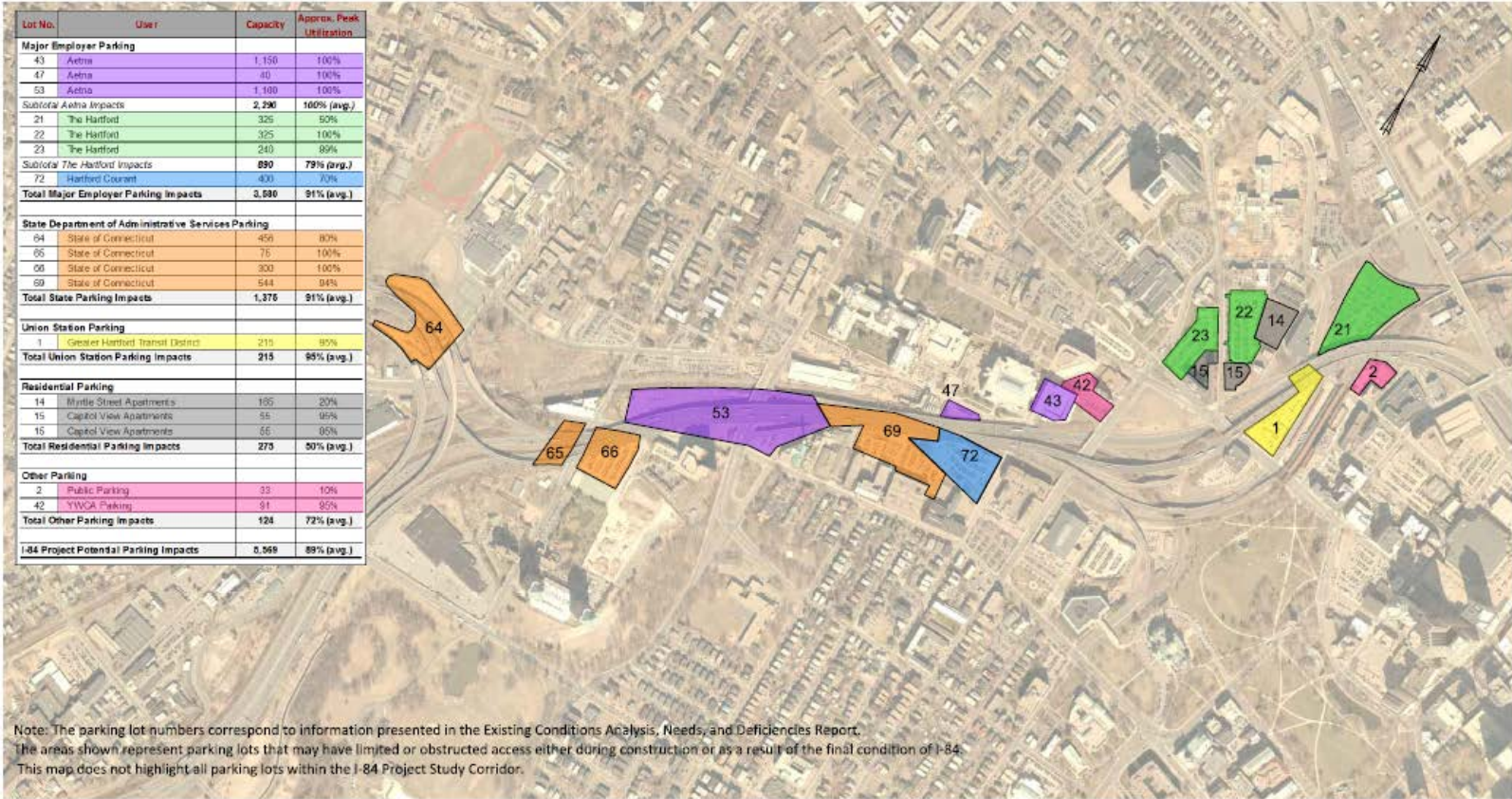
LEGEND

- Greater than or Equal to 90th Percentile Density
- Between 90th Percentile and 80th Percentile Density
- Between 80th Percentile and 70th Percentile Density
- Between 70th Percentile and 40th Percentile Density
- Less than 40th Percentile Density
- Indicates Parking Garage

Parking utilization



Potential impacts



LEGEND

Aetna Parking	State Department of Administrative Services Parking
The Hartford Parking	Union Station Parking
Hartford Courant Parking	Residential Parking
	Other Parking



Conceptual Planning Work Session

Review the 4 conceptual alternatives considering the following:

- Potential parking relocation
- Ramp location pros and cons
- City street improvement ideas



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Preliminary Alternative 1 – No-Build Existing Railroad Alignment

Key Features

I-84 Mainline: Bridges replaced or rehabilitated

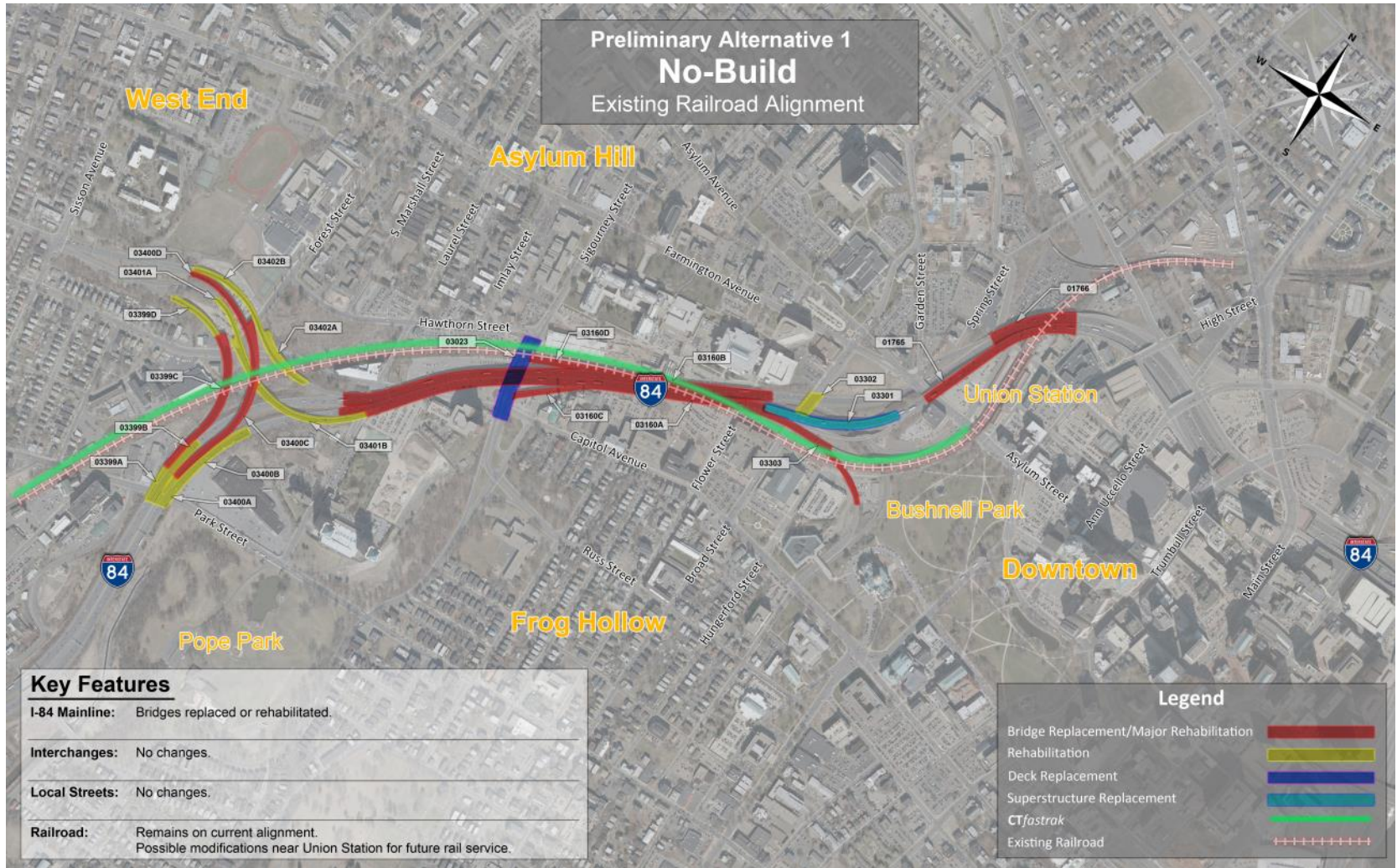
Interchanges: No changes

Local Streets: No Changes

Railroad: Remains on current alignment. Possible modifications near Union Station for future rail service.



Preliminary Alternative 1





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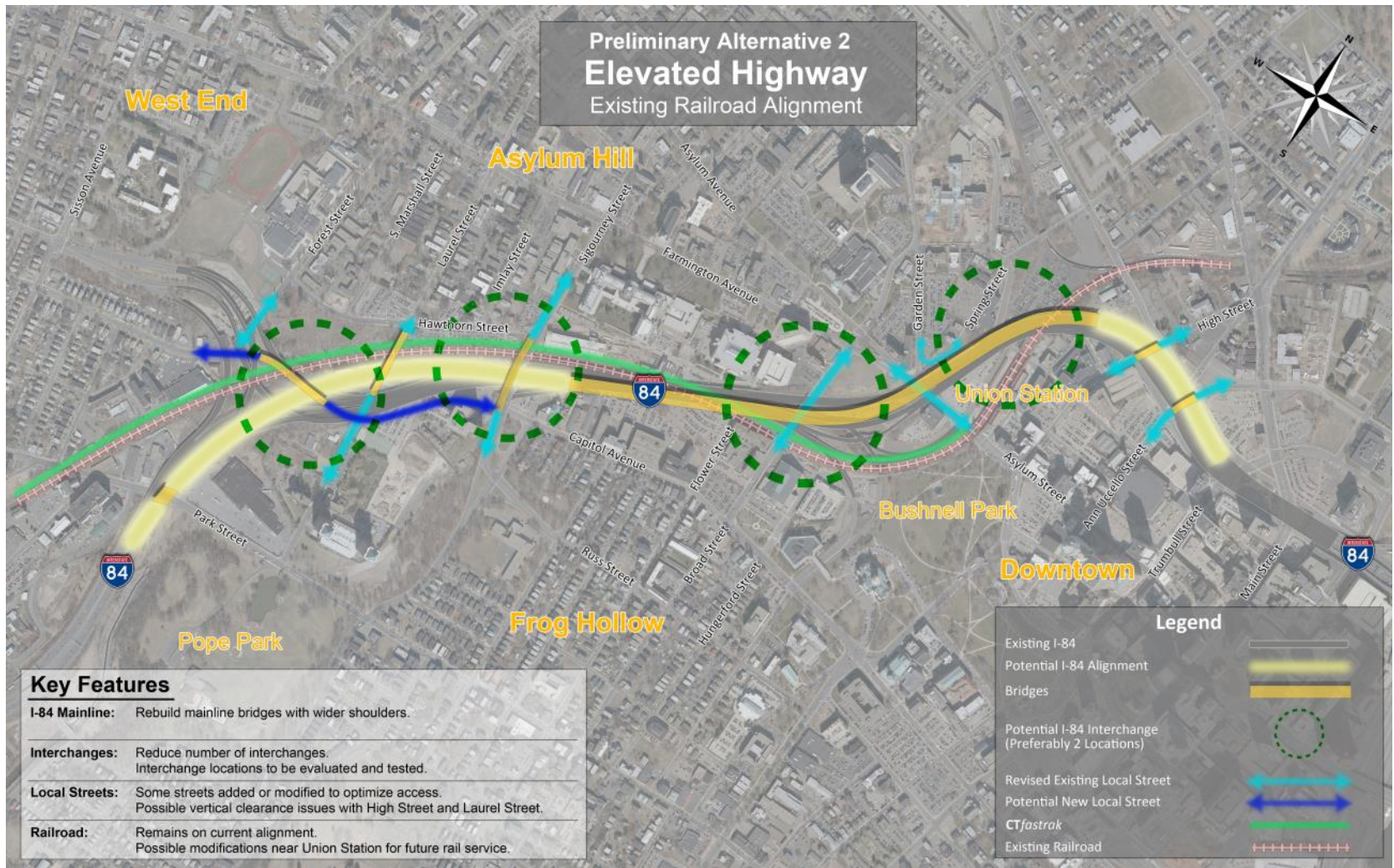
Preliminary Alternative 2 – Elevated Highway Existing Railroad Alignment

Key Features

- I-84 Mainline:** Rebuild mainline bridges with wider shoulders
- Interchanges:** Reduce number of interchanges
Interchange locations to be evaluated and tested
- Local Streets:** Some streets added or modified to optimize access
Possible vertical clearance issues at High St. and
Laurel St.
- Railroad:** Remains on current alignment. Possible modifications
near Union Station for future rail service.



Preliminary Alternative 2





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Preliminary Alternative 3 – Lowered Highway

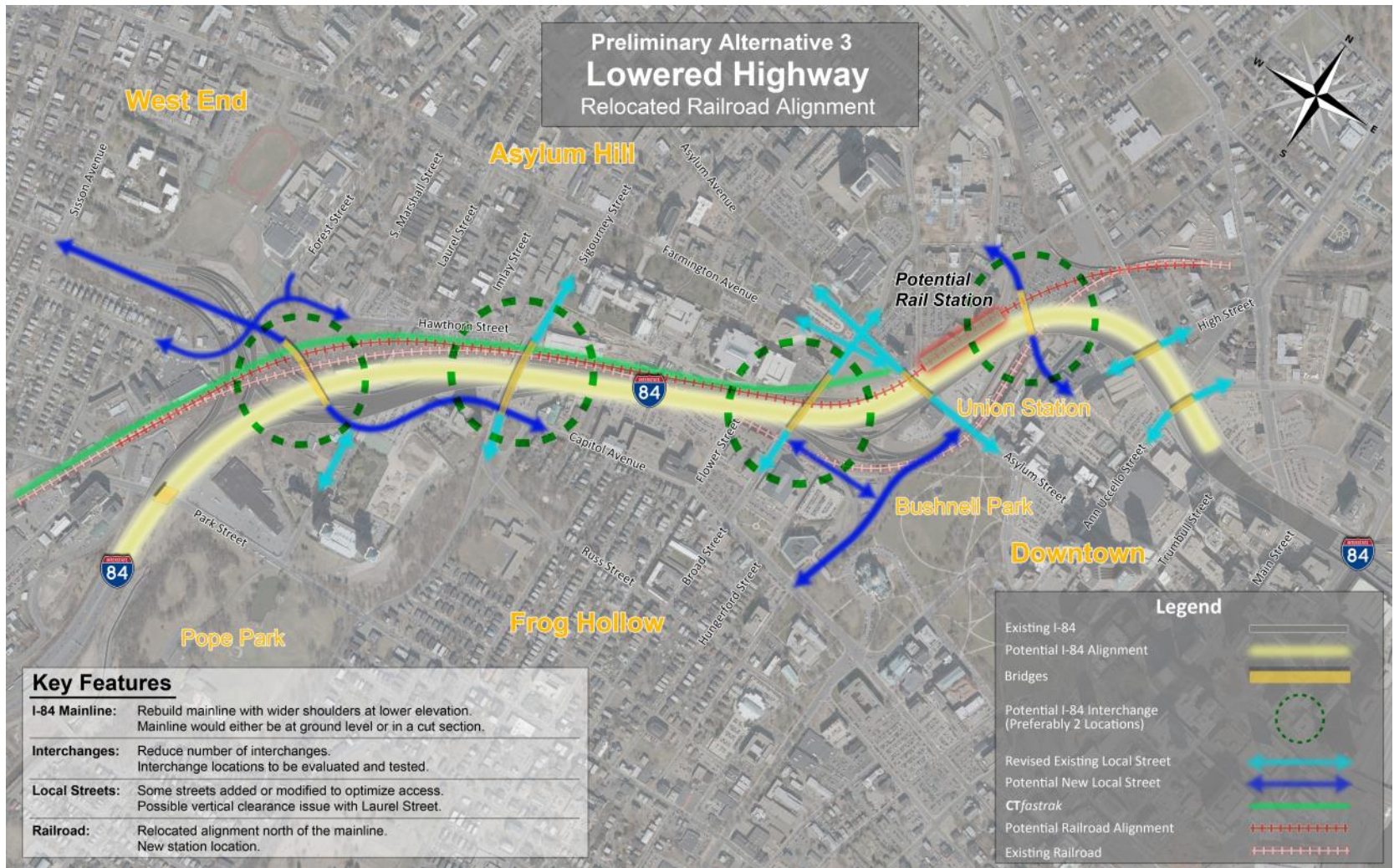
Relocated Railroad Alignment

Key Features

- I-84 Mainline:** Rebuild mainline with wider shoulders at lower elevation
Mainline would either be at ground level or in a cut section
- Interchanges:** Reduce number of interchanges
Interchange locations to be evaluated and tested
- Local Streets:** Some streets added or modified to optimize access
Possible vertical clearance issue with Laurel Street
- Railroad:** Relocated alignment north of mainline
New station location



Preliminary Alternative 3





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Preliminary Alternative 4 – Tunneled Highway Relocated Railroad Alignment

Key Features

I-84 Mainline: Rebuild mainline in an underground section from Myrtle

Street to Laurel Street

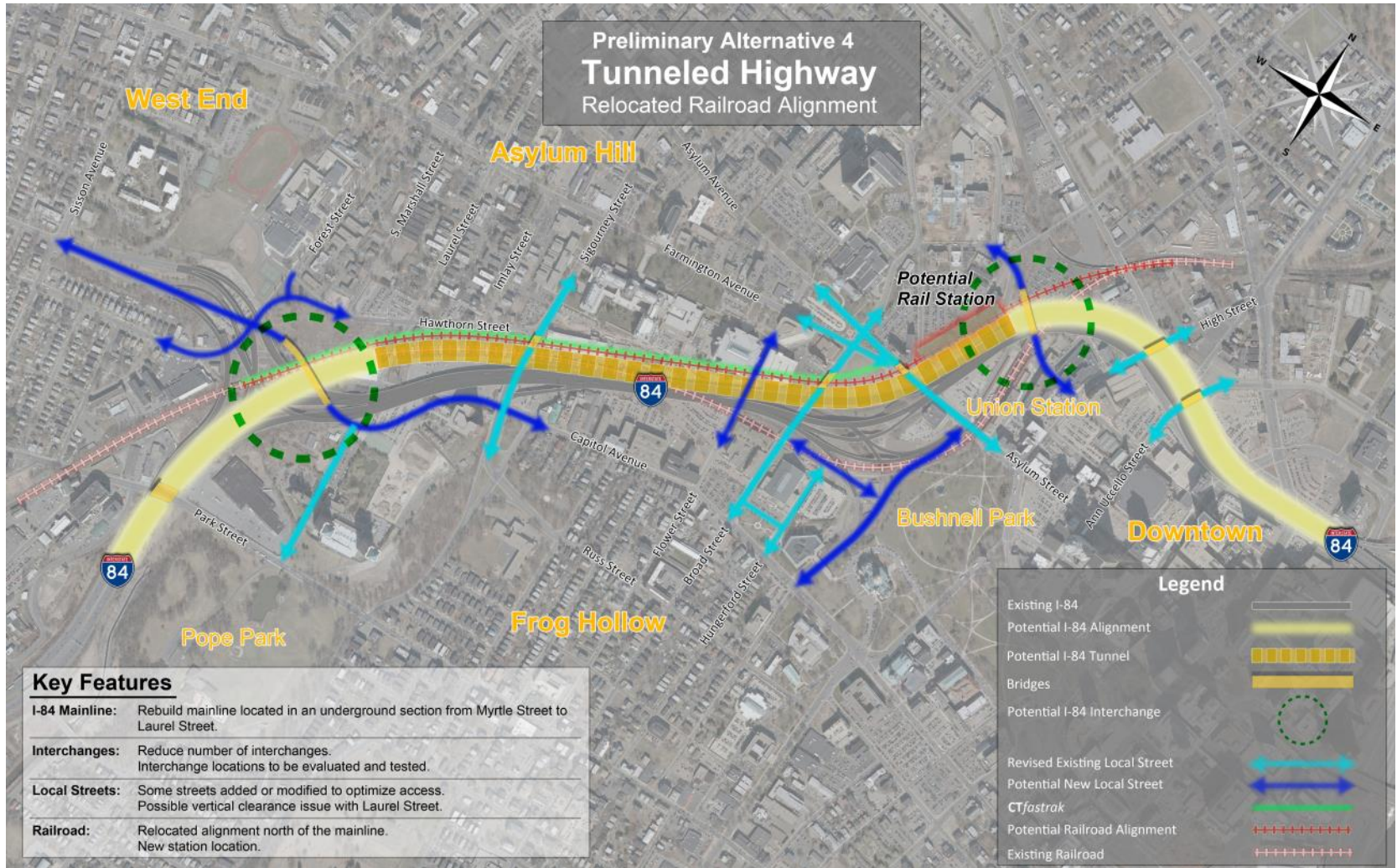
Interchanges: Reduce number of interchanges
Interchange locations to be evaluated and tested

Local Streets: Some streets added or modified to optimize access
Possible vertical clearance issue with Laurel Street

Railroad: Relocated alignment north of mainline
New station location



Preliminary Alternative 4





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



Extra slides



Observations

- The I-84 corridor serves high work-trip demand
- Demand is concentrated during peak periods
- Highway will continue to serve a majority of trips
- Commuter rail and CTfastrak will offer travel options along this corridor
- Network can assist I-84 in handling short trip demand

Confluence examples

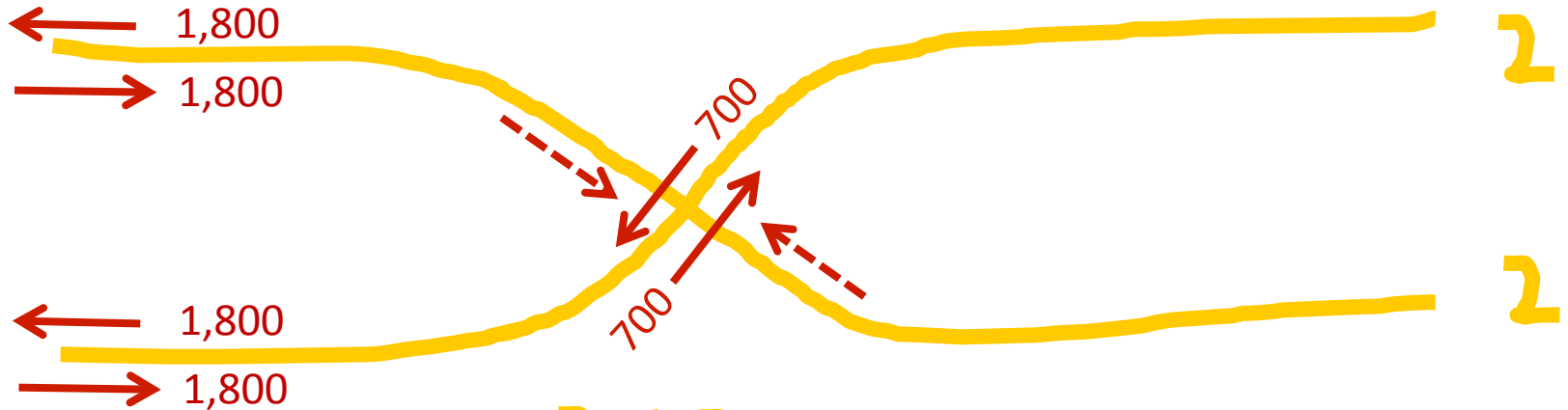




Parallel network



$$2 + 2 = 4$$



$$2 + 2 < 2$$



Parking management best practices

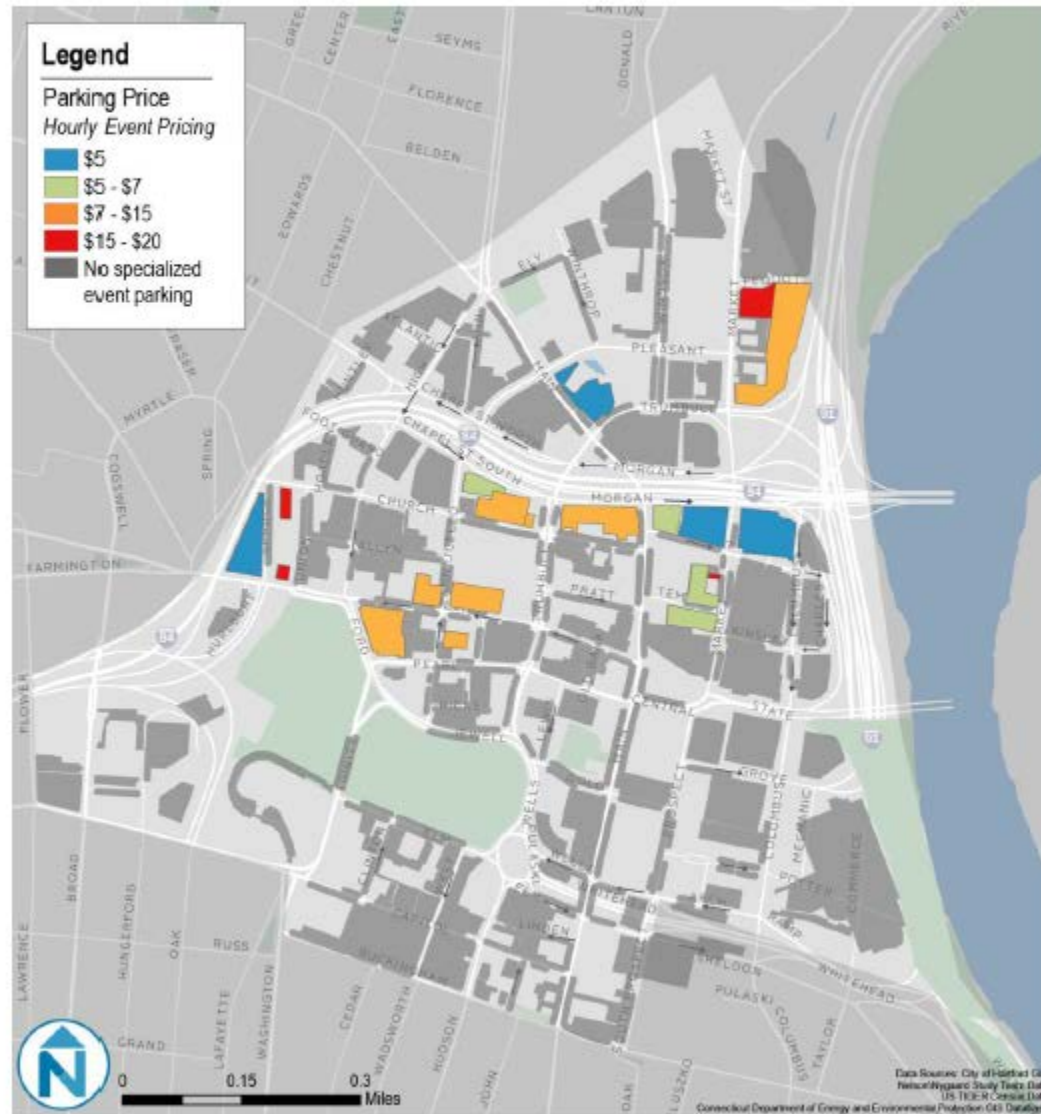
Hartford Future Parking Needs Study



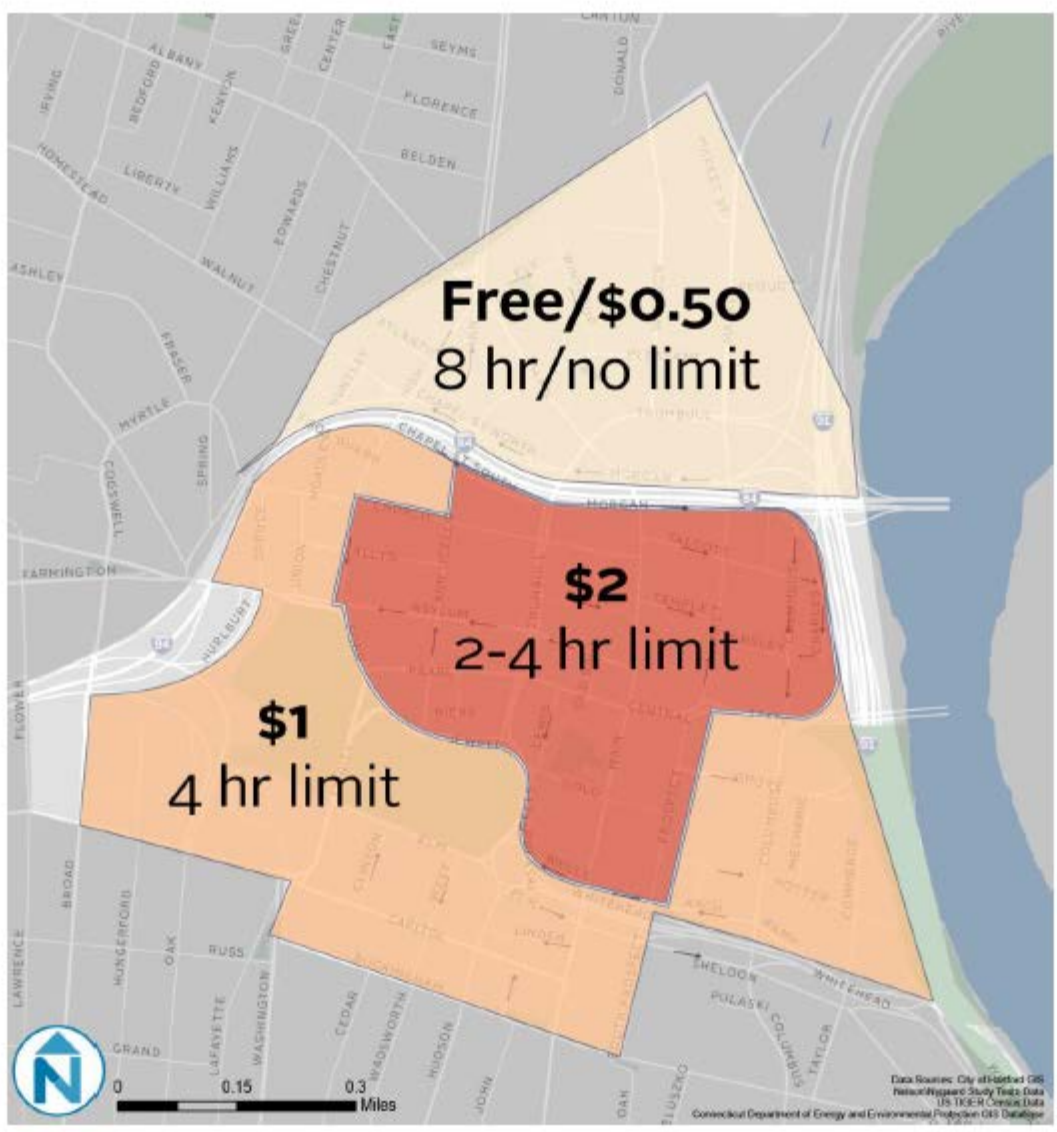
August, 2014

N NELSON
NYGAARD

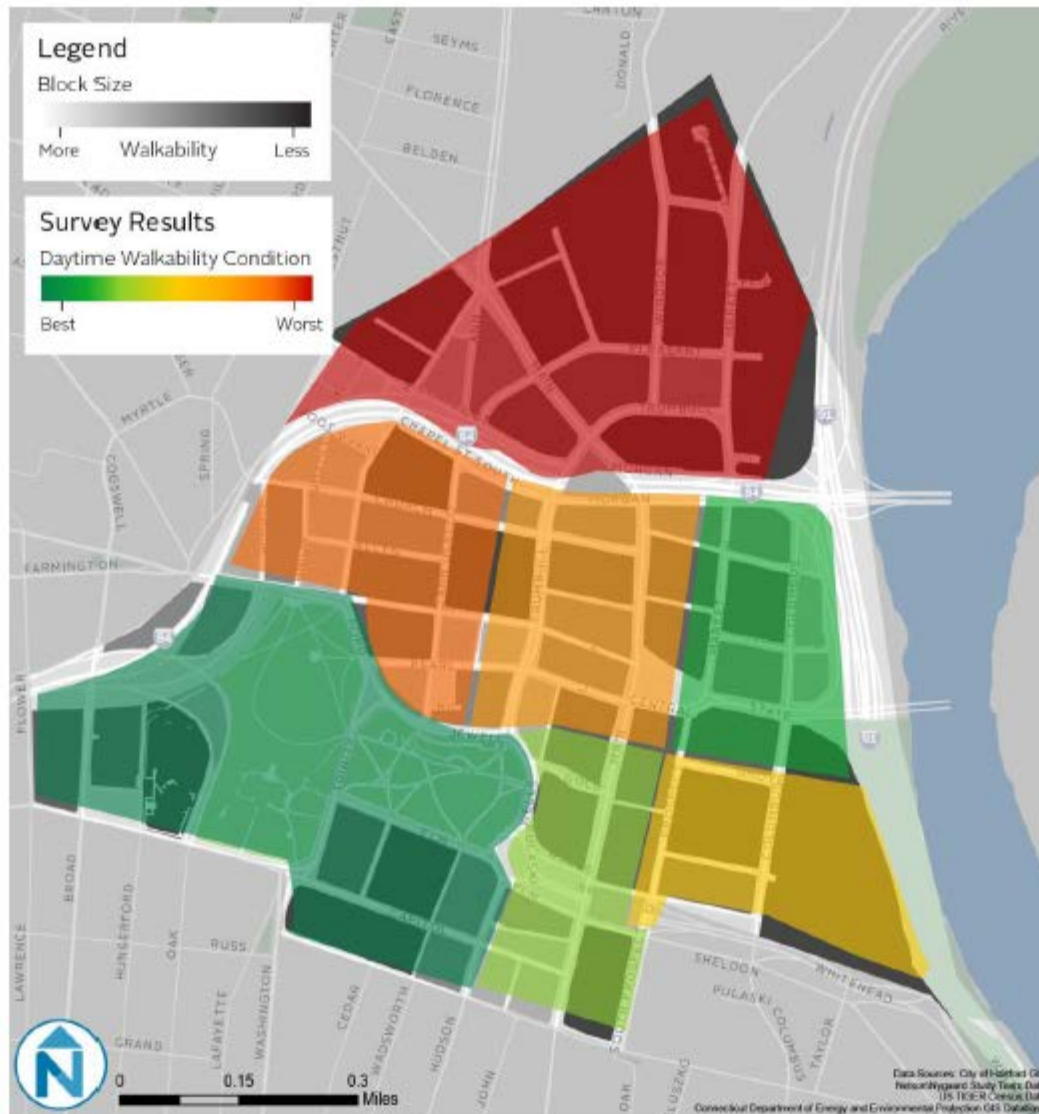
Issue: Perception of Price Gouging



Strategy: Demand-based on-street pricing



Issue: Poor Walking Environment





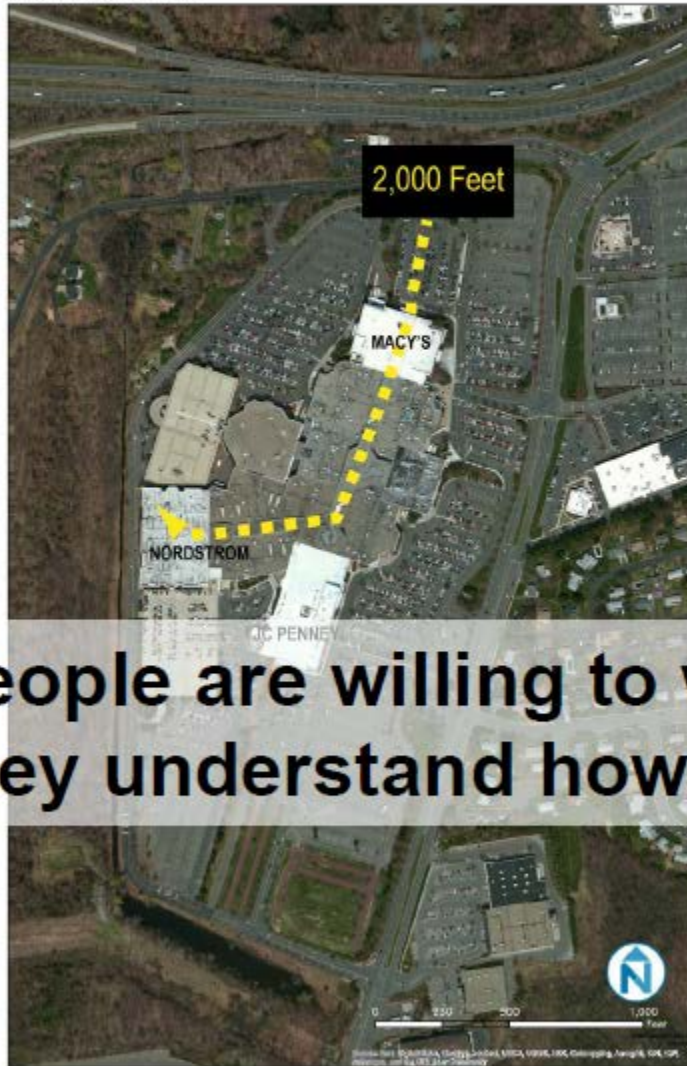
Strategy: Infrastructure Improvements



Ann Uccello St between XL Center and Allyn Street

Issue: Unclear Wayfinding + Signage

WESTFARMS MALL AREA



HARTFORD PARKING STUDY AREA



People are willing to walk farther if they understand how parking works.

Strategy: Streamline Signage





Where jobs originate

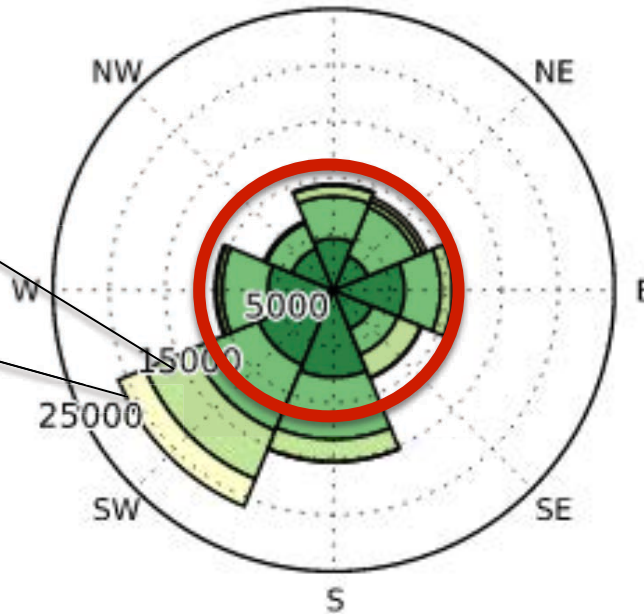
25 - 50 mi = 12,500 jobs

New Haven and Waterbury

Norwalk and Bridgeport

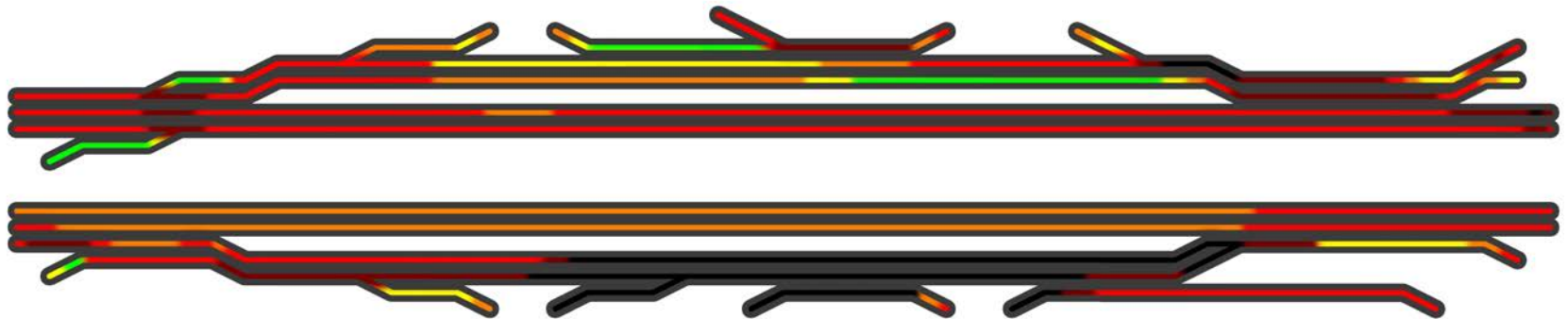
> 50 mi = 3,900 jobs

Job Counts by Distance/Direction in 2011
All Workers





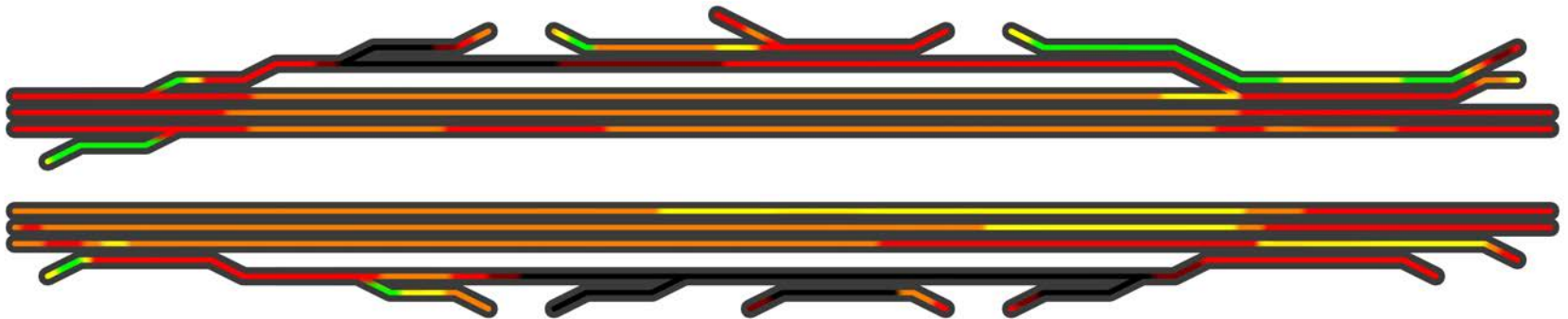
2-lane mainline with 2-lane C/D road.
Full interchanges at Capitol and Asylum.
Half interchange at Sigourney.
Revised EB C/D road terminus.





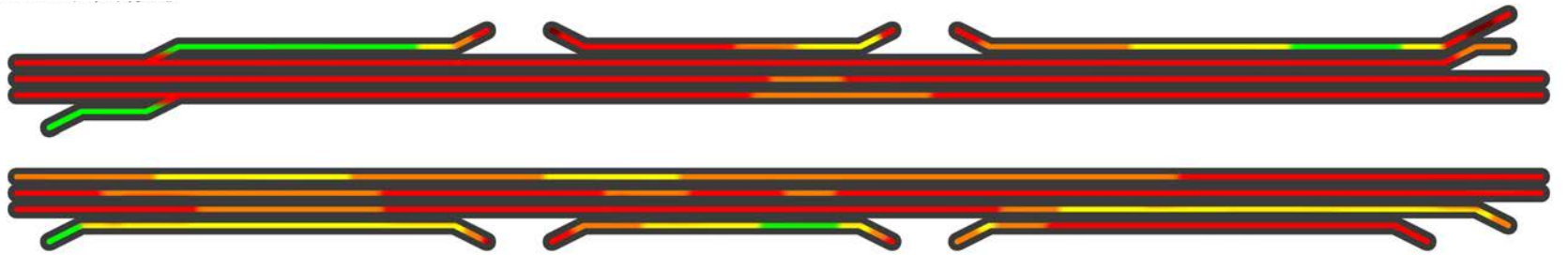
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3-lane mainline with 1-lane C/D road.
Full interchanges at Capitol and Asylum.
Half interchange at Sigourney.





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Preliminary Alternative 1

Preliminary Alternative 1:
No Build



Legend	Description
	Substantial Bridge Replacement
	Bridge Rehabilitation
	Bridge Deck Replacement
	Bridge Superstructure Replacement
	CTfastrak
	Existing Railroad



Preliminary Alternative 2

Preliminary Alternative 2:

Rebuilt Elevated Highway



Legend

- Existing I-84
- Potential I-84 Alignment
- Bridges
- Potential Interchange Locations
- Revised Existing Local Street
- Potential New Local Street
- CTfastrak
- Existing Railroad



Preliminary Alternative 3

Preliminary Alternative 3:

Lowered Highway



Legend

- Existing I-84
- Potential I-84 Alignment
- Bridges
- Potential Interchange Locations
- Revised Existing Local Street
- Potential New Local Street
- CTfastrak
- Existing Railroad
- Potential Rail Alignment



Preliminary Alternative 4

Preliminary Alternative 4: Tunneled Highway



Legend

- Existing I-84
- Potential I-84 Alignment
- Bridges
- Potential I-84 Tunnel
- Potential Interchange Locations
- Revised Existing Local Street
- Potential New Local Street
- CTfastrak
- Existing Railroad
- Potential Rail Alignment