

TAC Meeting #3: 24 March 2014

Preliminary Alternatives



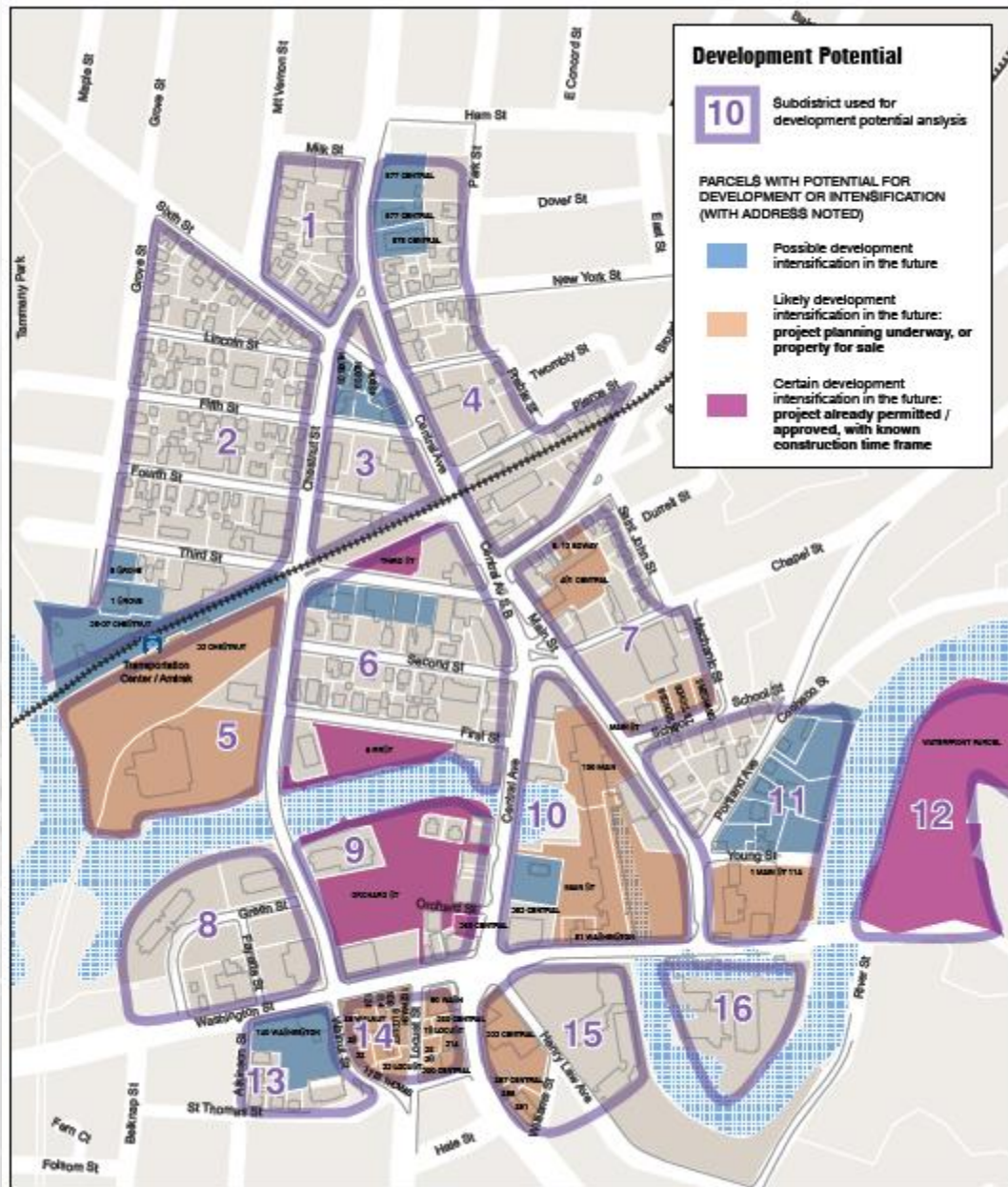
Agenda

- Overview
 - Schedule
 - Data Collection and Review of Existing Conditions
- Summary of Traffic Projections
- Preliminary Alternatives
- Congestion Summary
- Pros and Cons
- Streetscape Themes
- Next Steps

Project Initiation and Communication
a. Kick-off Meeting
b. Project Coordination Meetings (8)
c. Transportation Advisory Committee Meetings (5)
d. Special stakeholder outreach and workshop meetings (3)
e. Communication support and surveys
Interim Reports
Task 1. Data Collection and Review of Existing Conditions
1. a. Analysis of Previously Completed Planning Documents
1. b. Assessment of Existing Infrastructure/Environment
1.c. Traffic Counts
1.d. Transit Service
1.e. Identification of Existing Activity Center and Development Nodes
1.f. Analysis of Land Use Patterns/Parking and Circulation Implications
1.g. Technical Memorandum on Existing Conditions
Task 2. Community Workshop #1 – Data and Analysis Presentation
Task 3. Development of Alternatives
3.a Preliminary Alternatives
3.b Review of Preliminary Concepts
3.c Alternatives
Task 4. Community Workshop #2 – Alternatives

Growth Projections

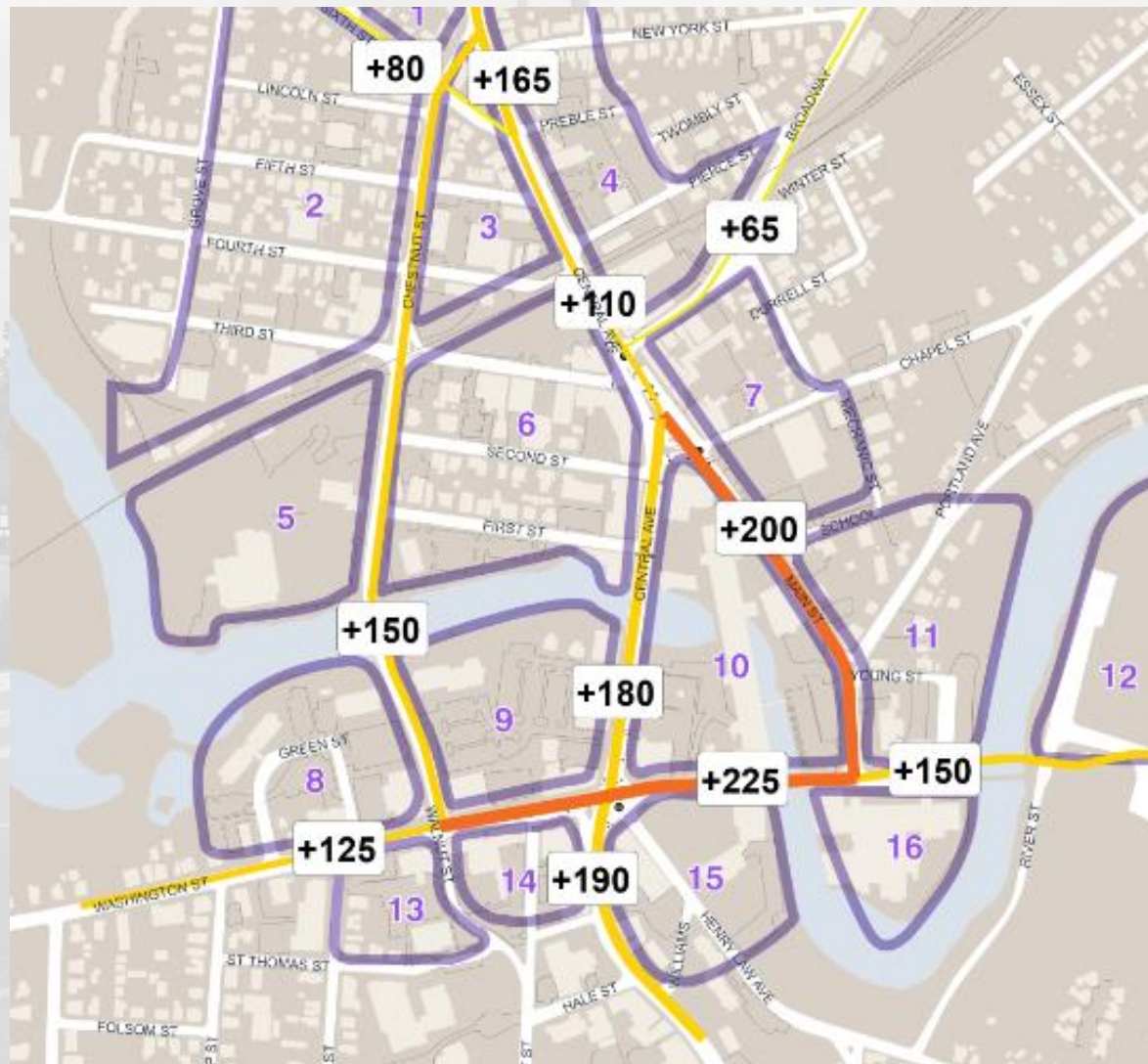
From the Cecil/Gibbs growth analysis traffic volume increases were estimated based on the # of residential units and the square footage of commercial/retail space



Note: Subdistricts were defined to assess development potential and parking utilization, and reflect areas that are self-contained in terms of walkability to parking. Development type and timing based on conversation with Director of Planning, City of Dover, February 2014.

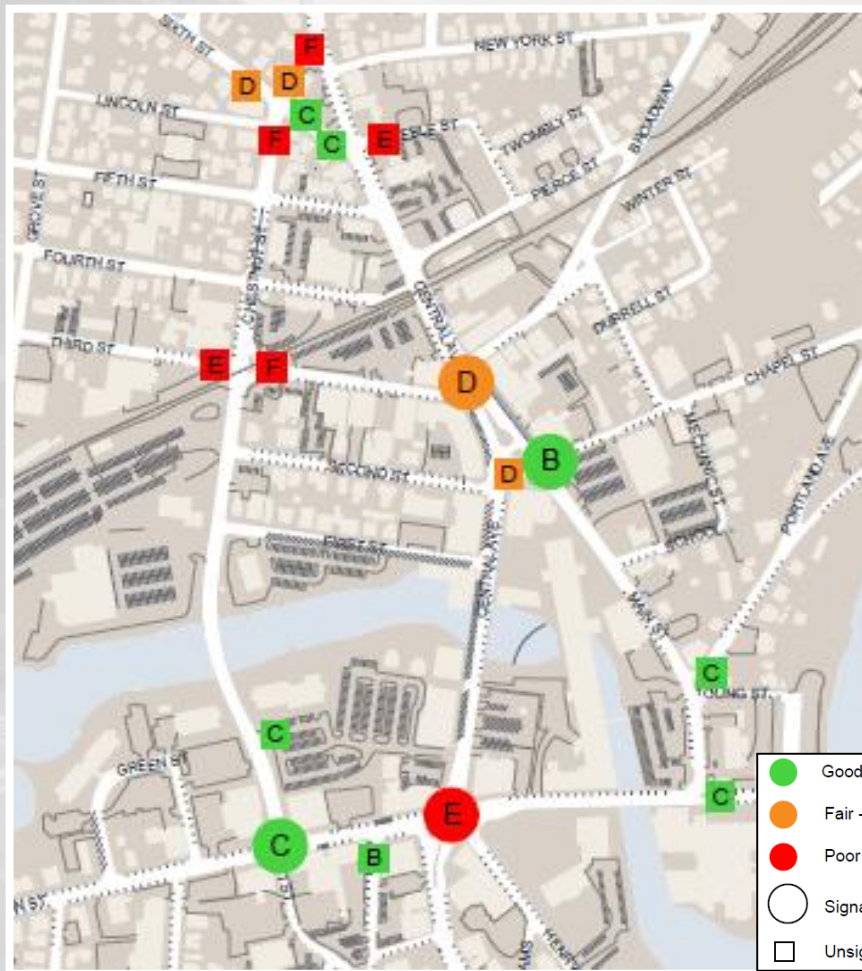
Projected Increase in Traffic Volume

PM Peak Hour (2014 – 2034)

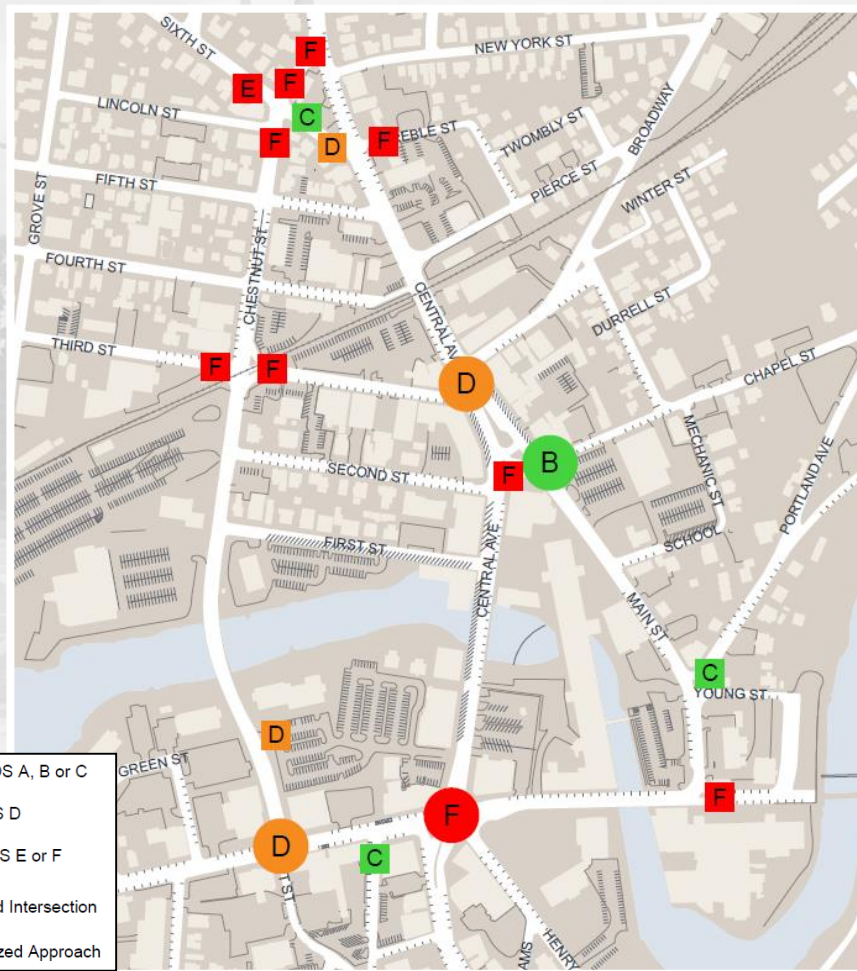


PM Peak Level of Service

2014

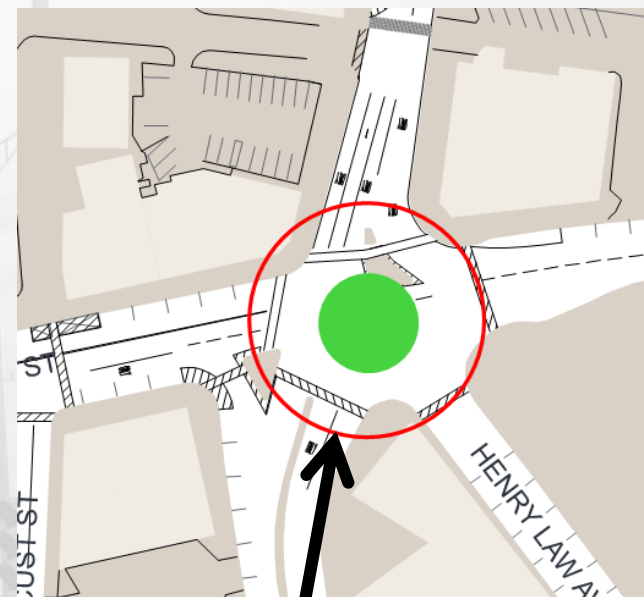


2034

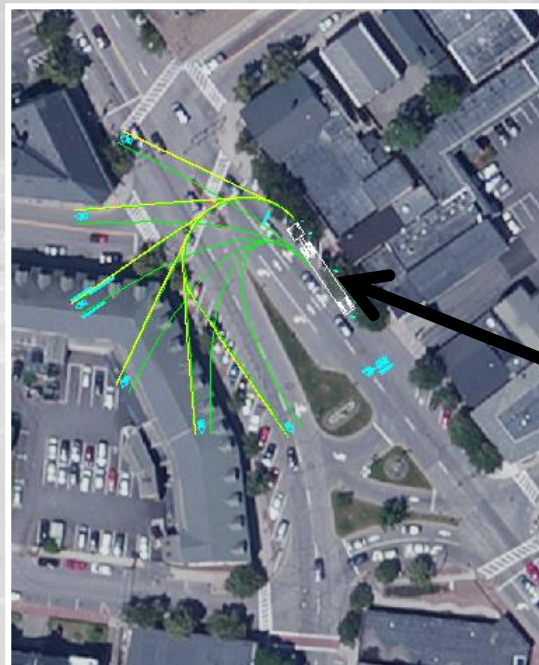


Dismissed Improvement Strategies

- One/two-way hybrid alternatives
- Upper Square Circulator
- Lower Square Roundabout



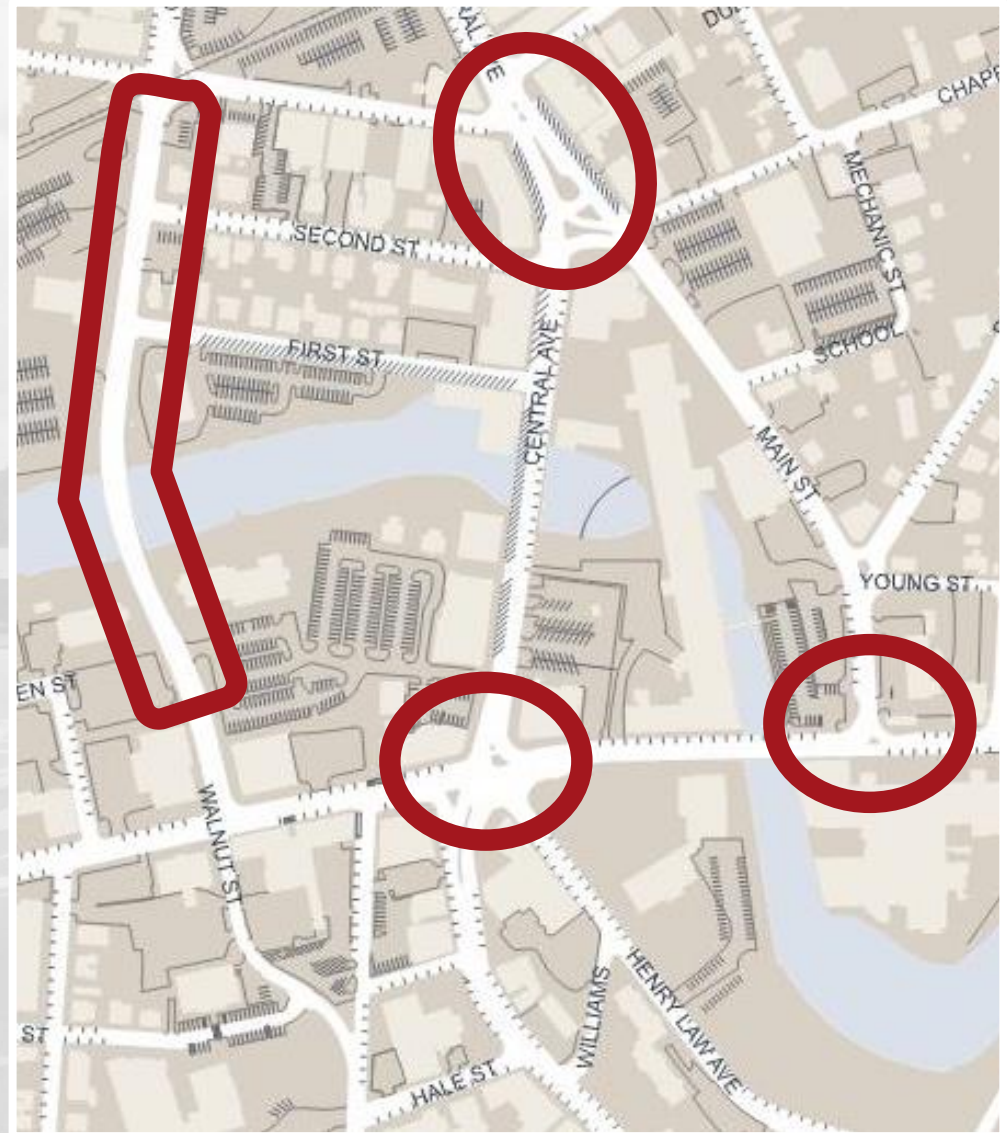
2 lane roundabout footprint



Truck U-movement in Upper Square

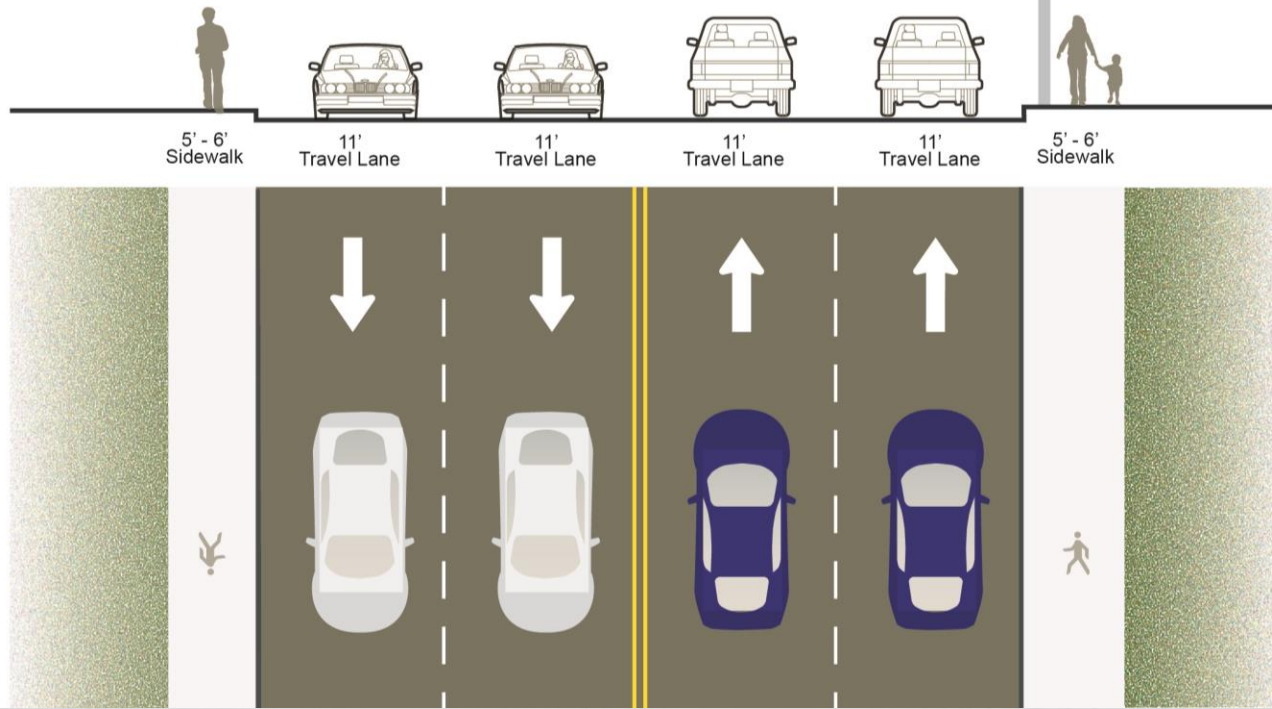
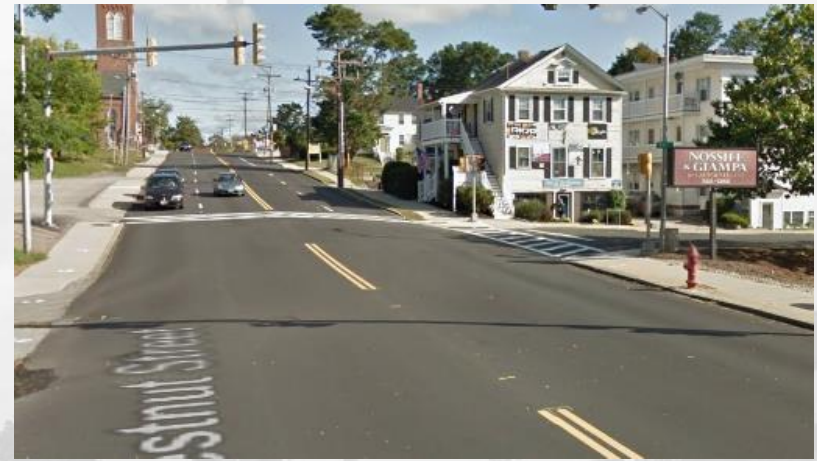
Overall Improvements – Common to All Alternatives

- Lower Square
 - Additional northbound approach lane
 - Tighten intersection geometry
- Upper Square Plaza
- Road Diets: Chestnut Street and Central Ave north of Upper Square
- Washington/Main traffic calming
 - 2 travel lanes on Washington, with on-street parking

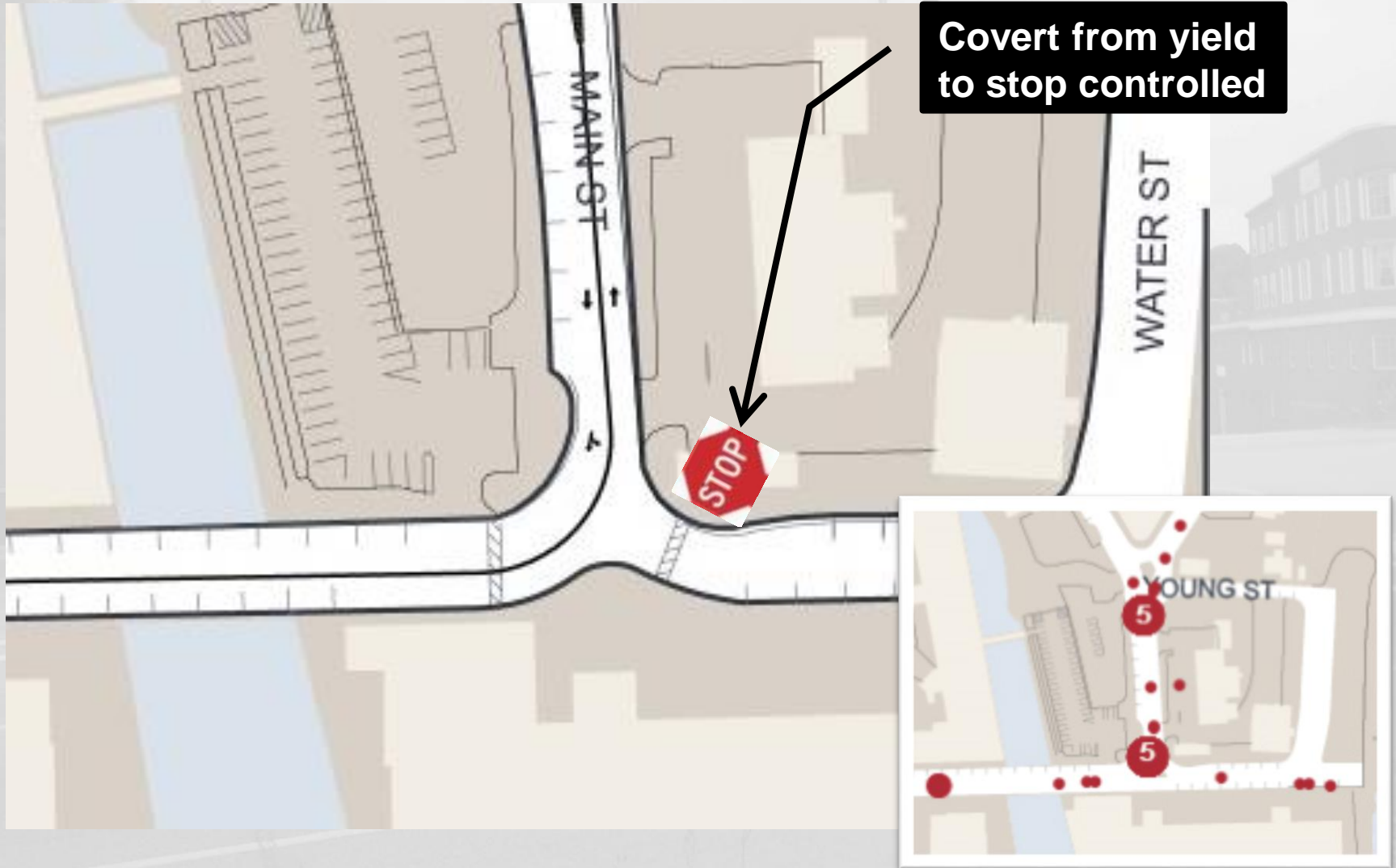


Road Diet: Chestnut Street

- Currently provides bypass to downtown
- Potential road-diet north of Orchard Street

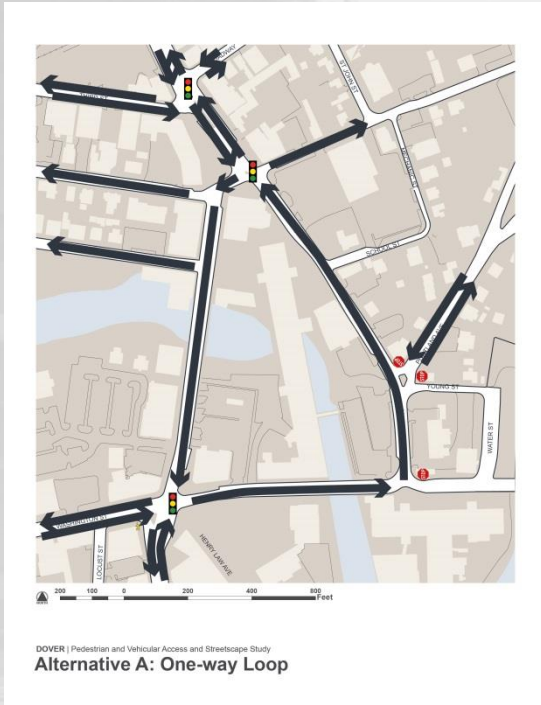


Washington Street/Main Street Traffic Calming

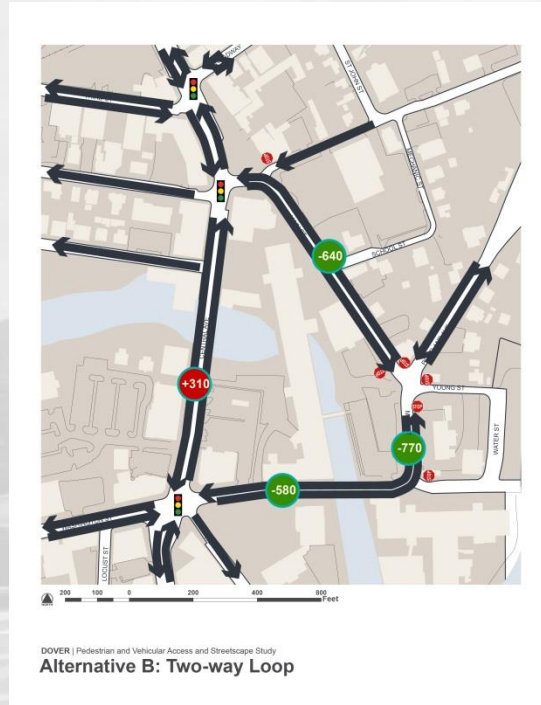


Summary of Alternatives

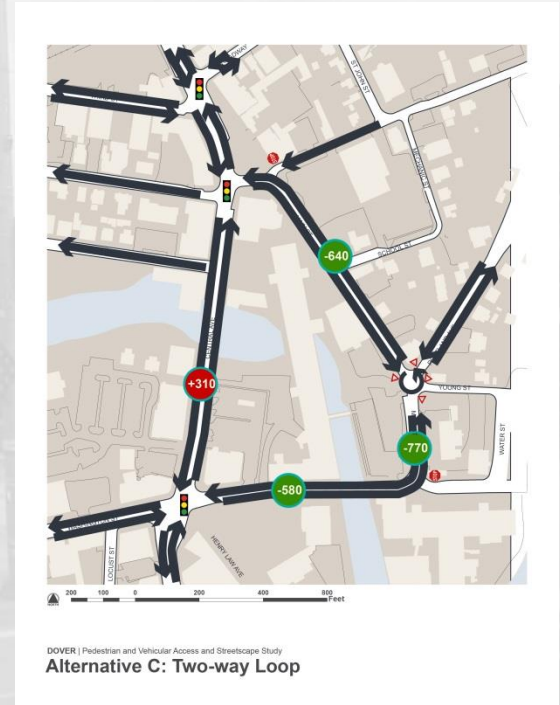
Alt A: Enhanced One-way Loop



Alt B: Two-way Loop



Alt C: Enhanced Two way loop



Alternative A: Enhanced One-way Loop

- Lower Square
 - Close Henry Law Ave access
 - Additional northbound right lane
- Upper Square
 - Plaza on western side of square



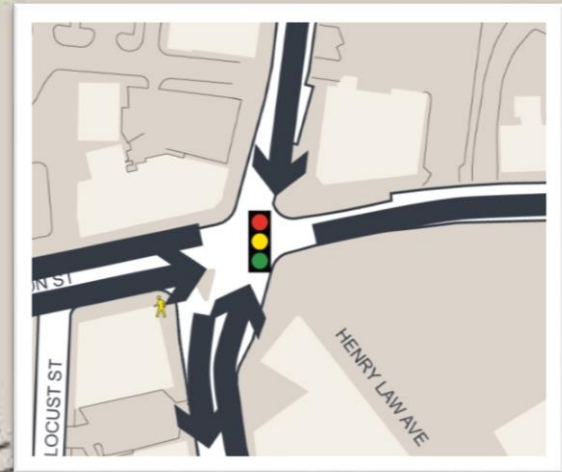
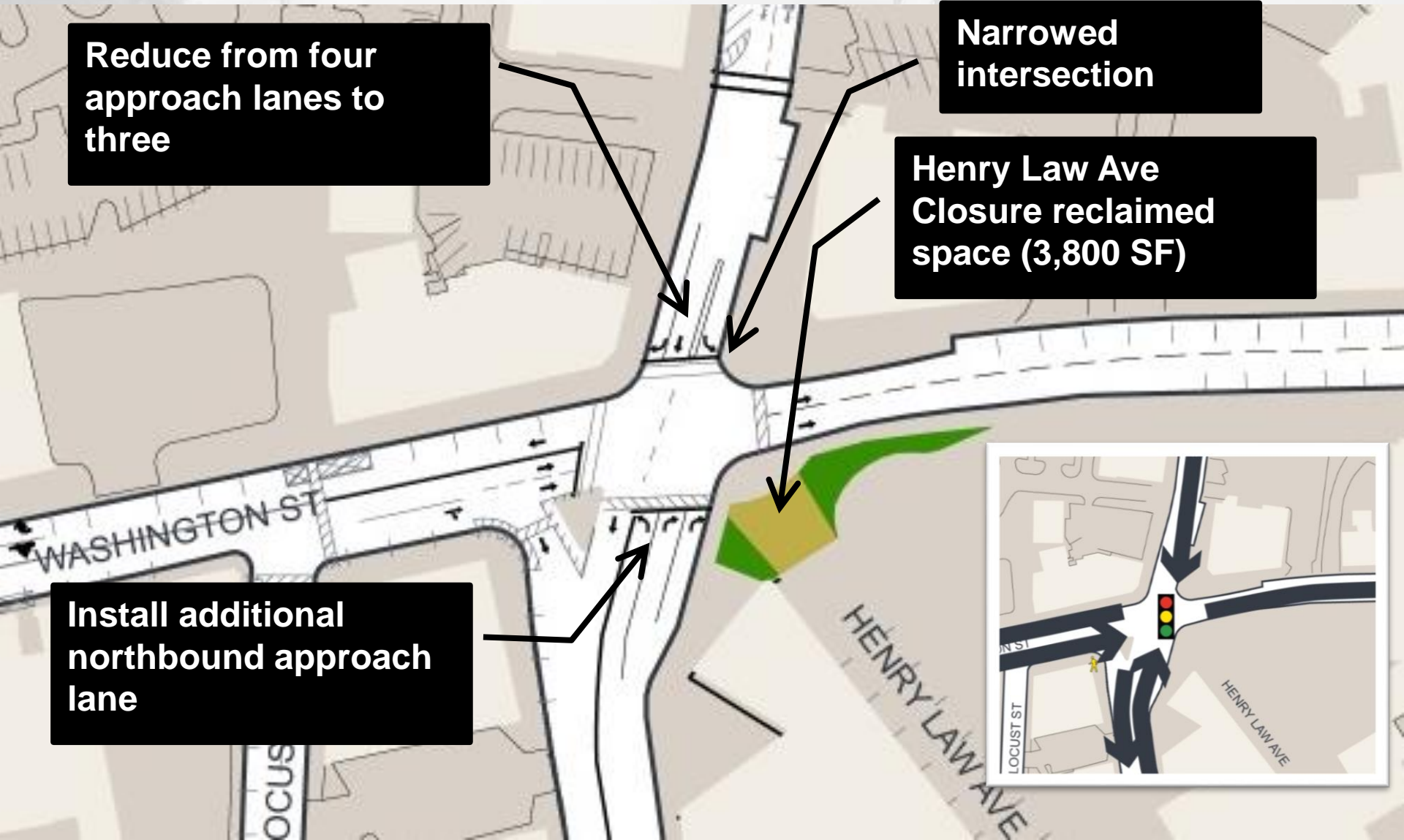
Alternative A: Lower Square

Reduce from four approach lanes to three

Narrowed intersection

Henry Law Ave Closure reclaimed space (3,800 SF)

Install additional northbound approach lane



Alternative A: Upper Square



Remove NBL lane

One through lane in either direction (currently two)

Reclaimed space (11,000 SF)

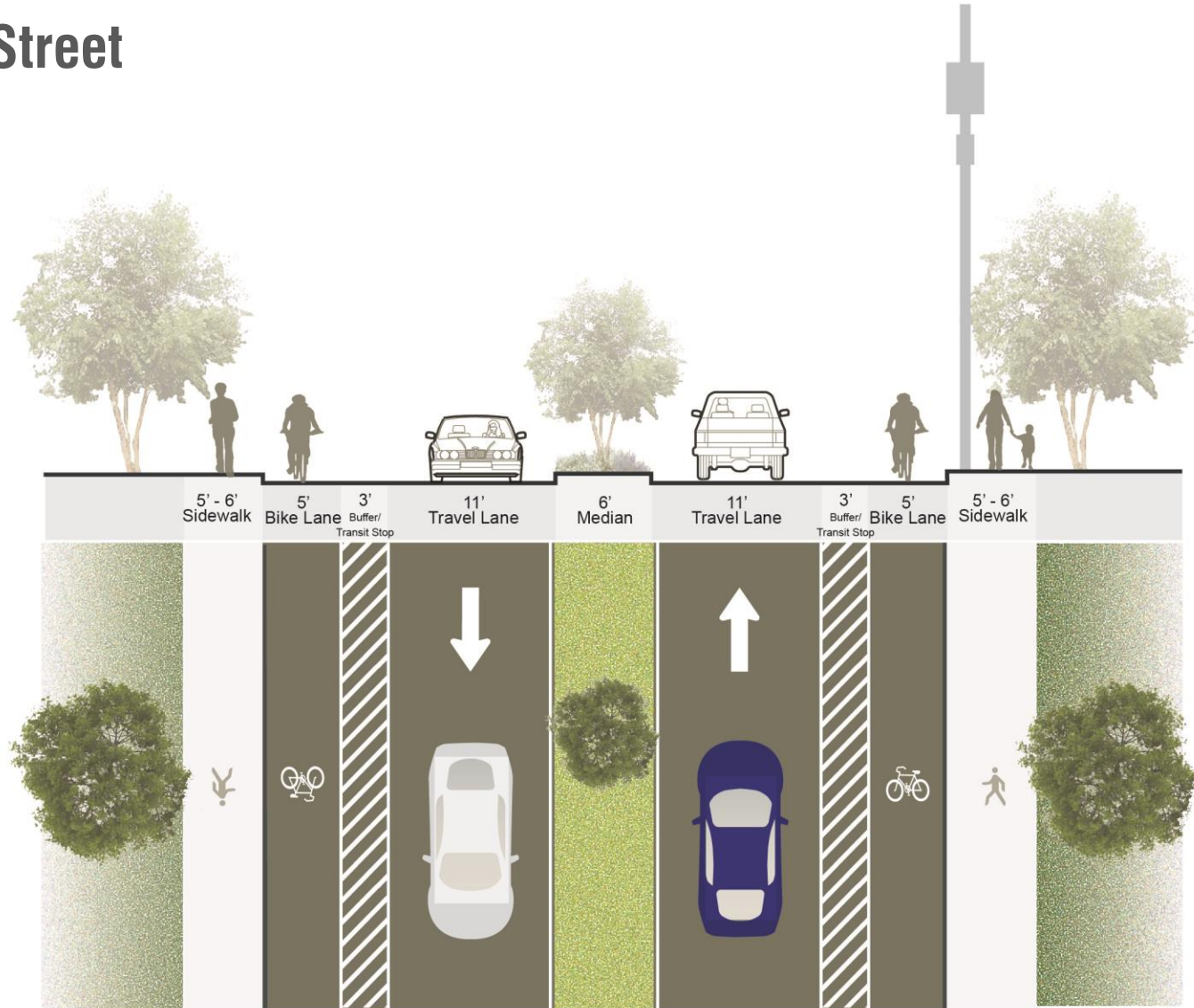
Reduce from four approach lanes to three



Chestnut Street

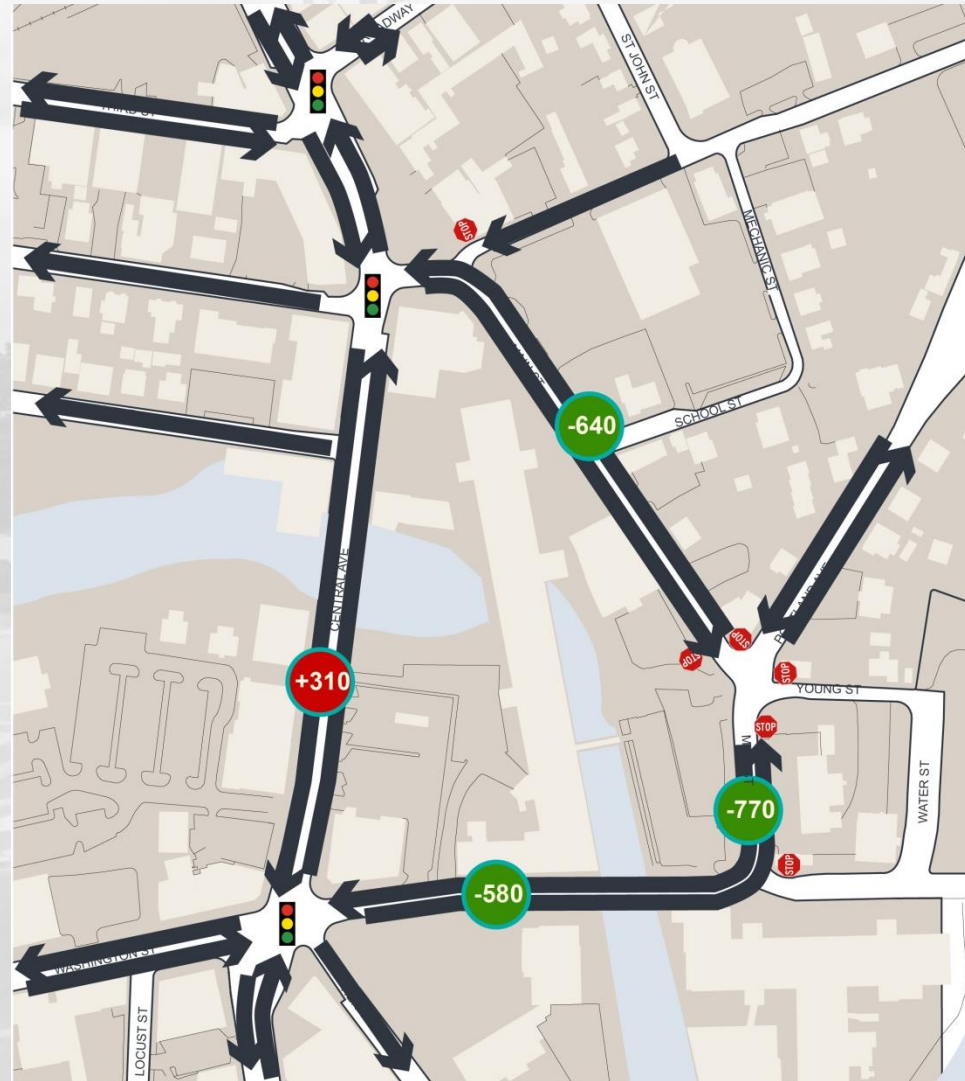
West

East

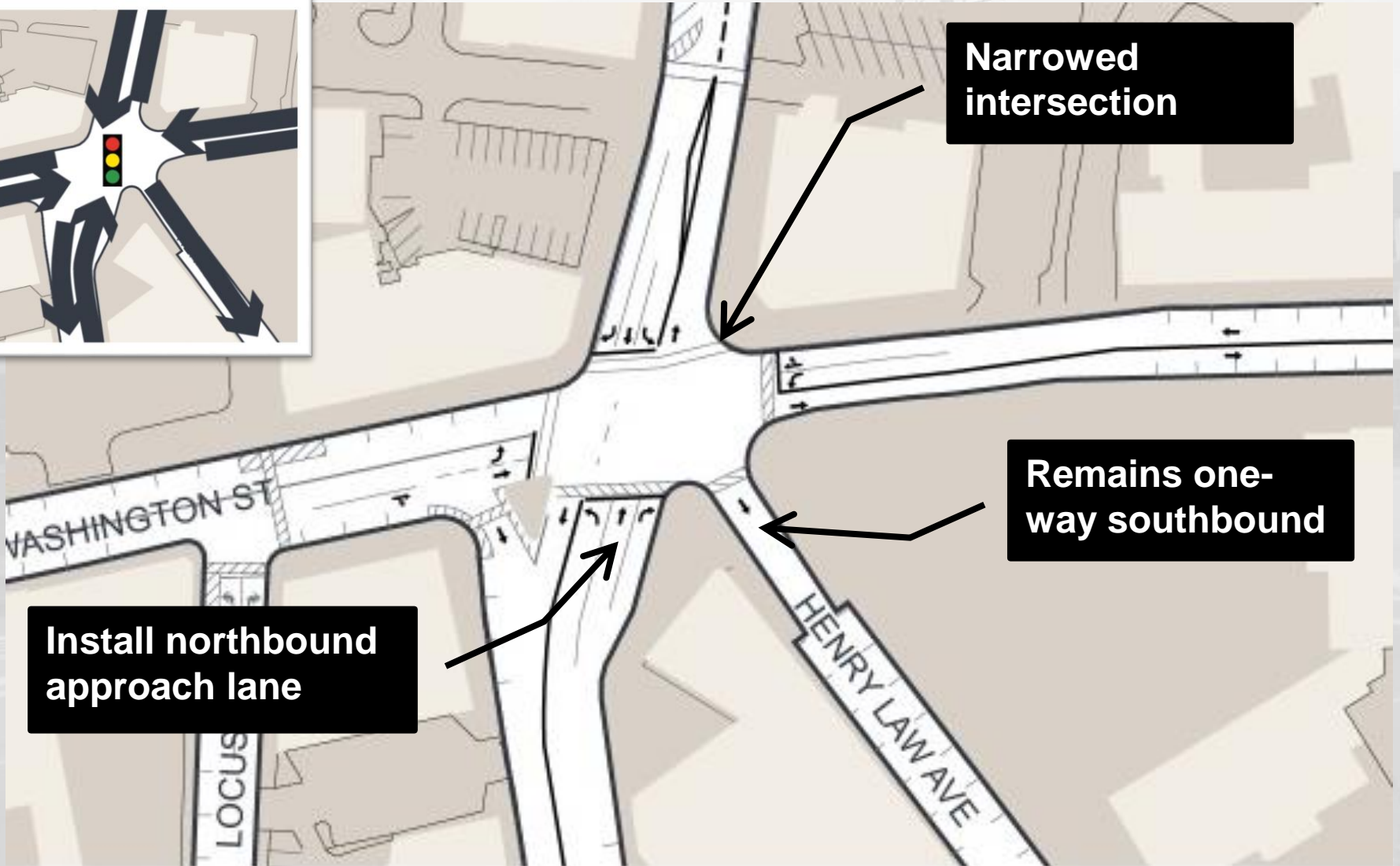
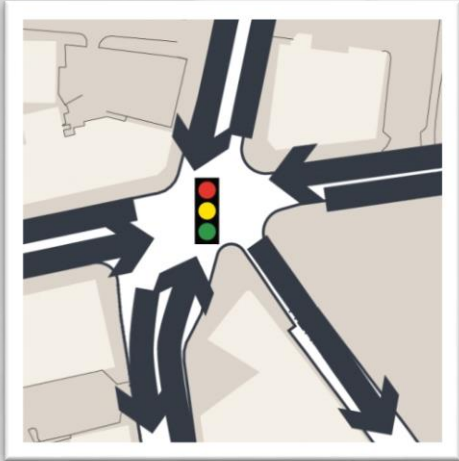


Alternative B: Two-way Loop

- Lower Square
 - Henry Law Ave access remains open
 - Additional northbound right lane
- Upper Square
 - Plaza on eastern side of square
- Main St/Portland Ave aligned with Young St at four-way stop intersection



Alternative B: Lower Square



Narrowed intersection

Remains one-way southbound

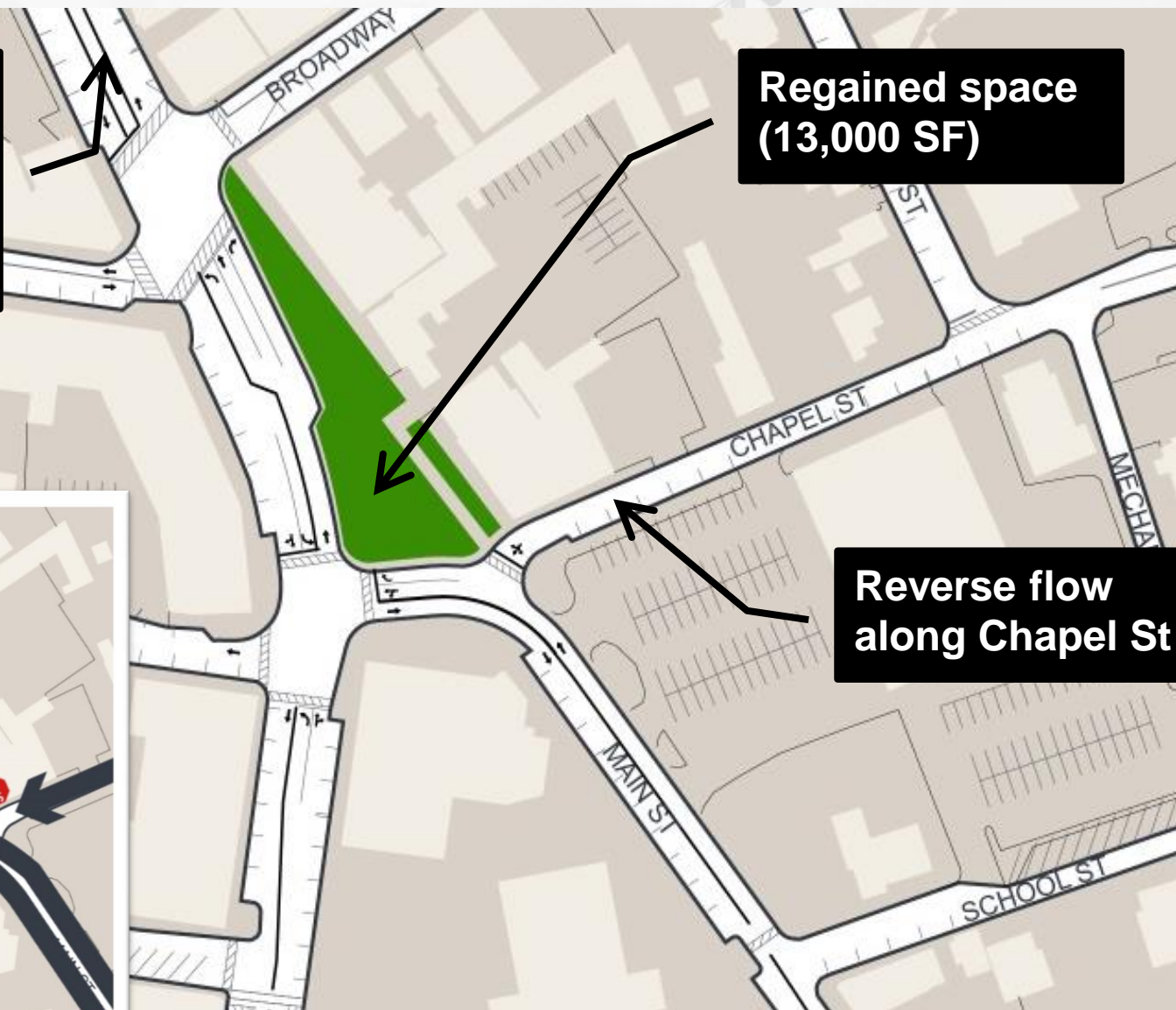
Install northbound approach lane

Alternative B: Upper Square

Reduce to one through lane in either direction (currently two)

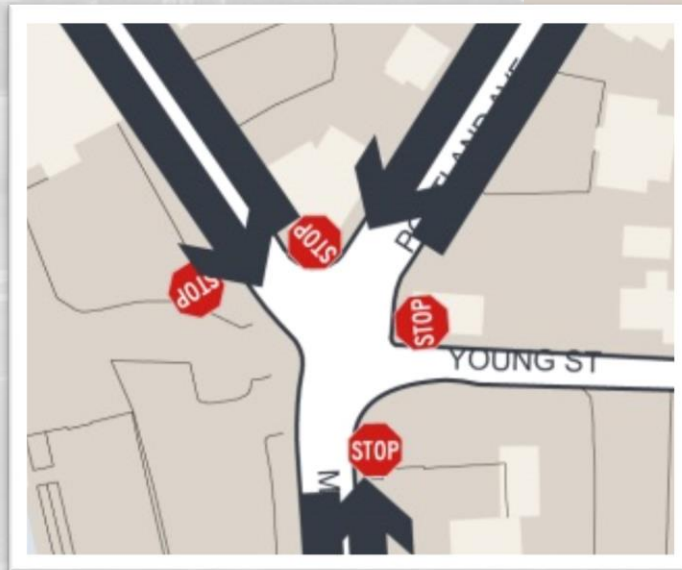
Regained space (13,000 SF)

Reverse flow along Chapel St



Alternative B: Main St/Portland Ave

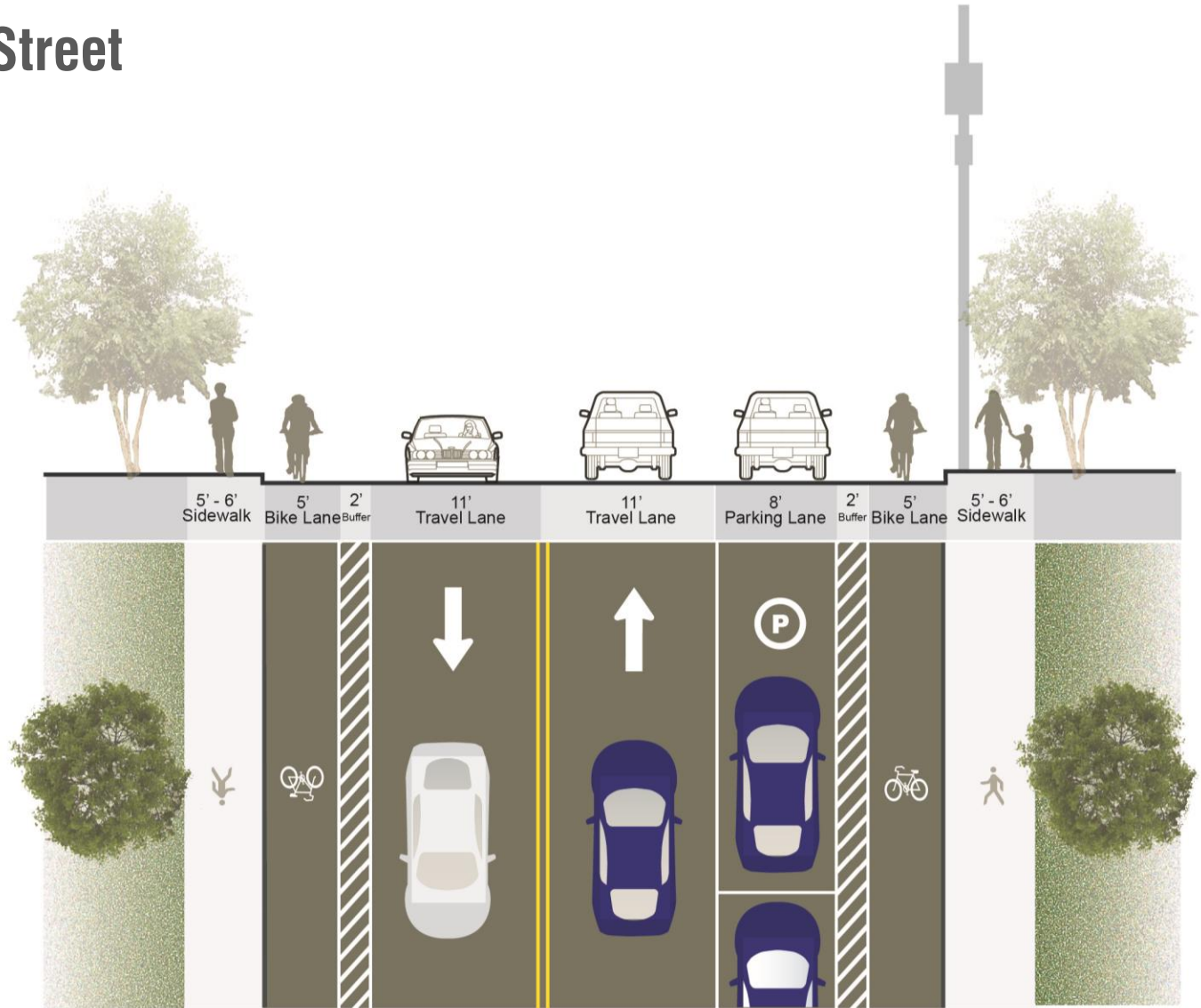
- “Square up” intersection
- Install four-way stop control



Chestnut Street

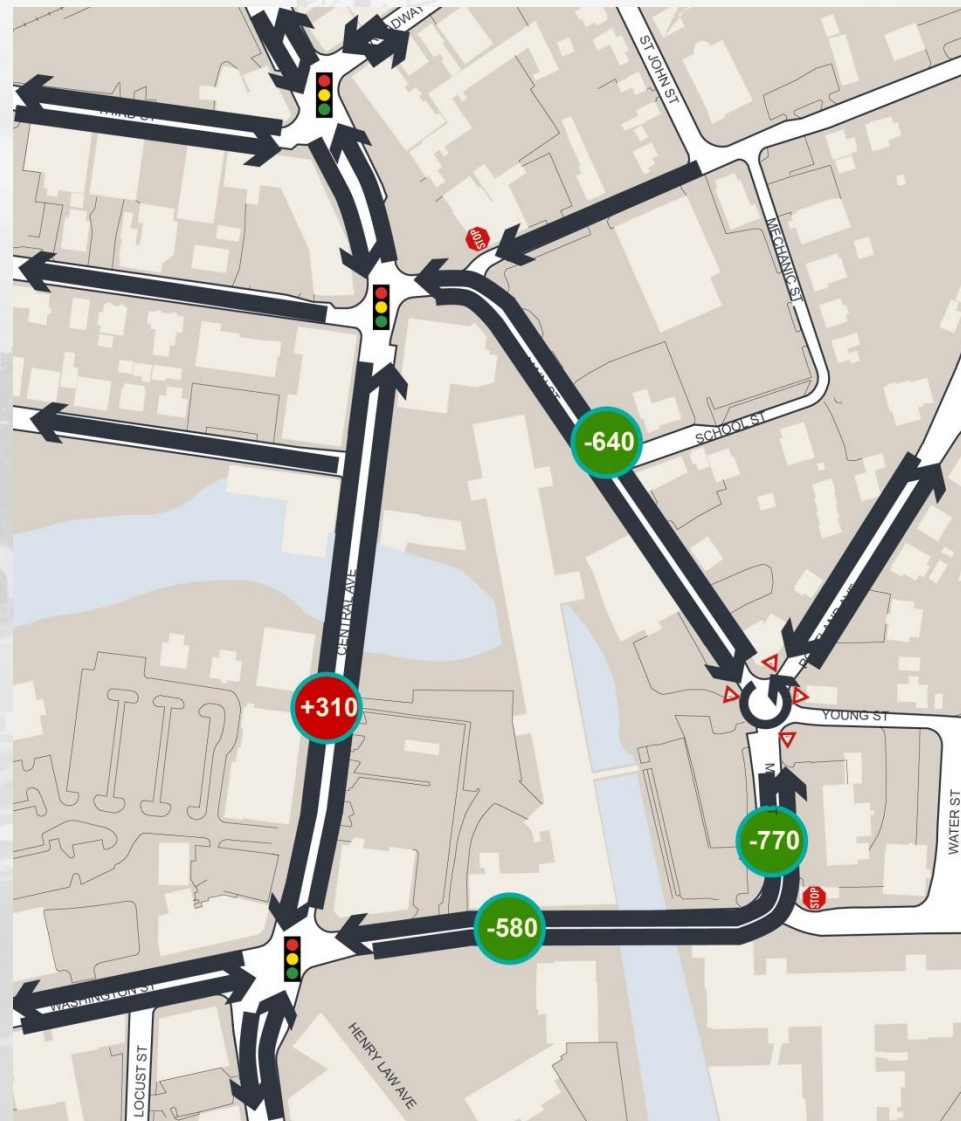
West

East

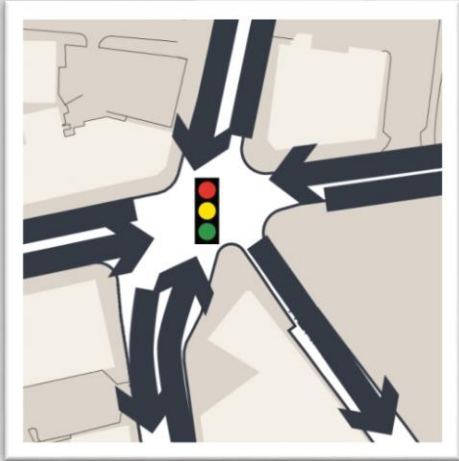


Alternative C: Enhanced Two-way Loop

- Lower Square
 - Close Henry Law Ave access
 - Additional northbound lane
- Upper Square
 - Plaza on eastern side of square
- Main St/Portland Ave mini roundabout



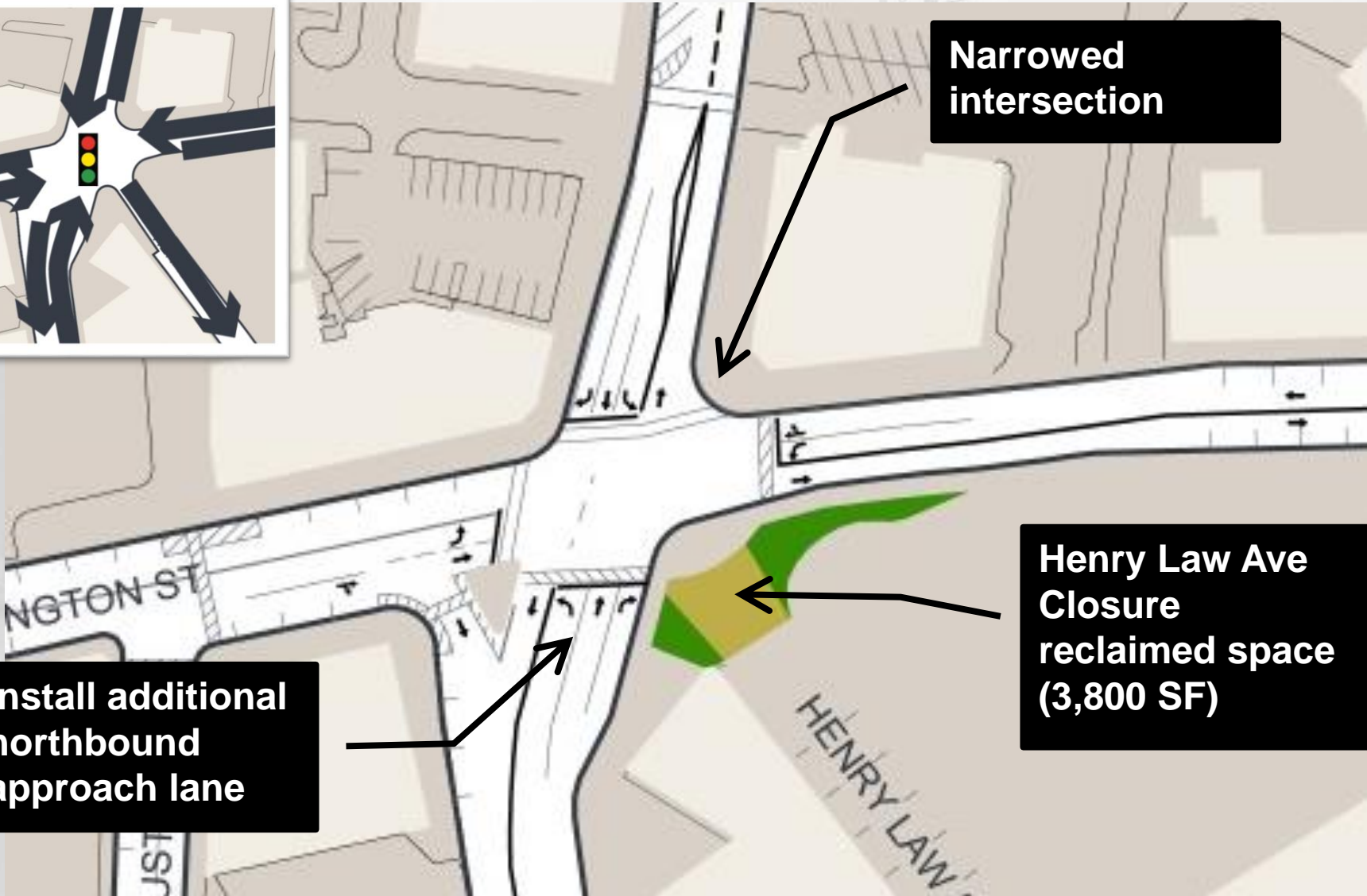
Alternative C: Lower Square



Narrowed intersection

Henry Law Ave Closure reclaimed space (3,800 SF)

Install additional northbound approach lane

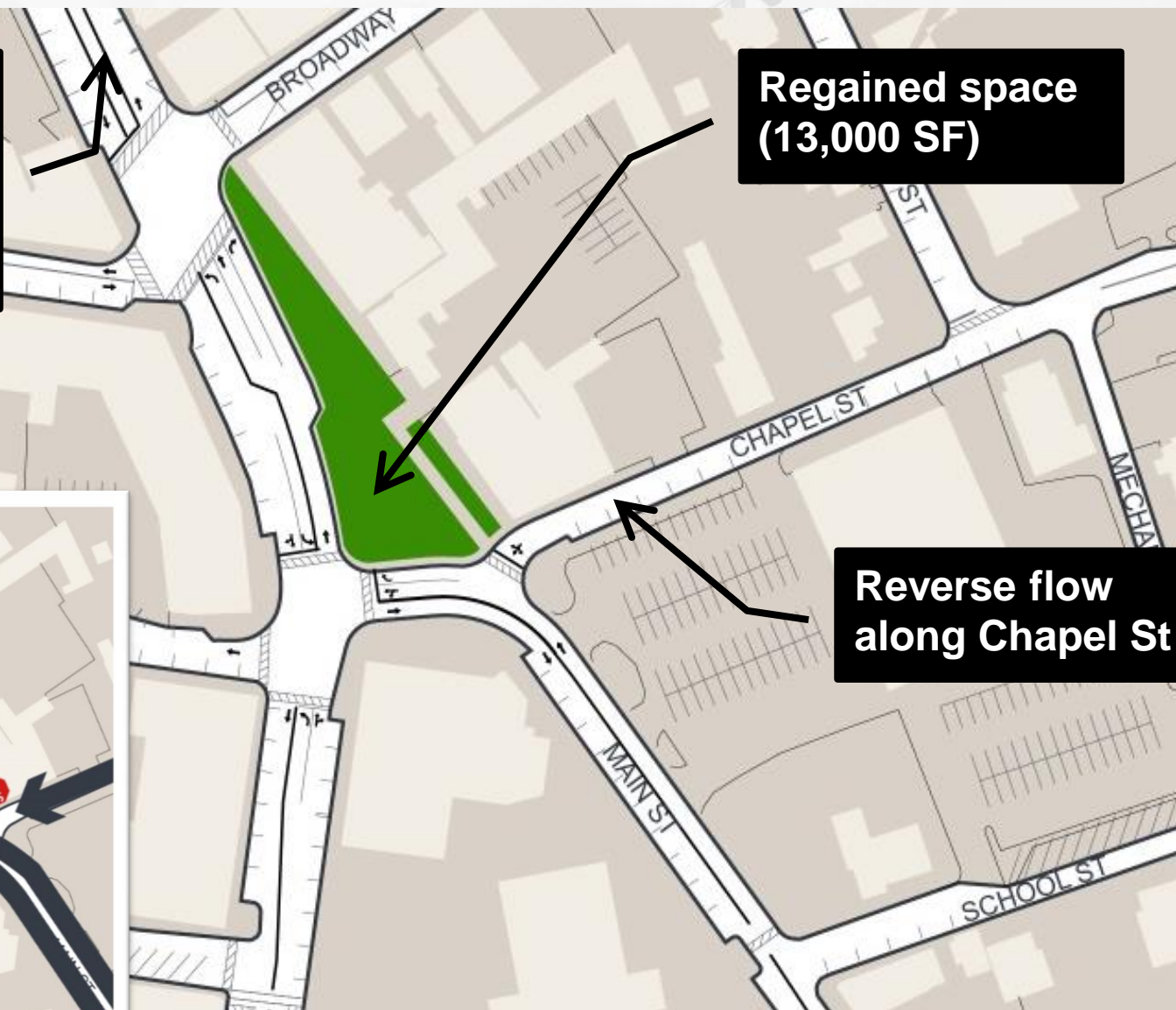


Alternative C: Upper Square

Reduce to one through lane in either direction (currently two)

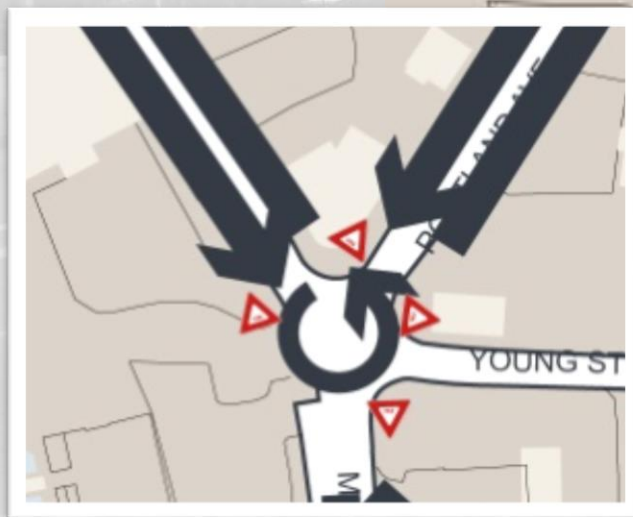
Regained space (13,000 SF)

Reverse flow along Chapel St



Alternative C: Main St/Portland Ave

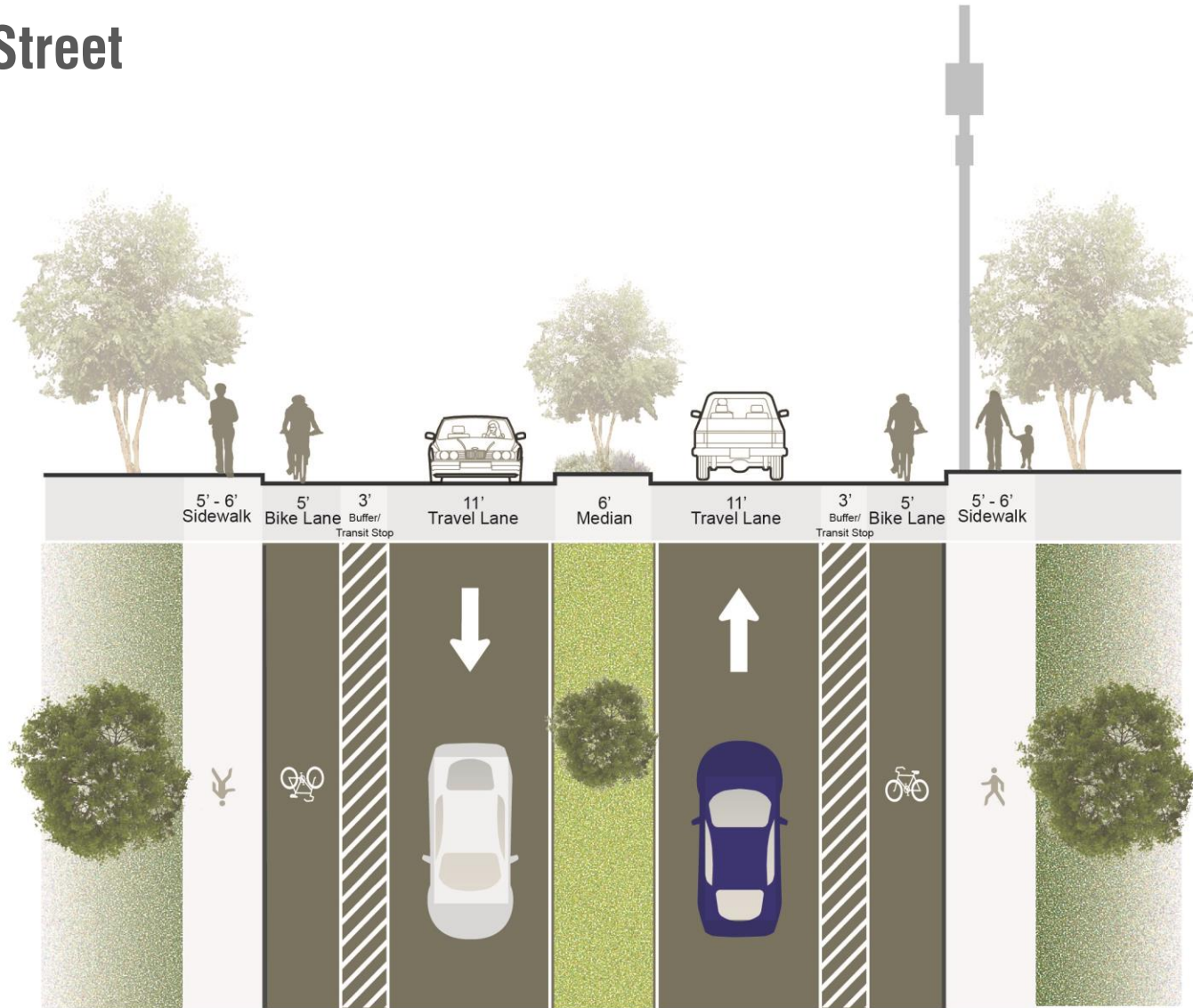
- Install mini roundabout
- Traversable center median



Chestnut Street

West

East



Congestion Summary

- Improved traffic flow at Lower Square
- Improved mobility and safety at Upper Square

	2014 PM Peak Hour			
	No Build	Alt A	Alt B	Alt C
Upper Square	D	D	D	D
Lower Square	E	D	D	D
Main St/Portland Ave	C	C	C	C
Main St/Washington St	C	C	C	C

	2034 PM Peak Hour			
	No Build	Alt A	Alt B	Alt C
Upper Square	D	D	D	D
Lower Square	F	D	E	D
Main St/Portland Ave	D	D	D	D
Main St/Washington St	E	F	D	D

Alternatives Evaluation Matrix

	Alternative A: Enhanced One way Loop	Alternative B: Two way Loop	Alternative C: Enhanced Two way Loop
Traffic Capacity	+ + +	+ +	+ + +
Traffic Mobility	+ + +	+ + +	+ + +
Safety Enhancement	+ + +	+ + +	+ + +
Vehicle Emissions	+ + +	+ + +	+ + +
Ped/bike Mobility	+ + +	+ + +	+ + +
Reclaimed Space	+ + +	+ + +	+ + +

Streetscape Themes

- Formal and Traditional Urban Orientation
- Pedestrian Orientation
- Place Specific



Streetscape Themes: Formal and Traditional Urban Orientation



Sidewalk treatments

Streetscape Themes: Formal and Traditional Urban Orientation



Lighting

Furniture

Bollards

Streetscape Themes: Formal and Traditional Urban Orientation



Bicycle racks



Street trees and buffers

Streetscape Themes: Formal and Traditional Urban Orientation

- Alternative A



Upper Square



Lower Square

Streetscape Themes: Formal and Traditional Urban Orientation

- Alternative B



Upper Square



Lower Square

Streetscape Themes: Formal and Traditional Urban Orientation

- Alternative C



Upper Square



Lower Square

Streetscape Themes: Pedestrian Orientation



Sidewalks treatments

Pedestrian refuge

Crosswalks and intersections

Streetscape Themes: Pedestrian Orientation

- Alternative A



Upper Square



Lower Square

Streetscape Themes: Pedestrian Orientation

- Alternative B



Upper Square



Lower Square

Streetscape Themes: Pedestrian Orientation

- Alternative C

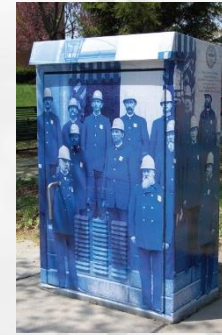


Upper Square



Lower Square

Streetscape Themes: Place Specific



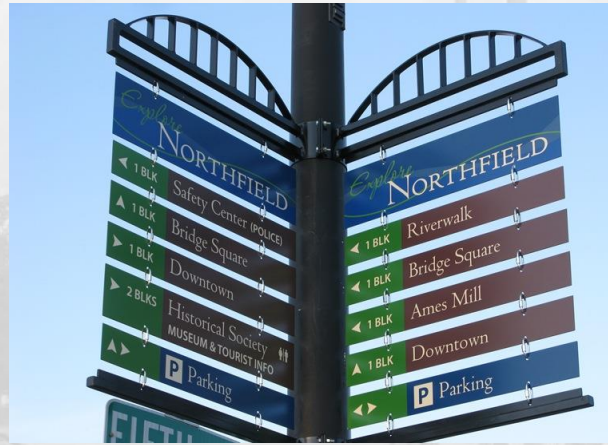
Sidewalk treatments

Patterns and Art

Streetscape Themes: Place Specific



Furniture



Wayfinding signage



Recycling receptacles



Streetscape Themes: Place Specific

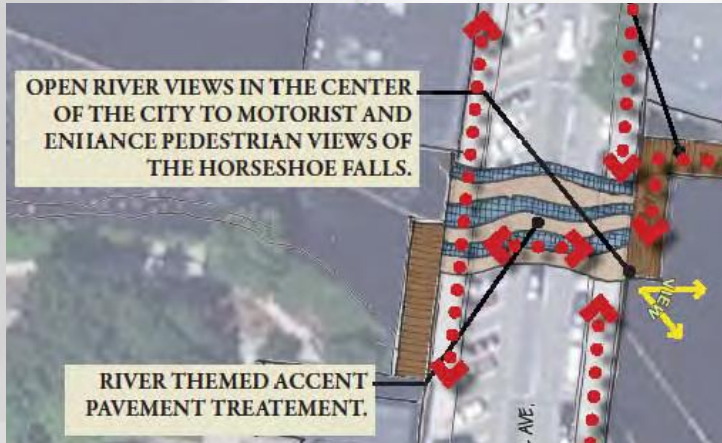


Urban spaces



Defining vegetation

Streetscape Themes: Place Specific



From the Dover Master Plan



Pedestrian and visual links to amenities



Bridge treatments

Streetscape Themes: Place Specific

- Alternative A



Upper Square



Lower Square

Streetscape Themes: Place Specific

- Alternative B



Upper Square



Lower Square

Streetscape Themes: Place Specific

- Alternative C



Upper Square



Lower Square

Next Steps:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Project Initiation and Communication														
a. Kick-off Meeting	★													
b. Project Coordination Meetings (8)														
c. Transportation Advisory Committee Meetings (5)	★		★	★		★	★	★	★		★		★	
d. Special stakeholder outreach and workshop meetings (3)				★		★			★					
e. Communication support and surveys														
Interim Reports			R1			R2			R3			R4		
Task 1. Data Collection and Review of Existing Conditions														
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				★										
Task 3. Development of Alternatives														
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3.b Review of Preliminary Concepts														
3.c Alternatives														
Task 4. Community Workshop #2 – Alternatives														
								★						
Task 5 Preferred Design														
5.a. Layout and circulation concept for all modes														
5.b. Streetscape and urban design														
5c. Parking strategy														
5.d. Cost evaluations														
Task 6: Community Workshop #3 Preferred Design and Draft Final Report														
										★				
Task 7: Final Report														
7.a. Report														
7.b. Design Plans (25%)														
Task 8: Construction and Bid Documents														
8.a. Survey														
8.b. Design Development (75%)														
8.c. Final Construction Documents (100%)														
8.d. Bidding Documents														
Task 9: Construction Phase Services (Begin Spring, 2015)														

★ Gibbs to facilitate

