This is part **1 of 2** of the presentation shown at the April 21 public workshop. This document has been edited and augmented to serve as a stand-alone document providing an overview of the key topics discussed at the Workshop.

Public Workshop 2

April 21, 2014

ALTERNATIVES

Presentation and Review

Purpose of the Study

The City of Dover is undertaking the Downtown Pedestrian and Vehicular Access Streetscape Study to continue the revitalization of Dover's historic urban core, including rebalancing the entire circulation and streetscape network within the downtown so that future conditions support a mixed-use environment that is more convenient, pleasant, and economically vibrant. Goals include:

- Create a more attractive **pedestrian-oriented environment**
- Make **vehicle circulation more clear and convenient**
- Simplify **links to parking**
- **Expand bicycle and transit links** to and through the downtown

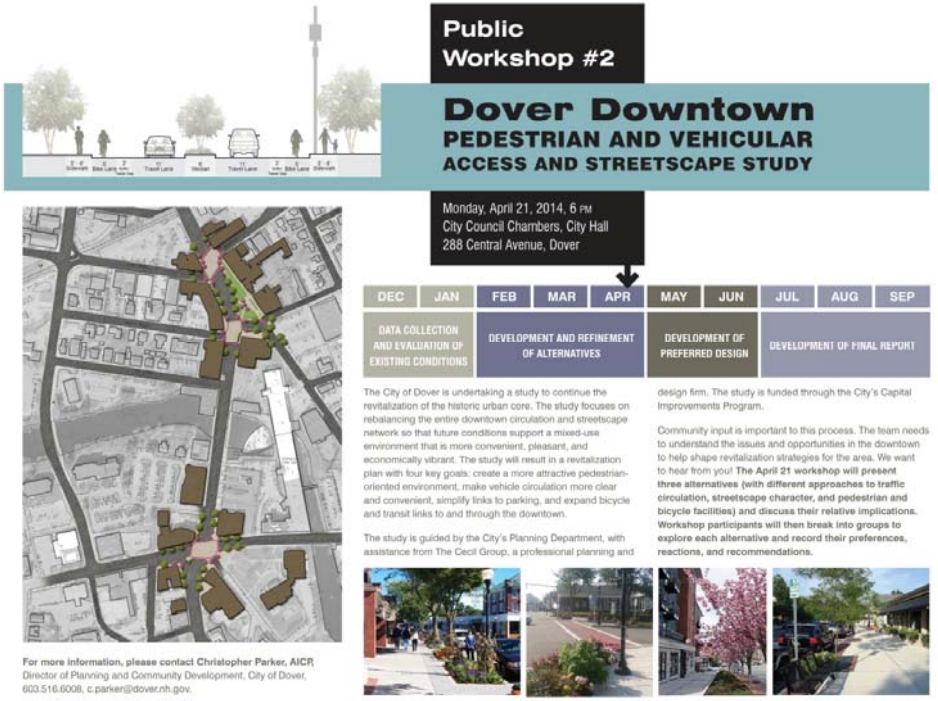
Introduction

- City providing management and input on the study
- Dover Planning Department taking the lead
- City's Traffic Advisory Committee and City Council providing feedback on goals and design alternatives
- Stakeholder meetings and conversations reviewed retail economic and parking challenges downtown
- Public workshops:
  - January 21 and April 21, 2014
  - A late spring workshop will review refined alternatives

Introduction

- Consultant team conducting the study for the City
  - The Cecil Group, lead firm, urban design, landscape design
  - Resource Systems Group (RSG) (transportation planning)
  - Gibbs Planning Group (retail economic strategy)

At right is the publicity flier for the public workshop on April 21



Schedule and Process

- Goals of the April 21 Public Workshop
  - Provide background
  - Present 3 alternatives
  - Respond to questions
  - Gather input

At right is the scope of work for this Study, highlighting the April 21 workshop's place in the process.

Task 1. Data Collection and Review of Existing Conditions

Task 2. Community Workshop #1 – Data and Analysis Presentation

Workshop preparation and participation

Task 3. Development of Alternatives

3.a Preliminary Alternatives

3.b Review of Preliminary Concepts

3.c Alternatives

Task 4. Community Workshop #2 – Alternatives

Workshop preparation and participation

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

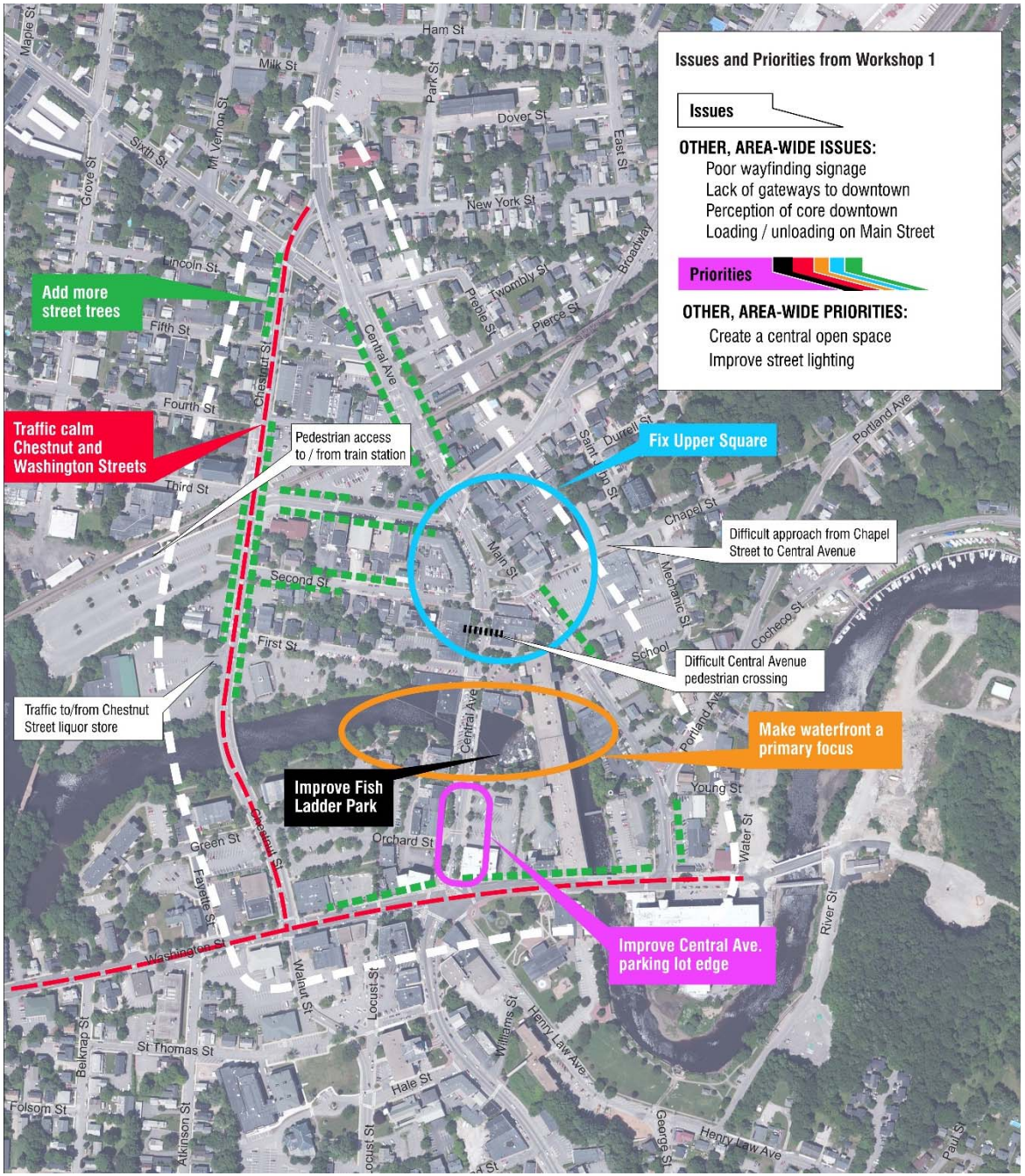
Task 6: Community Workshop #3 Present Preferred Design and Draft Final Report

Workshop preparation and participation

Task 7: Final Report

Workshop 1 Results: Issues and Priorities

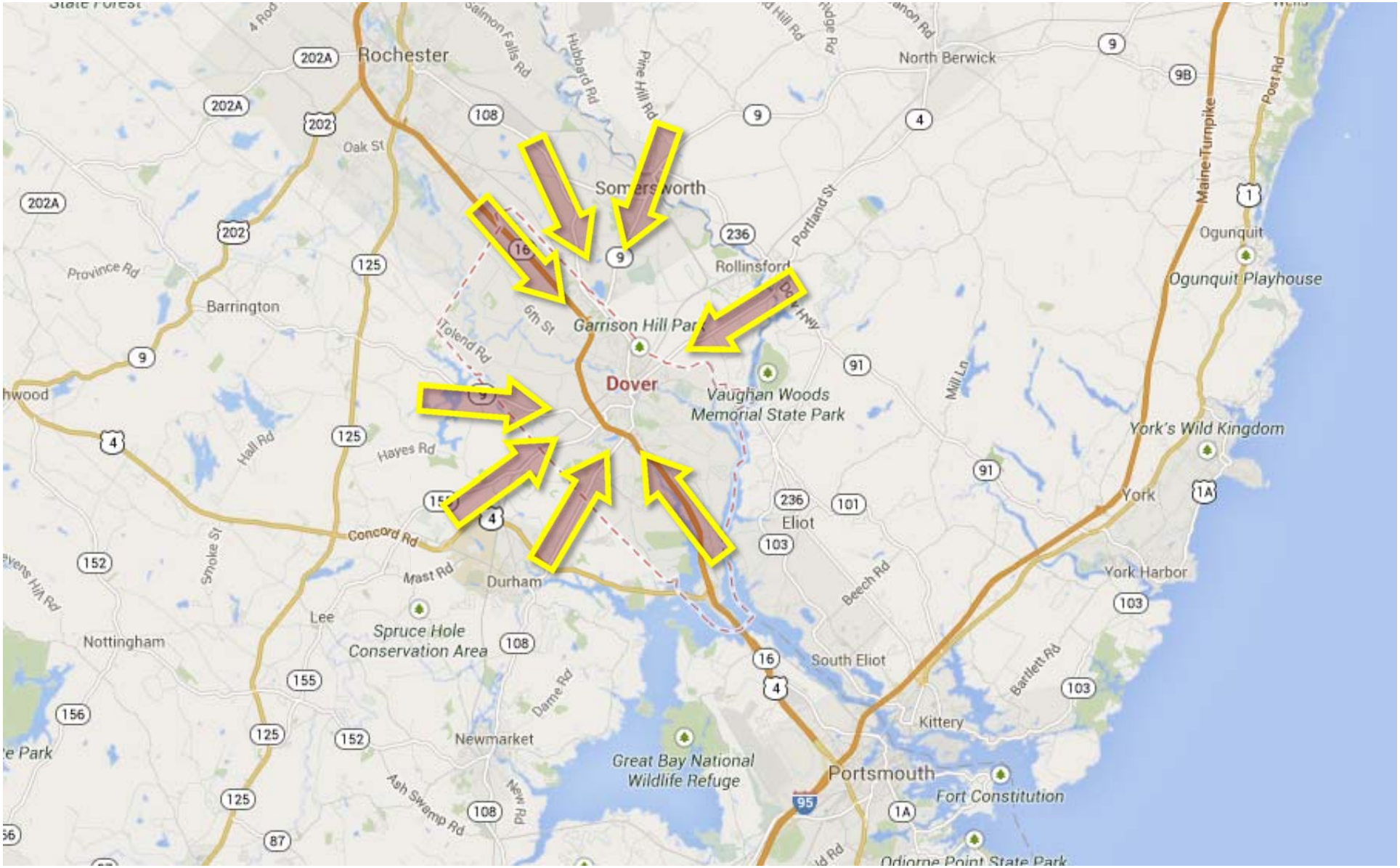
The diagram at right shows several of the key issues and priorities raised by participants at the January 21 public workshop.



Existing Conditions and Trends

The following section reviews the existing transportation circulation and safety conditions in Downtown Dover, based on field surveys, information from the City, and prior studies.

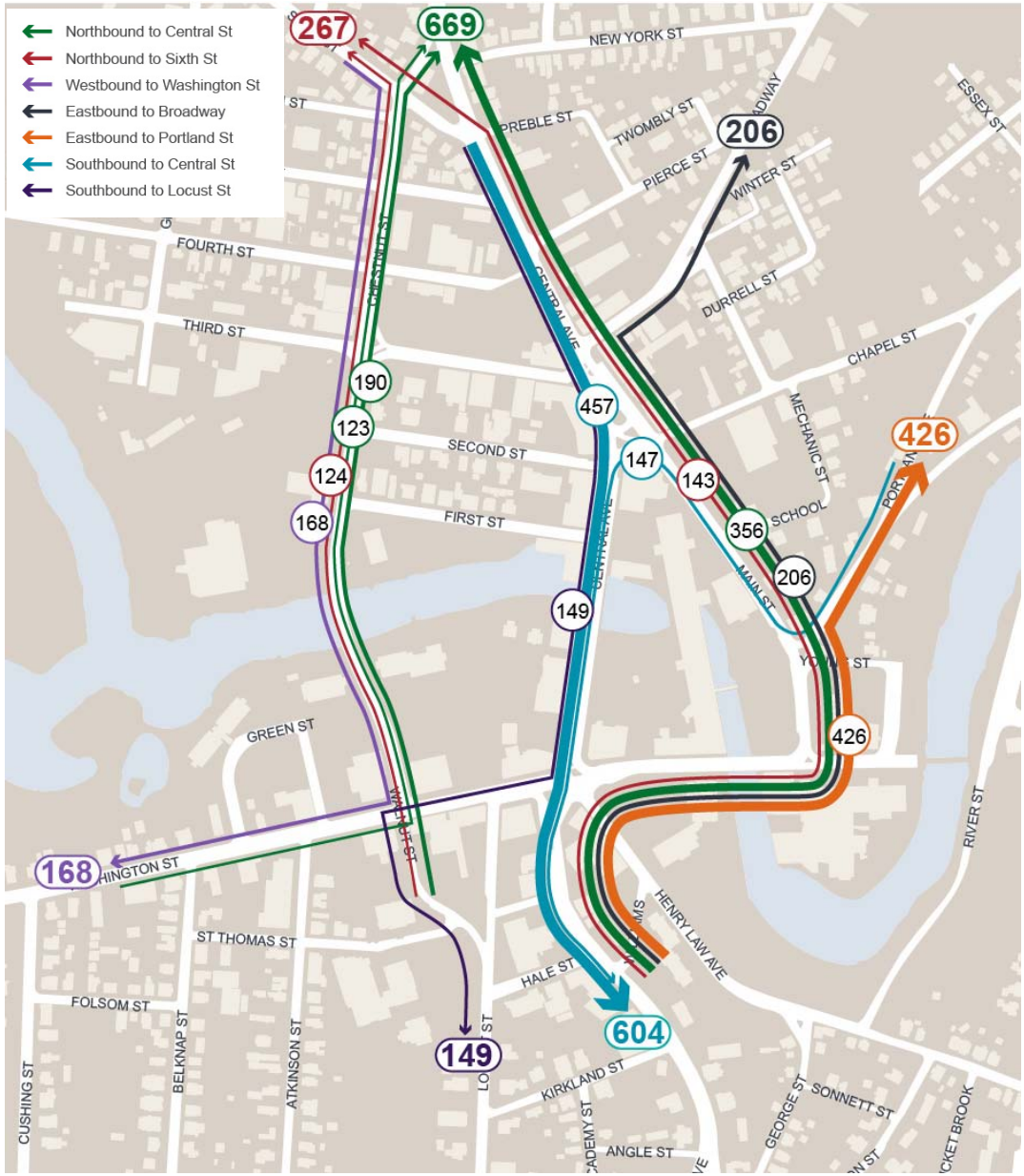
Big Picture: Downtown is a Convergence of Routes



Peak Hour Travel Conditions: A Review of Evening Traffic Flows

- Multiple routes pass through the downtown loop
- Largest convergence in Lower Square
- Cut-through traffic on Chestnut St. / Locust St/
- Highest Origin-Destination* Pairs:
  - Upper Central Ave to Lower Central Ave (6%)
  - Lower Central Ave to Portland Street (5%)
  - Lower Central Ave to Upper Central Ave (4%)

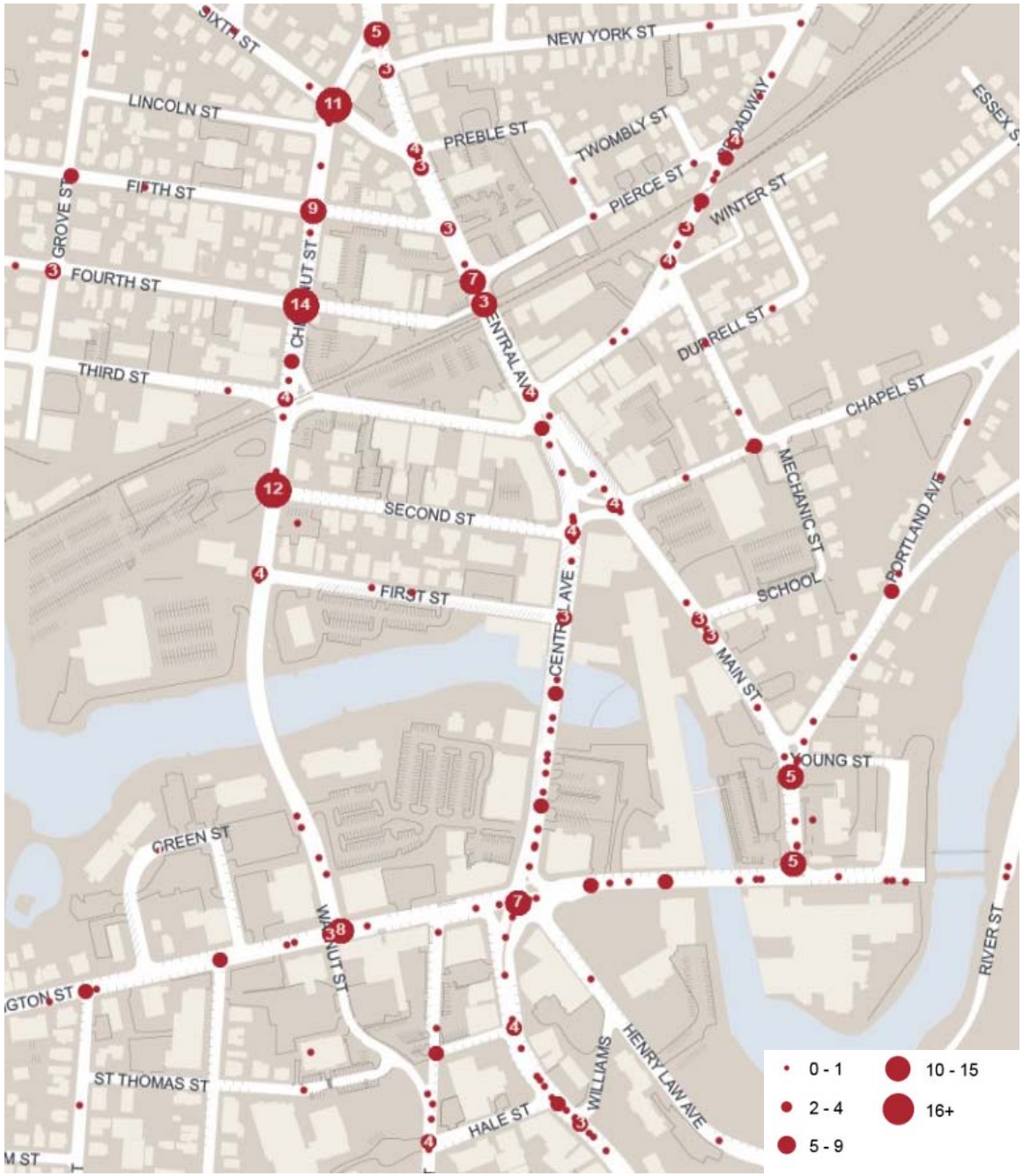
*An Origin-Destination Pair is a transportation planning concept that quantifies the number of vehicles or people moving from one point to another during a given point in time.



2005 O-D (Rizzo)

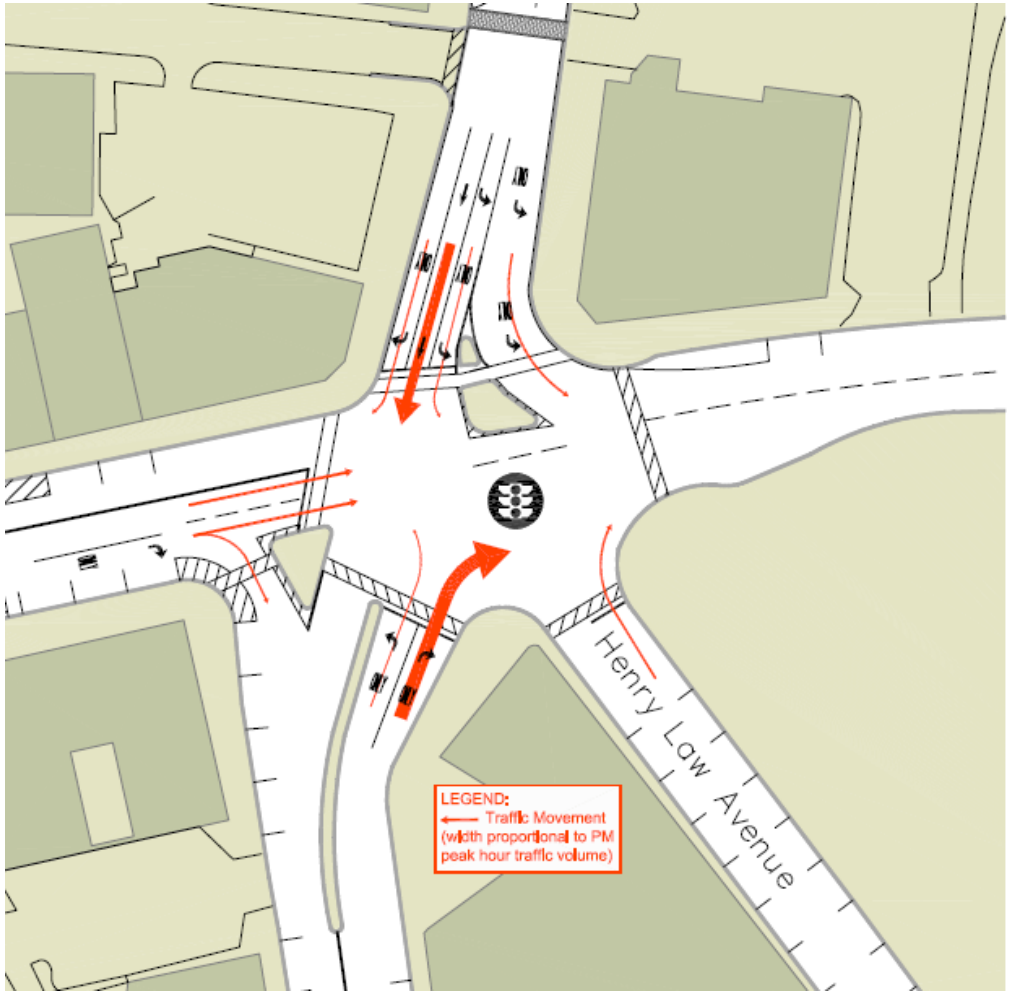
Crashes (2003 to 2012)

- The diagram at right shows locations of vehicular crashes. Larger dots indicate areas with more accidents
- Many incidents are along Central Ave. and Main St. in the downtown area
- Intersections with highest crashes:
  - Chestnut & Fourth (14)
  - Chestnut & Second (12)
  - Chestnut & Washington (11)
  - Central & Sixth (11)
  - Lower Square (10)
  - Chestnut & Fifth (9)



Lower Square Conditions

- Convergence of traffic flows at Lower Square results in traffic congestion
- Wide pavement expanses at intersection approaches create long pedestrians crossing times
- Not all vehicular approaches have signalization to allow a walking phase for pedestrians
- Wide pavement expanse divide the quadrants of the intersection, fragmenting the cohesion of Lower Square

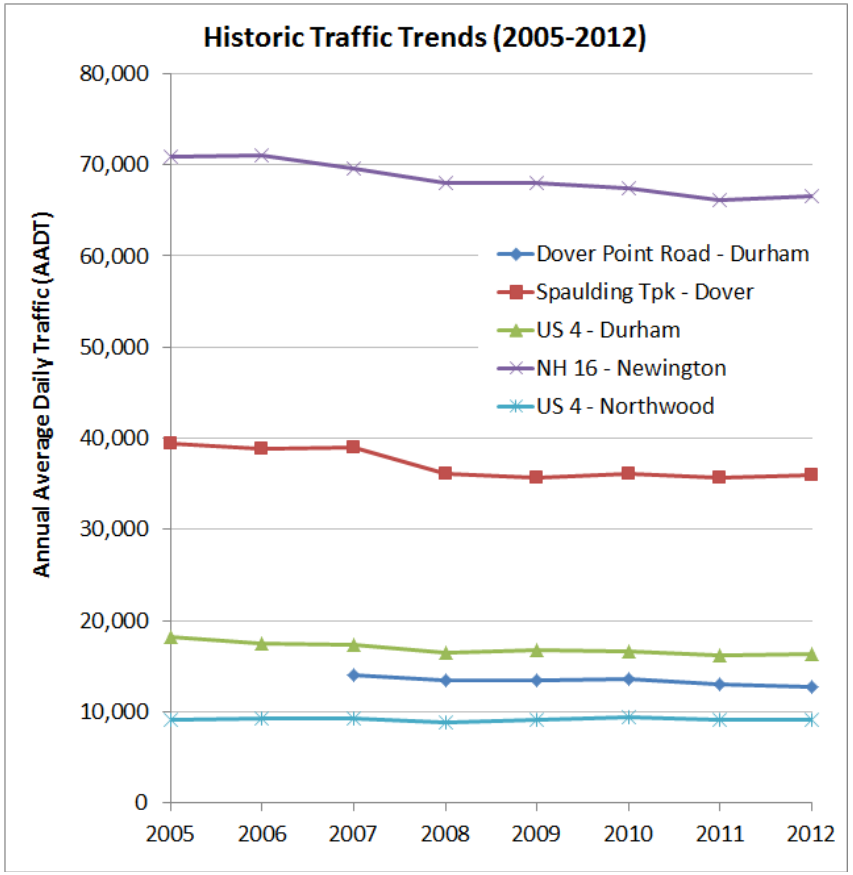


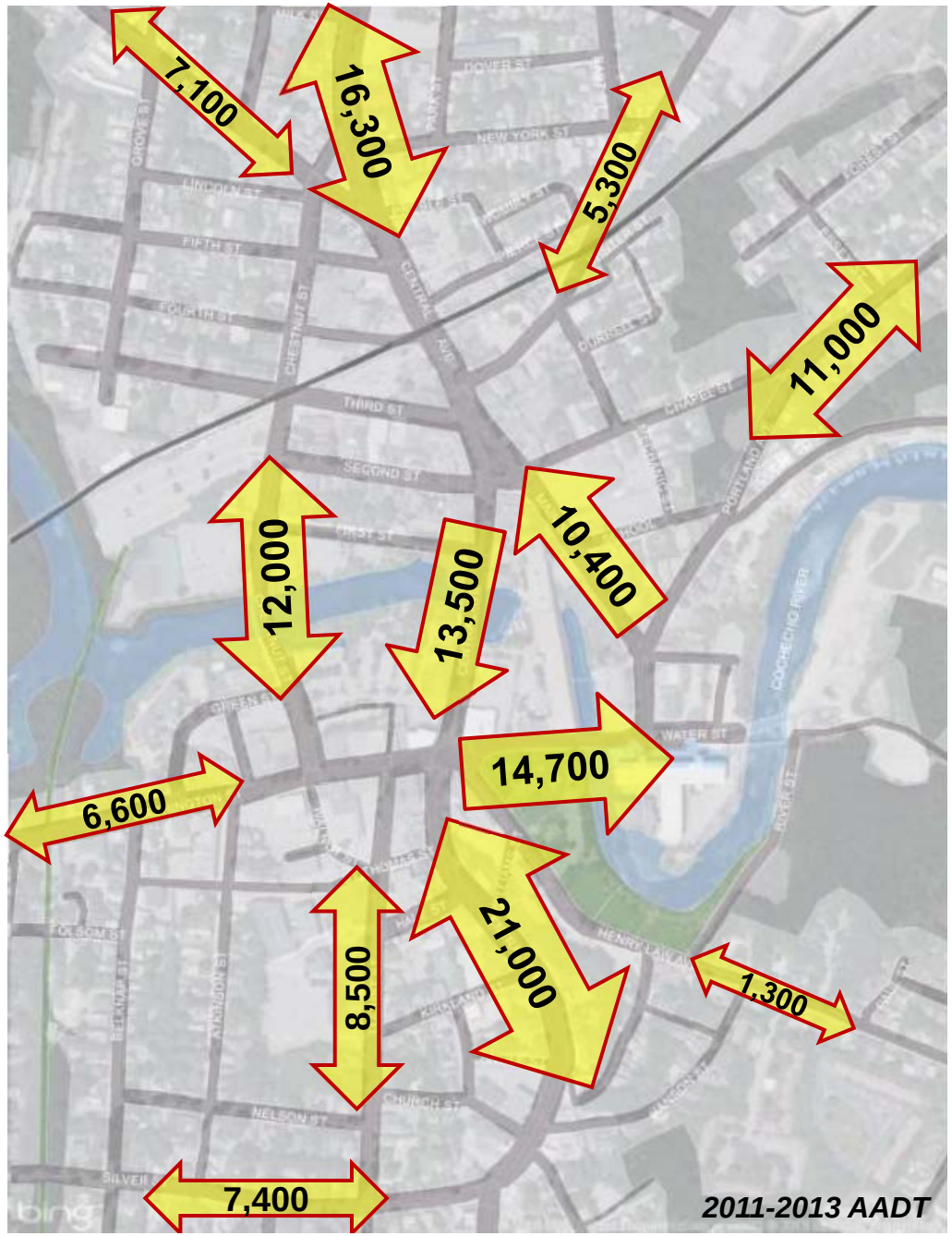
Upper Square Conditions

- Vibrant mixed-use (retail, residential, and offices) setting
- Convergence of several cross streets creates a complex layout
- Complex turning movements from Main Street, Chapel Street, Second Street, and Third Street
- Highest number of crashes downtown *(according to the Downtown / Riverfront Redevelopment Traffic Circulation and Parking Plan study by Rizzo Associates from 2001)*

Downtown Traffic Volumes

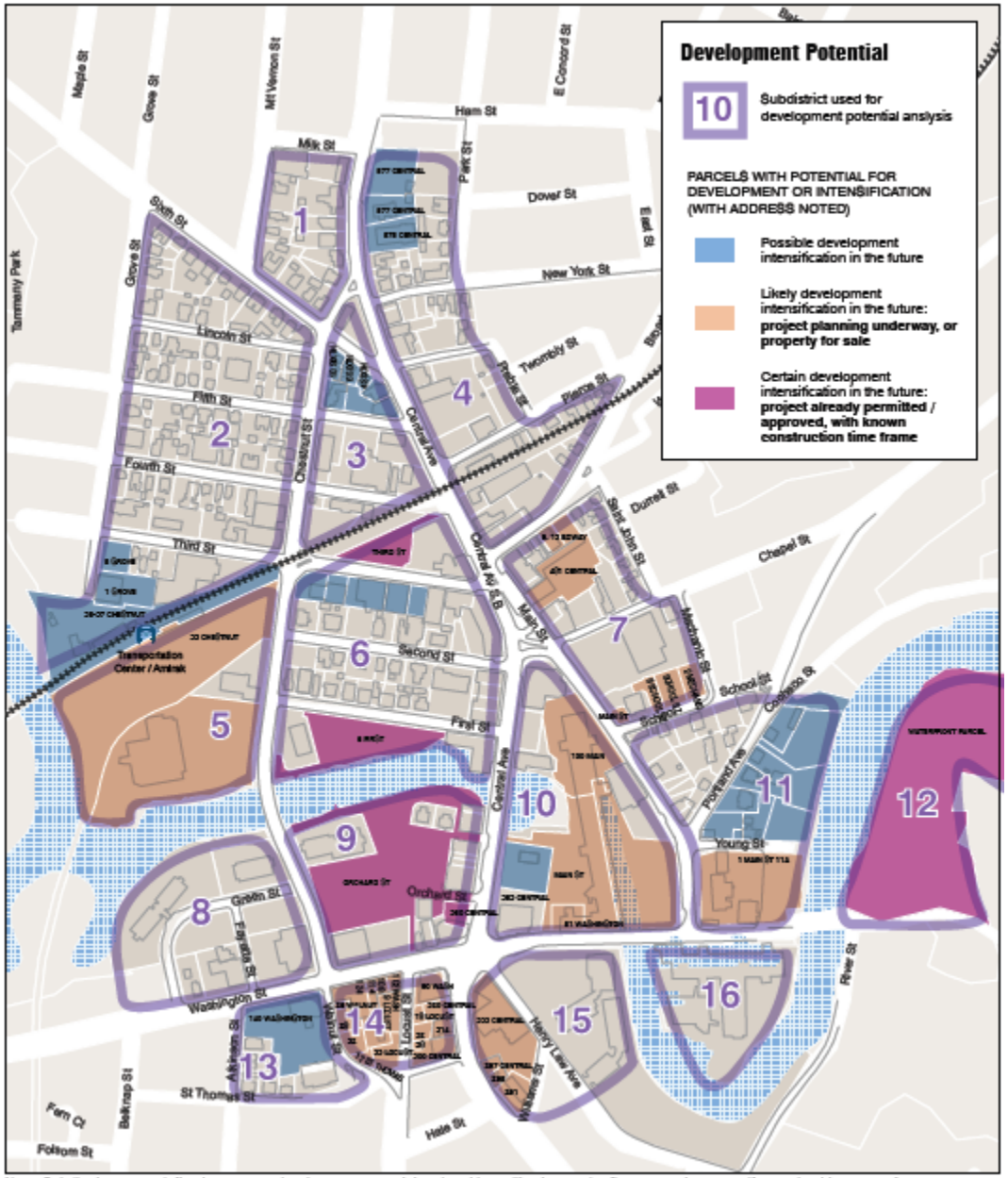
- Traffic volumes have generally declined since 2005, so
- Rizzo study's volumes remain a conservative assumption for use today





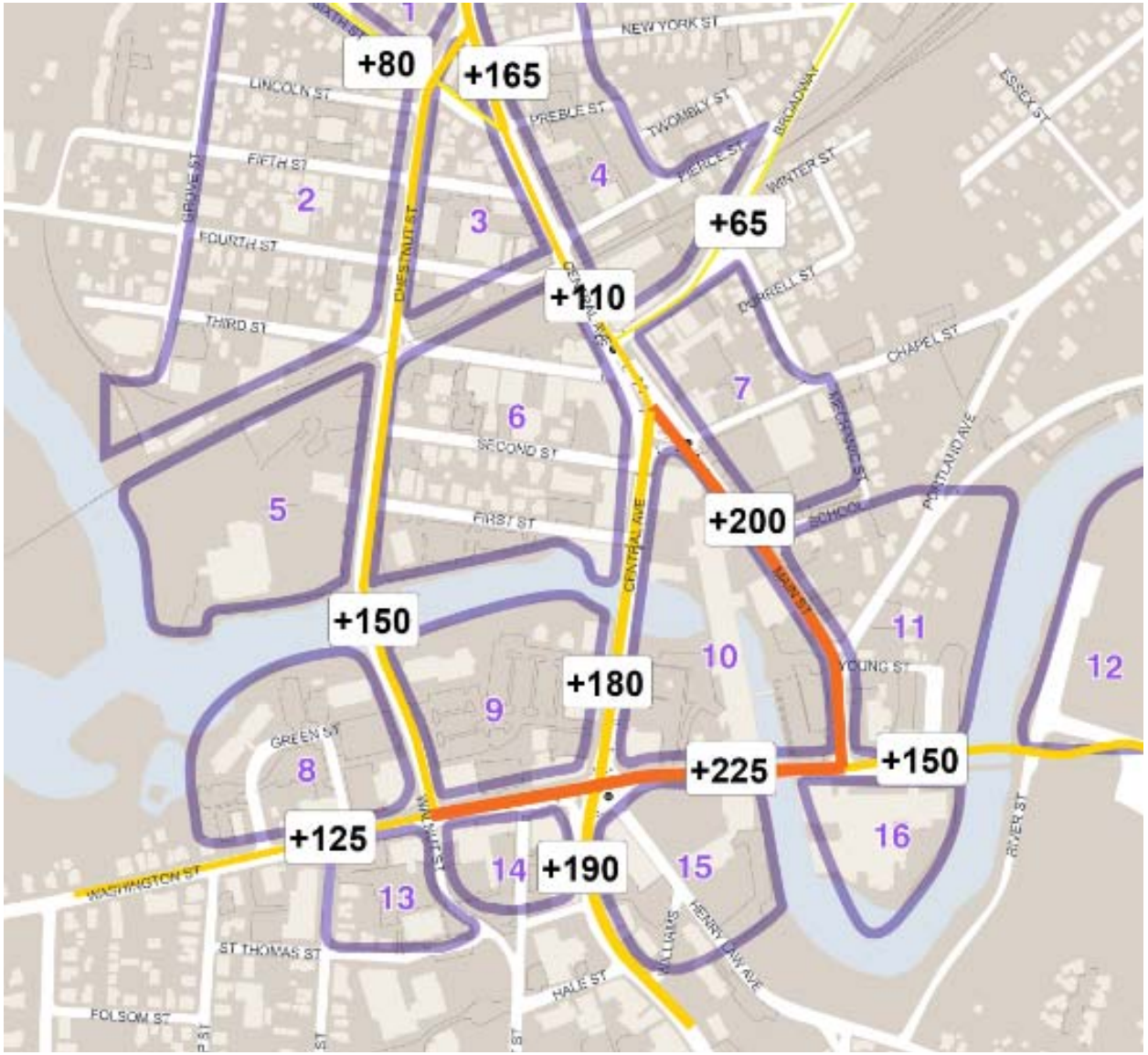
Growth Projections

- Development projections were prepared by The Cecil Group, with input from the City
- Projections considered the likely potential for residential units and commercial and retail space to be added downtown.
- RSG determined the potential growth in downtown traffic, taking these estimates into account



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)

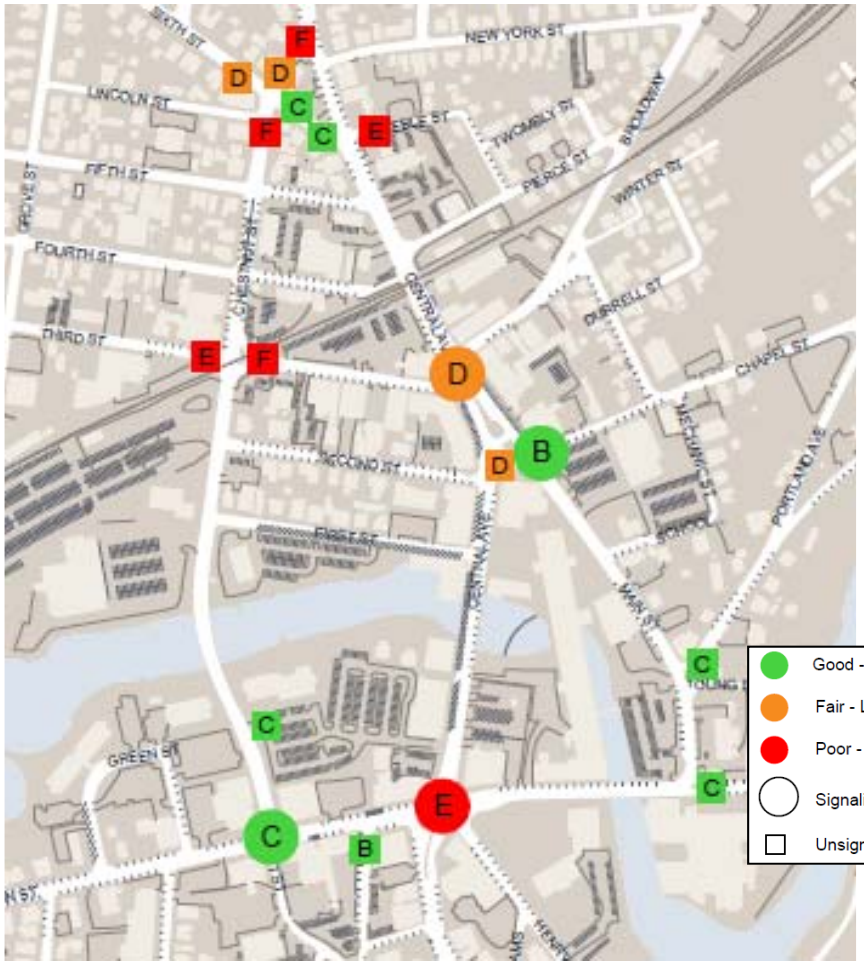


At left is a diagram showing projected increases in the number of vehicles on major downtown streets during a typical afternoon peak hour. This incorporates projected traffic demand from anticipated development in 16 sub-areas (shows in purple outline) of the downtown.

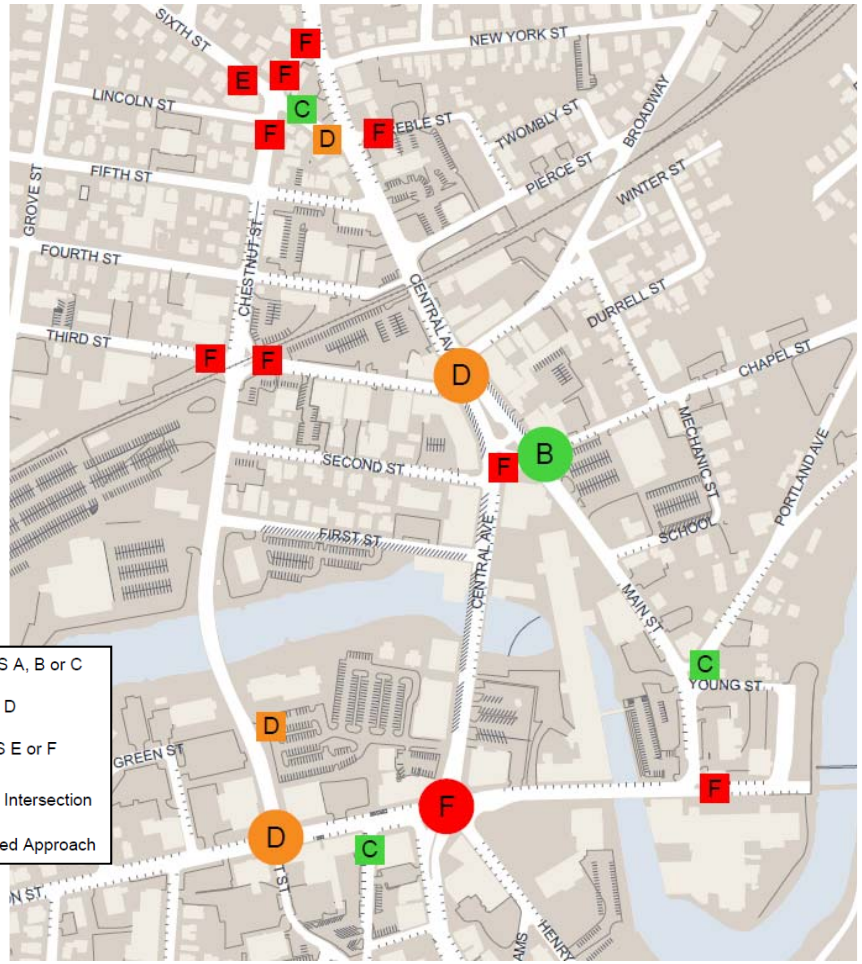
PM Peak Level of Service

These two diagrams depict Level of Service (LOS), a graded measure of vehicular delay at intersections. LOS is based on traffic volumes and turning movements. By 2034, LOS in most major intersections would worsen (for example, from C to D) if the existing street network remains in its current configuration.

2014

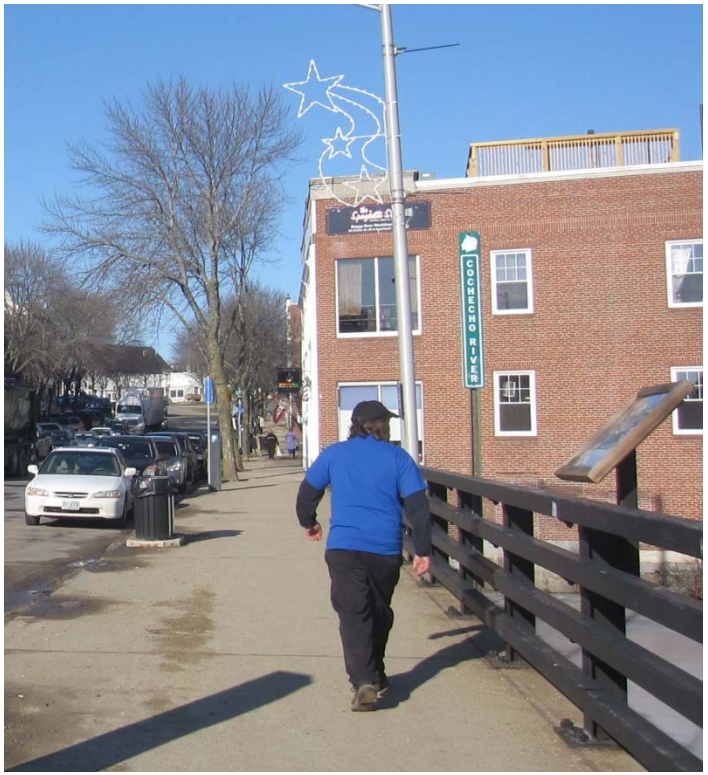


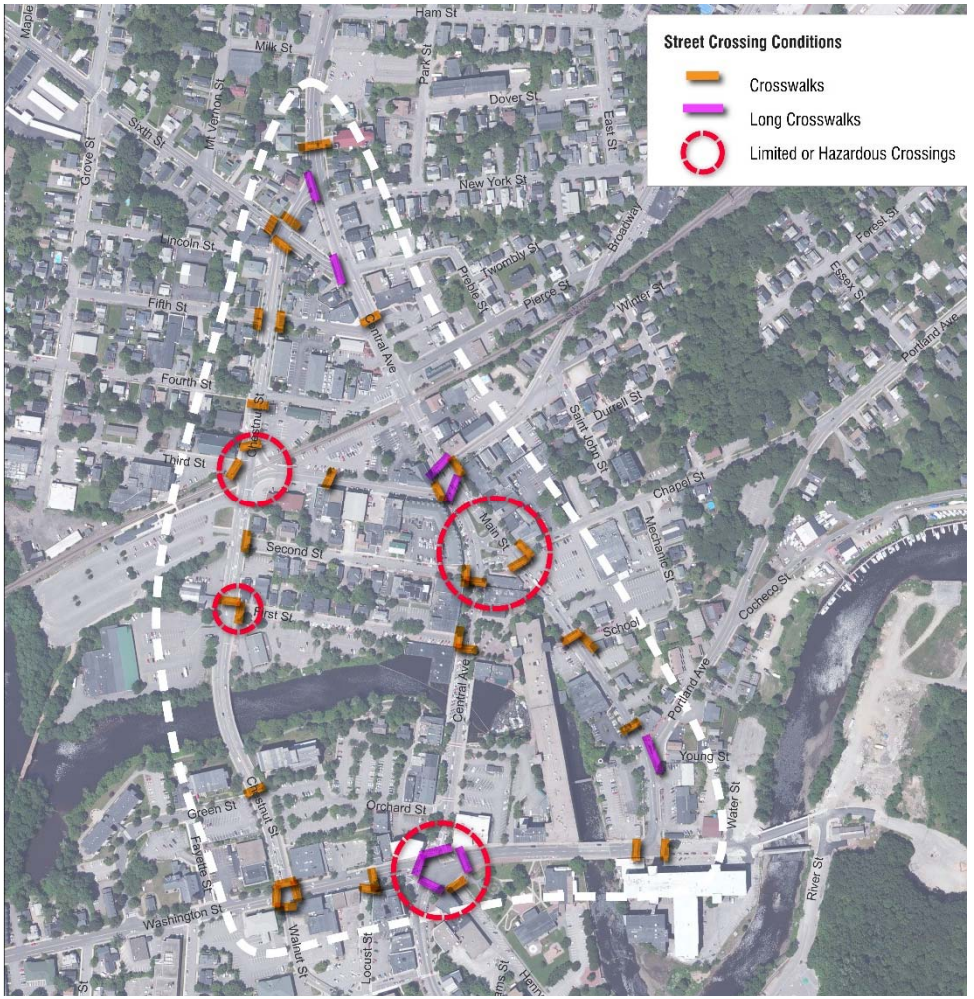
2034



Walking and Street Crossing Conditions

The diagram below shows existing crosswalks and highlights difficult pedestrian crossing situations such as excessively long crossing distances and limited or hazardous intersections.





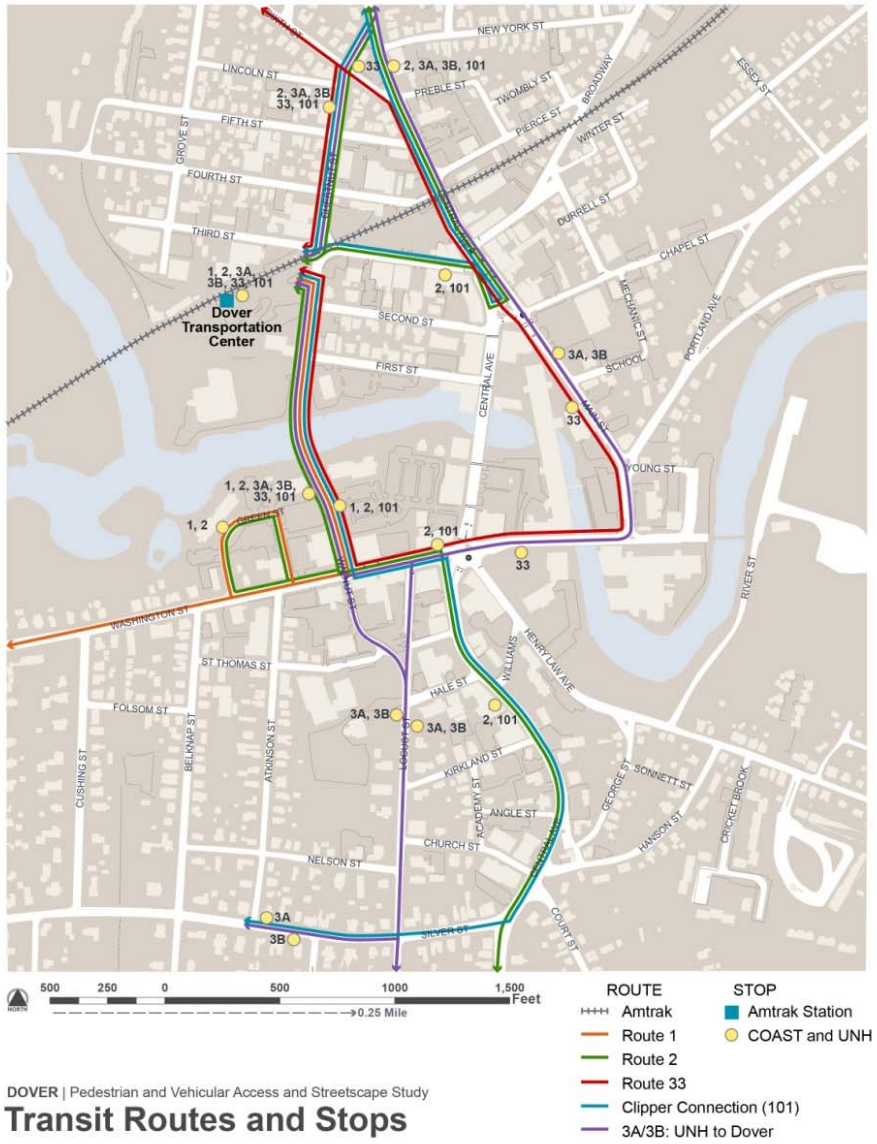
Bicycle Conditions

- Limited existing routes and facilities
- More bicycle parking needed

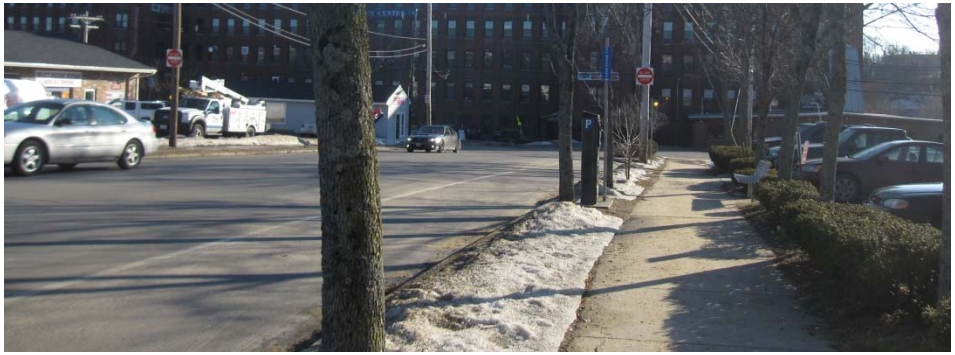
Existing Transit Facilities

- Rail transportation
- Bus transportation

There is a need for better and safer pedestrian connections to the Dover Transportation Center – particularly at Chestnut and Third Streets – and convenient, safe bus stops.



Parking: On- and off-street, public and private, full and vacant



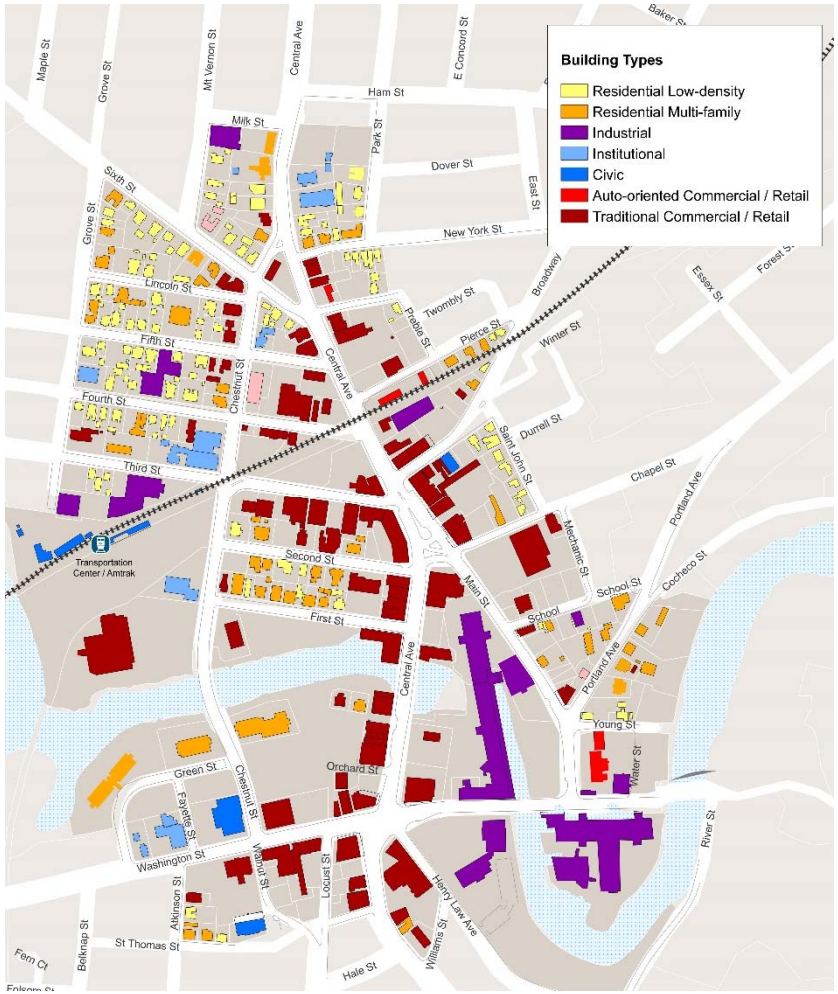
Parking Conditions

- Previous parking studies have been reviewed and updated.
- With the addition of the new City parking facility (south of the river near new police station), the parking inventory will be able to support the downtown needs.
- An enhanced pedestrian network is a key aspect of an effective downtown parking and shared parking solution, by allowing people to walk between their cars and their destinations.
- Over the long-term, some additional public parking facilities may be needed in strategic locations to help support economic growth and revitalization.

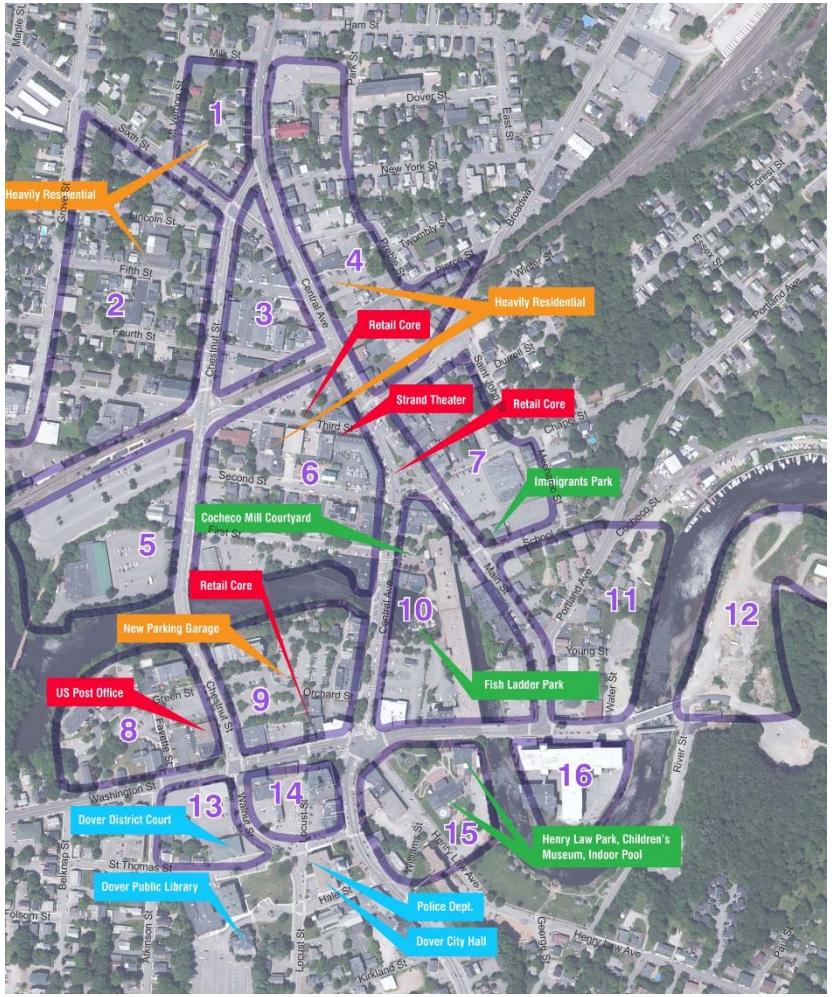
"Drivers" of Pedestrian Activity

The locations of development – in particular the major retail, transportation, civic, and entertainment destinations – affect where people walk in downtown.

- Buildings and Character



- Activity Generators

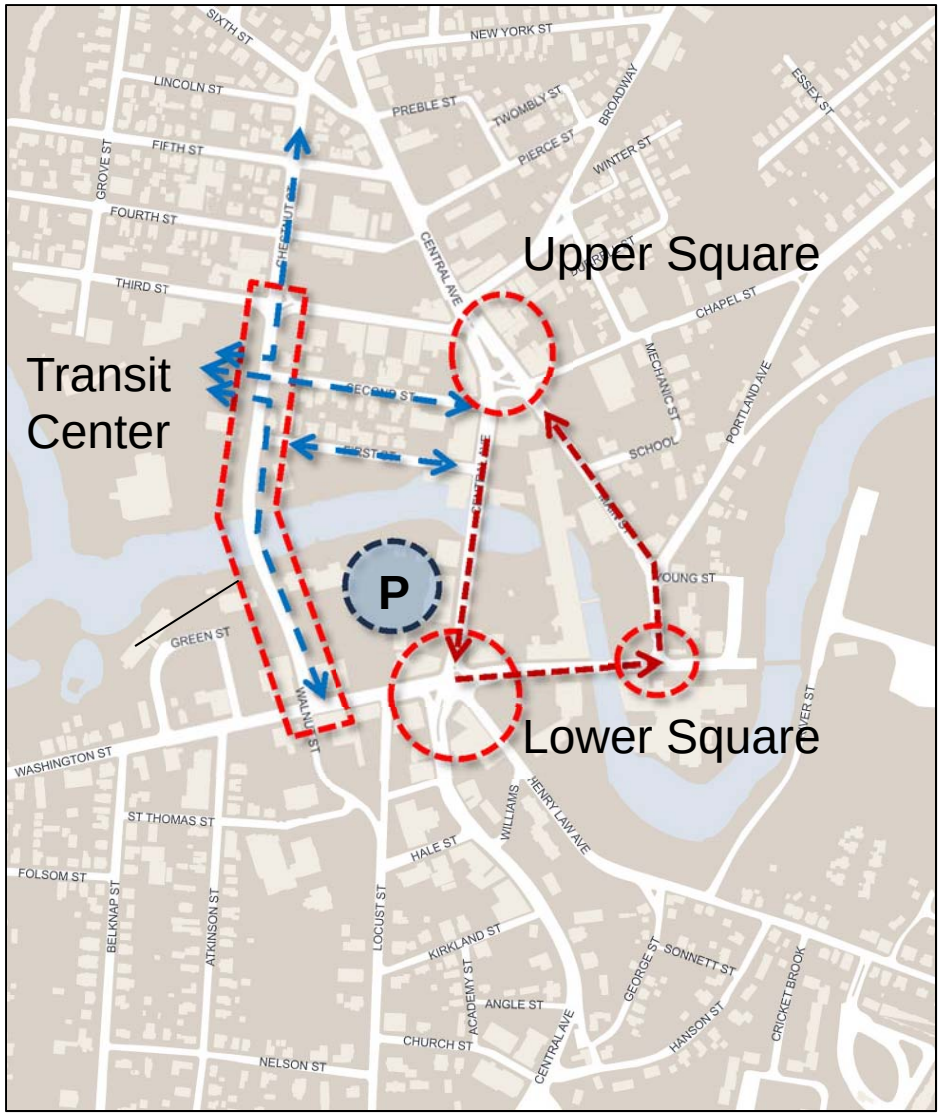


Improvement Alternatives: Baseline Recommendations and Conclusions

The following section describes improvements to the street network and pedestrian system that are recommended in all three alternatives.

Baseline Improvements: Common Threads

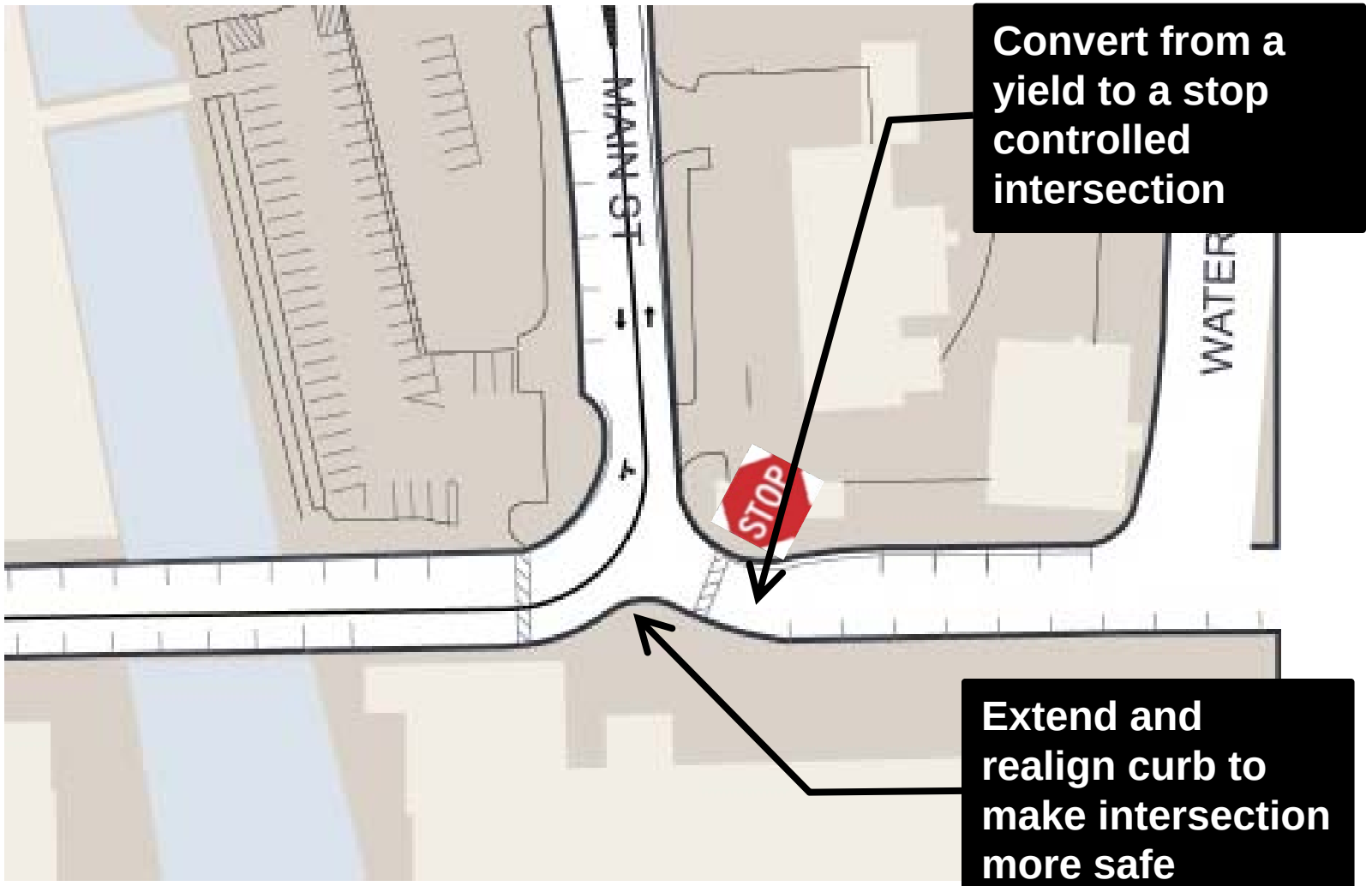
- Reorganize and provide traffic calming for lower Chestnut Street
- Reorganize both Upper and Lower Squares to improve safety, operations, and the pedestrian environment
- Improve conditions along the “loop” (Washington St., Central Ave., and Main St.)
- Provide better and safer pedestrian links to the Dover Transportation Center at Third St. and Chestnut St.
- Provide vehicle and pedestrian access to the new downtown parking facility
- Clarify operations at Main St. and Washington St.



Recommended Changes at Chestnut Street, and Access to the Transportation Center

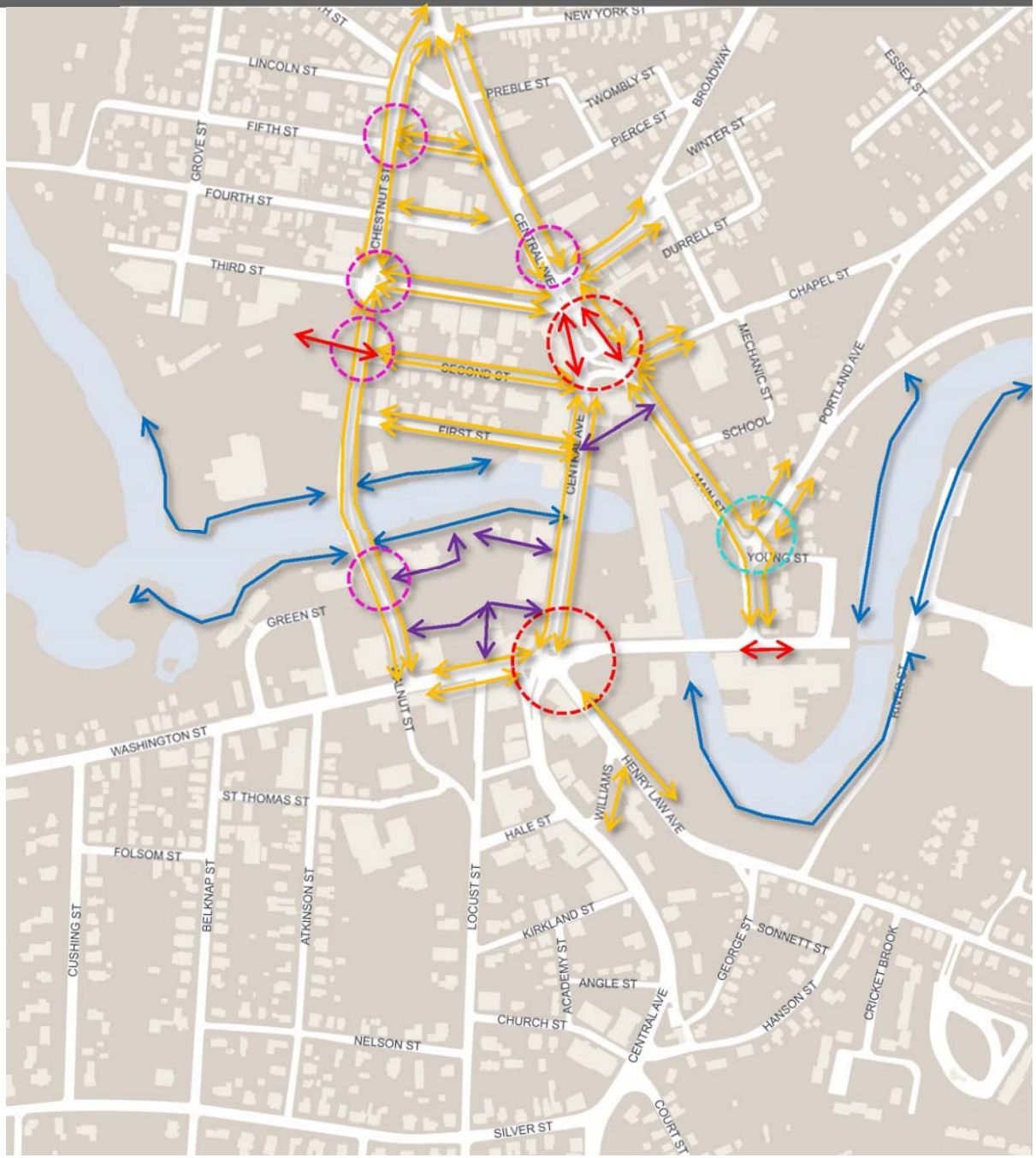
- Close the duplicate curb cut near the intersection of Chestnut and Third Streets and the rail alignment
- Significantly improve traffic operations at the intersection
- Provide enhanced crosswalks and traffic calming at the main entrance to the station area along Chestnut, possibly with a raised pedestrian "table" crossing area
- Extend sidewalk and streetscape improvements along the streets and paths that connect the Transportation Center to the Downtown

Recommended Traffic Calming Changes at Washington and Main Streets



Pedestrian Circulation: Common Threads

The alternatives are designed to substantially improve and extend the pedestrian network, but accomplish this through varying approaches. This diagram indicates shared themes among all of the alternatives.



Significantly improved pedestrian connections

Improved through-block connections

Existing and future river walk connections

Sidewalk repair/streetscape enhancements

Major crosswalk/intersection improvements

New or significantly enhanced crosswalks

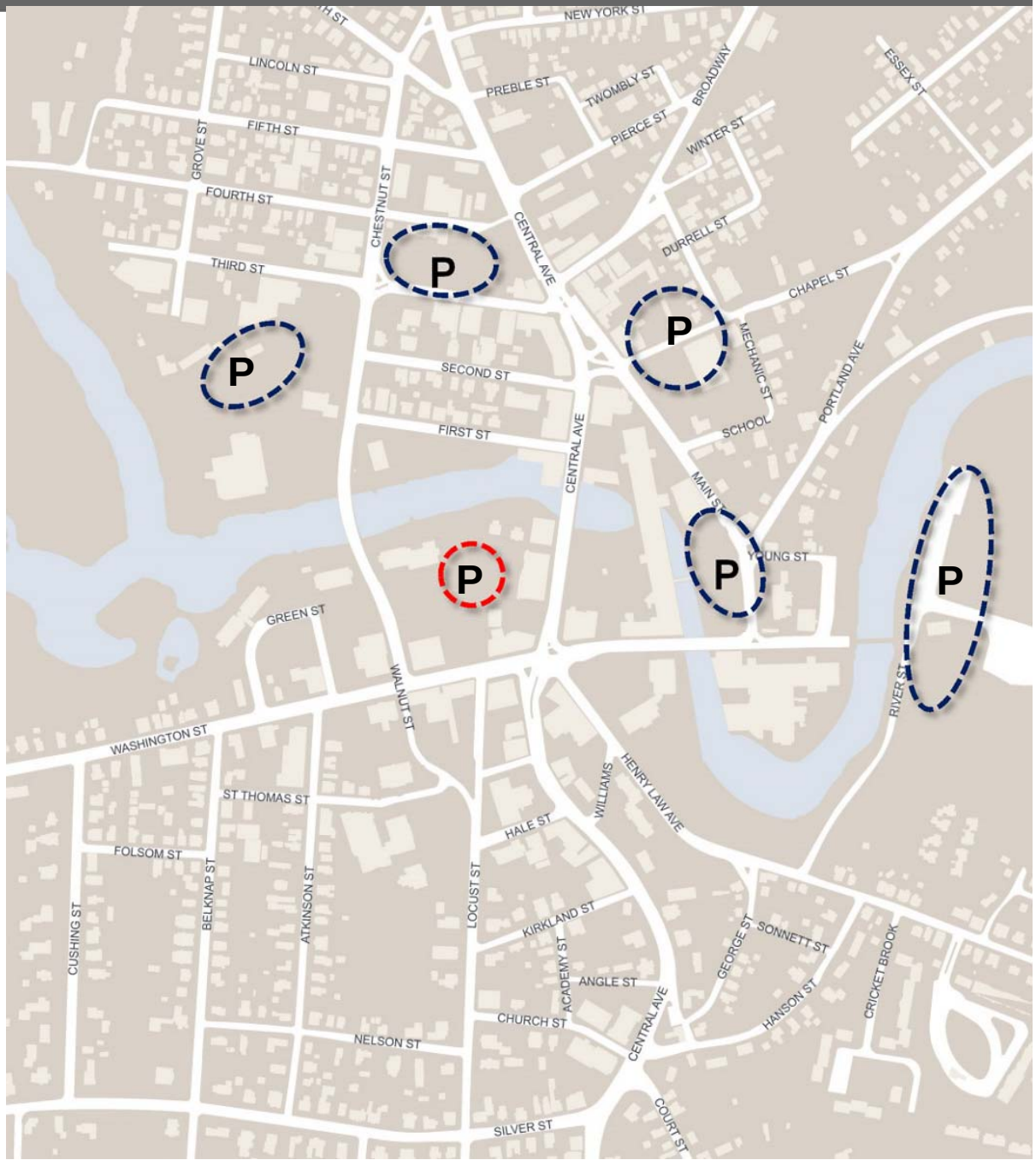
Alternatives and Parking

The alternatives are all generally "parking neutral" relative to existing conditions and can be adapted to restore or re-organize spaces. In order to balance vehicle, pedestrian, and parking environments, it may be advisable to pursue minor reductions in spaces due to pedestrian improvements at Upper Square and other crosswalks. Provision of daytime delivery spaces in some locations may also be advisable.

The new City parking structure (between the river and Washington Street) will add significantly to the supply of parking. And there may be future opportunities to sponsor public, or public/private shared parking lots to help support growth. Some locations will also support private sector parking decks to accommodate additional parking.

P New City parking structure

P General locations, long-term potential area for additional municipal, public/private shared parking facilities or private sector solutions



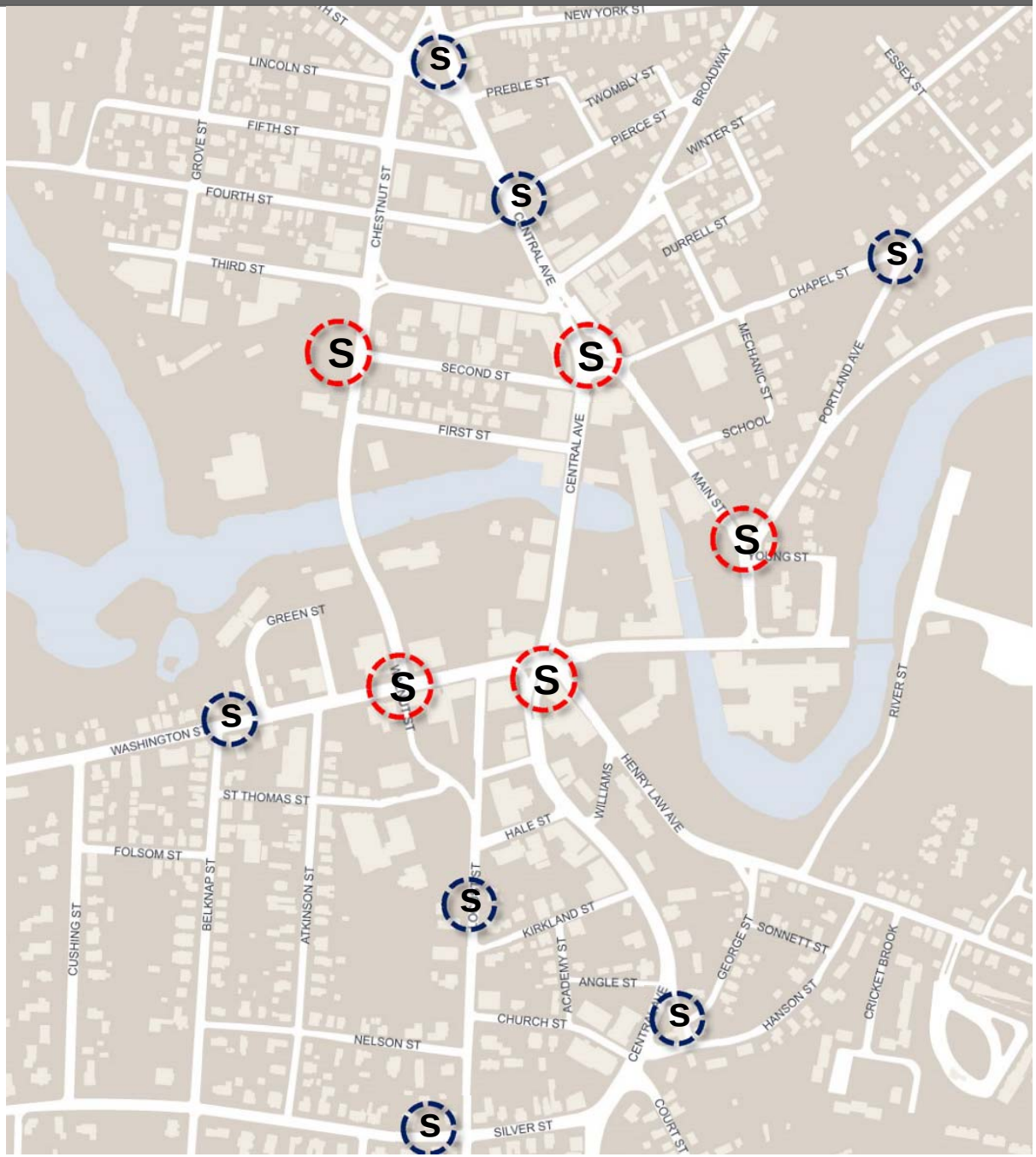
Alternatives: Wayfinding and Signage Approaches

The alternatives all lend themselves to improved wayfinding and signage, by establishing a more clear and logical sequence of decisions. Wayfinding would be added at multiple locations, with particular emphasis on the approaches to and corners of the "loop." Signs would indicate principal destinations, including the route to municipal parking.

Pedestrian-scale wayfinding would be created at key junctures, linking all three sides of the "loop" and indicating transit, public destinations, and business clusters.

S Major wayfinding signage

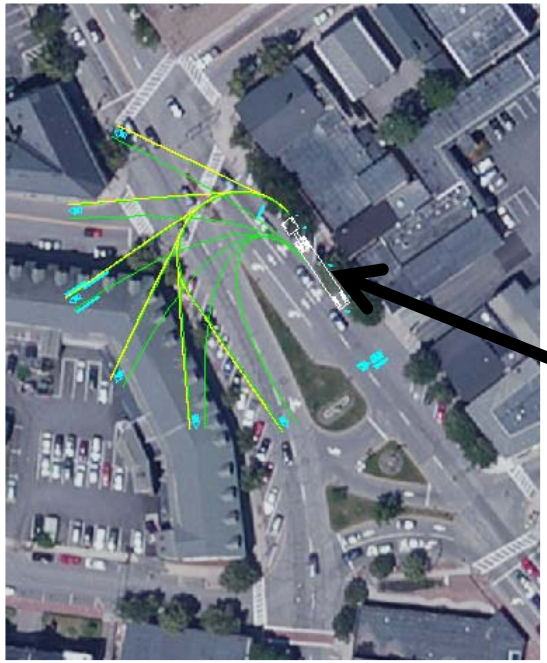
S Approach signage, secondary signage



Initial Concepts: Feasibility Issues

A number of preliminary concepts were evaluated that were not advanced for detailed study because of fundamental feasibility issues. These included:

- **One/two-way hybrid alternatives** – Hybrid approaches to the "loop" had been evaluated as part of previous studies, but had drawbacks that were addressed with the new alternatives.
- **Upper Square circulator (below)** – The idea of a modified roundabout was examined, but the tight radius at the northern end precludes reasonable U-turns by trucks.



Truck u-turn movement in Upper Square

Initial Concepts: Feasibility Issues

A number of preliminary concepts were evaluated that were not advanced for detailed study because of fundamental feasibility issues. These included:

- **Lower Square roundabout (below)** – The volume of existing and future traffic passing through the intersection of Washington Street and Central Avenue would require two continuous traffic lanes circling around a landscaped center. This would be similar to an existing roundabout at the intersection of Main Street and Marlboro Street in Keene. The land required for such a roundabout would extend all the way to the walls of existing buildings around Lower Square, and would require removal of portions of the buildings to accommodate traffic and pedestrian sidewalks.