Route 1A/Lynnway/Carroll Parkway Study in Lynn

Route 1A/Lynnway/Carroll Parkway Study in Lynn

Project Manager
Seth Asante

Project Principal
Mark Abbott

Data Analysts
Kathy Jacob
Katrina Crocker
Seth Asante

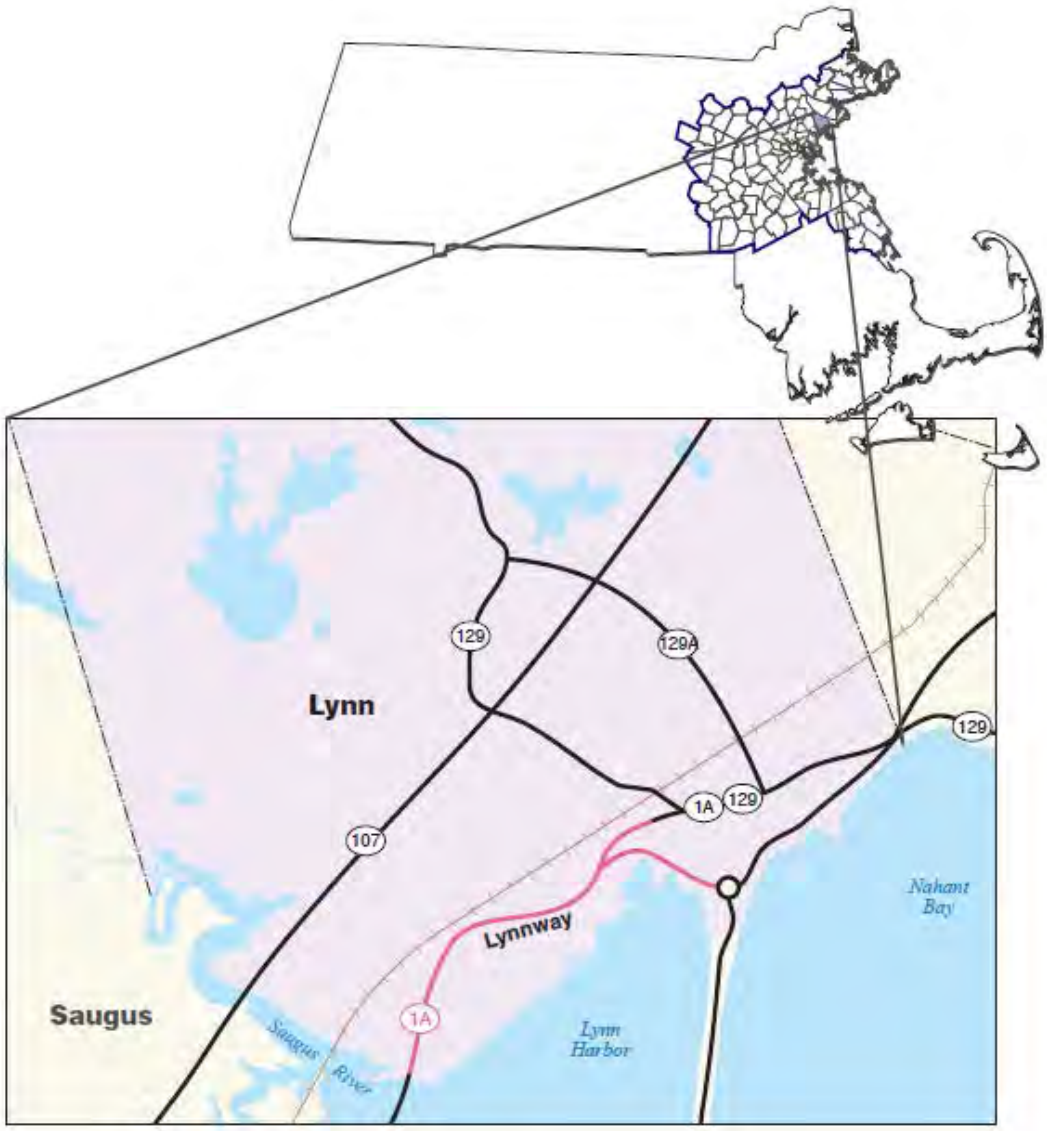
Graphics
Kenneth Dumas
Kim DeLauri

Cover Design
Jane Gillis

The preparation of this document was supported by the Federal Highway Administration through MHD 3C PL contracts #84053 and #33101.

Central Transportation Planning Staff
Directed by the Boston Region Metropolitan Planning Organization. The MPO is composed of state and regional agencies and authorities, and local governments.

June 2016



To request additional copies of this document or copies in an accessible format, contact:

Central Transportation Planning Staff
State Transportation Building
Ten Park Plaza, Suite 2150
Boston, Massachusetts 02116

(857) 702-3700
(617) 570-9192 (fax)
(617) 570-9193 (TTY)

ctps@ctps.org
www.bostonmpo.org

ABSTRACT

Following a selection process based on safety conditions, congested conditions, multimodal significance, regional significance, regional equity, and implementation potential, the Route 1A/Lynnway/Carroll Parkway arterial segment in Lynn was approved for study by the Boston Region Metropolitan Planning Organization (MPO). The roadway runs through an area that has been classified as a Commonwealth of Massachusetts Growth District, an important designation for older urban cities in need of increased tax bases and commercial and residential development. The City of Lynn has made major progress toward redevelopment by completing the physical and legal changes necessary to redevelop 305 acres of underutilized waterfront land. However, the current configuration and size of the Lynnway inhibits access to the waterfront—six-to-seven lanes of traffic act as a barrier, cutting off the waterfront from Lynn's downtown and neighborhoods.

MPO staff, working with the study advisory task force, has developed short- and long-term alternatives that would transform the Lynnway and Carroll Parkway into a pedestrian- and bicyclist-friendly roadway as well as a transportation corridor that serves all modes of transportation and maintains regional travel capacity. This study provides the City of Lynn, the Department of Conservation and Recreation (DCR), the Massachusetts Department of Transportation (MassDOT), and other stakeholders with an opportunity to begin researching the needs of the Lynnway and Carroll Parkway—in light of the city's vision for the Waterfront—and to start planning design and engineering efforts.

This report summarizes the analyses and improvement alternatives resulting from the study. The opening sections provide background information for the study by describing the existing conditions and problems. An assessment of the safety and operational problems, and a discussion of the potential improvement alternatives, follows the background sections. The report also includes technical appendices, which cite the methods used and data applied in the study, including detailed reports about the intersection and arterial capacity analyses. If implemented, the report's recommendations would result in an improved roadway corridor: one where it is safe to walk or bicycle to shops, recreational areas, and work; that provides safer access to businesses; and where traffic operates efficiently.

BOSTON REGION MPO

N

FIGURE 1
Regional Map

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON REGION MPO

N

FIGURE 2
Map of Existing and Proposed Land Use

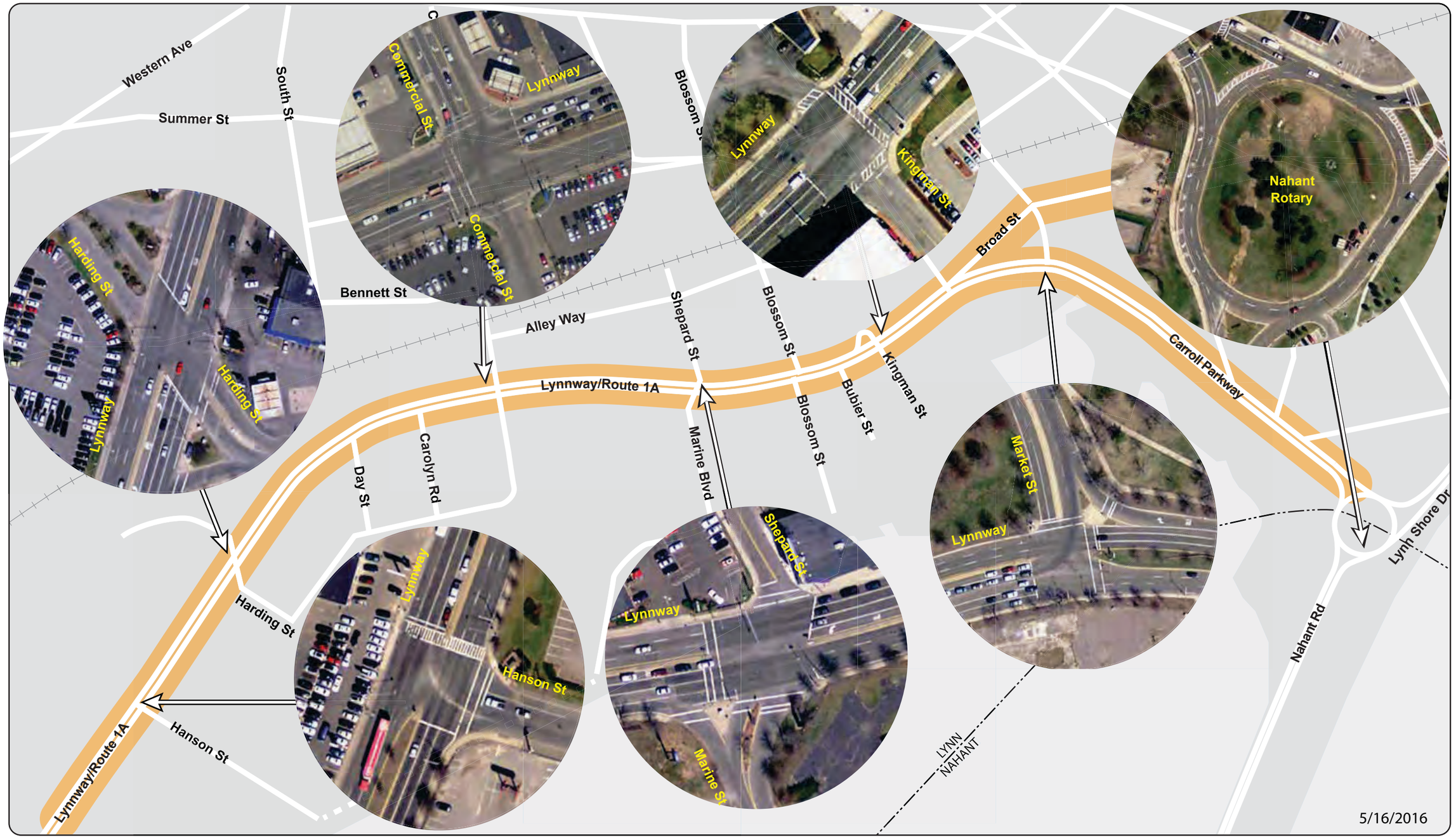
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON REGION MPO

N

FIGURE 3
Study Area

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON
REGION
MPO

N

FIGURE 4
Study Area Intersections

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

BOSTON REGION MPO

FIGURE 5

Average Weekday Traffic Volumes

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

NB = Northbound. SB = Southbound.

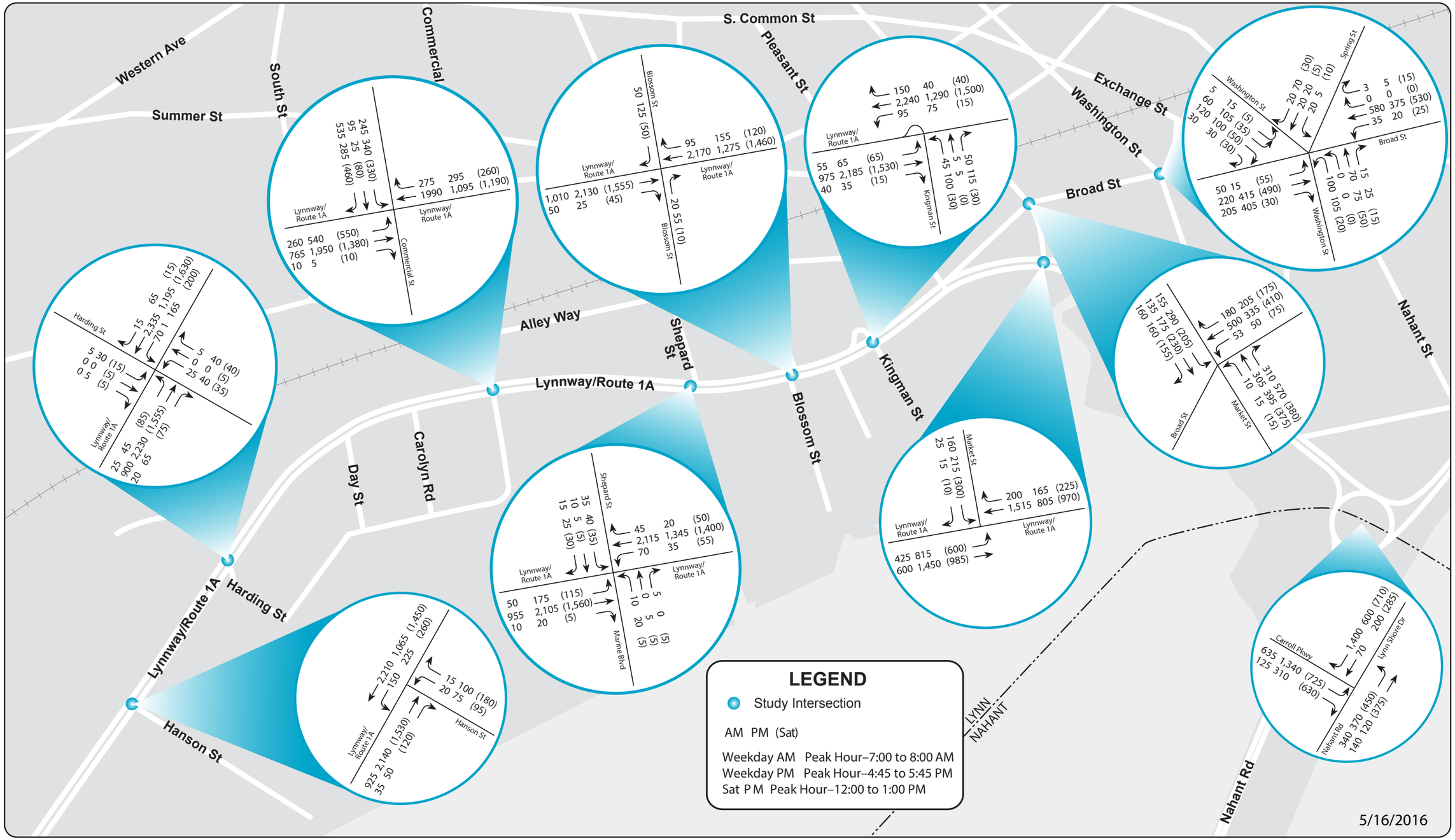
5/16/2016

BOSTON REGION MPO

FIGURE 6

Hourly Traffic-Volume Distribution

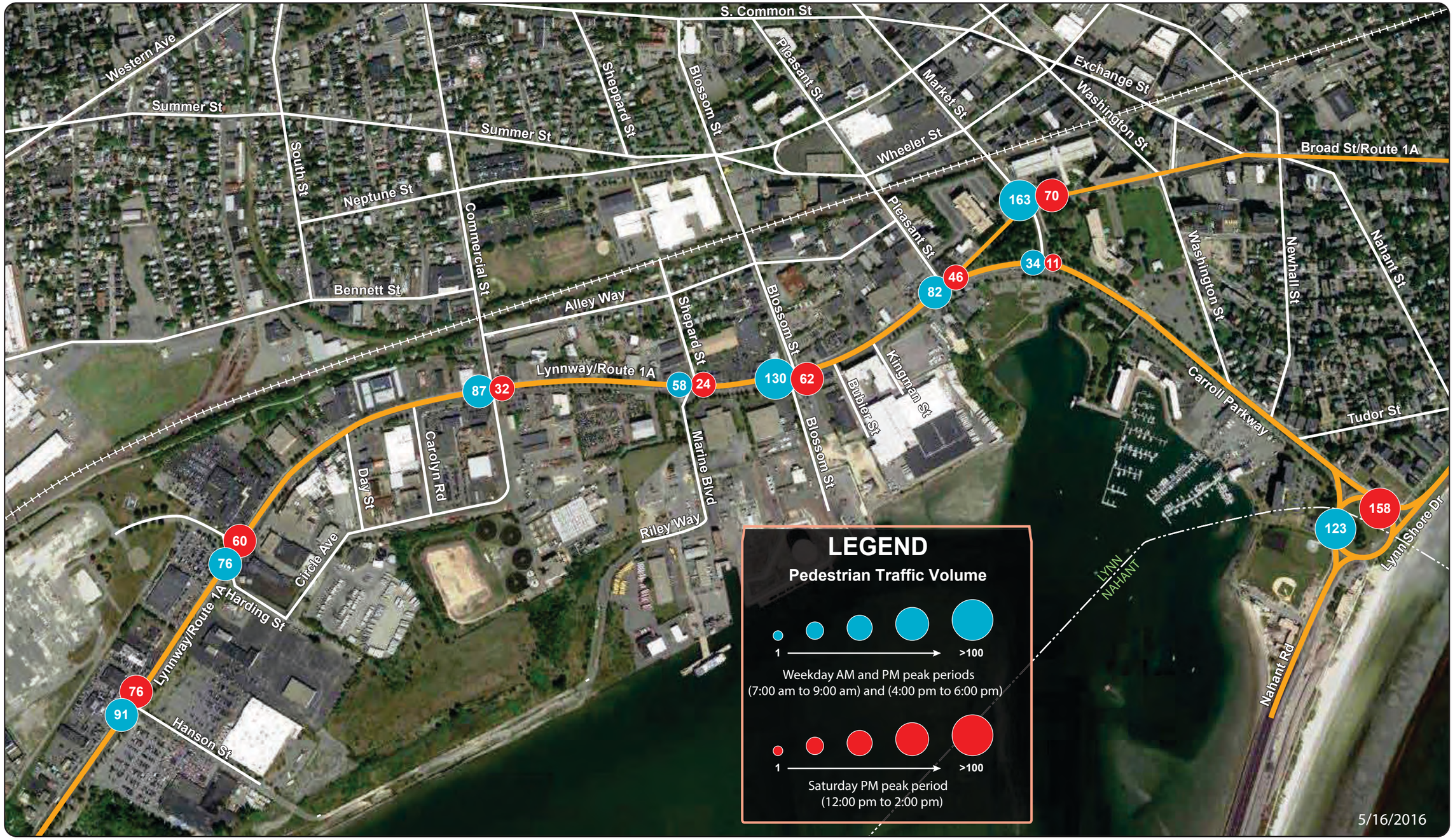
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON
REGION
MPO

FIGURE 7
Turning Movement Volumes

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

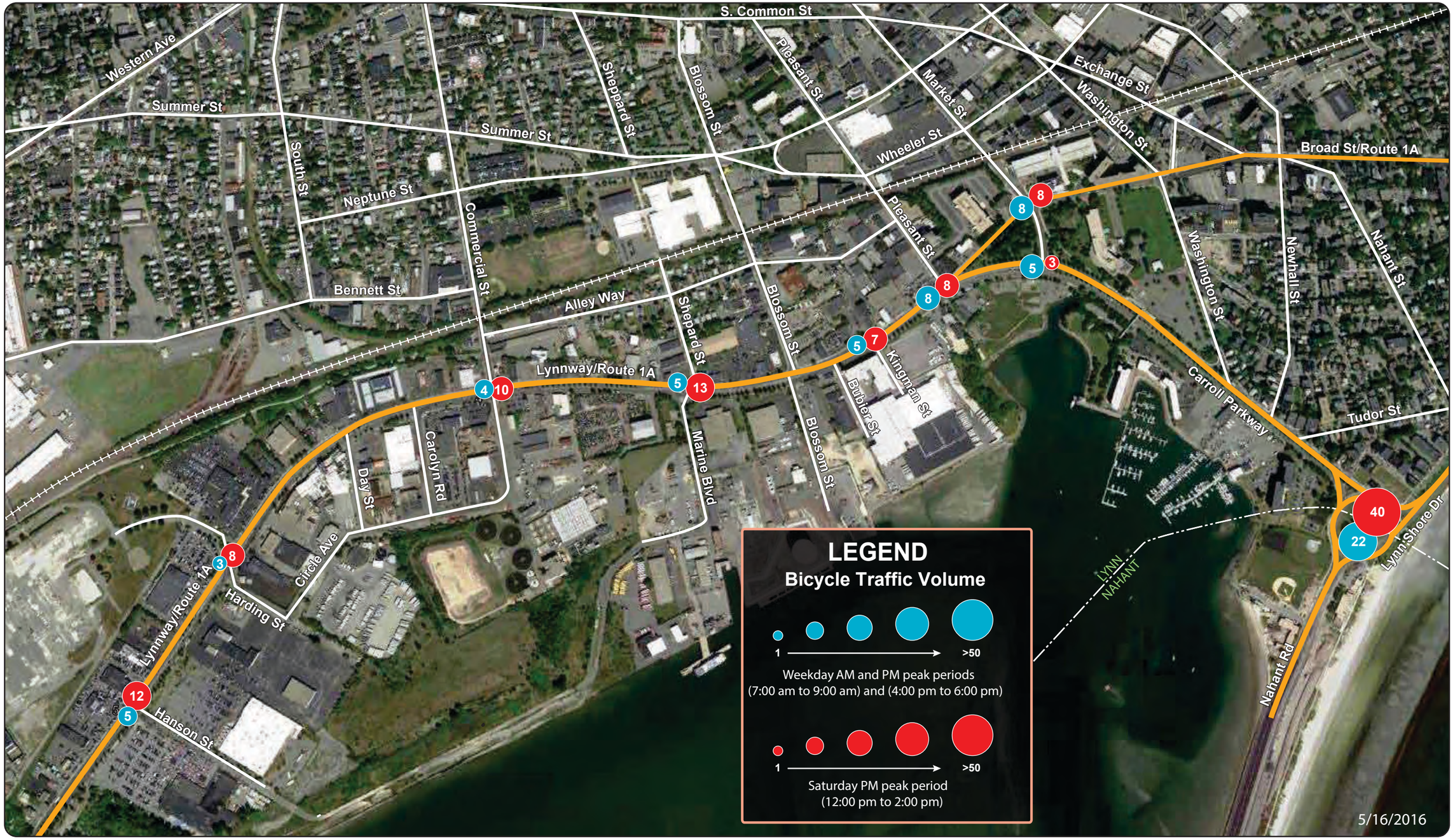


BOSTON
REGION
MPO

N

FIGURE 8
Pedestrian Traffic Volumes at Selected Intersections

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

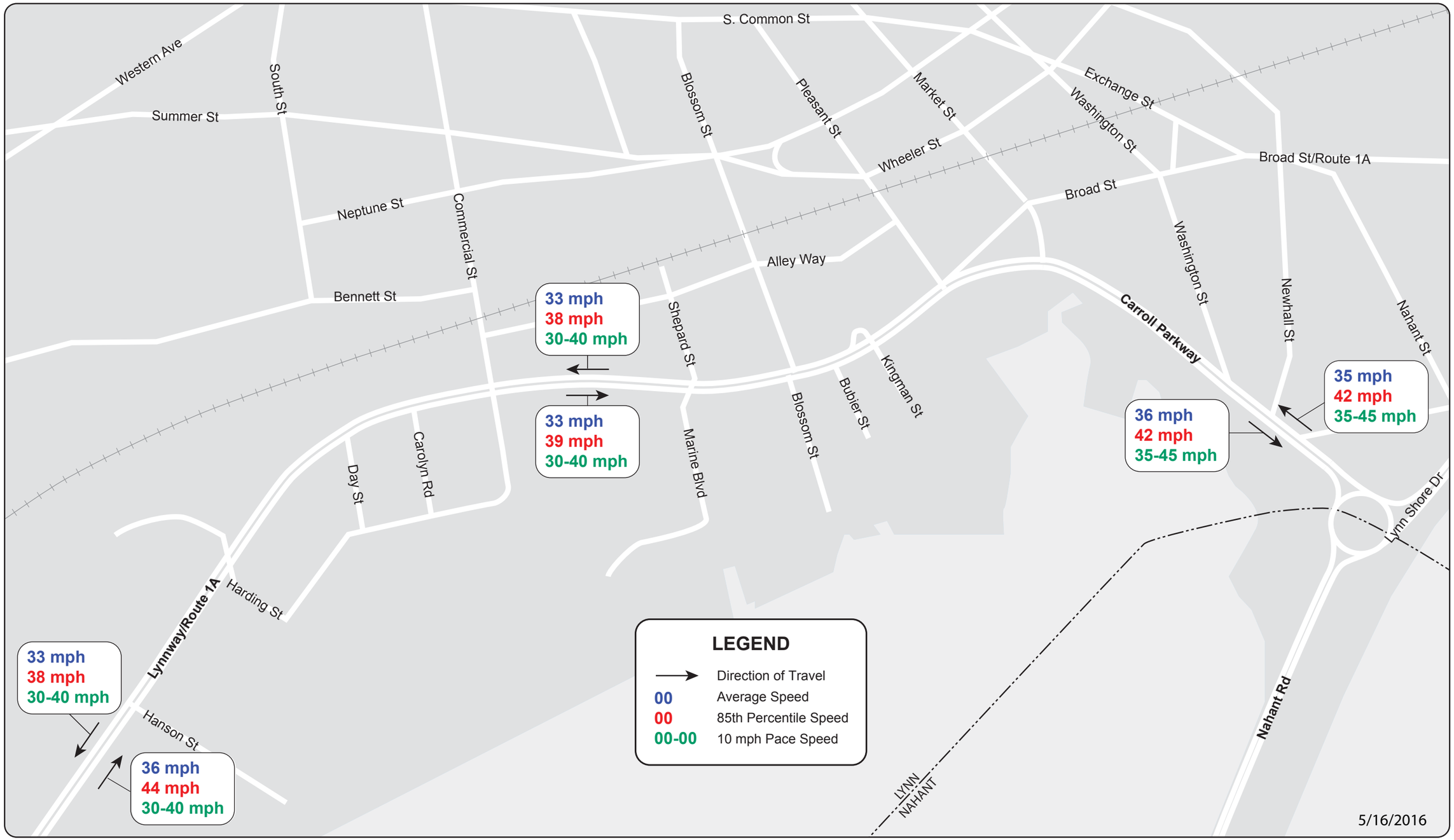


BOSTON
REGION
MPO

N

FIGURE 9
Bicycle Traffic Volumes at Selected Intersections

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON REGION MPO

N

FIGURE 10

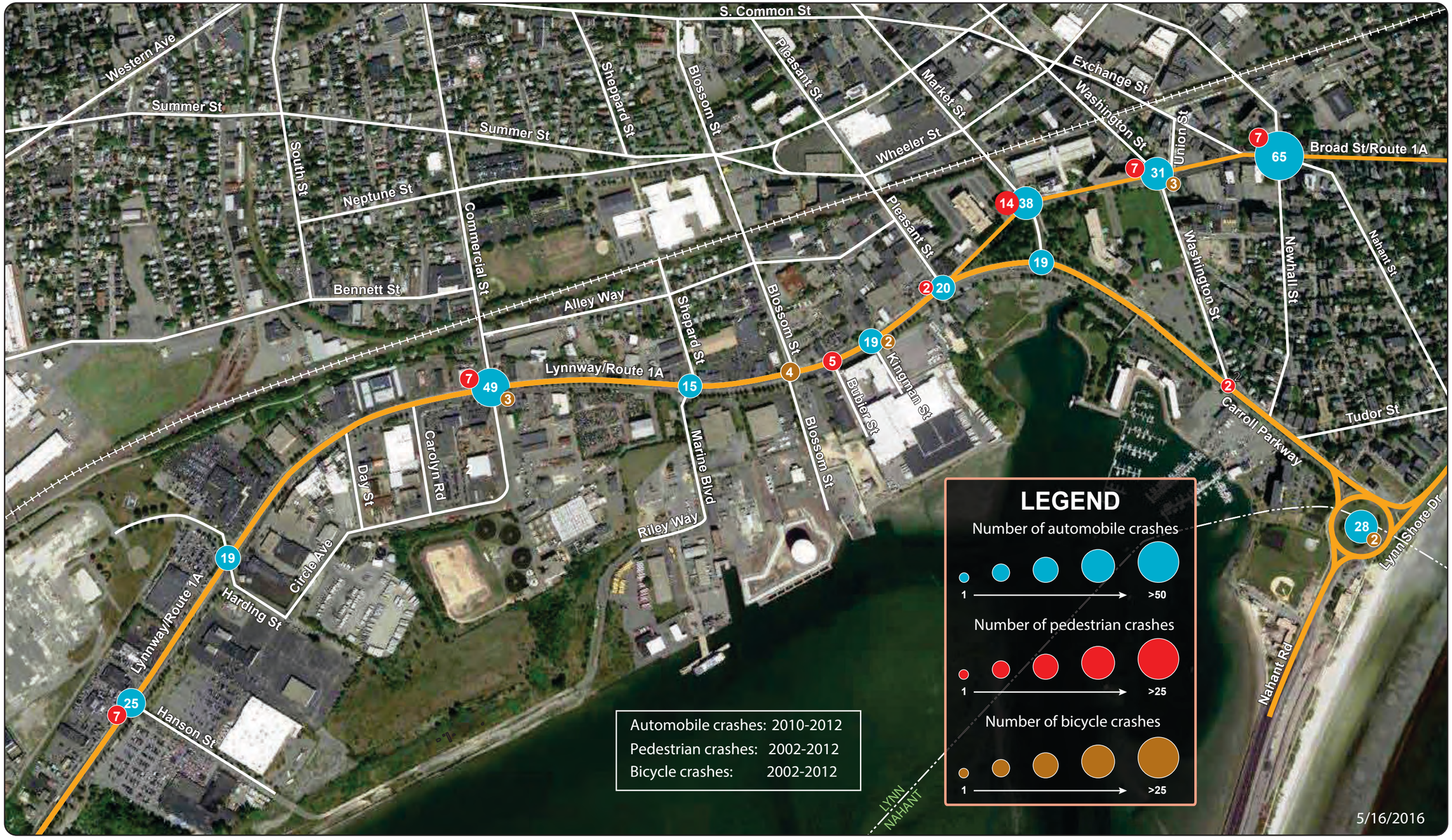
Summary of Spot Speeds

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON REGION MPO

FIGURE 11
Regional Transit Service

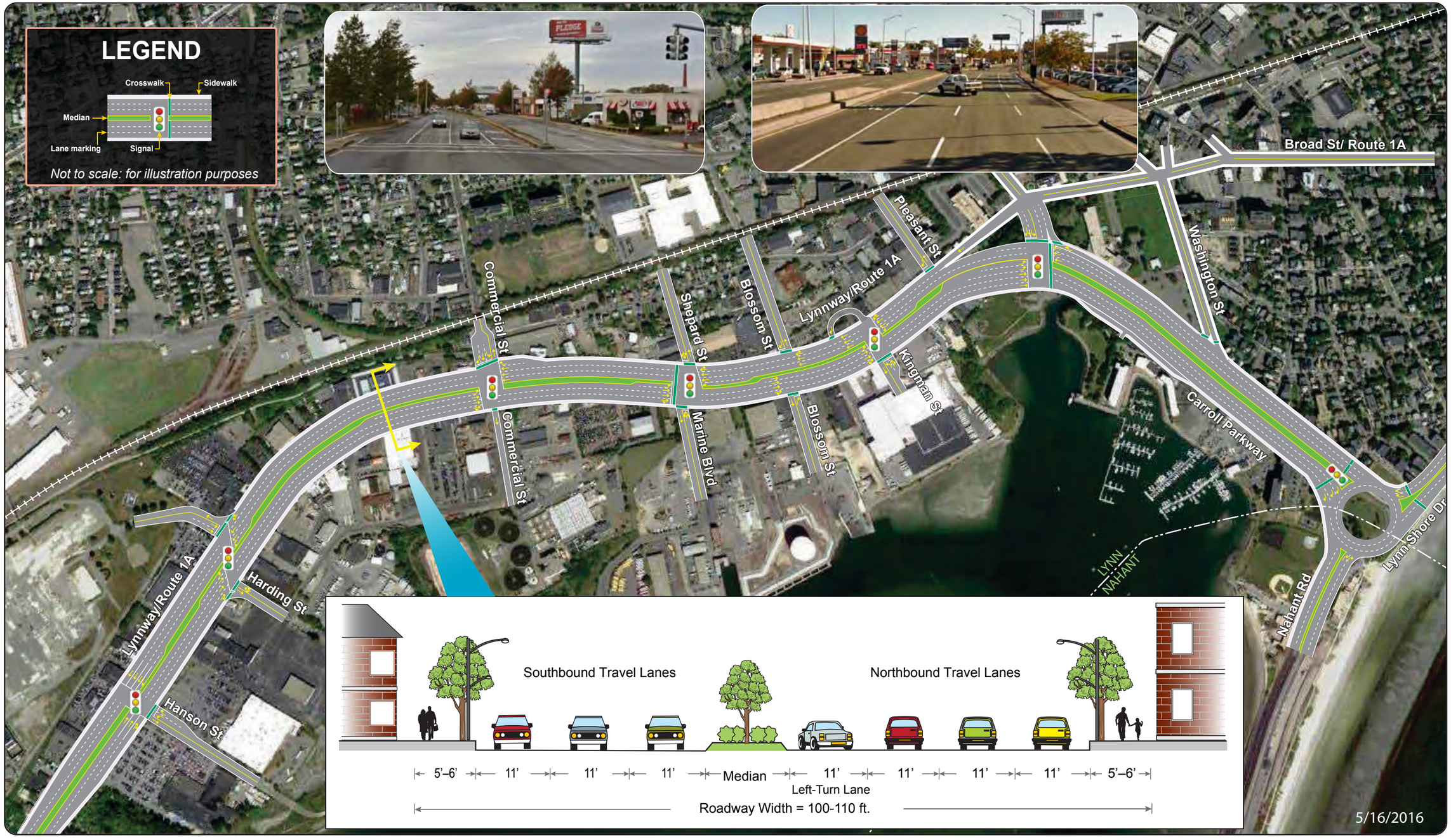
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 12
Automobile, Pedestrian, and Bicycle Crashes at Selected Intersections

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

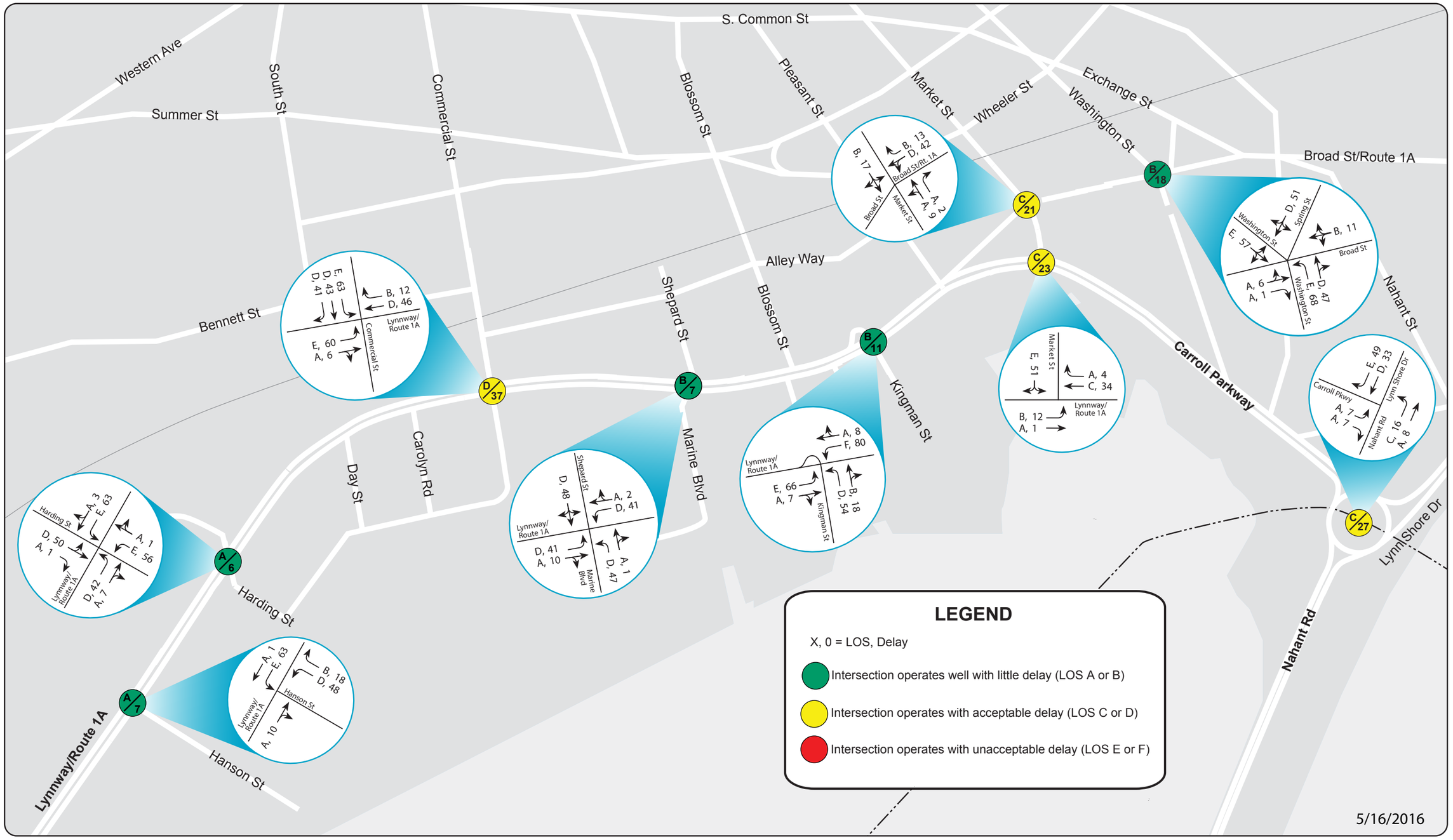


BOSTON
REGION
MPO

N

FIGURE 13
Existing Roadway Lane Configuration

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

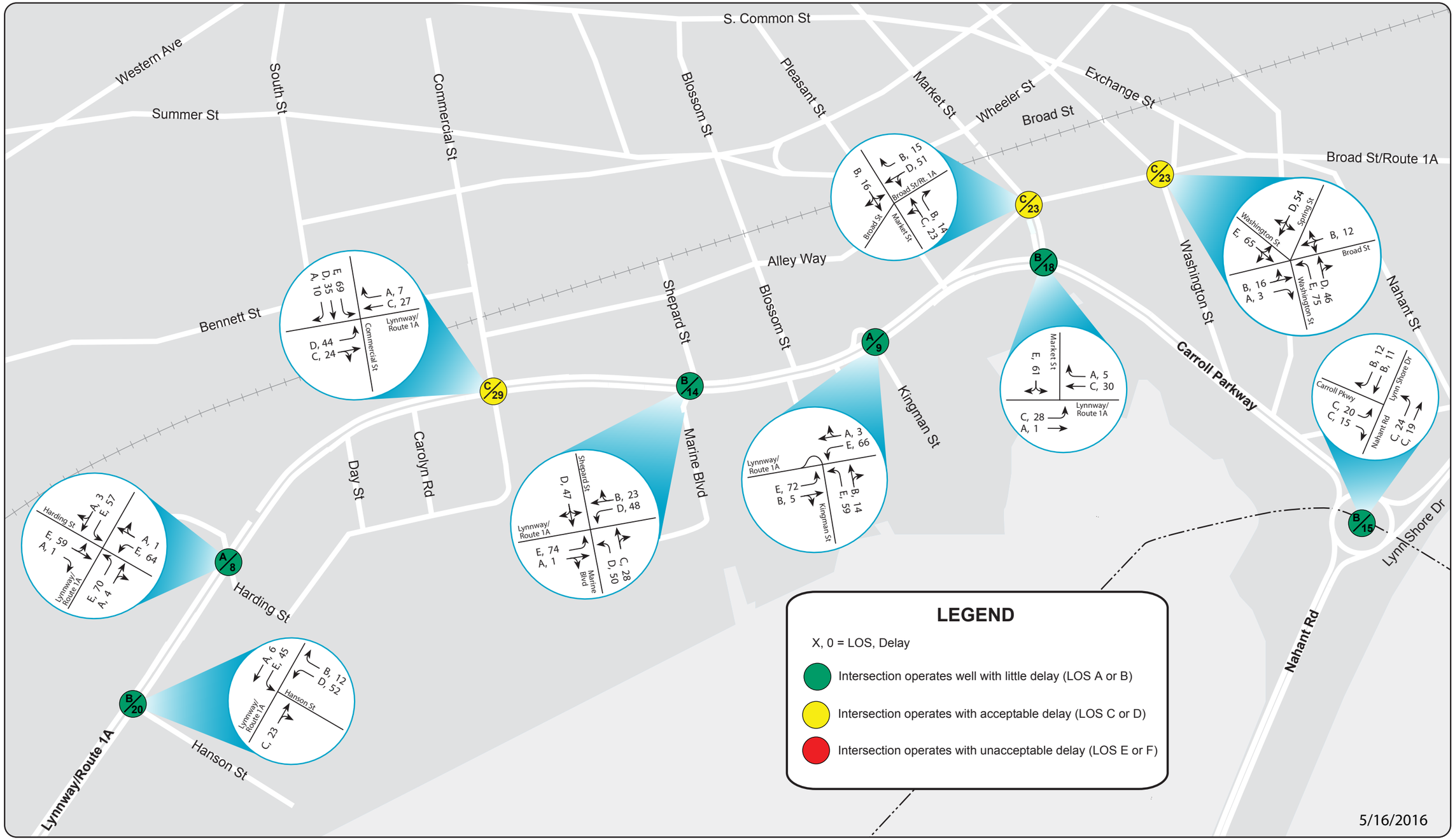


BOSTON REGION MPO

N

FIGURE 14
Existing Conditions
Weekday AM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

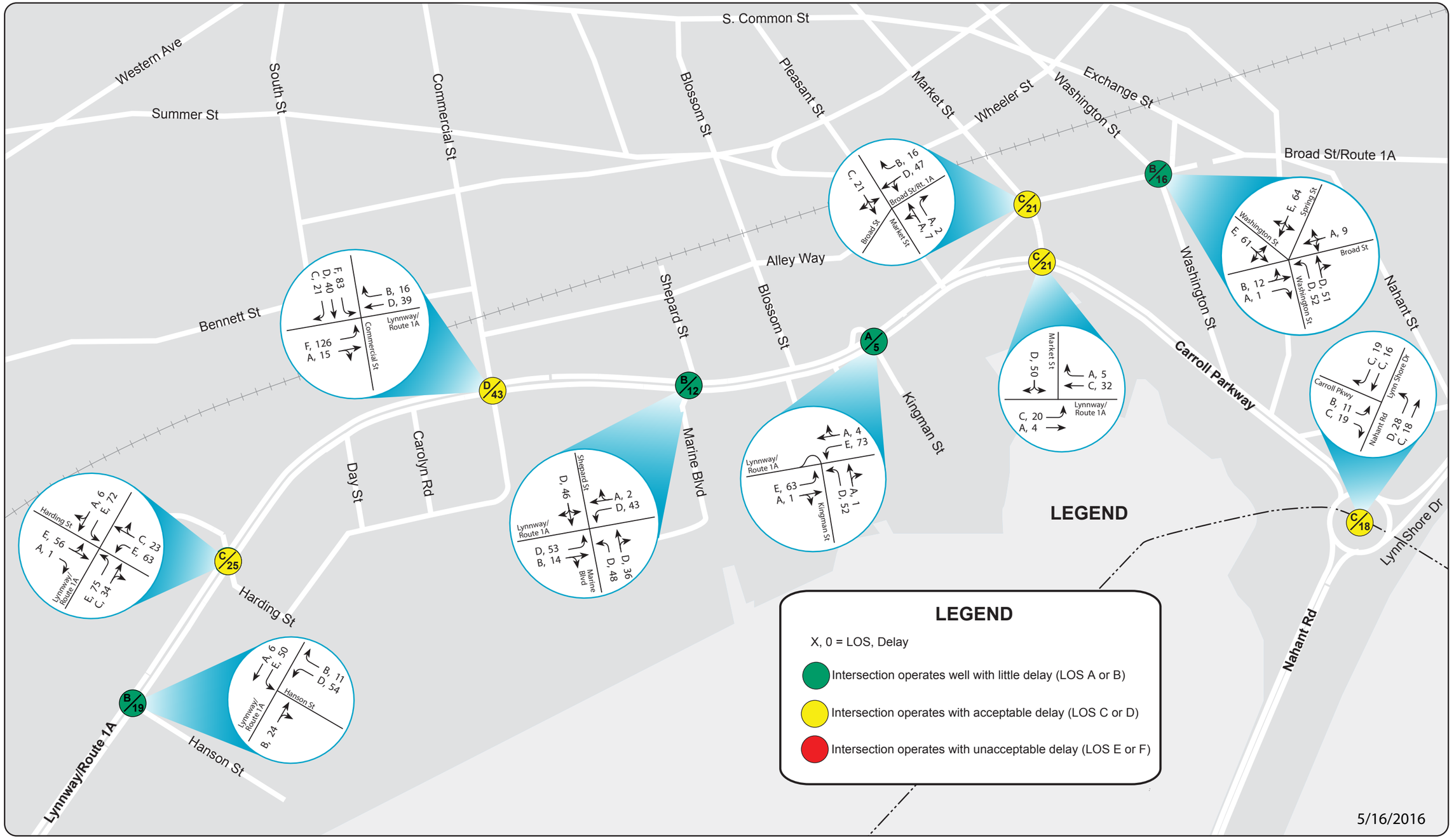


BOSTON
REGION
MPO

N

FIGURE 15
Existing Conditions
Weekday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON
REGION
MPO

N

FIGURE 16
Existing Conditions
Saturday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

BOSTON
REGION
MPO

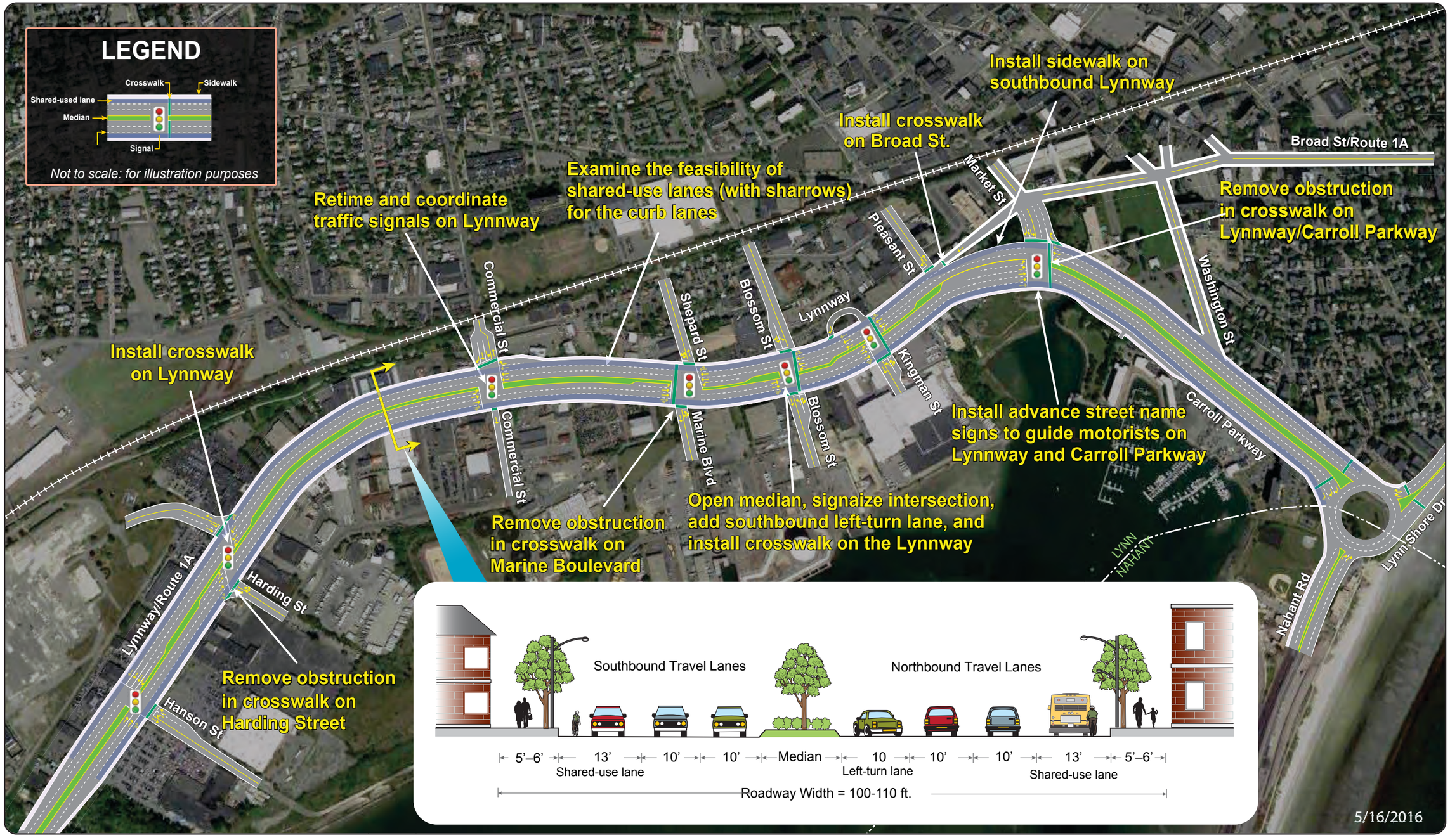
FIGURE 17
Pedestrian Issues

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

BOSTON REGION MPO

FIGURE 18
Bicyclist Issues

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON REGION MPO

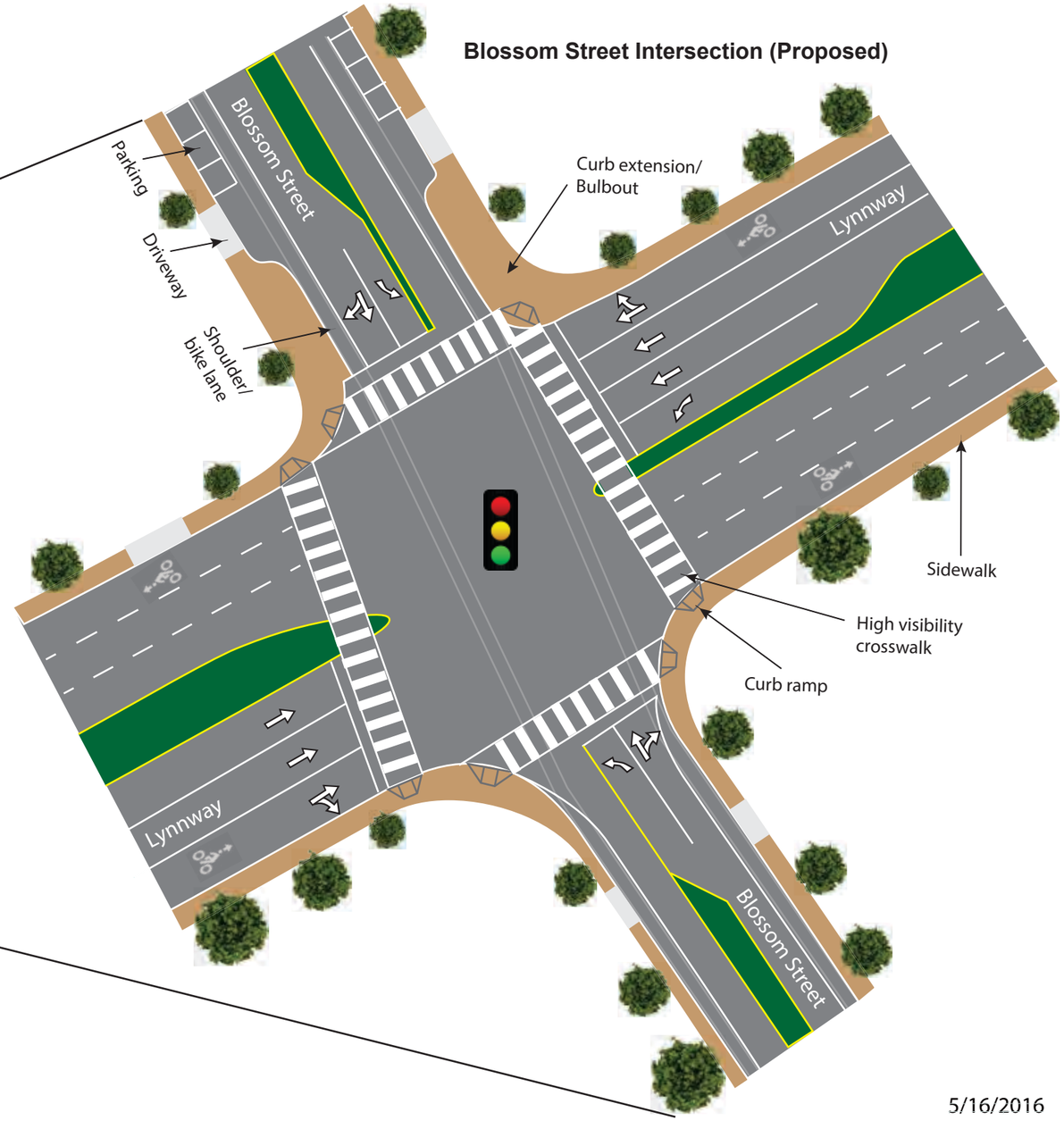
N

FIGURE 19
Alternative 1: Short-Term Improvements

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

Blossom Street Intersection (Existing)

Blossom Street Intersection (Proposed)



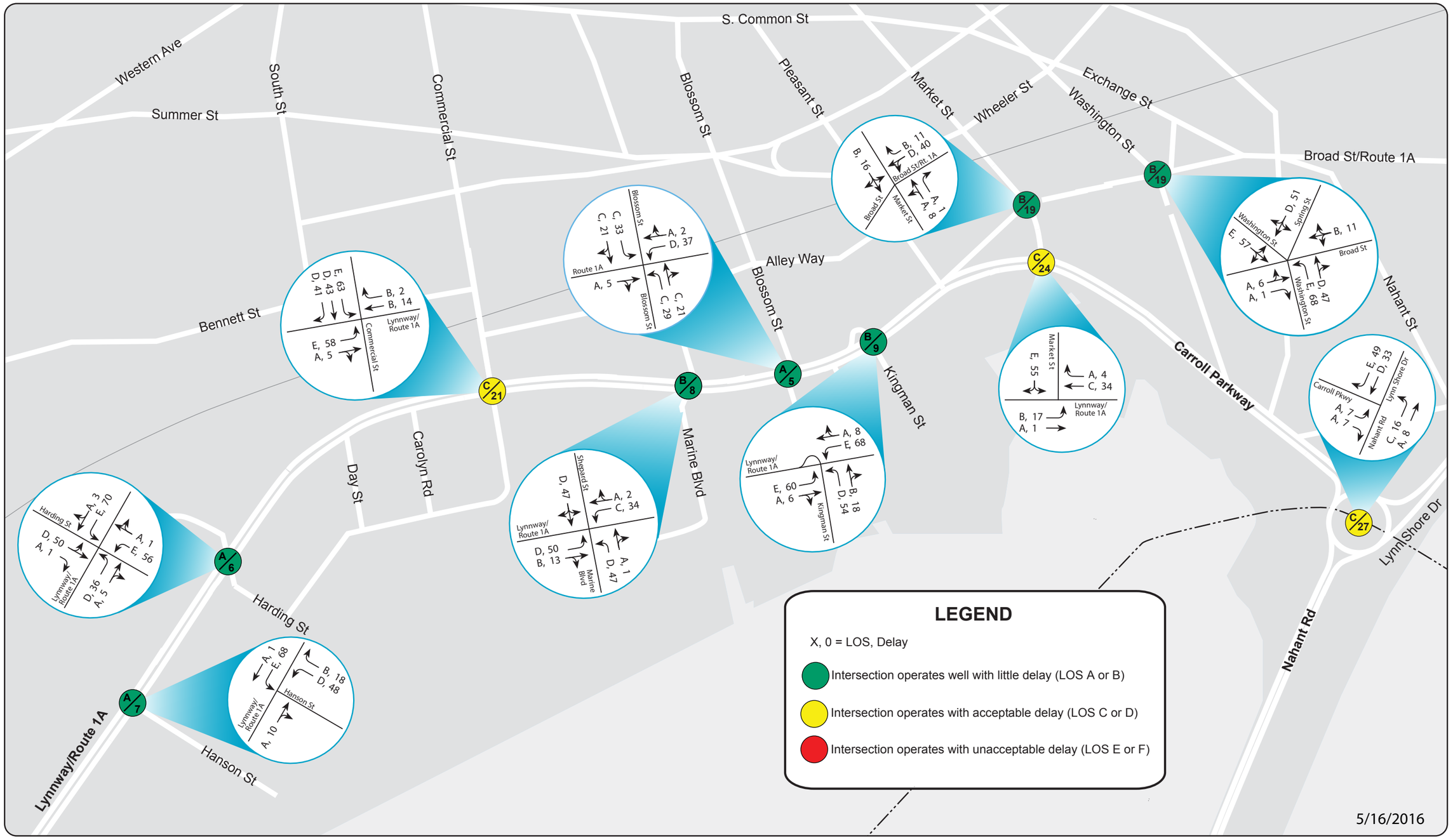
5/16/2016

BOSTON
REGION
MPO

N

FIGURE 20
Proposed Blossom Street Intersection

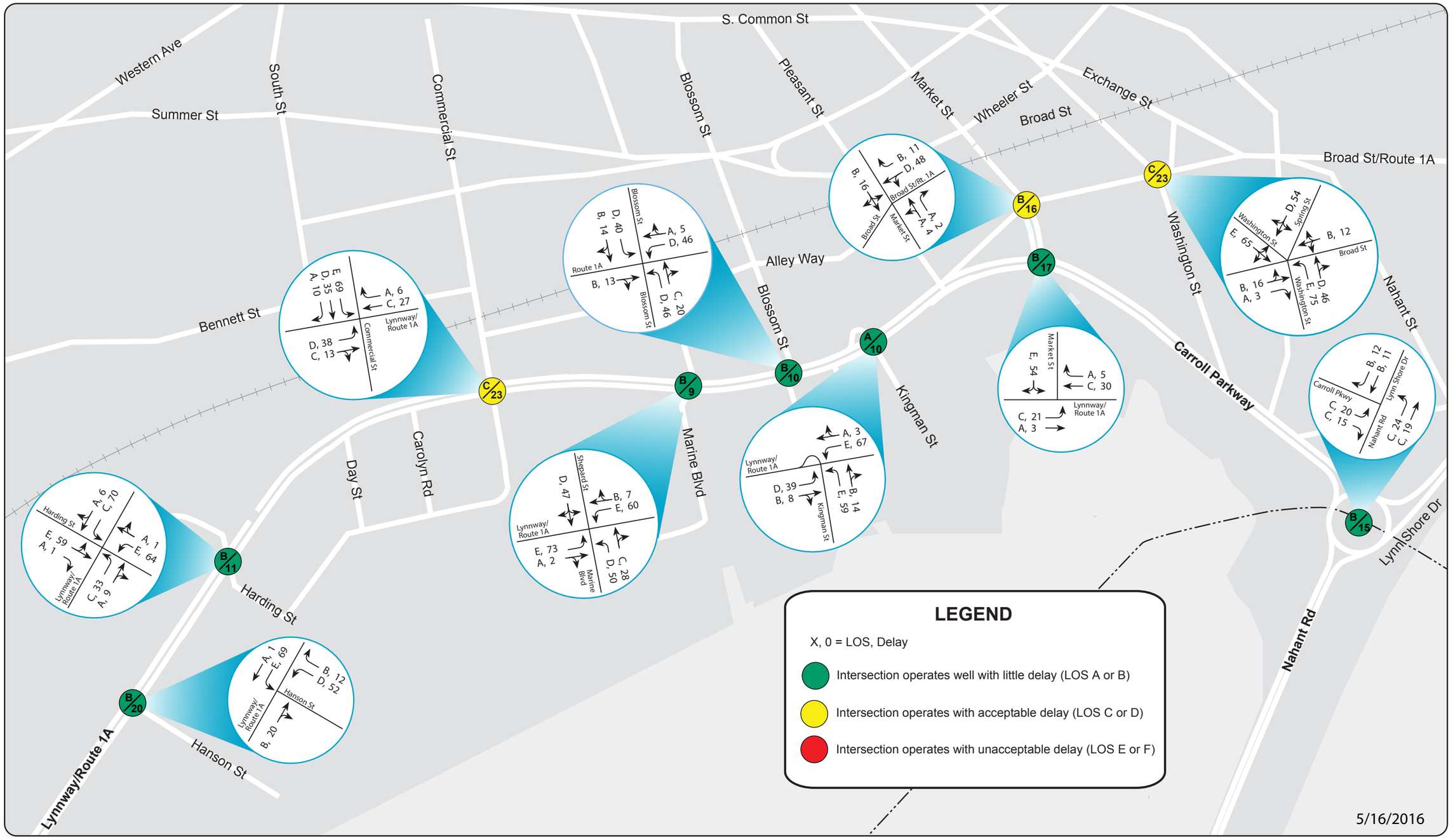
Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 21
Alternative 1: Weekday AM Peak Hour Level of Service and Delays

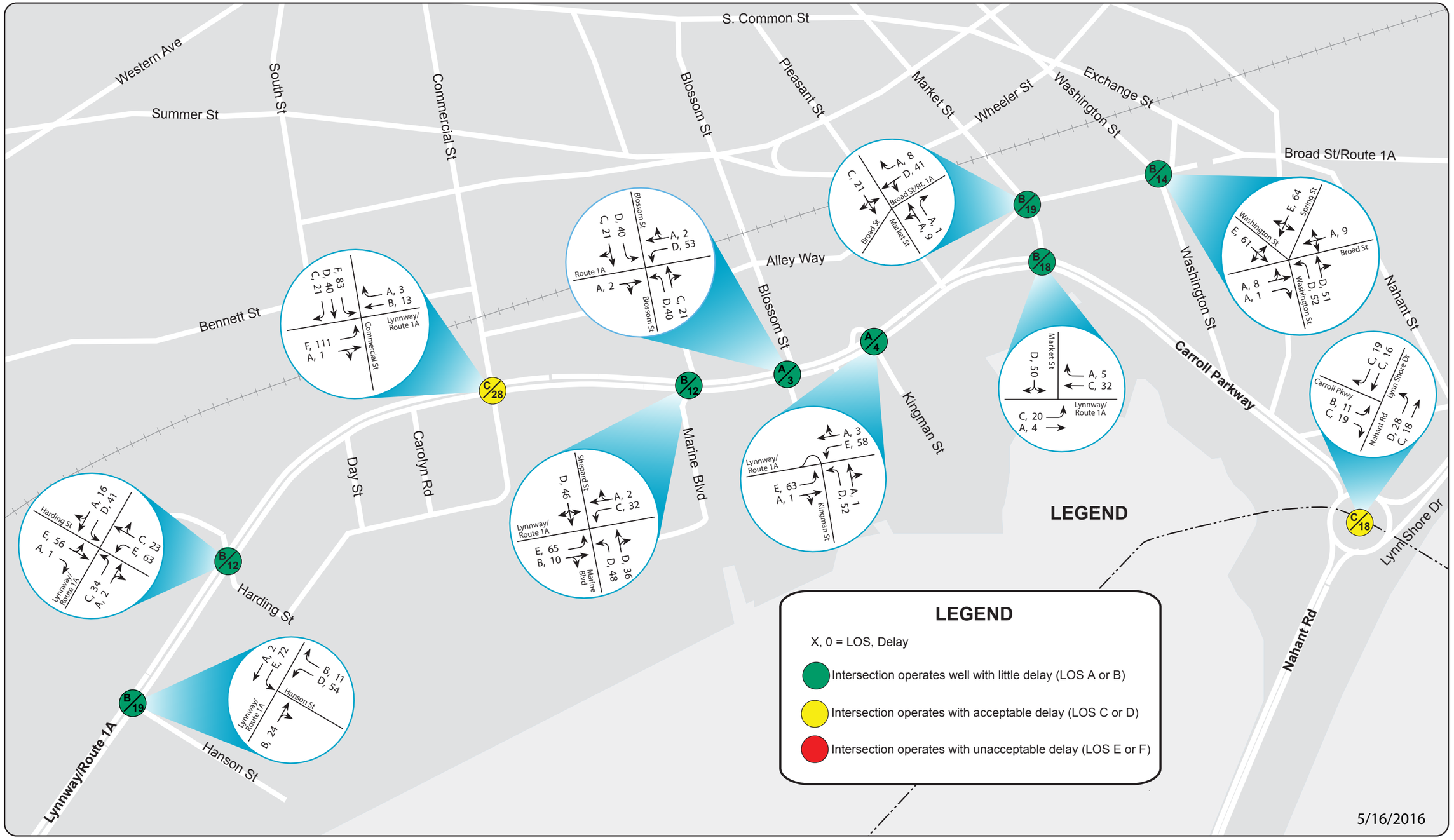
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 22
Alternative 1: Weekday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

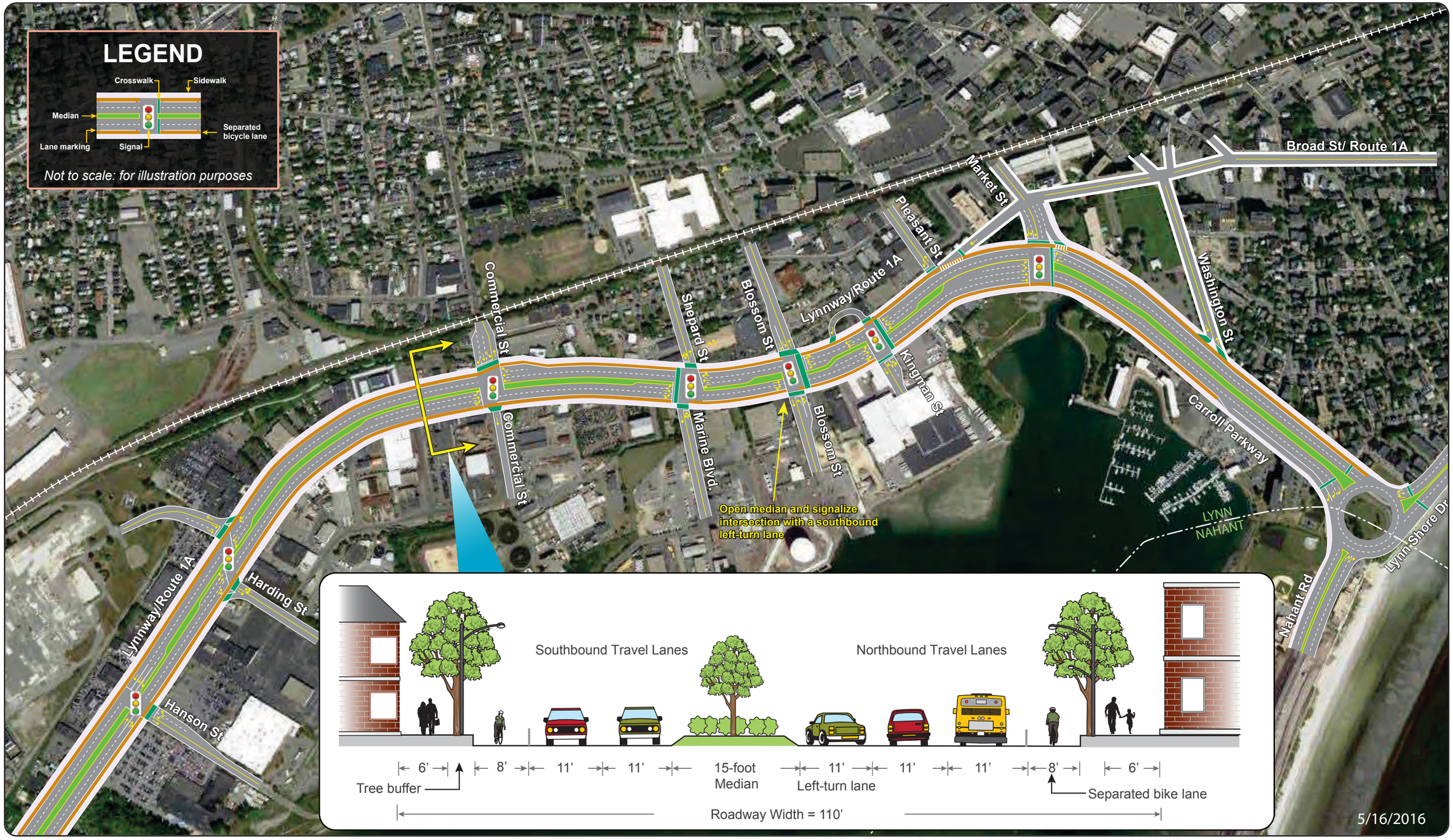


BOSTON
REGION
MPO

N

FIGURE 23
Alternative 1: Saturday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON REGION MPO

N

FIGURE 24
Alternative 2: Road Diet and Complete Street

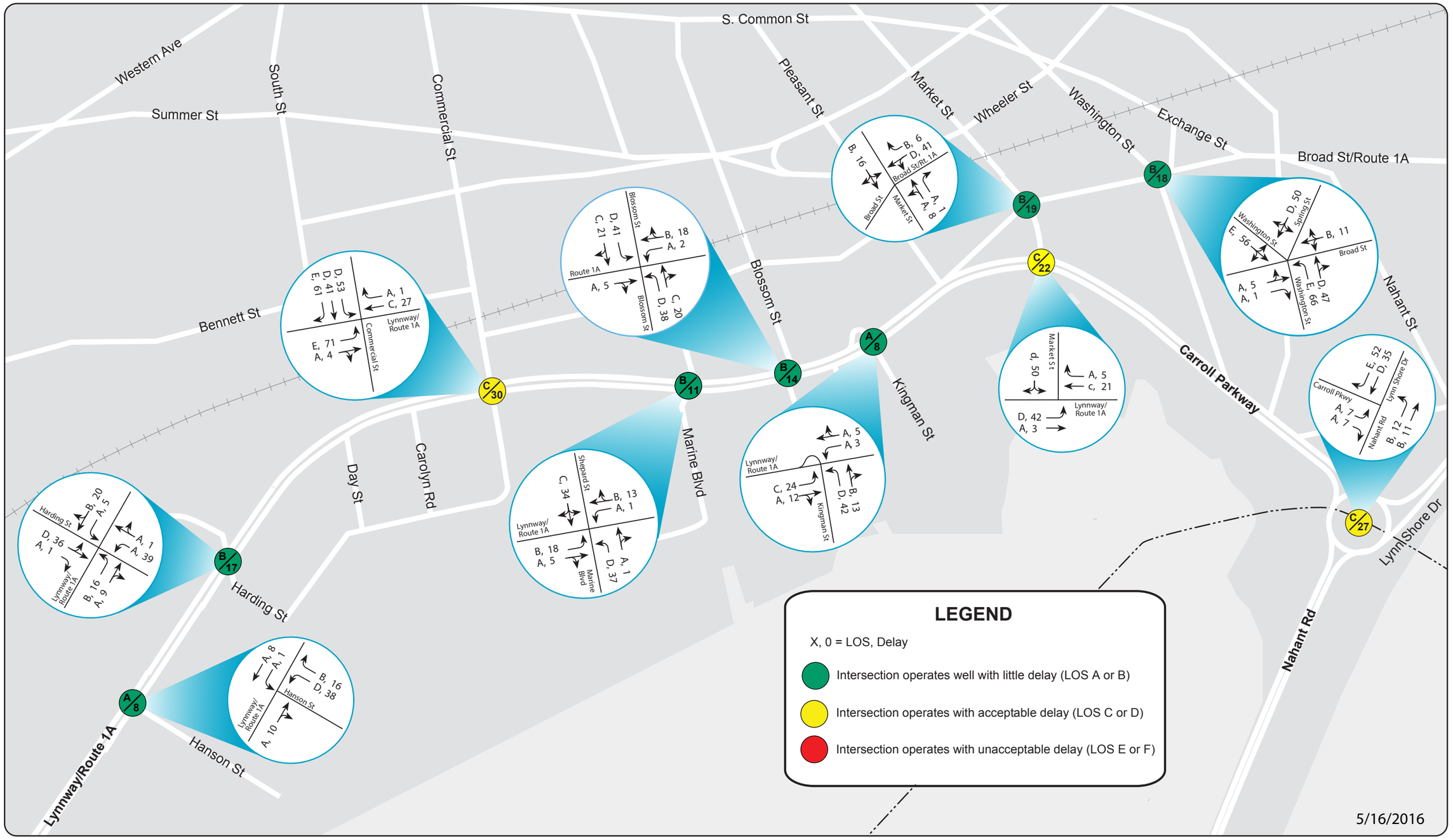
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON
REGION
MPO

N

FIGURE 25
Examples for Alternative 2

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

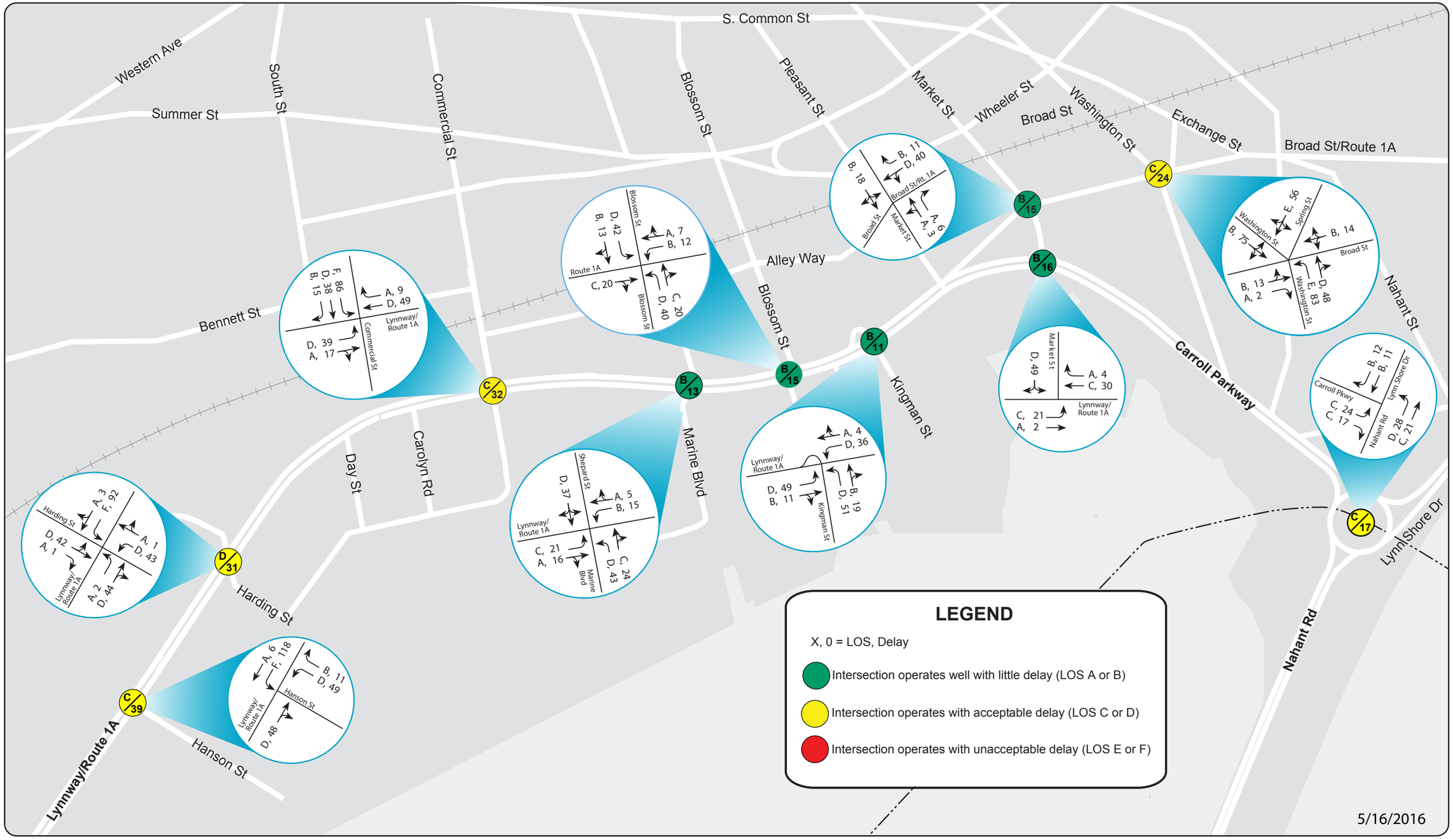


BOSTON REGION MPO

FIGURE 26

Alternative 2: Weekday AM Peak Hour Level of Service and Delays

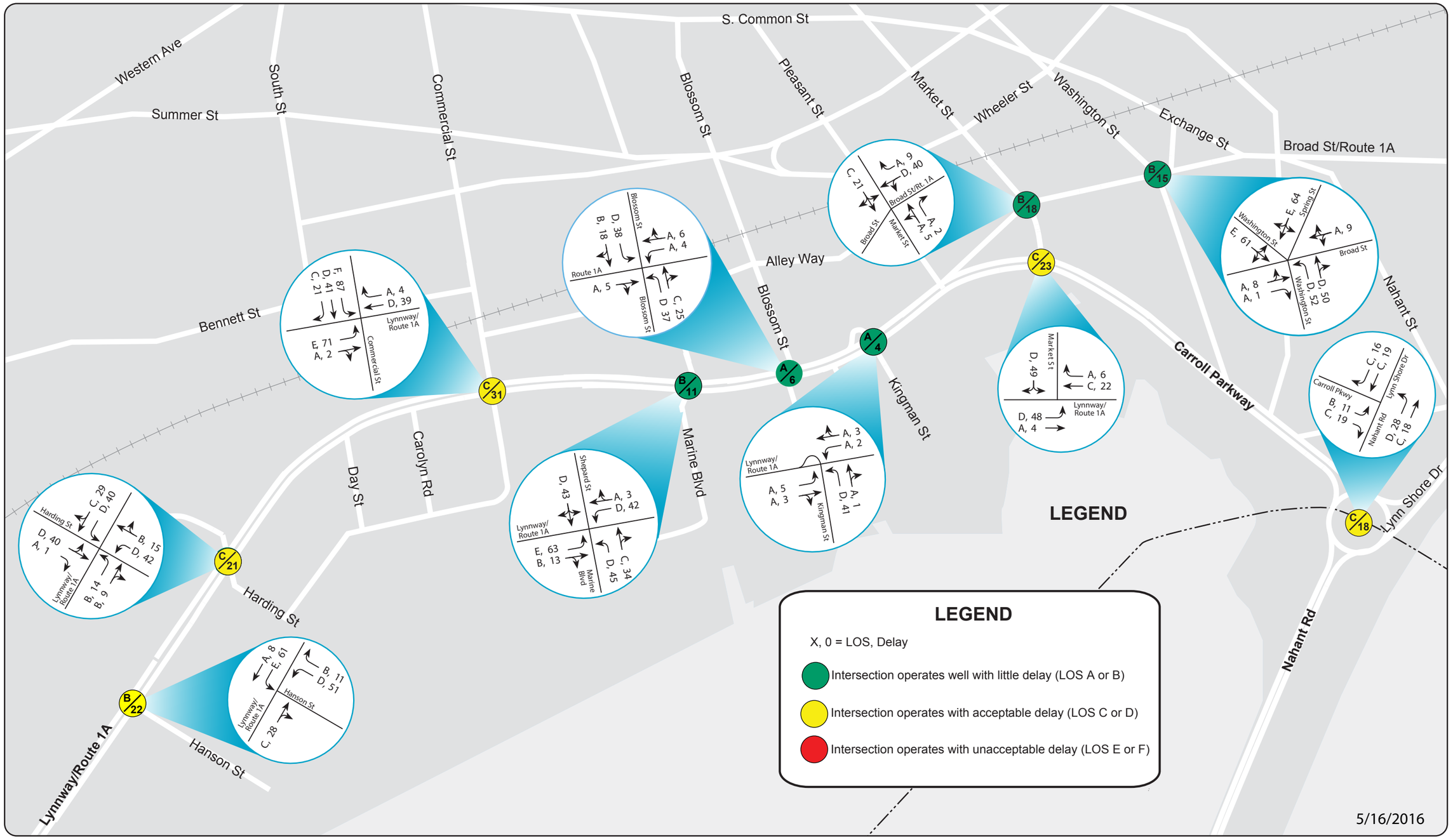
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 27
Alternative 2: Weekday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

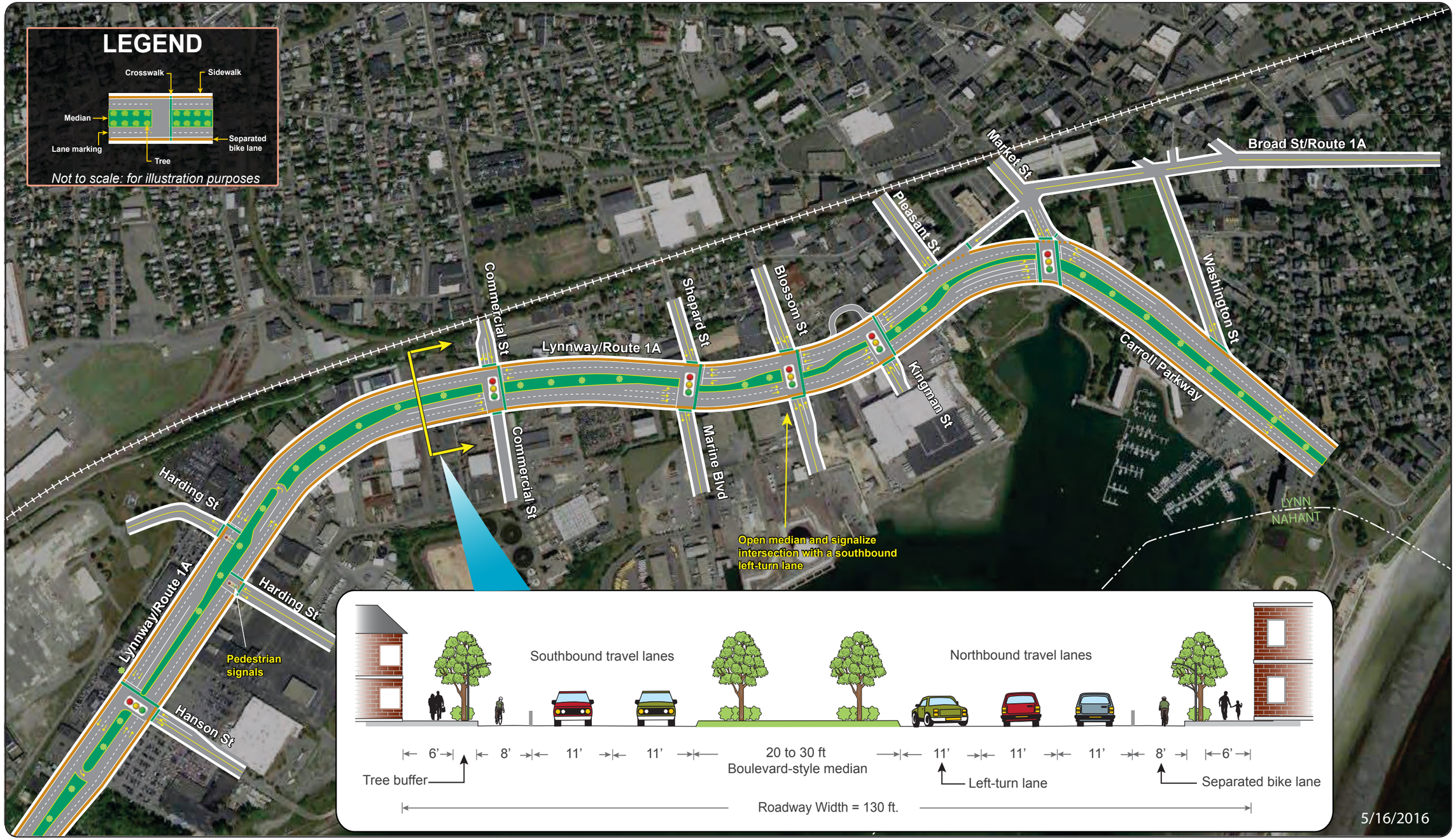


BOSTON REGION MPO

FIGURE 28

Alternative 2: Saturday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

N

FIGURE 29

Alternative 3: Boulevard Style Roadway

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn


North Common Street and South Common Street in Lynn


Commonwealth Avenue in Boston


North Common Street and South Common Street in Lynn

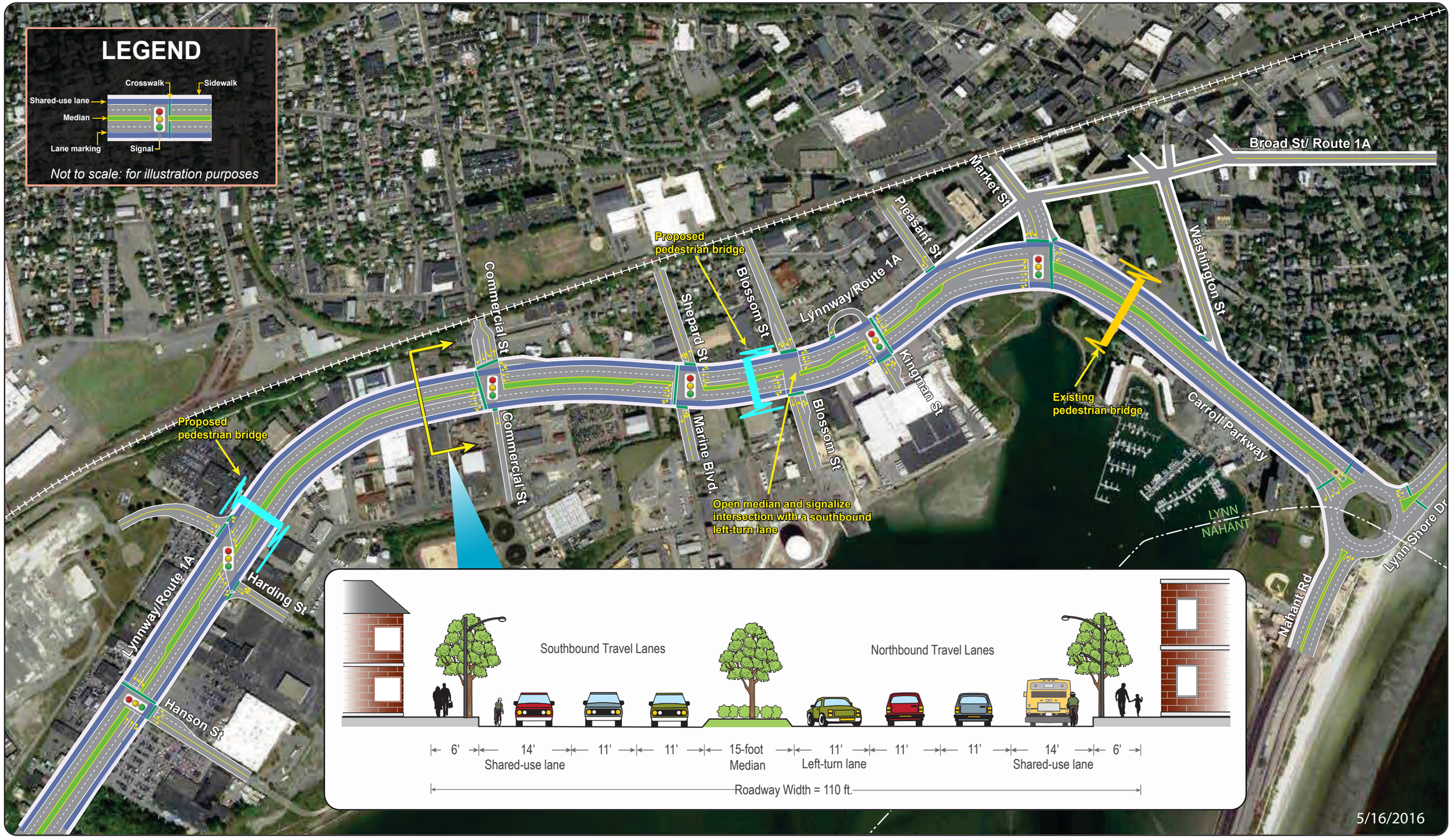

John F Fitzgerald Surface Road in Boston

5/16/2016

BOSTON
REGION
MPO

FIGURE 30
Examples for Alternative 3

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



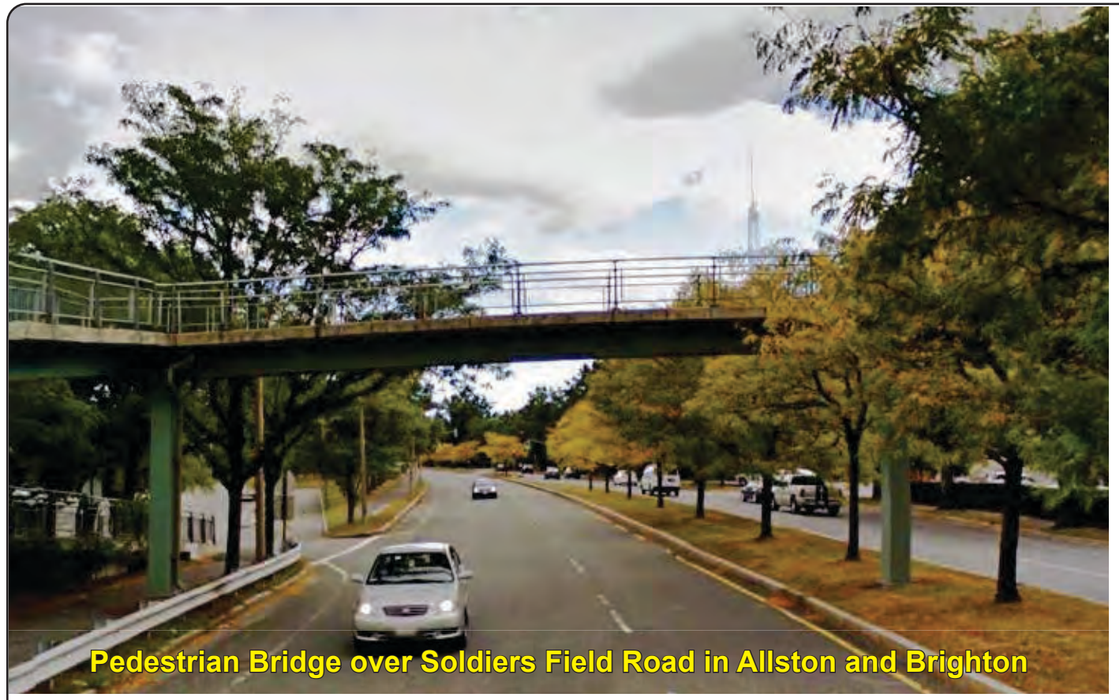
BOSTON
REGION
MPO

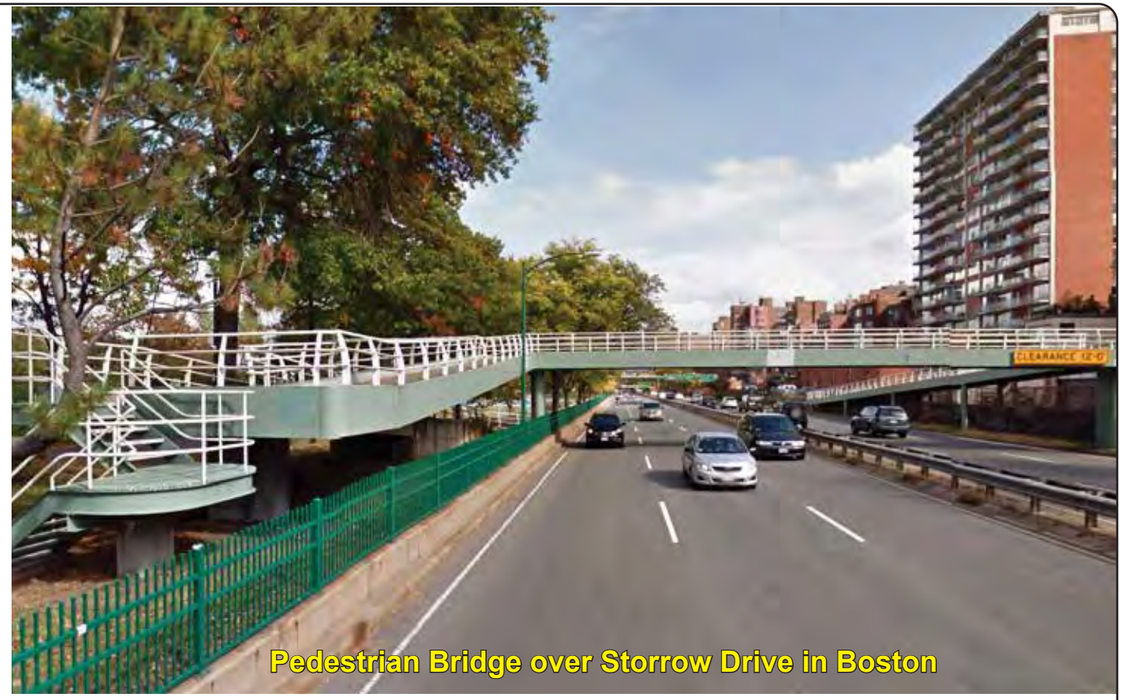
N

FIGURE 31

Alternative 4: Pedestrian Bridges

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



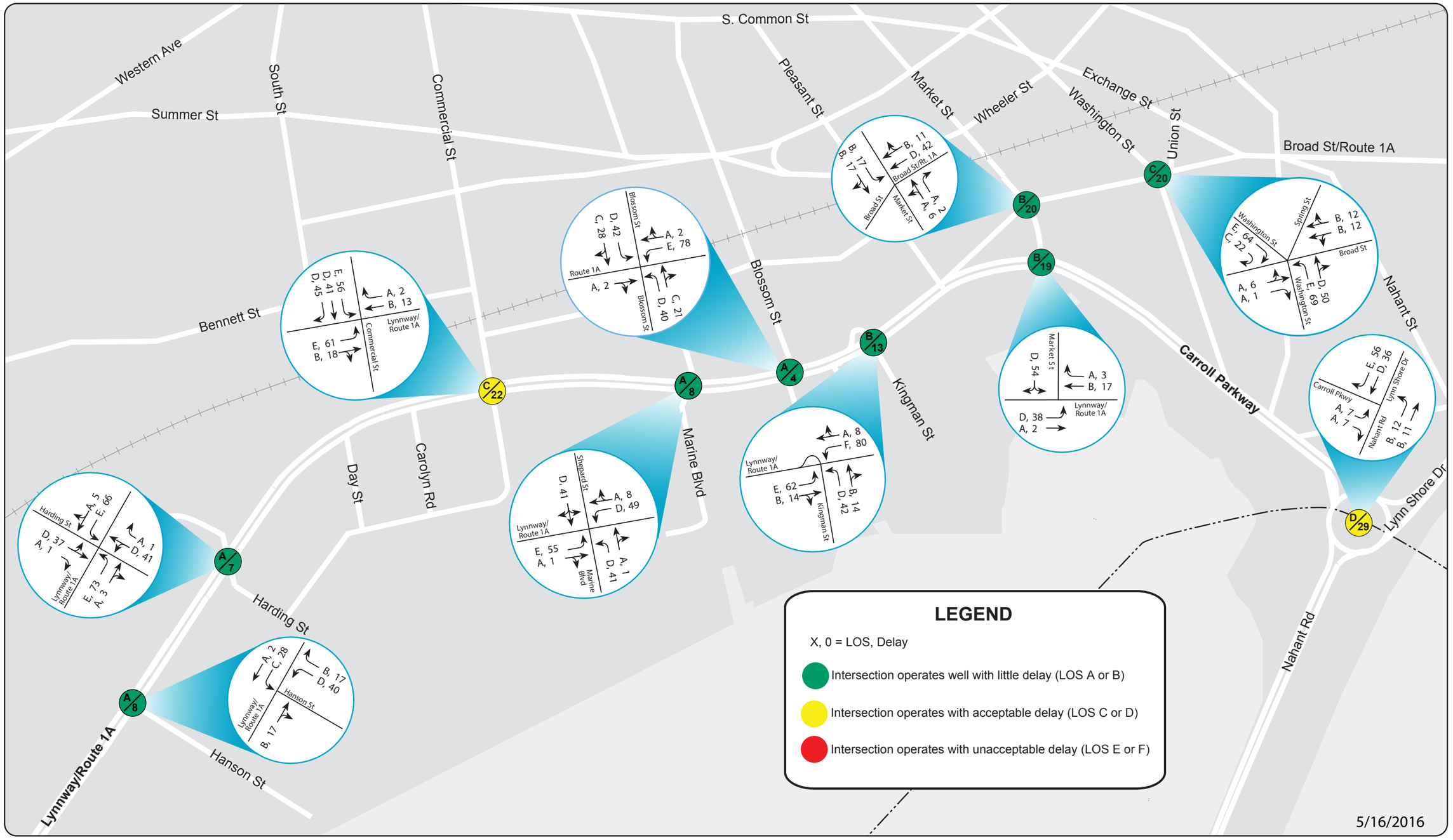


BOSTON
REGION
MPO

N

FIGURE 32
Examples for Alternative 4

Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn



BOSTON REGION MPO

N

FIGURE 33

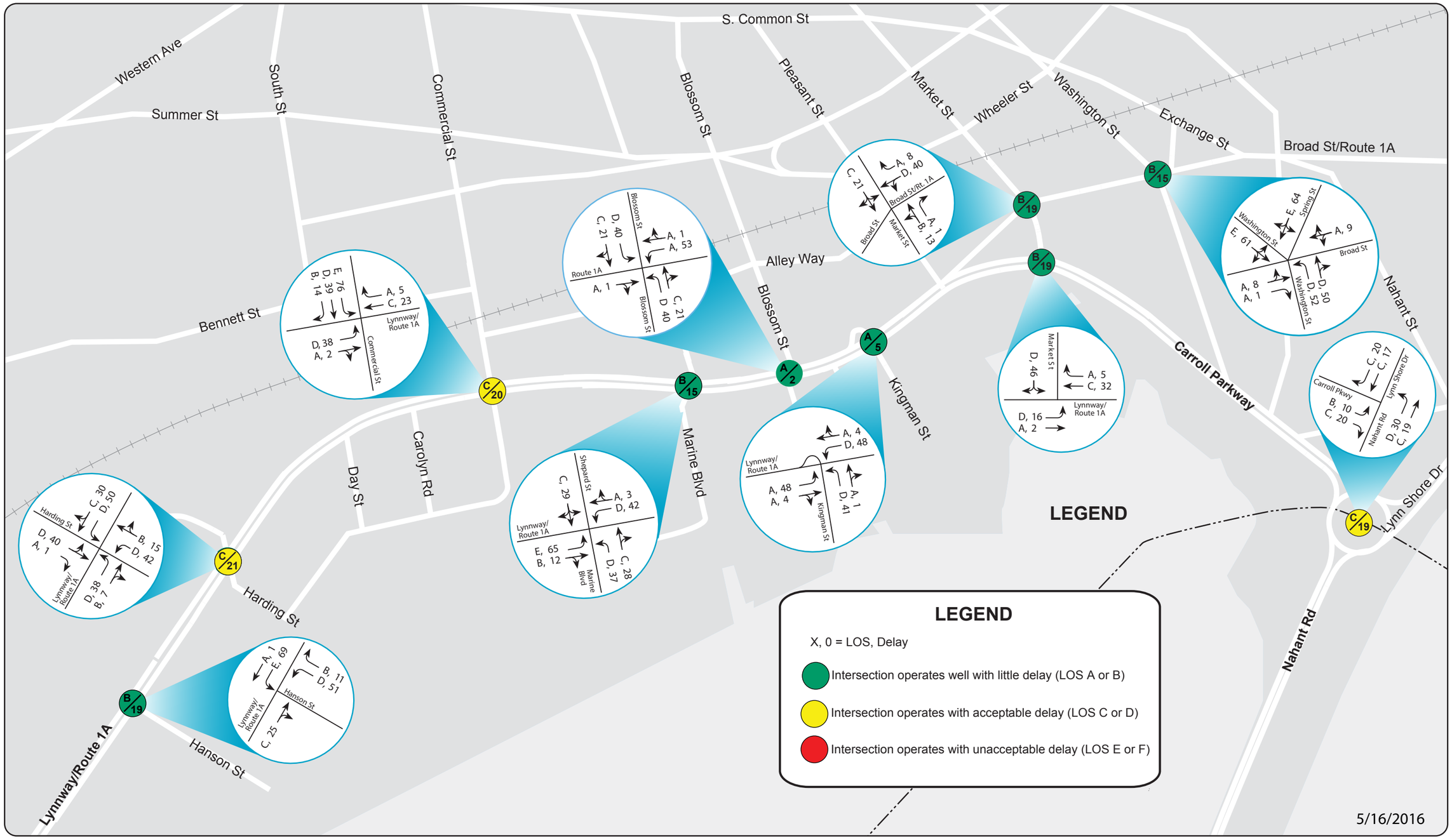
Alternative 4: Weekday AM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON REGION MPO

FIGURE 34
Alternative 4: Weekday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

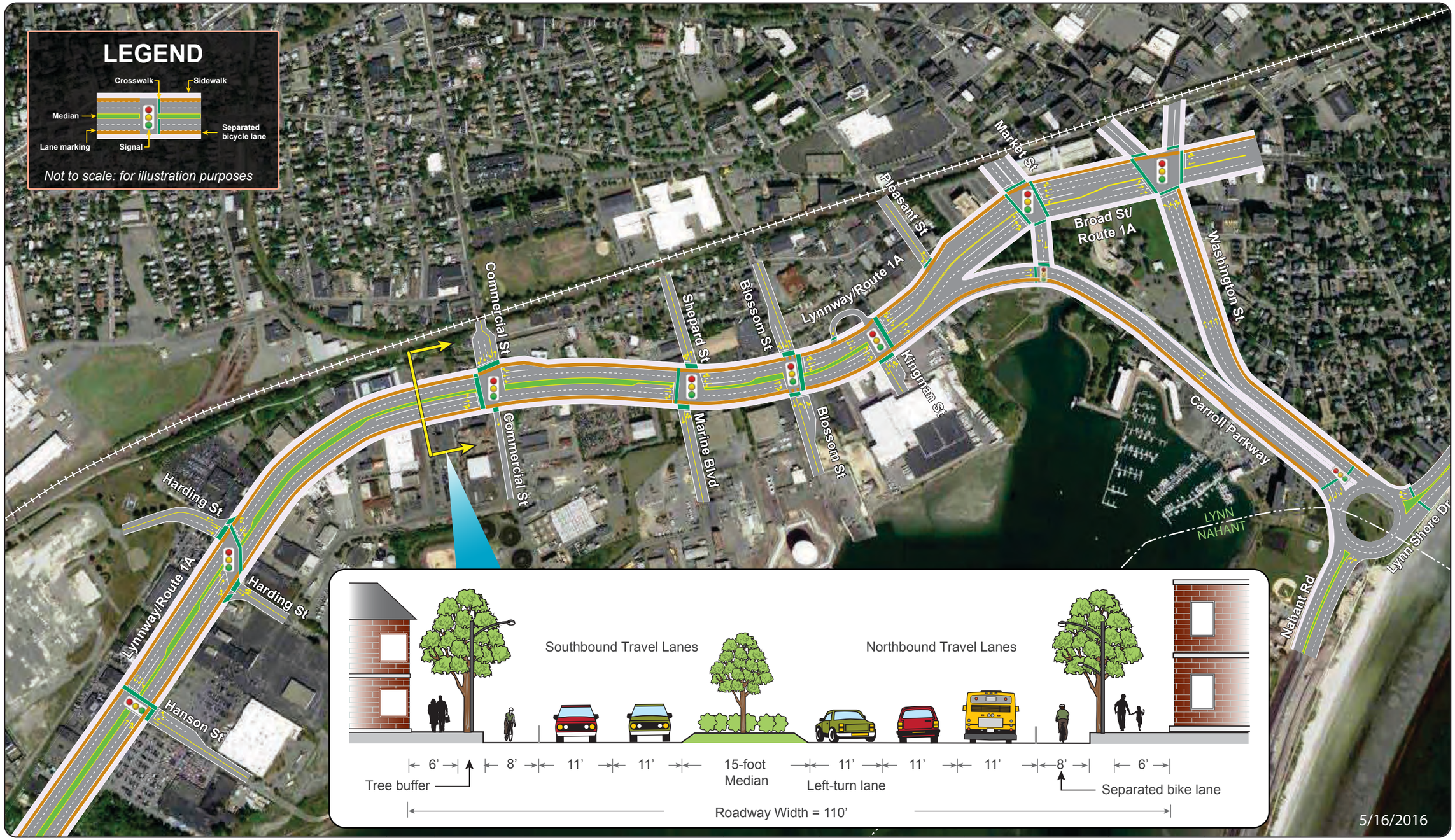


BOSTON REGION MPO

FIGURE 35

Alternative 4: Saturday PM Peak Hour Level of Service and Delays

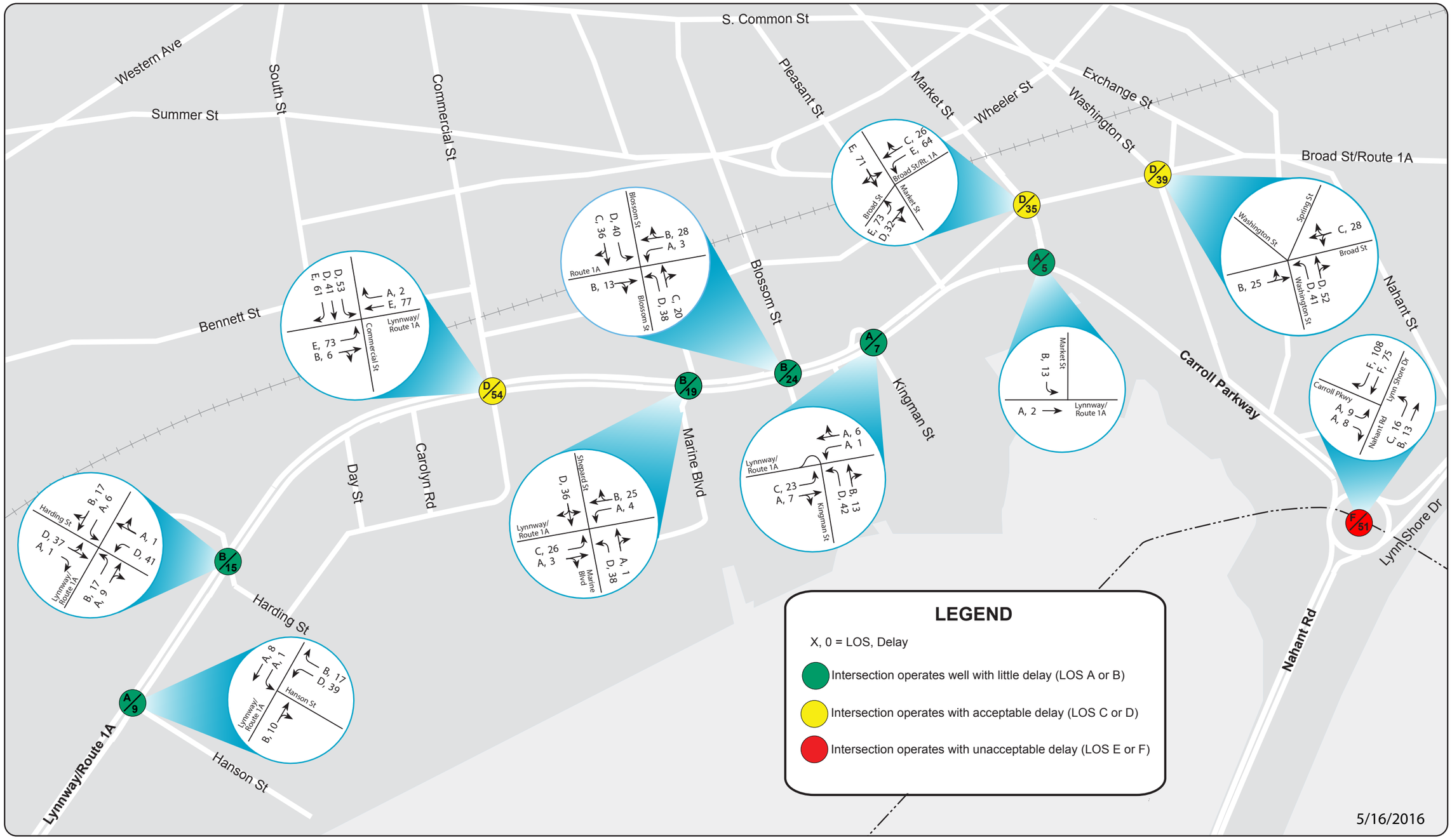
Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 36
Alternative 5: Altered Traffic Circulation Pattern

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

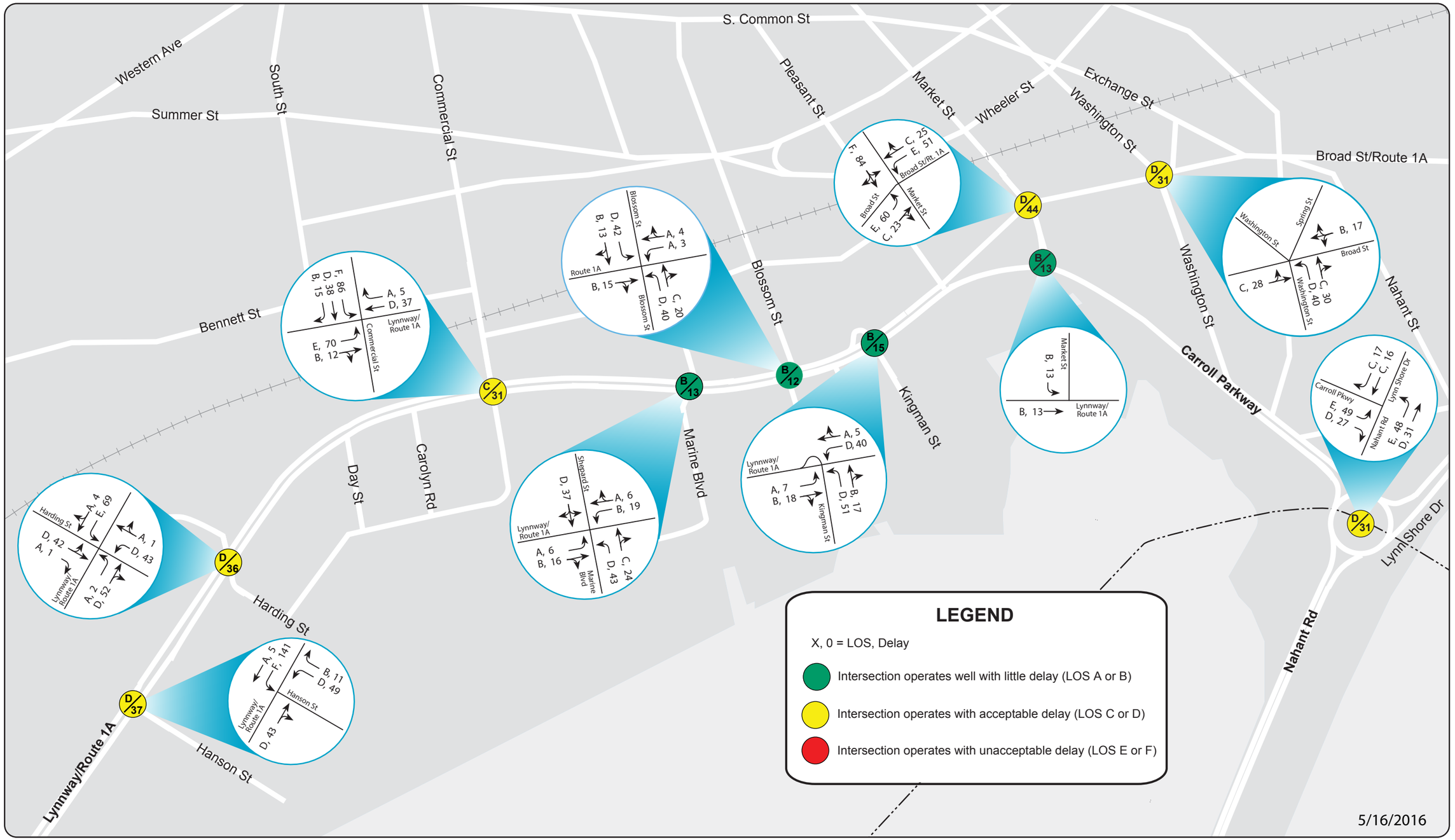


BOSTON REGION MPO

FIGURE 37

Alternative 5: Weekday AM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

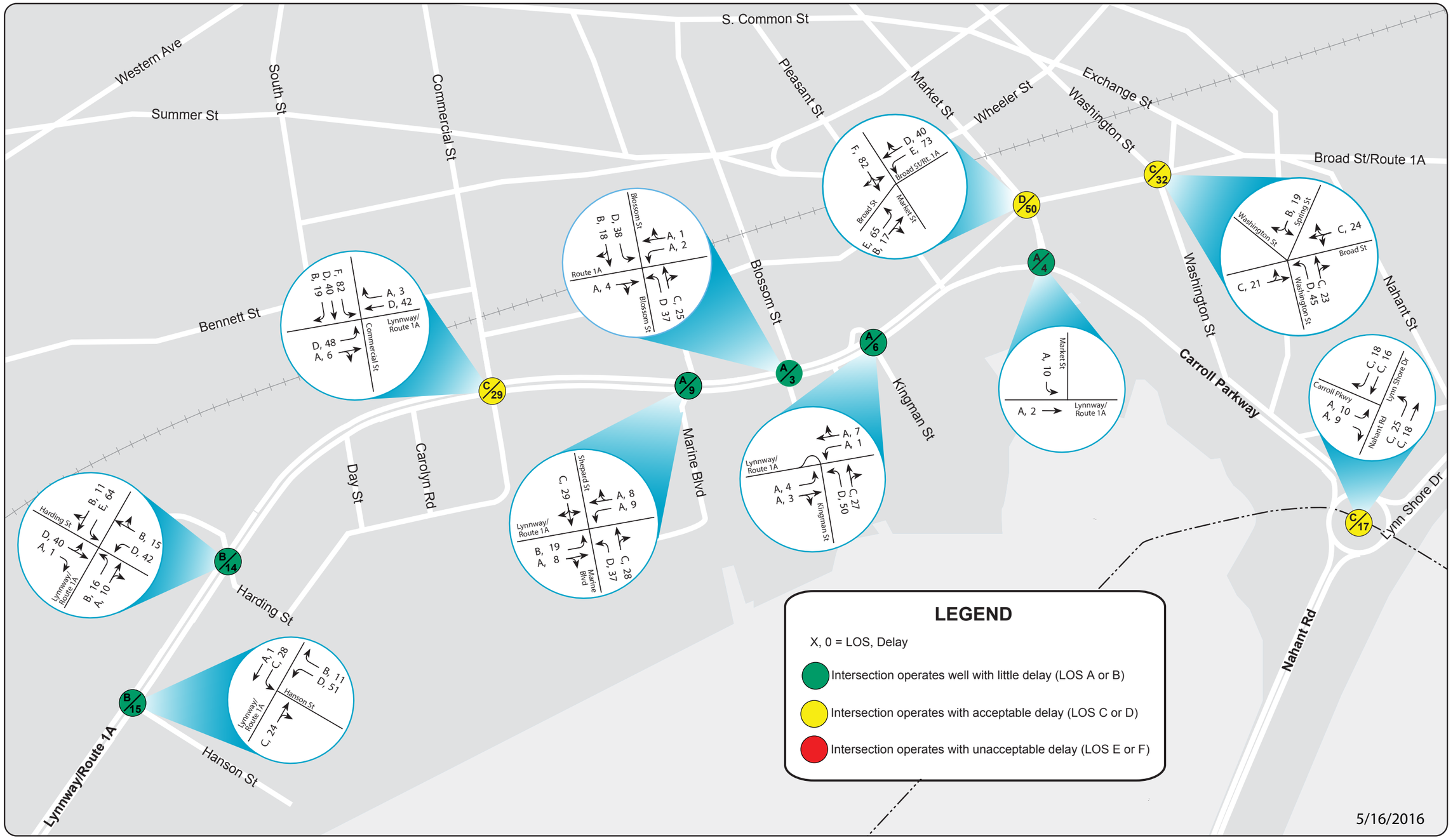


BOSTON REGION MPO

FIGURE 38

Alternative 5: Weekday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 39
Alternative 5: Saturday PM Peak Hour Level of Service and Delays

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

BOSTON REGION MPO

N

FIGURE 40

Alternative 6: Bus Rapid Transit Lanes

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn

Median-Oriented Bus Rapid Transit in Oregon

Median-Oriented Bus Rapid Transit in Cleveland

Median-Oriented Bus Rapid Transit in San Bernadino

Median-Oriented Bus Rapid Transit in Oregon

5/16/2016

BOSTON
REGION
MPO

N

FIGURE 41
Examples for Alternative 6

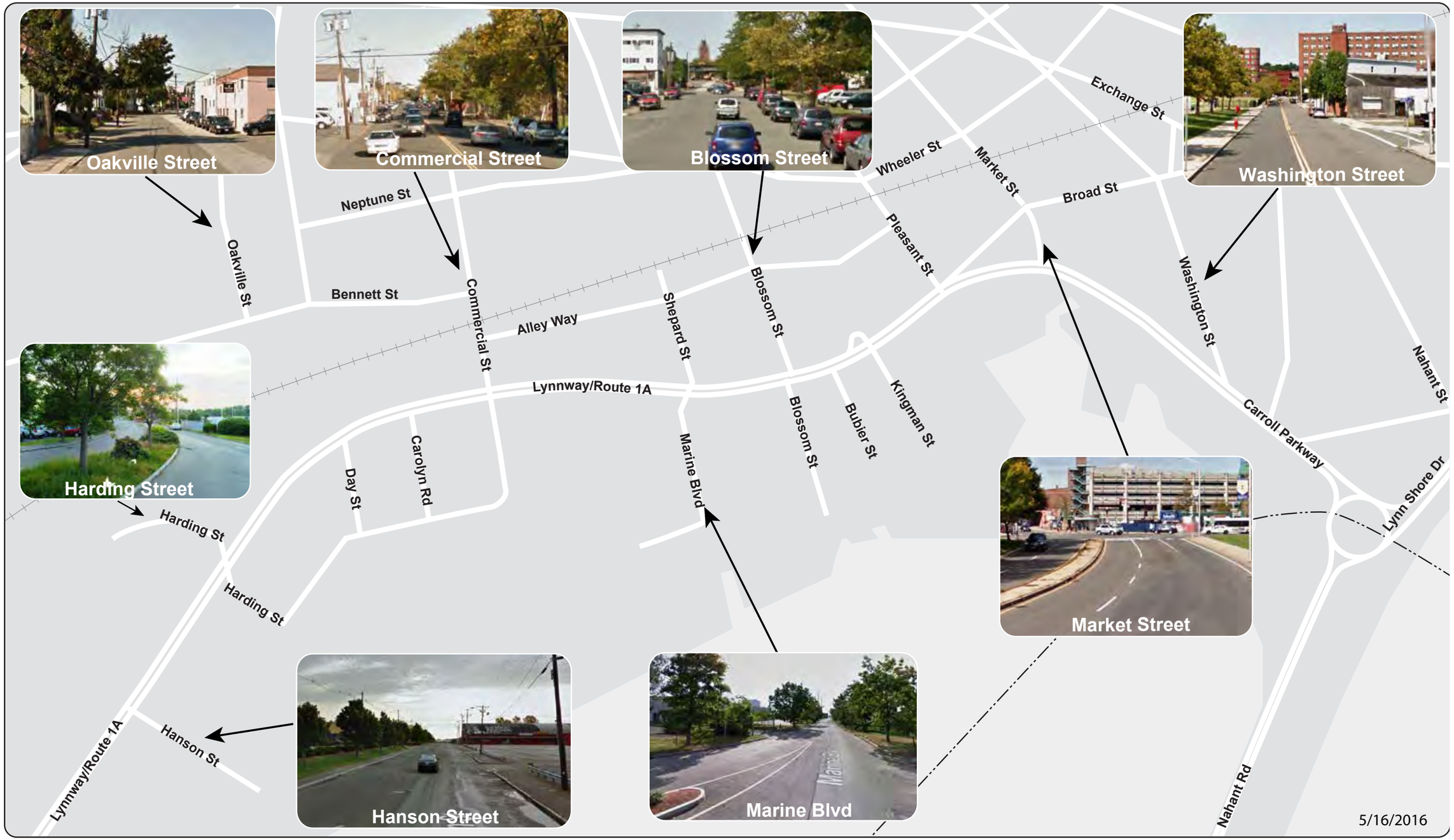
Route 1A/Lynnway/Carroll Parkway
Priority Corridor Study in Lynn

BOSTON REGION MPO

FIGURE 42

Create Connections amongst Lynn's Waterfront, Downtown, and Surrounding Neighborhoods

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn



BOSTON REGION MPO

FIGURE 43
Roadway Characteristics of the Local Streets that are Candidates for Improvements to Help Create Connectivity Amongst the Study Area's Land Uses

Route 1A/Lynnway/Carroll Parkway Priority Corridor Study in Lynn