



Highland Avenue, Needham
Needham Street, Newton
Bridge No. N-04-002=N-12-002 (362) over the
Charles River Corridor Project

Needham Newton Corridor

Public Informational Meeting

- Jan 10, 2018 @ 7 pm Needham
- Jan 11, 2018 @ 6 pm Newton
- Jan 12, 2018 @ 8 am Newton



Agenda

1. Introduction
2. Construction Cost
3. Schedule
4. Right of Way
5. Project Update

Introduction

Speakers

Thomas H. Currier, P.E.

MassDOT Project Manager

Marie J. Sullivan, P.E.

Stantec Project Manager

Alan T. Cloutier, P.E., PTOE

Stantec Traffic Engineer



Since we met last time.....

- Presented to Chambers of Commerce
- Monthly coordination meetings with Needham/Newton
 - MassDOT / Designers*
 - Town/City Officials*
 - Elected Officials*
- One-on-one meetings with abutters

Tonight.....

- Present final design plans
- Highlight design changes to reflect current standards

Construction Cost



Description	Cost
Office Estimate	\$16,000,000
Construction Contingencies, Traffic Police, Participating Utility Relocations, etc.	\$6,000,000
Total Federal Participating Cost	\$22,000,000

Schedule



- Currently at Final Design
- **Advertisement** for Construction in **April 2019**
- Construction begins Fall 2019
- Construction completed Fall 2022

Right of Way Impacts

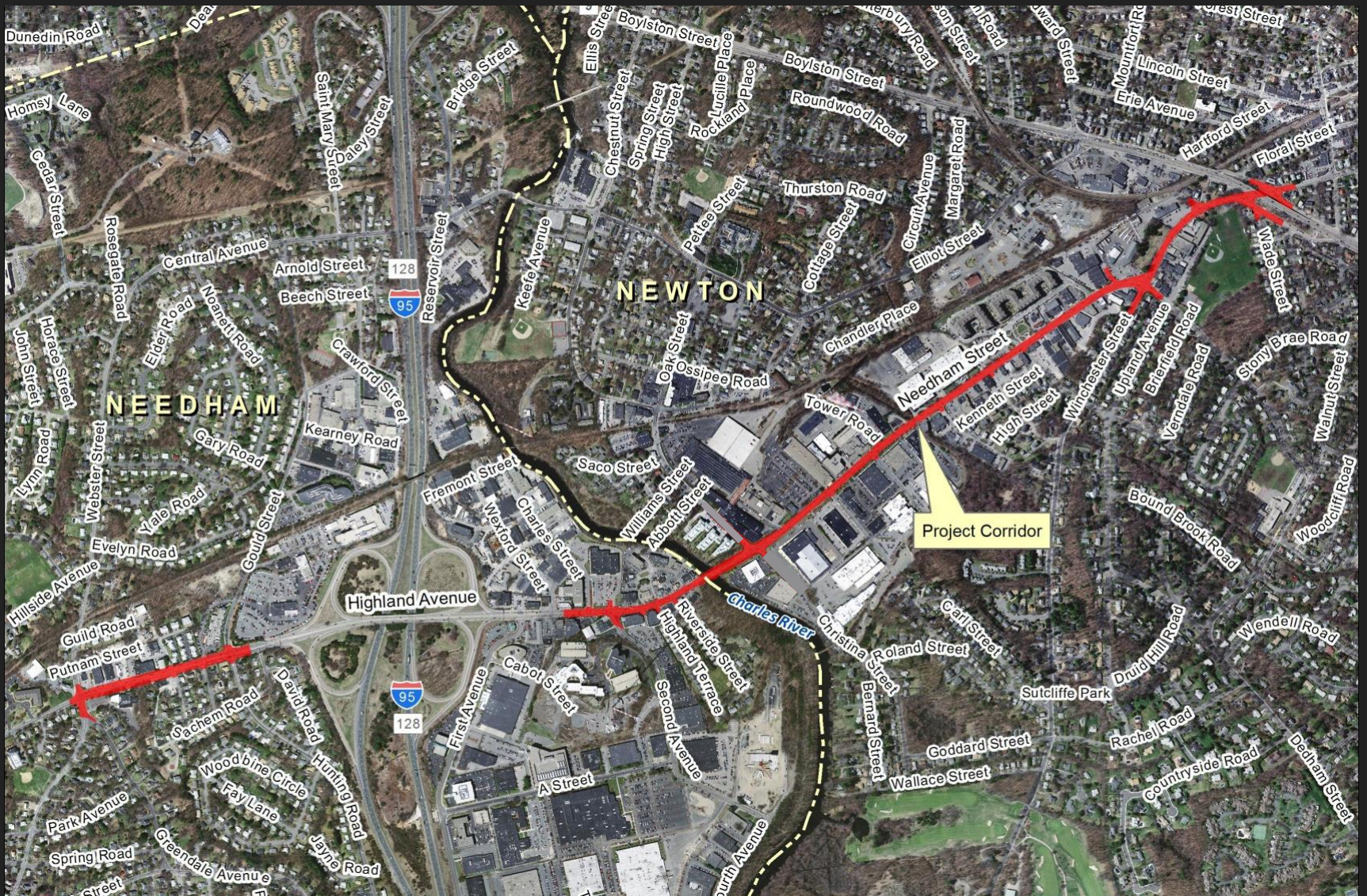
MassDOT will secure ROW

Permanent

- Land Acquisitions
- Aerial Utility Easements
- Drainage Easements

Temporary

- Construction Easements



Project Area



Adjacent Projects



MassDOT is committed to providing Massachusetts residents and visitors with a variety of **safe and convenient** transportation choices.

Stephanie Pollack
Secretary of Transportation

Multimodal Design Approach

Balance the needs of **ALL** users in this mixed land use area



Pedestrians



Bicycles



Vehicles



Transit

Existing Deficiencies



Unmarked crossings



Undefined sidewalks



Wide driveway openings



Narrow shoulders
No designated bike lane



Non-compliant crossings



Parking perpendicular to road

Project Goals

To Improve **Pedestrian Accommodations**

- Continuous designated sidewalks
- Designated crosswalks
- ADA and MA AAB compliant (detectable panels)
- Pedestrian friendly, park once



To Provide **Bicycle Accommodations**

- 5 foot wide raised bike lane
- Shared use paths



Project Goals

To Improve **Traffic Operations/ Safety**

- Exclusive turn lanes
- Two-way left turn lanes
- Protected phasing at signals
- Reduce conflict points
 - Consolidate driveway openings
 - Eliminate “backing out” onto street
 - Install raised medians



To Improve **Transit**

- Adjust locations to optimize service





Crosswalk Locations

Legend:
Existing to remain
New
Being eliminated



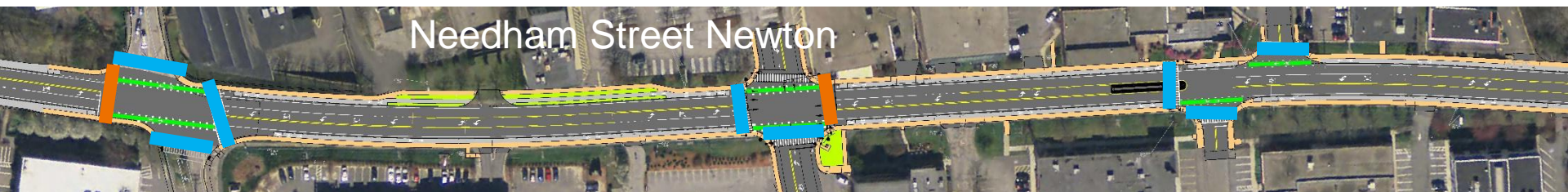


Crosswalk Locations

Legend:

Existing to remain

New





Flashing Beacons at Midblock Crosswalks

- Located at the three unsignalized mainline crossings
- Pushbutton with voice message





Trail Connections

Charles River Reservation
Needham



Upper Falls Greenway
Newton





Why Separated/Raised Bike Lanes ?



EXAMPLE
Western Avenue,
Cambridge



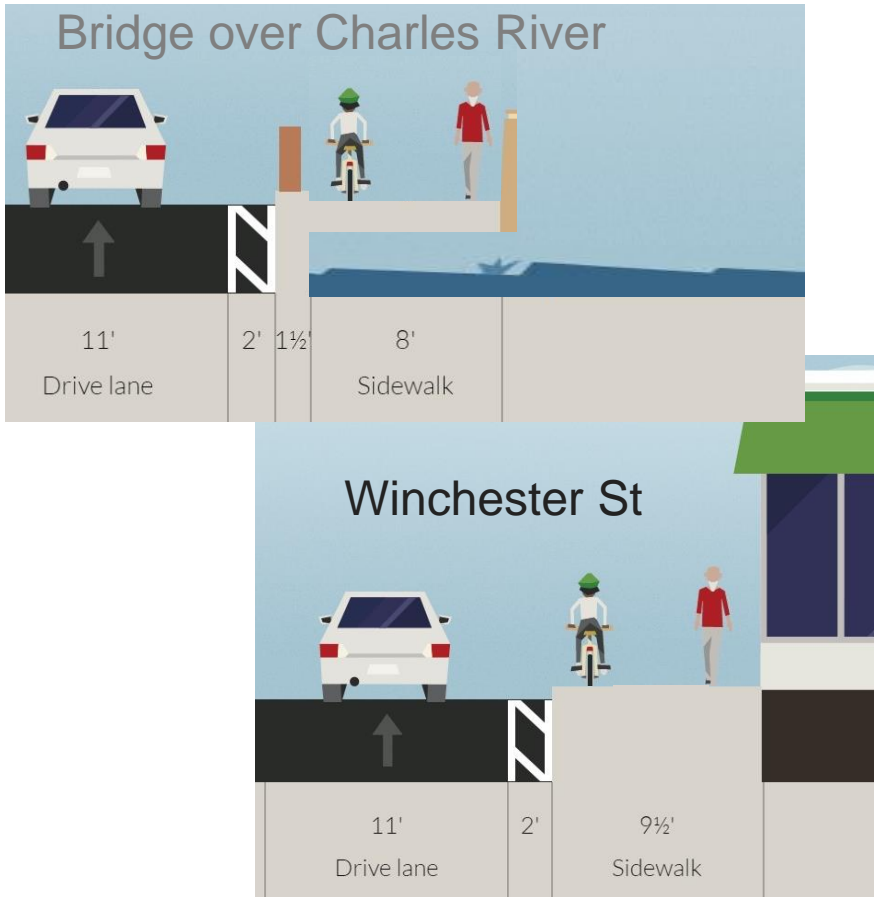
* Research has shown:

- * Attracts more people to bicycling
- * Preferred by bicyclists and motorists over on-road facilities
- * Improves safety for all road users

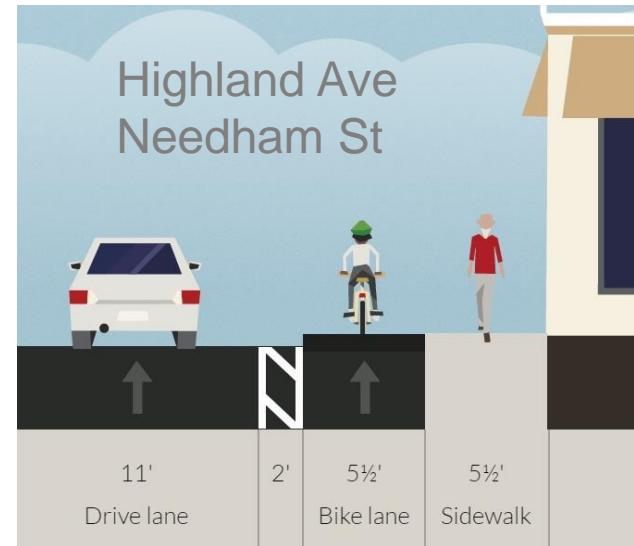
EXAMPLE
Vassar Street, Cambridge



Bike Lane Cross Section



Shared Use Path
(bikes & pedestrians)



Raised Bike Lane



Proposed Bike Lane/Sidewalk Material

Raised Bike Lane / Sidewalk

Granite curbing

Asphalt pavement (bike lane)

Granite Paver (detectable for a cane)

Cement concrete (ped lane)

Shared Use Path

Granite curbing

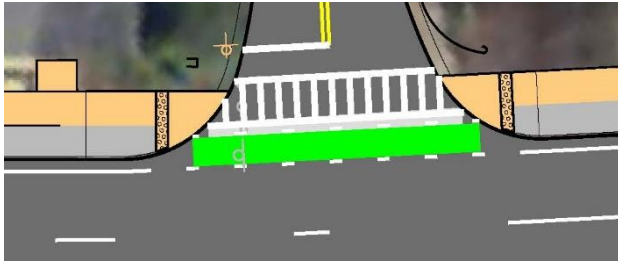
Asphalt pavement



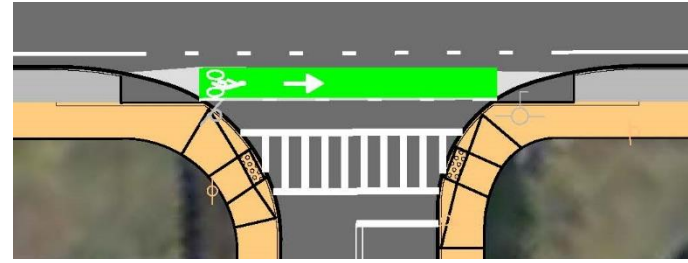
EXAMPLE of raised bike lane



Typical Bike / Ped Crossing



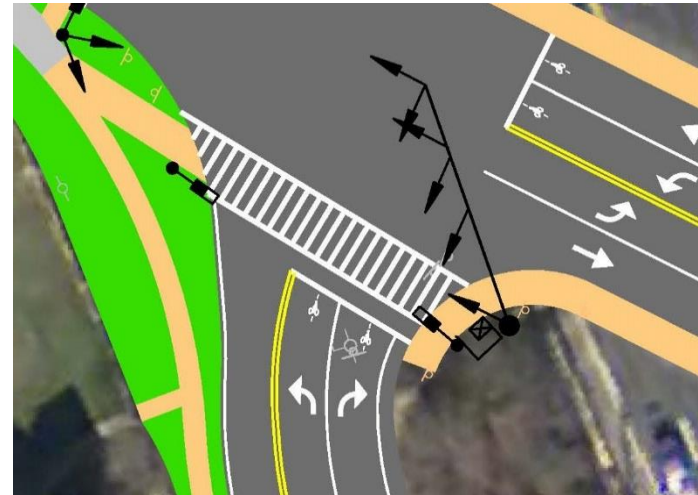
Unsignalized
No side street walks



Unsignalized
With side street walks



Signalized
Separated bike lane



Signalized
Shared use path



Traffic Operations

- All new traffic signals equipment
- Proper clearance intervals
- Adaptive signal control
- Additional lanes west of interchange
- Left turn pockets added





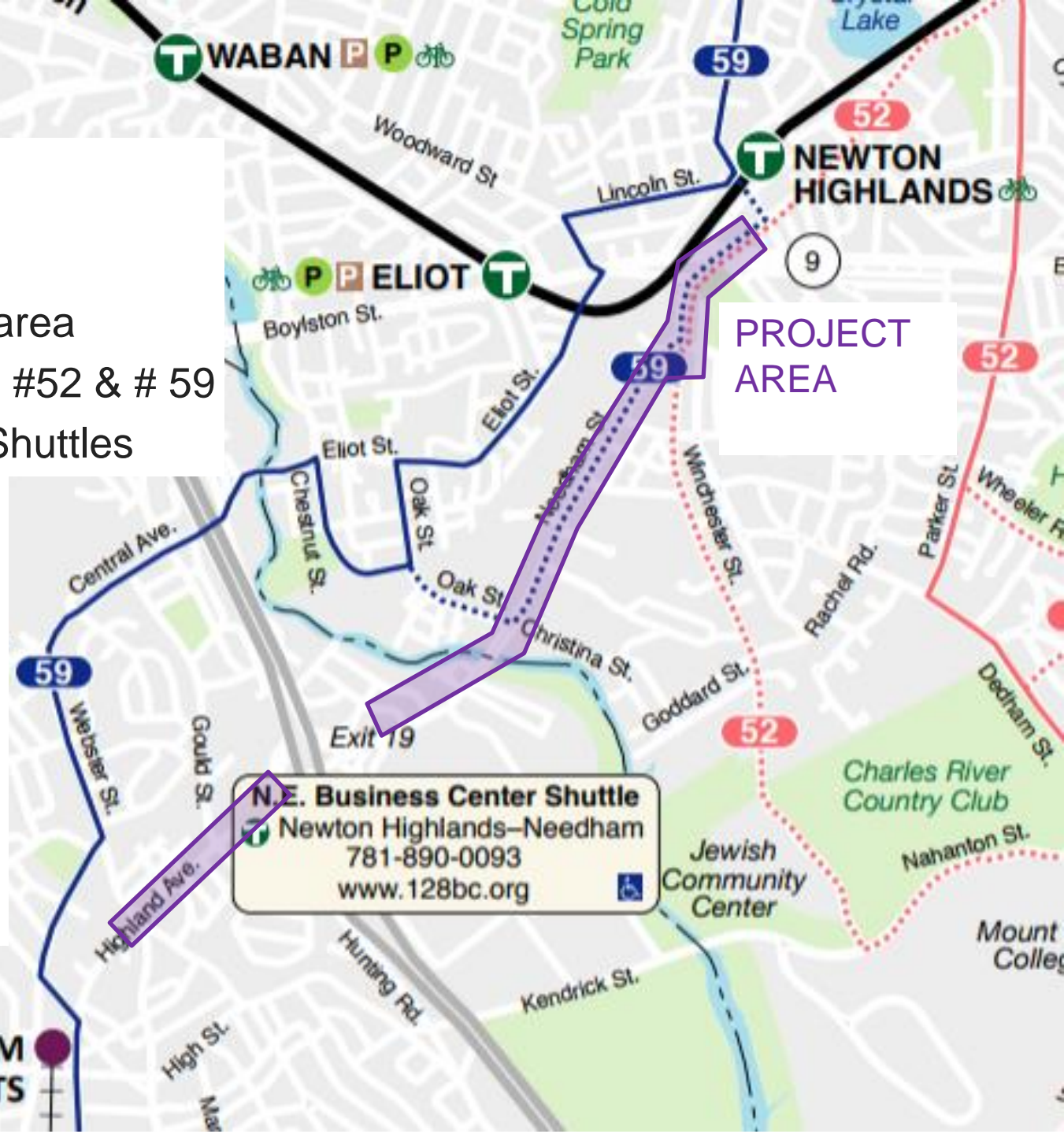
Transit

Routes within project area

- Public - MBTA Bus #52 & # 59
- Private – Various Shuttles

Connections in area

- Commuter Rail
- Subway



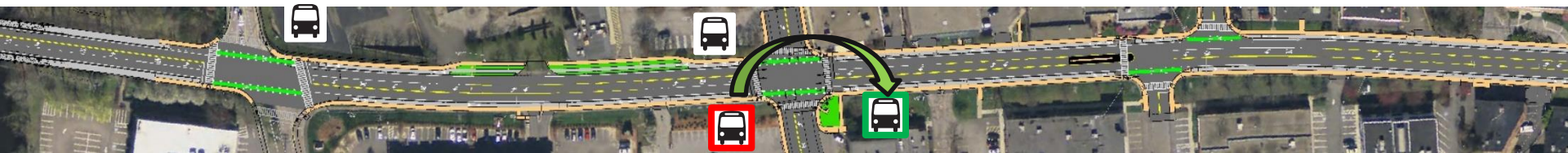
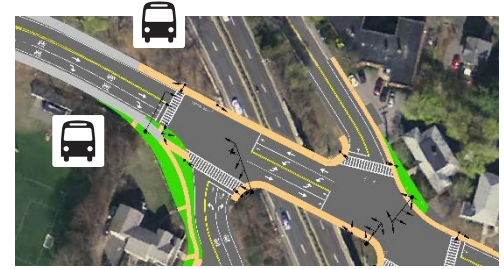


MBTA Bus Stop Locations

Coordinating with MBTA

Relocating Bus 59 stop to “far side” of intersection at

- Needham Street NB @ Charlemont Street
- Needham Street NB @ Jaconnet Street



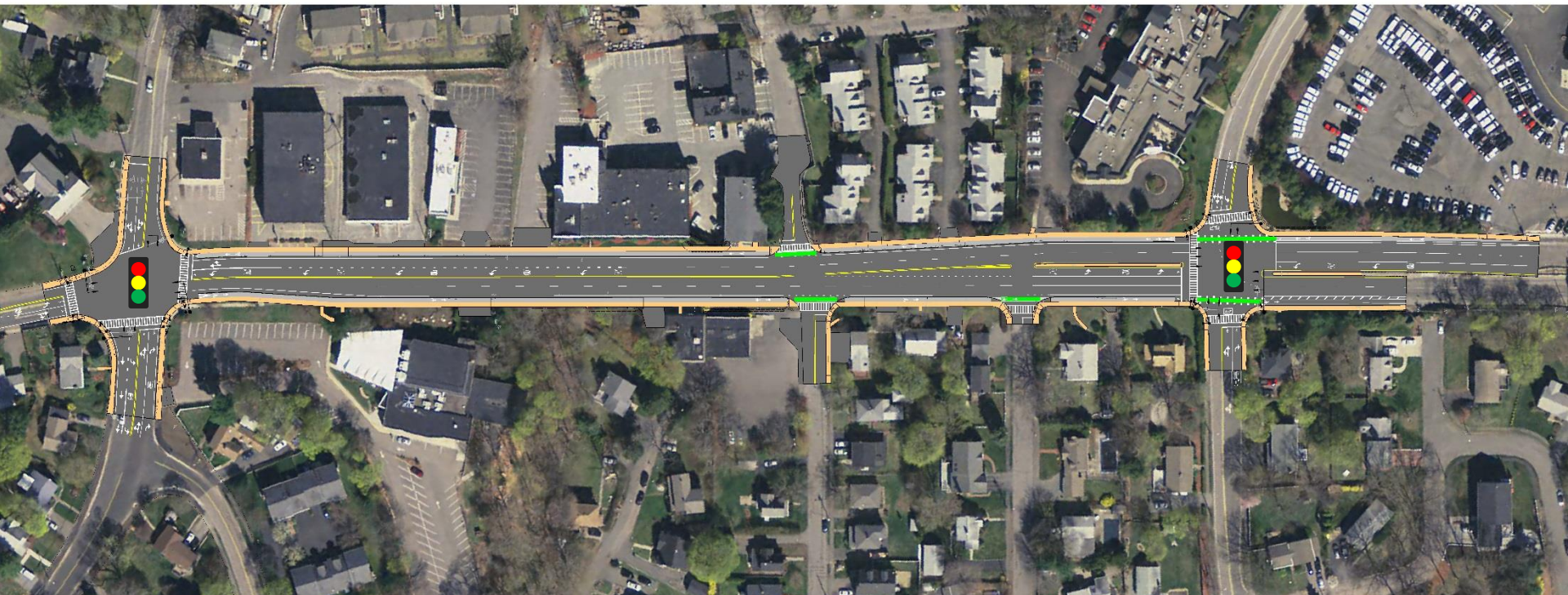
Some are being shifted less than 75 feet

- Needham Street SB @ Easy Street
- Winchester Street SB @ Needham Street
- Winchester Street SB @ Route 9 Ramp

Corridor Elements

Highland Avenue – Webster to Hunting

- Roadway widening
- Raised bike lane/sidewalk installation
- Signal replacements
- Some permanent land takings



Highland Avenue at Webster Street

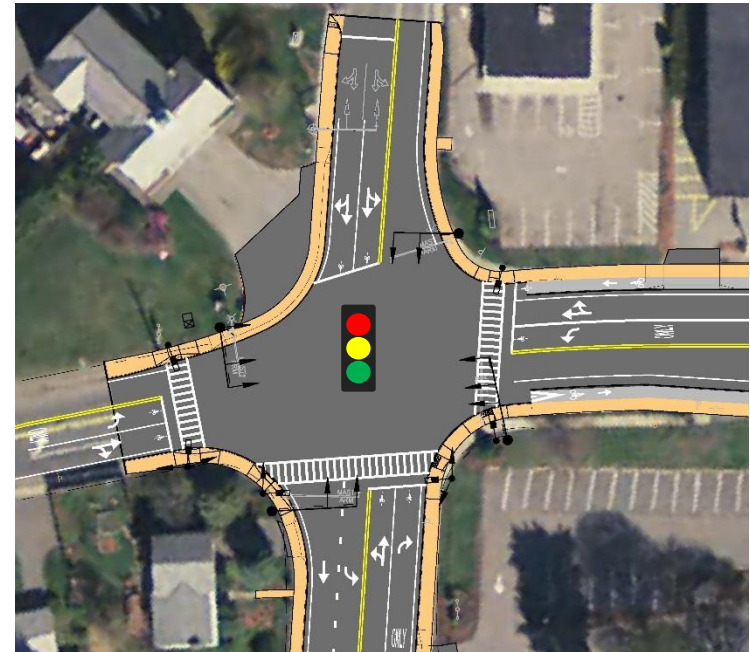
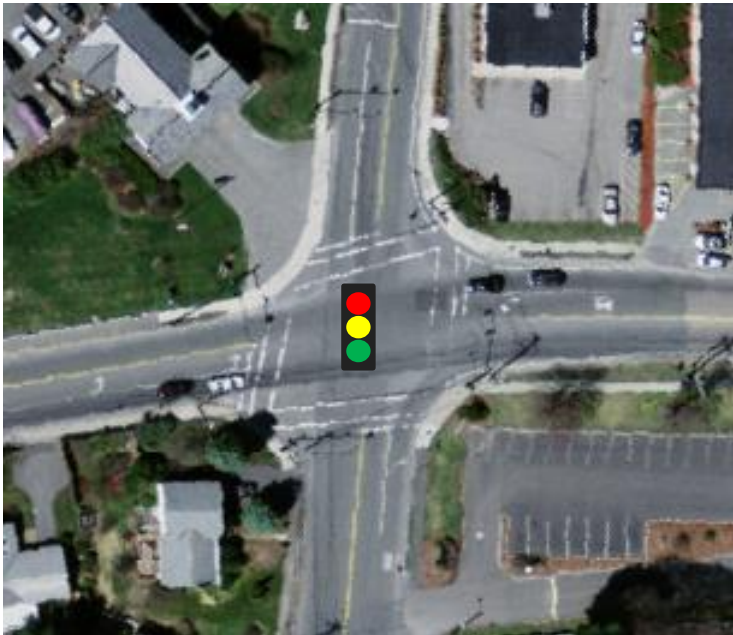
Existing Deficiencies

NB right conflict

Insufficient clearance intervals

Proposed

New signal and timing



Highland Avenue at Hunting Road / Gould Street

Existing Deficiencies

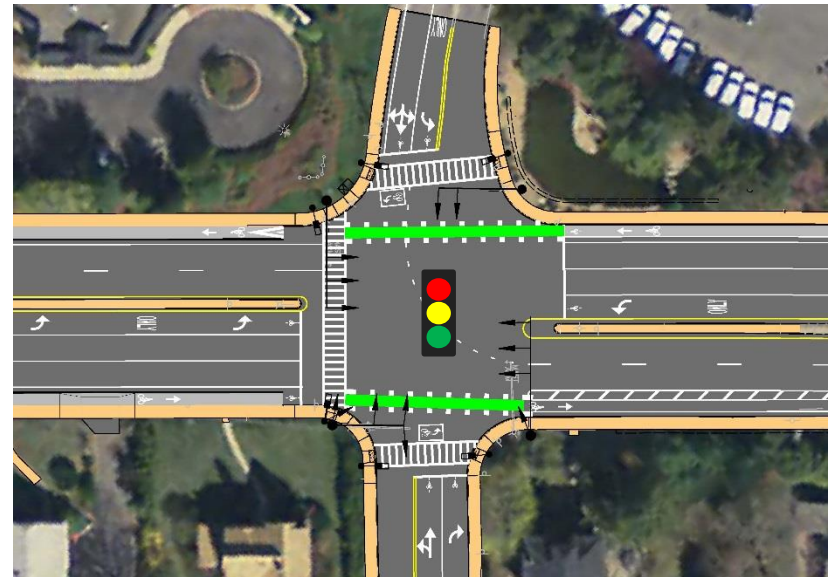
High crash location

Insufficient clearance intervals
(yellow/red)



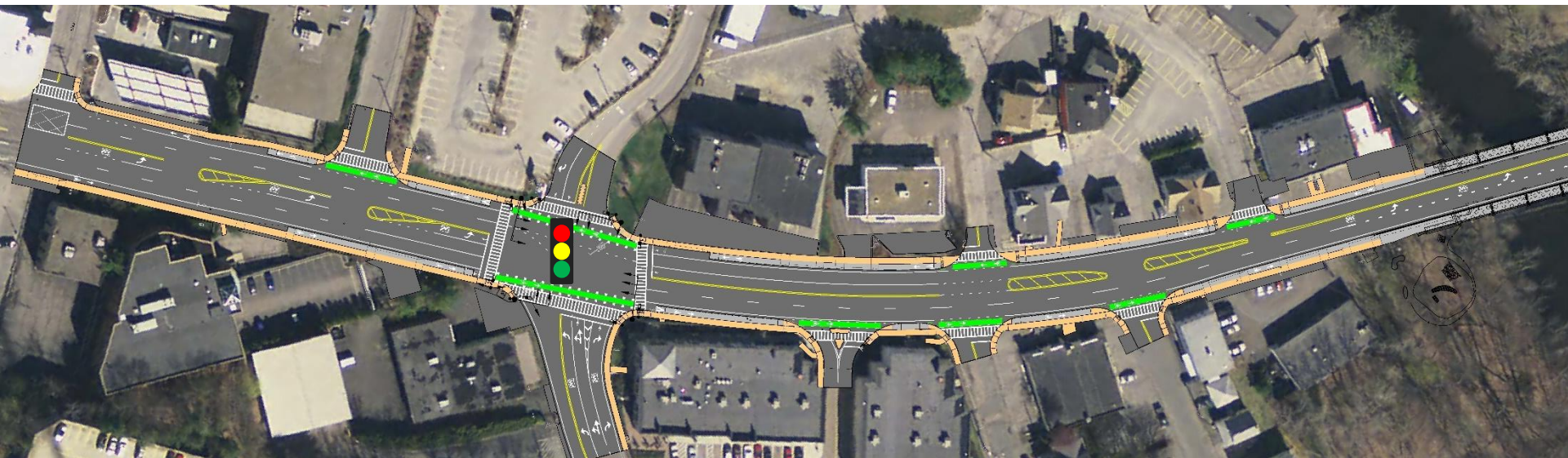
Proposed

New signal equipment and
timing



Highland Avenue Wexford Street to Charles River

- Roadway widening / full depth construction
- Raised bike lane / sidewalk installation
- Signal replacement
- Permanent land takings



Highland Avenue at Charles Street

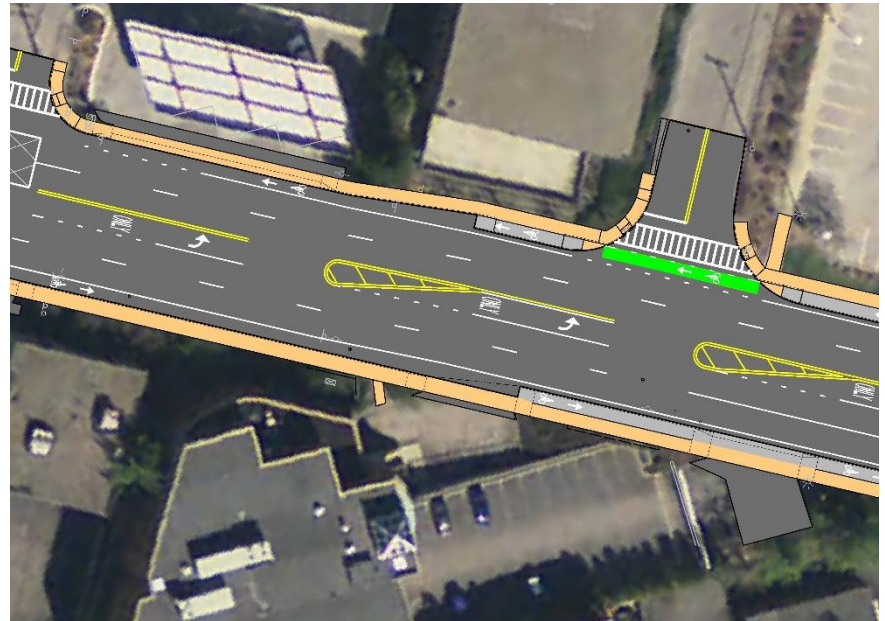
Existing

Conflicting left turns



Proposed

Left turn pocket

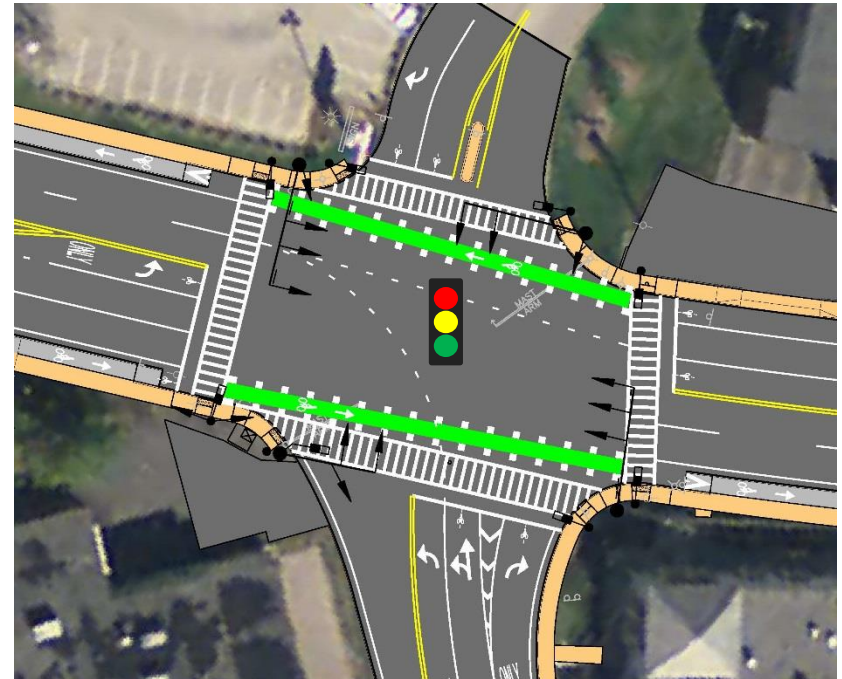


Highland Avenue at Second Avenue

Existing Deficiencies
Congestion



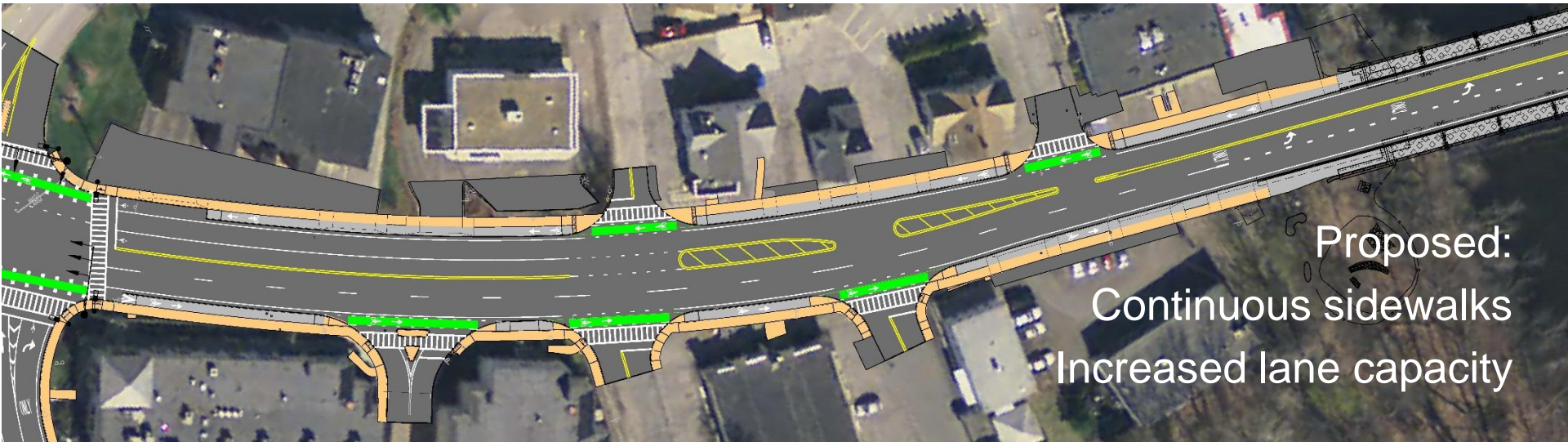
Proposed
Exclusive left turns
New signal and timing



Highland Avenue Second Avenue to Charles River

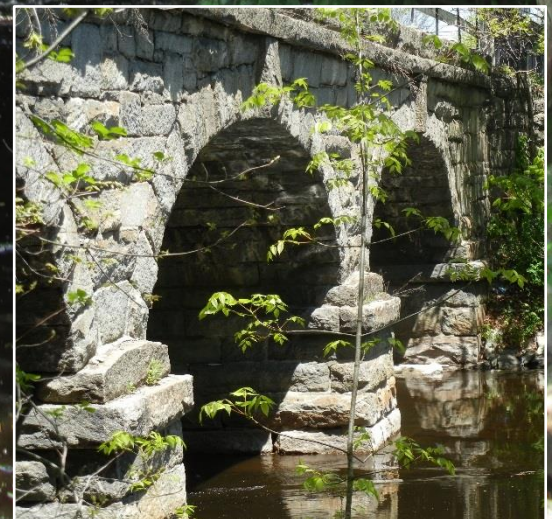


Existing Deficiencies:
Undefined edge of road/walk
Lane capacity



Proposed:
Continuous sidewalks
Increased lane capacity

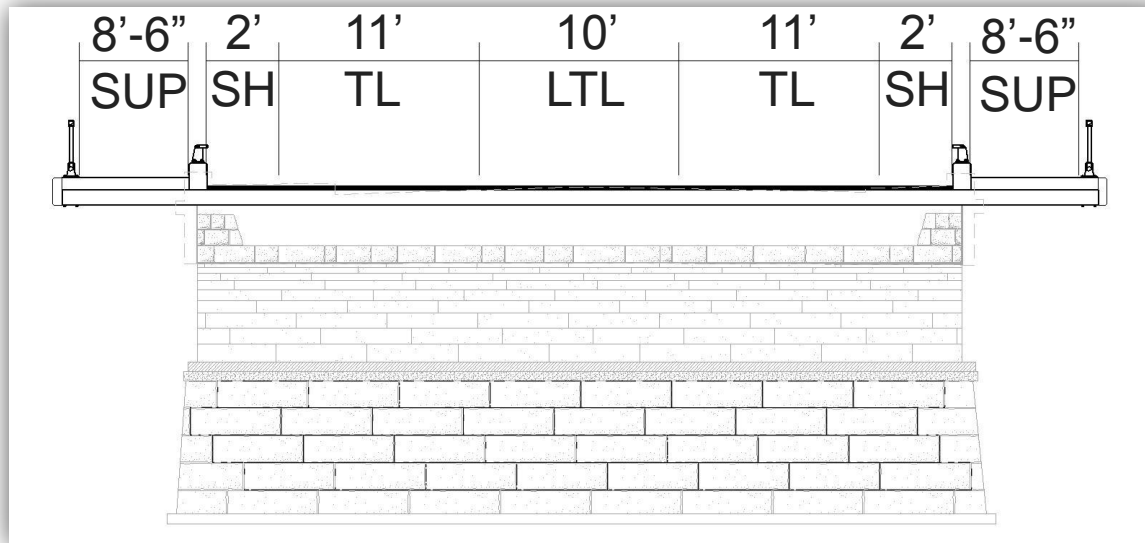
Existing Bridge over Charles River



- Constructed in 1875
- Individually listed on the National Register of Historic Places
- Structurally sound
- Railings do not meet current safety standards

Proposed Bridge over Charles River

- Maintain existing bridge substructure
- Rebuild “top” of Bridge to provide three lanes, shoulders, and new shared use path with ornamental rails



Proposed Bridge over Charles River



Needham Street, Newton

- Roadway widening / full depth construction
- Raised bike lane / sidewalk installation
- Signal replacement / new signal installation



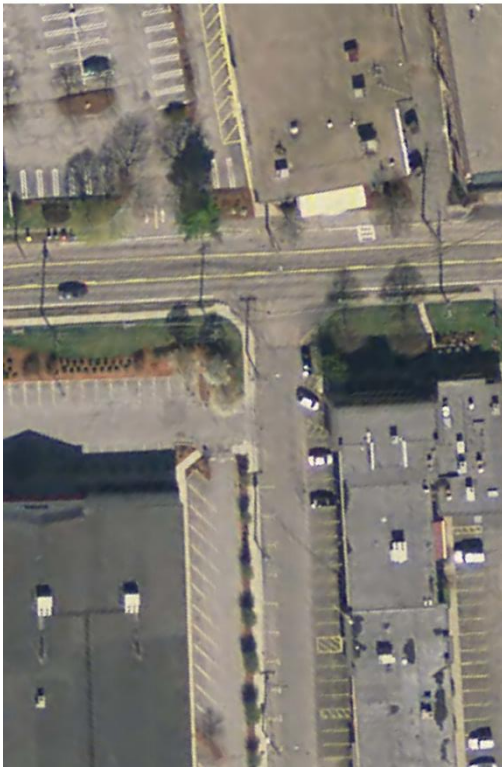
Northland Development

- New Traffic Signal at Charlemont Street
- Multi use path to neighborhoods and Upper Falls Greenway



Needham Street at Charlemont Street

Existing Conditions



Proposed
Realignment
New signal



Needham Street at Avalon Driveways

Secondary Entrance

limited access
right in – right out



Main Entrance

(across from Columbia)
all access

Easy Street / National Lumber

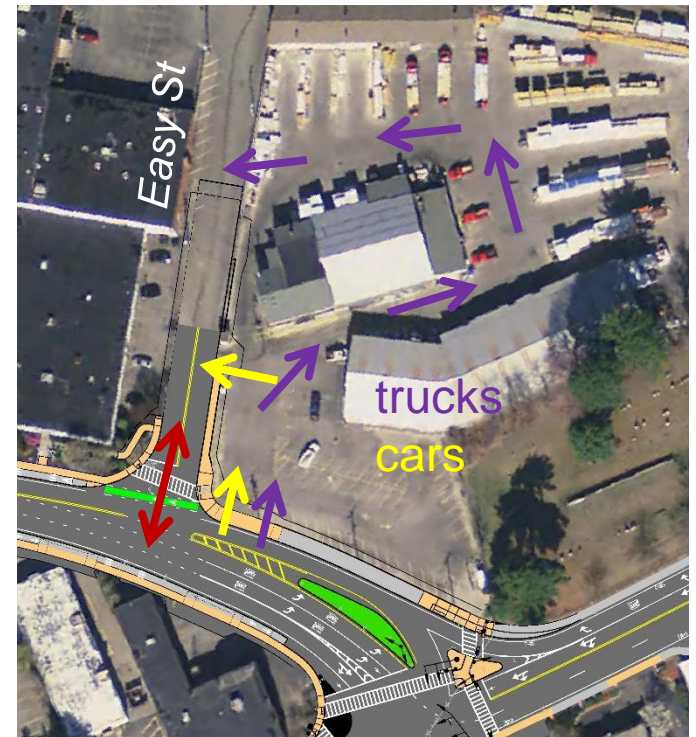
Existing

In/out on Needham Street
Adjacent to Easy Street



Proposed

Reconfigured driveways
IN from Needham Street
OUT onto Easy Street



Needham Street / Winchester Street / Dedham Street Intersection

Existing Deficiencies

Poor Operations

Double Left Does Not Operate Properly

High Crash Location

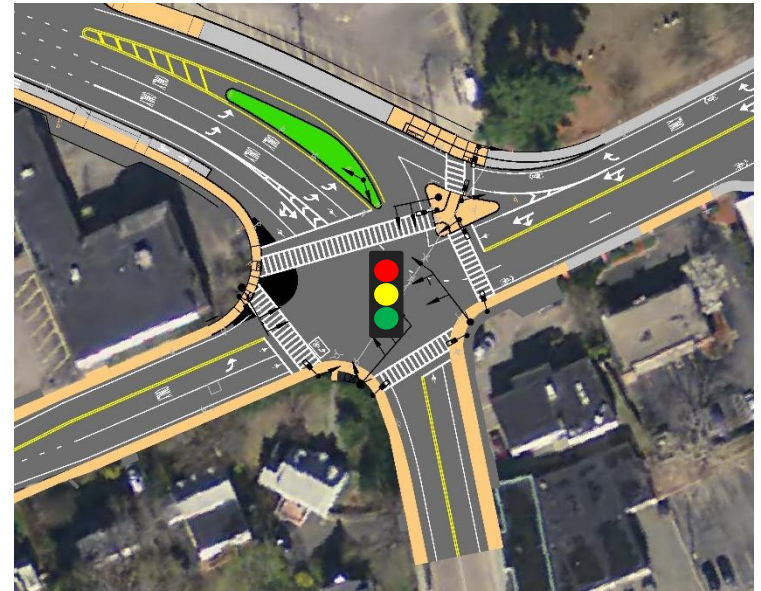


Proposed

New signal

New lane configurations

New crosswalk on Needham St



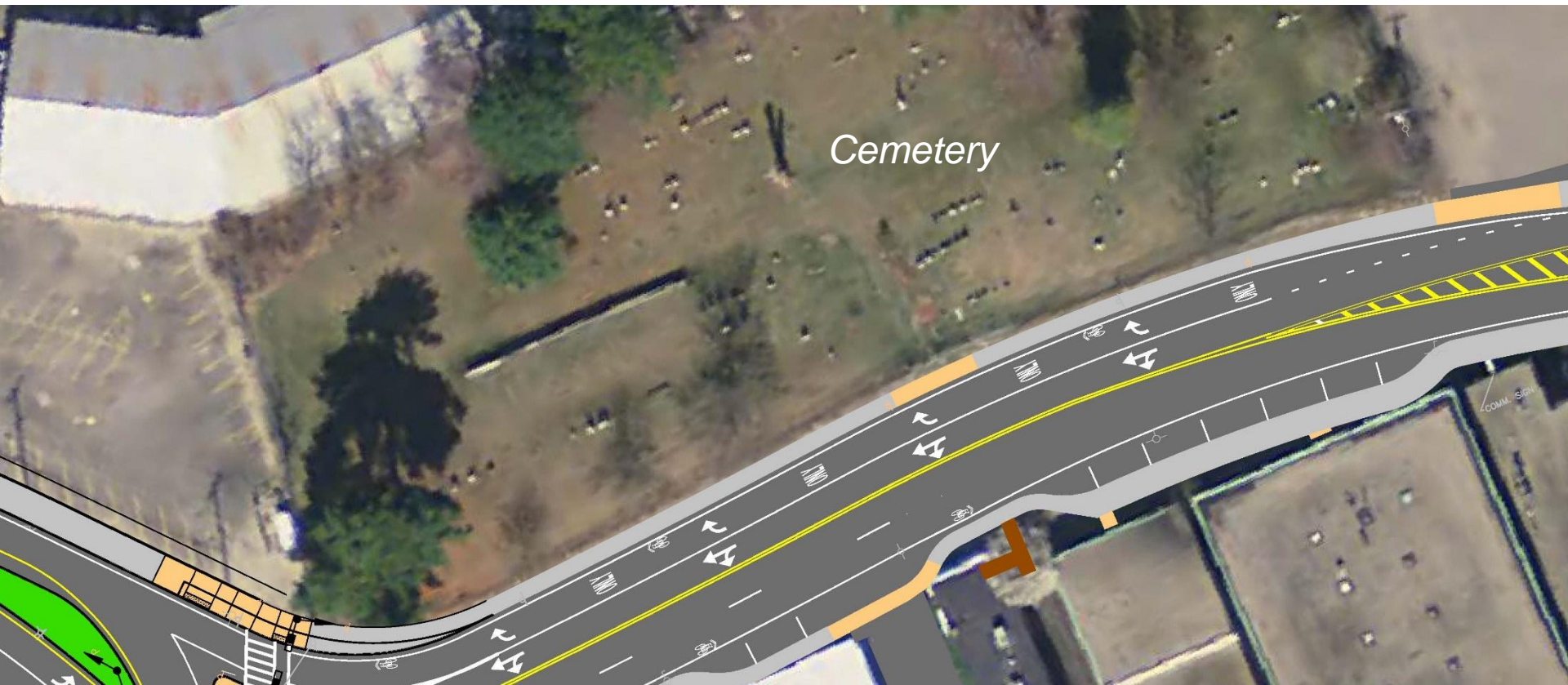
Winchester Street, Newton

- Roadway widening / full depth construction
- Shared Use Path for bikes and pedestrians
- Signal replacement / new signal installation
- Parking pockets



Evergreen Cemetery (South Burying Ground)

- Established in 1804
- Individually-Listed National Register Historic Property
- No impacts to cemetery property



Newton Highlands Playground

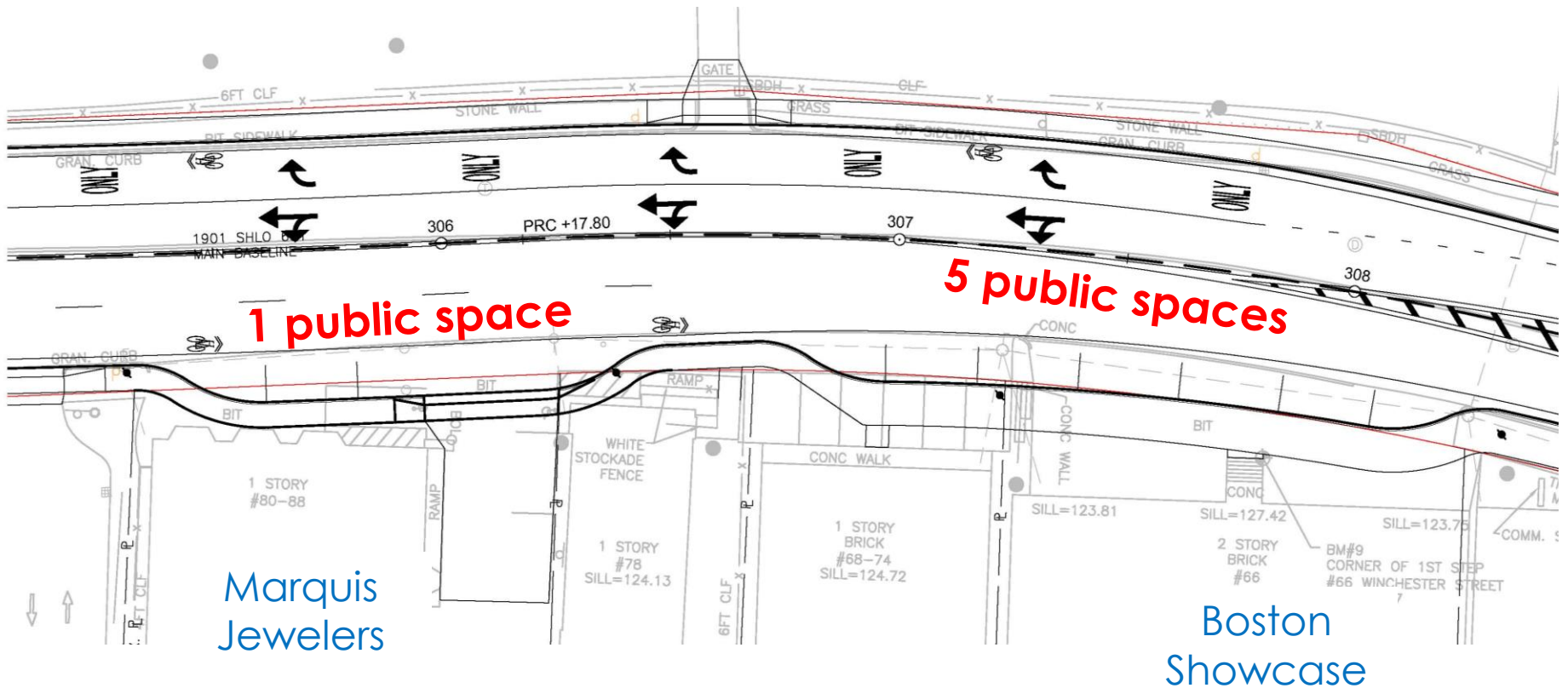
- Designated public open space
- Change in use restricted by State Article 97 and Federal Section 4(f) regulations



Parking Pockets

#82 Winchester St - Marquis Jewelers

#66 Winchester St – Boston Showcase



Winchester Street at Curtis Street

Existing

Wide open entrance

Driveways on both corners

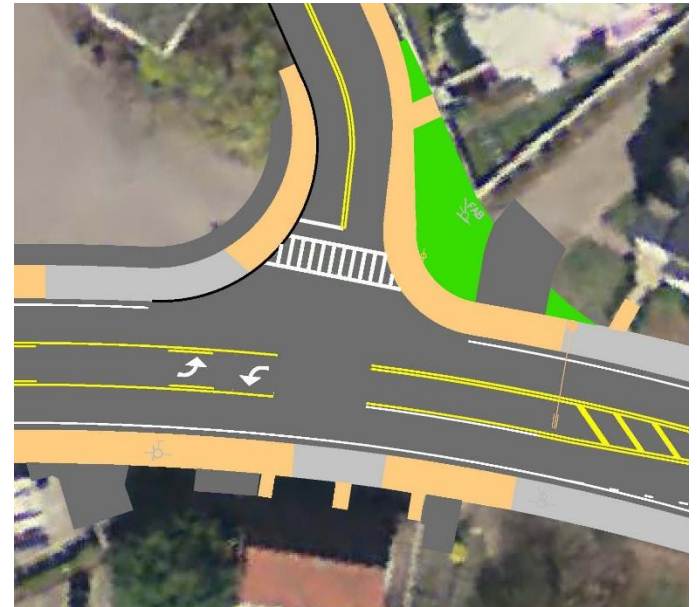


Proposed

Narrow road entrance

Relocate commercial driveway

Relocate private driveway



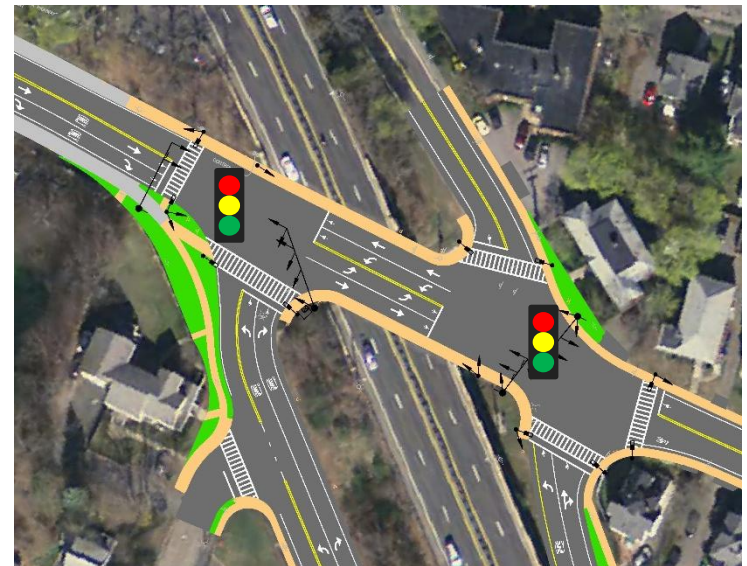
Winchester Street at Route 9 Ramps

Existing

- No designated crosswalks across Winchester Street
- Ramps are under stop control
- Long delays and queues for turning onto Winchester Street

Proposed

- Provides 5 designated ped crossings
- Maintains bridge carrying Route 9
- Two New Traffic Signals



Traffic Management

- Staged construction
- Maintain one lane minimum in each direction
- Access to abutting properties will be maintained at all times
- No detours planned
- Public awareness



Summary

Pedestrian Accommodations

- Continuous sidewalks

- More and improved crosswalks across mainline

Bicycle Accommodations

- Raised bike lanes

- Shared use walks

Traffic Operations / Safety

- Reduced conflict points

- Narrowed curb cuts

- Upgrade and new traffic signals

- Revised timing and phasing

Transit

- Bus stop locations

Questions

Please

- state your name
- spell your last name
- state your address

prior to asking your question



MassDOT Contact Information

Tom Currier, MassDOT Project Manager

Phone: (857) 368 – 9348

Email: Thomas.Currier@dot.state.ma.us

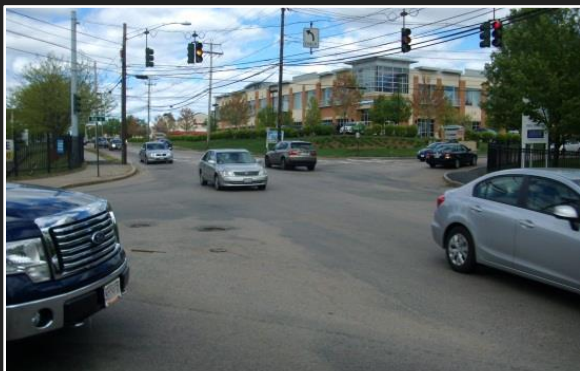
Appendix

Supplemental Info

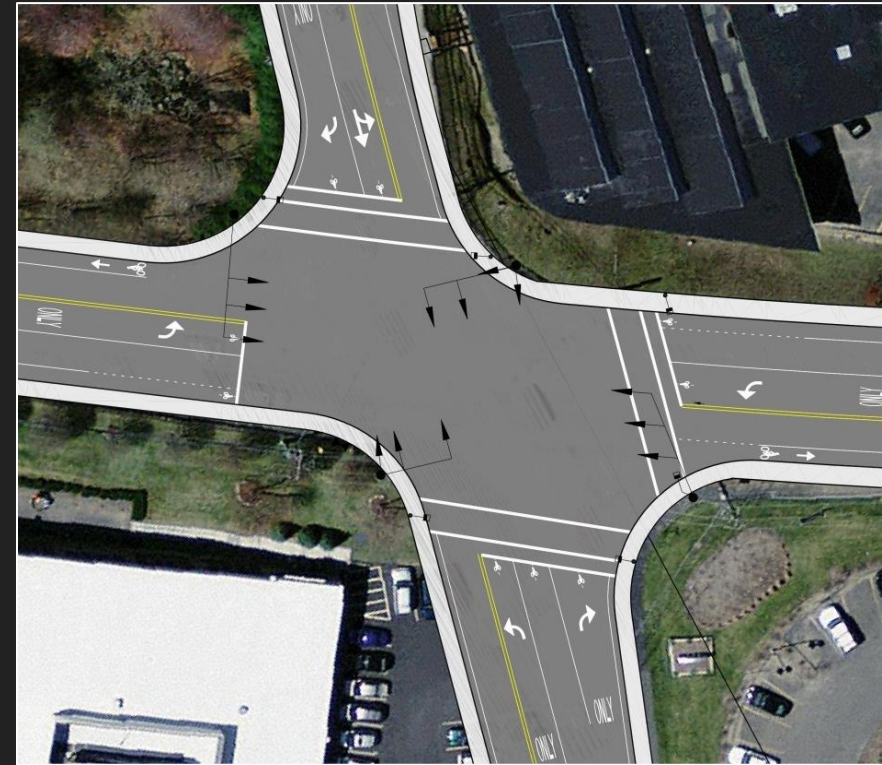
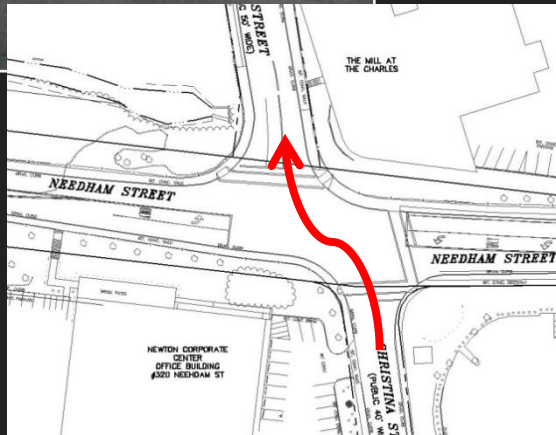


New signal at First Avenue
Will allow left turns out of First Avenue
Construction is substantially complete

Adjacent Project – Highland Avenue
First Avenue to Wexford Street, Needham



2012/04/27



Scheduled for construction
Spring 2018

Adjacent Project - Needham Street at
Christina Street / Oak Street, Newton

Highland Avenue at Mills Road / Cross Street

Existing Deficiencies

Stop control

Mainline merge/diverge

Proposed

Maintain stop control

Consistent mainline

