



# Andover Street Complete Streets Conceptual Design

City Council  
*September 2023*



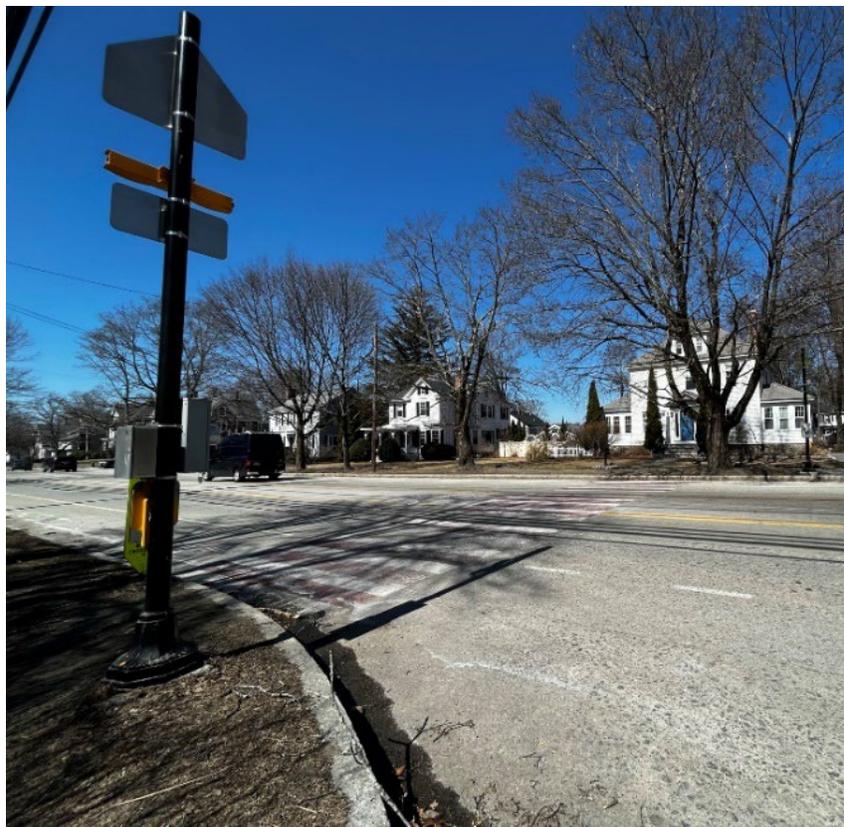
# Agenda

1. Scope & Existing Conditions
2. Engagement Summary & Goals
3. Cross Sections
4. Long-Term Concept Design Alternatives
5. Short-Term Implementation

# Design Area



# Design Area



# Study Purpose: Consensus for Complete Streets

## Complete Streets Funding Program

A Complete Street is one that provides safe and accessible options for all travel modes - walking, biking, transit and vehicles – for people of all ages and abilities.

The MassDOT Complete Streets Funding Program provides technical assistance and construction funding to eligible municipalities. Eligible municipalities must pass a Complete Streets Policy and develop a Prioritization Plan. All Program news, guidance, and registration information are available through an online Portal.



*Credit: Smart Growth America*

# GoLowell: Multimodal Complete Streets Plan



*“The Lowell Multimodal Complete Streets Plan (“GoLowell”) aims to reduce the vehicular traffic within downtown by creating a framework to enhance the multimodal transportation network, providing safer nonmotorized and public transit transportation alternatives.”*

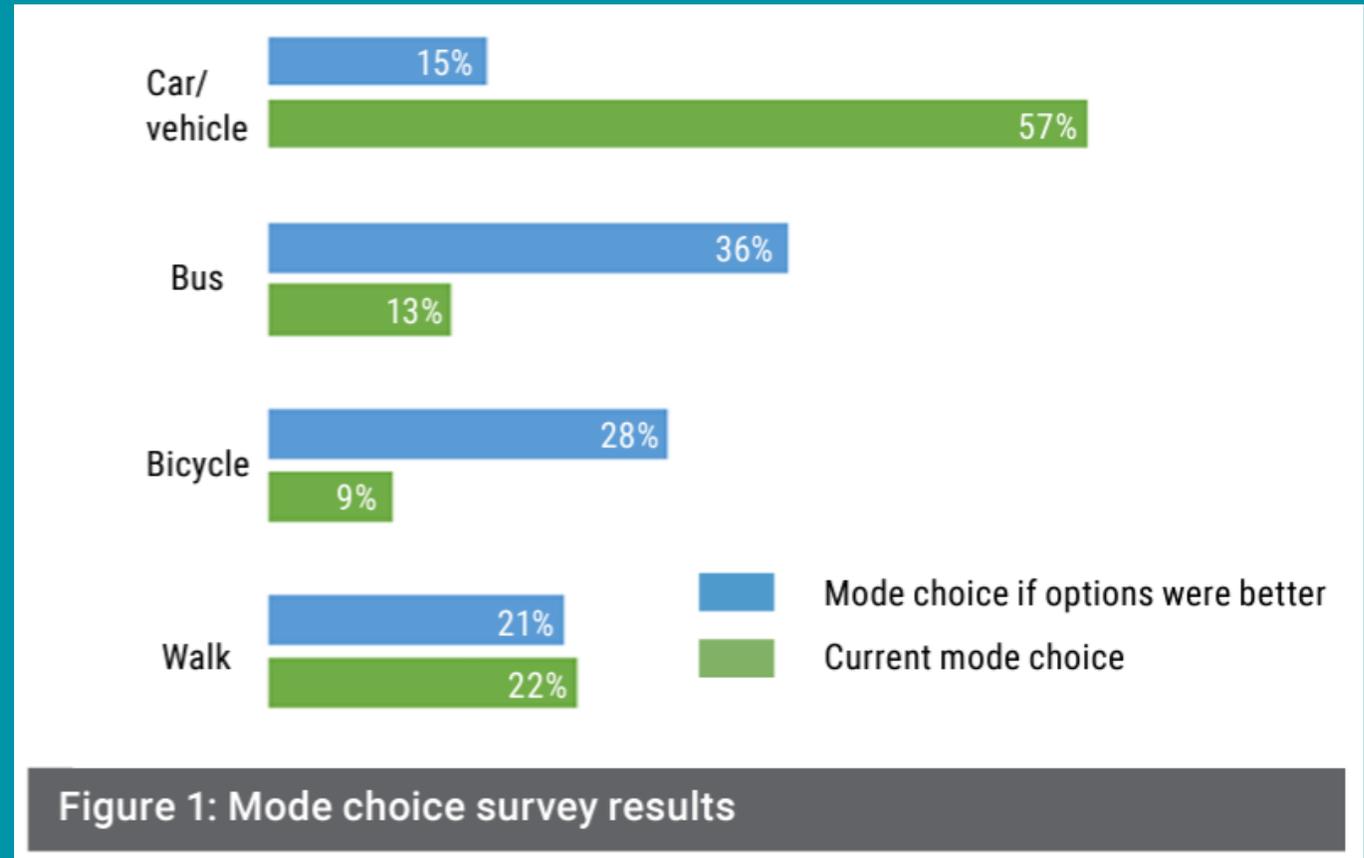
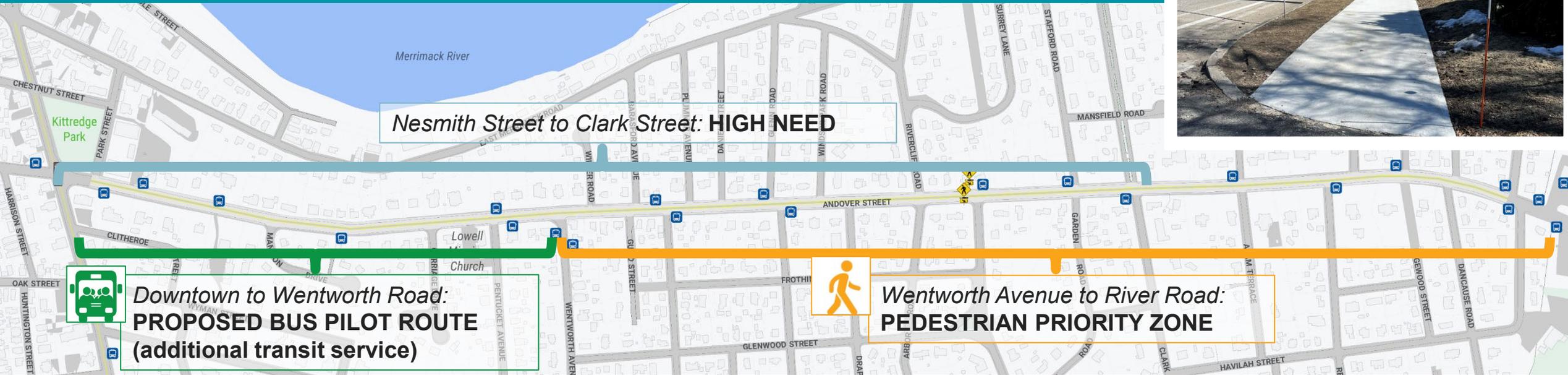
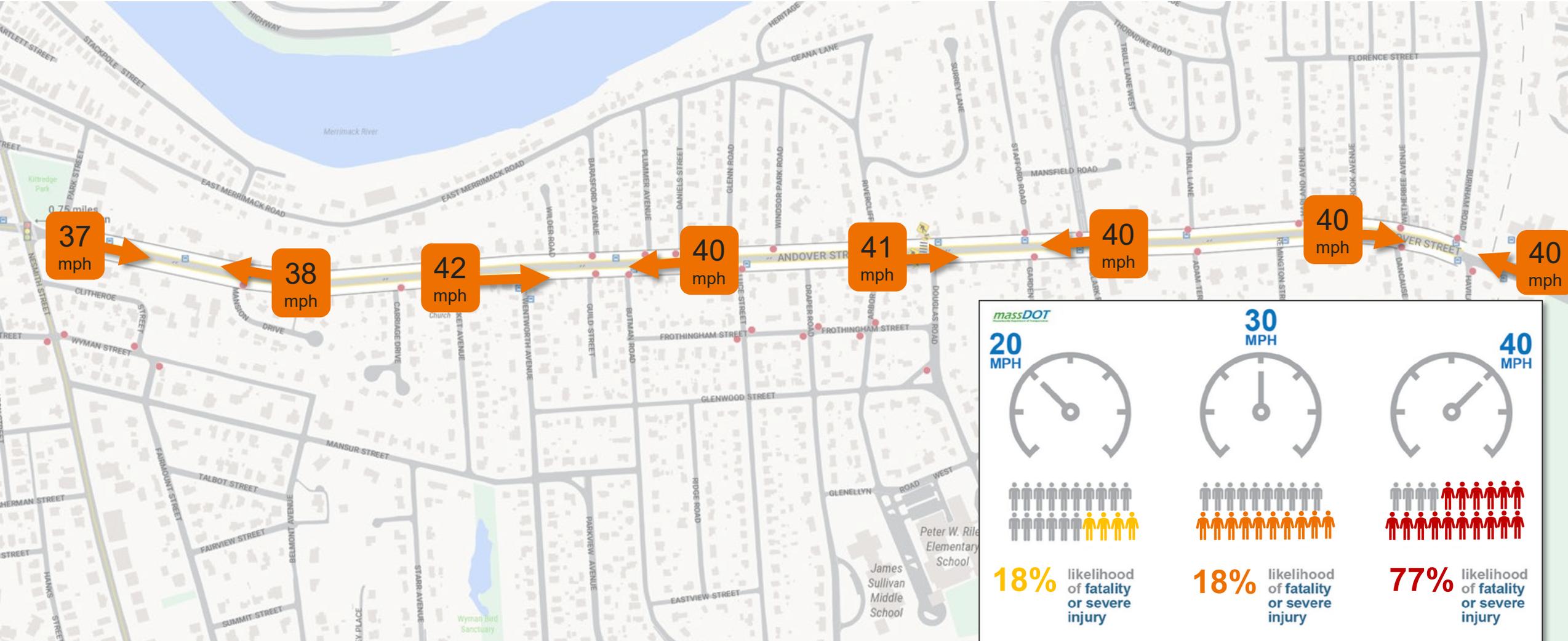


Figure 1: Mode choice survey results

# GoLowell: Multimodal Complete Streets Plan

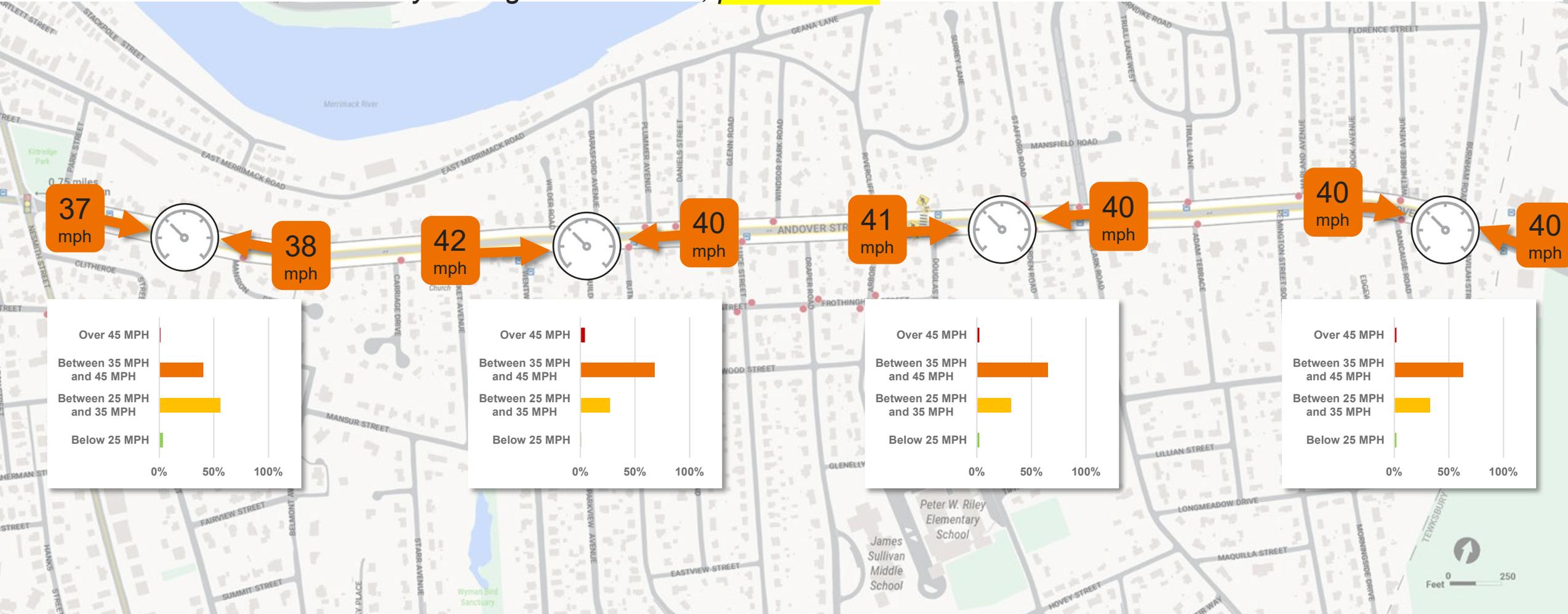


# ~20,000 Daily Vehicles

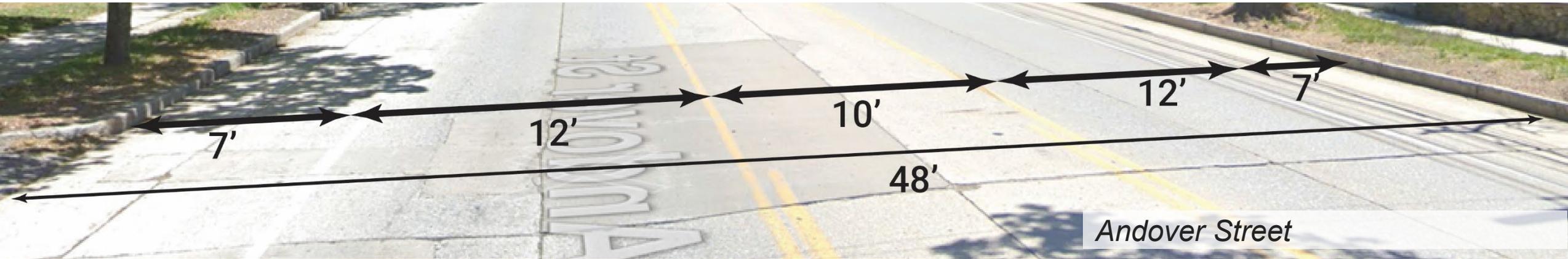


# Majority of Vehicles Driving over 35 MPH

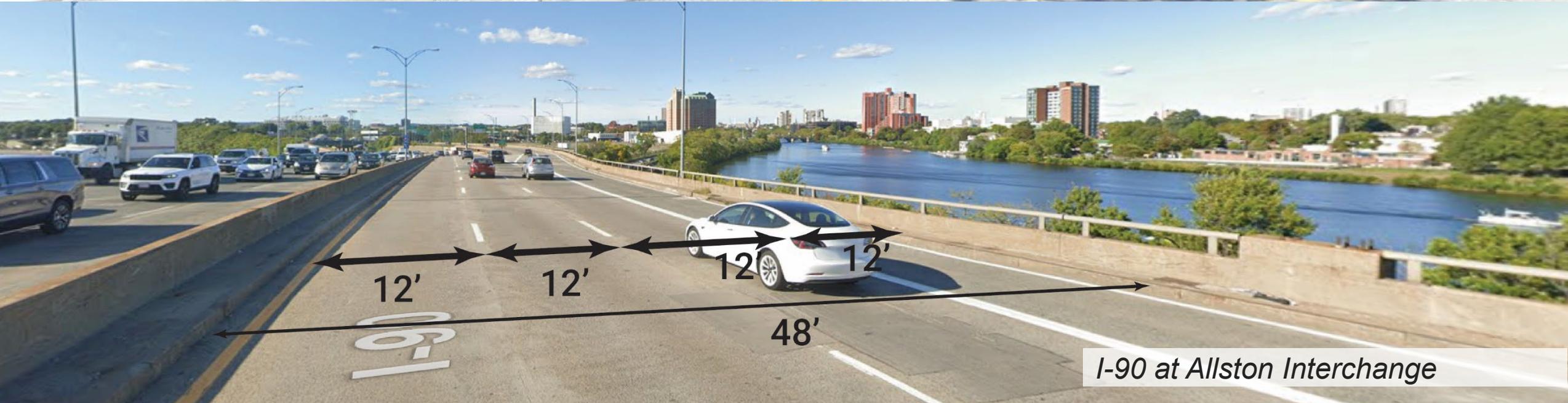
More than 75 vehicles daily driving over 50 MPH; **posted at 35**



# Andover Street is Wide



*Andover Street*



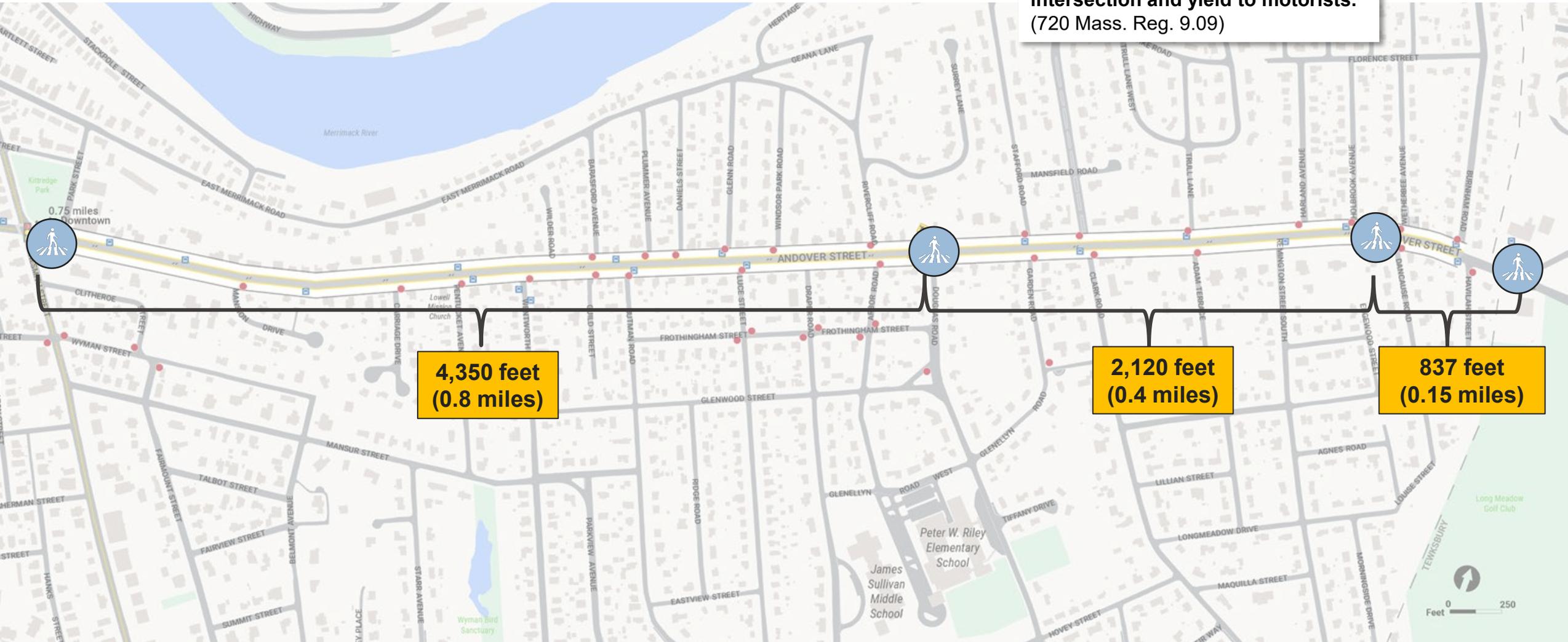
*I-90 at Allston Interchange*

# Existing Pedestrian Infrastructure



# Crosswalks

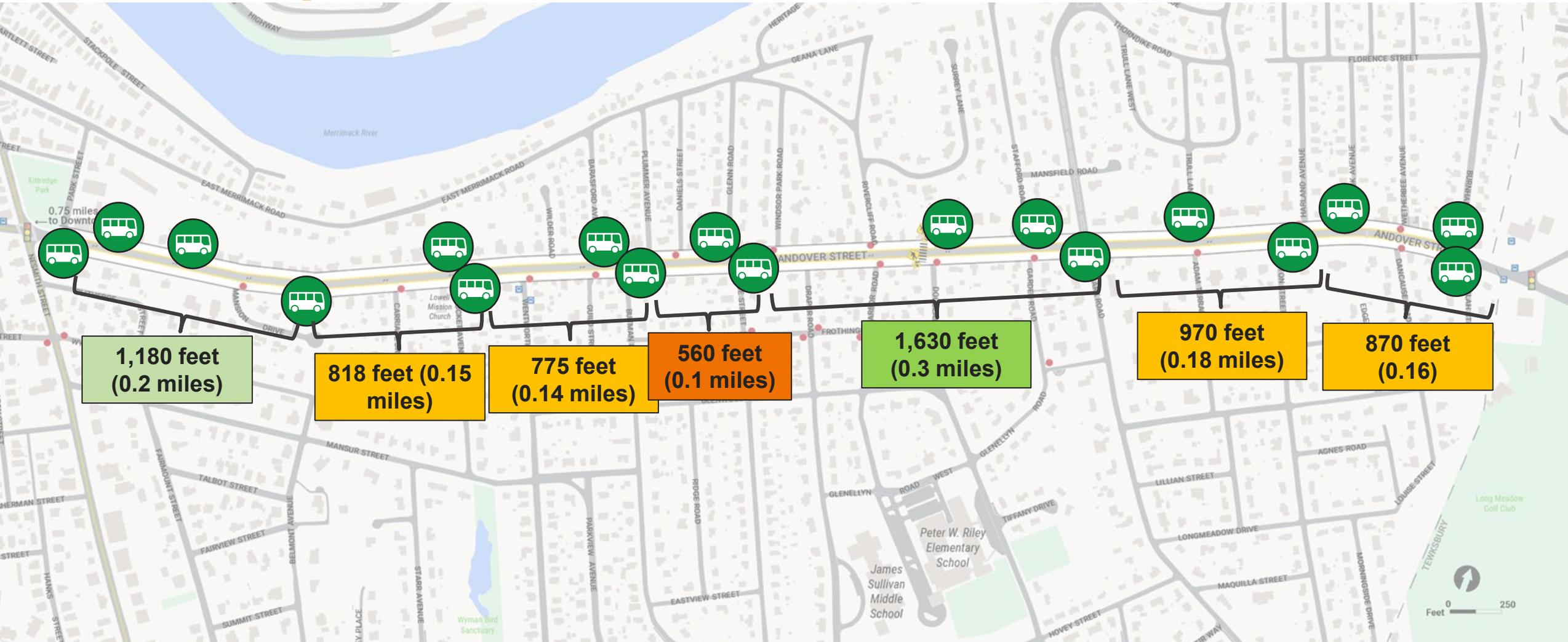
Existing law allows you to cross outside a marked crosswalk provided you are more than 300 feet from a crosswalk or signalized intersection and yield to motorists. (720 Mass. Reg. 9.09)



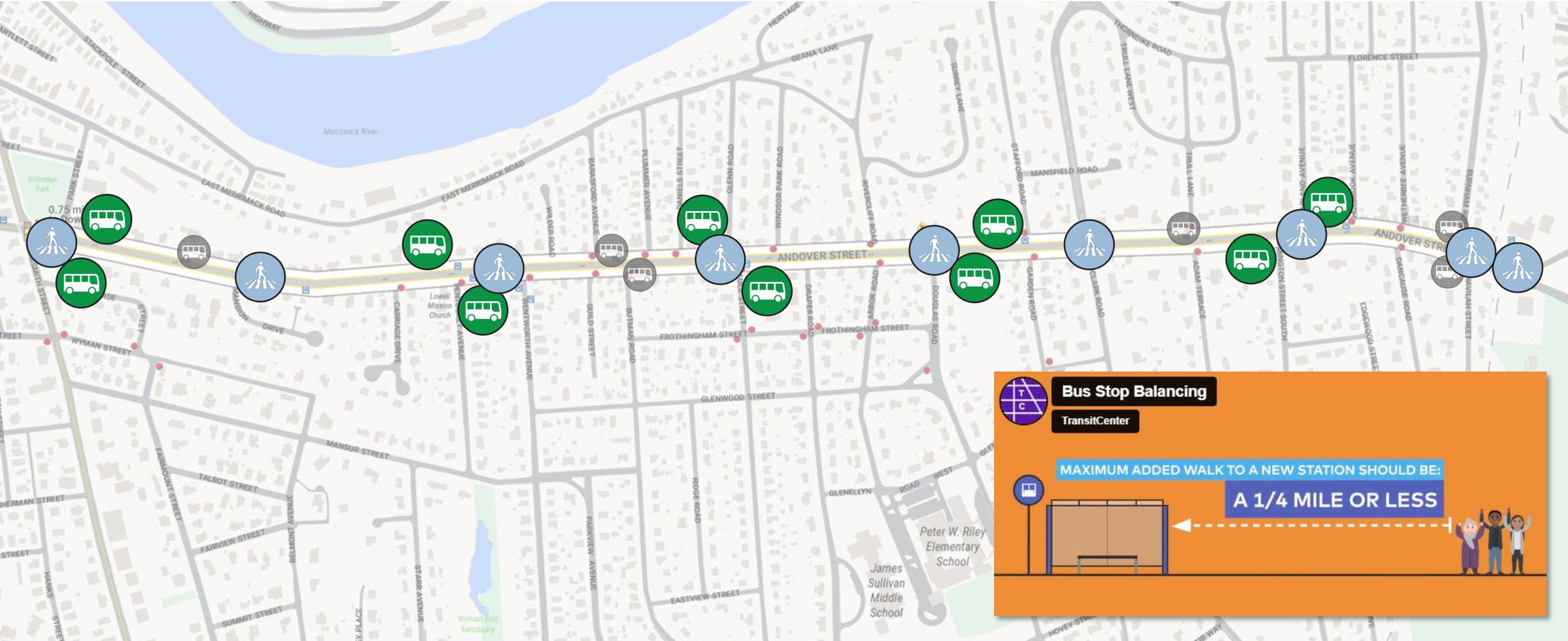
# Preliminary Design Recommendations



# Bus Stops are too close



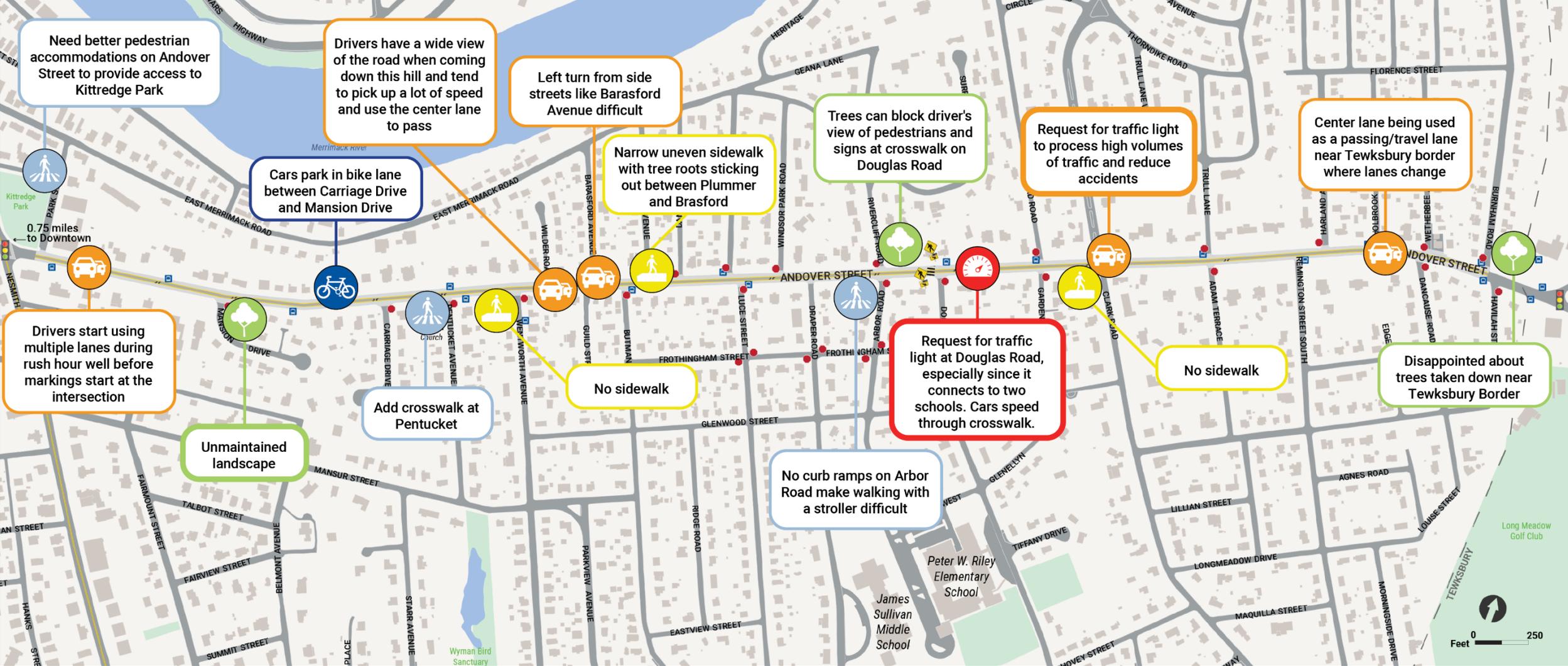
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# Public Comments



# Visual Preference

Engagement Activities in Spring 2023 asked neighbors what they wanted to see on Andover Street. These are examples of what we heard.



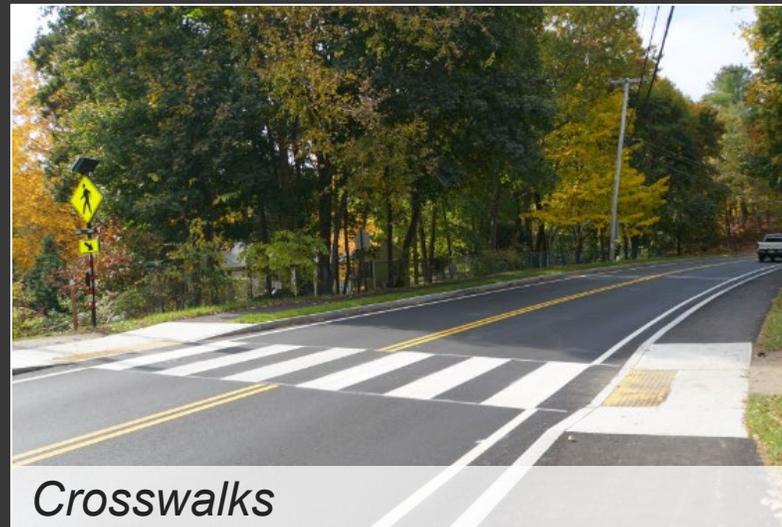
*Multiuse path*



*Protected Bicycle Lanes*



*Crossing islands*



*Crosswalks*



*Wide planted boulevards*

# Andover Street Complete Street Goals

## Prioritize Walkability

- Improve sidewalks for all users
- Wider Sidewalks
- More Crosswalks

## Increase Connectivity

- Improve Local Access to Andover Street
- Connect to Downtown
- Reduce Cut-through on side Streets
- Access to Greenway

## Preserve Character

- Greening the Corridor
- Keep older trees
- Reduce noise
- Discourage Trucking

## Accommodate Multimodality

- Slow Vehicles
- Make Walking, Biking, and Transit Pleasant, to reduce reliance on cars
- Narrow the Right-of-Way

# Concerns with Removing Concrete



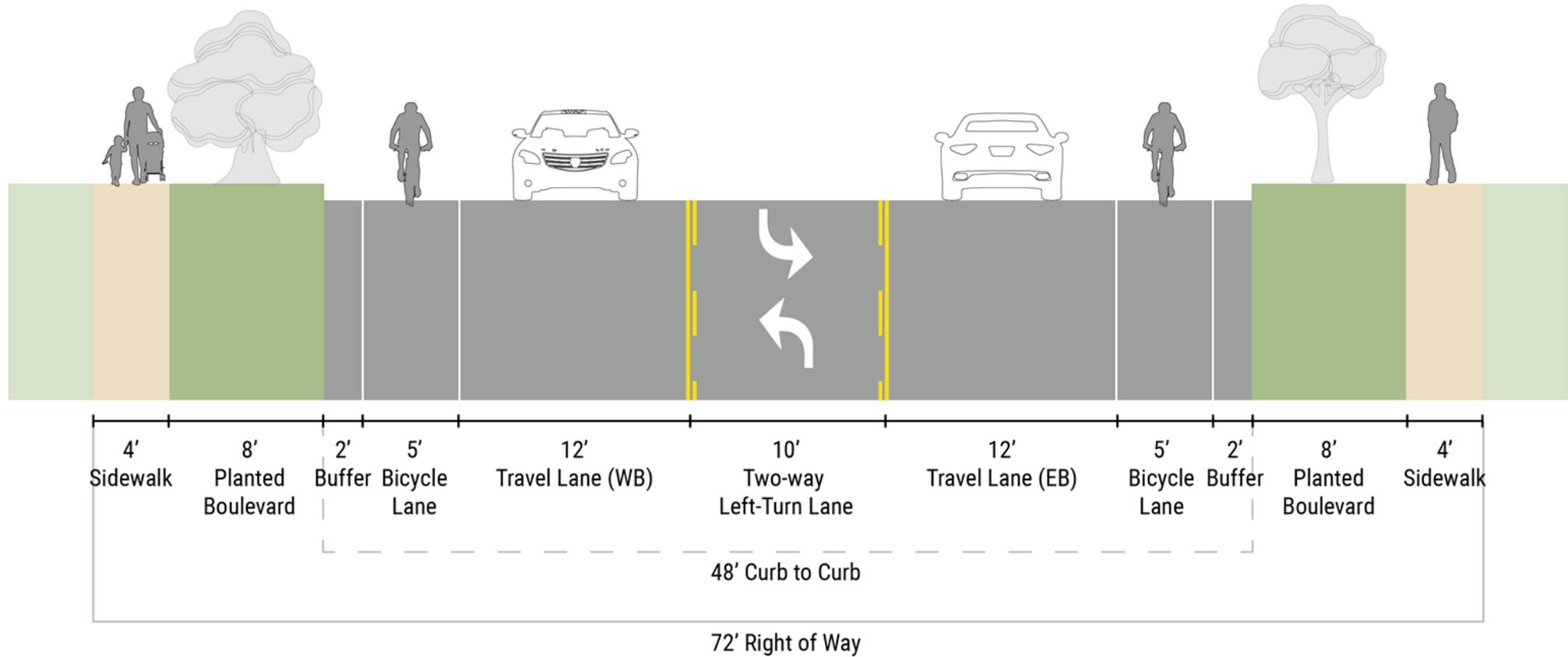
Source: [2KUTV](#), [Antigo Construction](#), [Moreton Bay Recycling](#)

Removing the concrete on Andover Street will include **lane closures, noise, vibration, and disposal cost** over a long period of time.

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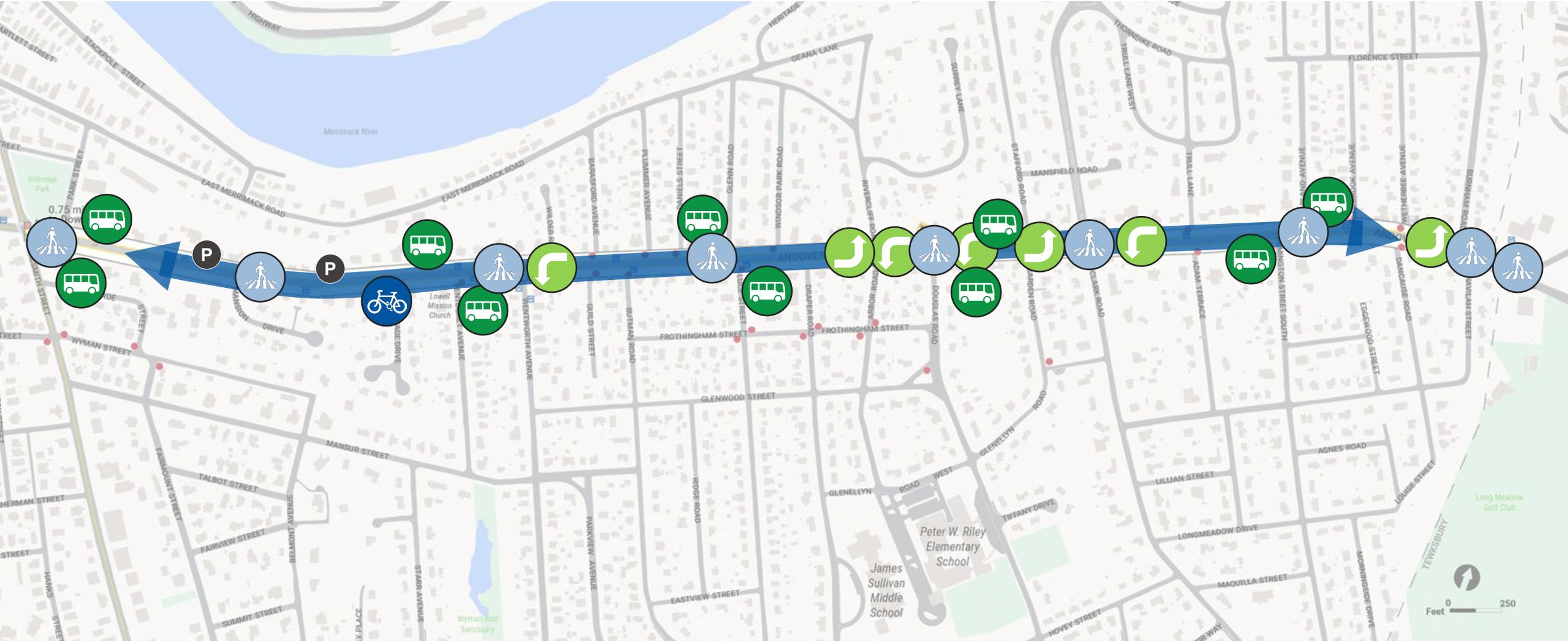
# Existing Conditions



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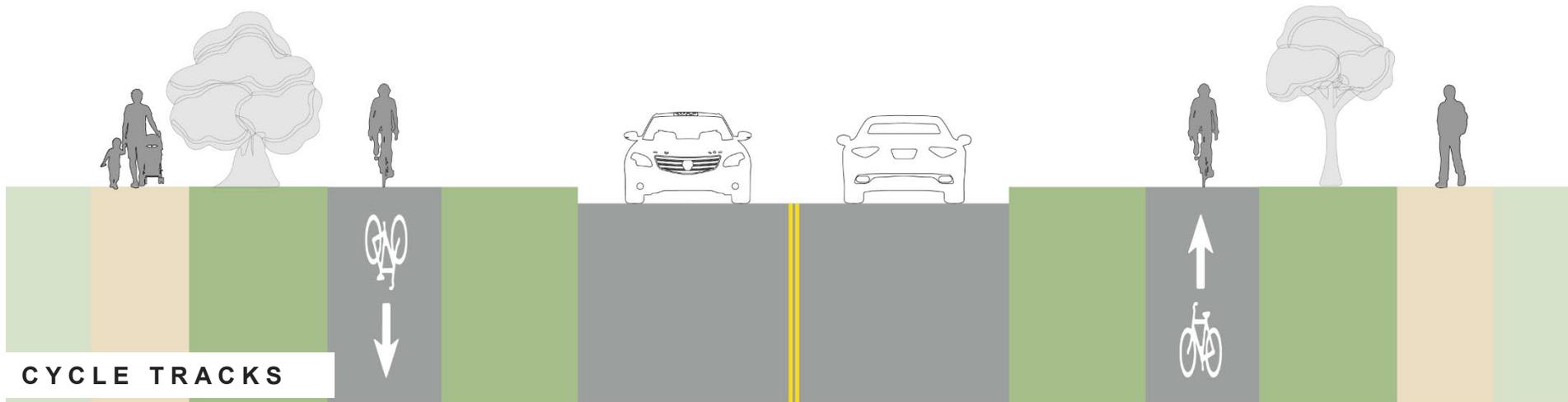
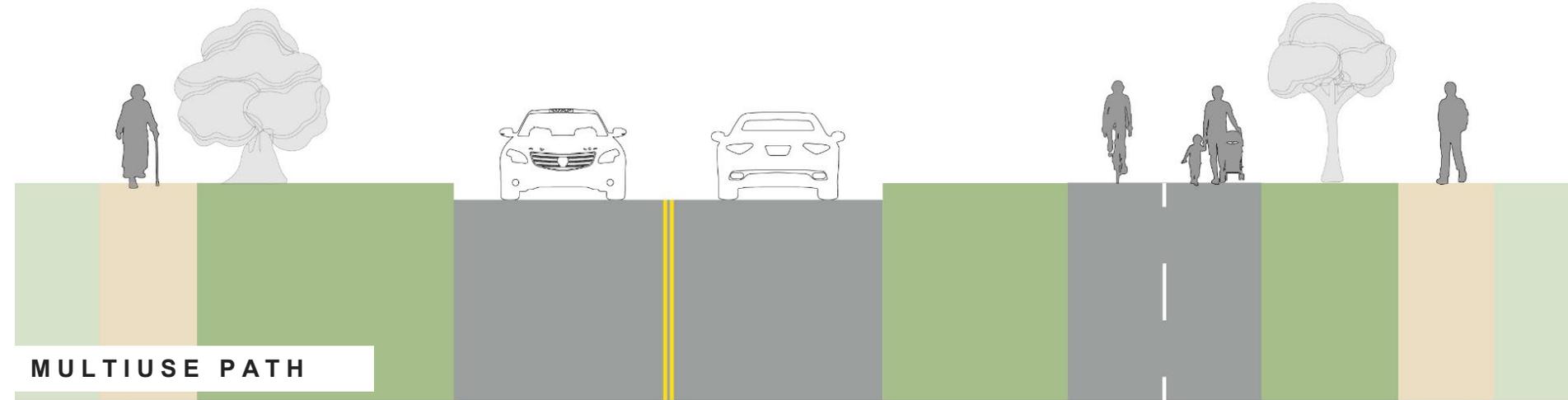
# Preliminary Design Recommendations



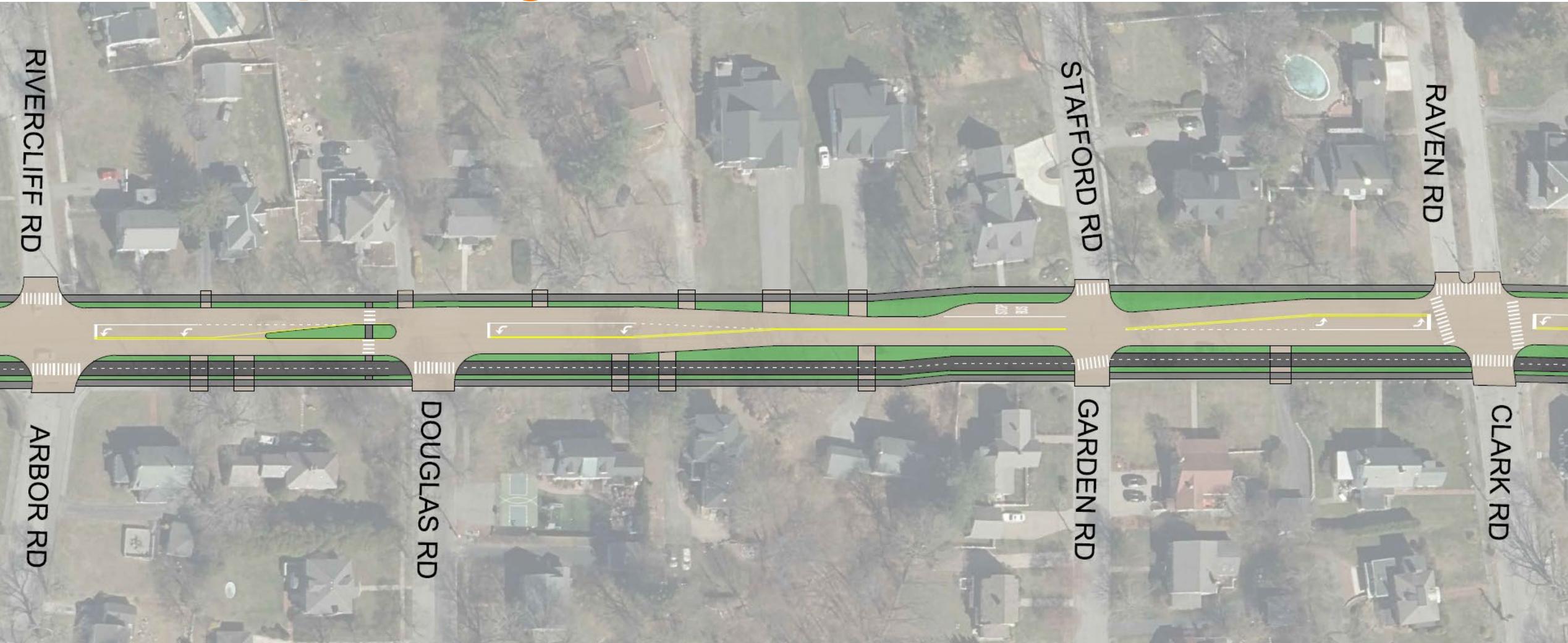
# Long-Term Design Recommendations

## Long-term concept designs include:

- 11-foot travel lanes
- Retain street trees – limits sidewalk width at select locations along corridor
- Buffers of at least 2 feet from moving vehicles + at least 5 feet for planting



# Concept Design – Multiuse Path



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NOTE: NOT TO SCALE; FOR PLANNING PURPOSES ONLY

# Concept Design – Cycle Track



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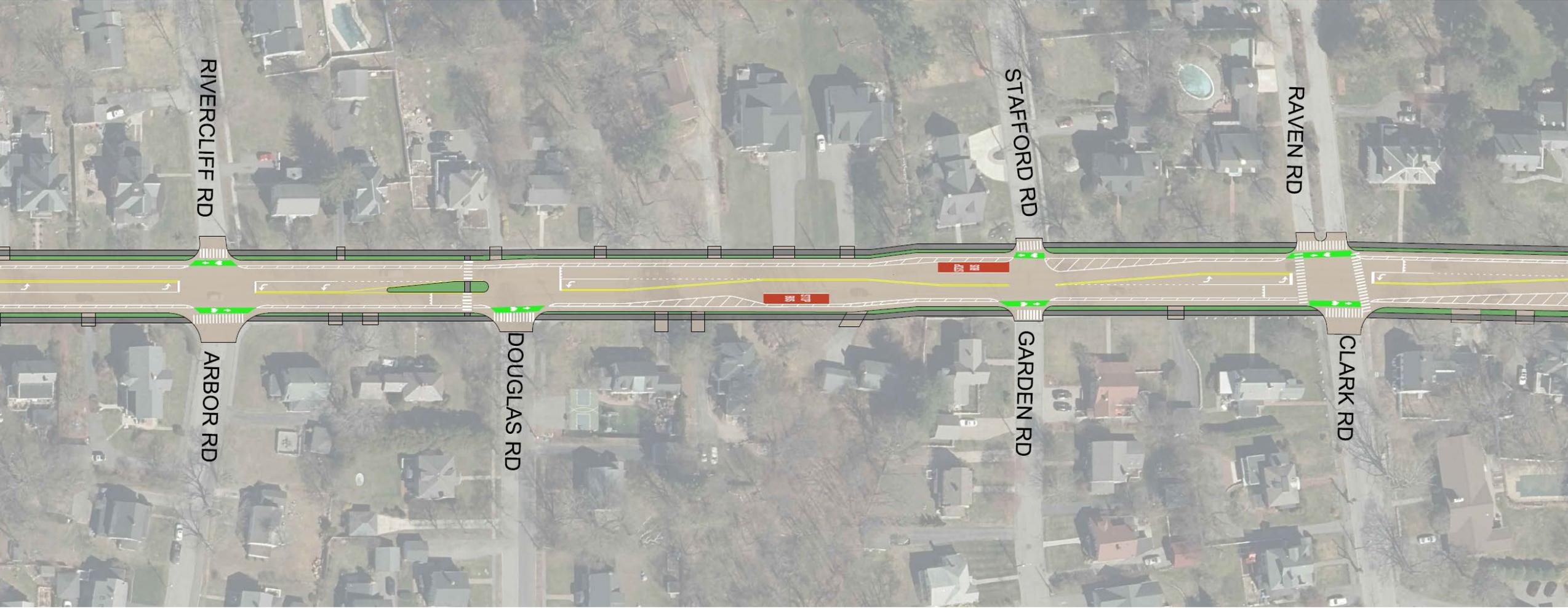


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# Short Term Concept – Buffered Bicycle Lanes



# Concept Design – Buffered Bicycle Lanes



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# Bicycle Lane Protection

**Wave Divider**



Source: [WWMT News Channel 3](#)

**Barrels**



Source: [Cascade](#)

**Bollards/Flex Posts – Not Preferred**



Source: [Pexco](#)

**Armadillos**



Source: [Tactical Urbanists Guide](#)

**Planters**



Source: [Minneapolis](#)

# Funding Opportunities

<b>Funding Opportunity</b>	<b>Provider Agency</b>	<b>Purpose</b>	<b>Allocation</b>	<b>Application Due</b>	<b>Applicability to Lowell</b>
<i>MassWorks Infrastructure Program</i>	Executive Office of Housing & Economic Development	Fund the design, construction, and land acquisition toward the improvement of publicly owned infrastructure including streets, curb-cuts, parking, transit improvements, and pedestrian and bicycle ways.	The FY23 funding cycle saw over \$104 million committed to awards; over the preceding three funding cycles between \$65 and \$72 million had been allotted per cycle. Average project award is between \$1 million and \$2 million, with awards as high as \$6.5 million.	Most recent application deadline in June 2023; Expressions of Interest previously opened in December 2022.	Most applicable given anticipated cost of project, pool of eligible projects, and alignment with program goals.
<i>Transportation Improvement Program</i>	MassDOT and the Northern Middlesex MPO via funding from the Federal Highway Administration	The TIP lists all projects which will receive federal funding (called Regional Target funding); the project prioritization and selection process combines an analysis of project information, an evaluation of project importance and also considers funding equity.	FY24 funding allotment was \$274 million, although this figure is skewed by Rourke Bridge project. Future fiscal year allotments between \$30 million and \$44 million; these figures may increase. Four projects total awarded funding in FY24.	Municipalities submit projects for evaluation to the MassDOT Project Review Committee (PRC) through the Project Need (PN) and Project Scope (PS) process; the PRC meets quarterly to review and approve eligible projects; Project is prioritized and programmed for funding through the Regional Planning Agencies.	Best seen as fallback to MassWorks; the TIP process allocates funding available through Federal opportunities such as the Congestion Management and Air Quality Program, Transportation Alternatives Program, and Surface Transportation Block Grant Program, detailed below.
<i>Surface Transportation Block Program</i>	MassDOT and the Northern Middlesex MPO via funding from the Federal Highway Administration	Preserve and improve conditions and performance of transportation infrastructure, including pedestrian and bicycle projects.	Varies based on federal provision and number of project applications received.	Municipalities submit projects for evaluation to the MassDOT Project Review Committee (PRC) through the Project Need (PN) and Project Scope (PS) process; the PRC meets quarterly to review and approve eligible projects; Project is prioritized and programmed for funding through the Regional Planning Agencies.	Applicable but competitive based on cost effectiveness and environmental benefit; entire corridor reconstruction would likely need to bundle multiple TIP programs. Best seen as a fallback to MassWorks and one component of larger funding piece.
<i>Transportation Alternatives Program</i>	MassDOT and the Northern Middlesex MPO via funding from the Federal Highway Administration	Fund smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, and environmental mitigation related to stormwater and habitat connectivity.	Varies based on federal provision and number of project applications received.	Municipalities submit projects for evaluation in December; ongoing feedback and prior project refinement occurs through winter with a draft decision issued in April.	Applicable but competitive based on cost effectiveness and environmental benefit; entire corridor reconstruction would likely need to bundle multiple TIP programs. Best seen as a fallback to MassWorks and one component of larger funding piece.

# Concept Design – Multiuse Path



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