

A photograph of a residential street, Garden Street, with parked cars on the left and trees lining both sides. The image is dimmed to serve as a background for the text.

Garden Street Safety Improvement Project Community Meeting #1

May 24, 2022 | 6:00 pm | Zoom

Garden Street Safety Improvement Project Community Meeting

May 24, 2022 | City of Cambridge

Provide Feedback after the Presentation

- Details on how to share your thoughts will be provided at the end of the presentation

Look for blue question boxes like this in the presentation. They'll help identify specific issues we'd like to hear your feedback on.

Cameras + Microphones

- Your camera is off
- We will enable your microphone only when speaking

We are Recording

- The webinar will be recorded and posted online afterward

cambridgema.gov/GardenStHuronMason

Agenda

- Planning Background
- Project Introduction
- Schedule / Next Steps
- Questions + Answers

Outreach Schedule

Meetings/Timeline

Now

Community Meeting 1

July 12

Community Meeting 2

Late August

Community Meeting 3

Fall 2022

Project Installation

Outreach

What we've done:

- Posters attached to signposts along street
- Individual notifications to major stakeholders including schools, houses of worship, etc.
- Update emails sent to city and project mailing lists
- Postcards mailed to all addresses within project area

What you can do:

- Sign up for the mailing list for the latest updates
- Sign up for the city's Daily Update emails
- Email or call the project manager directly
- Visit the project webpage below for the latest information

cambridgema.gov/GardenStHuronMason

What drives our street design?

We design for people of all ages and abilities.

This includes:

- People who may not have access to a car
- Safe and accessible facilities, including bike lanes, that can be used by a wide range of people

How we think about vehicle congestion and delay

- Moving people slowly is moving people safely
- We do not prioritize eliminating delay for people driving alone

Focus is on moving people and goods, not their vehicles

- Buses run less frequently than cars, but carry more people
- Cannot ignore access for trucks and local deliveries



Street Design vs Enforcement vs Education

Street Design

- A Safe System is a human-centered approach to street design, engineered to prevent errors as much as possible and lessen the impacts of errors when they do occur.
- Shifts away from individual blame
- Keep road users safe by designing for the most vulnerable (i.e. people not in cars)
- Crash prevention is more effective than crash mitigation

Enforcement and Education

- Enforcement and Education are supplemental to proper street design, not a replacement

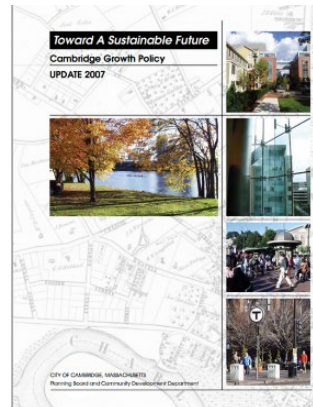
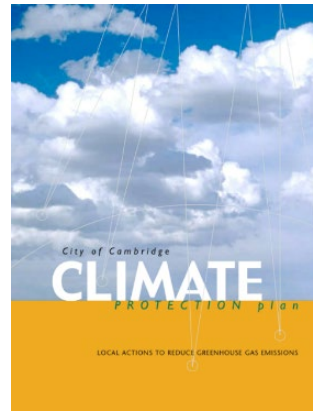
Example:

A momentary distraction can mean a driver doesn't see a cyclist or vice versa.

Providing separation between people in cars and people on bikes decreases the chance that a momentary distraction leads to a deadly crash.

City Policies that Support Sustainable Transportation

- Vehicle Trip Reduction Ordinance
- Parking & Transportation Demand Ordinance
- Climate Protection Plan
- School Wellness Policy
- Envision Cambridge
- Cycling Safety Ordinance



► Complete Streets



► Vision Zero



► Cycling Safety Ordinance



Cycling Safety Ordinance Overview

2019: City Council Passed the Cycling Safety Ordinance

- Requires construction of separated bike lanes when streets are being reconstructed as a part of the City's "Five-Year Plan for Streets and Sidewalks" and when they have been designated for "Greater Separation" in the Bicycle Network Vision

2020: City Council Passed Amendments to the Ordinance

- The amendments set ambitious requirements for the installation of approximately 25 miles of separated bike lanes within the next five to seven years.
- The location of these facilities is informed by both the Cambridge Bicycle Network Vision and specific requirements in the Ordinance.



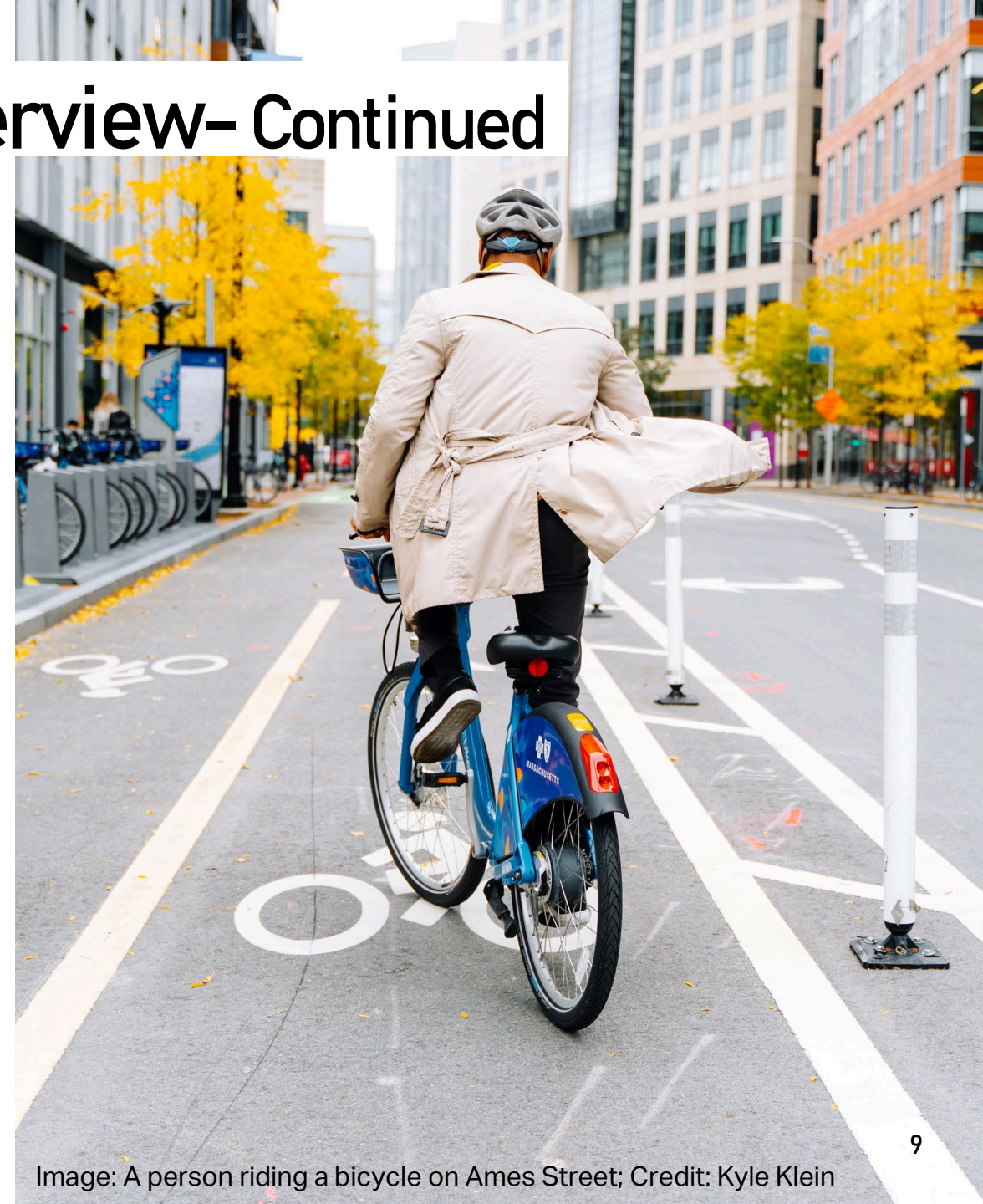
Image: A separated bike lane on Brattle St;
Credit: Kyle Klein

Cycling Safety Ordinance Overview- Continued

In general, the amendments to the Ordinance require the installation of separated bike lanes on:

- All of Massachusetts Ave;
- **Garden St, eastbound from Huron Ave to Berkeley St, and westbound from Mason St to Huron Ave;**
- Broadway from Quincy St to Hampshire St;
- Cambridge St from Oak St to Second St;
- Hampshire St from Amory St to Broadway; and
- 11.6 miles of separated bike lanes in other locations within the Bicycle Network Vision

Learn more at
cambridgema.gov/cycling-safety-ordinance



Planning Background

Cambridge Bicycle Plan

Vision from the Cambridge Bicycle Plan:

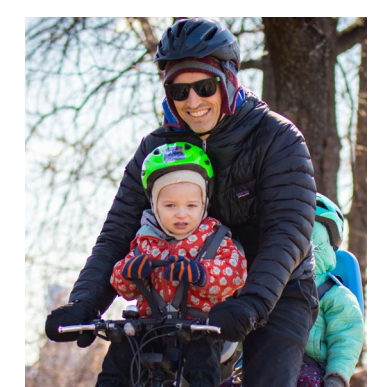
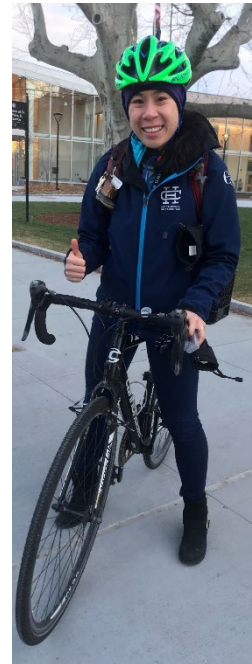
Cambridge will be a place where bicycling is equally available to everyone, all destinations can be reached by bike, and streets are designed to accommodate bicycling **for people of all ages, abilities and identities.**

A variety of barriers make it harder for people to choose to bicycle, even though they would like to. Creating safe and comfortable streets is a necessary condition to enable everyone to have this choice. This reflects the philosophy that people are at the center of transportation planning and design.



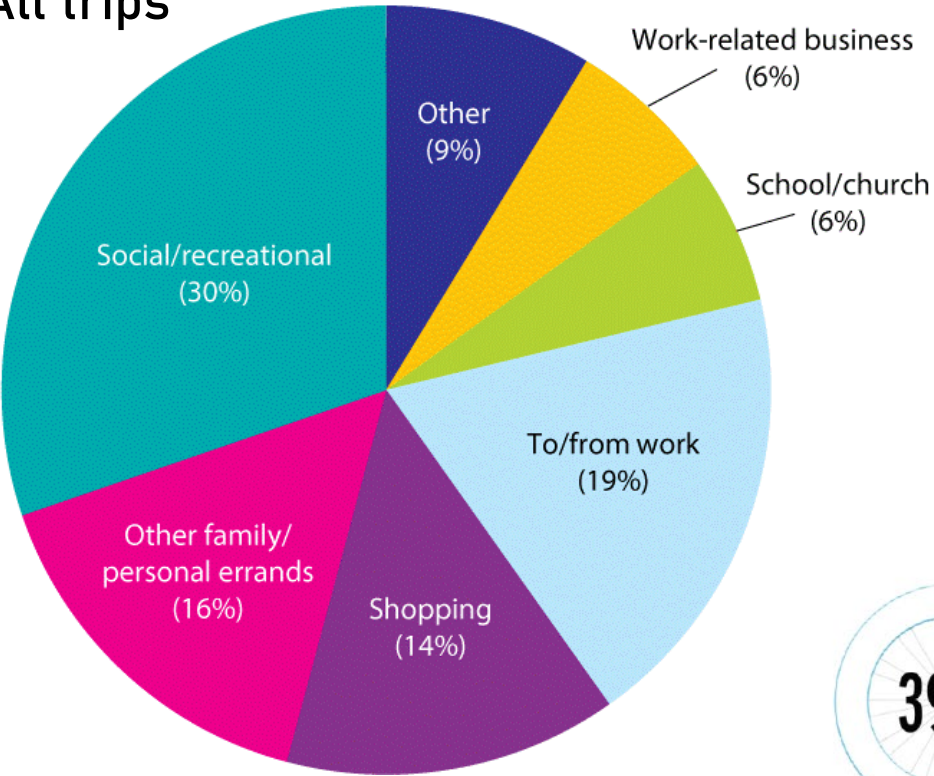
Cambridge Bicycle Plan - A Plan for Everyone

Age
Experience
Physical Ability
Race
Gender
Cultural Background
Language
Economic Situation



People Travel for Many Reasons

All trips



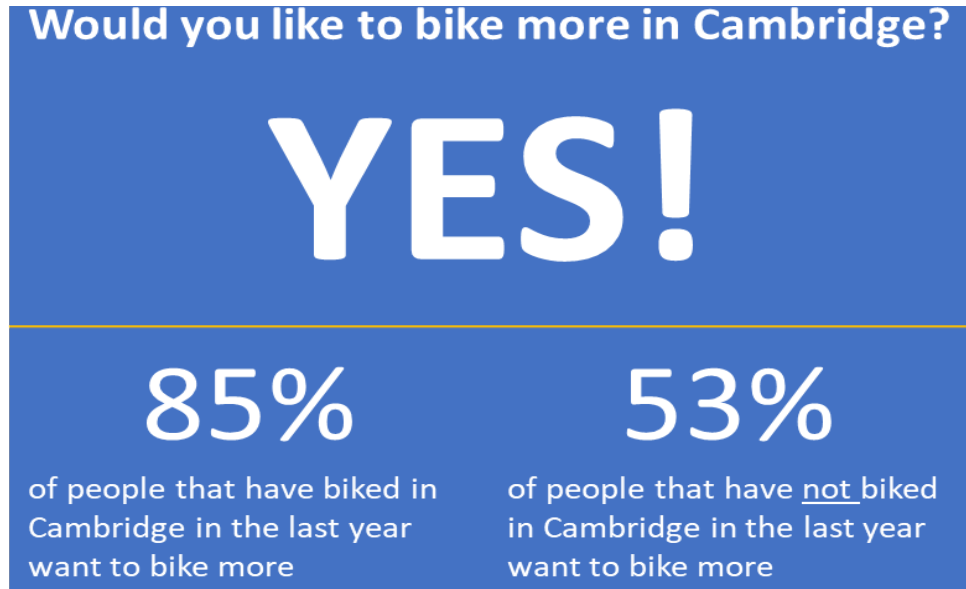
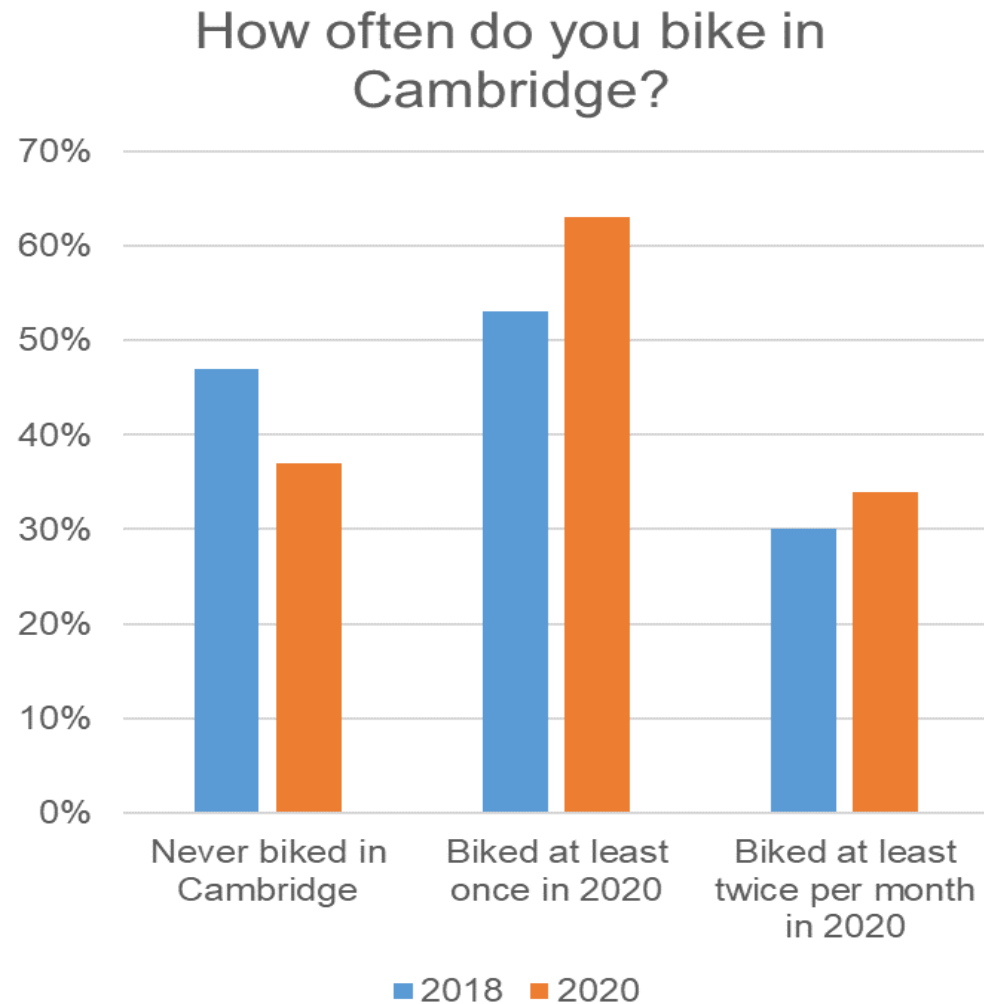
Source: Bureau of Transportation Statistics



Trips by bicycle



Cambridge General Population Survey

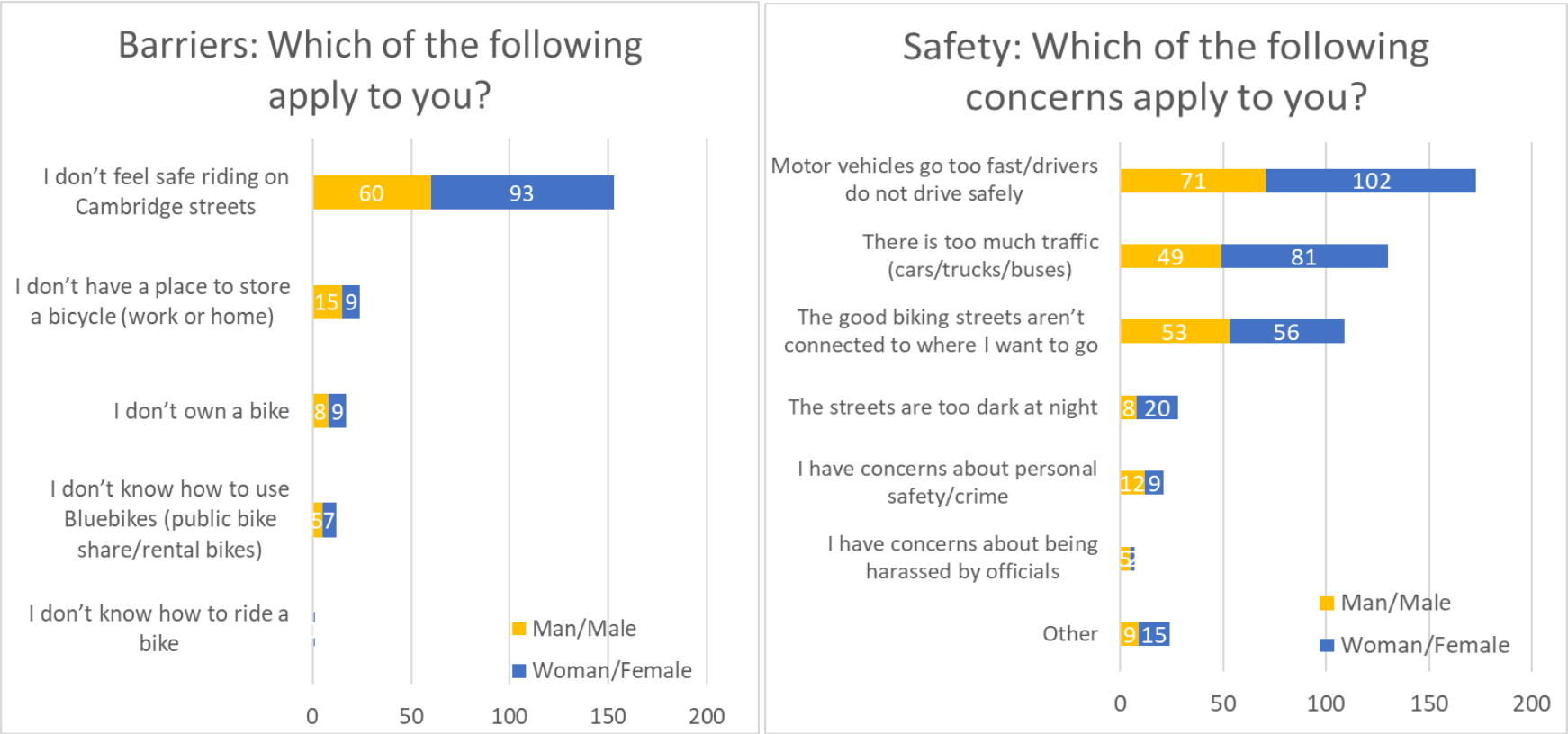


Over 60% of Cambridge residents reported biking at least once in 2020

One third of Cambridge residents biked on a regular basis (2+ times per month)

Source: Resident telephone and online survey, 2020

Resident Voices – Safety Concerns

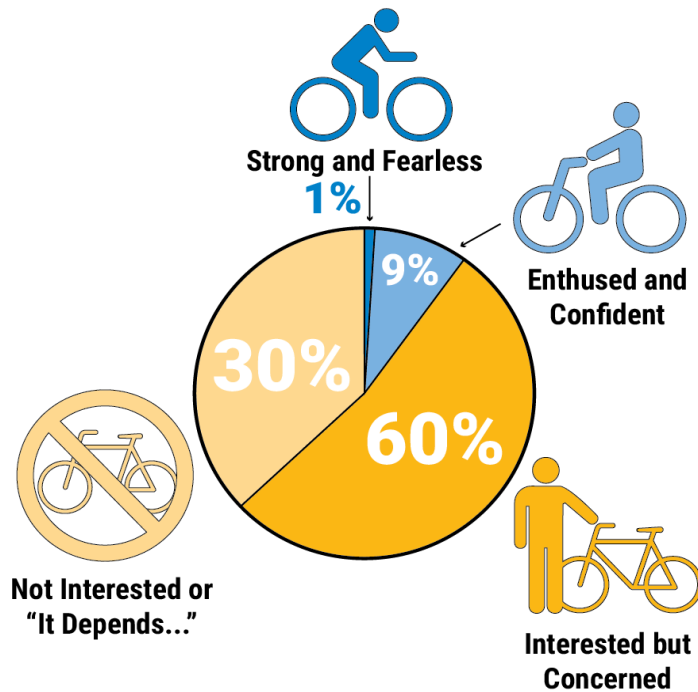


Source: Community Needs Survey, 2020



Bicycling Comfort

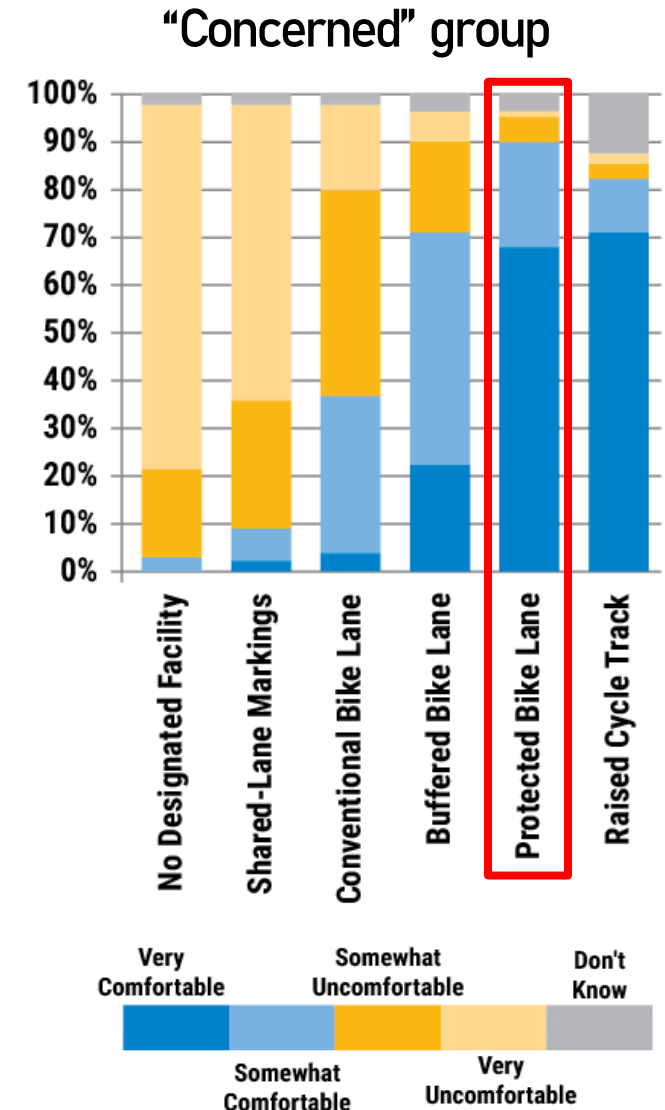
People's comfort level riding on city streets



Source: Dill, J. (2012). Categorizing Cyclists: What Do We Know? Insights from Portland, OR.

Most people want to ride a bicycle, but are concerned about safety

Over 90% of people who would bike prefer and feel comfortable biking on separated bicycle facilities.



Source: Cambridge Community Survey, 2014

Separated Bike Lane Benefits

- Increases comfort and access for people of all ages and abilities
- Reduces crash and injury risk
- Eliminates threat of "dooring" from parked vehicles
- Reduces potential conflicts between vehicles and people biking
- Provides shorter crossing distance and increased separation from vehicles for people walking
- Encourages slower traffic speeds by visually narrowing the roadway width



Separated Bike Lane Benefits – Continued

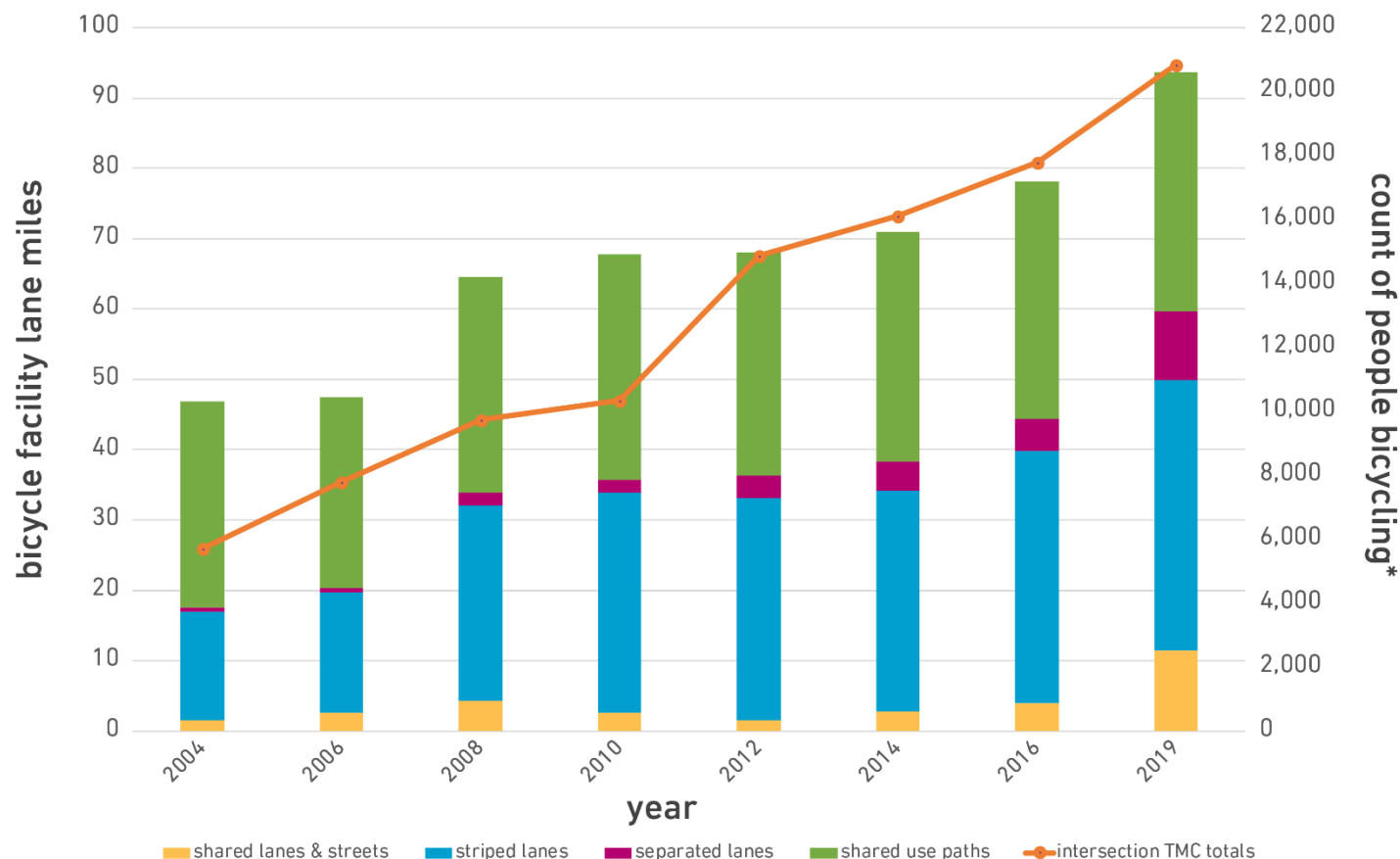
More people ride bicycles when we build more bicycle infrastructure.

A lack of safe and accessible routes and facilities for people of all ages and abilities prevents many people from biking.

As we've built more, we've enabled a wider variety of people to bike



BICYCLE FACILITY LANE MILES AND NUMBER OF PEOPLE BICYCLING (2004-2019)



Garden Street in the Bicycle Plan

Garden Street from Huron Avenue to Mason Street is designated for “greater separation” to support people biking safely and comfortably

Garden Street is a priority:

- Key East-West corridor that avoids busier streets like Concord Avenue
- Connects CRLS (high school) with sports facilities at Danehy Park and Russell Field
- Key route to/from Radcliffe Quad
- Connects residents and visitors to retail, jobs, parks, and squares

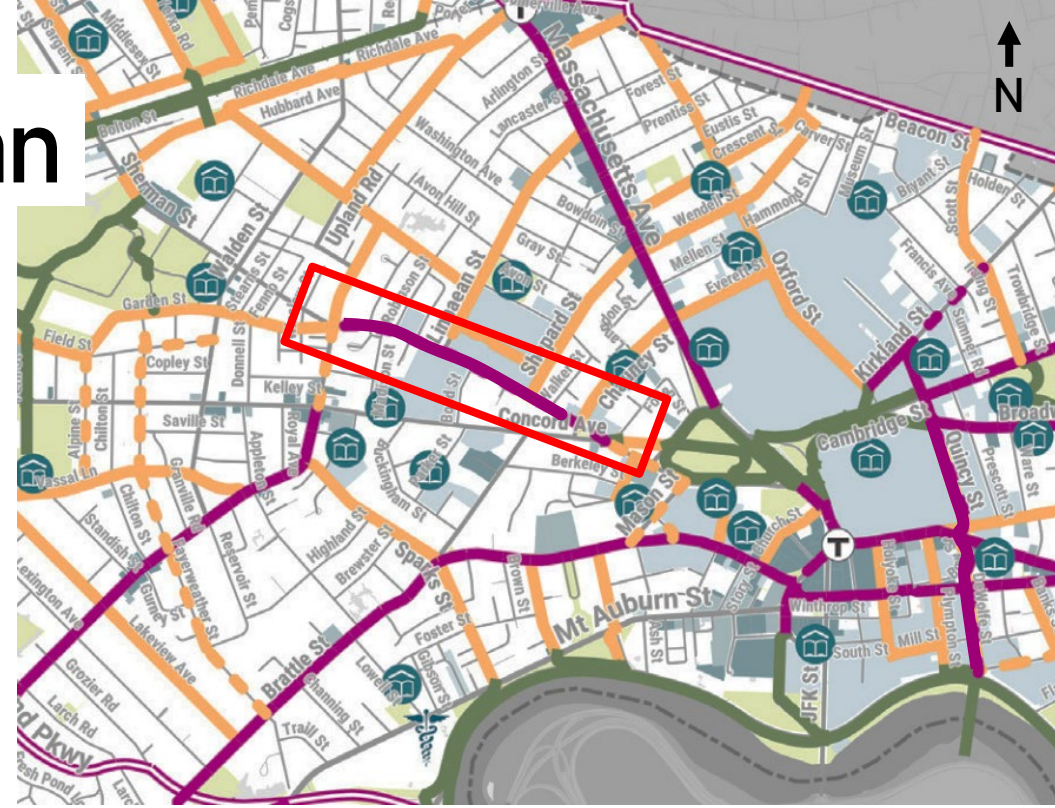
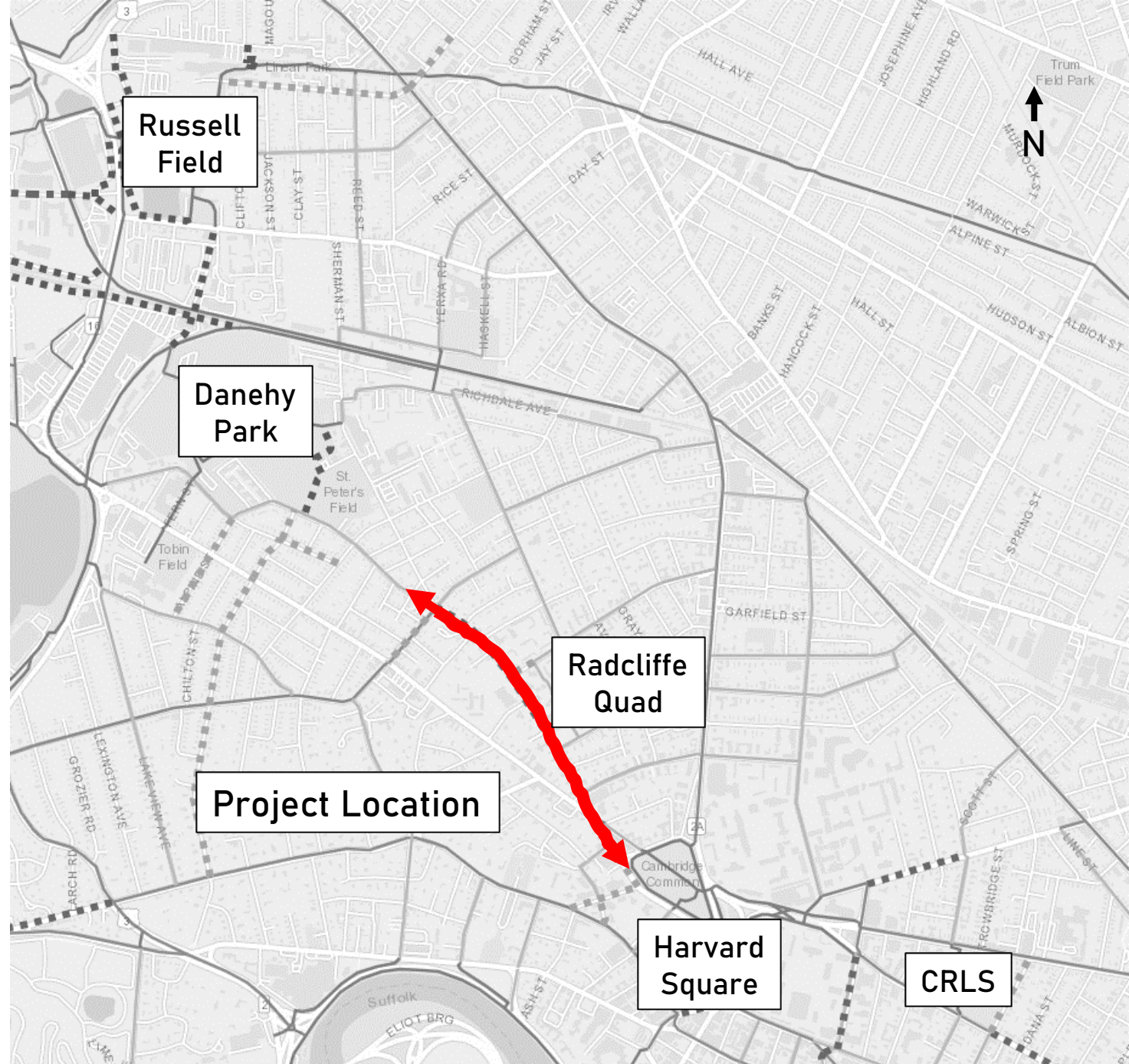


Image: Shuttle bus passing a person biking on Garden Street



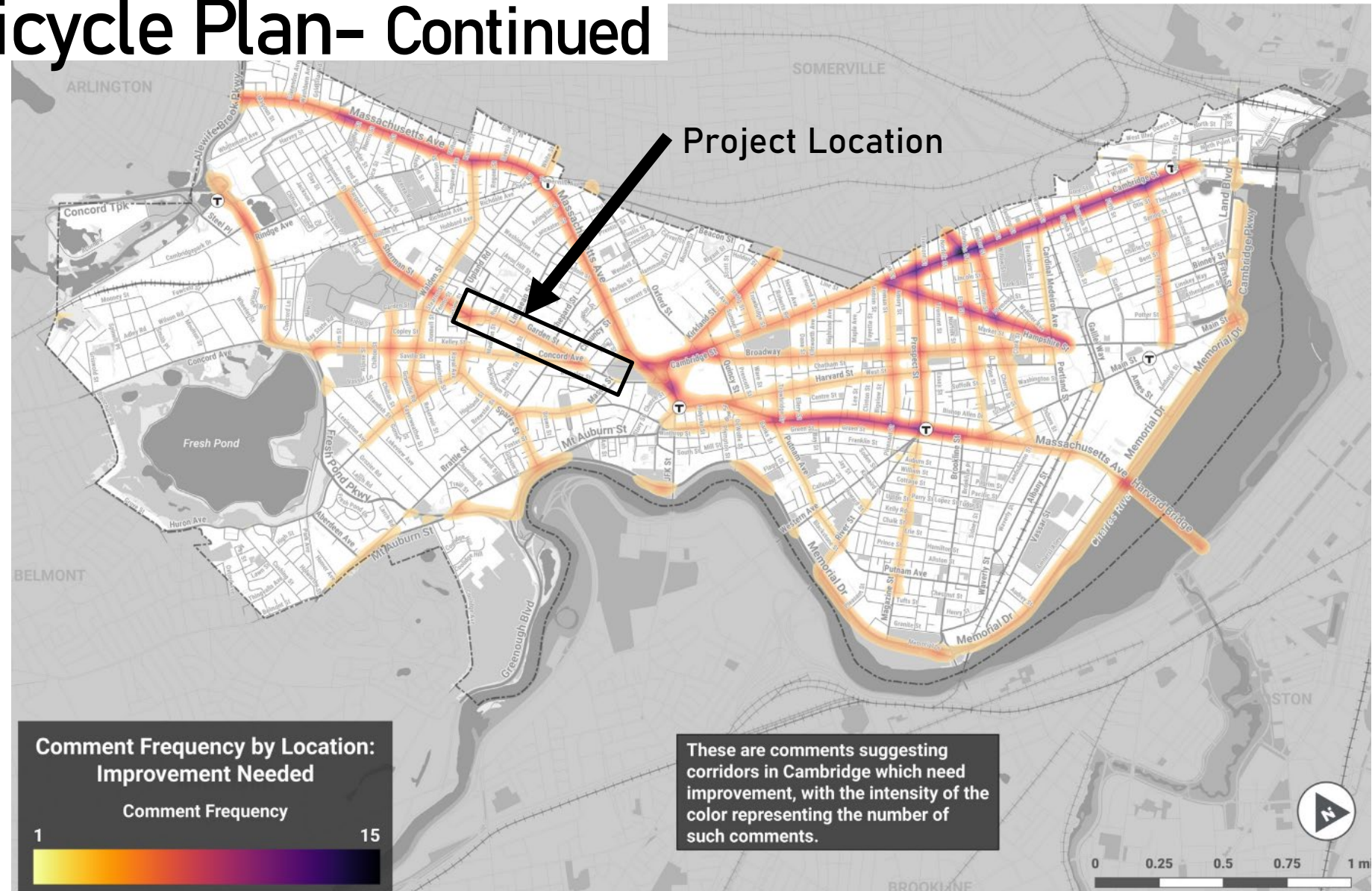
Key Connections

- East-West corridor that avoids busier streets like Concord Avenue
- Connects CRLS (high school) with sports facilities at Danehy Park and Russell Field
- Key route to/from Radcliffe Quad
- Connects residents and visitors to retail, jobs, parks, and squares



Cambridge Bicycle Plan- Continued

The Bicycle Network Vision identifies this section of Garden Street as a location that needs improvement.



Biking on Garden Street

Garden St (at Concord Ave)

- One of 16 annual citywide bicycle counting stations.
- 254 people on bikes used the intersection during a typical morning one-hour period (7:45am to 8:45am, September 10, 2019)
- 225 people on bikes used the intersection during a typical evening one-hour period (5:00pm to 6:00pm, September 10, 2019)
- Biking through this intersection has increased by **158%** over an 11-year period [348 (2008) vs 897 (2019)]



Image: People biking on Garden St and Concord Ave.

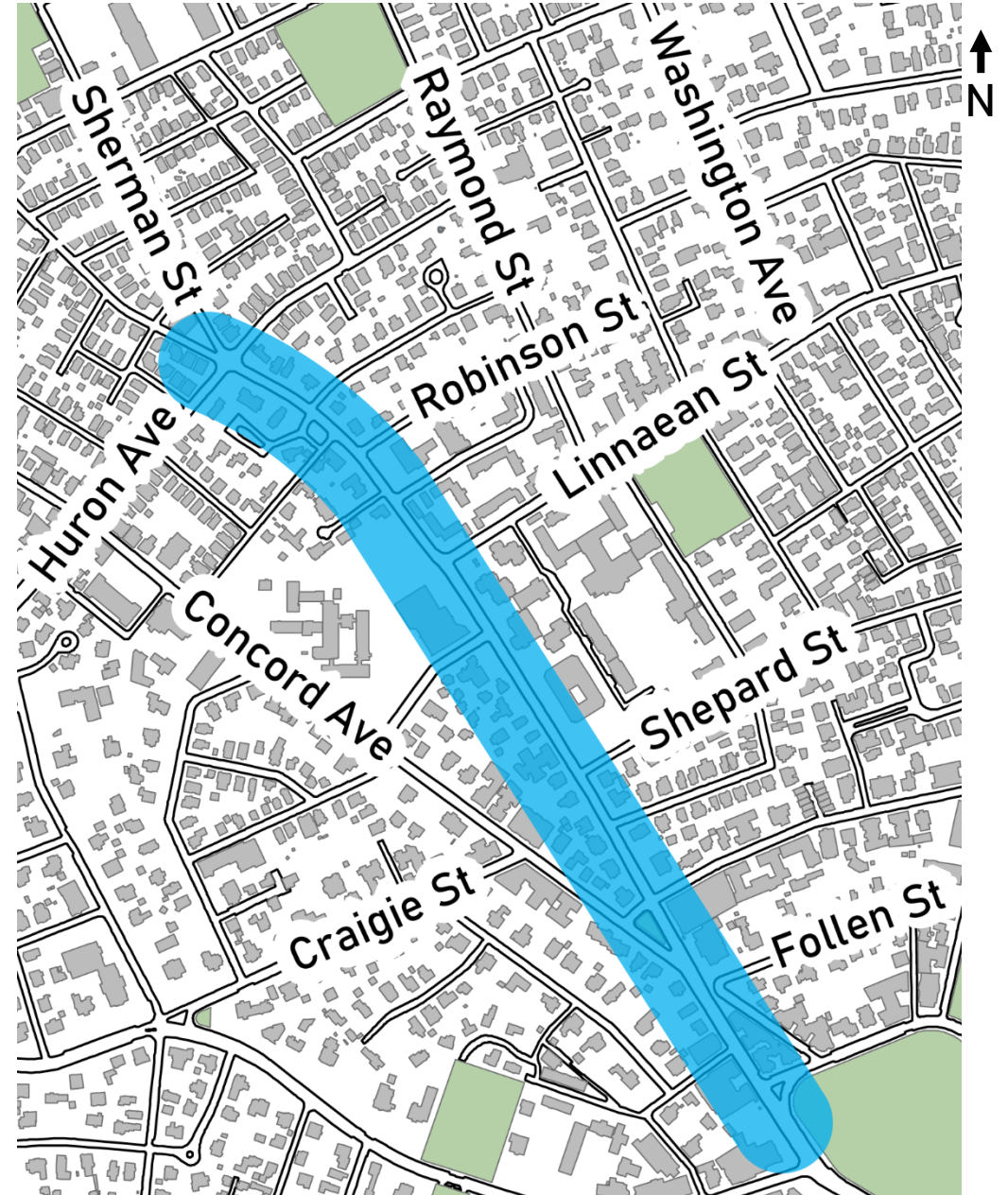
Project Introduction

Project Area

Garden St



Huron Avenue to Mason Street



Project Goals

- Support Vision Zero to eliminate fatal and serious injury crashes for all users
- Provide safe, separated bicycle facilities that can be used by people of all ages and abilities
- Address issues for stakeholders, including, residents, local businesses, and road users
- Align with the 2020 Bicycle Network Vision and meet the requirements of the Cycling Safety Ordinance



What is a quick-build project?

Quick-build projects allow us to make safety improvements more rapidly

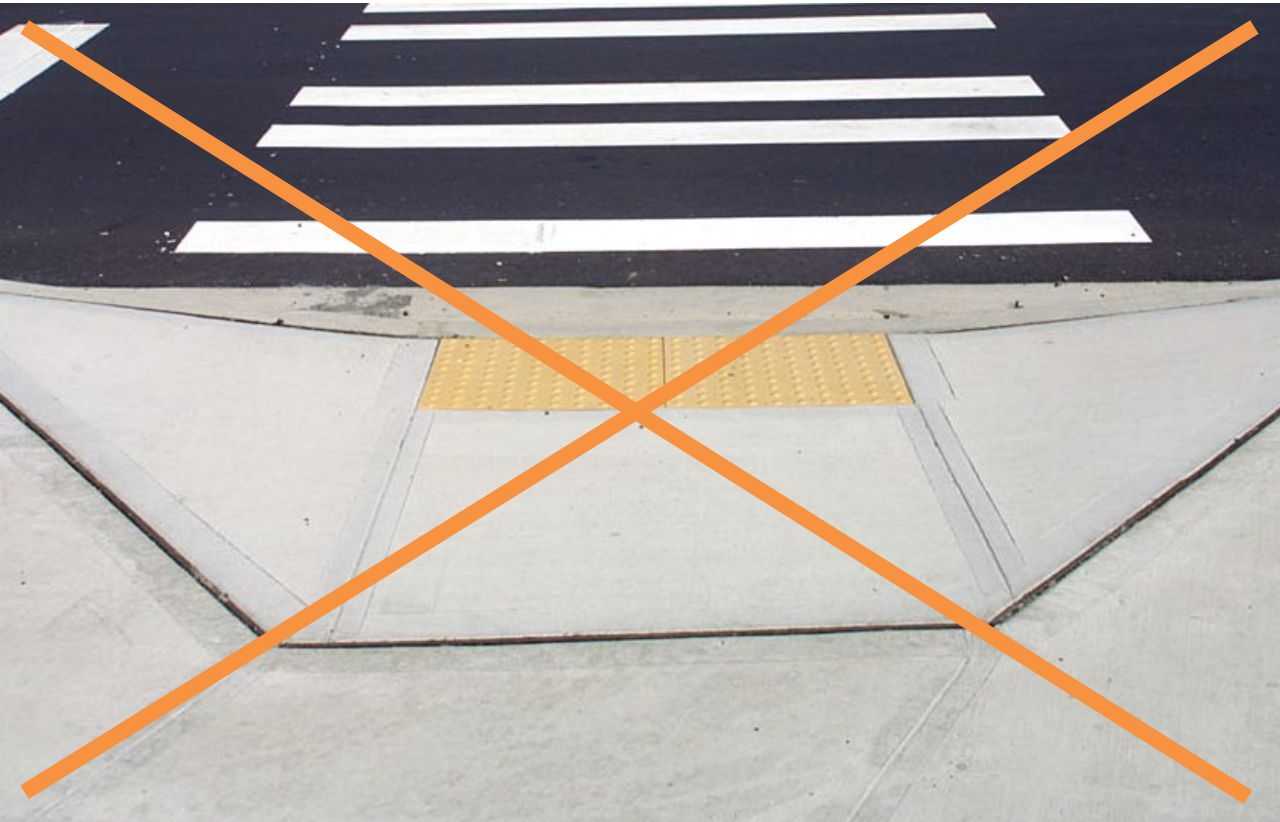
Our quick-build toolbox includes:

- Pavement marking changes
- Installation of flex posts
- Changes to signage
- Some modifications to signal timing



Image: Cambridge Street Separated Bike Lane (2017)

What is not a quick-build project?



Curb ramps and crosswalks



Curbs, catch basins, and utilities

Quick-build vs Construction

- Quick-Build projects can be installed significantly faster than typical construction projects. **Within months.**
- Capital Construction projects must be added to the City's Five Year Sidewalk and Street Reconstruction Plan for funding and coordination with utilities. **Can take 2-5 years depending on amount of work.**



Image: Cover page for the city's Five Year Sidewalk and Street Reconstruction Plan

Project Scope



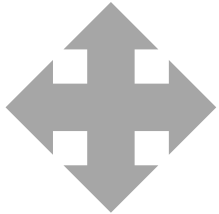
Install separated bike lanes



Improve crossing locations for people walking



Identify locations for curbside access (parking, loading)



Address safety at key intersections

Existing Bike Facilities






Eastbound

- Huron Avenue to Concord Avenue – Shared lane markings
- Concord Avenue to Mason Street – No bicycle facilities

Westbound

- Mason Street to Chauncy Street – No bicycle facilities
- Chauncy Street to Garden Lane – In-street bike lane
- Garden Lane to Linnaean Street – No bicycle facilities
- Linnaean Street to Huron Avenue – In-street bike lanes

Key

-  No bicycle facilities
-  In-street bike lanes
-  Shared lane markings

Existing Bike Facilities- Continued

- Biking experience is inconsistent and does not meet the needs of people biking
- People biking are subject to additional conflicts with people driving
- Garden Street is identified in the Bicycle Network Vision for greater separation
- Current bike facilities do not meet the requirements of the Cycling Safety Ordinance

What are your thoughts about the existing bike facilities? What works? What doesn't?



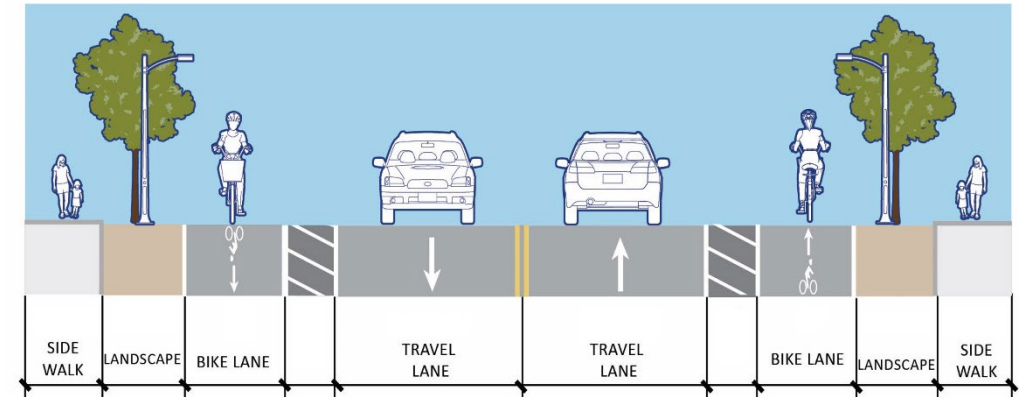
Image: Existing section of Garden Street bike lane

Considerations – Separated Bike Lanes

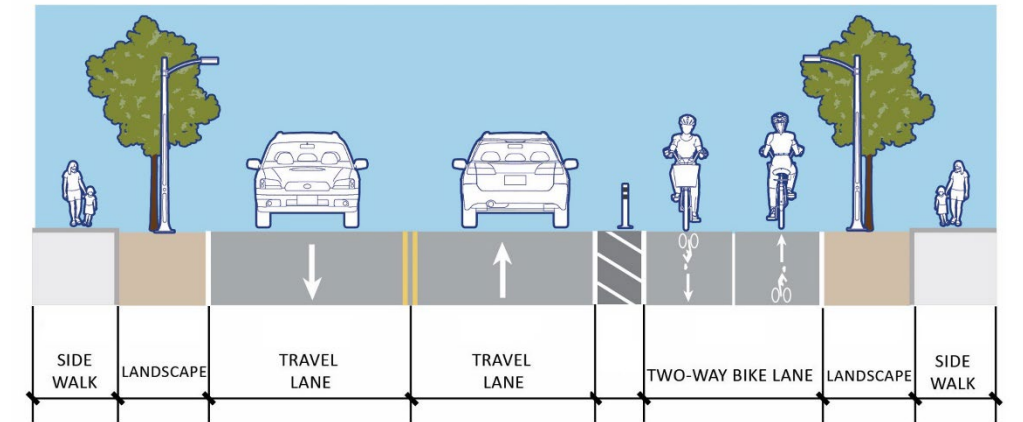
Potential for either one-way bicycle lanes on each side or a two-way lane on one side

- One-way on each side
 - Access to destinations on both sides of street
 - Bikes and vehicles moving in same direction
 - Predictable interactions with people driving
- Two-way on one side
 - Uses less roadway space
 - Allows for passing of slower riders
 - Potential for fewer conflicts with driveways

When using Garden Street, which layout concept would work better for you?



Example of a one-way separated bike lanes on each side



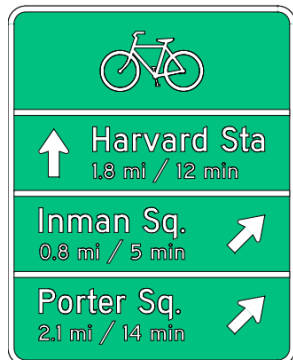
Example of a two-way separated bike lane on one side
(could be either side)

Considerations – Bicycle Route Connections

Garden Street connects to many destinations through low volume/low speed streets.

- Alternative to Concord Avenue
- Major East-West corridor for people biking
- Danehy Park and Russell Field to/from CRLS (high school) and Harvard Square
- Many CRLS athletic practices and events held at Danehy Park and Russell Field

Connections Toolbox



- Wayfinding (directional signs)
- Intuitive markings
- Signal adjustments
- Street directionality

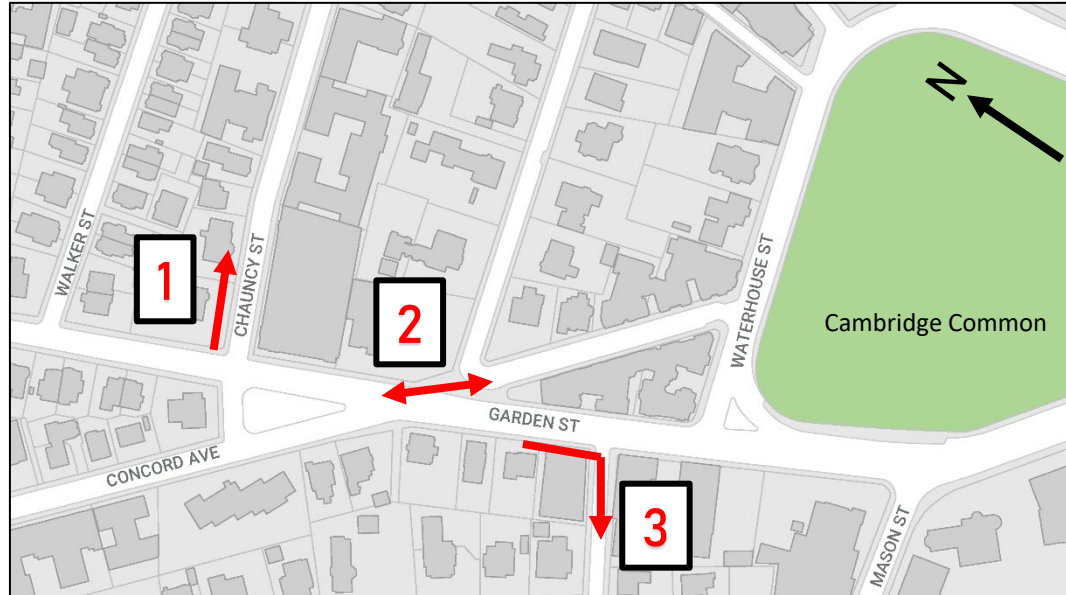


Image: Students biking on Garden Street



Image: CRLS students at Danehy Park

Considerations - Bicycle Route Connections



Did we miss any important connections?
What's the best way to direct people to
preferred routes?

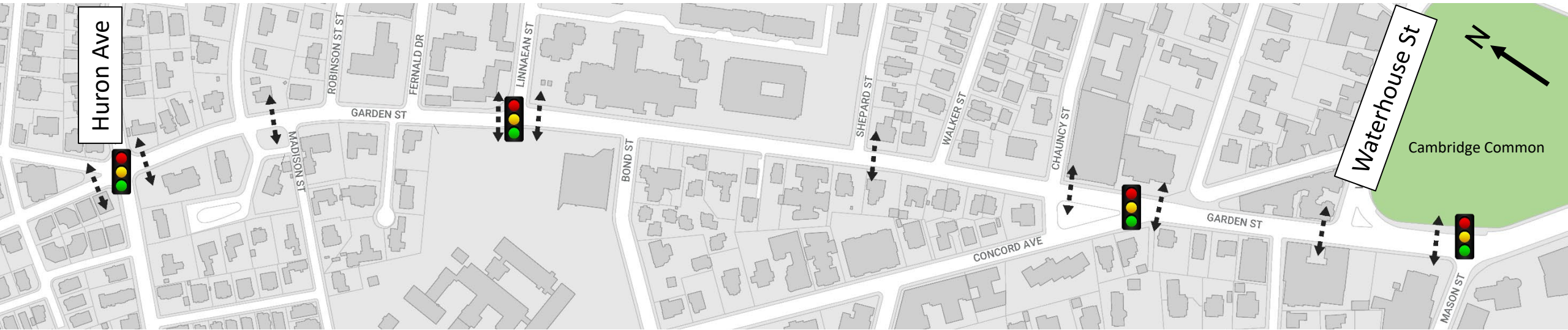
Chauncy St/Arsenal Sq
(towards Mass Ave)

“Little” Concord Avenue
(East-West travel)

Berkeley St, Phillips Pl,
and James St
(to Harvard Sq)



Considerations - Walking and Existing Crosswalks



Signalized crosswalks

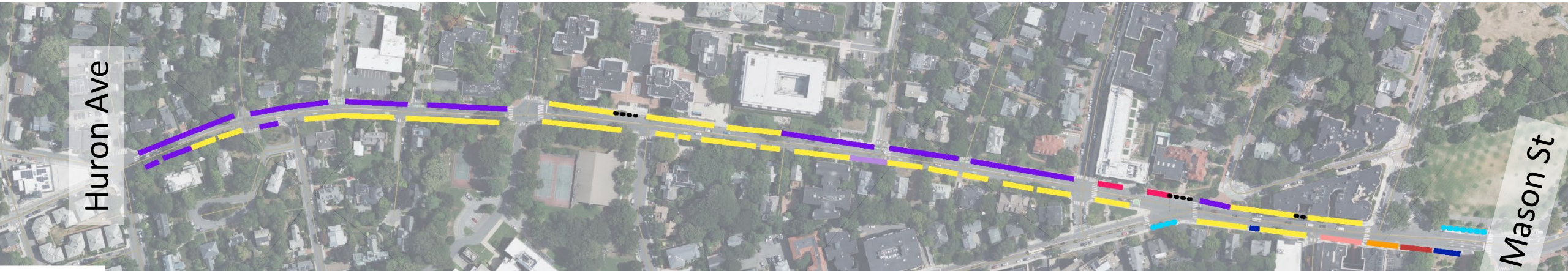
- Huron Avenue/Sherman Street
- Linnaean Street
- Concord Avenue
- Mason Street

Unsignalized crosswalks

- Madison Street
- Shepard Street
- Chauncy Street/Arsenal Square
- Waterhouse Street (Sheraton Hotel)

Which crossing locations work well?
Which do you have concerns about?

Existing Conditions – Parking and Loading Overview



Garden Street Curbside Uses

- 1 HR Parking
- Pick Up & Drop Off
- Taxi Stand
- Bus Stop
- Accessible Parking
- Loading Zone
- No Stopping
- Unmarked Parking
- Permit Parking Only
- No Parking

Summary (on Garden Street)

- Permit (115 spaces)
- Accessible/Disability (3 spaces)
- Pick up/drop off (3 spaces)
- Loading (3 spaces)
- 1 Hour (2 spaces)
- Taxi (7 spaces)
- Unmarked (5 spaces)

The roadway width changes throughout corridor.

Parking/loading may be retained in areas closer to Mason Street.

What types of parking and loading do you use along Garden Street?

Existing Conditions – Parking and Loading

Huron Ave to Linnaean St

- Permit (28 spaces)

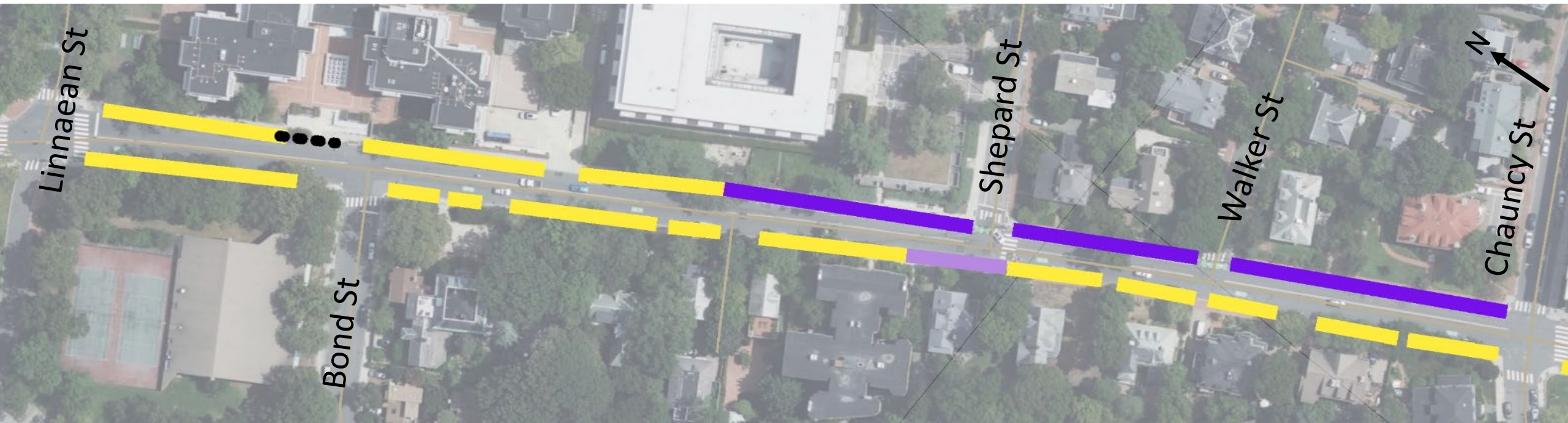
Key

-  No Stopping
-  Permit



It is likely that all parking will need to be removed from this section to install separated bike lanes.

Existing Conditions – Parking and Loading



Linnaean St to Chauncy St

- Permit (65 spaces)
- Loading (1 space)

It is likely that all parking and loading will need to be removed from this section to install separated bike lanes.

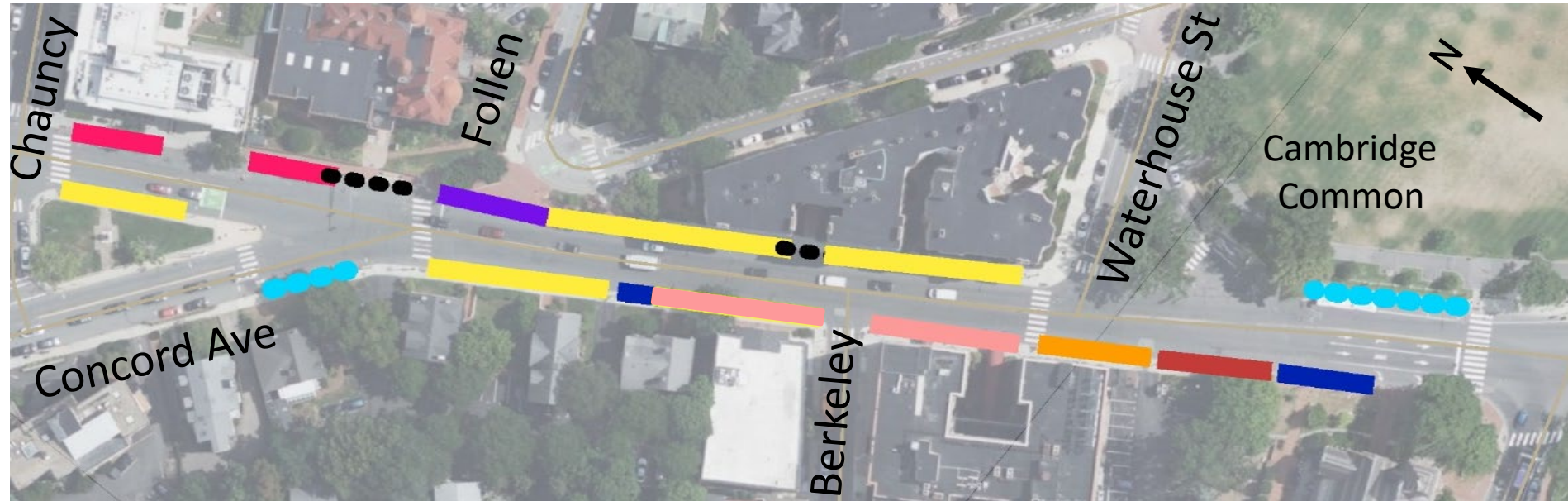
Key

-  No Stopping
-  Permit
-  Loading
-  No Parking

Existing Conditions – Parking and Loading

Garden Street Curbside Uses

- 1 HR Parking
- Pick Up & Drop Off
- Taxi Stand
- Bus Stop
- Accessible Parking
- Loading Zone
- No Stopping
- Unmarked Parking
- Permit Parking Only
- No Parking



Chauncy St to Mason St

- Permit (22 spaces)
- Pick-up/drop-off (3 spaces)
- Loading (2 spaces)
- Accessible/Disability (3 spaces)
- Unmarked (5 spaces)
- 1 HR (2 spaces)
- Taxi (3 spaces)
- Bus (2 stops)

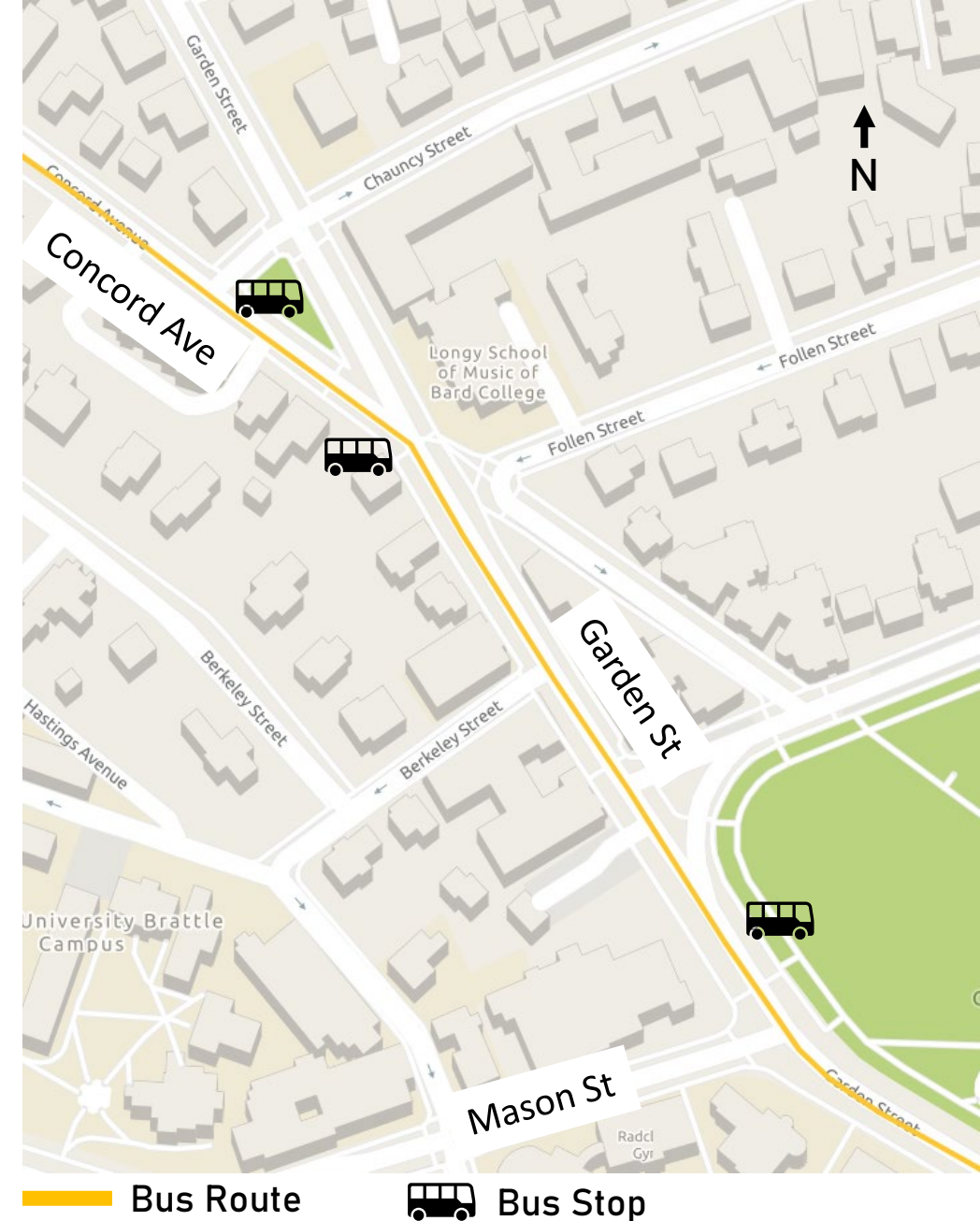
Some parking and loading can likely be kept in certain areas in this section.

Considerations – Buses

MBTA routes

- Bus routes 74, 75, and 78 use Garden Street between Mason Street and Concord Avenue
- The MBTA has advocated for minor changes to stop locations within our project area. This may have minor impacts to parking locations.
- The MBTA has overhead wires along Garden Street that they are developing plans to remove.
- Some university and corporate shuttles also use Garden Street, but do not have stops along it

Are bus stops located where you need them to be?



Considerations – Crash Data (2019- Early 2022)



Involving	Number of Crashes	Injury Crashes
Driver & Driver	9	11%
Driver & Pedestrian	3	100%
Driver & Cyclist	4	100%
Driver & Object	3	0%
Cyclist & Pedestrian	0	N/A
Cyclist & Cyclist	0	N/A

An injury crash above is defined as a crash that resulted in a party being transported to a hospital.

Between 2019 and early 2022 there were 19 crashes along the project area.

People walking and biking are more vulnerable to injury when involved in a crash.

Next Steps

Outreach Schedule

Meetings/Timeline

Now

Community Meeting 1

July 12

Community Meeting 2

Late August

Community Meeting 3

Fall 2022

Project Installation

Outreach

What we've done:

- Posters attached to signposts along street
- Individual notifications to major stakeholders including schools, houses of worship, etc.
- Update emails sent to city and project mailing lists
- Postcards mailed to all addresses within project area

What you can do:

- Sign up for the mailing list for the latest updates
- Sign up for the city's Daily Update emails
- Email or call the project manager directly
- Visit the project webpage below for the latest information

cambridgema.gov/GardenStHuronMason

Questions + Answers

Feedback

- We will take comment in the order hands are raised
 - If calling in, dial *9 to raise your hand / *6 to unmute
- Additional questions can be asked using the Q+A function
- In order to allow everyone to speak, please try to limit your time to 1 minute
- Approximately every 15 minutes, we will provide answers to questions
- The meeting is scheduled to end at 8:00 p.m.
- You may also contact the project manager directly to provide written or verbal feedback

Contact Information

Stephen Meuse, Street Design Project Manager

617-349-4713

smeuse@cambridgema.gov

cambridgema.gov/GardenStHuronMason

Feedback– Continued

We welcome all feedback about the project. An online survey is available on the project website to gather additional responses.

Please keep in mind the questions we asked in the blue boxes during the presentation, they were:

1. What are your thoughts about the existing bike facilities? What works? What doesn't?
2. When using Garden Street, which layout concept would work better for you (one way or two way)?
3. Did we miss any important (biking) connections? What's the best way to direct people to preferred routes?
4. Which crossing locations work well? Which do you have concerns about?
5. What types of parking and loading do you use along Garden Street?
6. Are bus stops located where you need them to be?

cambridgema.gov/GardenStHuronMason