



Broadway Safety Improvement Project

*Community Meeting #1
January 28, 2025*

**CITY OF
CAMBRIDGE**

TPT

Traffic,
Parking, and
Transportation

In collaboration with: The **Department of Public Works** and
Community Development Department

Project Team

Project Manager

Andreas Wolfe, *Street Design Project Manager* | *Traffic, Parking, + Transportation Dept.*
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Traffic, Parking, + Transportation Department (TP+T)

- **Brooke McKenna**, *Transportation Commissioner*
- **Jeffrey R. Parenti, P.E., P.T.O.E., P.T.P., ENV SP** *Asst. Commissioner for Street Management*
- **Stephen Meuse, P.E.** *Supervising Engineer*
- **Jackie McLaughlin**, *Communications Manager*
- **Chaimaa Medhat**, *Community Relations Project Admin*

Community Development Department (CDD)

- **Andy Reker**, *Transit Program Manager*
- **Nick Schmidt**, *Transportation Program Manager*

Department of Public Works (DPW)

- **Jim Wilcox**, *City Engineer*

Design Consultants

- **Weston & Sampson**
- **Kittelsohn & Associates**

Meeting Purpose, Outcome & Process

Purpose

We are creating a new design for Broadway as part of the City's Cycling Safety Ordinance. Today, we will introduce the project and share a design draft for Section A: Portland Street to Columbia.

Outcome

Participants of today's meeting will have a clearer understanding of what to expect with the Broadway Safety Improvement Project, including how to provide feedback on Section A Design (Portland Street – Columbia).

Process

City staff will present a slide show and then have a question-and-answer session for public input. In the coming months, there will be more opportunities to be involved in different ways, including at the Broadway Safety Improvement Project Working Group meetings that start early this Spring.

Agenda

01. Project Overview

- Project Area, Sections and Timeline
- Cycling Safety Ordinance (CSO)
- Separated Bike Lane Network

02. Measuring Success: What Are Our Goals?

- **Goal 1:** Reduce driver speeds to improve safety for all users
- **Goal 2:** Expand the bike network, increase bike ridership and reduce bicycle-related crashes
- **Goal 3:** Address safety and reduce crashes

03. What to Expect

- Quick-Build vs. Full Construction
- Proposed Street Layout

04. Design Considerations

- Safety for People Walking
- Safety for People Biking
- People Using Transit
- Schools and school buses
- Parking and loading
- Persons with disabilities

05. Section A Design

- Project Draft Design
- How to share your feedback

06. Next Steps

- Section A timeline
- Upcoming engagement opportunities

07. Questions + Feedback

01. Project Overview

Project Area

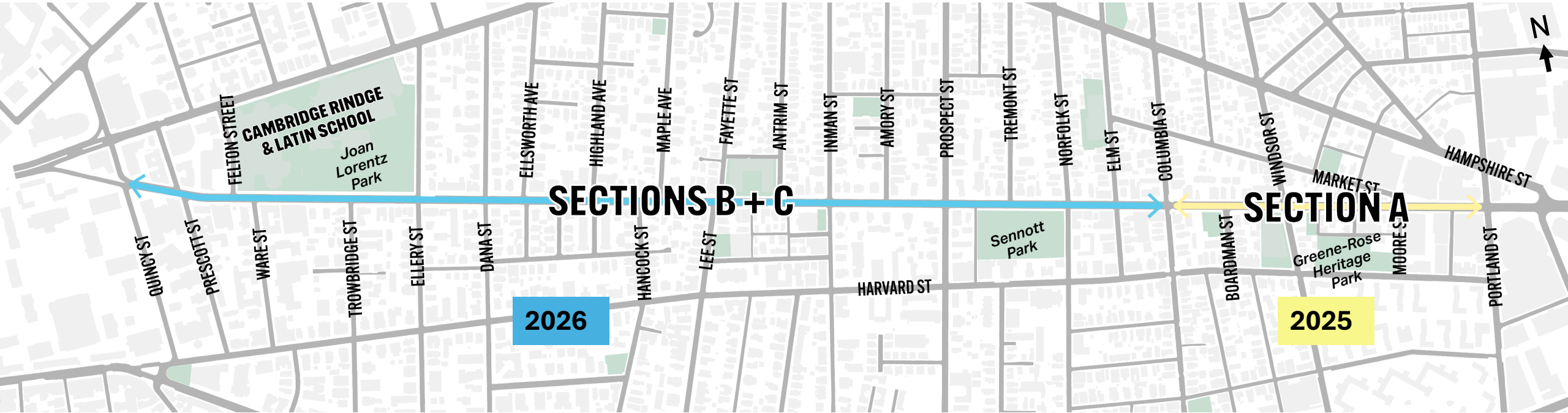
Broadway: Between Quincy St and Portland St



Project Sections

Section A: Portland St to Columbia St. Installation 2025.

Sections B+C: Columbia St to Quincy St. Installation 2026.



Project Timeline

SECTION A

-
- 1 Winter 2025 (*We're Here!*)**
 - Project Overview
 - Begin Section A Design Feedback
 - 2 Spring 2025**
 - Additional Design Feedback on Section A
 - 3 Late Spring/Summer 2025**
 - Install Section A (Portland St to Columbia St)

SECTIONS B+C

-
- 3 Summer/Fall 2025**
 - Begin Sections B+C (Columbia St to Quincy St) Design Feedback
 - 4 Winter 2026**
 - Additional Design Feedback on Sections B+C
 - 5 Spring 2026**
 - Install Sections B+C

Cycling Safety Ordinance Overview

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

2019

Cambridge City Council passes the Cycling Safety Ordinance

- The Ordinance requires the City to construct separated bike lanes if the street has been designated for “Greater Separation” in the Bicycle Network Vision.

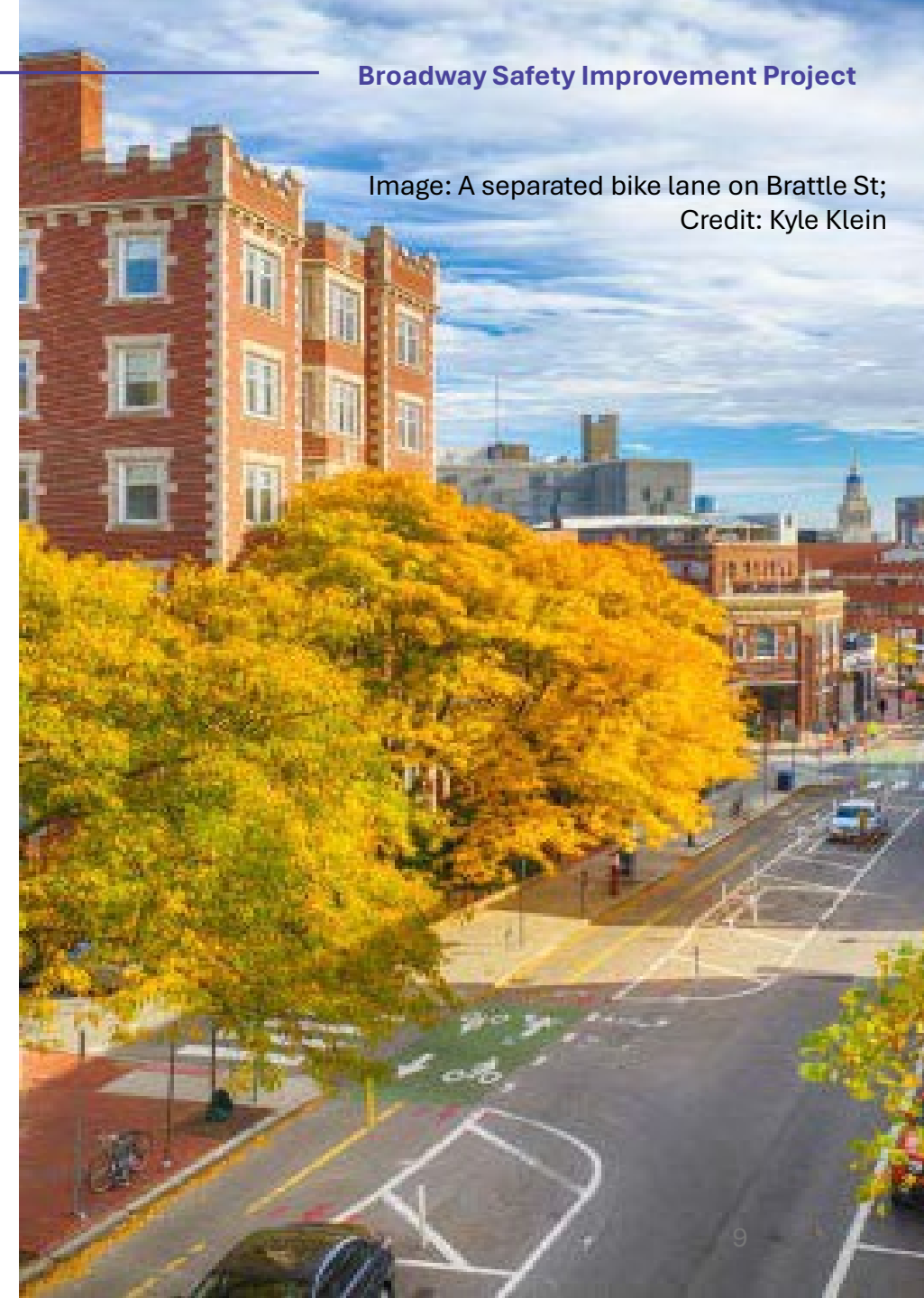
2020

Cambridge City Council passes amendments to the Cycling Safety Ordinance

- Requirement for the City to install about 25 miles of separated bike lanes by April 30, 2026, including quick-build projects not on the Five-Year Plan.

2024

City Council sets new deadline of November 1, 2026



Cycling Safety Ordinance Overview

The Ordinance requires the City to install separated bike lanes on:

- All of Massachusetts Ave
- **Broadway** from Quincy St to Hampshire St
- **Cambridge St** from Oak St to Second St
- **Garden St** from Huron Ave to Berkeley St/ Mason St
- **Hampshire St:** from Amory St to Broadway

It also requires **11.6 miles** of separated bike lanes in other locations identified in the 2020 Bicycle Network Vision.

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

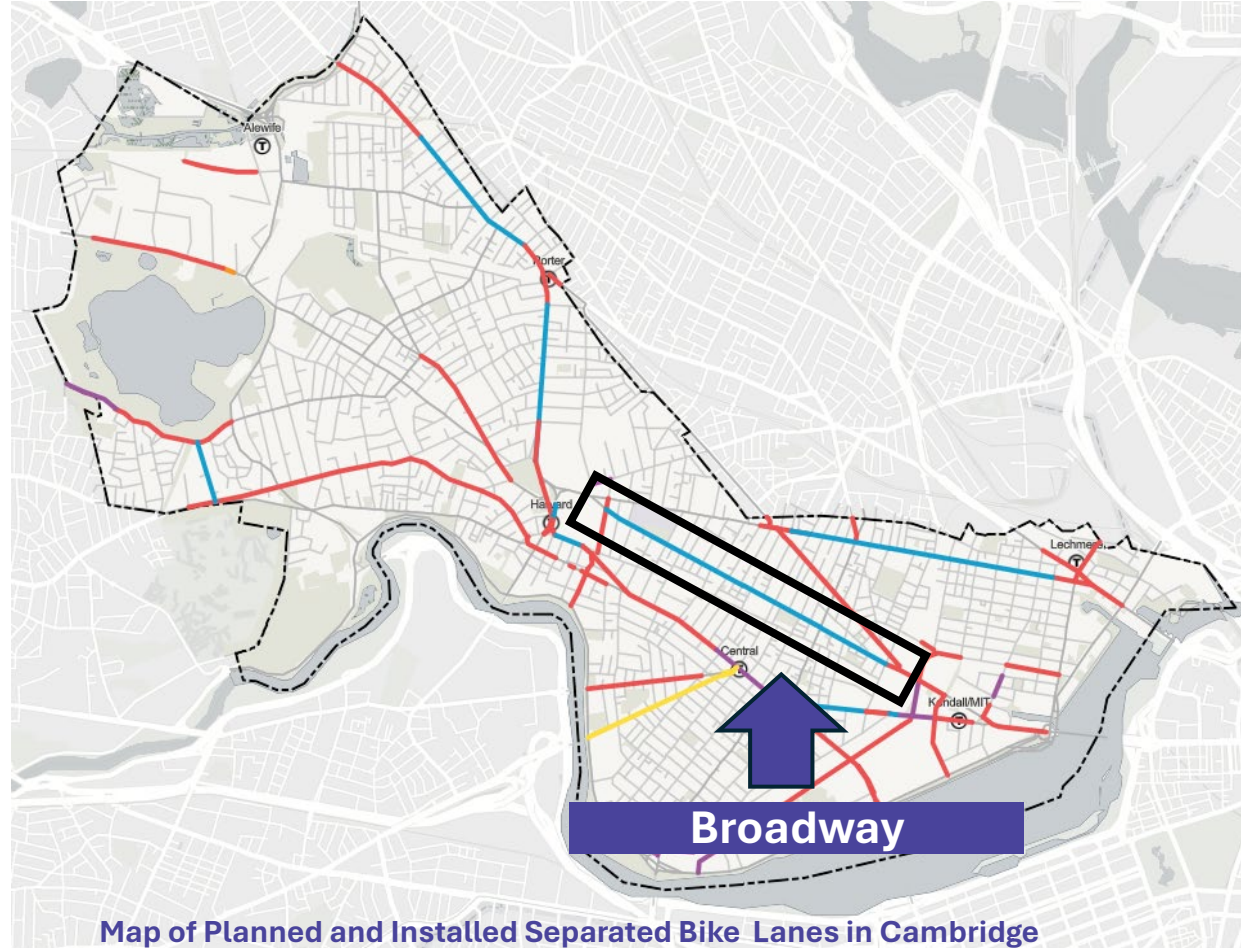


The Separated Bike Lane Network

- We are creating a network for biking that is safe, comfortable, connected, and people-centered
- A network that connects important destinations throughout the City helps more people choose to bike if they want to.

Learn more at:

cambridgema.gov/cycling-safety-ordinance



Map Key:

Project Not Yet Started

Project Started- Community Engagement Ongoing

Plans Complete, Installation Not Started

Project Complete

02. Measuring

Success: What are our Goals?

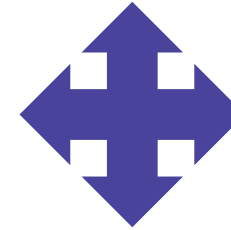
Project Goals



1. Reduce driver speeds and improve safety for all users



2. Expand the bicycle network, increase bicycle ridership, and reduce bicycle-related crashes



3. Address safety and reduce crashes at intersections

Project Goal 1:

Reduce driver speeds and improve safety for all users

How:

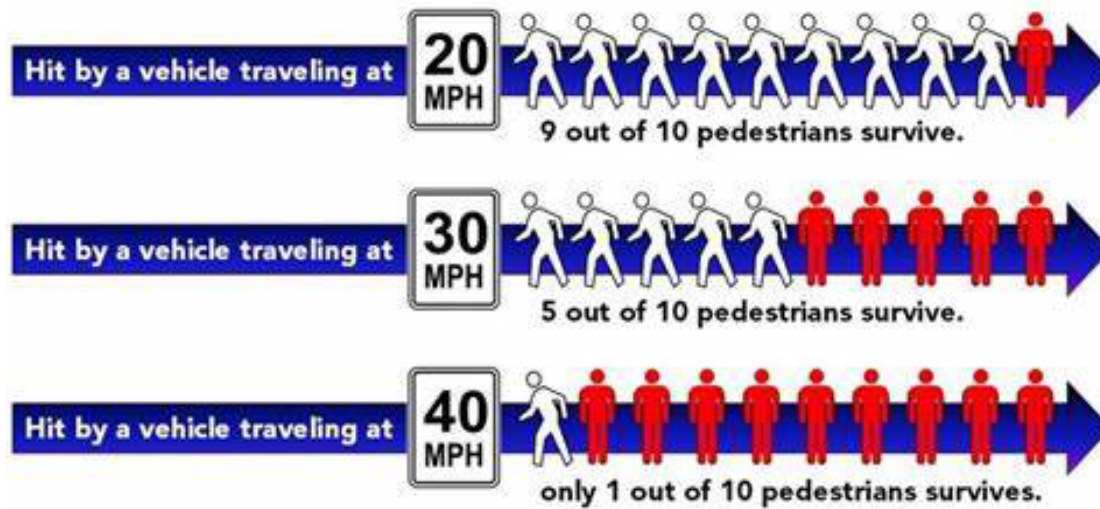
- Narrower streets
- Traffic calming (i.e., chicanes)
- Shorten crossing distances

Speed Bracket	Actual Speed (Eastbound)	Actual Speed (Westbound)
50 th percentile (50% of drivers went faster)	25 MPH	27 MPH
85 th percentile speed (15% of drivers went faster)	29 MPH	34 MPH
95 th percentile speed (5% of drivers went faster)	32 MPH	37 MPH

Table 1: Speed and traffic volume collected September 10-12, 2024, 72-hour average, halfway between Dana St and Highland Ave

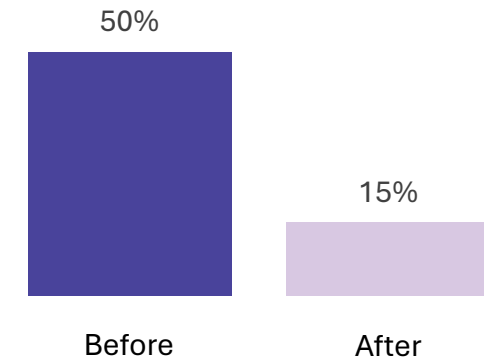
Reduce Vehicle Speeds

- Separated bike lane projects narrow the roadway for drivers, both physically and visually
- This lowers vehicle speeds
- Lower speeds are safer for all users



Research suggests speeds of 20mph or below are suitable for places with high activity of people walking and biking (*National Highway Traffic Safety Administration*)

Percentage of drivers travelling above 25mph speed limit (Cambridge Street between Dana St and Ellery St)



Example: An earlier project on the other half of Cambridge Street (2017/2018) saw a reduction in overall speeds of about 25%



Cambridge Street separated bike lane (2017), between Inman Square and Harvard Square

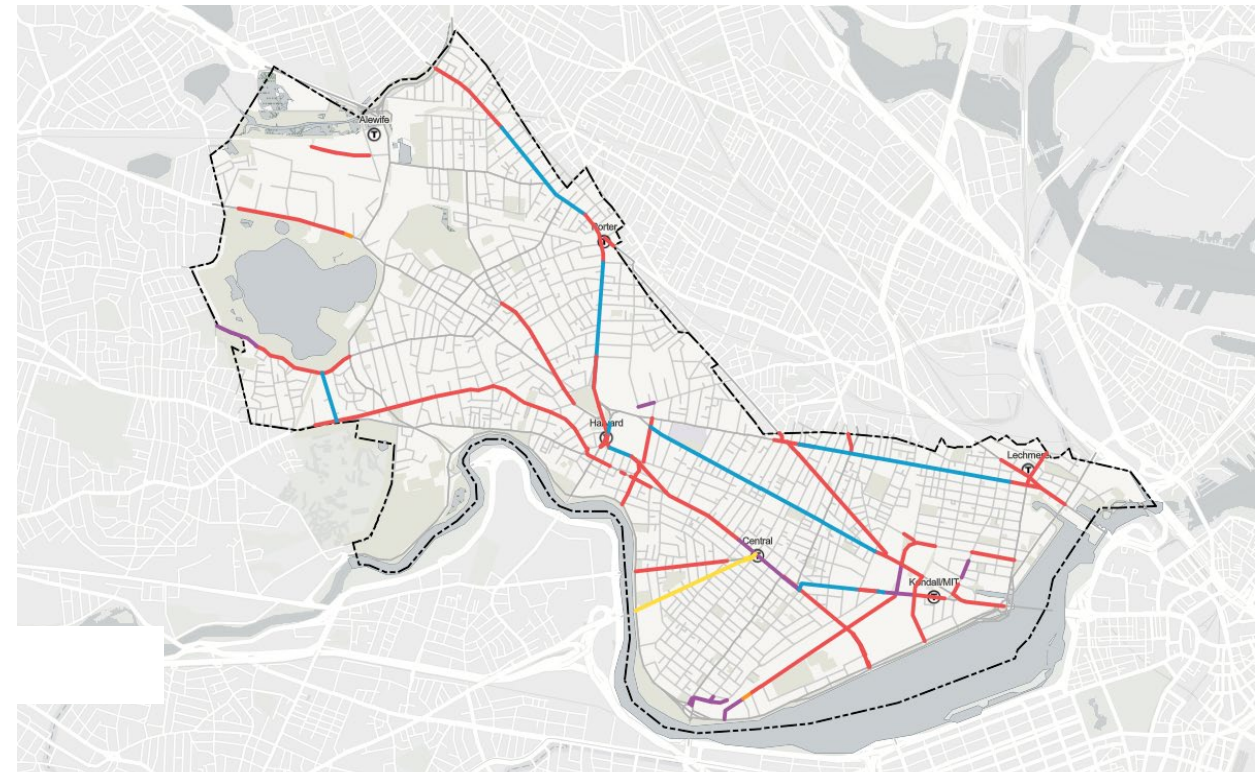
Project Goal 2:

Expand the bicycle network, increase bicycle ridership and reduce bicycle-related crashes

The *Vision* of the 2020 Bicycle Plan is that Cambridge will be a place where:

- Bicycling is equally available to everyone
- All destinations can be reached by bike
- Streets are designed to accommodate bicycling for people of all ages, abilities, and identities

Learn more at cambridgema.gov/2020bikeplanupdate



Map
Key:

Project Not Yet Started

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Increase Bicycle Ridership

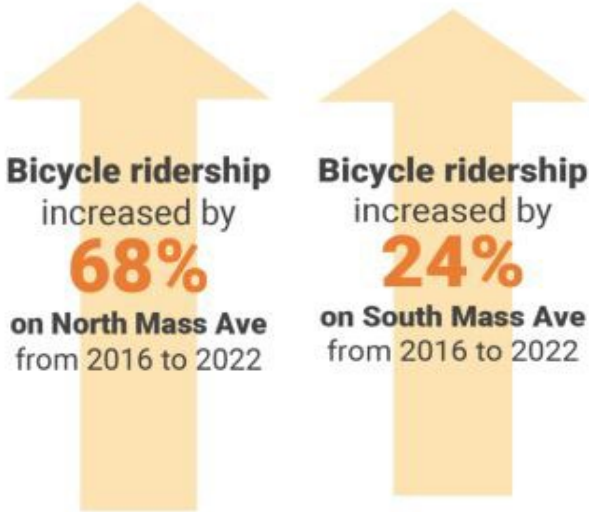
12% of traffic on Broadway is people biking, despite poor infrastructure

Streets lacking proper bike infrastructure often have lower ridership

- By installing separated bike lanes, more people can visit destinations on Broadway by bike
- We'll collect before/after data on bike ridership
- Encouraging cycling helps the City meet its overall goals to reduce emissions and congestion

Other Cycling Safety Ordinance projects have led to more people biking.

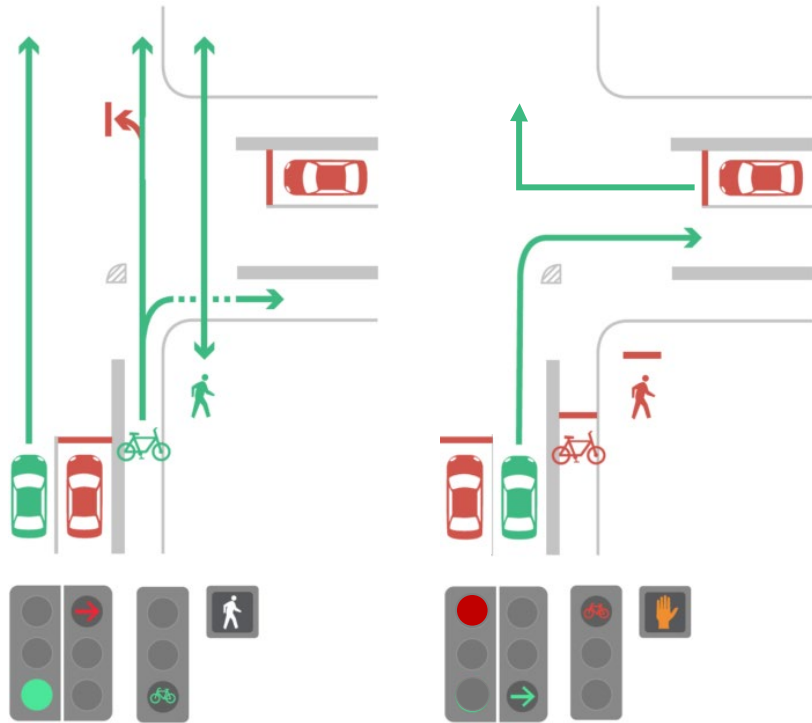
- **68% increase** in cycling on northern section of Mass Ave (2016 to 2022)
- **24% increase** on southern section of Mass Ave (2016 to 2022)
- 2022 and 2023 project data not yet available (Brattle St, Garden St, Hampshire St, etc.)



Bicycle Ridership on Broadway Today			
Location	Direction of Travel	Peak	All Day
On Broadway	Westbound	115	521
	Eastbound	116	497
Bike counts for a single day collected September 2024			

Project Goal 3: Address safety and reduce crashes at intersections

- Consider changes to signal timing and intersection layout
- Slow down turning speeds, reduce conflicts between turning drivers, and people walking / biking



Idea 1: Separate traffic lights for people on bikes, walking and turning drivers



Idea 2: Corner treatments to better protect people walking and biking and slow turning drivers at unsignalized locations

Bicycle-Related Crashes

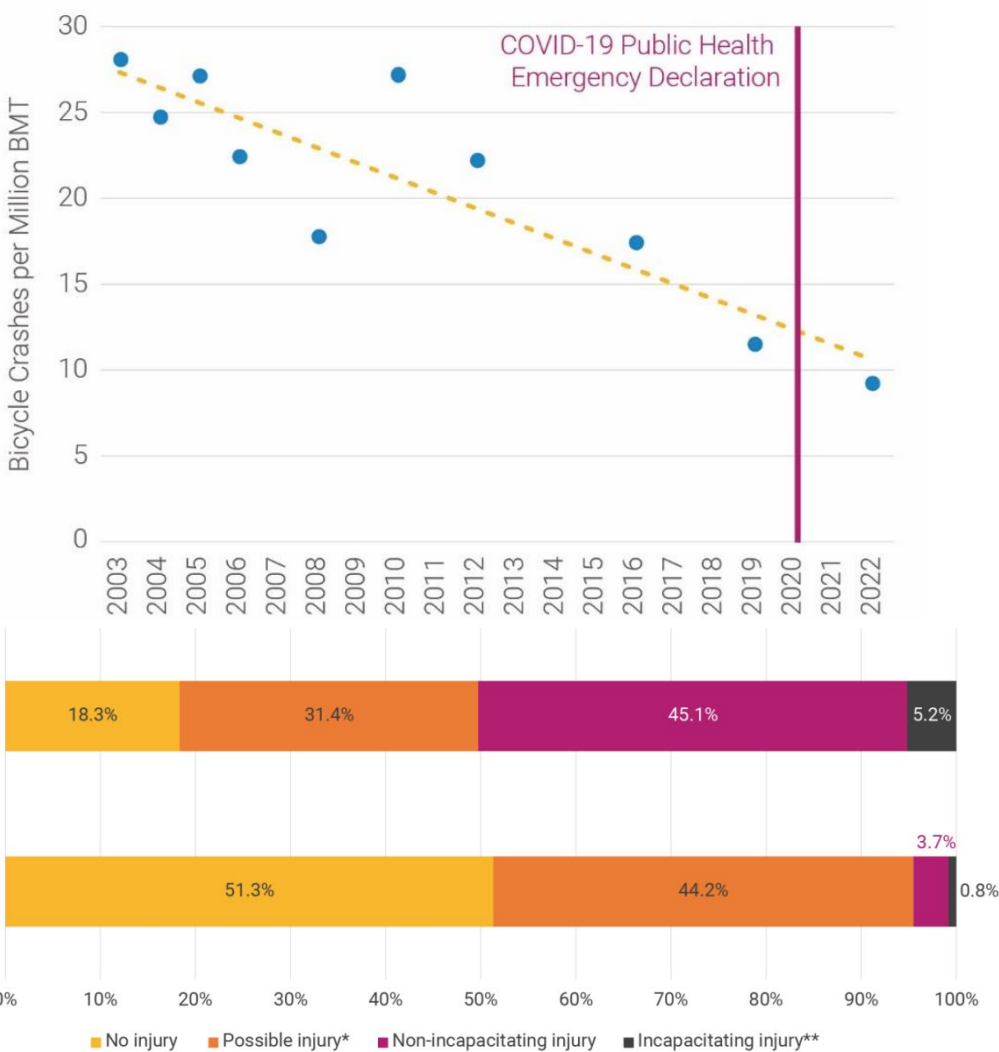
Implementing the Cambridge Bicycle Plan has made biking safer in Cambridge

Crash Rate

- The crash rate—number of crashes per million bicycle miles traveled (BMT)—has steadily decreased since 2003, with 2022 the lowest rate to date.
- The likelihood of a crash for someone biking continues to decline.

Crash Severity

- Of the crashes that do occur, more than 50% of bicycle-related crashes have become non-injury (from 18.3%), city-wide.
- Incapacitating injury crashes have declined from 5.2% to 0.8%, a decrease of 84%.



Source: Bicycling in Cambridge, Data Report 2023

03. What To Expect

Quick – Build Separated Bike Lanes

There are quick-build separated bike lanes throughout many US cities

- We design our bike lanes based on local, state and federal standards
- Designs and operations are not unique to Cambridge



Image: Milwaukee Avenue, Chicago. Source: Chicago Department of Transportation



Image: Winter biking on Mass Ave, Cambridge.



Image: 30th Street, San Diego
Courtesy: Stephan Vance



Image: Spring Street/Cedar Street, Gaithersburg, MD
Source: Montgomery County Department of Transportation

Quick-Build vs Capital Construction

This will be a quick-build project

- Quick-build projects can be installed significantly faster than typical construction projects.
 - **Within months.**
- Capital Construction projects must be included in the City's Five-Year Sidewalk and Street Reconstruction Plan for funding and coordination with utilities.
 - **Can take 2-5 years depending on the amount of work.**
- Quick-build projects allow us to address road safety concerns *quickly*



Western Avenue is an example of a separated bike lane built by Capital Construction

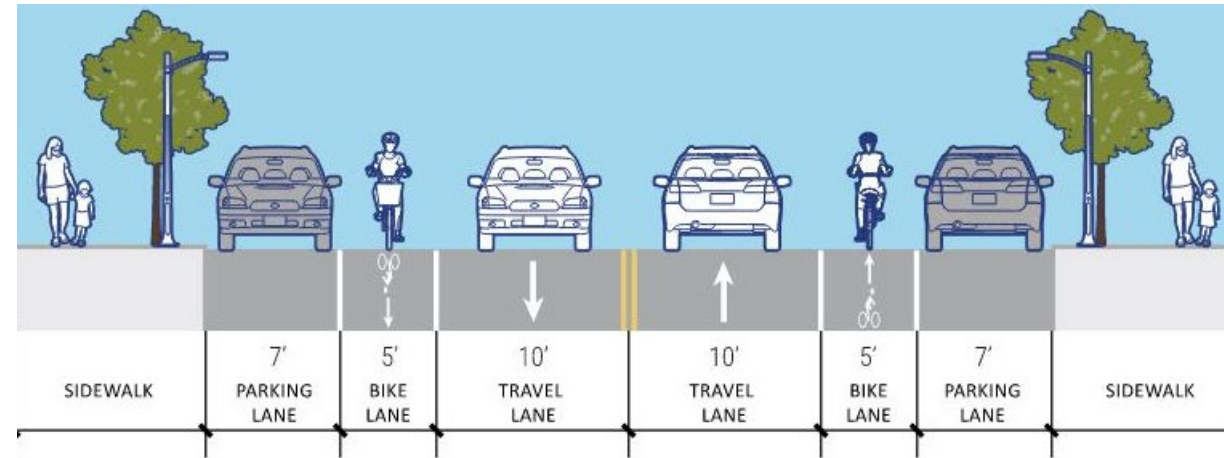
Street Layout Today

Broadway does not have all ages and abilities bicycle facilities

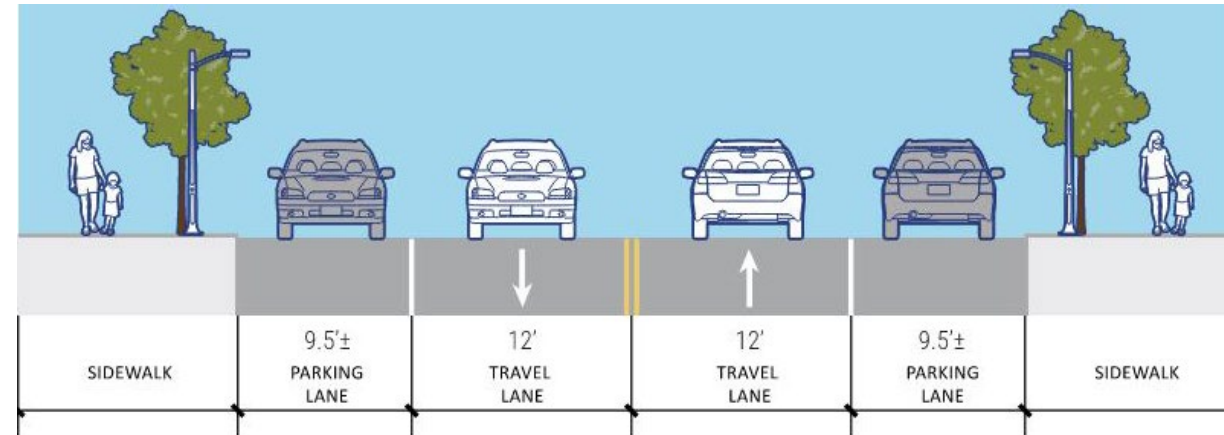
- Some sections have painted lanes with no separation
- Most sections have shared lane markings, with no designated space for people biking
- Parking is on both sides of the street



Image: Existing bike lane on Broadway at Windsor St



Existing Broadway layout between Columbia St and Portland St includes painted bicycle lanes



Existing Broadway layout between Quincy St and Columbia St without any bicycle lanes

Proposed Street Layout

People bike along the curb

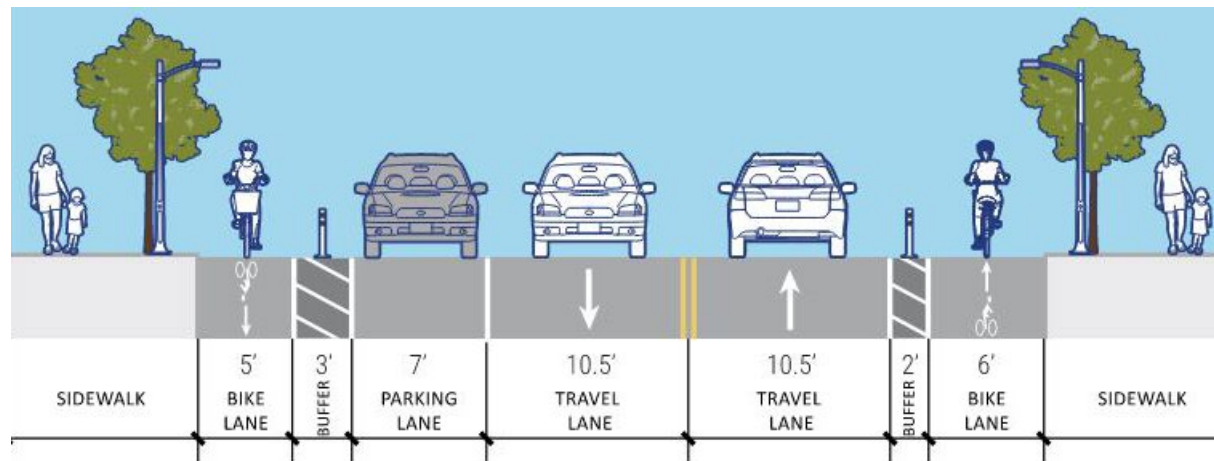
- Flex-posts or parked cars separate people driving and biking
- People exiting their cars cross the bike lane to get to the sidewalk

Parking on one side of the street

- Parking can only fit on one side of the street each block
- Parking can alternate sides



Conceptual rendering of separated bike lanes on Broadway near Moore St



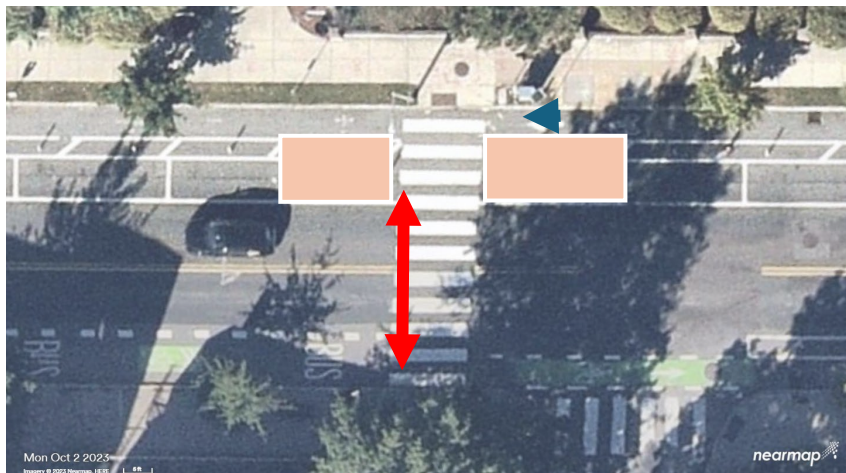
Proposed street layout with separated bike lanes on either side

04. Design Considerations

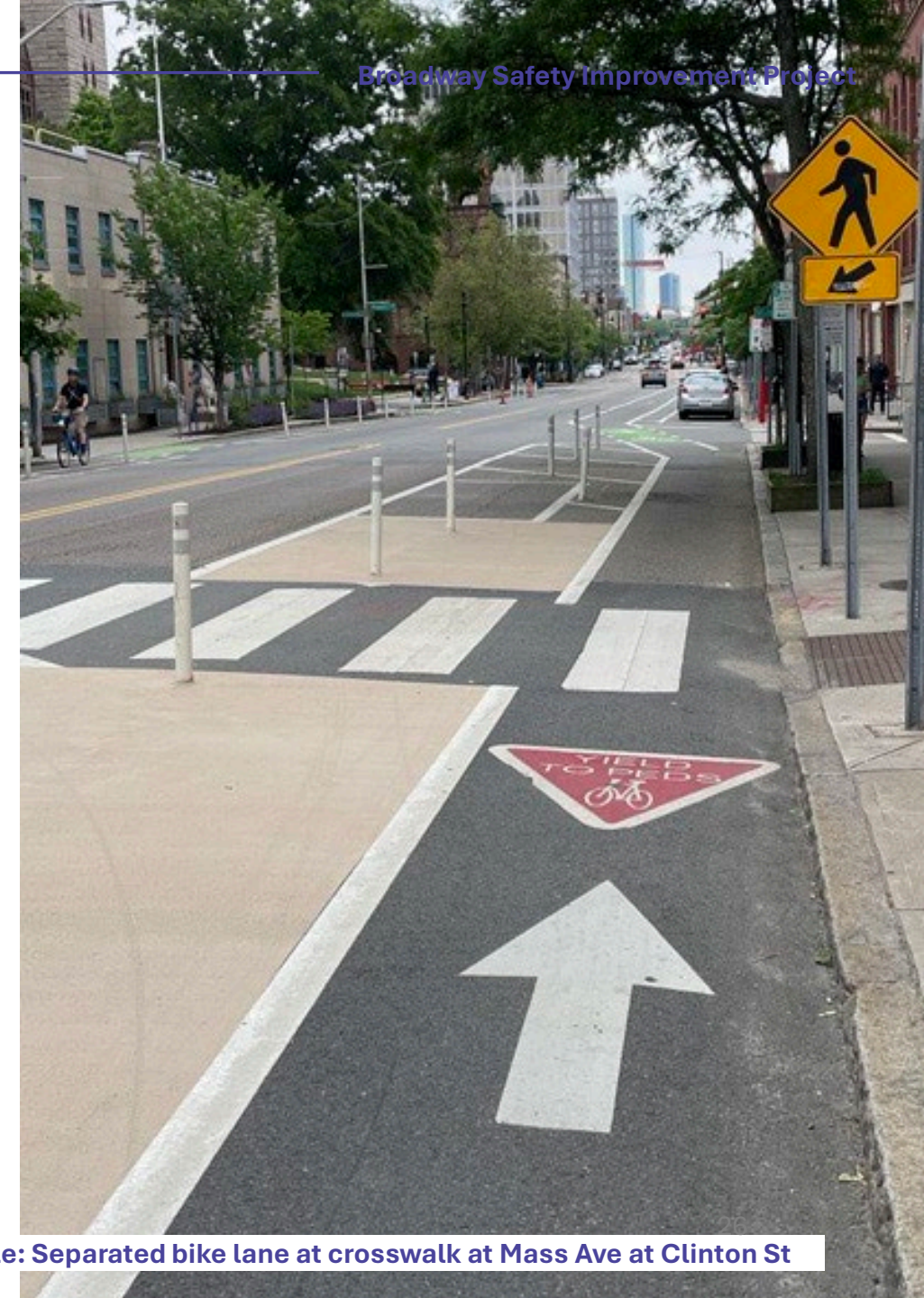
Considerations – Safety for People Walking

Make it easier and safer to cross the street

- Shorter crossing distances
 - Each potential conflict can be handled separately (i.e., cross bike lane, then vehicle lanes)
- Better sightlines
- Physically and visually narrowed roadway for drivers, encouraging lower speeds and higher yielding rates at crosswalks



Painted crossing island between bike lane and travel lanes



Example: Separated bike lane at crosswalk at Mass Ave at Clinton St

Considerations – Safety for People Biking

What are separated bike lanes?

- Dedicated travel space for people biking and driving
- Bike lane has physical separation from vehicle lane (i.e., curb, flex post)

Benefits for people biking

- 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 moving vehicles and people biking
- Encourages slower traffic speeds by visually narrowing the roadway



Top Image: Before a separated bike lane was installed

Bottom Image: After a separated bike lane was installed

Considerations – People Riding Transit

Bus stop locations may change

- We will know more once we're further in design
- Stop spacing will remain within City and MBTA standards

Which MBTA bus routes serve Broadway?

- **Route 68**
- **Route 64** (Prospect St to Portland St)
- **Route 91** crosses at Prospect Street



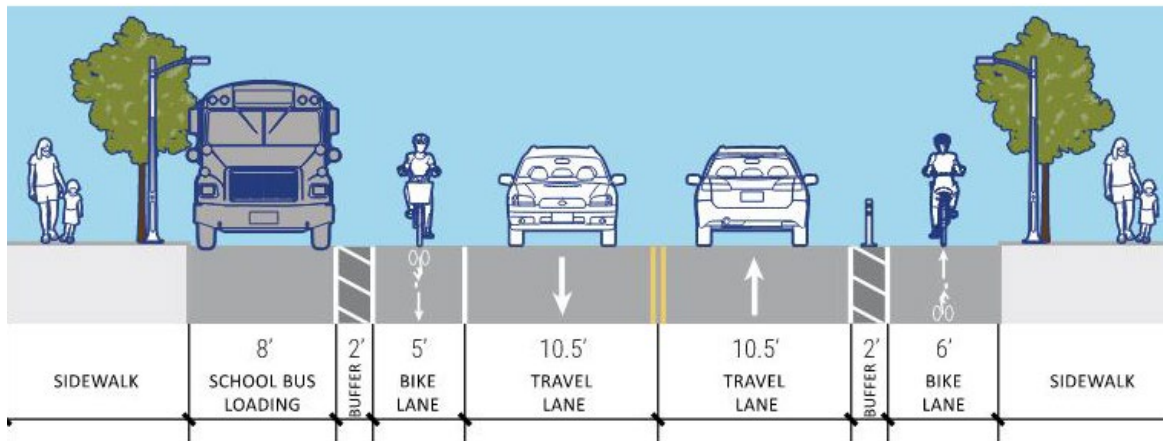
Bus stops that are shorter or before an intersection (as shown) make it harder for the bus to reach the curb. This makes it harder for people to use the accessible boarding ramp, when needed.

Considerations – Schools and School Buses

Design plan

No bike lane separation where school buses park at the curb

- Separated bike lanes are not feasible at bus stops with quick-build materials.
- Design will include buffered bike lanes.



Where school bus loading exists on Broadway, separated bike lanes are not feasible without significant construction beyond the scope of quick-build project



School buses that currently park on Broadway, will continue to do so. Separated bike lanes cannot be provided in these locations

Considerations – Parking and Loading

What is planned

- We hope to keep about 40% of the parking on Broadway

Work done so far

- Inventoried existing parking supply and regulations
- Collected data on parking use
- Made changes to zoning regulations to provide greater flexibility for private owners to share privately owned off-street parking
- Parking occupancy results posted on project website

Existing Number of Parking Spaces	
Overall	322
Northside (Westbound)	163
Southside (Eastbound)	159

Existing Parking Map



We've made a map of the existing parking regulations. A full resolution version is available on the project web page.

Considerations – Persons with Disabilities

Accessible/Disability Parking

- Accessible/disability parking spaces are often curbside for better access to the sidewalk.
 - No flex-posts used at these locations
 - We aim to provide buffered bike lanes instead of separated bike lanes.

Accessible Bus Stops

- Sidewalk repairs may be required
- Inaccessible bus stops may need to be lengthened, moved, or otherwise modified

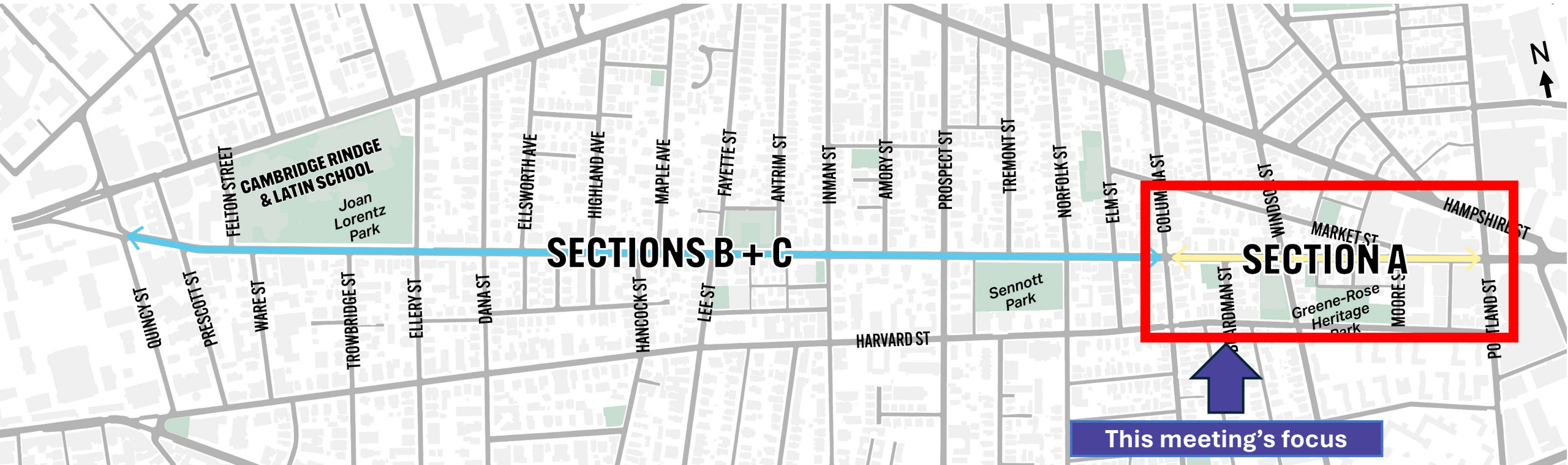


Shown is a curbside accessible parking space. Most often, these spaces are curbside to allow easier access to the vehicle from the sidewalk

05. Section A Design

Section A: Portland St to Columbia St.

Installation 2025

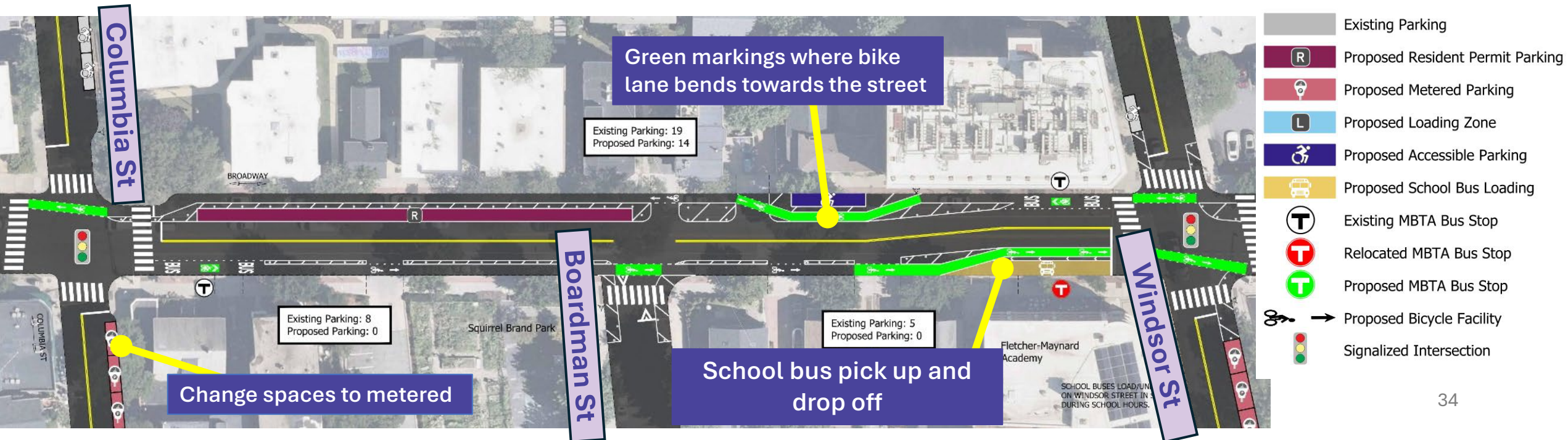


Project Design – Columbia St to Windsor St

- Full-time school bus only loading zone next to Fletcher-Maynard Academy.
 - No longer shared with MBTA buses. MBTA bus stop at Windsor St moved to other side of Windsor St (towards Kendall).
- Accessible/disability parking spaces require drop in bike lane separation

View at Home

A full resolution copy of the design is available on the project website at www.cambridgema.gov/BroadwaySafety

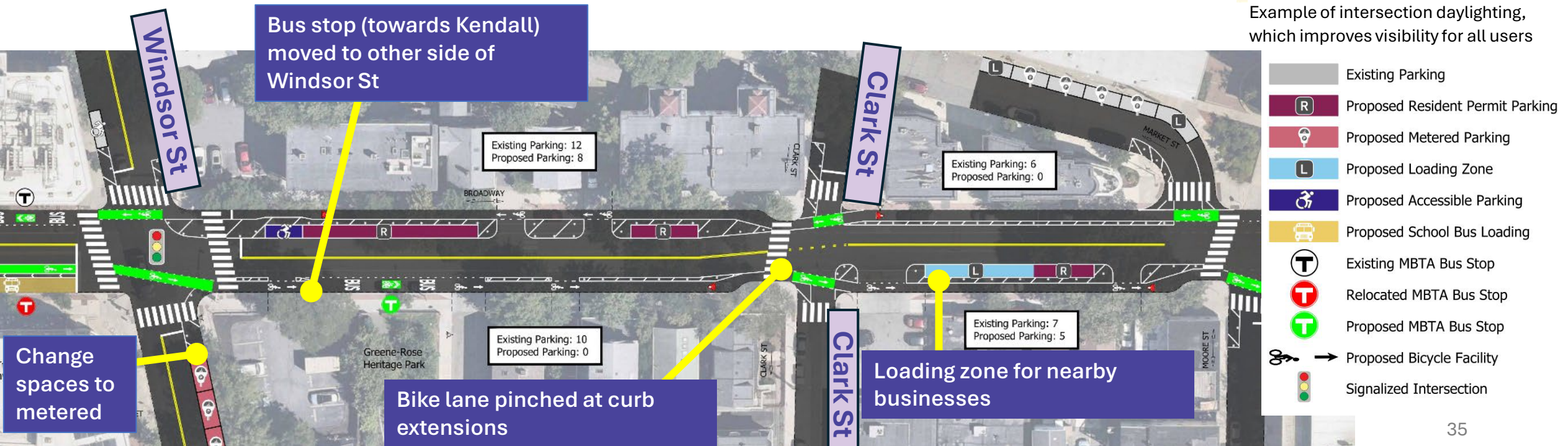


Project Design – Windsor St to Market St

- “Daylighting” at intersections: Physical barriers (such as flex-posts) to prevent people from parking in the crosswalk
- Limited bike lane separation near Clark St due to curb extensions
- Loading near businesses



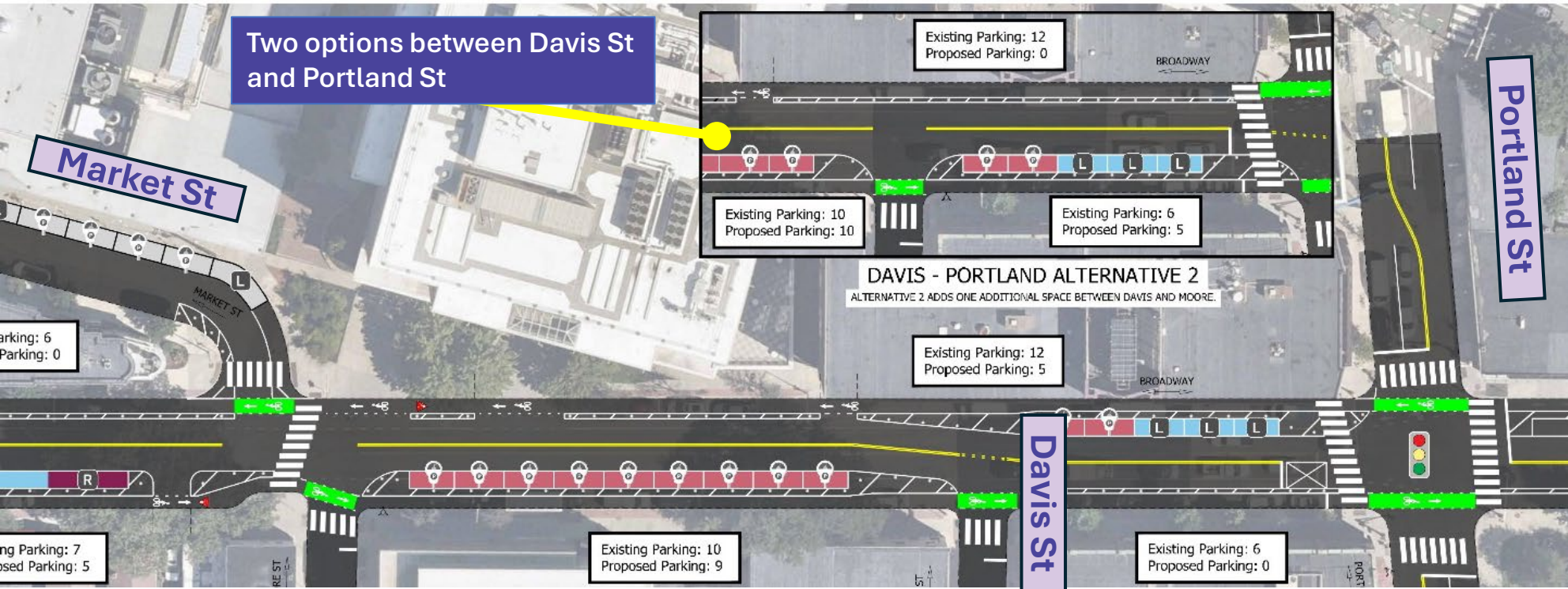
Example of intersection daylighting, which improves visibility for all users



Project Design – Market St to Portland St

- Separated bike lanes on either side in the direction of traffic
- Parking on one side of the street
- Access to driveways kept on both sides
- Two options for parking between Davis St and Portland St

Section A: Number of Parking Spaces	
Existing	89
Proposed	41/42



- Existing Parking
- Proposed Resident Permit Parking
- Proposed Metered Parking
- Proposed Loading Zone
- Proposed Accessible Parking
- Proposed School Bus Loading
- Existing MBTA Bus Stop
- Relocated MBTA Bus Stop
- Proposed MBTA Bus Stop
- Proposed Bicycle Facility
- Signalized Intersection

Project Design – How to Share Your Feedback

- If you have feedback during the Q+A, mention the location and we'll go back to that slide

View at home

- A full-resolution copy of the design is available on the project website at www.cambridgema.gov/BroadwaySafety

Provide feedback online

- Let us know your thoughts in the Online Feedback Survey

Fill out the design feedback survey today at www.surveymonkey.com/r/broadwaySIP

Come to an open house

- We'll have a printout of the plan in a larger format for you to view in person

06. Next Steps

Next Steps: Section A



We Are Here!

Feedback on Sections B and C begins Fall 2025

Upcoming In-Person Open Houses

- **Community Open House 1**
February 4th, 4 p.m. to 6 p.m.
Fletcher-Maynard Academy, 225 Windsor St
- **Community Open House 2**
February 6th, 6 p.m. to 8 p.m.
City Hall Annex, 344 Broadway



Cambridge St Open House in November 2023



Upcoming Virtual Community Meetings

Tonight : Virtual Community Meeting 1

- Overview of the project
- Section A Preliminary Design

Spring 2025 : Virtual Community Meeting 2

- Section A Design Feedback

Fall 2025/Winter 2026: Virtual community meetings continue for sections B+C

Sign up for email updates to stay in-the-loop!

Talk to Us

We Want to Hear From You!

- What are your loading needs?
- What are your questions about on-street dining and other curbside uses?
- What are your safety or design concerns on Broadway?

Talk to the Project Manager, Andreas Wolfe

- Via email awolfe@cambridgema.gov or,
- Call **617-349-9162**

07. Questions & Feedback

Questions & Feedback

How to Participate

- We will take comments 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
- To allow everyone to speak, please try to limit your time to 1 minute
- Please be respectful to attendees and City staff
- Avoid personal attacks and foul language

Answering Questions

- Approximately every 15 minutes, we will provide answers to questions
- The meeting is scheduled to end at 8:00 p.m.