Rendering of Proposed Design of the Broadway Safety Improvement Project

CITY OF CAMBRIDGE | Department of Transportation

Welcome! Broadway Safety Improvement Project

Working Group Meeting #4

July 29, 2025 | 5:30 – 8:00 PM

Project Team

Project Manager

Andreas Wolfe, *Street Design Project Manager | Department of Transportation*
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Assistant Project Manager

Leah Grodstein, *Street Design Project Manager | Department of Transportation*

Department of Transportation

- Brooke McKenna, Transportation Commissioner
- Jeff Parenti, Asst. Commissioner for Street Management
- Stephen Meuse, Supervising Engineer
- Jackie McLaughlin, Communications Manager
- Chaimaa Medhat, Community Relations Project Administrator
- Andy Reker, Transit Program Manager
- Nick Schmidt, Transportation Program Manager

Department of Public Works (DPW)

- Jim Wilcox, Assistant Commissioner of Engineering

Consensus Building Institute (CBI)

- Abby Fullem
- Anika Reynar
- Elizabeth Cooper

Design Consultants

- Scott Curry, Kittelson & Associates
- Radu Nan, Kittelson & Associates
- Alyssa Peck, Weston & Sampson

Remote Participation Instructions

Working Group members:

- You will be promoted to "panelist".
- Please turn on your video.
- Raise your hand to join the queue.

Members of the public:

- There will be an opportunity to share public comment at ~7:45 PM.
- At that time, you can raise your hand to join the queue.

Agenda

5:30 PM	Welcome & Introductions
5:40	Section A: Installation Update, Design Feedback Report
5:50	May Working Group Recap
6:00	Section C Design: • Quick-Build vs. Partial-Build • Design Considerations • Preferred Alternative Design
6:55	Break & Roll Plan Peruse
7:10	Section C Feedback & Discussion
7:45	Public Comment
7:50	Working Group Business & Next Steps
8:00	Adjourn

Guiding Principles for Working Together

- Respect all participants (Working Group members, City staff, facilitation team, members of the public).
- Listen actively and with empathy.
- Talk about the topics, not people.
- Be curious about and open to different perspectives and sources of information.
- Speak for yourself from your own perspective; share information from and with your networks and note the difference.
- Focus our work on actionable recommendations related to design, implementation, engagement, and outreach related to the Broadway SIP.
- Make room for active participation from all Working Group members.

01. Section A

Installation Update
Design Feedback Report

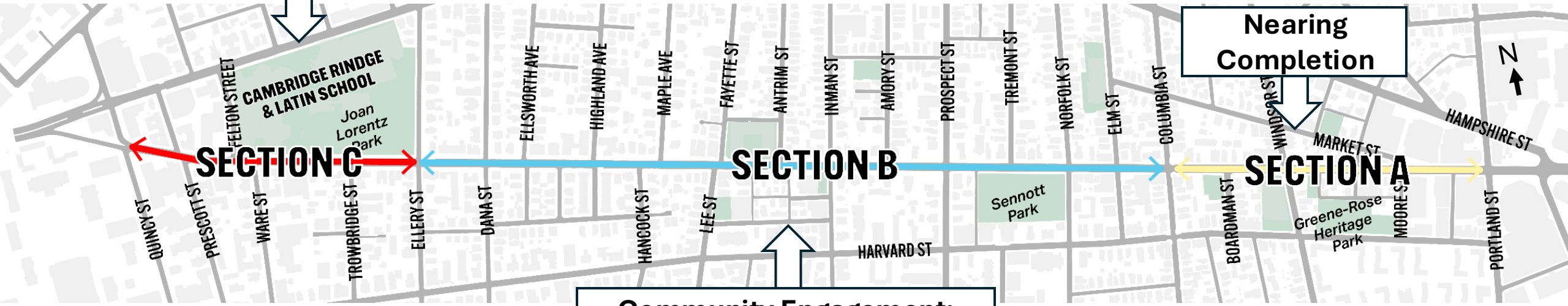
Reminder: Community Engagement Timeline

Section A: Nearing Completion

Section C: Summer 2025 – Late Fall 2025

Section B: Late Fall 2025 – Spring 2026

Community Engagement:
Summer 2025 – Late Fall 2025



Community Engagement:
Late Fall 2025 – Spring 2026

Installation Update

Work Ongoing

Complete

- Lane markings complete
- Most parking changes complete

Additional Work Planned

- Bicycle and driveway markings (such as green surface markings)
- Flex-post installation

View facing west at Clark St

Line marking machine

View facing east at Clark St

Ongoing Parking Changes in Section A

Installation of overnight resident permit signs

- Council passed Policy Order POR 2025 #92 regarding modifying meter hours and adding overnight resident parking requirements

Next Steps:

- Staff reaching out to businesses to discuss potential changes to meter hours
- City to submit suggested hours and spaces in Council response

Proposed Meter and Loading Times (Draft)

- **Market St:** 10 am – 6 pm (3 Loading spaces, 4 metered spaces)
- **Moore St:** 10 am – 6pm (2 metered spaces)
- **Broadway, Clark St to Portland St :** 10 am – 6 pm (11 metered spaces)
  - No changes to loading hours on Broadway
- Resident Permit Requirements: 8 pm – 8 am

Design Feedback Report

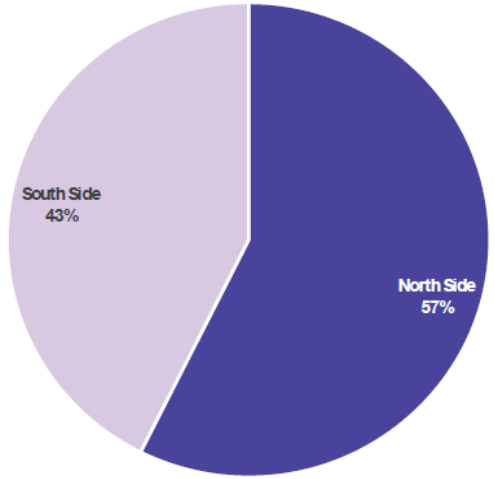
Survey Summary Report

- **Survey Details**
  - Survey ran **Feb–Apr 2025** to get feedback on **Section A**
  - Design Feedback Focus: parking preferences & bus stop locations
  - **574 responses**
  - **91 people** joined the project email list

  Complete Survey Summary Report can be found on project webpage
- **Community Feedback Guided Our Design Decisions**
  - Key Stakeholders
    - Broadway Businesses, Residents & Users
    - Cambridge Public Schools
  - Input came from the survey, community meetings, open houses, working group meetings, emails and phone calls from residents and business-owners
  - Community input helped shaped a safer design that supports the needs of our community

Survey Summary Report: Feedback & What Changed

- **Feedback We Received**
  - Support for protected bike lanes, especially near schools
  - Support for traffic calming, such as roadway narrowing
  - Support for the bus stop move and associated improvements to travel time
  - Concerns about parking and loading
  - North-side parking preferred (57%) primarily for visibility at Portland St intersection
- **Updates to Design in Response to Feedback**
  - Modified parking and loading locations
  - Added more disability/accessible parking spaces
  - Refined both school bus/loading zone and MBTA bus stop location
  - Adjustments for visibility and maintenance
- **Next Steps**
  - Stay tuned for future surveys on Sections B & C



Preferences for parking between Portland St and Davis St

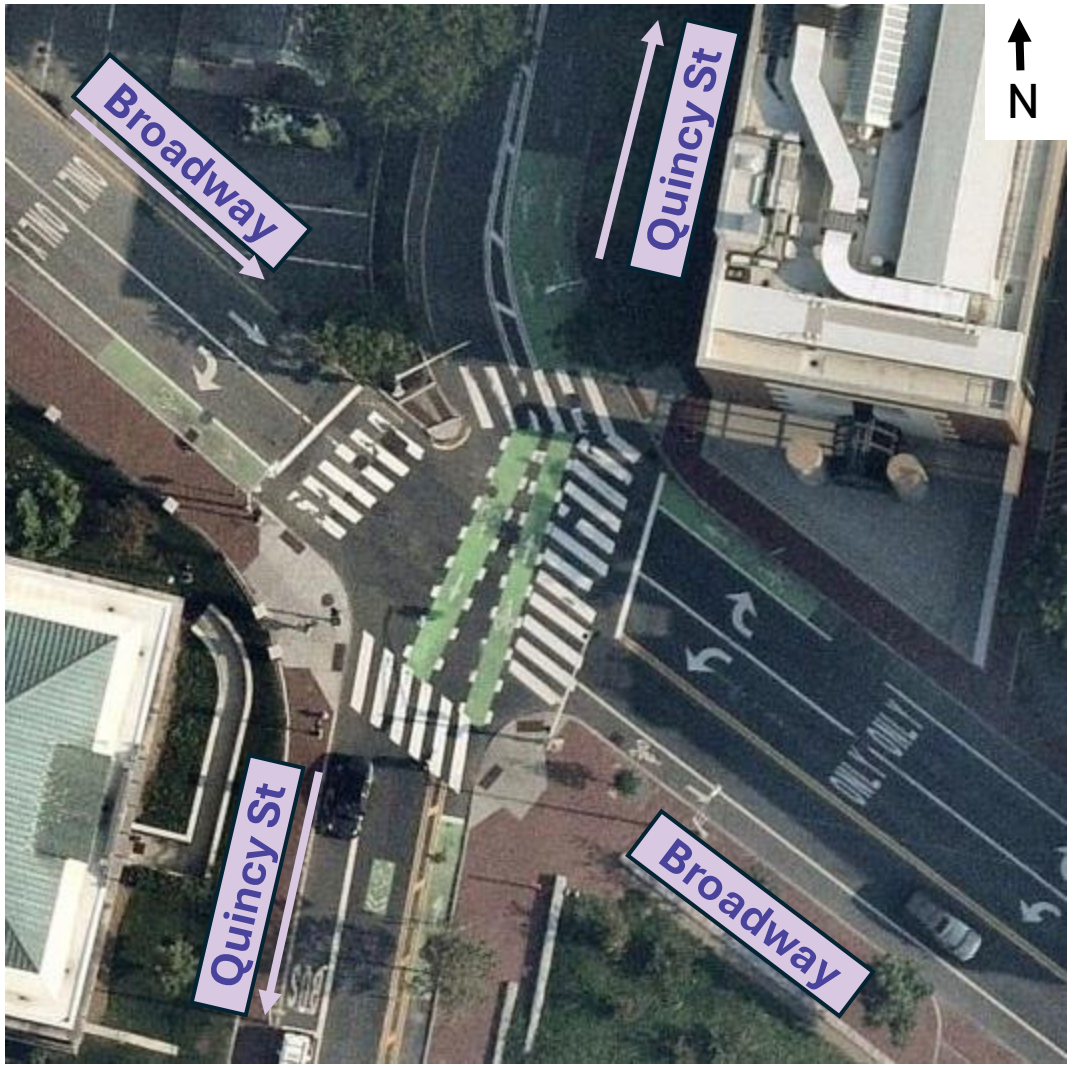
02. May Working Group Recap

Recap of Last Meeting

- **Intro to Section C**
  - Went over two-way bike lane design considerations
  - Reviewed why the City prefers a two-way bike lane for Section C
  - Went on a “site tour” of Section C intersections
- **Reminders for Staying Involved**
  - Resources: meeting summaries, slide decks, and recordings
  - Feel free to reach out to project managers (Leah and Andreas) with any questions!
  - It’s okay to participate in a meeting even if you weren’t at the previous ones

What We Heard – Broadway at Quincy

- **Working Group Feedback**
  - Crossings are calmer with Quincy St Northbound closed
  - **Desire for improved connections from Harvard Square**
    - Different users either ride through Harvard Science Plaza or through tunnel on Broadway
    - Concern about higher volume of visitors unfamiliar with the area
  - **Variety of bicycle and pedestrian movements**
    - Pedestrian waiting area by the firehouse can be too crowded
    - Bike right turns from Broadway Westbound to Quincy St Northbound are very easy and comfortable



What We Heard – Broadway at Prescott

- **Working Group Feedback**
  - Crosswalk placement
    - Angled, long crossing of Broadway
    - **Missing crosswalk leg (saw people crossing where the missing leg is on the site tour!)**
    - Crosswalks get blocked by drivers pulling out into the intersection to see oncoming traffic
  - **Drivers turning right onto Prescott St Northbound can make the turn at speed/without looking for pedestrians**
  - Good sightlines

What We Heard – Broadway at Felton

- **Working Group Feedback**
  - Good sightlines as long as nobody parks too close to northeast corner
  - Drivers on Felton have to go past the stop line and block the crosswalk to see if it's clear to turn
  - **Very busy intersection, especially during school year**
    - Students cross from high school to Broadway Market
    - Caregivers drop off and pick up students
    - Drivers pull in and out of lot on northwest corner
    - MBTA buses turn onto Broadway
  - High volume of trucks use Felton St
  - **Sometimes drivers on Felton St turn onto Broadway and hope everyone else stops**

What We Heard – Broadway at Ellery

- **Working Group Feedback**
  - Like the current short crossing distances and ample waiting areas for pedestrians
  - **Intersection is busy during school pick-up/drop-off**
  - **Shared path through campus is well-used by cyclists and pedestrians**
  - Cyclists use roadway or sidewalk depending on comfort and convenience
  - Making a left into the bike lane on Ellery St (Southbound) from Broadway (Westbound) is difficult for cyclists
  - Vehicle speeds are higher on Broadway Westbound coming downhill

03. Section C Design

Quick-Build vs. Partial Build

Design Considerations

Preferred Alternative Design

Quick-Build vs. Partial-Build

Quick-Build vs. Construction

Quick-Build Projects

- Examples: Cambridge St, Hampshire St, Broadway
- Limited project construction: can be implemented within months

Construction Projects

- Examples: Western Ave, River St, Inman Square
- Changes to drainage, grading, sidewalks, etc: often take multiple years

Use of Quick-Build and Partial-Build in the Cycling Safety Ordinance

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.

Except for Mass Ave., these are all quick-build projects

Partial Build Projects

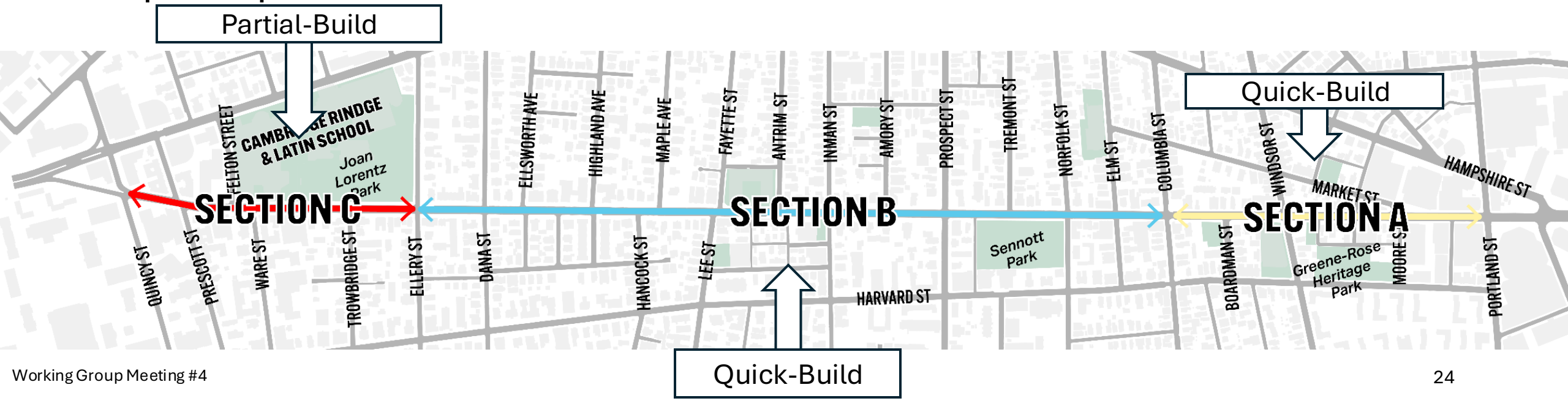
- **Broadway** from Quincy St to Ellery St
- **Cambridge St** Limits TBD

Because of unique design constraints on certain roads, we have upgraded a few short sections of projects from **quick-build** to **partial-build**

Quick-Build and Partial-Build Limits of Work

- **Quick-Build:** Pavement markings, signs, and flex-posts. No changes to curbs.
- **Partial-Build:** Limited curb changes where impacts to drainage and utilities are minimal.

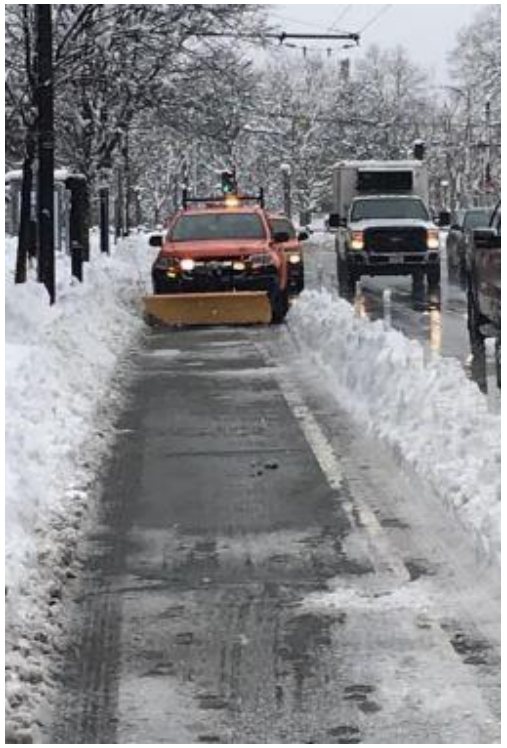
Curb changes (such as floating bus stops) in Sections A and B are beyond the scope of quick-build

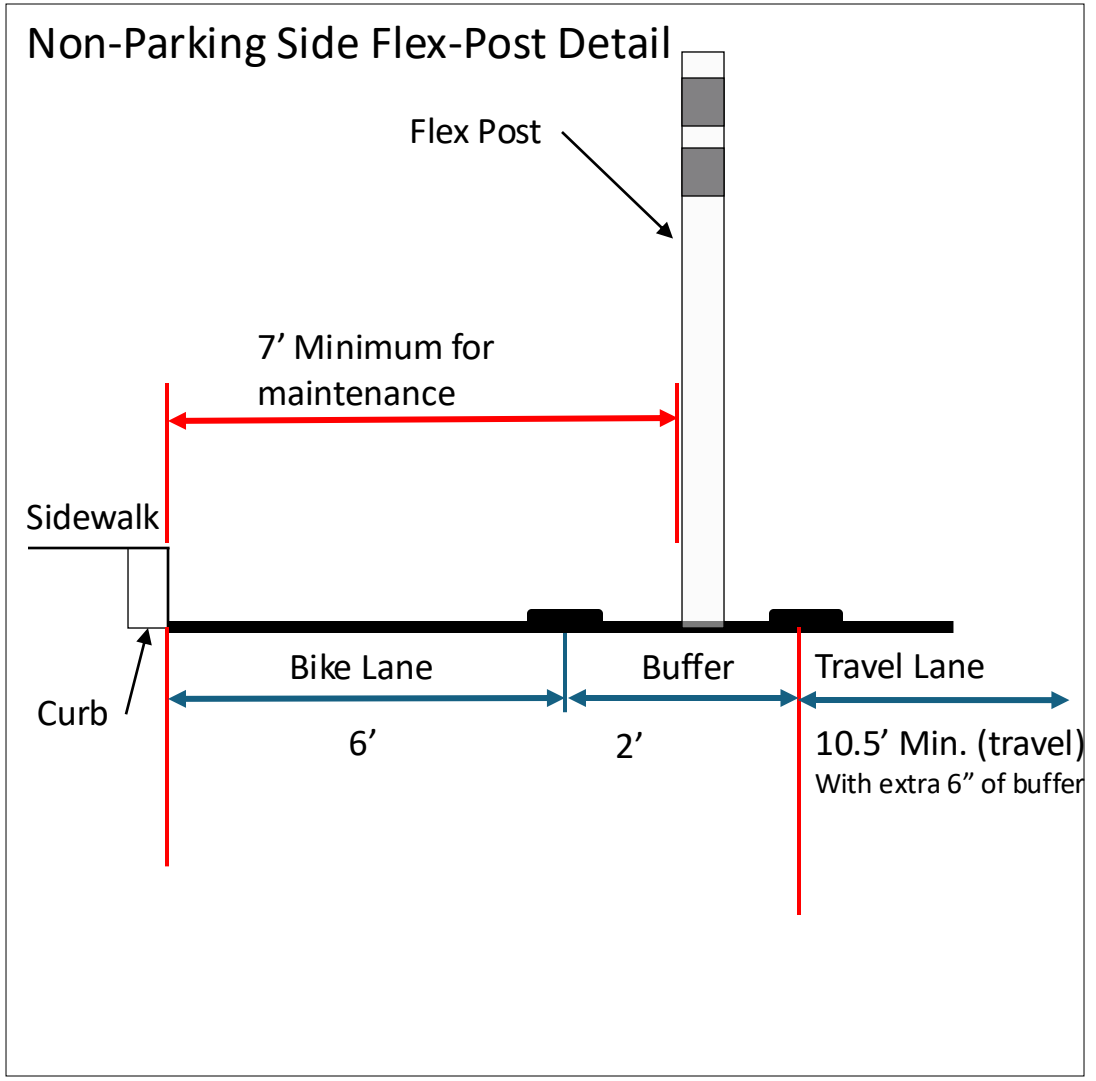


Maintenance and Snow Clearance

Width

- Bike lanes narrower than **7’** between objects (i.e. curb and flex-post) will be less efficiently cleared of snow
- Bike lanes narrower than **6’** cannot be cleared of snow or debris (street cleaning)





Bike lanes less than 6’ clear not included in project

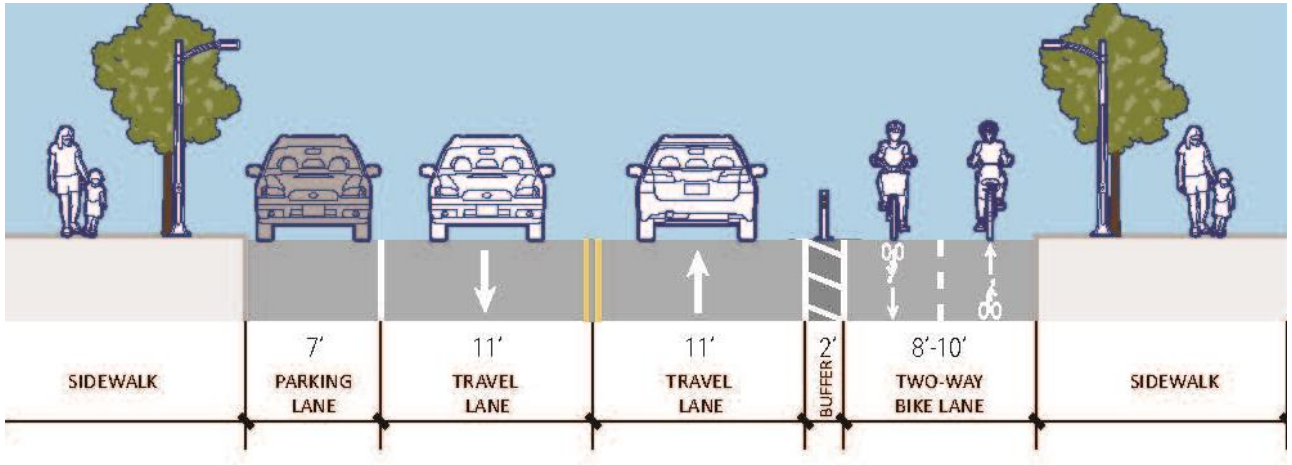
Design Considerations

Two-Way vs. One-Way Bike Lanes

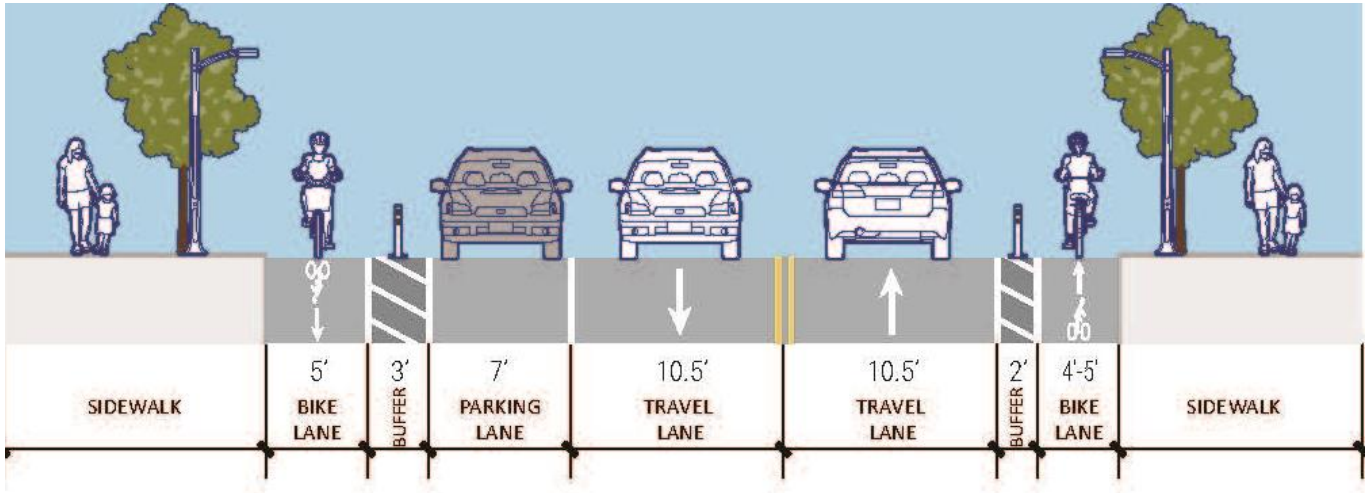
- Option A: Two-way bike lanes (Preferred Alternative)
- Option B: One-way bike lanes (Second Alternative)

Each has its own design considerations

Two-way bike lanes



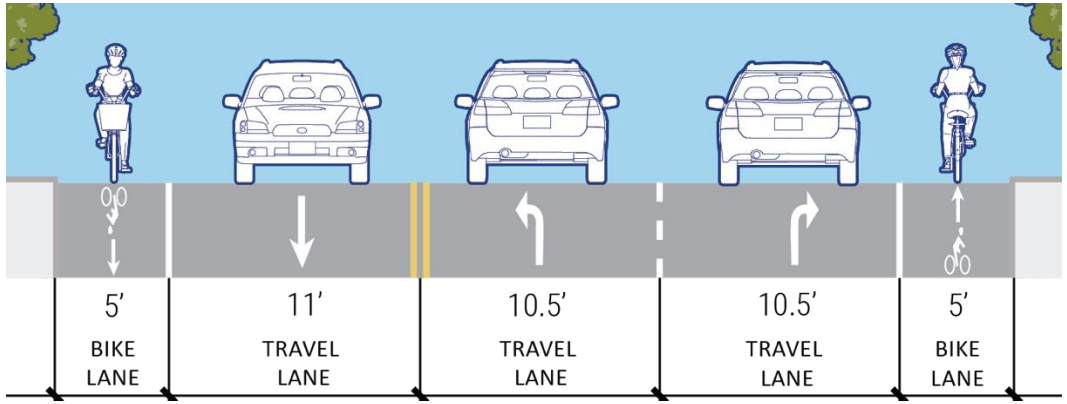
One-Way bike lanes



Roadway Width

Current Street Layout: Quincy St to Prescott St

- Bike lanes in each direction, painted lanes without separation
- Three lanes, two Westbound lanes approaching Quincy St
- Bike lanes are only 5’ and need to be wider to have separation



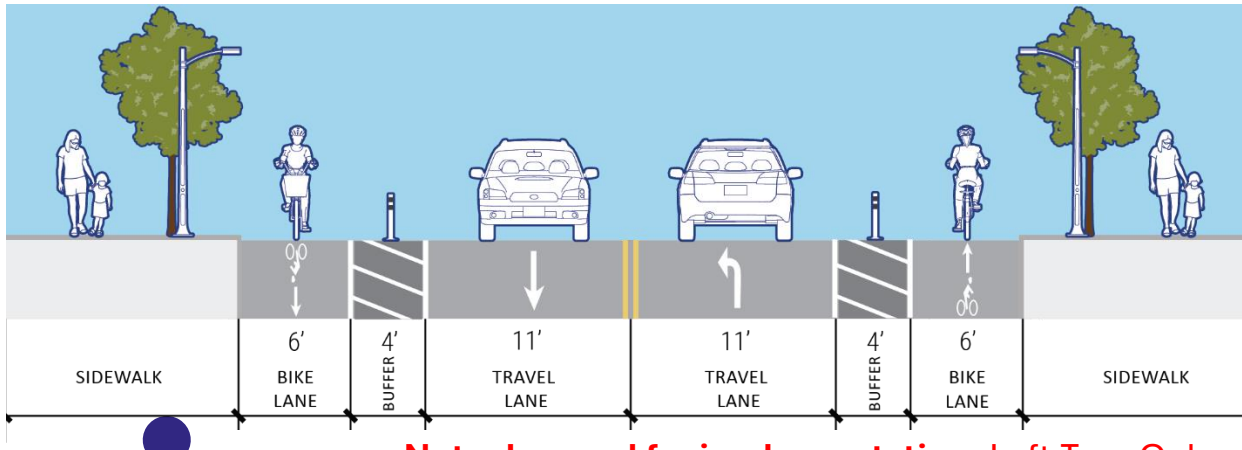
Current configuration between Prescott St and Quincy St

Current configuration between Prescott St and Quincy St

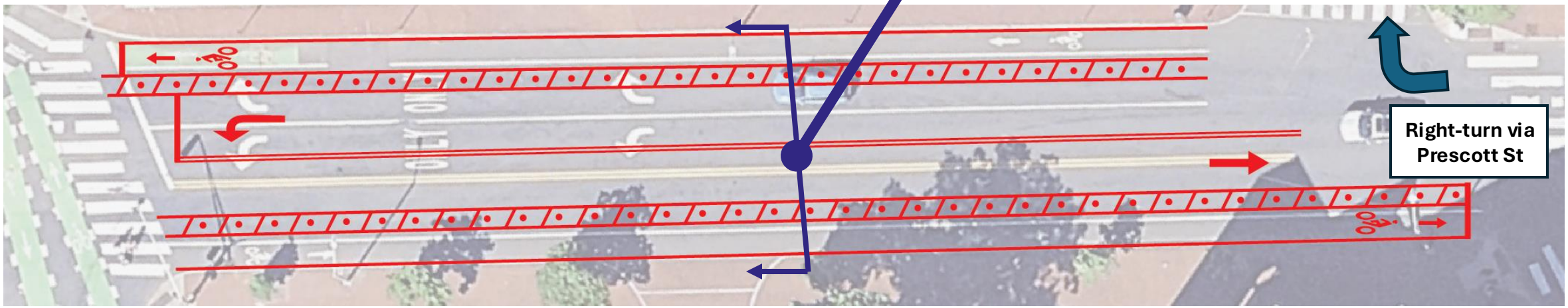
Quincy St to Prescott St

Westbound Left-Turn Only Evaluated: **Not advanced for implementation**

- Removes turn onto Quincy St, diverts all right-turns to Prescott St
- Requires permanent changes at Prescott St and Cambridge St to accommodate additional Prescott St traffic



Not advanced for implementation: Left-Turn Only



Quincy St to Prescott St

Current Street Layout (With Current Firehouse Construction)

- All right-turns via Prescott St
- Left turn only at Quincy St
- Local bicycle and pedestrian traffic permitted

Timeline

- Typical pattern to be restored in Fall 2025
- Existing layout with construction is not sustainable long-term

Current configuration between Prescott St and Quincy St with construction

Additional Design Considerations for Two-Way Bike Lanes

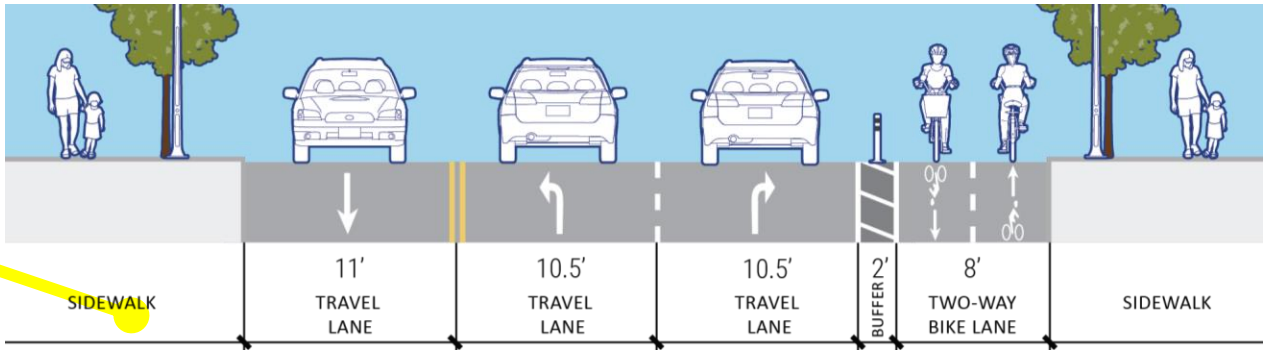
- **Access and Conflict Points:** What destinations are on which side?
- **Parking and Loading:** Generally, parking and two-way bike lanes are on opposite sides
- **Construction Requirements:** Two-Way Bike Lanes require floating bus stops
- **Signal Timing Requirements:** Clear transitions at signals

Section C Preferred Alternative: Two-Way Bike Lane

Two-Way Bike Lanes: Quincy St to Prescott St

Intersection configuration covered on next slide

Two-way bike lane has single buffer, bike lanes reduced to 4' in each direction



Typical two-way bike lane markings at driveways

Both turn lanes retained

Broadway

Quincy St

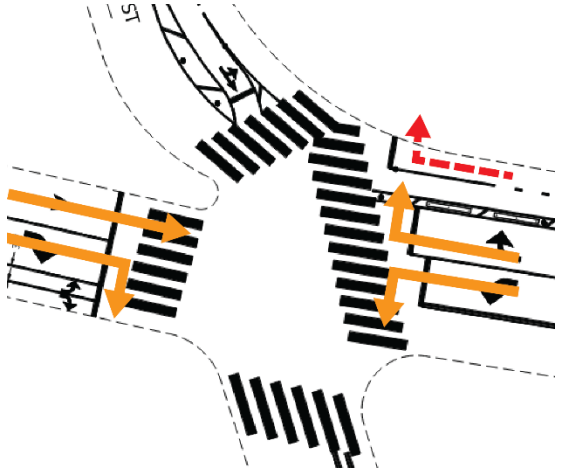
Prescott St

BROADWAY

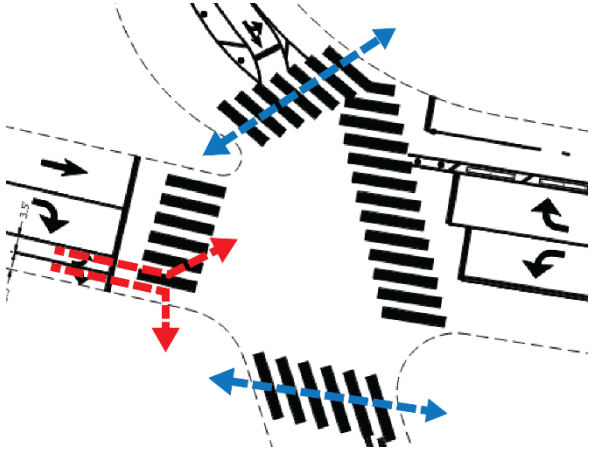
Two-Way Bike Lanes: Broadway at Quincy St

Intersection Configuration

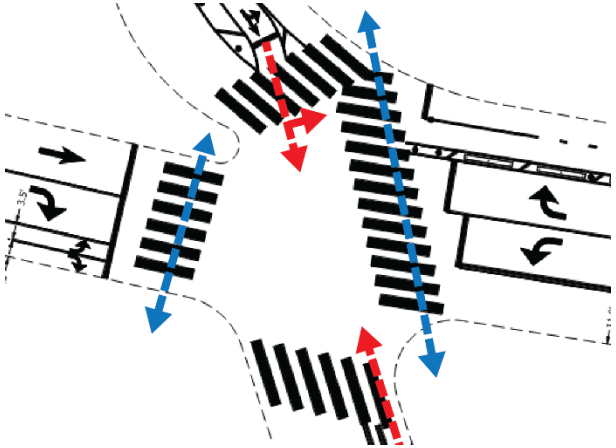
Phase 1

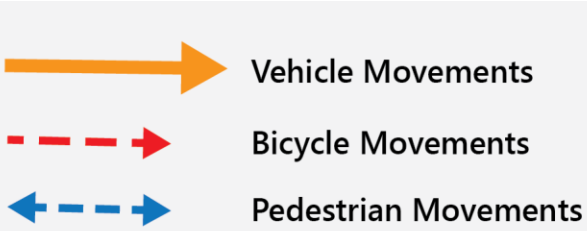


Phase 2



Phase 3

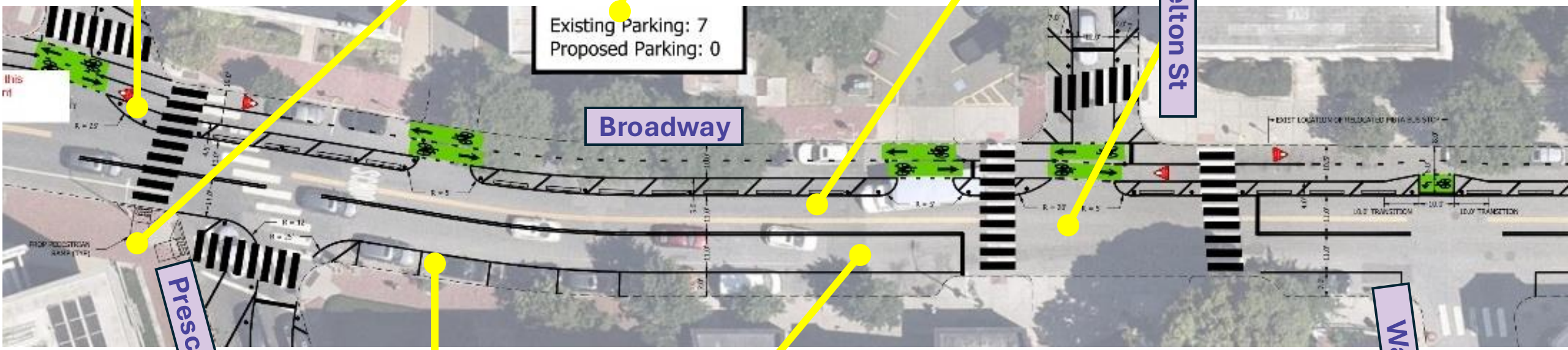




Considerations:

- Bicycle travel directions and volumes
- Signal visibility and clarity
- Bus routes and other large vehicle turns

Two-Way Bike Lanes: Prescott St to Ware St



Bump-out to slow right turns

New ramps and crosswalks

Block-By Block Parking Totals

Precast concrete barrier protecting two-way bike traffic

All-way stop at Felton St (next slide)

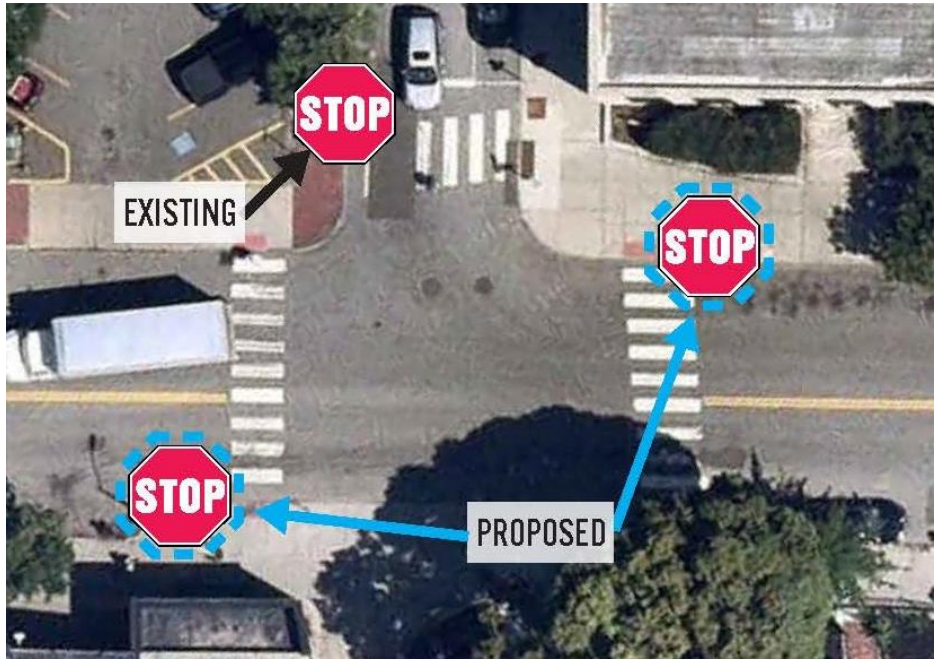
Parking on south side of Broadway

Loading zone (Broadway Marketplace)

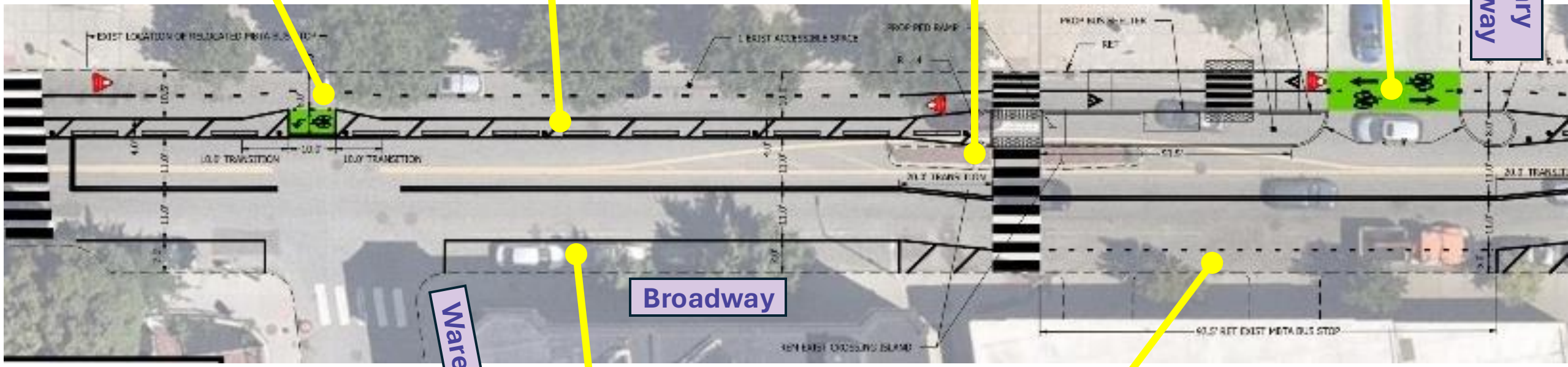
Additional Change: Broadway at Felton St

All-Way Stop

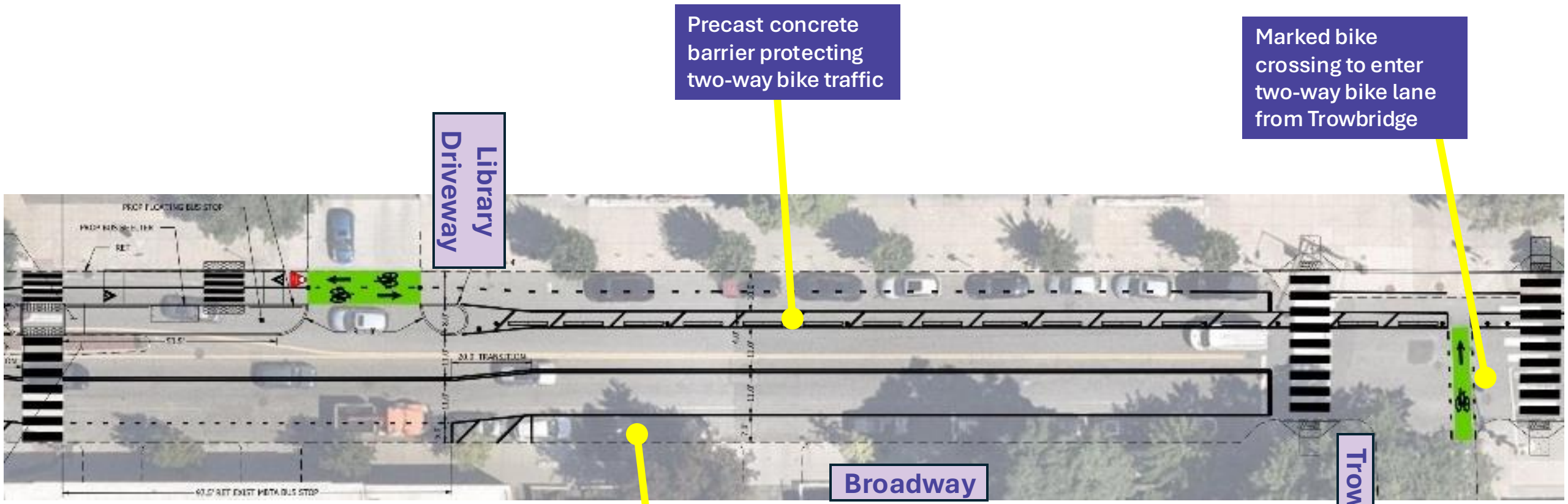
- Traffic volumes at this location meet expectations for a location with an all-way stop, such as:
  - Frequent pedestrian crossings on all sides of the intersection
  - Heavy side street traffic (Felton St)
- MBTA buses turning from Felton St
  - All-way stop provides more gaps for turning buses, which require more time and space to turn



Two-Way Bike Lanes: Ware St to Library Driveway



Two-Way Bike Lanes: Library Driveway to Trowbridge St



Two-Way Bike Lanes: Trowbridge St to Ellery St

Precast concrete barrier protecting two-way bike traffic

Bike stop line and area to pass stopped cyclists

Diagonal crossing to switch to one-way bike lanes or cross from library path

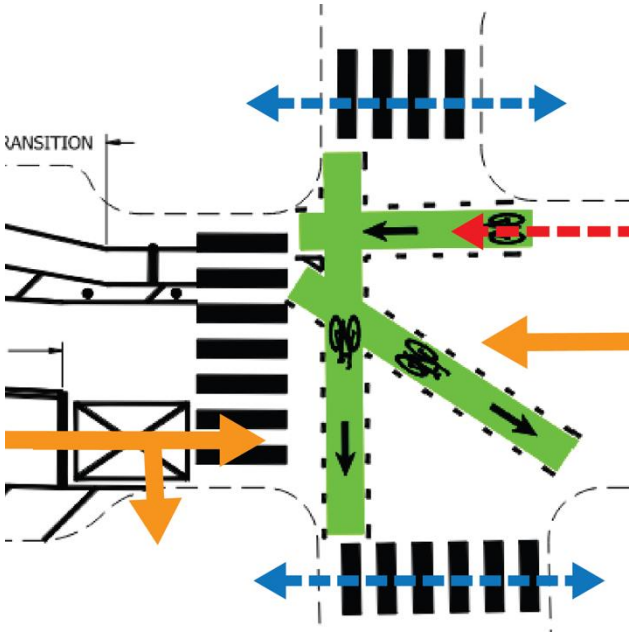
Parking on south side of Broadway

Stop line moved back for better visibility

Two-Way Bike Lanes: Broadway at Ellery St

Intersection Configuration

Phase 1



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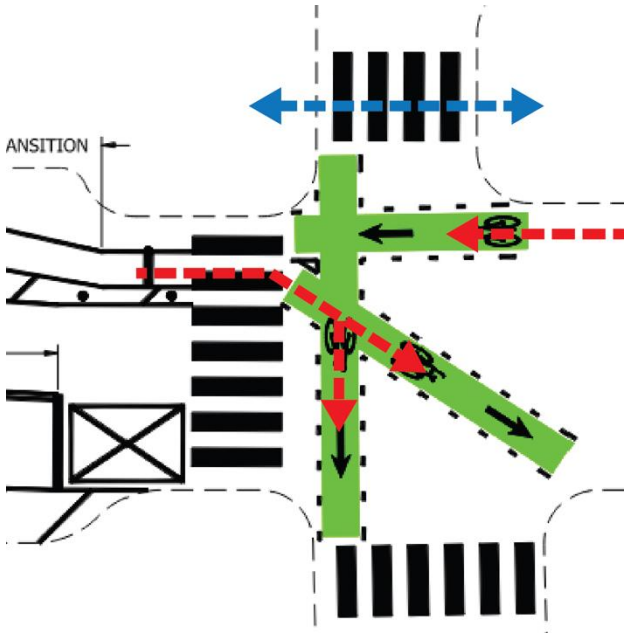

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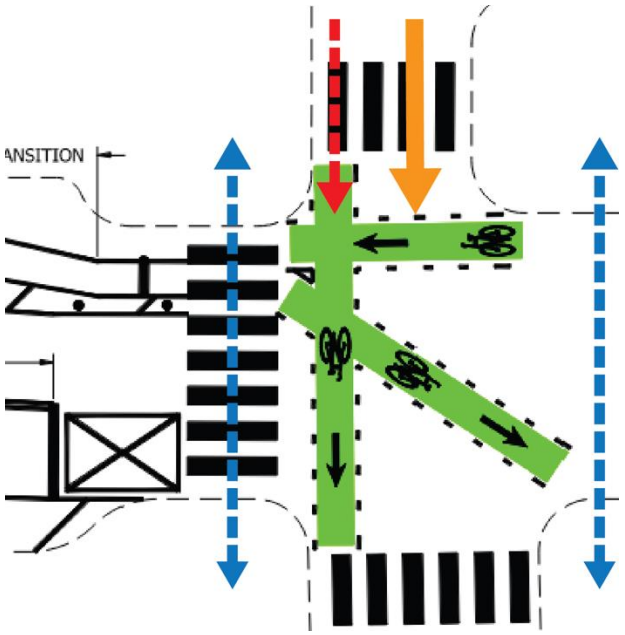
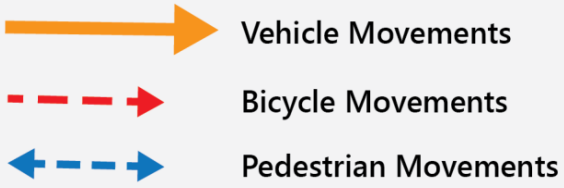




Two-Way vs. One-Way Comparison

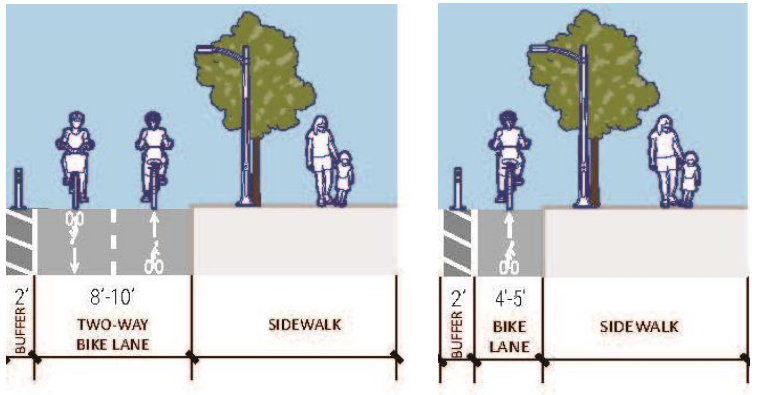
Two-Way vs. One-Way Bike Lanes:

Two-Way Bike Lanes

- Meets ordinance requirements and can be implemented whole length of Section C
- Retains more parking
- Requires additional design work, such as:
  - Construction of a floating bus stop
  - Signal changes to accommodate transitions
  - Stronger bike lane barrier
  - Additional visibility considerations, such as parking
  - Slightly longer design and construction timeline and costs

One-Way Bike Lanes

- Cannot meet ordinance requirements between Quincy St and Prescott St
- Retains less parking
- Would not have floating bus stops



Current Number of Parking Spaces: Section C	**Proposed Number of Parking Spaces:** Two-Way Bike Lanes	**Proposed Number of Parking Spaces:** One-Way Bike Lanes
65	32 (49%)	22 (34%)

Break & Roll Plan

04. Discussion & Feedback

Working Group Feedback

One key takeaway:

- Something you want the project team to hear about the design, or
- Something that hasn't been mentioned yet, or
- Specific improvement to the two-way preferred alternative design?

05. Public Comment

Public Comment

Public Comments Welcome

- Share thoughts in Q&A or verbally
- To comment verbally, raise virtual “hand” or signal interest in Q&A window
- Limit comments to 2 minutes; may need to adjust if many speakers

Please keep all comments…

- On-point
- Respectful
- Focused on issues (not individuals)

06. Working Group Business & Next Steps

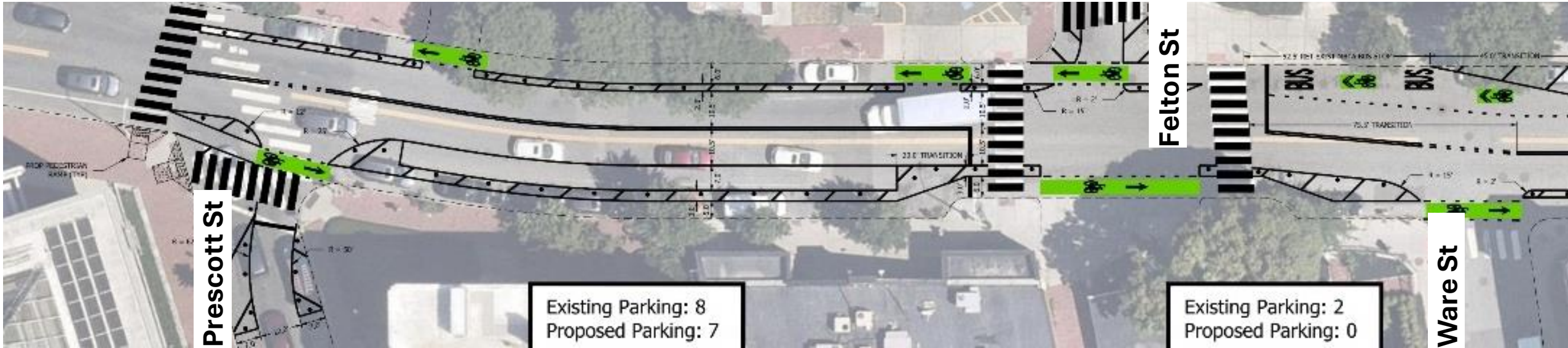
Appendix

Design: One-Way Bike Lanes
Evaluated but not preferred

One-way bike lanes: Prescott St to Ware St

Key Elements:

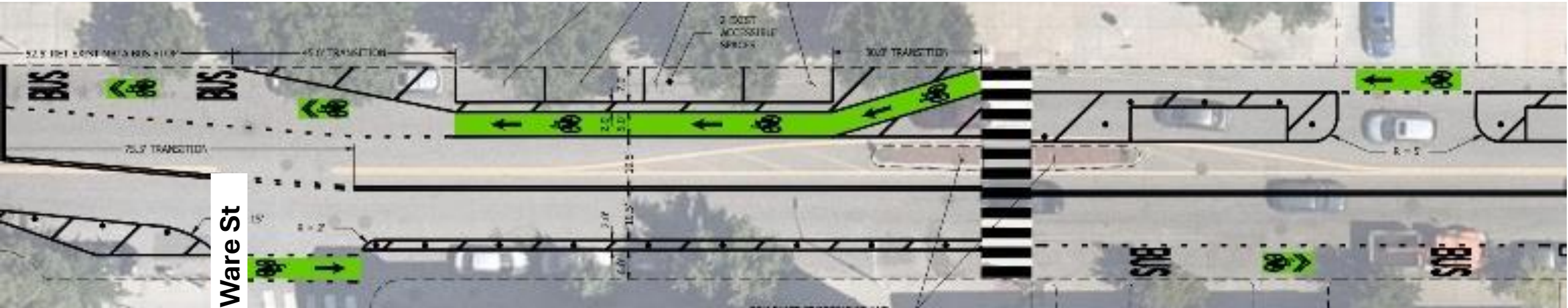
- Parking and loading on south side of the street in front of businesses
- Street width is 44’, allowing for 7’ clear bike lanes in both directions and 4-season maintenance of the bike lane



One-Way Bike Lanes: Ware St to Library Driveway

Key Elements:

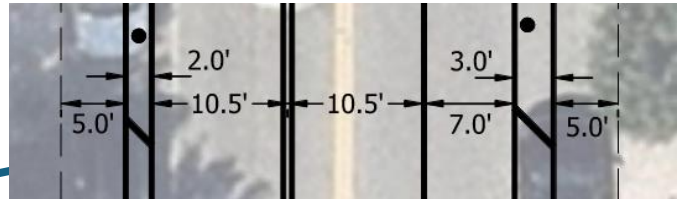
- Quick-build bus stops in both directions
- Curbside accessible/disability parking on north side
- Buffered bike lanes next to accessible/disability parking, otherwise separated lanes
- Existing mid-street crossing island removed, replaced with quick-build crossing island



One-Way Bike Lanes: Library Driveway to Trowbridge St

Key Elements

- Street width is 43’ feet: Less than other sections
- Bike lane on non-parking side is less than 7’ clear between flex-post and curb: **Not wide enough for 4-season maintenance**
- Parking on one side
- Design is possible, but not preferred

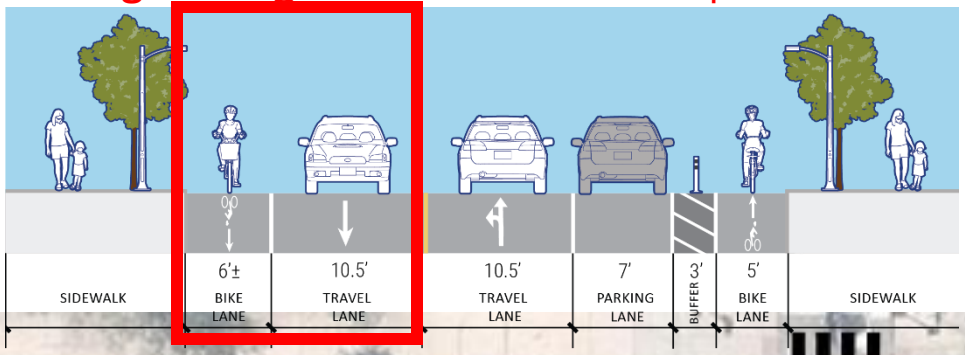


One-way bike lanes: Trowbridge St to Ellery St

Key Elements

- Street with is approximately 42.5’: Narrowest section of Broadway
- Design is possible, but requires removing all parking
- Adding parking would reduce bike lanes to less than 6’ clear, too narrow for street cleaning

Adding Parking: Removes bike lane separation



Alternative with no parking from Trowbridge St to Ellery St