



REHABILITATION OF WASHINGTON STREET

DESIGN REVIEW COMMITTEE MEETING 4 – PARKING (BEACON STREET TO CYPRESS STREET)

November 8, 2023

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AGENDA

- **Introductions**
- **Establish goals of meeting**
- **Update on lane widths**
- **Visual representation of corridor**
- **On-street parking guidelines**
- **Proposed on-street parking modifications**
- **Next steps**
- **Design schedule**
- **How to stay connected**



PROJECT GOALS / OBJECTIVES

- **Complete streets** – Better accommodate all users & prioritize most vulnerable
- **Safety & access for pedestrians** – Calm traffic, improve connectivity
- **Multimodal** – Separated bike / micro-mobility lanes & year-round BLUEbike stations
- **ADA compliance** – Traffic signals, sidewalks, and curb ramps
- **Enhanced streetscape** – Street trees, protect / improve existing canopy
- **Lighting** – Consider pedestrian scale lighting (funded by the Town)



Traditional bicycle lane



BLUEbike station – Town Hall



ADA issue at crossing

BROOKLINE TRANSPORTATION AND ENGINEERING OBJECTIVES

Given that transportation currently accounts for 43% of all greenhouse gas emissions in Massachusetts, the largest of any one sector, the only way for the Town to meet both the Select Board's commitment to become carbon neutral by 2050 and Town Meeting's December 2019 Healthy & Sustainable Transportation resolution to achieve a mode split of 75% of trips by walking, biking, electric micro-mobility, and public transit (among others), is to invest in and prioritize projects that improve the safety and access of these 'alternative' modes over single occupancy vehicle trips with the eventual outcome of making these modes the norm.

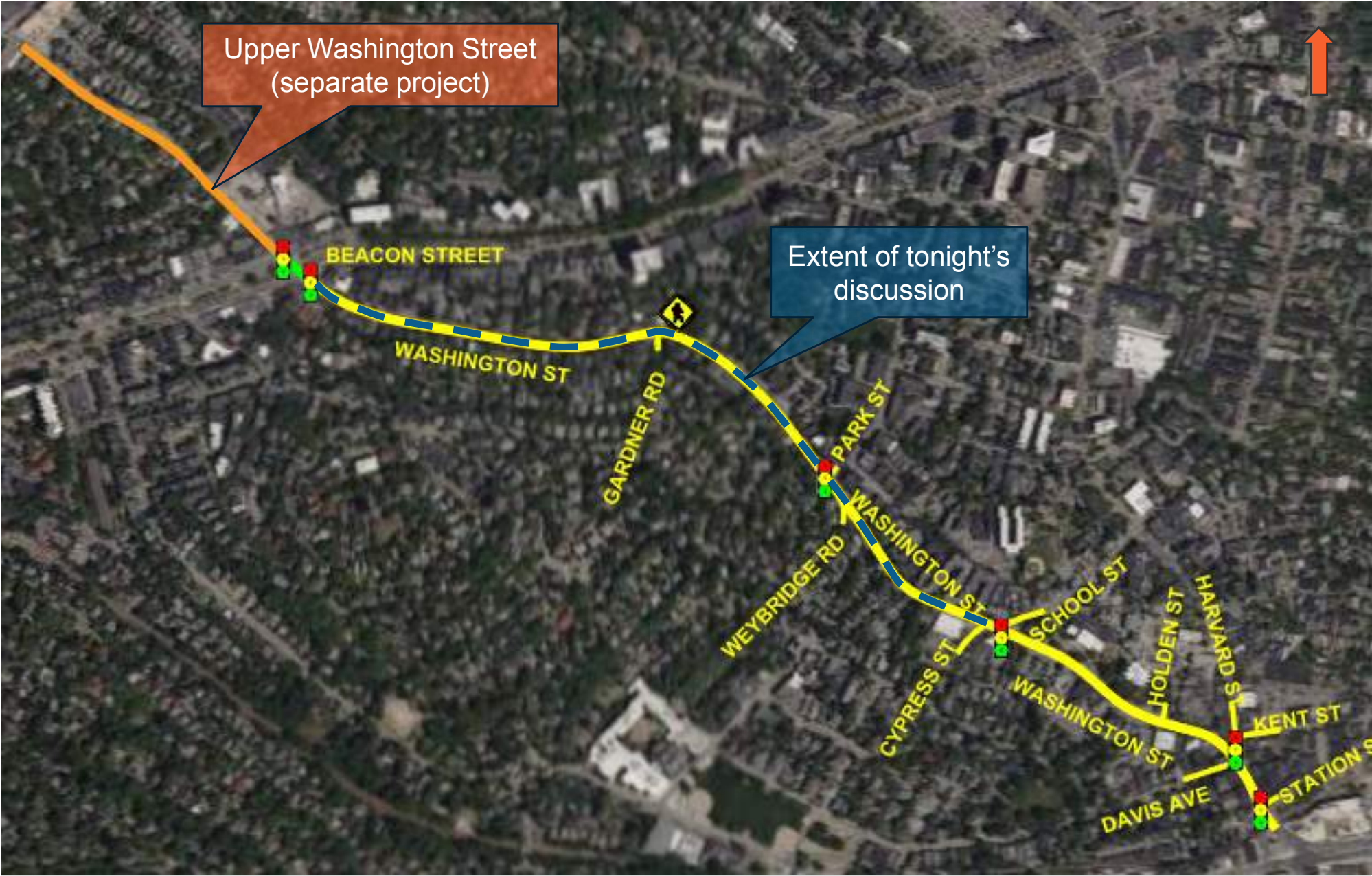
- **Brookline Town Meeting Resolution: Commitment for carbon neutrality by 2040**
- **Brookline Town Meeting Resolution: Achieve mode split of 75% of trips by walking, biking, electric micro-mobility, and public transit**

GREEN ROUTES BICYCLE NETWORK PLAN

- **Green Routes Bicycle Plan**
 - First adopted by the Town of Brookline in 2008
 - Update issued in March 2022
 - Map of proposed protected framework for safe bicycling throughout the town
 - Establish safe, low stress bicycle routes
 - Key statistics:
 - 145 miles of roadway including:
 - 27 miles of “protected network”
 - 25 miles of “safe connecting streets”
 - Plan establishes recommendations for improving bicycling within the town
 - **Work toward its zero emissions and sustainable transportation goals**



PROJECT LOCATION



Upper Washington Street
(separate project)

Extent of tonight's
discussion

**Focus of tonight's
discussion**

Washington Street
from Beacon Street
to Cypress Street

Project location plan

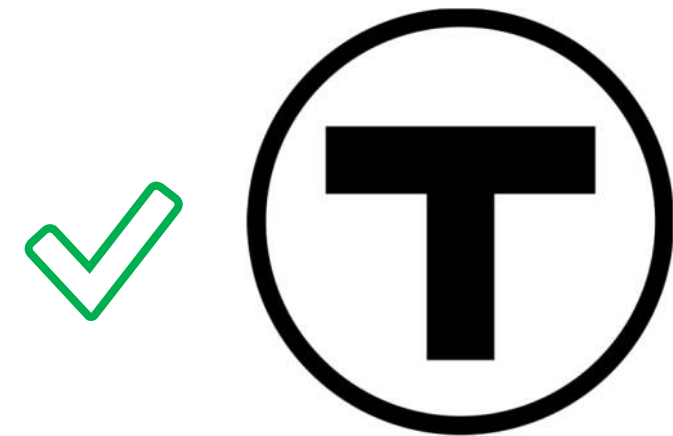
GOALS OF THE MEETING

- **Convey decision on travel lane widths**
- **Present visual representation of corridor**
 - Based on conceptual layout
- **Overview of on-street parking**
 - Beacon Street to Cypress Street
- **Identify path to MassDOT 25% Design**
- ***Vote on recommended next steps***



UPDATE ON LANE WIDTHS

- **Meetings with MassDOT and MBTA**
- **MassDOT – June 12, 2023**
 - Review of existing corridor
 - Overview of project scope
 - Presented lane width recommendation from DRC Meeting 3
- **MBTA – June 26, 2023**
 - Provided summary of information presented to MassDOT
 - **MBTA requested 11-foot lanes adjacent to shoulders / buffers**
 - 12-foot lanes adjacent to on-street parking
 - *Design team regrouped internally to discuss next steps*
- **MassDOT & MBTA – August 4, 2023**
 - Emphasized Town of Brookline initiative for 10-foot travel lanes
 - MBTA acknowledged emphasis on narrowing travel lanes
 - **Decision: 11-foot travel lanes adjacent to painted shoulders and parking**
 - *MassDOT concurred with recommendation*



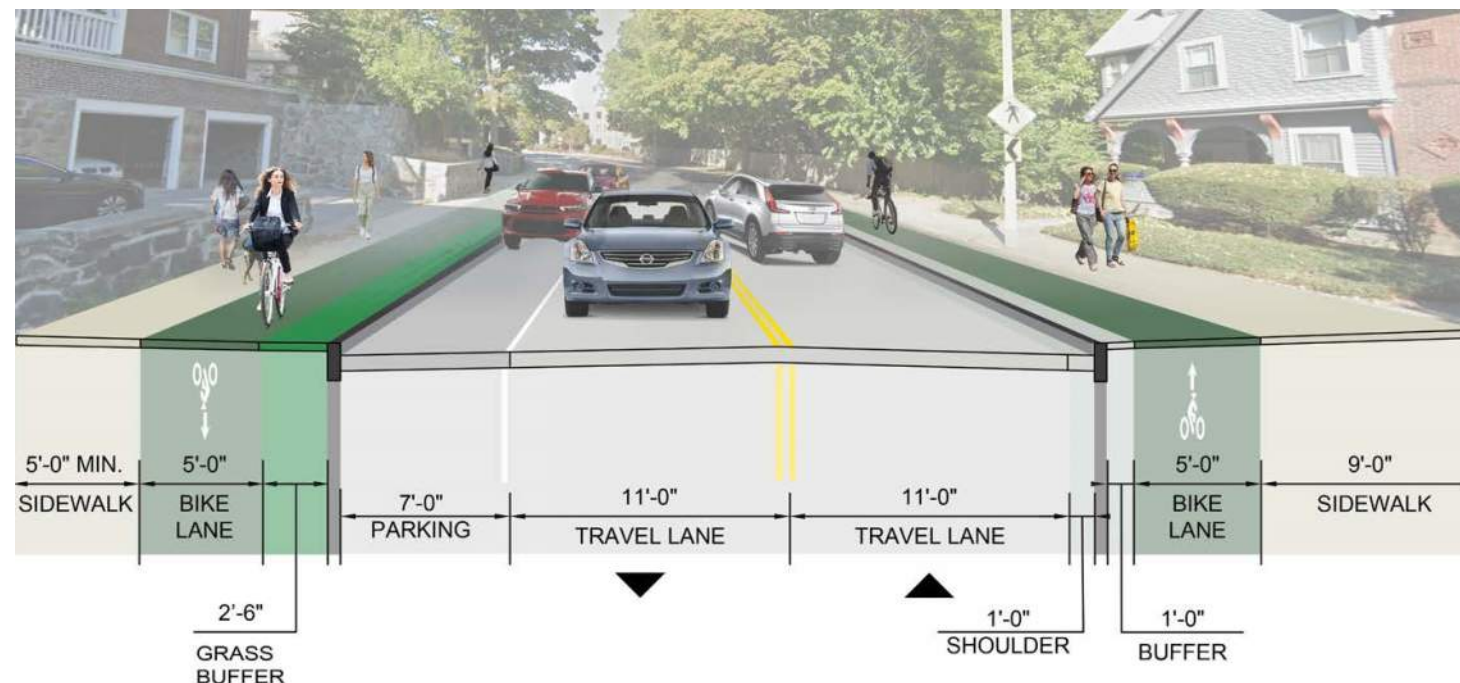
VISUALIZATION OF THE CORRIDOR

- **Conceptual Renderings**

- Provides context of design features along corridor
- Utilizes site specific photos / aerials as basemap
- Includes proposed design features such as:
 - Separated bicycle lanes
 - Sidewalks with tree canopy / furniture zone
 - Travel lanes with on-street parking (where applicable)



Eye level perspective: Washington Street



Cross sectional view: Washington Street

VISUALIZATION OF THE CORRIDOR (CONT.)

Eye level renderings of separated bicycle lanes



Existing: Painted bicycle lane adjacent to on-street parking



Proposed: Separated bicycle lane adjacent to on-street parking

VISUALIZATION OF THE CORRIDOR (CONT.)

Eye level renderings of separated bicycle lanes



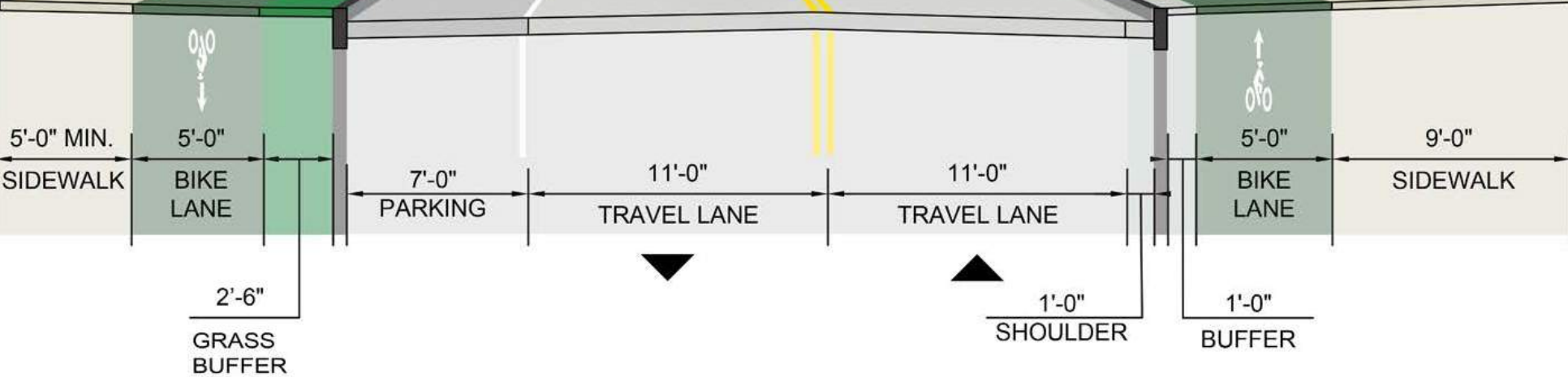
Existing: Painted bicycle lane along fire station driveway



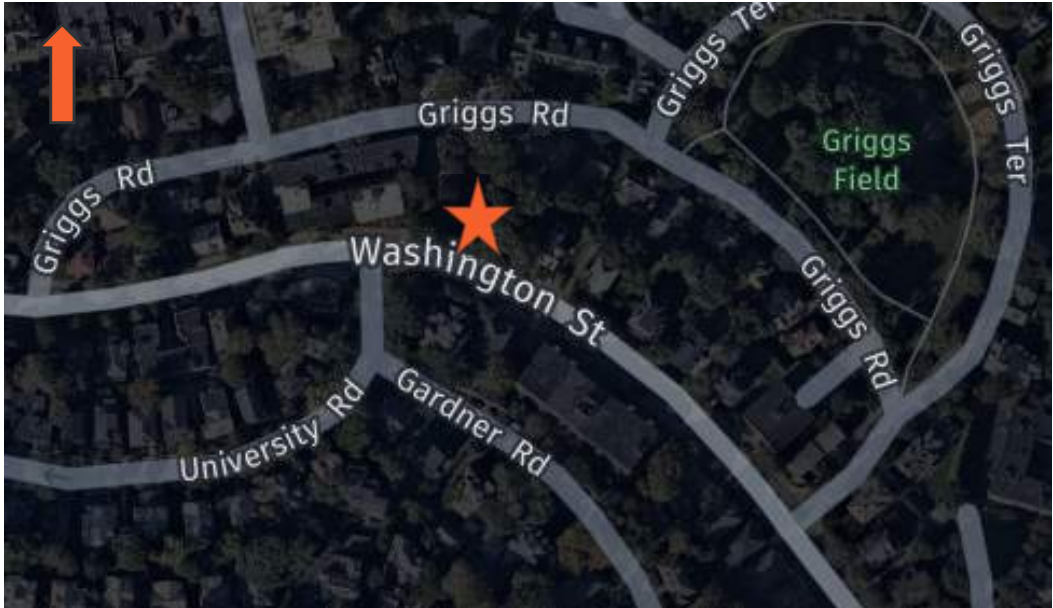
Proposed: Separated bicycle lane along fire station driveway

VISUALIZATION OF THE CORRIDOR (CONT.)

Cross sectional views of separated bicycle lanes

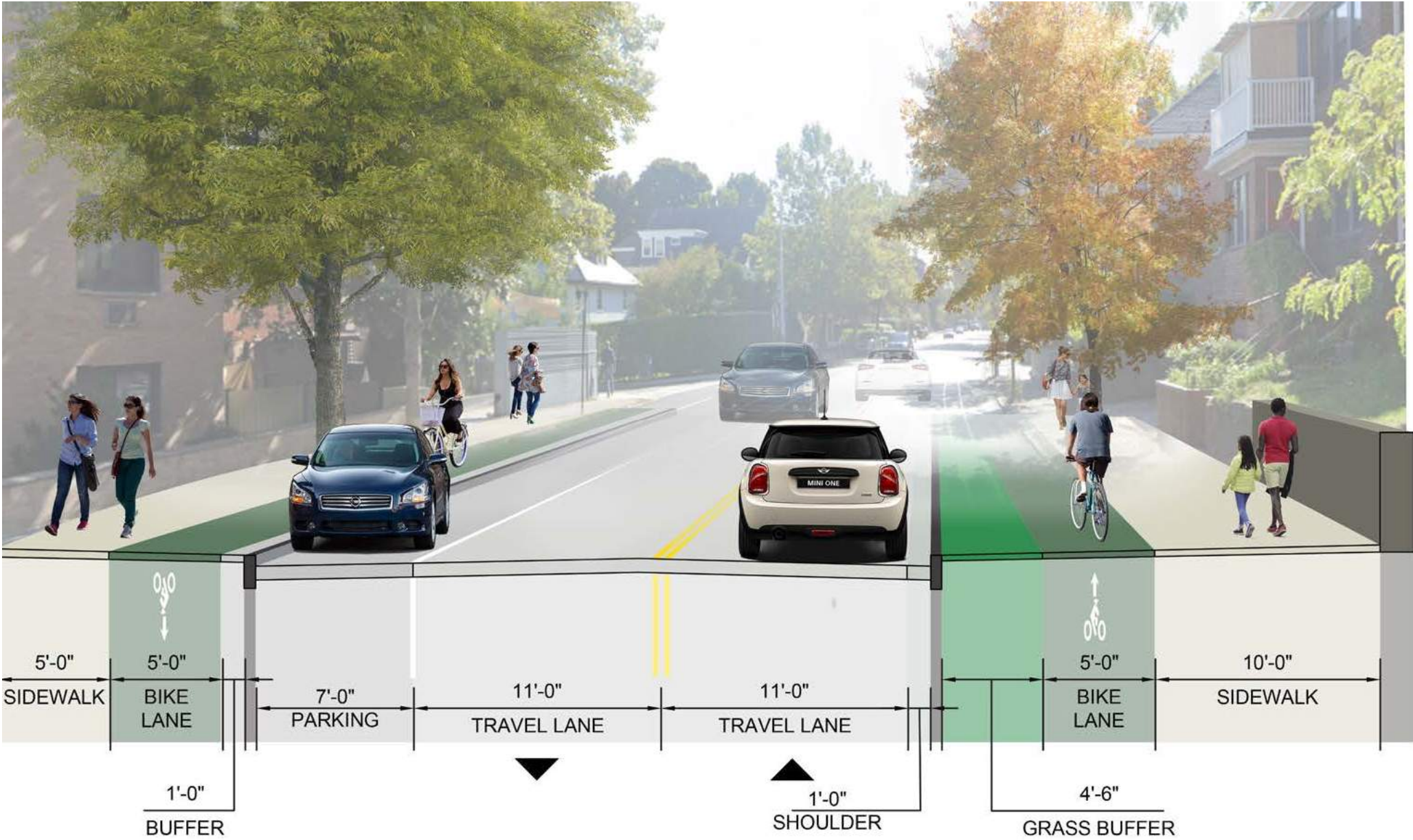


Cross sectional view: 541 Washington Street (looking west)

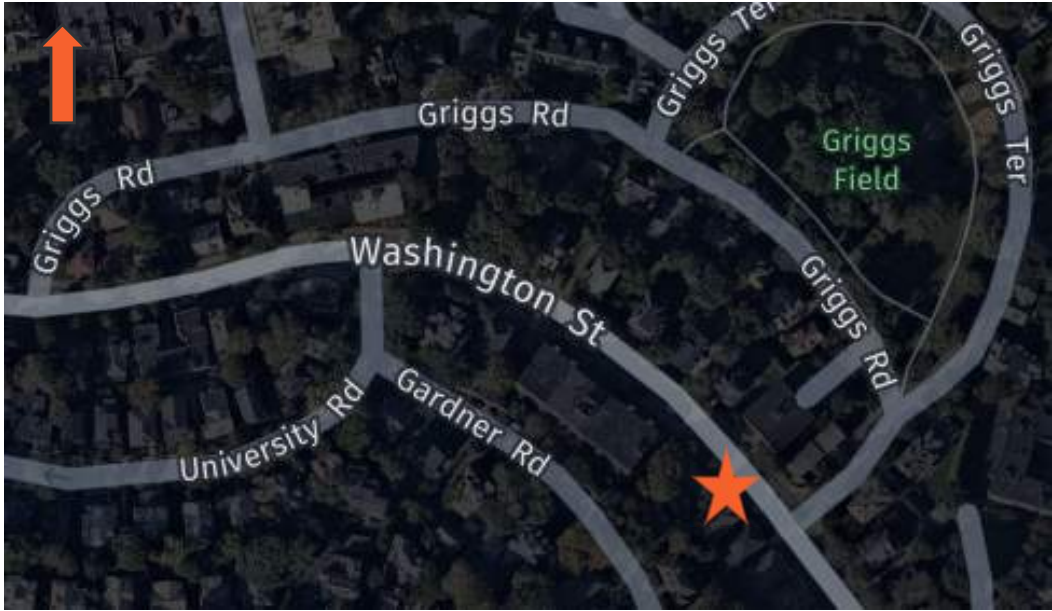


VISUALIZATION OF THE CORRIDOR (CONT.)

Cross sectional views of separated bicycle lanes



Cross sectional view: 519 Washington Street (looking east)



VISUALIZATION OF THE CORRIDOR (CONT.)



Birds-eye perspective – Washington Street (looking toward Beacon Street)

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VISUALIZATION OF THE CORRIDOR (CONT.)



Birds-eye perspective – Washington Street (west of Cypress Street)

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ON-STREET PARKING BEACON STREET TO CYPRESS STREET



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ON-STREET PARKING - GUIDELINES

- **Parking stall width**
 - 7-foot parking lane width (minimum)
 - 8-foot ideal for high turnover, commercial areas
- **Required offsets**
 - 20 feet from crosswalk
 - Within 10 feet of a fire hydrant
 - Maintain access to adjacent driveways
 - Recommend 20 feet from side streets
- **Inclusion of separated bicycle facilities**
 - Cognizant of vehicle turn speeds
 - Dictates length of clear space required on approach to intersection
 - Impact parking setbacks at intersections
- **Comparison of existing vs. proposed parking**
 - Must compare existing parking spaces that are legal

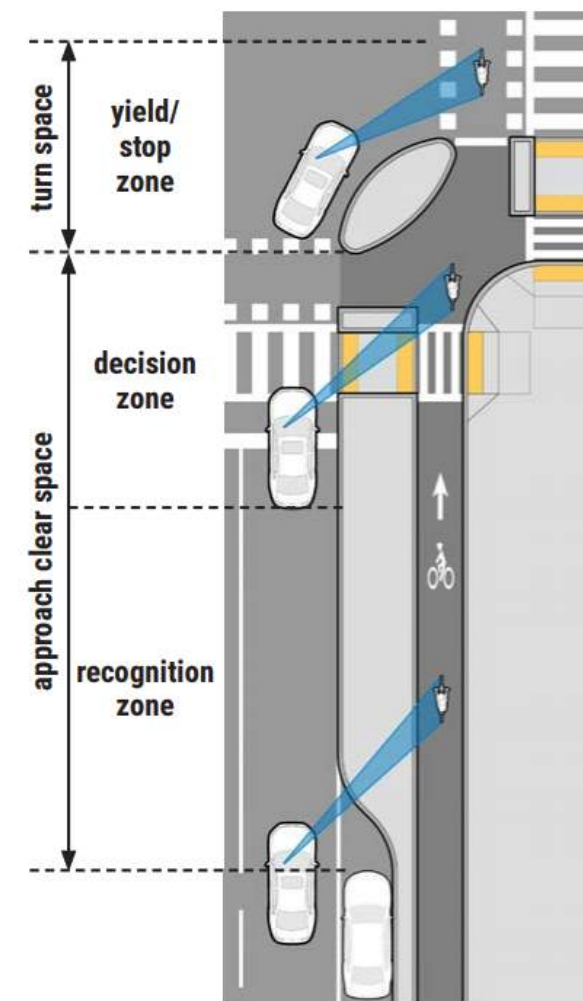


EXHIBIT 4H: Right Turning Motorist Yields to Through Bicyclist

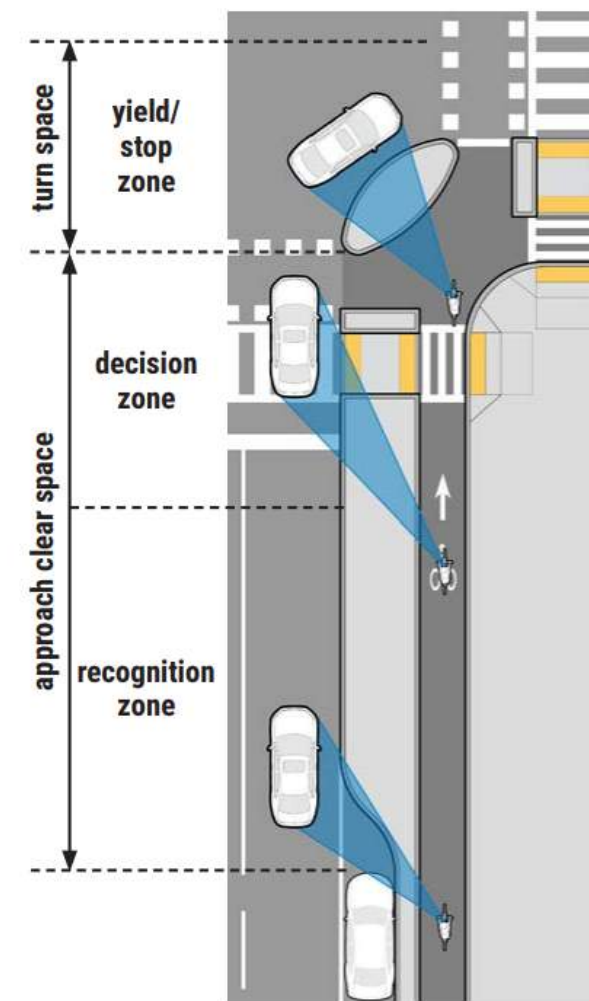


EXHIBIT 4I: Through Bicyclist Yields to Right Turning Motorist

Source: MassDOT Separated Bike Lane Planning & Design Guide

Vehicular Turning Design Speed	Approach Clear Space
10 mph	40 ft.
15 mph	50 ft.
20 mph	60 ft.

ON-STREET PARKING BEACON STREET TO CYPRESS STREET

- **Based on preliminary layout of Washington Street**
 - Inclusion of separated bicycle facilities on each side
 - Assume number of existing bus stops retained along corridor
- **Parking study**
 - Inventory of existing parking spaces conducted in September 2021
 - Updated based on the implementation of painted bicycle lanes
 - Provides parking utilization along segments of Washington Street
- **Segmented review of parking adjustments**
 - Utilized aerial imagery (existing condition) and AutoCAD layout (proposed condition)
 - Summary of parking spaces and demand
- **Summary of findings**
 - Washington Street from Beacon Street to Cypress Street
 - 126 parking spaces provided (existing)
 - 65 parking spaces utilized (existing)
 - **37 parking spaces in proposed condition (conceptual)**
- **Parking analysis - Washington Street business district**
 - Will be reviewed / presented as part of separate meeting



Beacon to Cypress – Both Sides	
Existing Parking	126
Midday Demand	65
Evening Demand	65
Proposed Parking	37

ON STREET PARKING AREAS

- **Best practices**

- Designate short term parking closest to stores for customers
 - Employees occupying long-term spaces further away
- Destinations within walking distance
 - 2.5-minute walk = approximately 500'
 - 5.0-minute walk = approximately 1,000'
- Metered parking available on Beacon Street

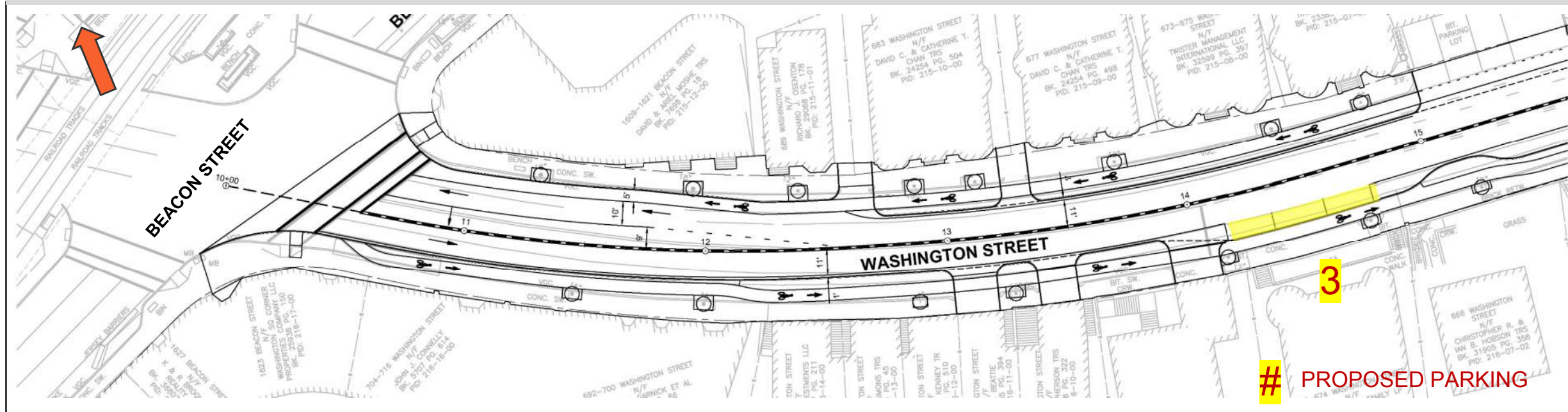


Heat map of walking distances, from corner of Beacon Street & Washington Street

ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Existing parking graphic



Proposed parking graphic

Westbound	
Existing Parking	13
Proposed Parking	0

Eastbound	
Existing Parking	11
Proposed Parking	3

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ON-STREET PARKING BEACON STREET TO CYPRESS STREET

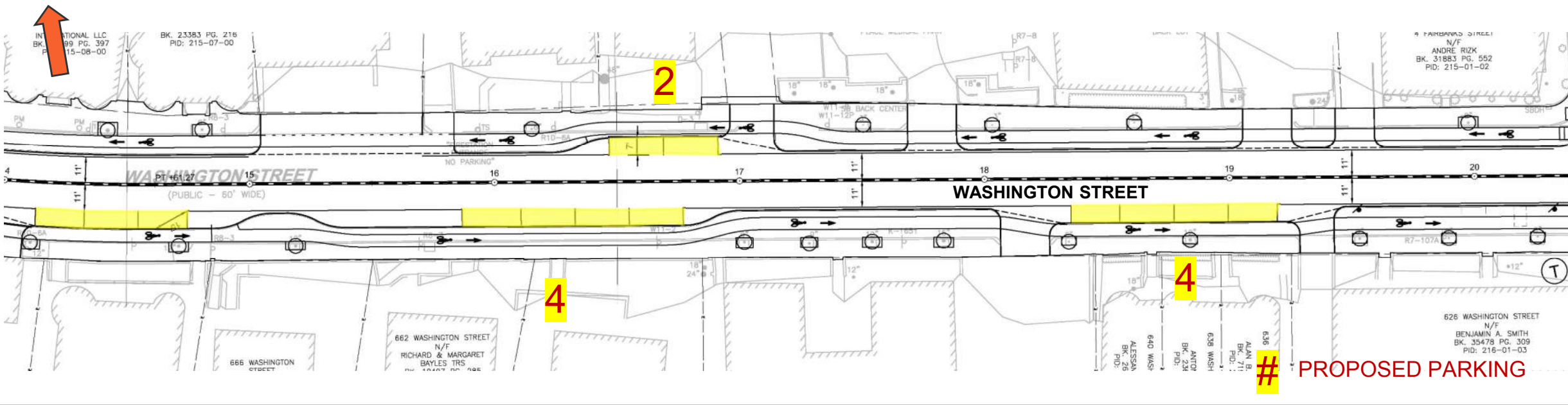


Westbound

Existing Parking	14
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Proposed Parking	2
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Existing parking graphic



Eastbound

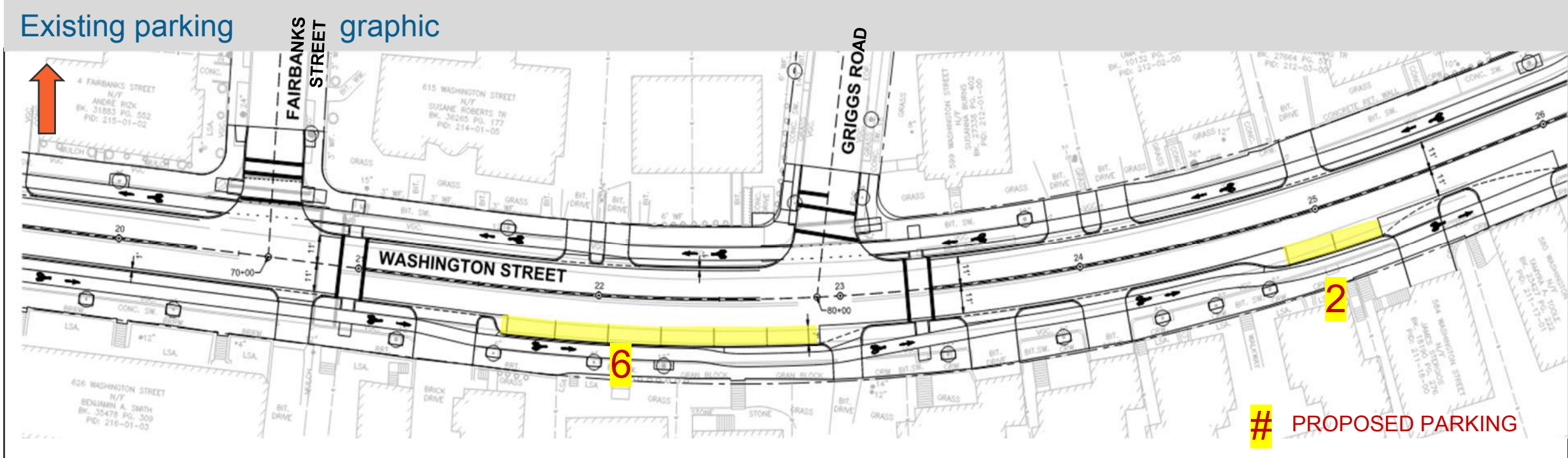
Existing Parking	15
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Proposed Parking	8
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Proposed parking graphic



ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Westbound	
Existing Parking	12
Proposed Parking	0

Eastbound	
Existing Parking	13
Proposed Parking	8

Proposed parking graphic

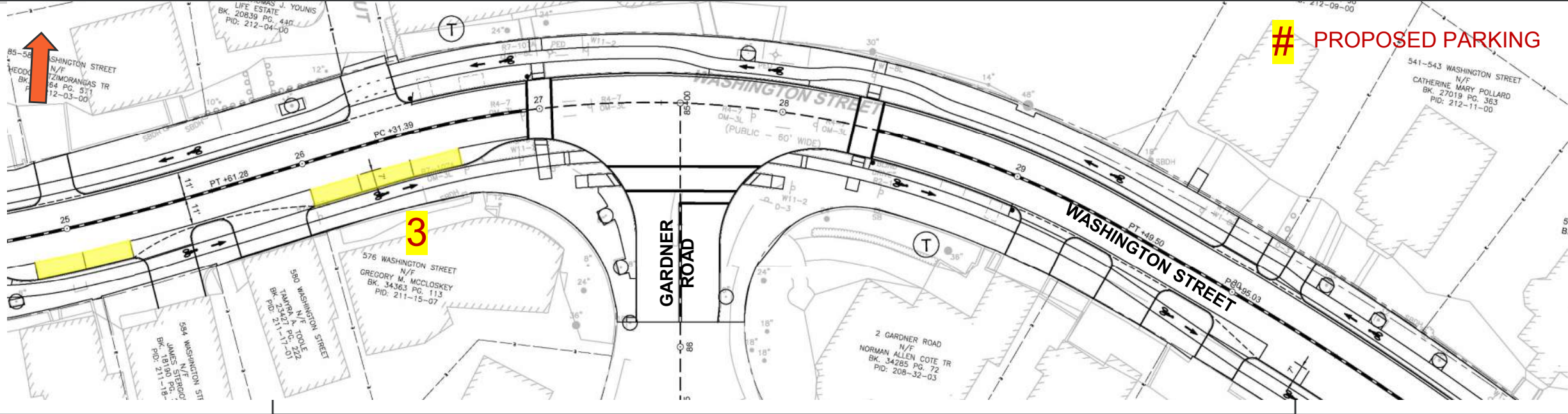


ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Westbound	
Existing Parking	4
Proposed Parking	0

Existing parking graphic



Eastbound	
Existing Parking	0
Proposed Parking	3

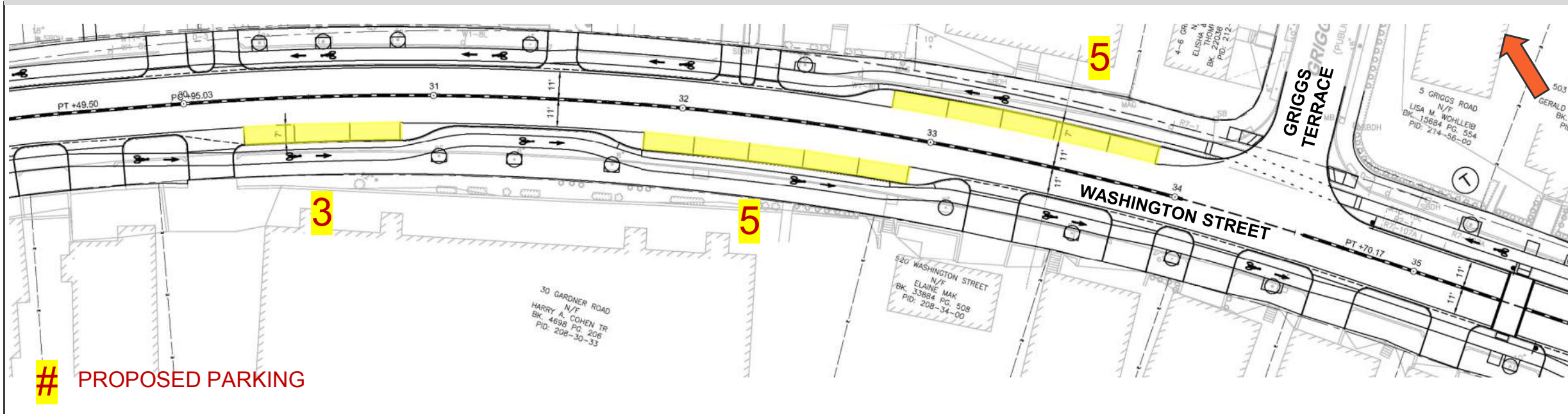
Proposed parking graphic



ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Existing parking graphic



Proposed parking graphic

Westbound	
Existing Parking	14
Proposed Parking	5

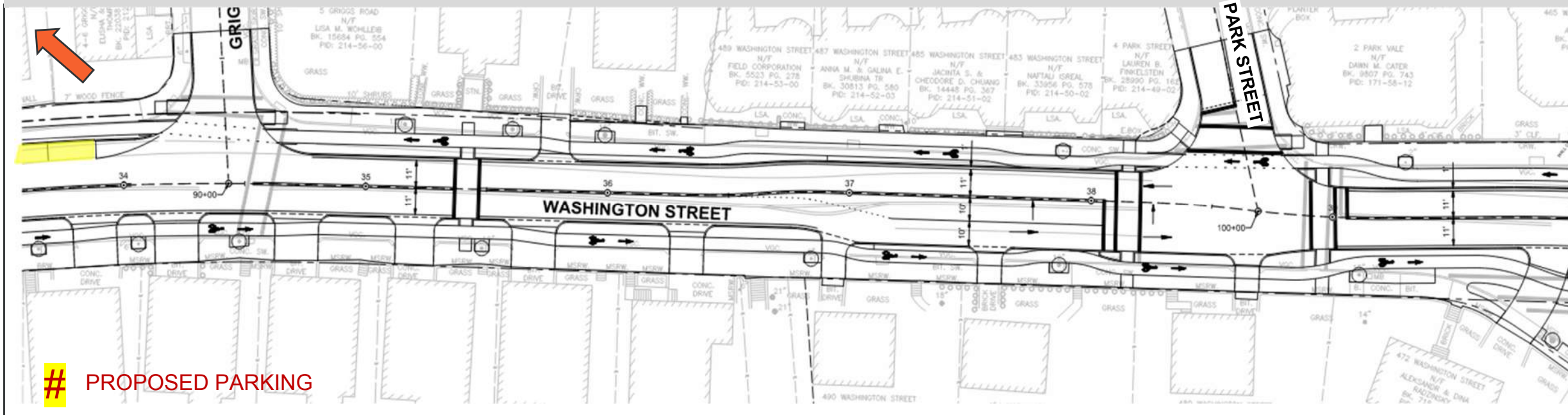
Eastbound	
Existing Parking	0
Proposed Parking	8



ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Existing parking graphic



Proposed parking graphic

Westbound	
Existing Parking	3
Proposed Parking	0

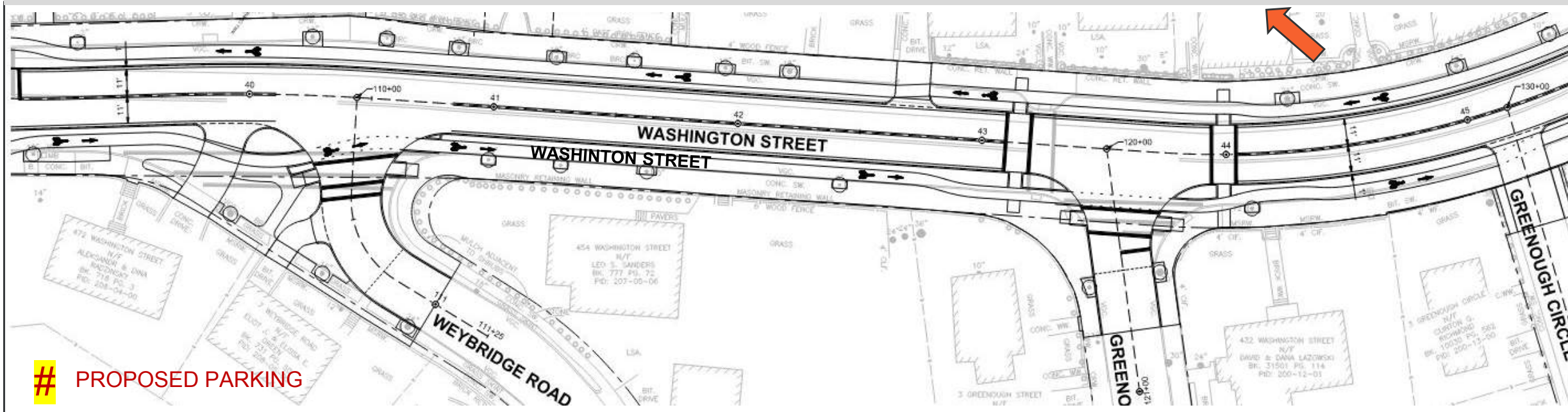
Eastbound	
Existing Parking	0
Proposed Parking	0



ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Existing parking graphic



Proposed parking graphic

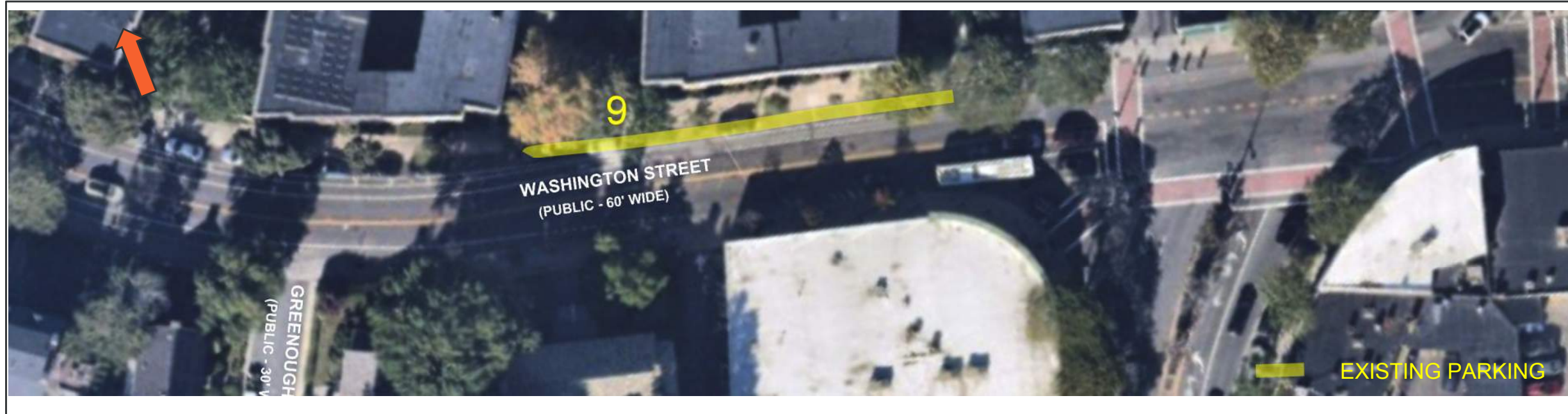
Westbound	
Existing Parking	18
Proposed Parking	0

Eastbound	
Existing Parking	0
Proposed Parking	0

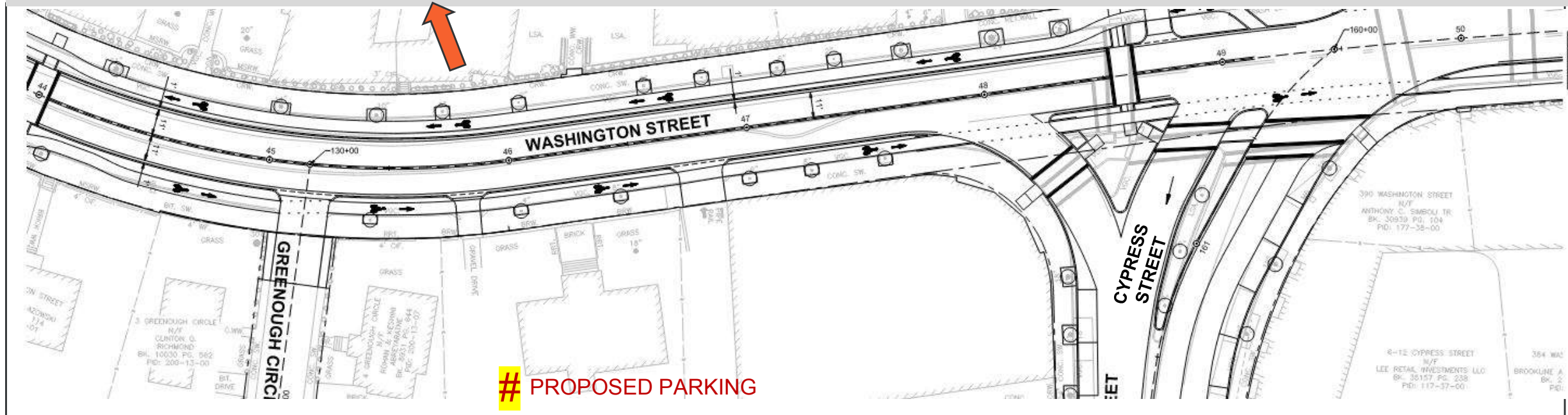
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ON-STREET PARKING BEACON STREET TO CYPRESS STREET



Existing parking graphic



Proposed parking graphic

Westbound	
Existing Parking	9
Proposed Parking	0

Eastbound	
Existing Parking	0
Proposed Parking	0

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PROJECT LIMITS

- **Beacon Street**
 - Expect project to stop short of the intersection
 - Intersection to be included as part of Bridle Path project
 - Impacts to MBTA Green Line (at-grade crossing / signals)
 - Design team cognizant of project scope, schedule, and programmed cost
- **Upper Washington Street**
 - Through collaboration with various stakeholders, the town has identified design funding for the remainder of the corridor
 - Design will mimic improvements considered and planned as part of this MassDOT project
- **Rehabilitation of Washington Street project**
 - Programmed for FY2027
 - Boston Region Metropolitan Planning Organization (MPO)
 - Estimated total federal participating cost = \$29M
- **Required to work within fiscal / time constraints**



Beacon Street limit of work



Upper Washington Street – existing condition



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NEXT STEPS

- **Review layout of Washington Street from Beacon Street to Cypress Street**
 - Based on feedback received tonight
 - Adjustments to parking areas
- **Continue Washington Street layout and parking analysis to Brookline Village**
- **Coordinate bus stop designs, locations, and consolidation with MBTA**
- **Assess pedestrian facilities along corridor**
 - Sidewalk route between tree canopy and buildings
 - Pedestrian desire lines / crosswalk locations
- **Review condition of existing tree canopy**
 - Overall health of tree canopy
 - Pinch points within separated bicycle lane(s)



Tree roots heaving sidewalk

SCHEDULE MOVING FORWARD

- **Design Review Committee Meetings**

- On-street parking – Cypress Street to Brookline Village
- Bus stop design & transit accommodations along corridor
- Intersection review
- Pedestrian facilities
- Tree canopy

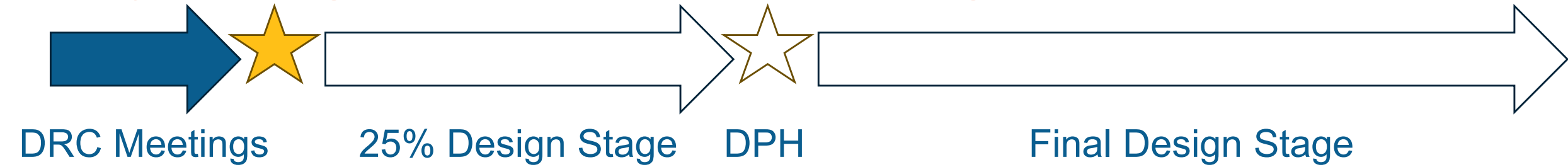


- **Approvals from Design Review Committee and Transportation Board**

- **Advance to 25% Design with MassDOT**

- Design Justification Workbook
- Design Public Hearing (major project milestone)

- **Project programed on FY27 TIP through Boston MPO**



HOW TO STAY CONNECTED

- **Visit project website**
 - <https://www.washingtonstbrookline.com/>
 - Sign up for mailing list to receive future updates
- **Upcoming Design Review Committee meetings**
 - Similar format as tonight's meeting
 - Present project information / design updates
- **Encourage public comments!**
 - transportation@brooklinema.gov



VOTE & OPEN DISCUSSION

Vote: Recommended next steps for the design team

Thank you!