Wellington Circle Study

WELLINGTON CIRCLE STUDY

massDOT
Massachusetts Department of Transportation

McMAHON
TRANSPORTATION ENGINEERS & PLANNERS

Public Meeting #1

June 24, 2021

Ground Rules

- This meeting is being recorded
- Technical Support: Luke McInnis lmcinnis@HNTB.com
- To participate “Raise Hand”, Q&A, or dial *9 if joining by phone
  - Study team will unmute you to share a comment verbally
  - Q&A for submission of written questions/comments

Comment Verbally

Bottom Panel of Zoom Screen

Written Question/Comment

Agenda

- Study Process
- Study Area, Goals & Objectives, and Evaluation Criteria
- Existing Conditions: Planning Context
- Existing Conditions: Multimodal Transportation Network
- Issues & Opportunities
- Meeting on Demand Overview / Public Comment
- Next Steps

STUDY PROCESS

Study Background

- Study initiated as part of the Section 61 Finding for the Encore Boston Harbor casino
  - Funding provided for a transportation study to develop alternatives for long-term improvements to Wellington Circle

- Massachusetts General Laws Chapter 30, Section 61
  - Determine the impacts of projects on the natural environment and detail measures to avoid or minimize them (Section 61 Finding)
  - Massachusetts Environmental Protection Act (MEPA) review process

Study Overview

- Conceptual planning study to evaluate existing and future multimodal transportation conditions at Wellington Circle

- Examine ways to redesign Wellington Circle to provide better connectivity and improve multimodal mobility throughout the area of the City of Medford and surrounding region

- Develop short-, medium-, and long-term recommendations that will be included in a Final Report

Study Process

1	• Public Participation, Study Area, Goals & Objectives, Evaluation Criteria	Public Involvement Plan, Study Area, Goals and Objectives, Evaluation Criteria
2	• **Existing Conditions, Future No-Build Conditions, Evaluation of Issues and Opportunities**	Data Collection, Existing Conditions Analysis, Future Year Scenarios, Constraints Identification
3	• Alternatives Development	Short-, Medium-, and Long-Term Alternatives
4	• Alternatives Analysis	Mobility & Accessibility, Safety, Environmental Effects, Land Use & Economic Development, Community Effects/Title VI/Environmental Justice
5	• Recommendations	Short-, Medium-, and Long-Term Recommendations, Implementation Plan
6	• Final Report	Draft and Final Report

Public Involvement

1. Working Group Meetings (8)

- The Working Group includes representation from residents, local businesses, community organizations and local, state and federal officials
- The group provides guidance throughout the study, helping to develop goals, discuss existing and future conditions, and weigh alternatives

2. Community Engagement Events (4)

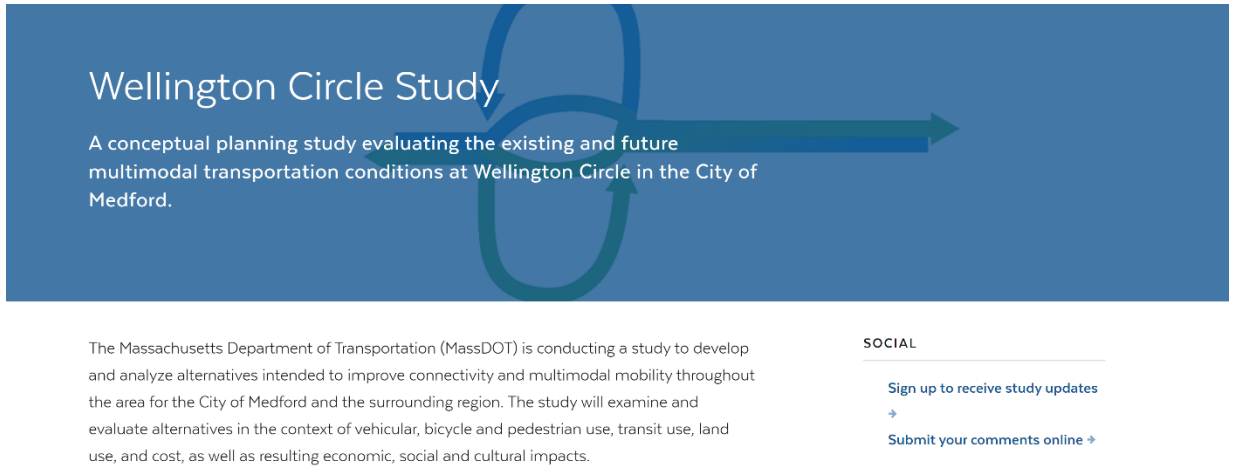
Public Involvement

Online Engagement

MassDOT Webpage

Project information, documents, and meeting materials, links to online engagement platform

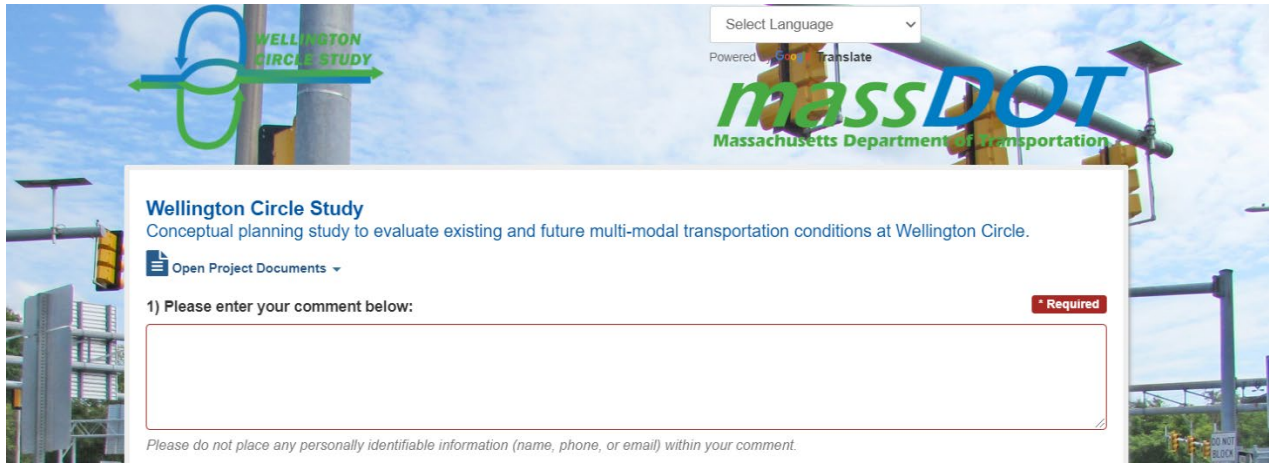
https://www.mass.gov/wellington-circle-study



Public Involvement Management Application (PIMA)

Online engagement

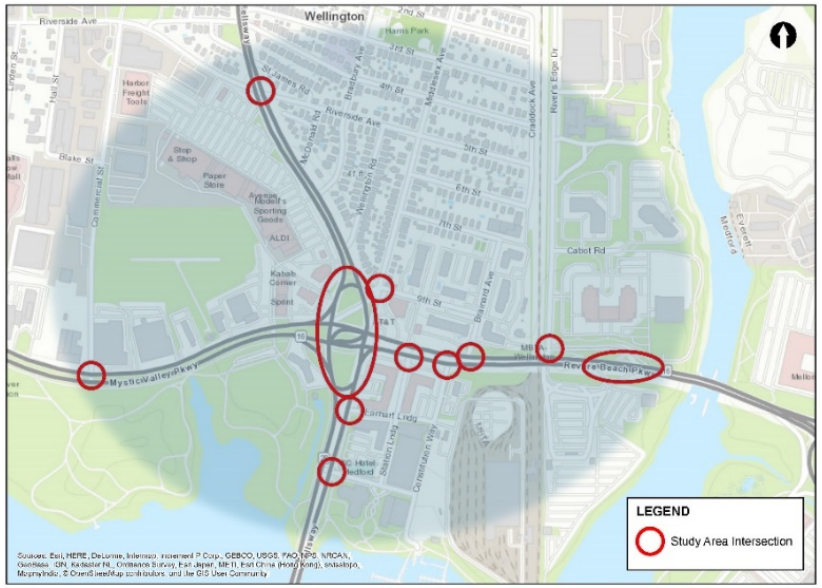
- Comment form
- Sign-up for project updates

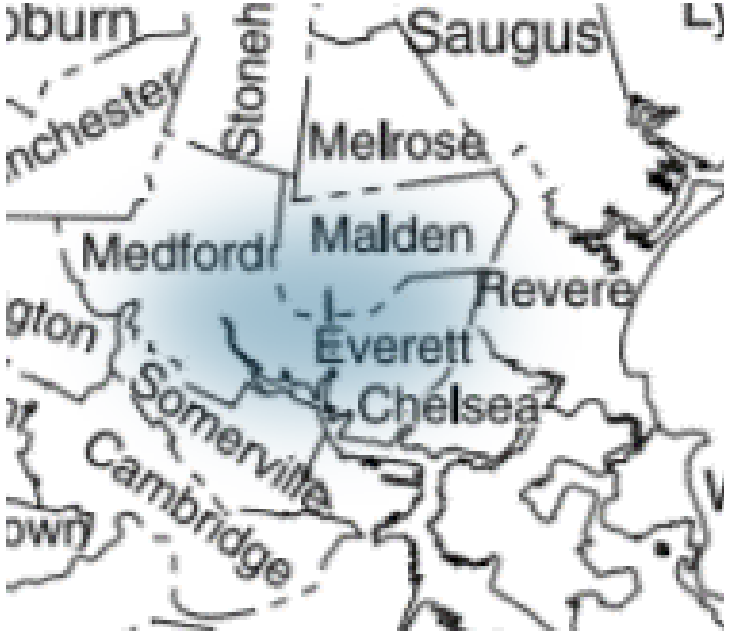


STUDY AREA, GOALS & OBJECTIVES, AND EVALUATION CRITERIA

Study Area

- Local Study Area
  - Roadways, transit routes, and infrastructure directly in and around Wellington Circle
- Regional Study Area
  - Includes surrounding communities whose residents and employees may benefit from or be impacted by improvements to Wellington Circle





Study Goals

1. Improve mobility and connectivity for all transportation modes and users in the Wellington Circle area

2. Improve safety conditions for all transportation modes and users in the Wellington Circle area

3. Improve quality of life for residents in the Wellington Circle area

4. Improve local and regional connectivity to support businesses and future development

Study Objectives

Mobility/Access

- Mitigate traffic congestion
- Provide facilities for pedestrians, bicyclists, and transit
- Improve connectivity to Wellington Station

Safety

- Reduce speeds
- Reduce conflict points between modes
- Dedicated space for pedestrians & bicyclists

Quality of Life

- Enhance attractiveness
- Minimize public health & environmental impacts
- Provide fair and equitable treatment for EJ populations

Connectivity

- Reduce travel delays
- Improve access and circulation
- Promote active transportation

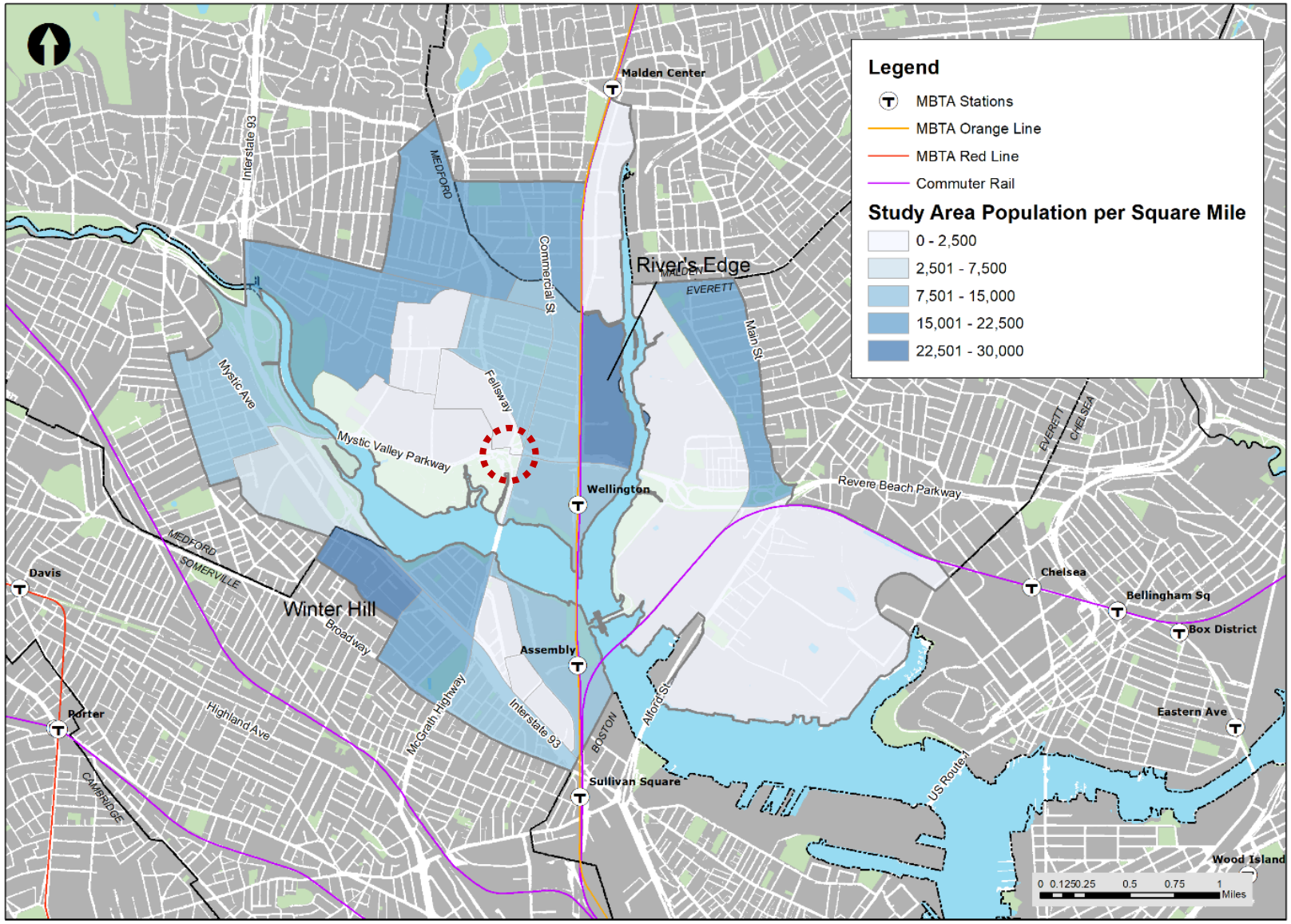
Evaluation Criteria

How to measure how well goals are met:

- **Multimodal Mobility** – mode split, travel times, transit reliability, miles of dedicated facilities
- **Safety** – number of crashes, number of conflict points, predictive measures
- **Land Use and Economic Development** – vacancy rate, rent prices, land use mix
- **Environmental Effects** – Emissions/air quality, acres of open space
- **Community, Health and Social Equity** – impact to EJ populations, public health indicators
- **Constructability**
- **Cost**

EXISTING CONDITIONS: PLANNING CONTEXT

Existing Population Density



Wellington Circle

8,872
Persons per Square Mile in Study Area

Population densities around Wellington Circle are lower than the Study Area at large – there is an opportunity for denser, transit-oriented development given the proximity of the Orange Line Station.

CTPS Population Estimates by TAZ, 2020

Who Makes Up the Local Study Area?

36% of residents identify as non-white*

12% of the population has an income below the federal poverty level*

**Data provided at community level*

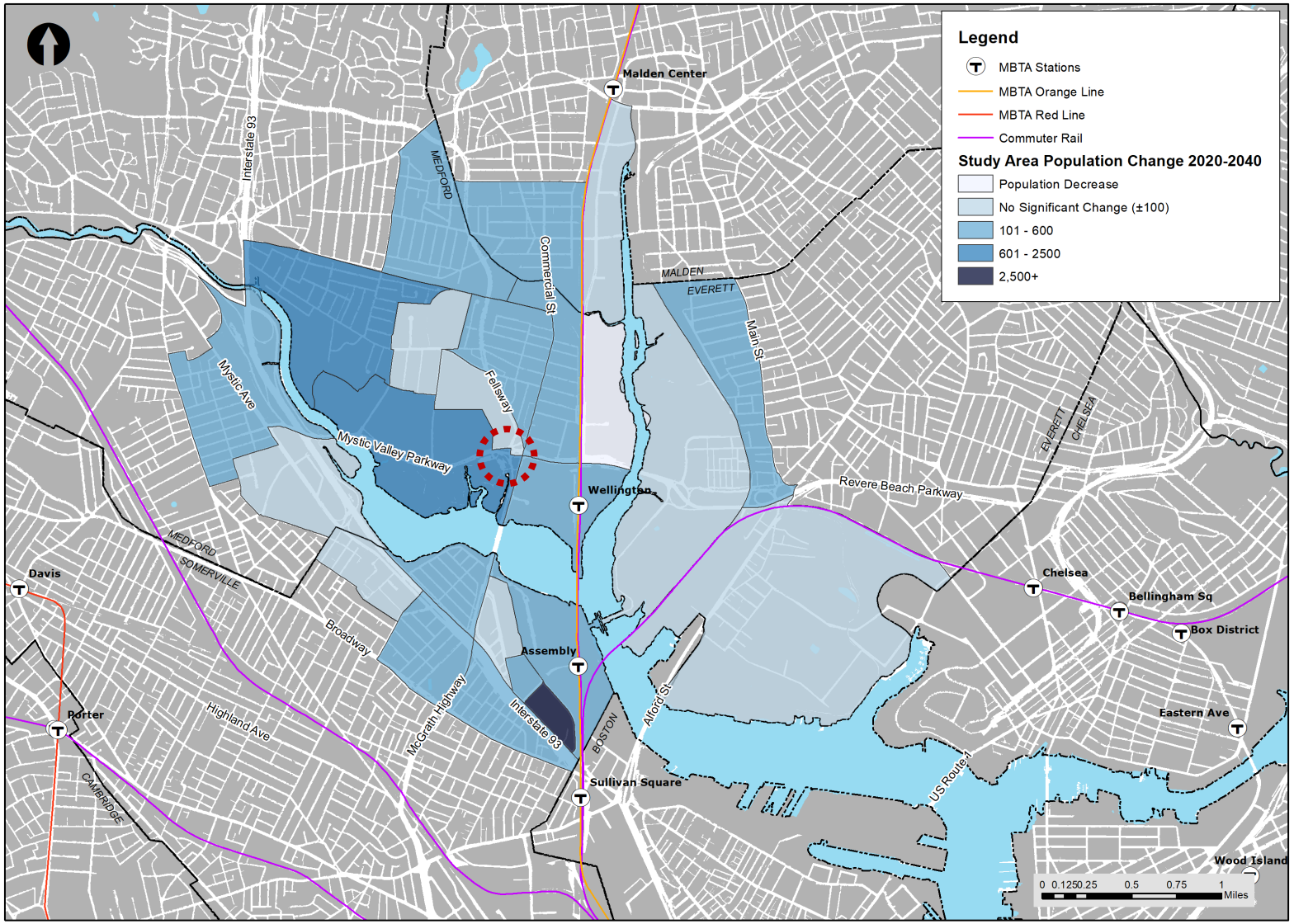
42% use a language other than English as their primary language*

14% of households are car-free

Car-Free Households,
American Community Survey 5-year Estimates, 2019

Diversity in the study area goes beyond the environmental justice qualifiers: both Malden and Everett are majority-minority cities, and linguistic diversity is strong as well. Portuguese and French Creole are the most spoken languages other than English.

Population Change 2020-2040



CTPS Population Estimates by TAZ, 2020, 2040

Wellington Circle

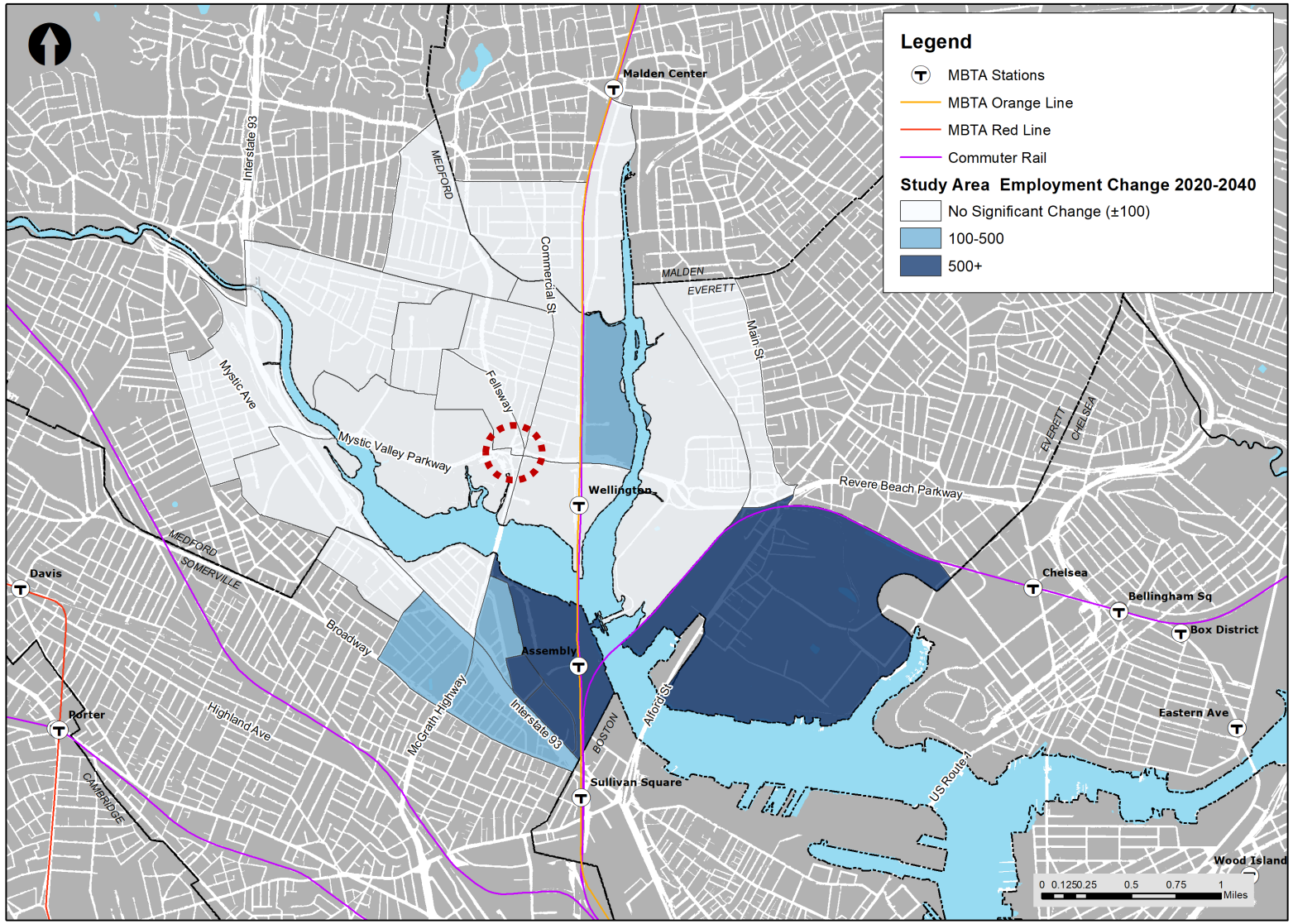
~6,700

New Residents in Study Area

36,534 in 2020
43,197 in 2040

As population demands change, increasing the use of multimodal transportation options may provide opportunities to minimize congestion and vehicular emissions.

Employment Change 2020-2040



Wellington Circle

+30%

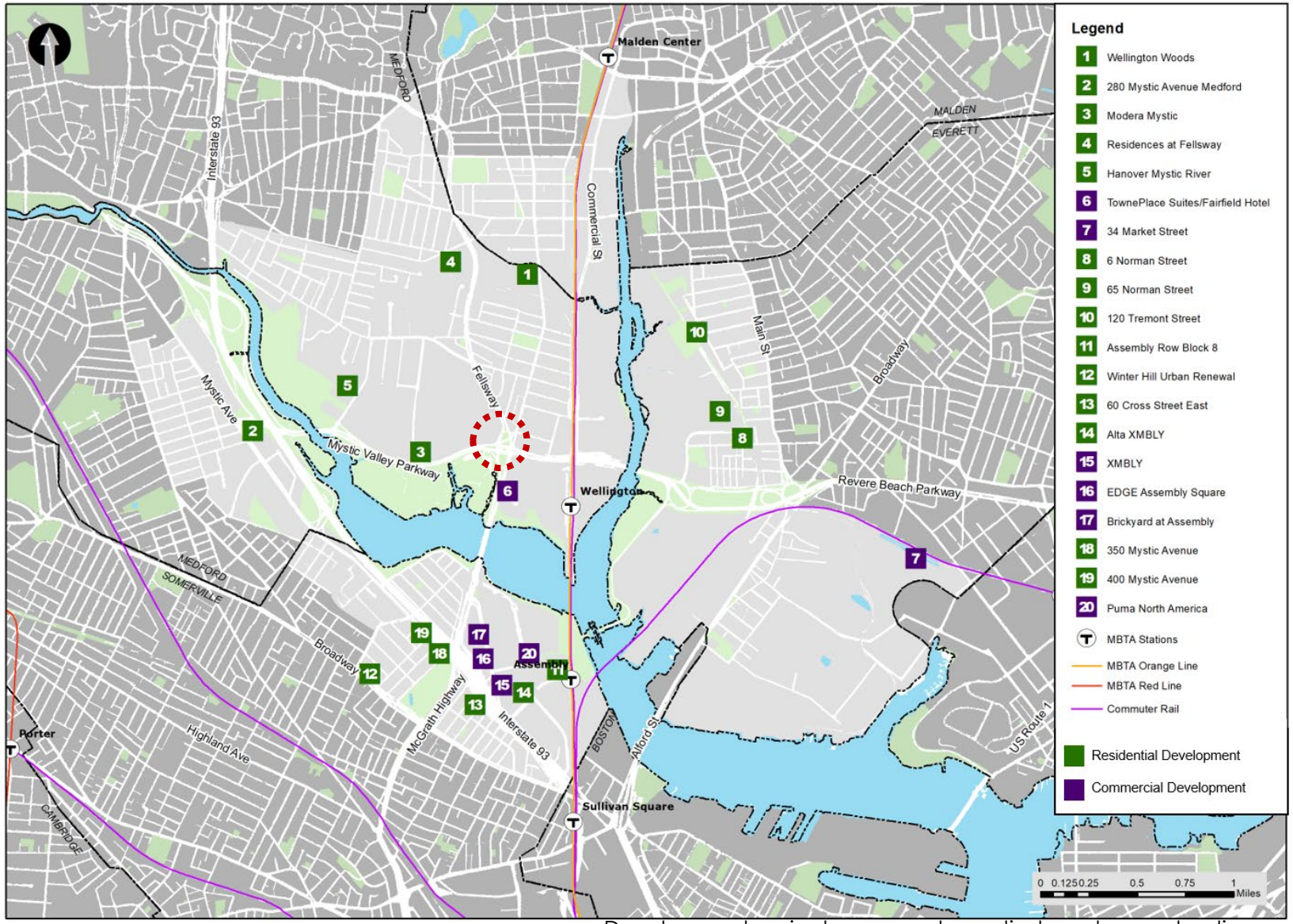
Growth in Study Area Employment

23,300 in 2020
30,254 in 2040

Employment growth in the local study area is driven by development in Everett and Somerville related to the Encore Casino, Silver Line Extension, and large-scale projects in Assembly Square.

CTPS Employment Estimates by TAZ, 2020, 2040

Planned Development



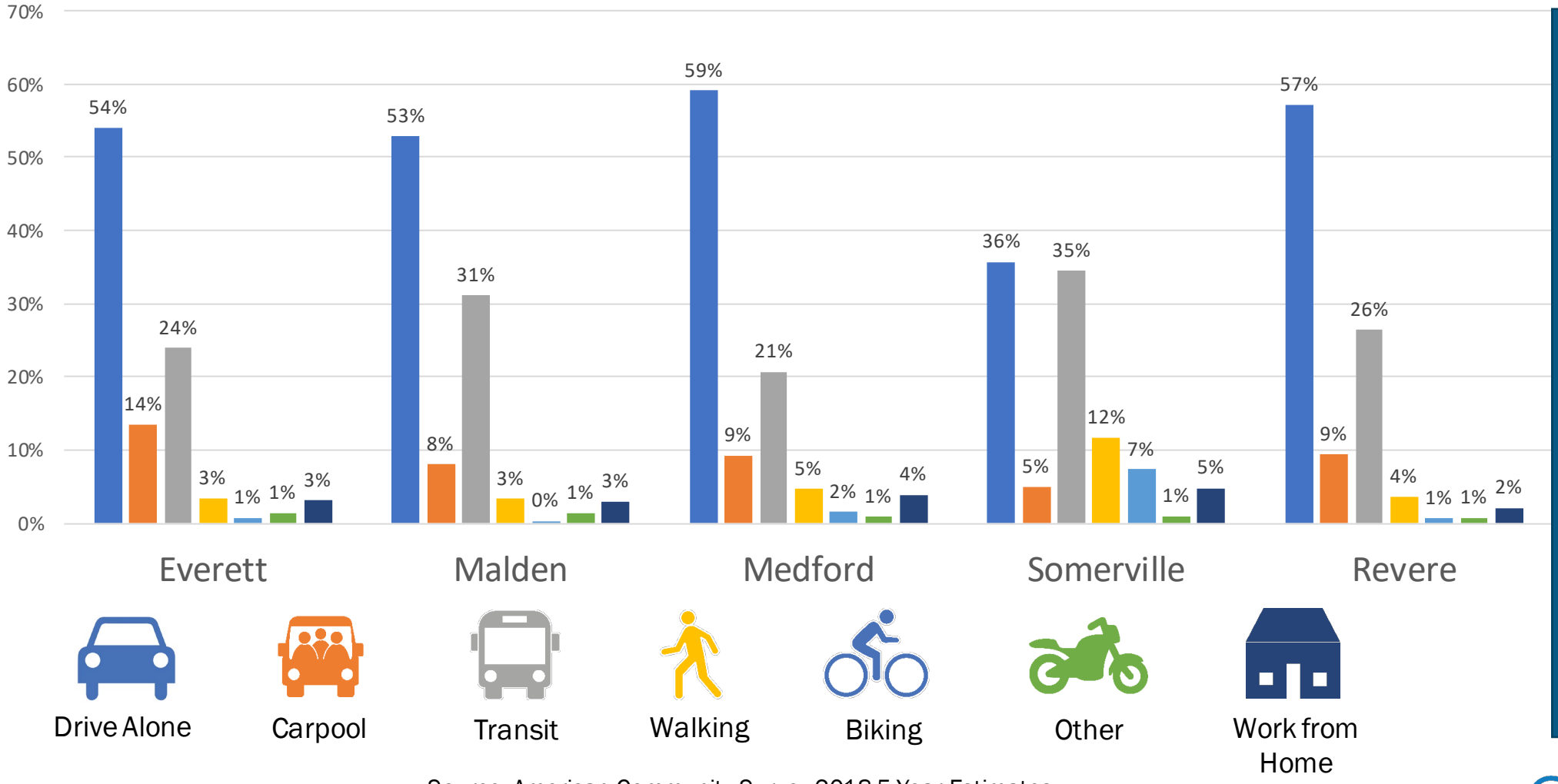
Development projects proposed or actively under construction as of 10/31/20

Wellington Circle

The largest residential projects are in areas where the existing land use is not primarily residential or zoned for residential, which contributes to future shifts in the population and employment. Activity is likely to increase in these areas, so it will be important to provide multimodal facilities to help reduce vehicular traffic

EXISTING CONDITIONS: MULTIMODAL TRANSPORTATION NETWORK

Regional Mode Share



Source: American Community Survey 2018 5-Year Estimates

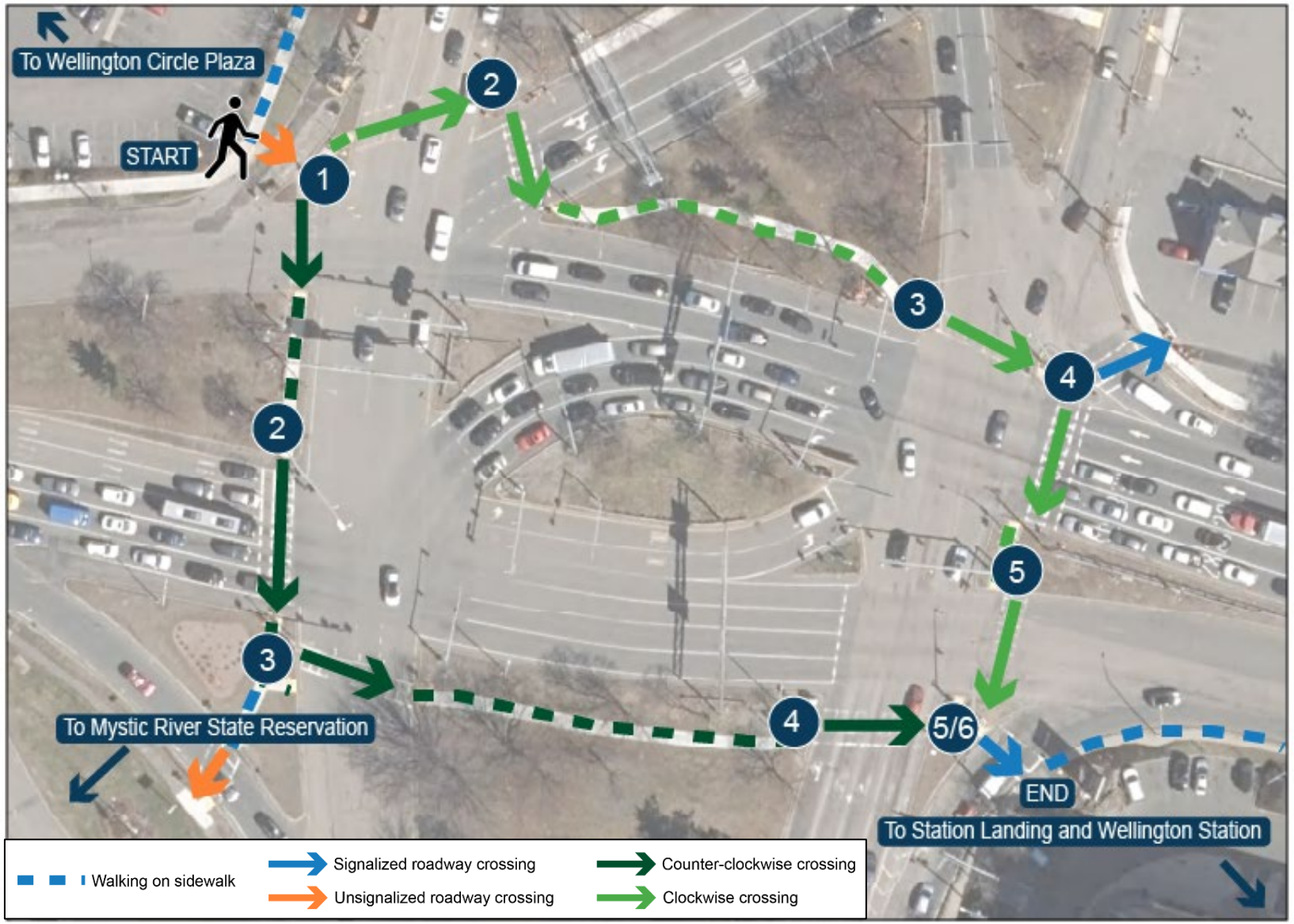
48%
Choose a sustainable mode of travel

Multimodal improvements in Wellington Circle can serve to increase the mode share for sustainable trips in the region by providing more comfortable facilities connecting from/to transit, green space, residences and commercial areas

Walking Conditions

Walkability includes all types of pedestrians – facilities going beyond a basic sidewalk, like pedestrian signals and curb ramps at crosswalks, make streets safe and accessible for all.

Pedestrian Facilities



To cross from one corner of Wellington Circle to another may require 5 to 6 individual crossings, demanding prolonged attention, patience for delay, and stamina from pedestrians.

Bicycle Facilities

Wellington Circle

Wellington Circle is a gap in the region's bicycle network.

New bicycle facilities should make all ages and abilities feel comfortable.

Legend

- Two-Way Buffered Bike Lane
- Dedicated Bike Lane
- Buffered Bike Lane
- Off-Street Path
- Planned Bike Lane
- Planned Off-Street Path

Walking & Biking - State Goals

MassDOT Pedestrian Plan

Vision
All people in Massachusetts will have a **safe, comfortable, and convenient** option to walk for short trips.

Goal 1

Eliminate
pedestrian fatalities and serious injuries.

Increase
the percentage of short trips made by walking.

Goal 2

MassDOT Bicycle Plan

Vision
Biking in Massachusetts will be a **safe, comfortable, and convenient** option for everyday travel.

Goal 1

Eliminate bicyclist fatalities and serious injuries.

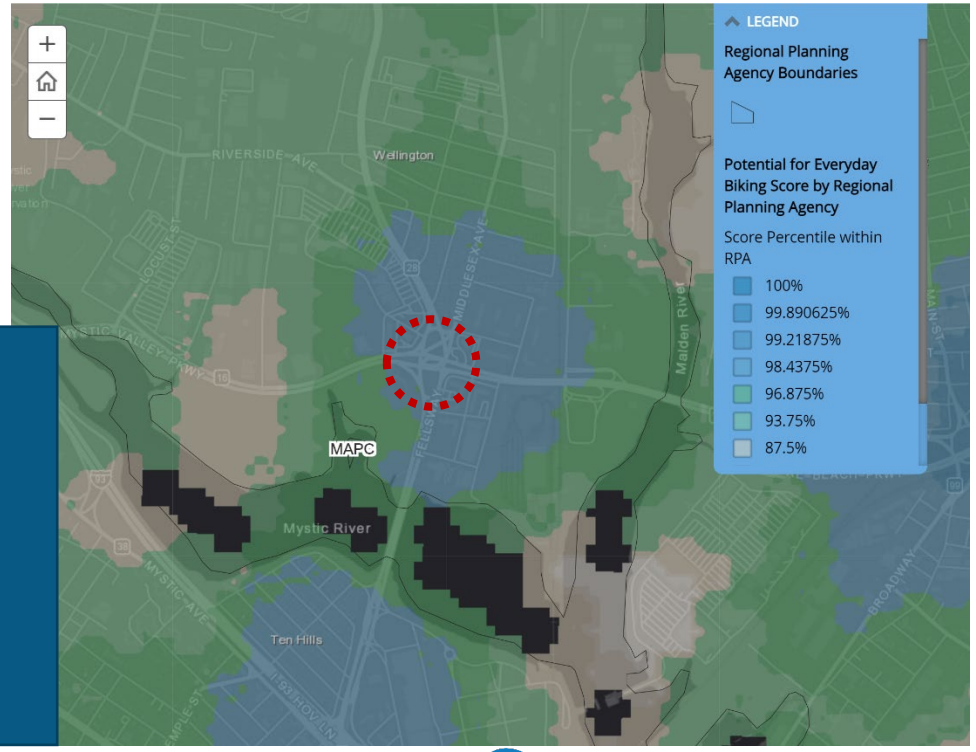
Increase the percentage of everyday trips made by bicycling.

Goal 2

MassDOT Bicycle Plan – Network Gaps and Demand

Wellington Circle and surrounding roads are gaps in the state's High-Comfort Bike Network

Wellington Circle



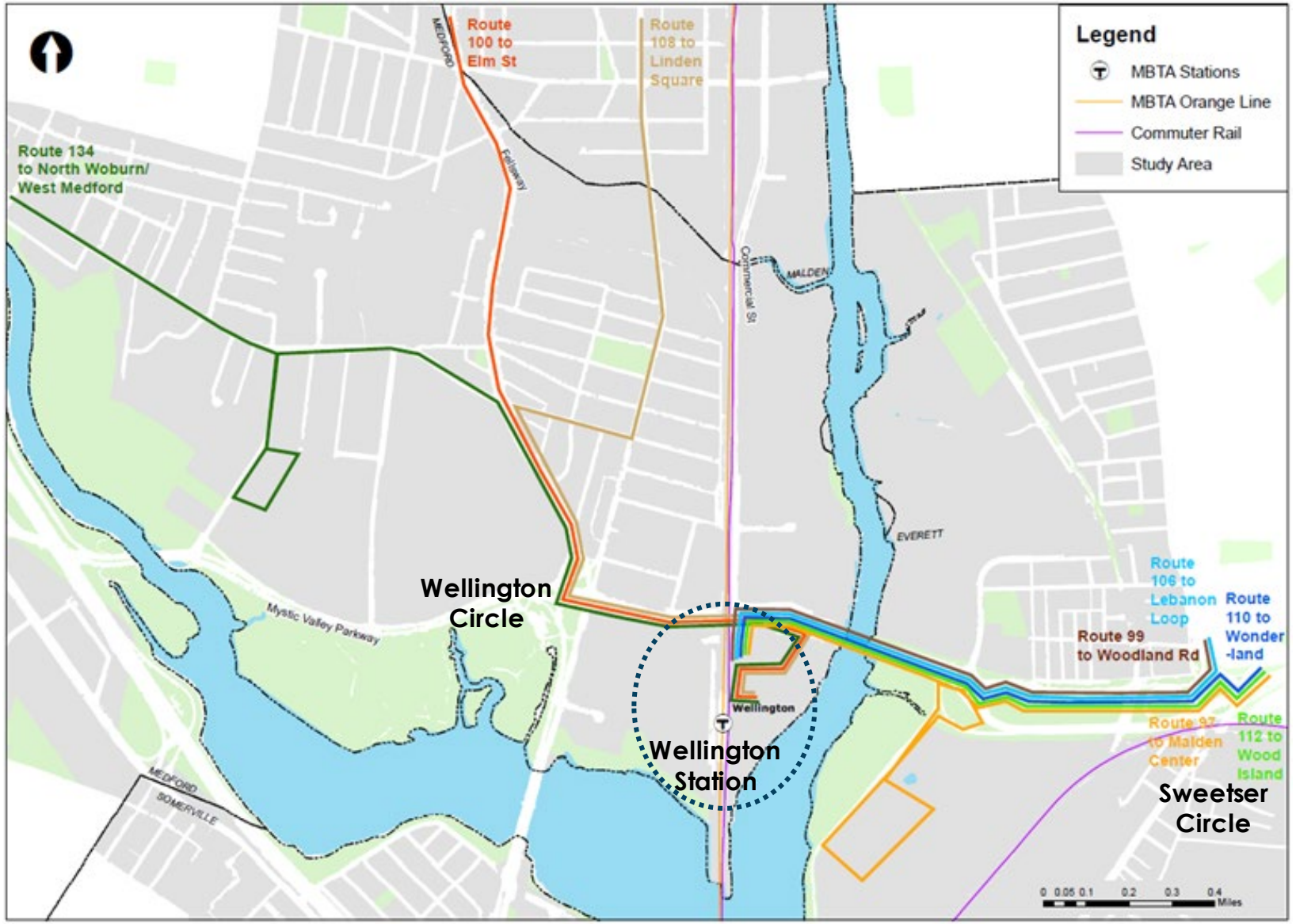
Area identified by state as having high potential for everyday biking trips

Bus Service in Local Study Area

- Buses in the study area operate in the same lanes as general traffic
- This makes bus speed and reliability dependent on the quality of general traffic flow
- The MBTA has used these to measure the impact of traffic on transit riders (see table)

MBTA Automatic Passenger Counter Data is Used to Assess Bus Service between Stops	
Travel Time – Quality of Service (QOS)	Letter grade (A-F) for passengers' perception of travel time
Travel Time Variability – Quality of Service (QOS)	Letter grade (A-F) for how much passenger travel time varies between trips or days
Excess Passenger Time (XPT)	Weighted evaluation of bus delay and number of passengers, ranked by percentile

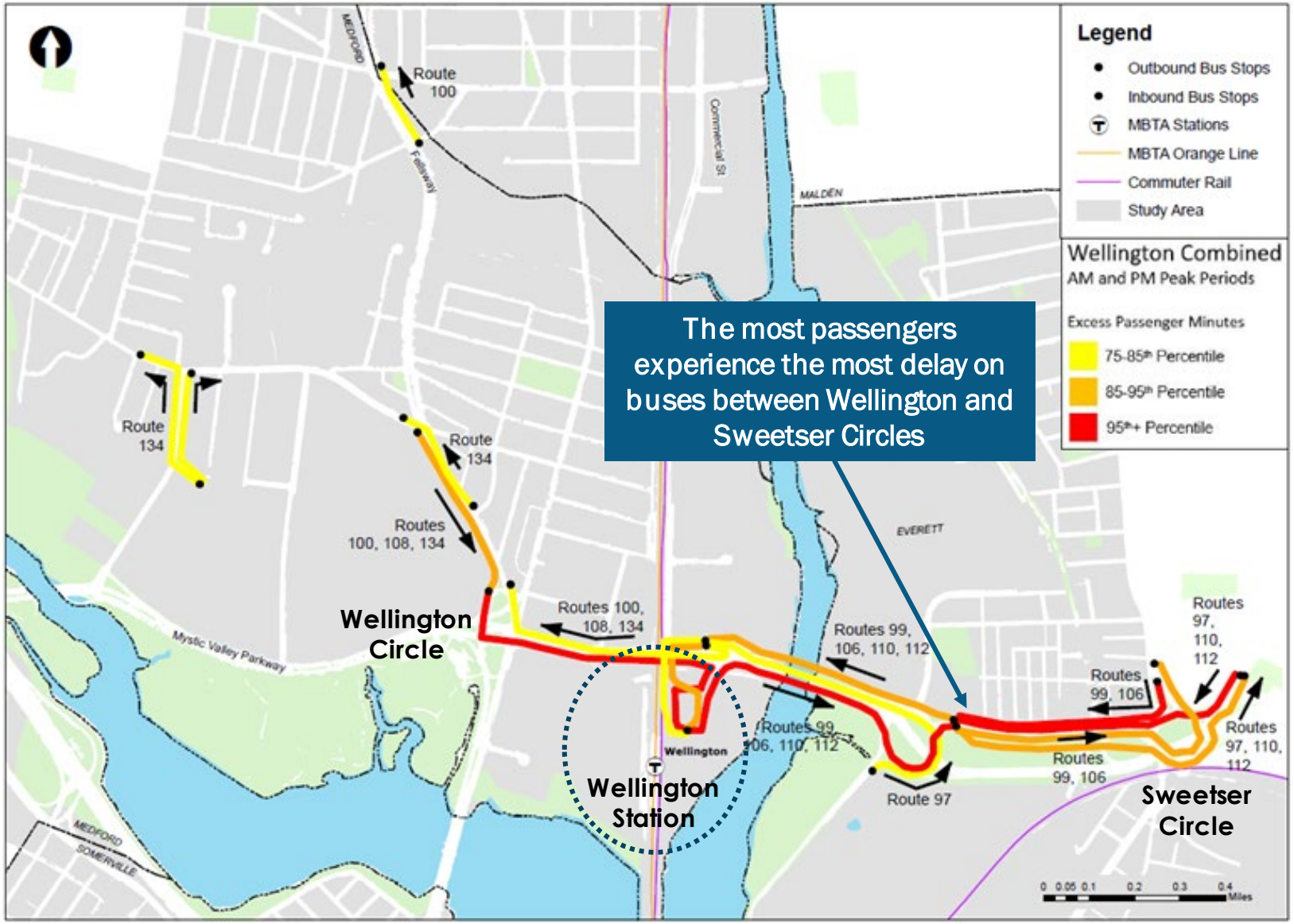
Bus Service in Local Study Area



Almost 70% of bus riders in the study area board or alight at Wellington Station.

This shows the potential for improving multimodal connectivity to Wellington Station to support the use of transit.

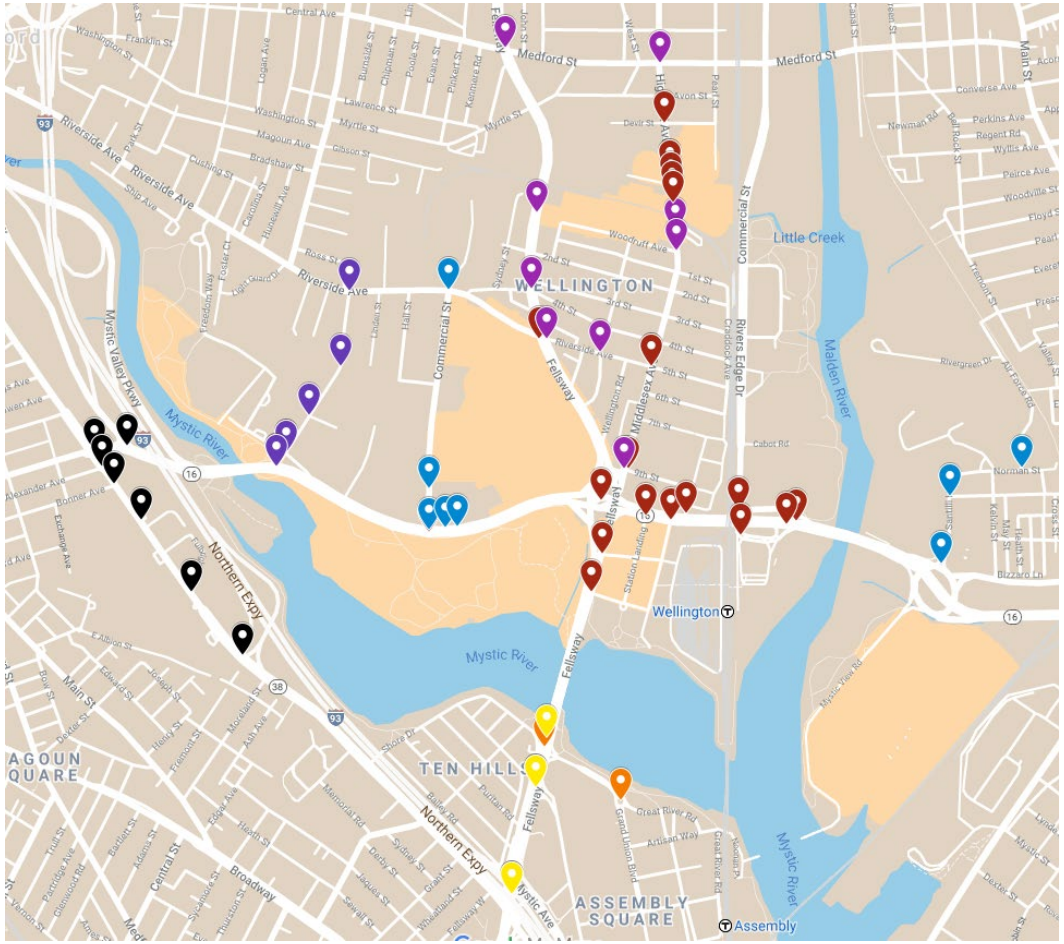
Excess Passenger Time (XPT)



- Excess passenger time (XPT) is the weighted evaluation of bus delay and number of passengers, ranked by percentile
- Under free flow conditions there would typically be no (0%) XPT.
- Most XPT is experienced within ¼ mile of Wellington Station to the east and west.
- 95th percentile segments are the top 5% of segments with the highest rate of excess passenger time (XPT).

Establishing Vehicle Volumes

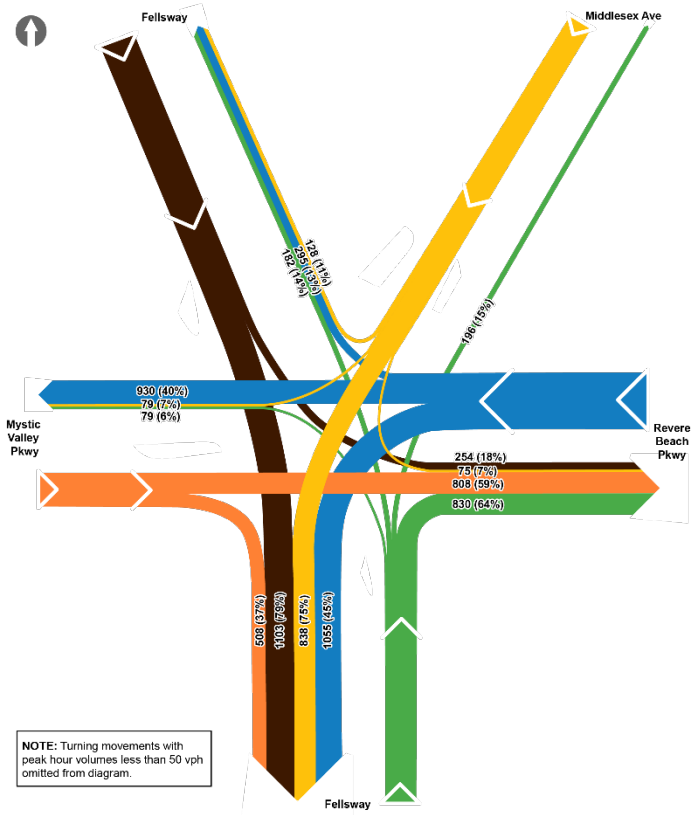
- Volumes have been impacted by COVID-19
- Pre-pandemic count data obtained
  - 9+ different studies
  - Data from MassDOT and CTPS
  - Volumes at Circle primarily from February 2020 Encore traffic monitoring and February 2018 study for Route 1 viaduct in Chelsea
- Volumes adjusted to reflect “typical” conditions



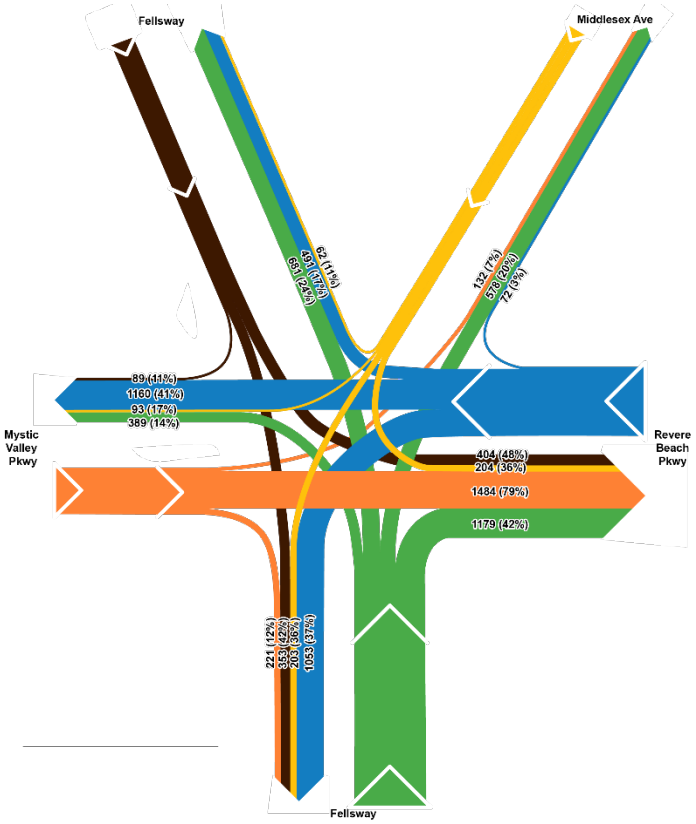
Vehicle Volumes – Peak Hours Comparison

- Key takeaways:
  - Dominant pattern between south and east
  - Highest overall volume on Revere Beach Parkway east of Circle
  - Typical commuter patterns not seen on east/west roadways

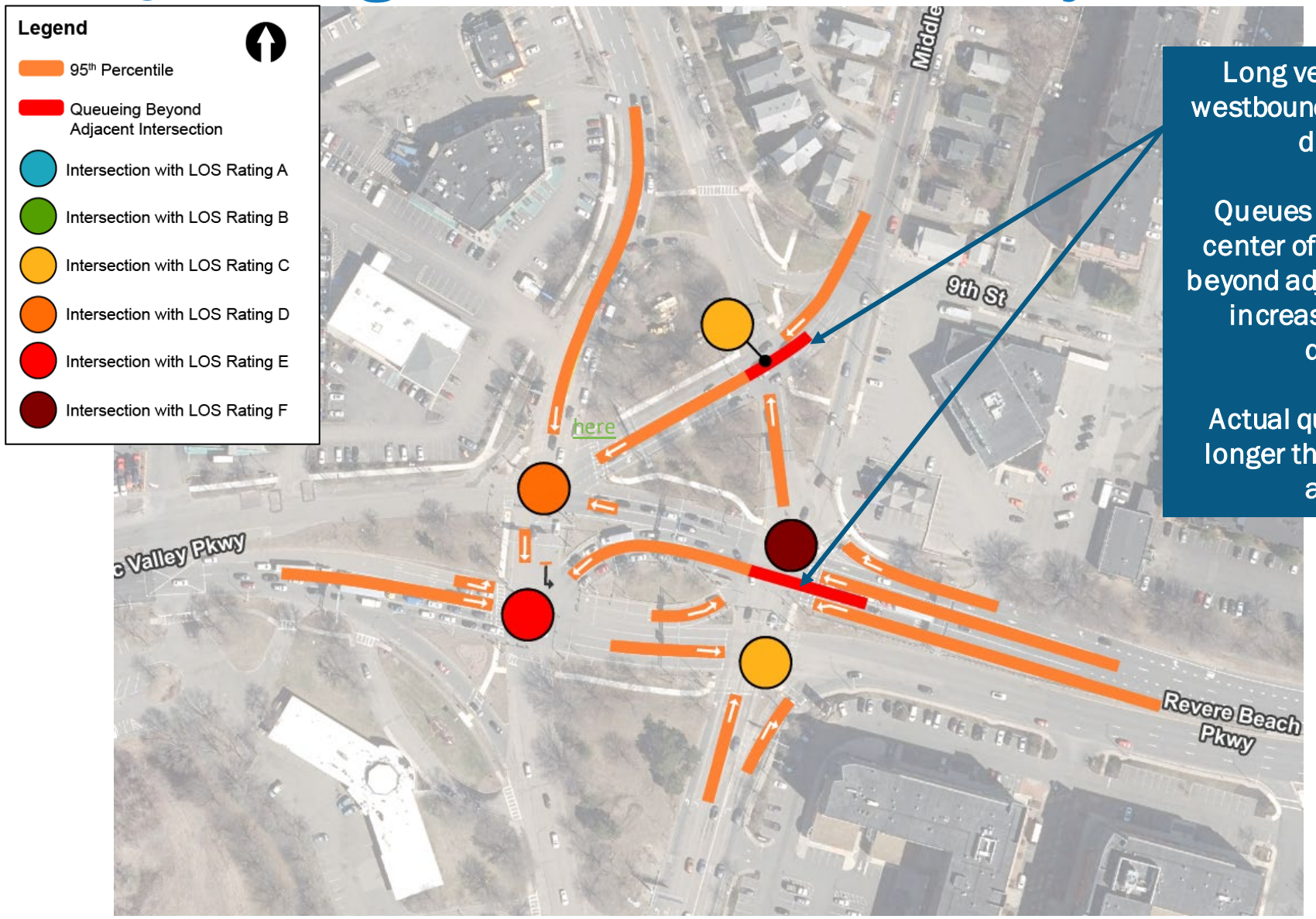
Weekday AM



Weekday PM



Vehicle Queuing and LOS – Weekday AM

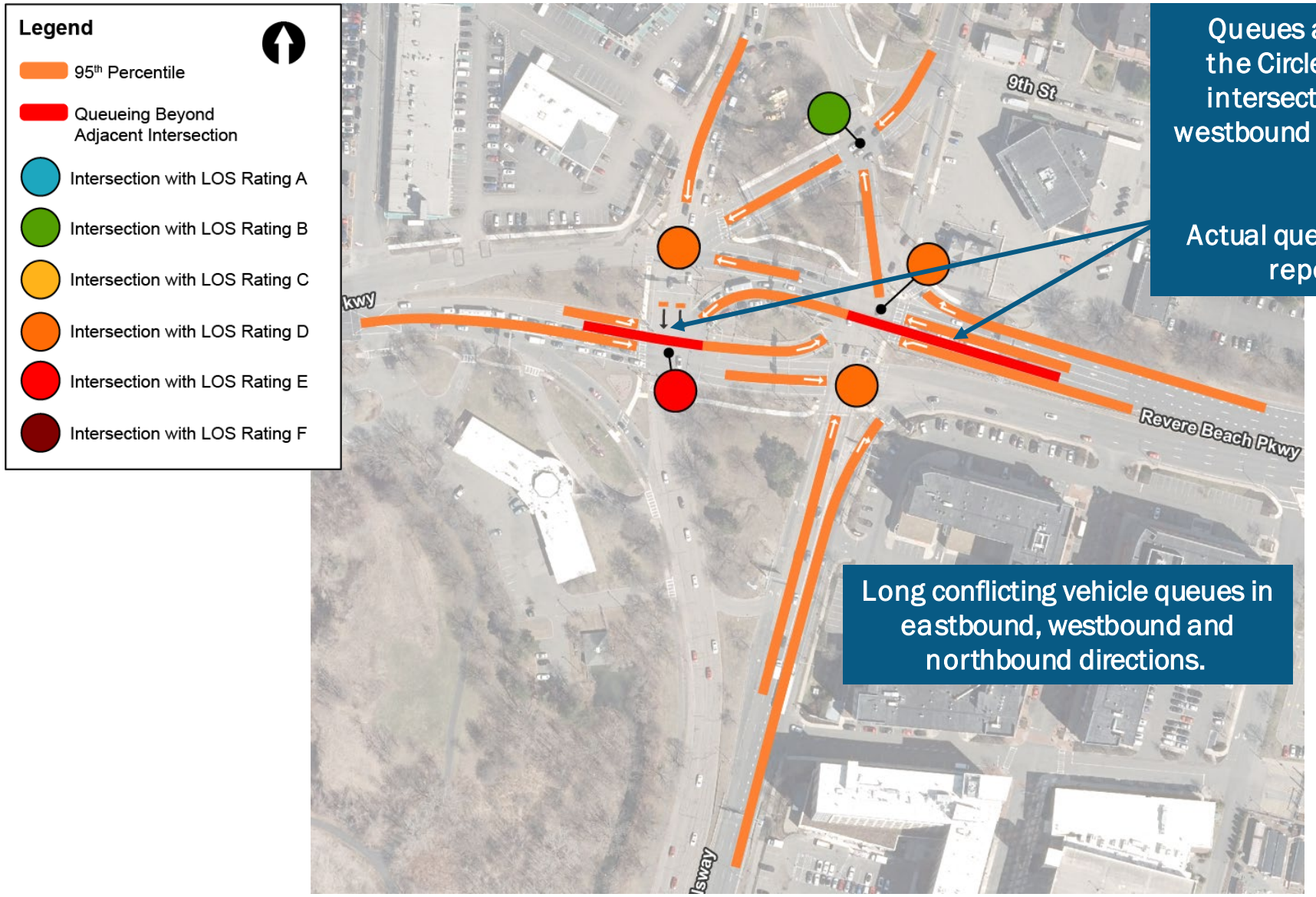


Long vehicle queues in westbound and southbound directions.

Queues at signals in the center of the Circle extend beyond adjacent intersection increasing delays and queuing.

Actual queuing and delay longer than reported from analysis.

Vehicle Queuing and LOS – Weekday PM



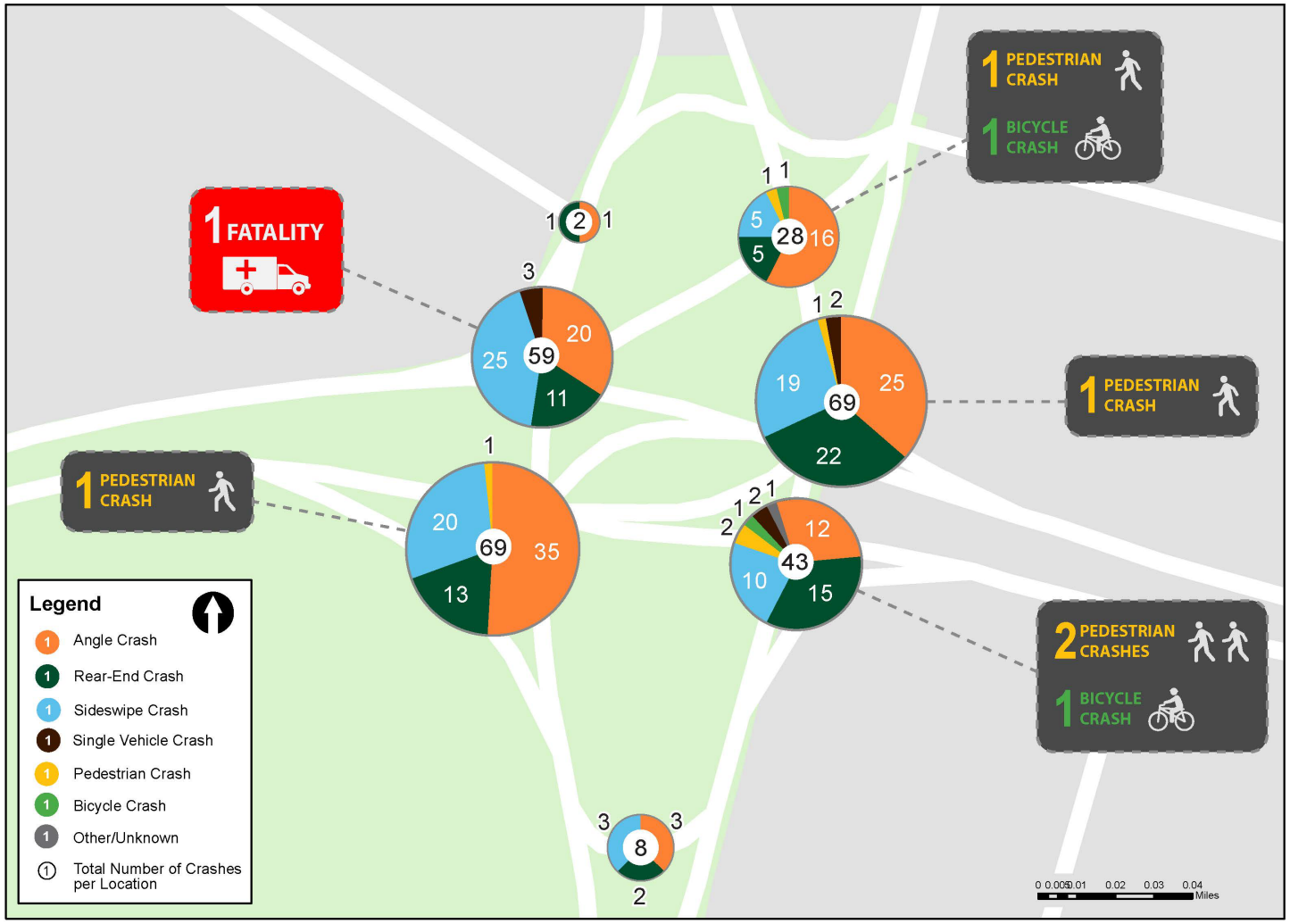
Queues at signals in the center of the Circle extend beyond adjacent intersection in the eastbound and westbound directions increasing delays and queuing.

Actual queuing and delay longer than reported from analysis.

Long conflicting vehicle queues in eastbound, westbound and northbound directions.

Crash History – Wellington Circle

- Key takeaways:
  - 278 total crashes over three-year period at Circle intersections
  - High frequency of angle and sideswipe crashes
  - Relatively low proportion of rear-end crashes
  - Low number of bike crashes correlates with low volume
  - Pedestrian crashes at most intersections



ISSUES & OPPORTUNITIES

Issues, Constraints and Considerations

- Safety – crashes involving a pedestrian occurred at most Circle intersections
- Multimodal connectivity – limited by wide roadways and multiple lanes of traffic
- Multimodal accommodations – lack of accommodations are a barrier to local destinations, including Wellington Station
- Vehicular congestion – particularly east of the Circle, causing delay for both private vehicles and buses
- Physical constraints
  - Historic Preservation: Roadways comprising Wellington Circle are parkways under historic designation
  - Environmental: Alternatives development process will need to consider impacts to natural elements such as waterways and mature trees

Opportunities

- Right-of-way – Wide roadways, buffers, and sidewalks may provide space for multimodal facilities.
- Changing land use – Increasing transit-oriented and mixed-used development around Wellington Station may increase opportunity for short trips to be taken by walking and biking.
- Access to Open Space – The proximity of state parks and multiuse paths to Wellington Circle present opportunity to improve access to open space and recreation.
- Compounding gains – Together, safety and connectivity improvements may also reduce congestion, improve public health, support active transportation, and improve the experience for walkers, bikers, and transit users.

MEETING ON DEMAND OVERVIEW/PUBLIC COMMENT

We Want Your Input!

Meeting on Demand Overview/Public comment

Visit the Meeting on Demand site until July 8 to learn more about the multimodal transportation conditions and provide input!

Access the Meeting on Demand using the QR Code or at: http://tiny.cc/WellingtonCirclePIM

Public Comment

- Use Q&A to submit questions/comments in writing
- Press the “Raise Hand” button to share a question/comment verbally

Bottom Panel of Zoom Screen

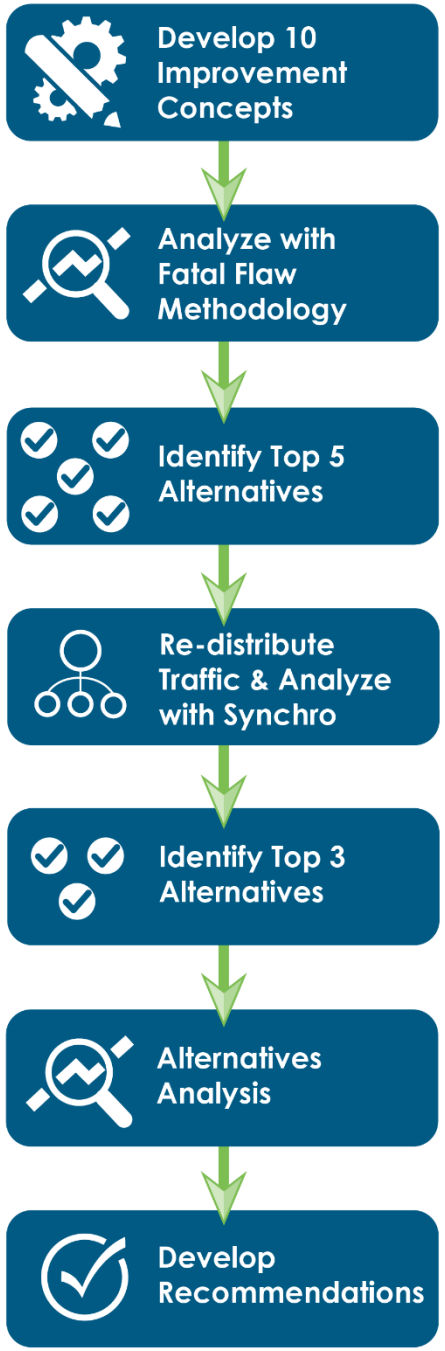
- If you are participating by phone only, you can press the star button then nine (*9) to raise your hand

- Comments may also be shared throughout the process via the study comment form

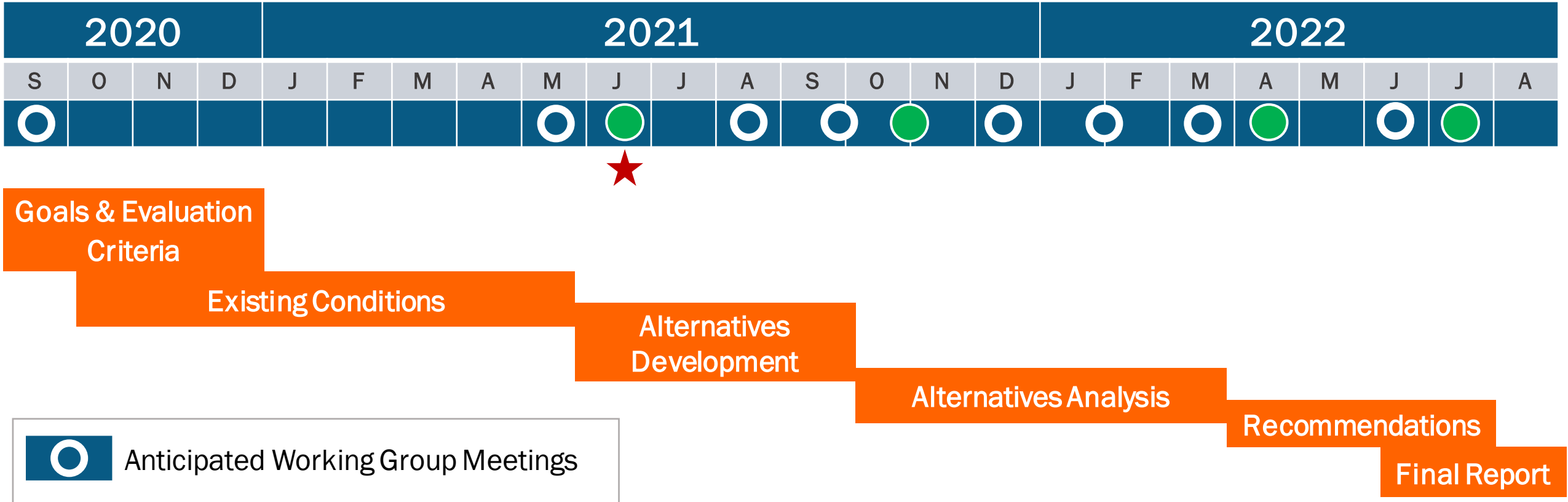
NEXT STEPS

Next Steps

- Online Meeting on Demand
- Future Conditions
- Improvement Concepts and Screening
- Working Group and Stakeholder Input



Draft Study Schedule



Thank You!

For more information:

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Project Website:
https://www.mass.gov/wellington-circle-study