



# RUTHERFORD AVE/ SULLIVAN SQUARE DESIGN PROJECT

## PUBLIC MEETING

October 26, 2016



# PROJECT TEAM

- **City of Boston**
  - **James Gillooly**  
Deputy Commissioner
  - **William Conroy**  
Project Manager
- **Tetra Tech**
  - **Erik Maki, PE, PTOE**  
Project Manager
  - **Ian McKinnon, EIT**  
Transportation Engineer





# AGENDA

- Review Project Goals
- Adjacent Projects
- Mobility & Traffic Data
  - Volumes 2008 vs. 2015
  - Transit and Non-Motorized Trends
- Concept Plans and Discussion
  - Sullivan Square





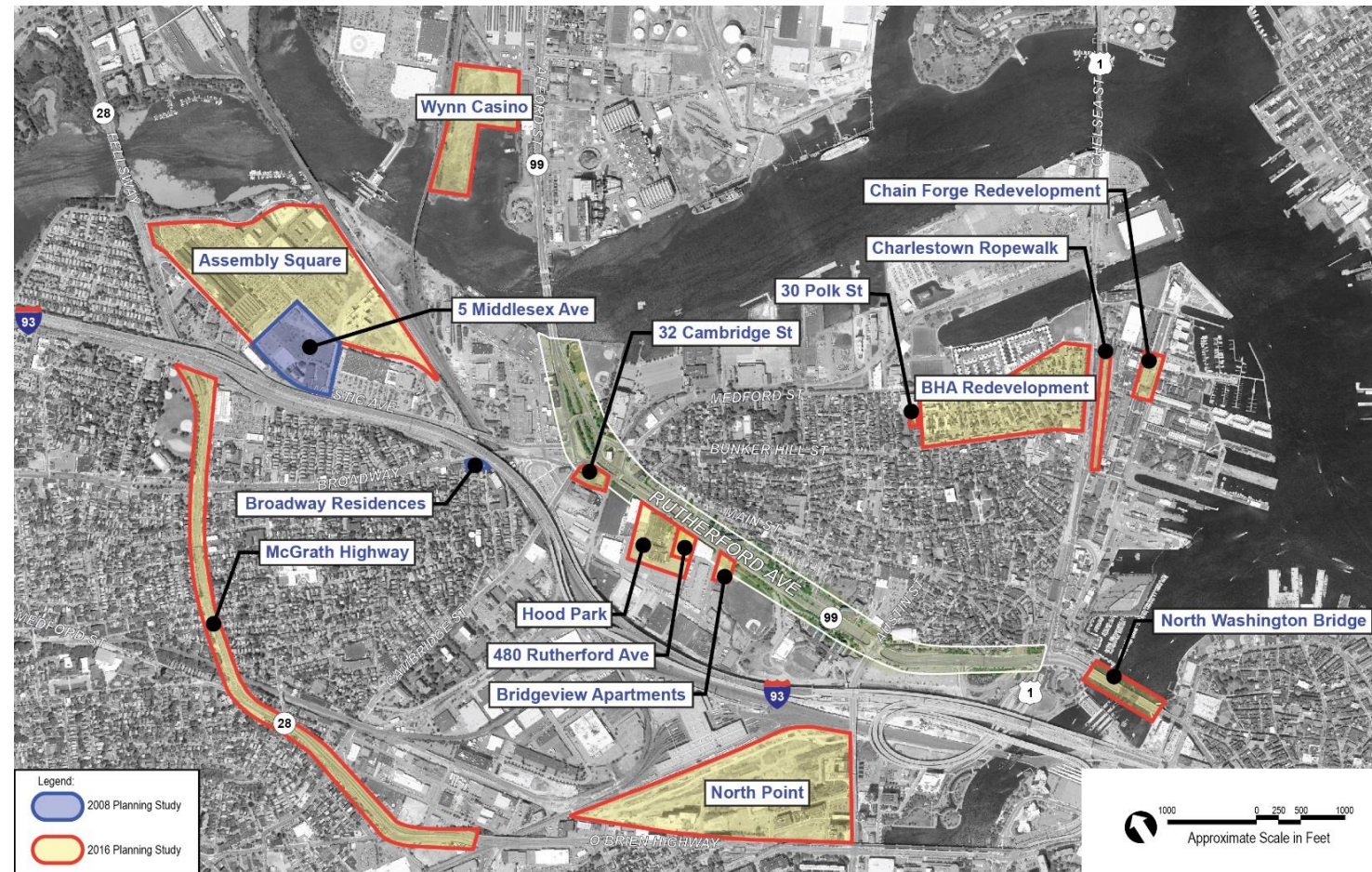
# PROJECT GOALS

- Improve pedestrian connections/ safety to MBTA Transit Stations and community
- Decrease traffic congestion
- Protect Main Street from cut-through traffic
- Create public/open space
- Provide opportunities for appropriate development
- Provide bicycle connections
- Increase on-street parking



# ADJACENT PROJECTS

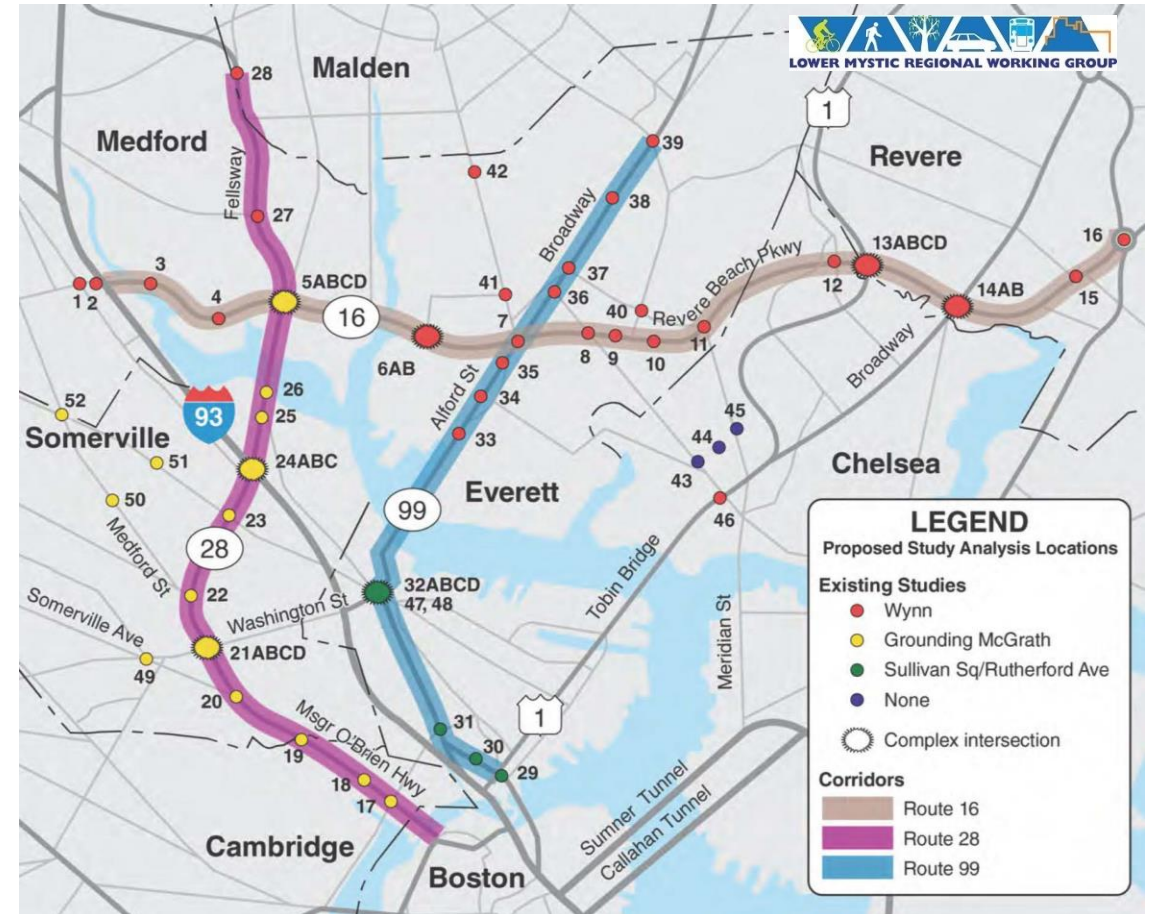
- **Casino**
  - 19,500 Daily Trips
  - 3400 parking spaces
- **5 Middlesex (Somerville)**
  - 1.75M SF Mixed Use
  - 220 Residential Units
  - 18,500 Daily Trips
  - 1000 parking spaces
- **BHA (One Charlestown)**
  - 2,200 Residential Units
  - 14,300 Daily Trips
  - 1900 parking spaces





# MOBILITY & TRAFFIC DATA

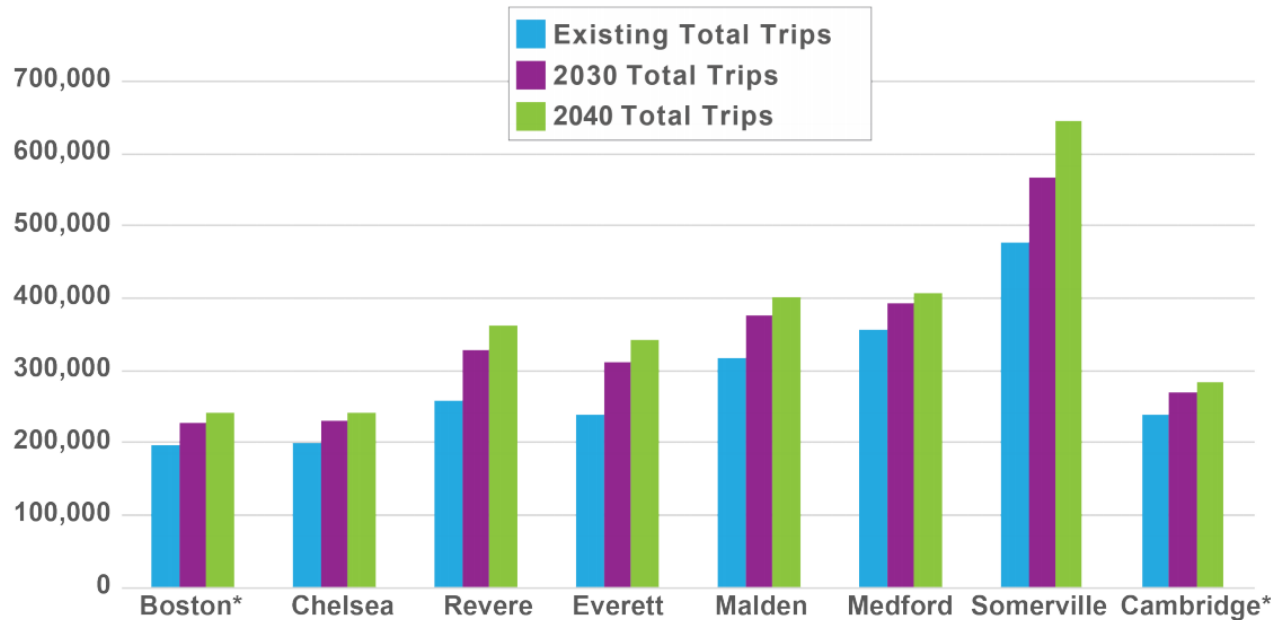
- Future Travel Model
  - [lowermysticstudy.org](http://lowermysticstudy.org)
- Tobin Bridge
  - Two-way tolling Oct. 28
- 2008 vs. 2015 Counts
  - Surface
  - Underpass





# LOWER MYSTIC AREA PROJECTIONS

## Total Trips



\* These communities shows totals only from selected LMRWG study area TAZs and not the whole community.

- ▶ Vehicle trip growth increased:
  - 2030 - 18.1% from existing
  - 2040 - 27.8% from existing
- ▶ VMT increased:
  - 2030 - 9.1% from existing
  - 2040 - 11.7% from existing
- ▶ VHT increased:
  - 2030 - 16.9% from existing
  - 2040 - 24.1% from existing
- ▶ Intersection volumes increased:
  - 2030 - 5.7% from existing
  - 2040 - 10.2% from existing
- ▶ Intersection delays increased:
  - 2030 - 17.8% from existing
  - 2040 - 34.7% from existing



# TOBIN BRIDGE TOLLING CHANGES

- **Current Toll**
  - Inbound: \$3
- **Future Toll**
  - Inbound: \$1.50
  - Outbound: \$1.50
- **Downtown workforce commute**

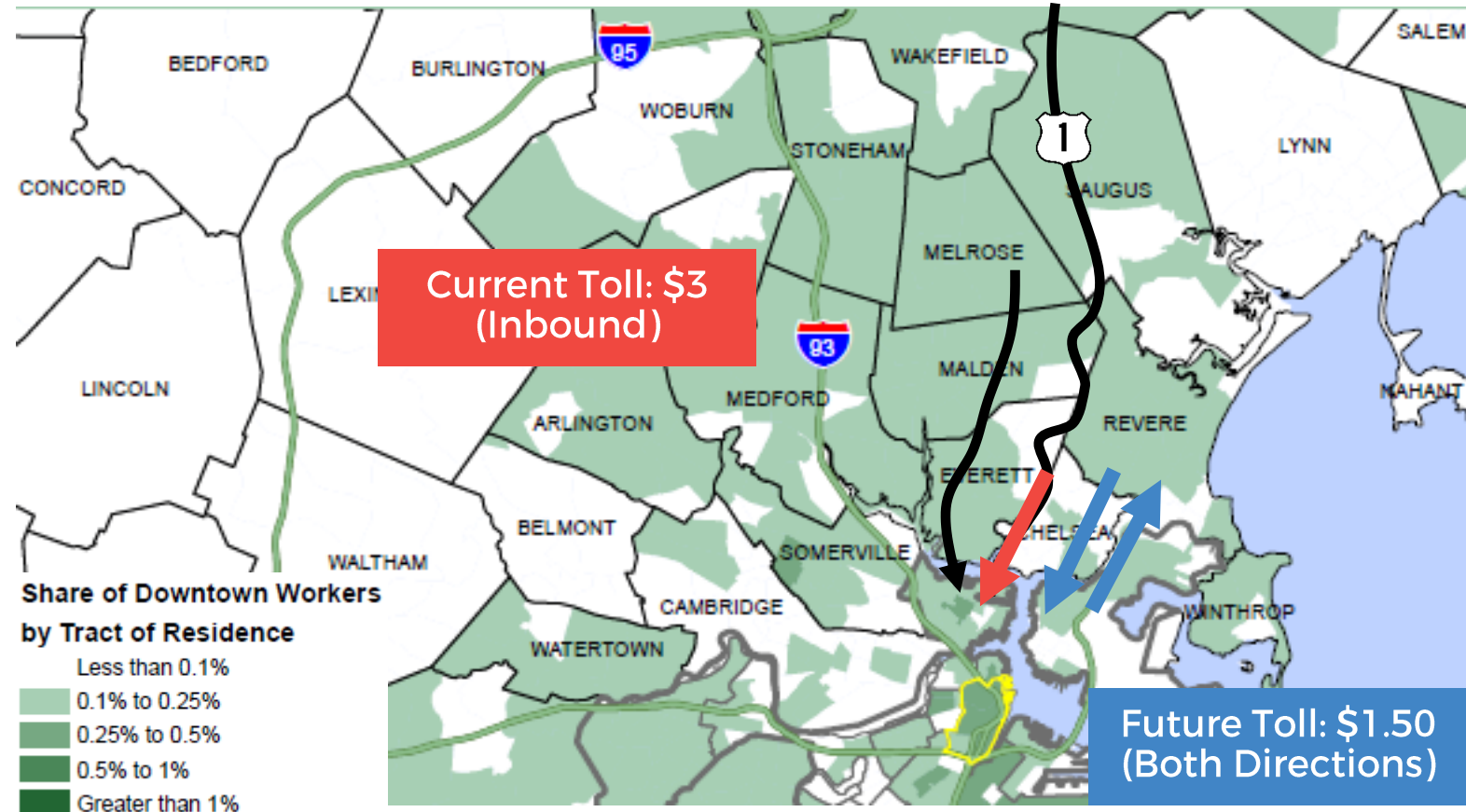


IMAGE: Where Do People Working Downtown Live? (SOURCE: 2016 BPDA study)





# 2008 vs. 2015 COUNTS

AM Peak Hour  
Entering Volume

Surface

2008: 4564

2015: 4298

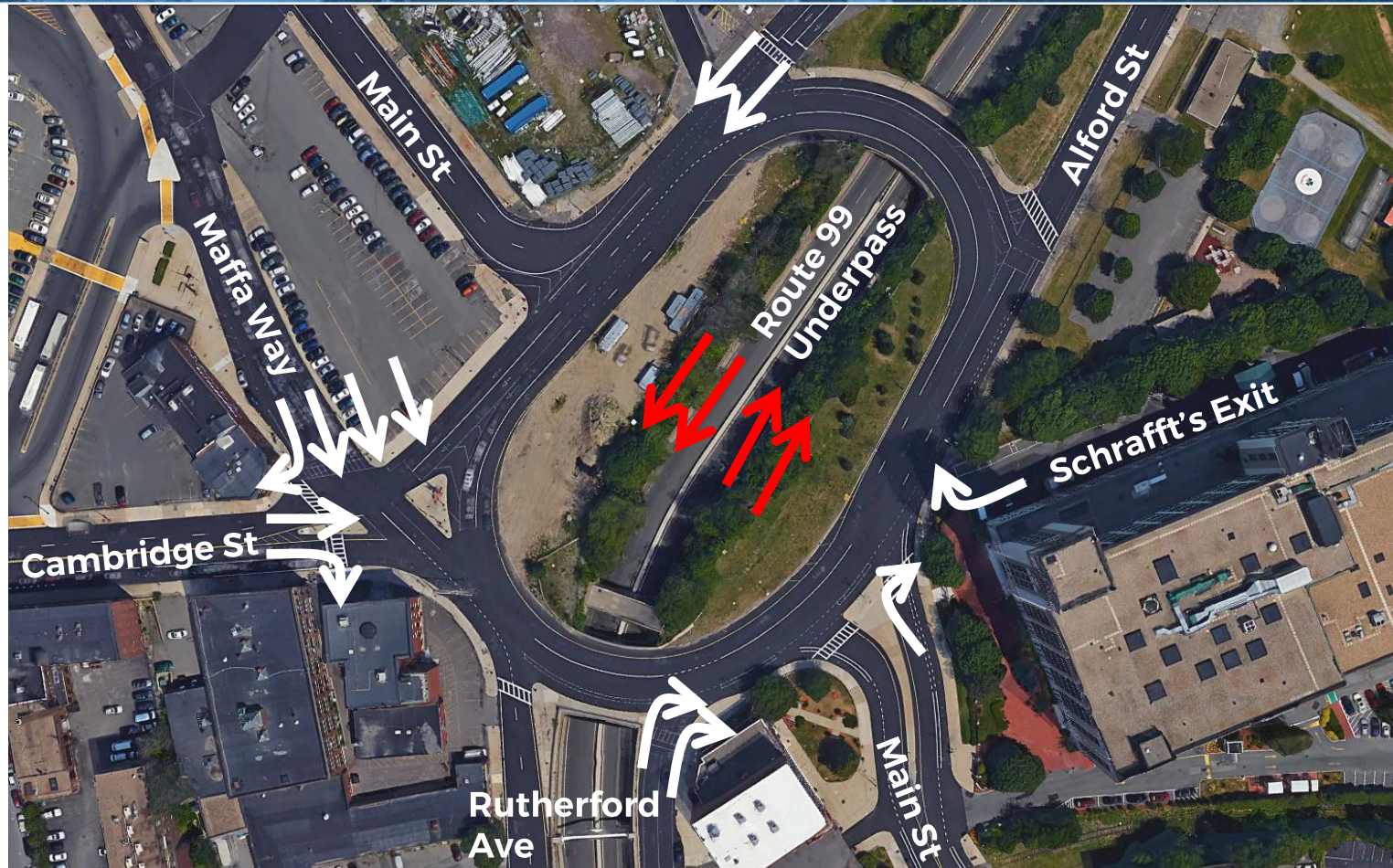
(-6%)

Underpass

2008: 1402

2015: 1529

(+9%)



PM Peak Hour  
Entering Volume

Surface

2008: 5146

2015: 4465

(-13%)

Underpass

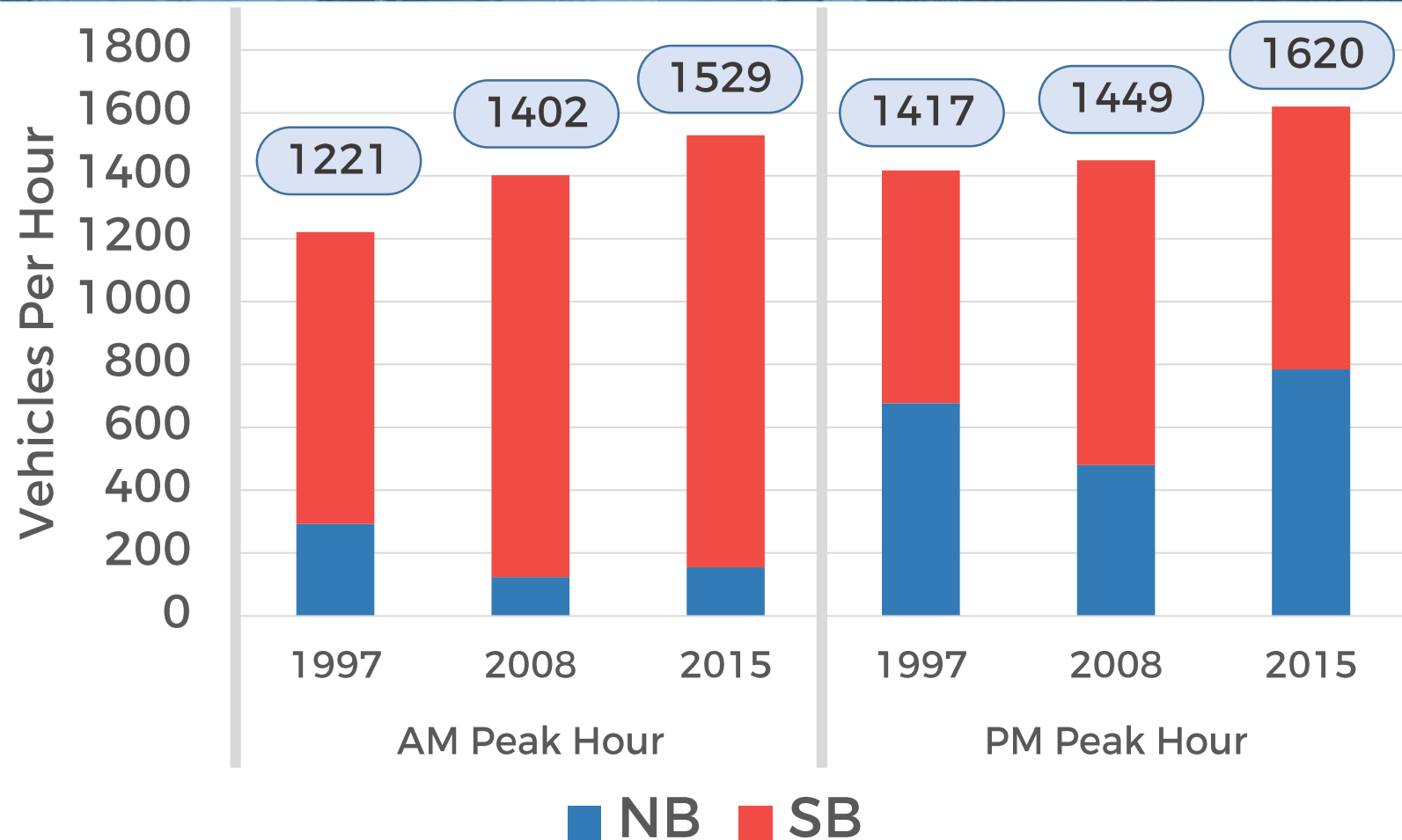
2008: 1449

2015: 1620

(+12%)

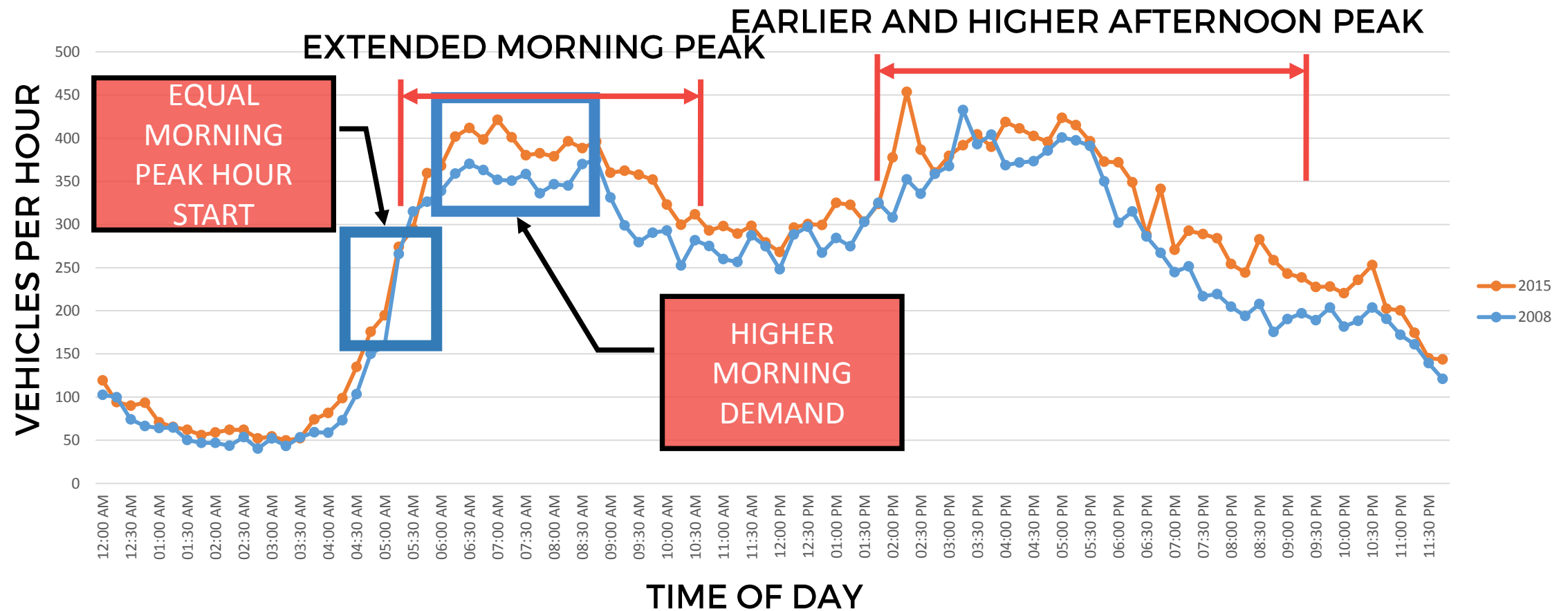


# SULLIVAN UNDERPASS VOLUMES



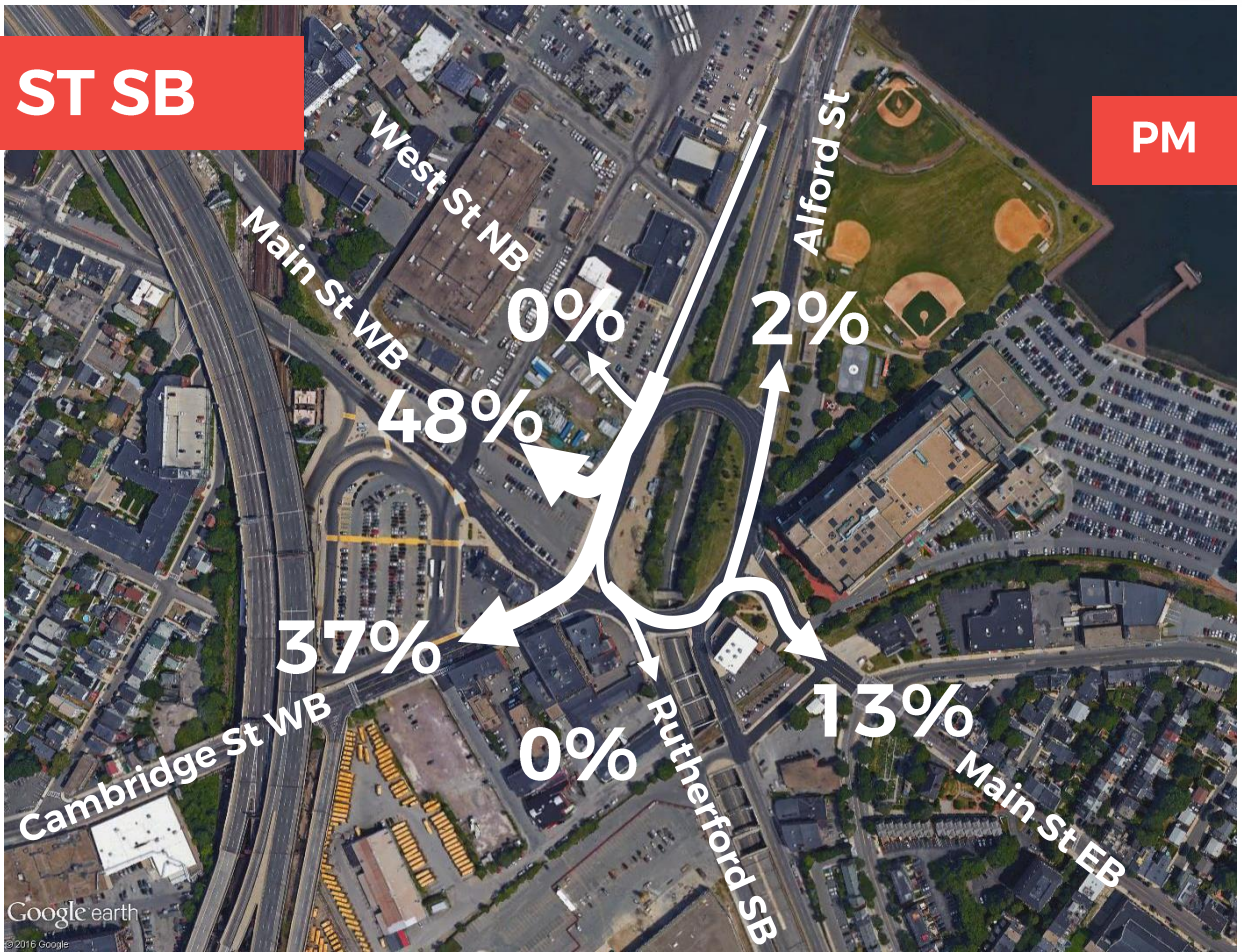
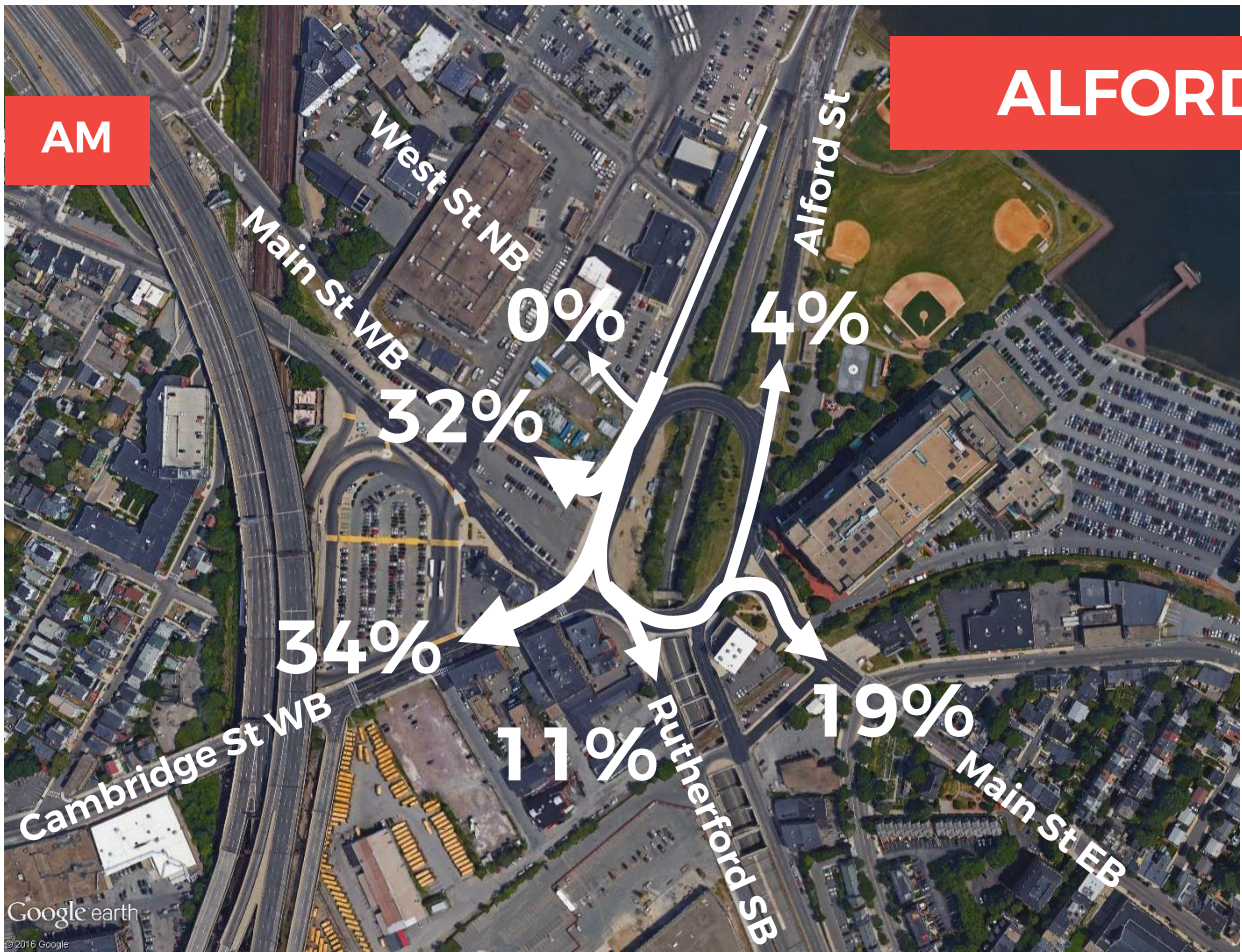


# SULLIVAN UNDERPASS VOLUMES





# SULLIVAN SQUARE TRAFFIC PATTERNS



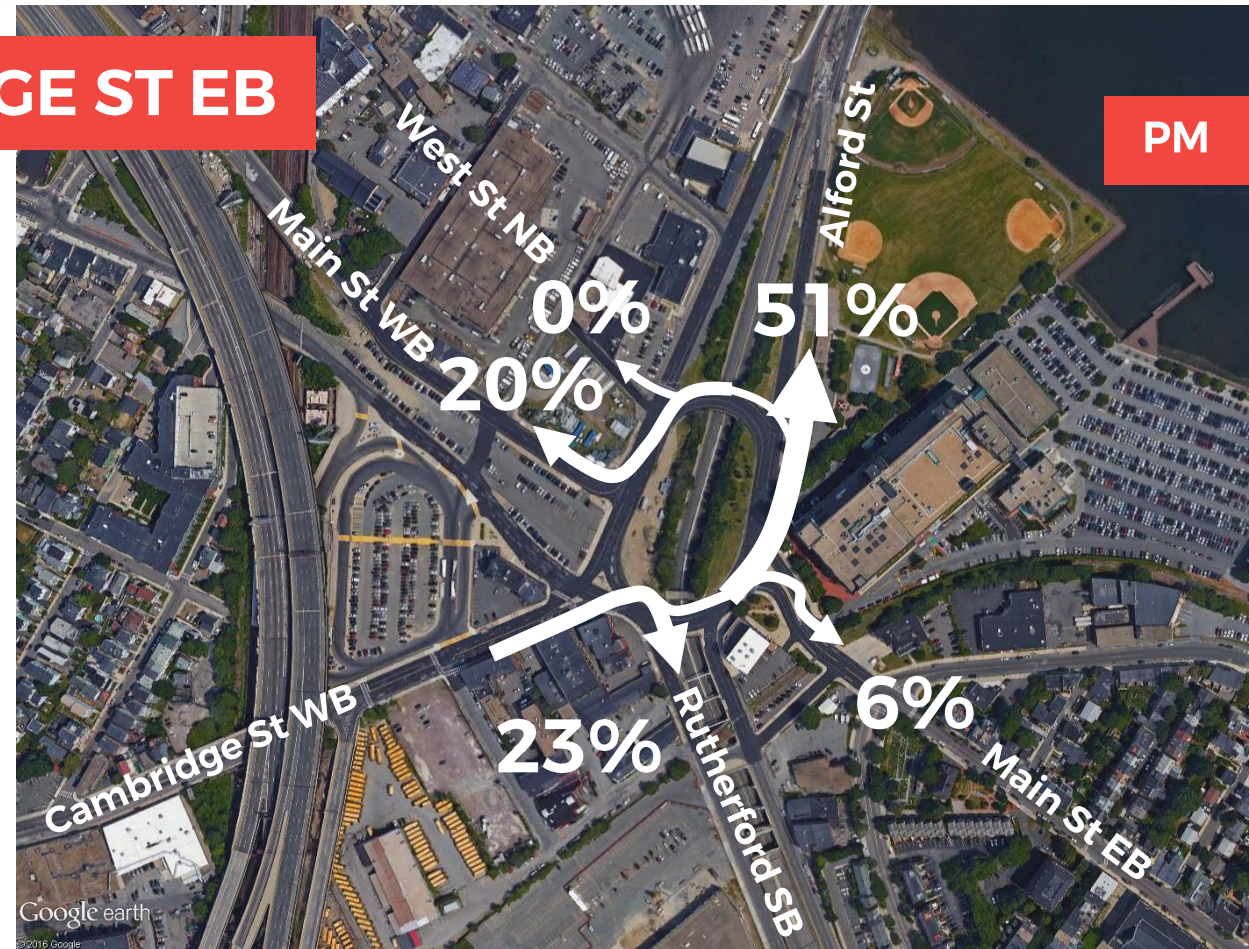
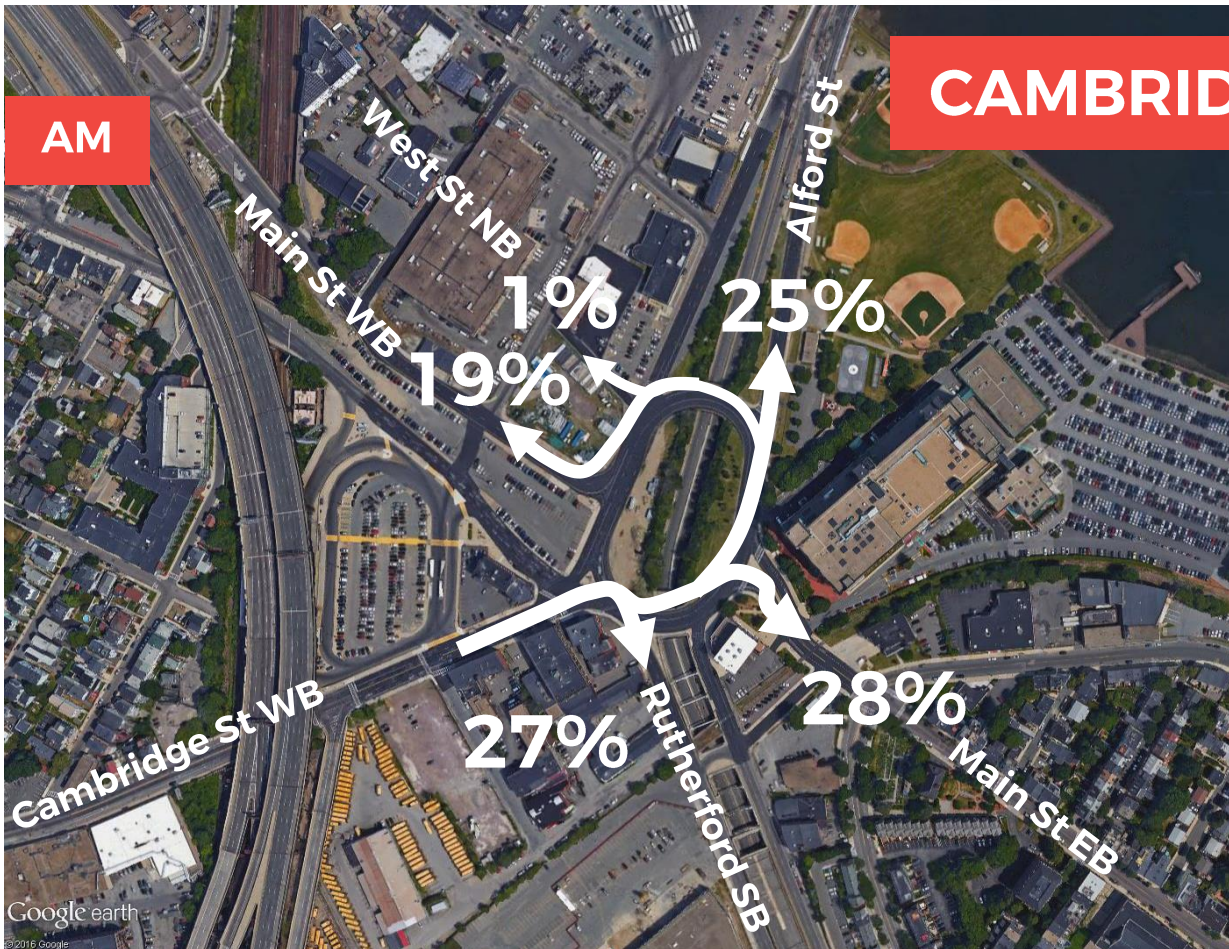


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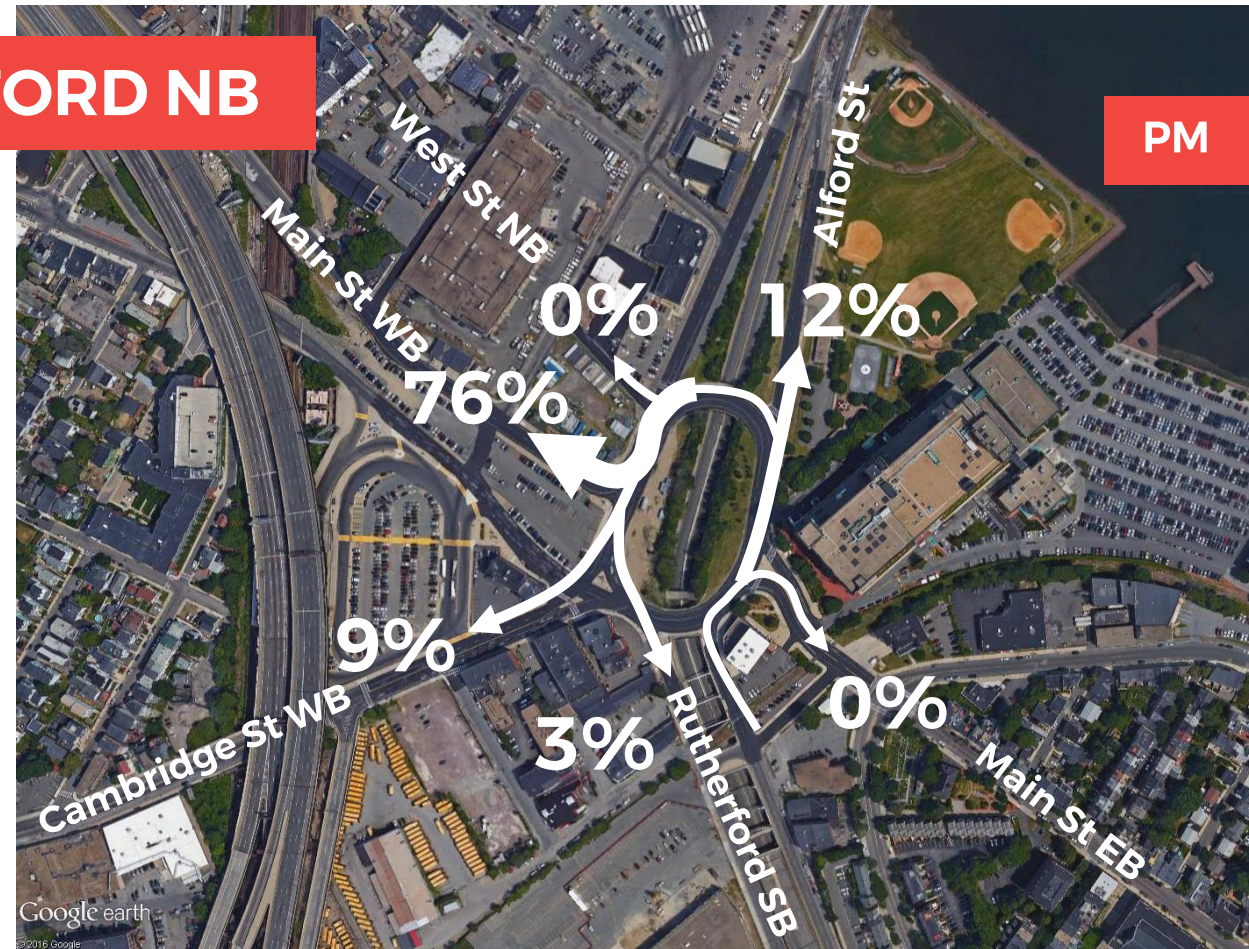
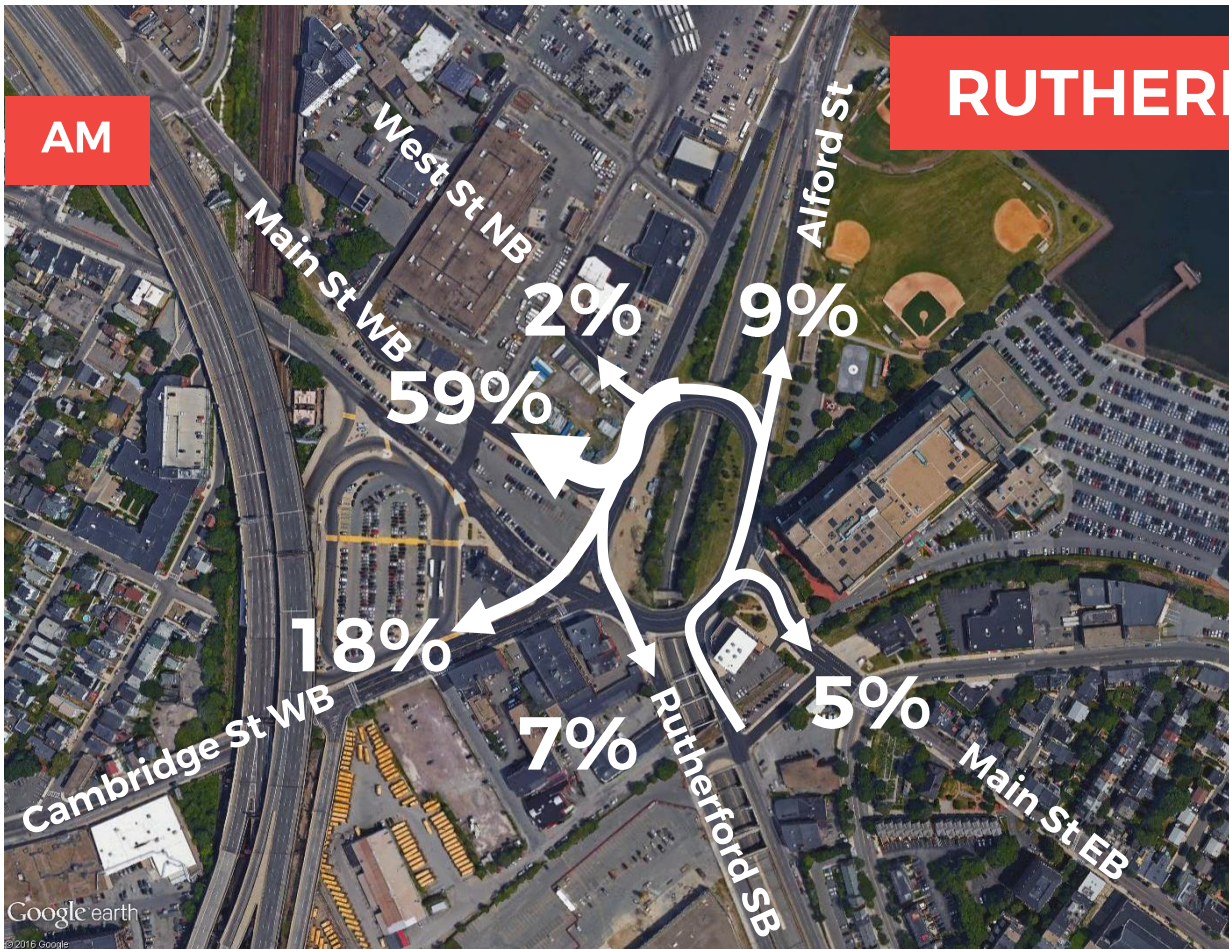


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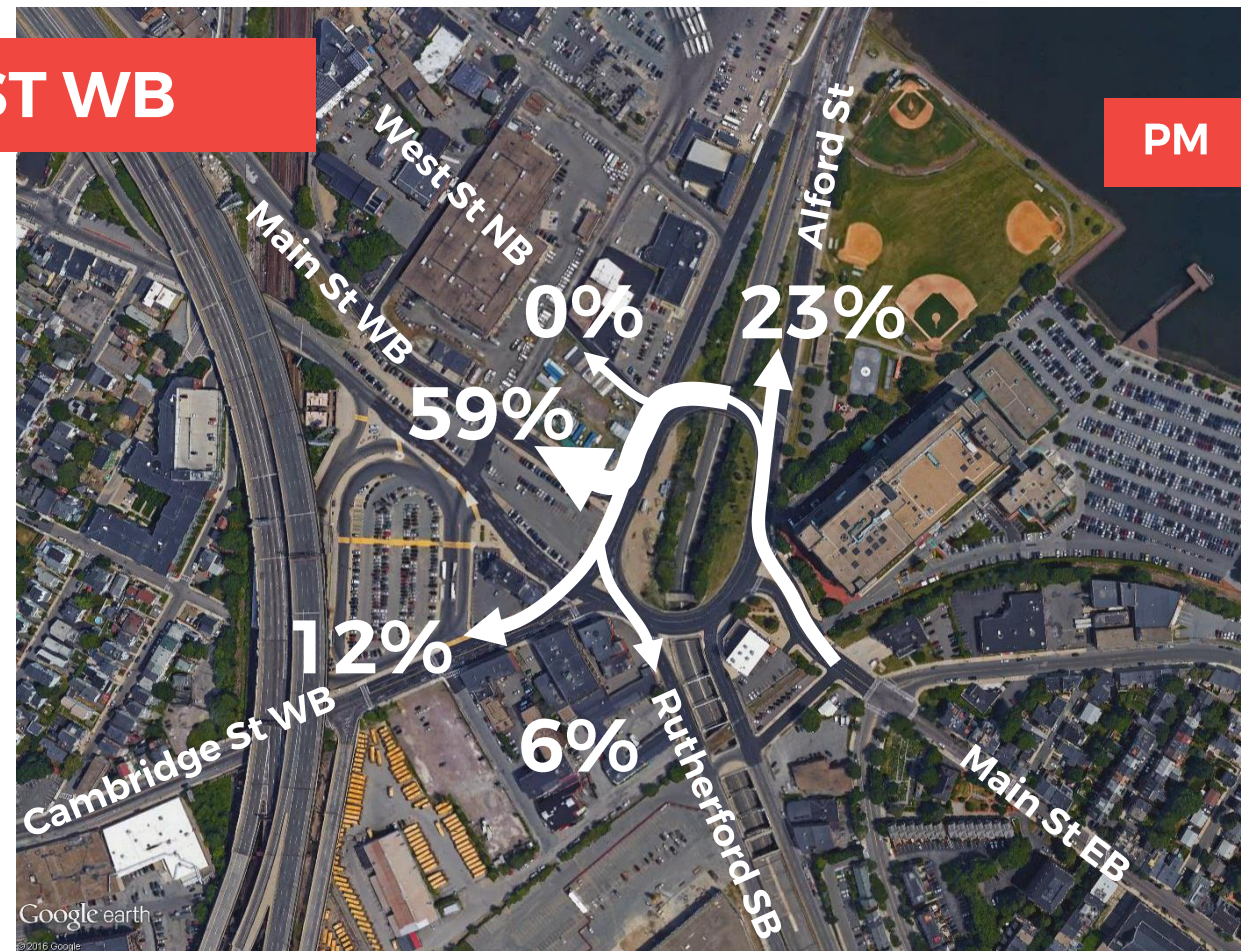
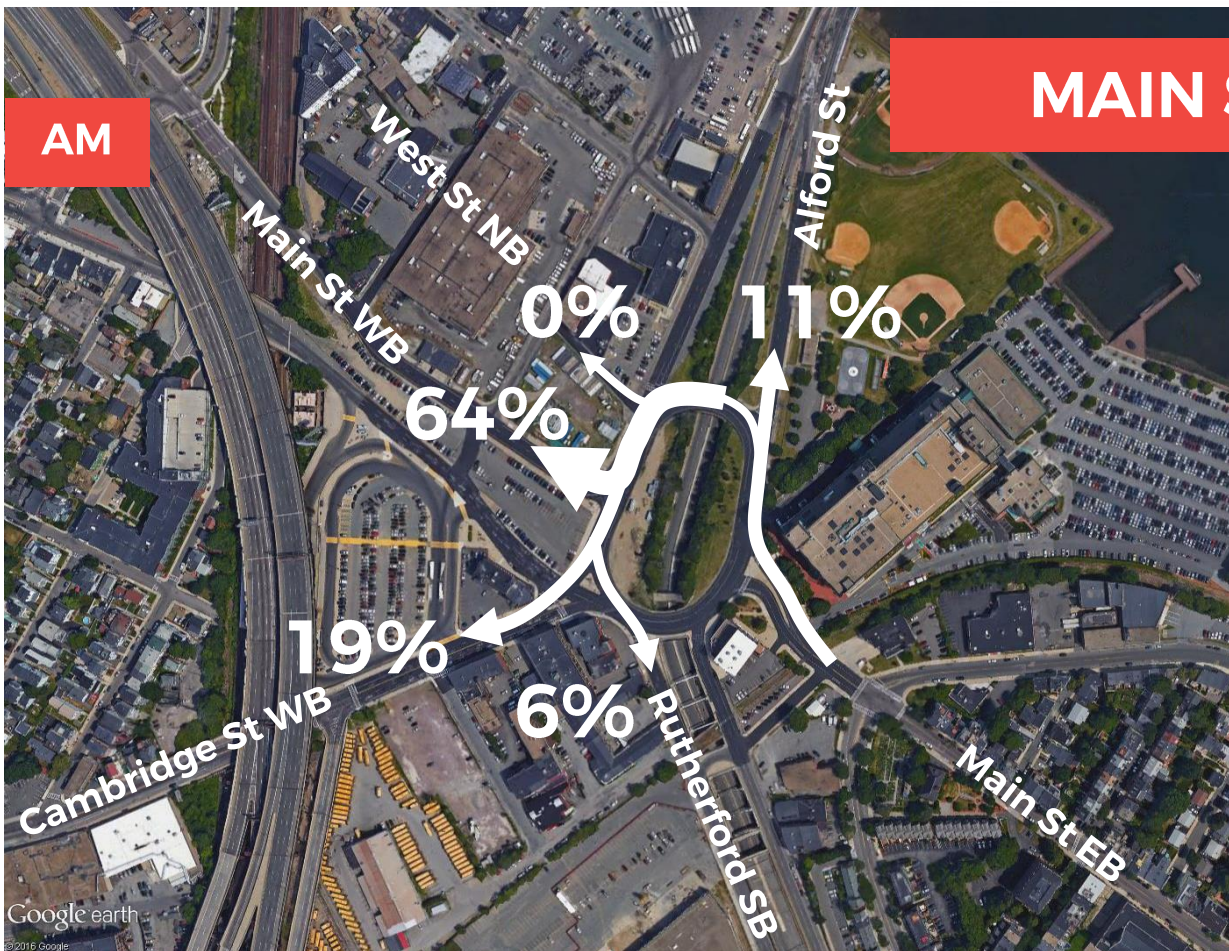


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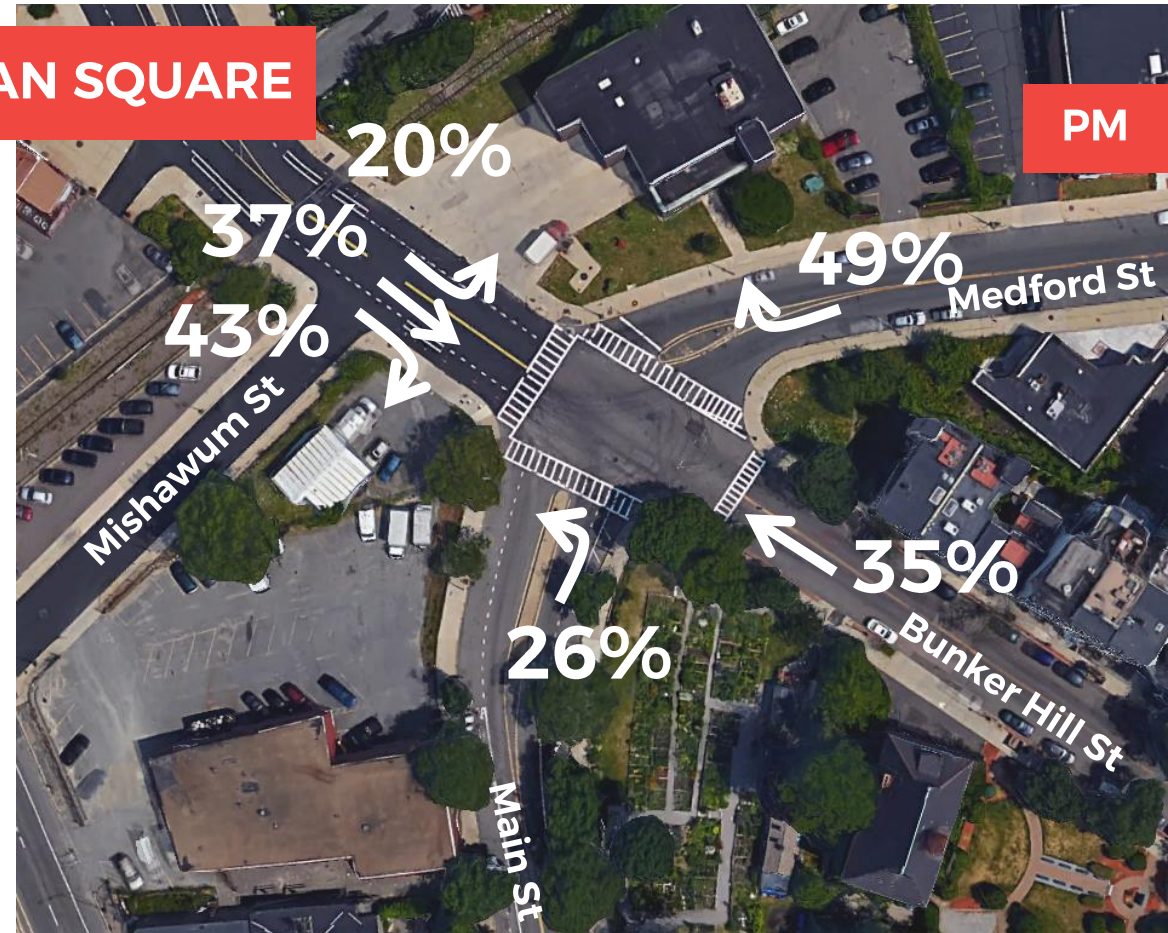
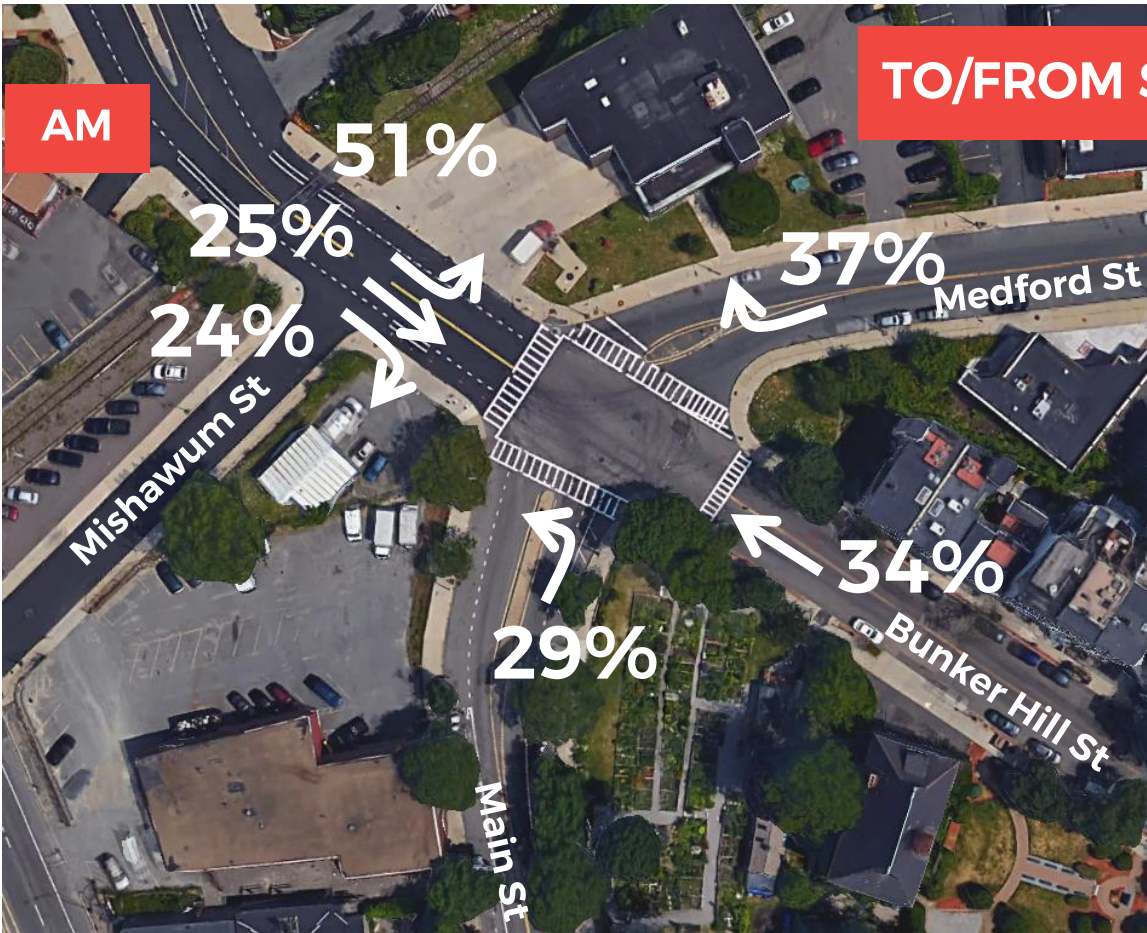


# NEIGHBORHOOD TRAFFIC

## TO/FROM SULLIVAN SQUARE

AM

PM

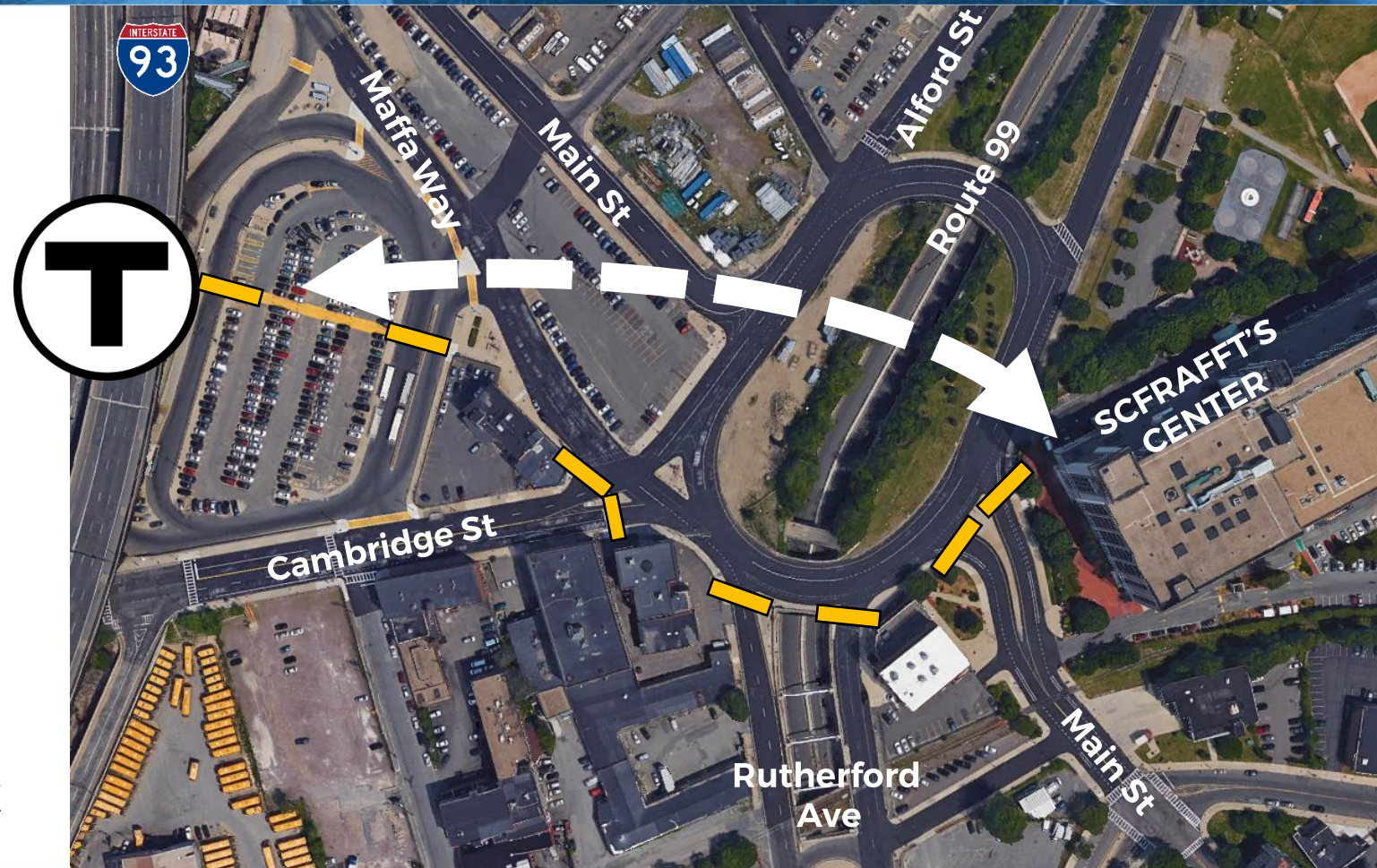




# SULLIVAN SQUARE PEDESTRIAN ROUTE

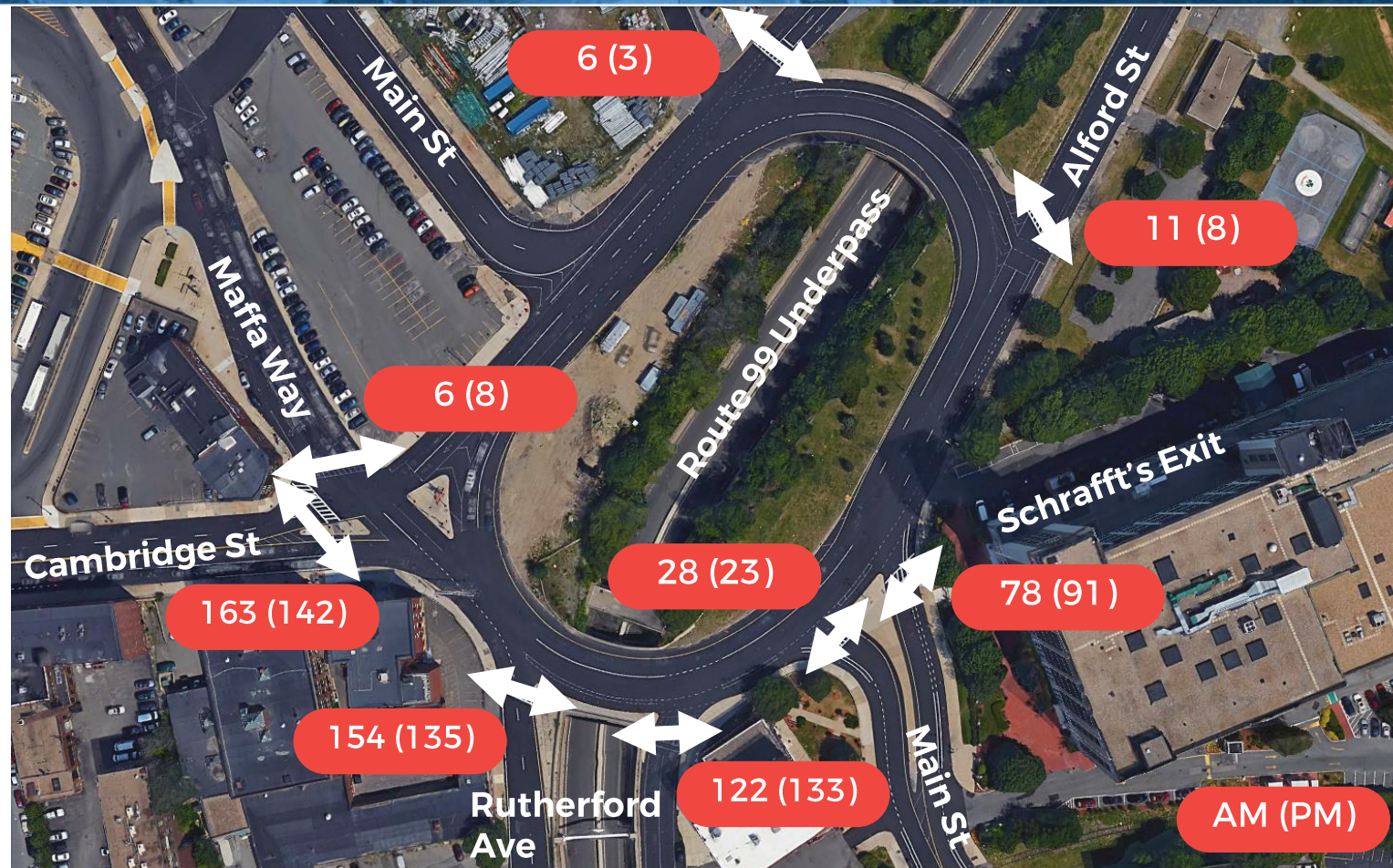
- Crossings Today
  - Signalized: 2
  - Unsignalized: 4
  - Bus Way: 2
- 1200 Feet
- ~6 Mins Walking Time

 CROSSWALK



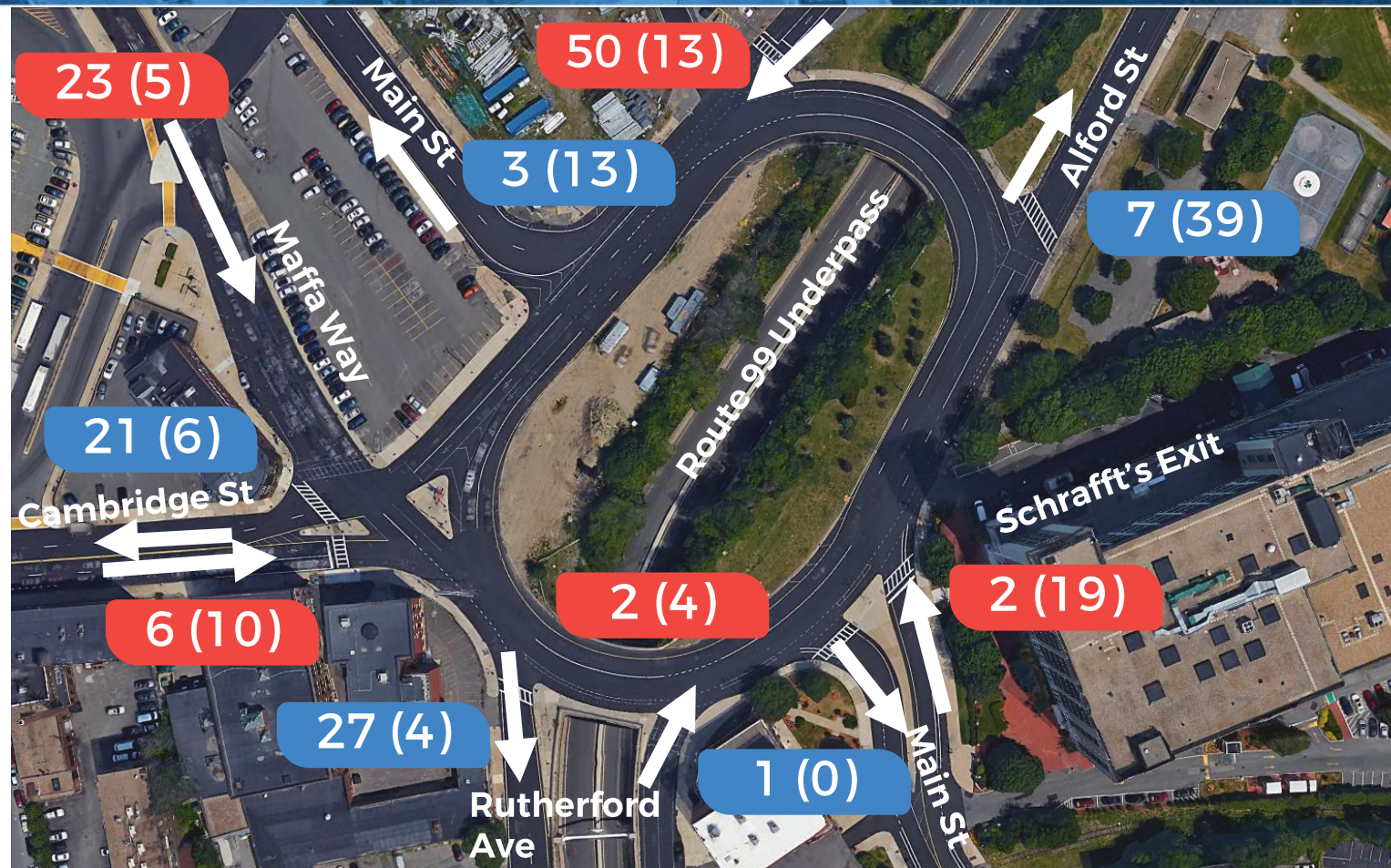


# SULLIVAN SQUARE PEDESTRIAN VOLUMES





# SULLIVAN SQUARE BIKE VOLUMES



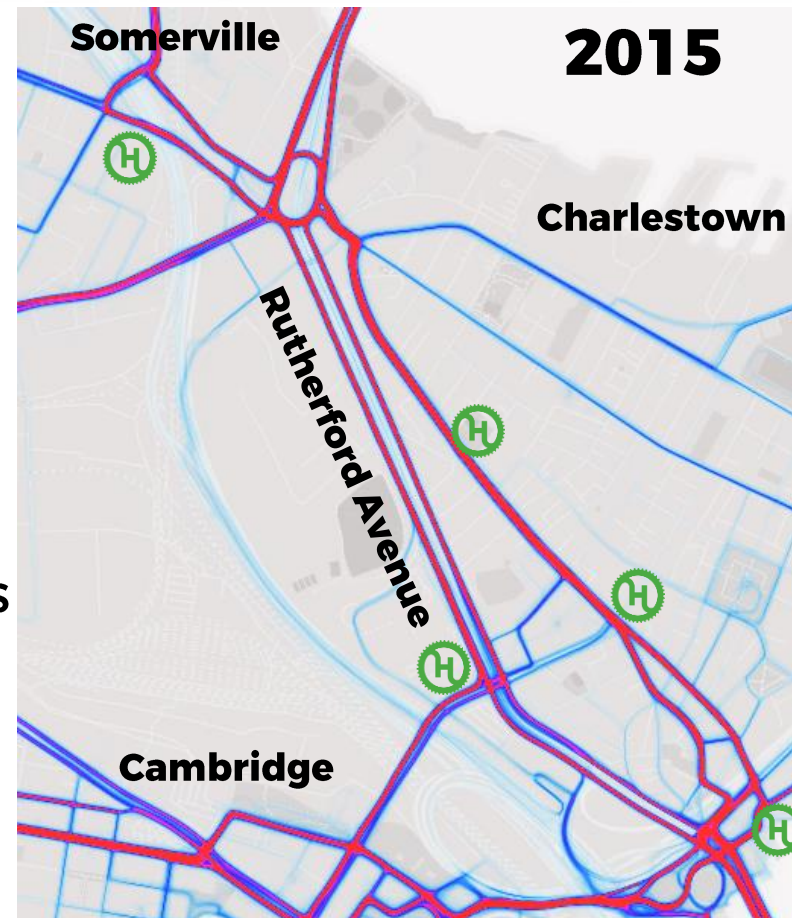
ENTERING  
AM (PM)

EXITING  
AM (PM)



# RUTHERFORD AVENUE BIKE TRENDS

- Regional Bike Node
- Hubway in Charlestown
  - Started in 2012 with 3 Stations
  - 7 Stations Today (1 in Somerville)
    - 50,000 trips/year to/from Charlestown
    - ~200% Growth per year on average
    - Over 5,000 Trips between these stations per year



- Hubway Stations
- High Use Biking
- Low Use Biking



# SULLIVAN SQUARE BIKE CONDITIONS

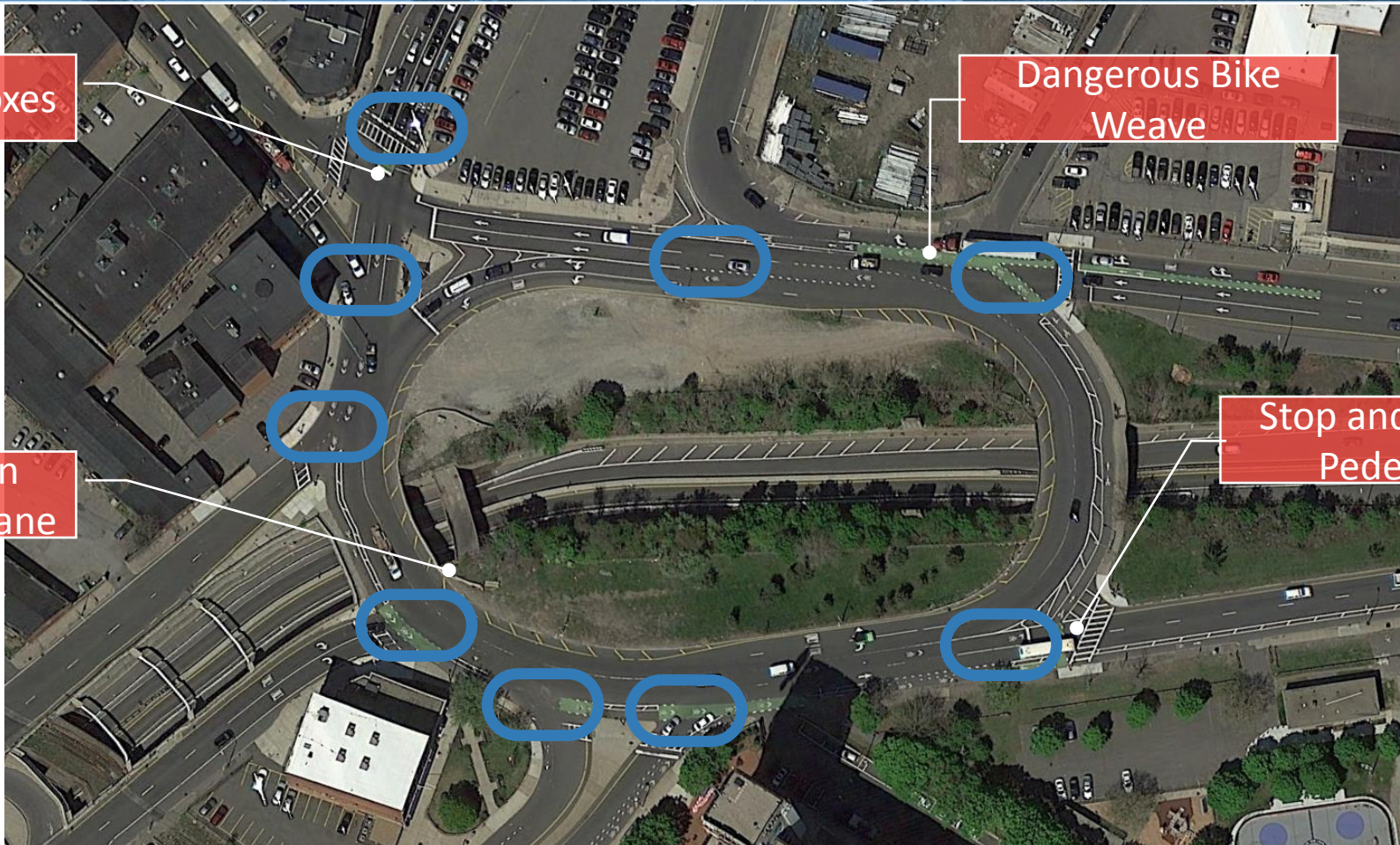
Bike Turn Boxes

Dangerous Bike Weave

 **CONFLICT POINTS**

Lane Reduction  
& Painted Bike Lane

Stop and Cross as  
Pedestrian



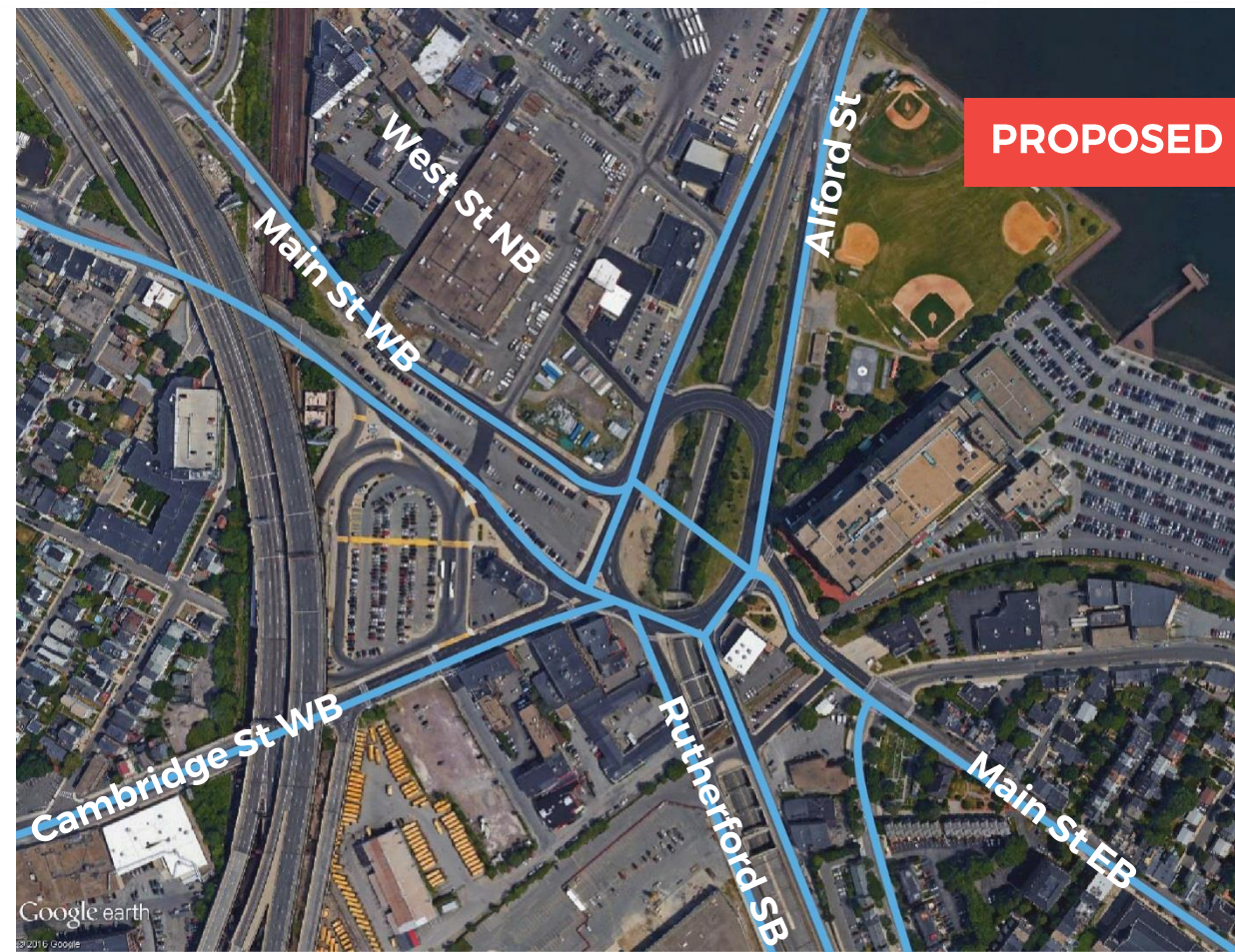


# SULLIVAN SQUARE BIKE NETWORK

EXISTING

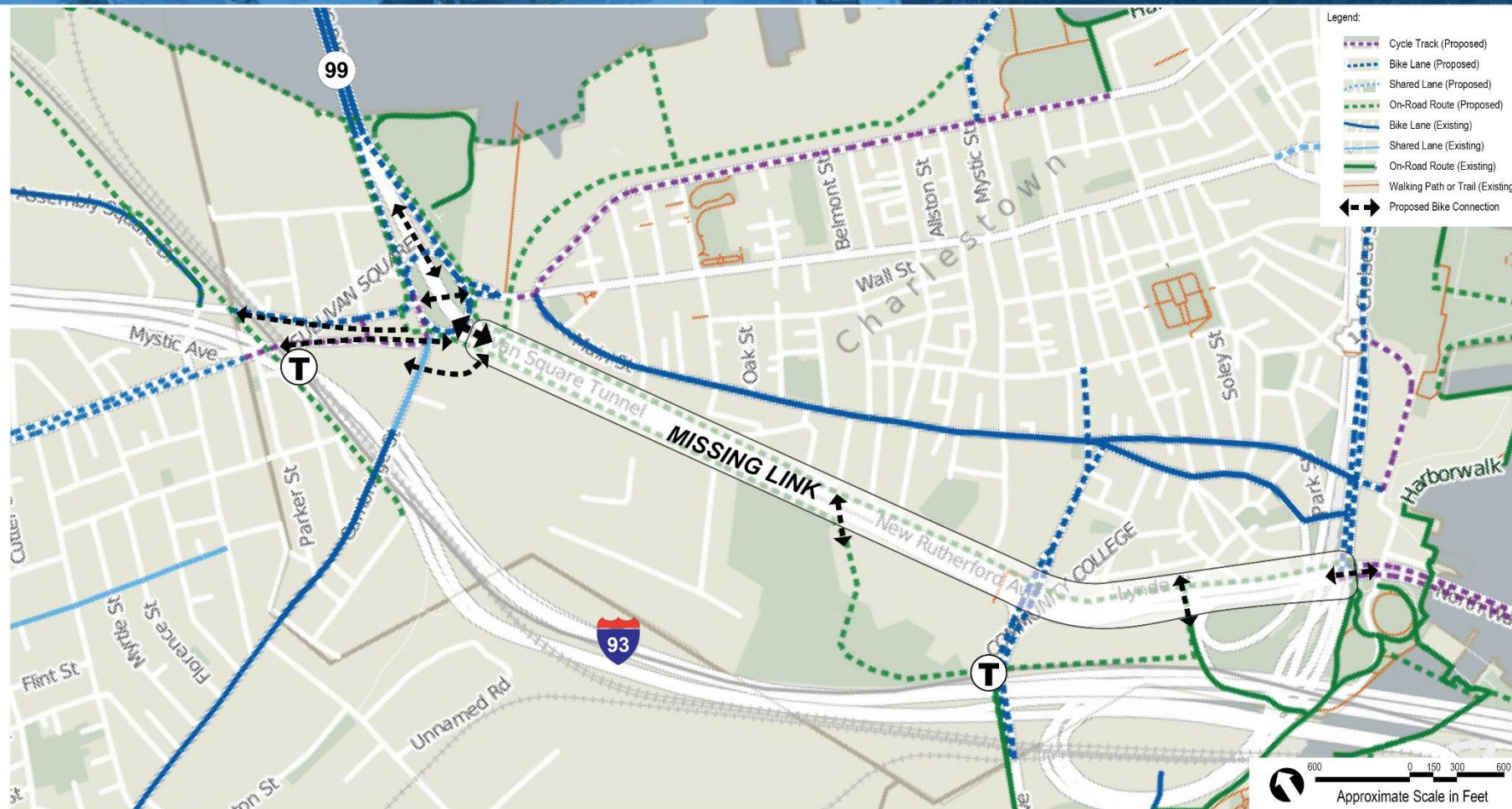


PROPOSED





# RUTHERFORD AVENUE BICYCLE NETWORK







# ROUTE 99 BRIDGE MODE SHARE



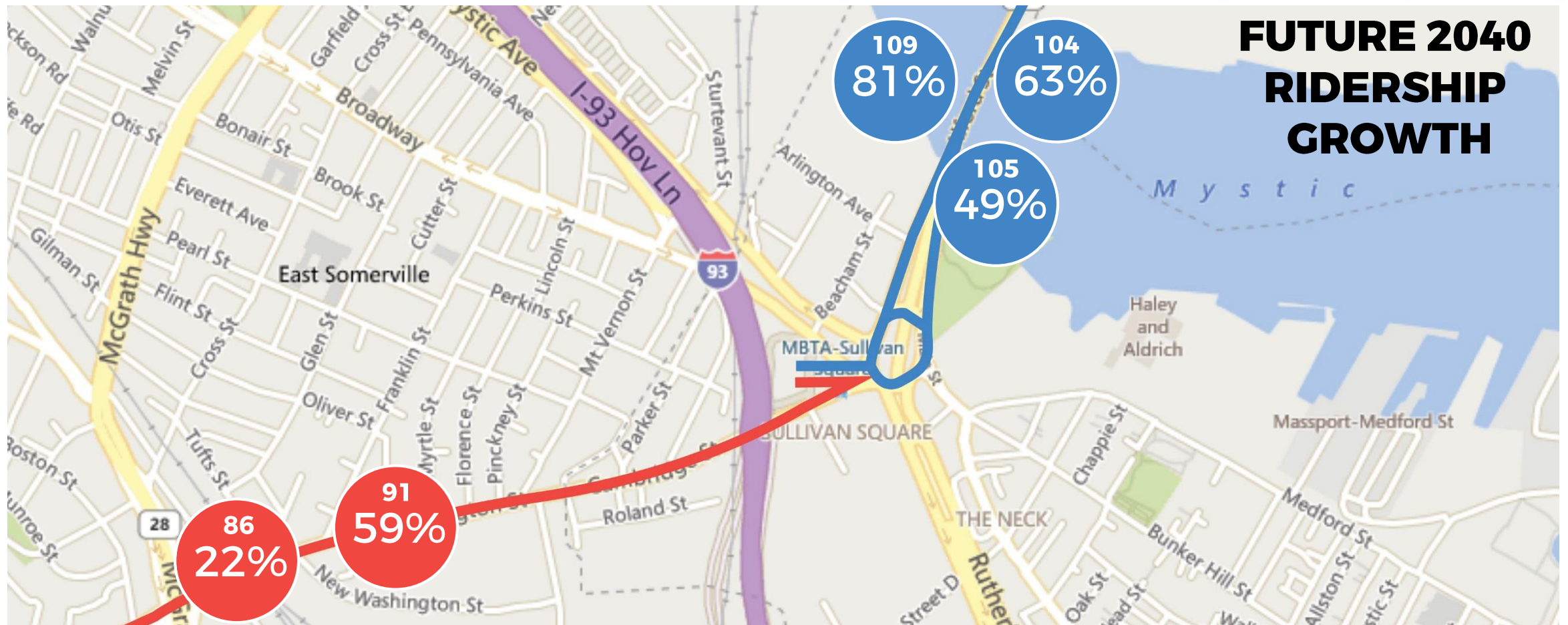


# SULLIVAN STATION BUS ROUTES





# FUTURE SULLIVAN SQUARE BUS FORECASTS





# INTERIM CASINO MITIGATION

- Under design now
- Planned construction: 2018 / 2019
- Improved Sullivan Sq. station circulation
- New bus-only lanes
- Four(4) new traffic signals
- Rebuilt Sullivan Square roadways
- Video Cameras for traffic monitoring
- TMC Communication

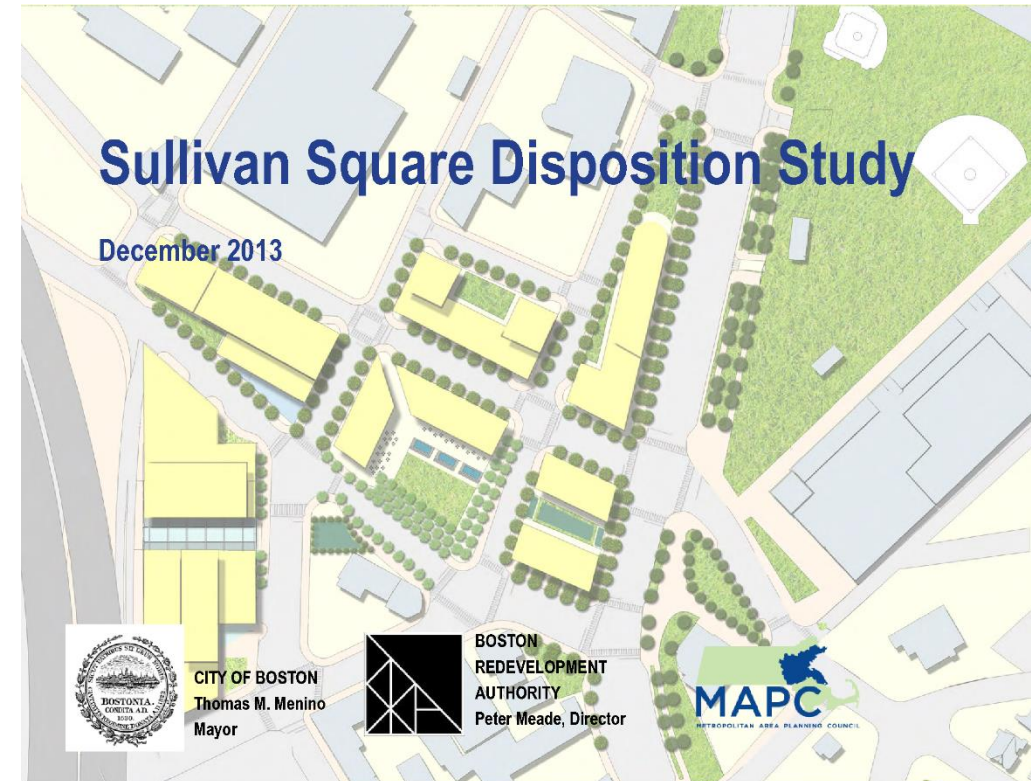




# SUPPORTING THE VISION

## 2013 BPDA Community Study

- Access to MBTA
- New open spaces
- Transit oriented development
- Pedestrian scale streets
- Neighborhood connections
- Healthy environment





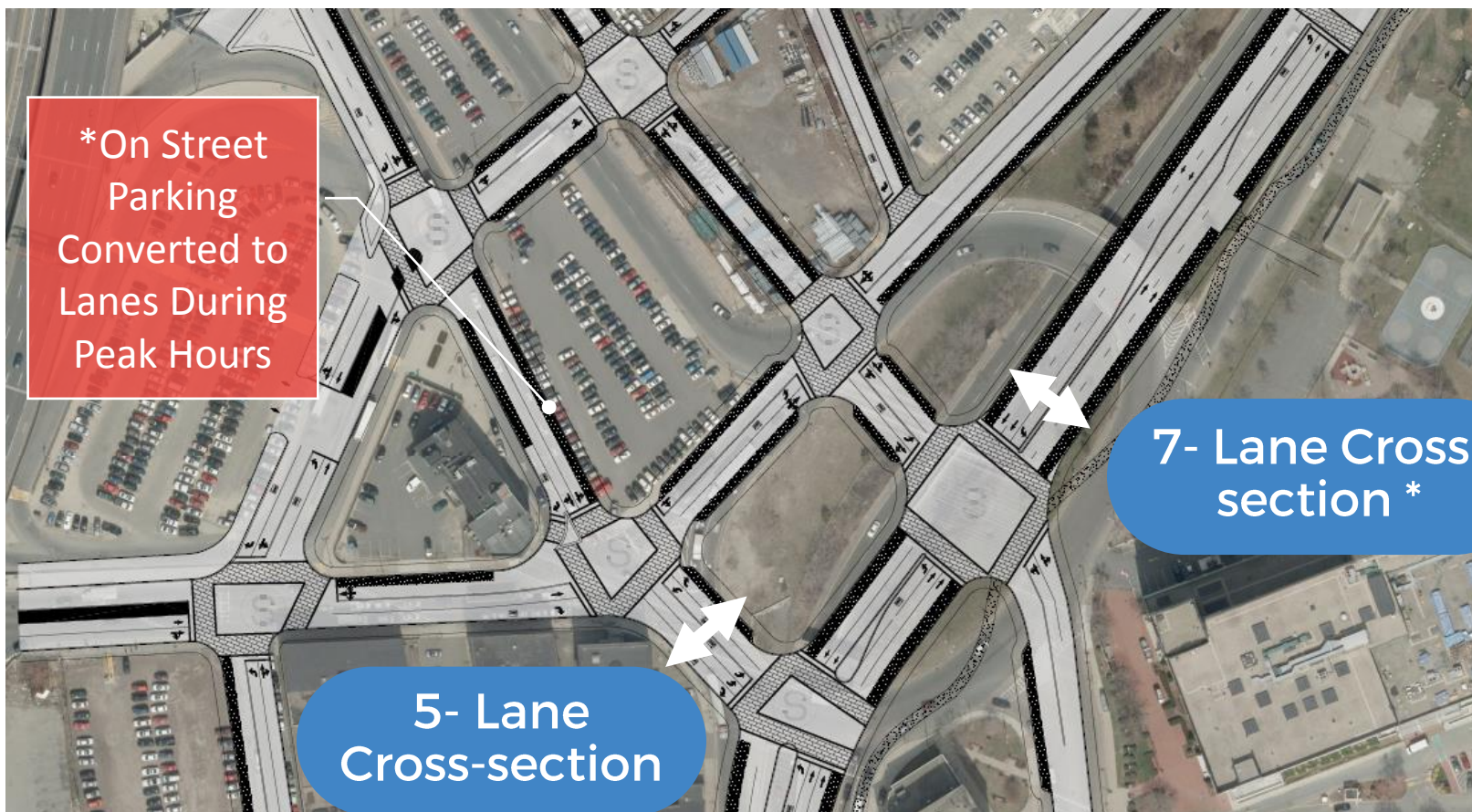
# PREVIOUS SULLIVAN SQ. SURFACE CONCEPT

- Boulevard conversion
- Urban street grid
- TOD development
- Remove underpass
- On-street parking lane travel lane
- Shift Rutherford Avenue to West
- Discounted regional traffic





# PREVIOUS SULLIVAN SQ. SURFACE CLOSEUP



\*On Street  
Parking  
Converted to  
Lanes During  
Peak Hours

5- Lane  
Cross-section

7- Lane Cross-  
section \*



# PREVIOUS SULLIVAN SQ. UNDERPASS CONCEPT

- Boulevard conversion
- Urban street grid
- TOD development
- Maintain underpass
  - Parkland
- Discounted regional traffic







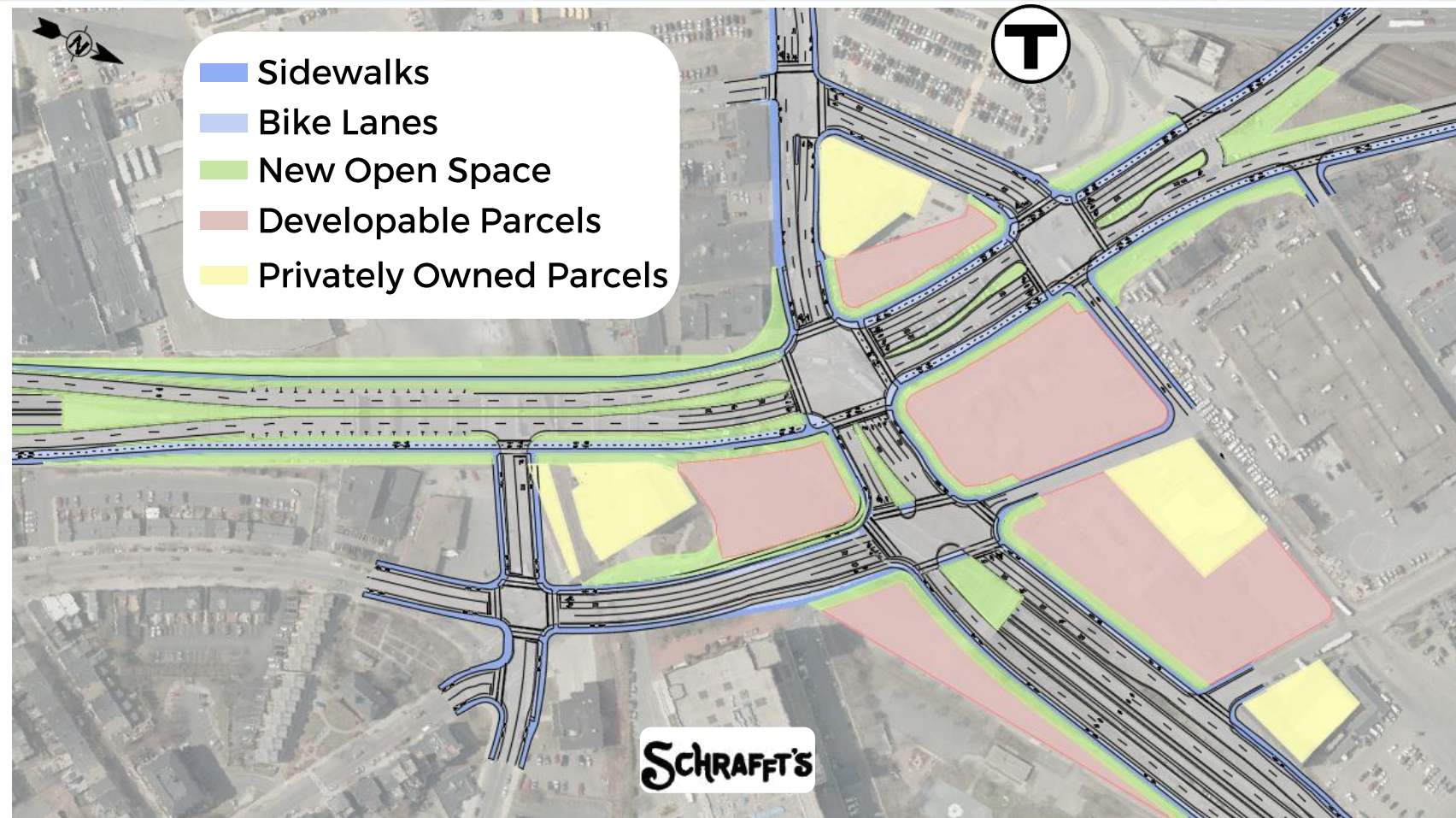
# NEW SULLIVAN SQUARE CONCEPTS

- Proposed options
  - Surface option
  - Underpass options
- Remove rotary
- Simplified intersection arrangement
- Developable parcels for transit oriented development
- Enhanced bike/ped/transit connections
- Shorter and more direct crossings








# SULLIVAN SQUARE CONCEPT

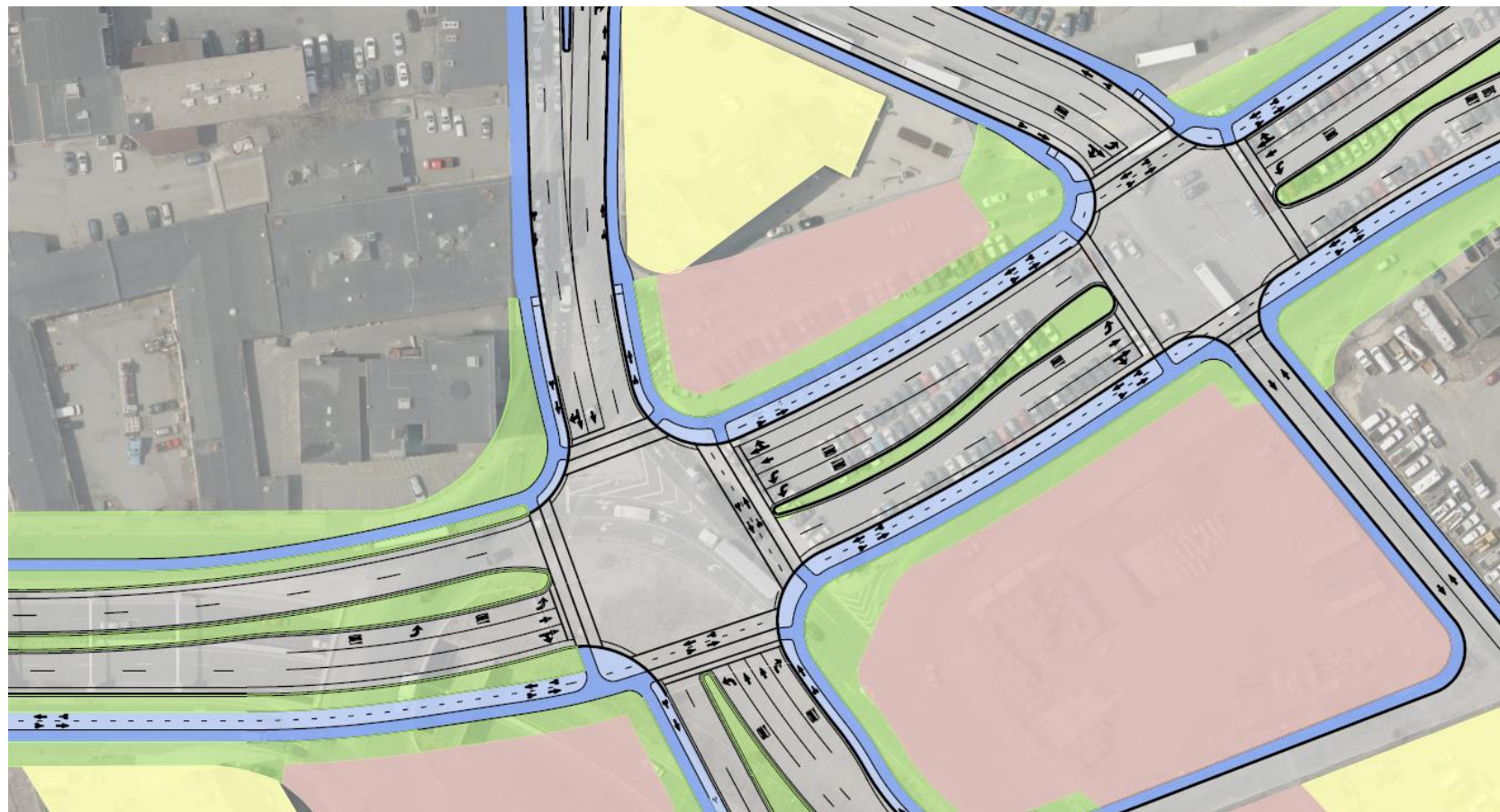
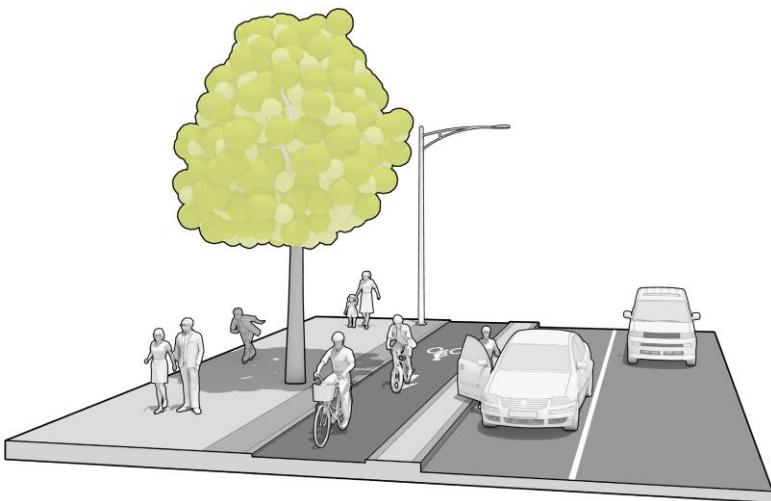
- Major Intersections
- Bike Facilities
- Pedestrian Buffer
- Staged Ped Crossings
- Green Space
- New Parcels





# SULLIVAN SQUARE CONCEPT - CLOSE UP

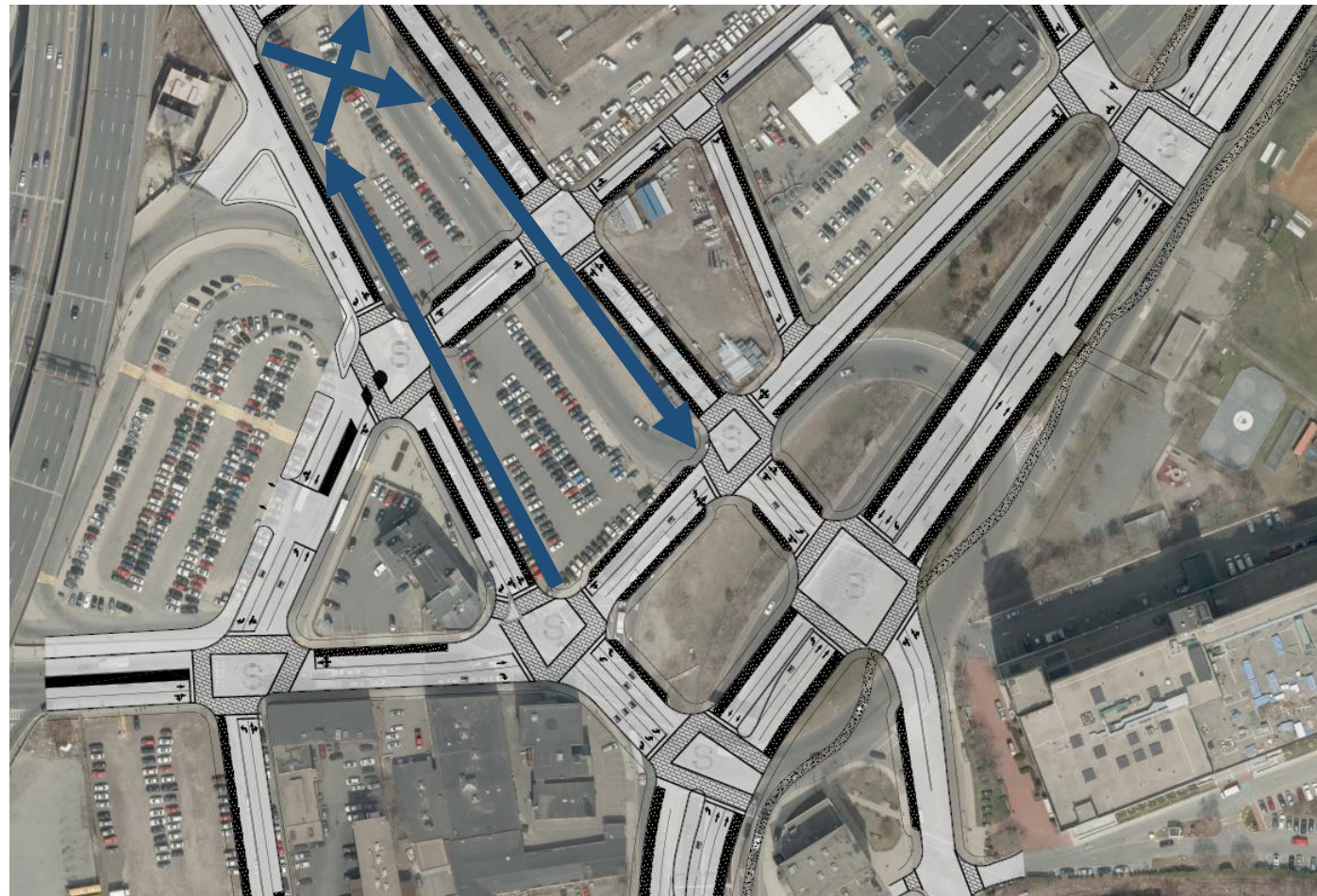
-  Sidewalks
-  Bike Lanes
-  New Open Space
-  Developable Parcels
-  Privately Owned Parcels





# IDEA: DISPLACED LEFT TURNS

- Two-way Maffa Way
- Two-Way Mystic Ave
- Reduce turn conflicts at Cambridge St / Rutherford Ave
- Better access to parcels
- Better LOS?





Thank you for your continued involvement



FOR MORE INFO: <https://www.cityofboston.gov/transportation/rutherford/>