



RUTHERFORD AVE/ SULLIVAN SQUARE DESIGN PROJECT

PUBLIC MEETING

February 28, 2017



PROJECT TEAM

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





Updates

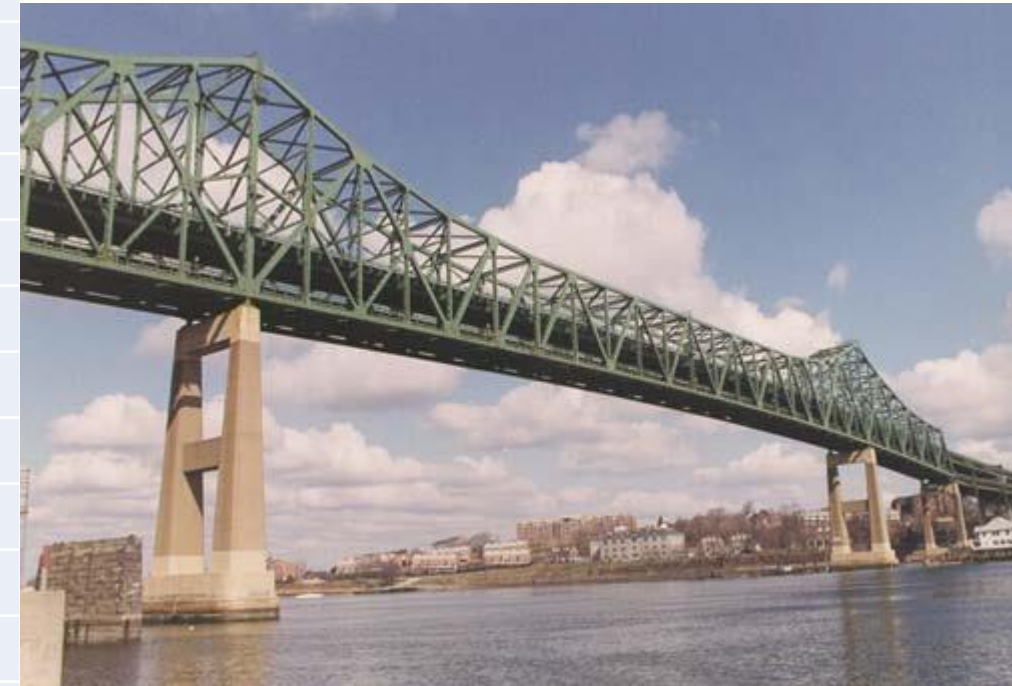
- Tobin Bridge Toll Changes and Initial Trends
- New Traffic Data Collection 2017
- Lower Mystic Regional Working Group
- MBTA Sullivan Square Station Concepts
- Charlestown Resiliency Study
- Concept Updates



Tobin Bridge Toll Change

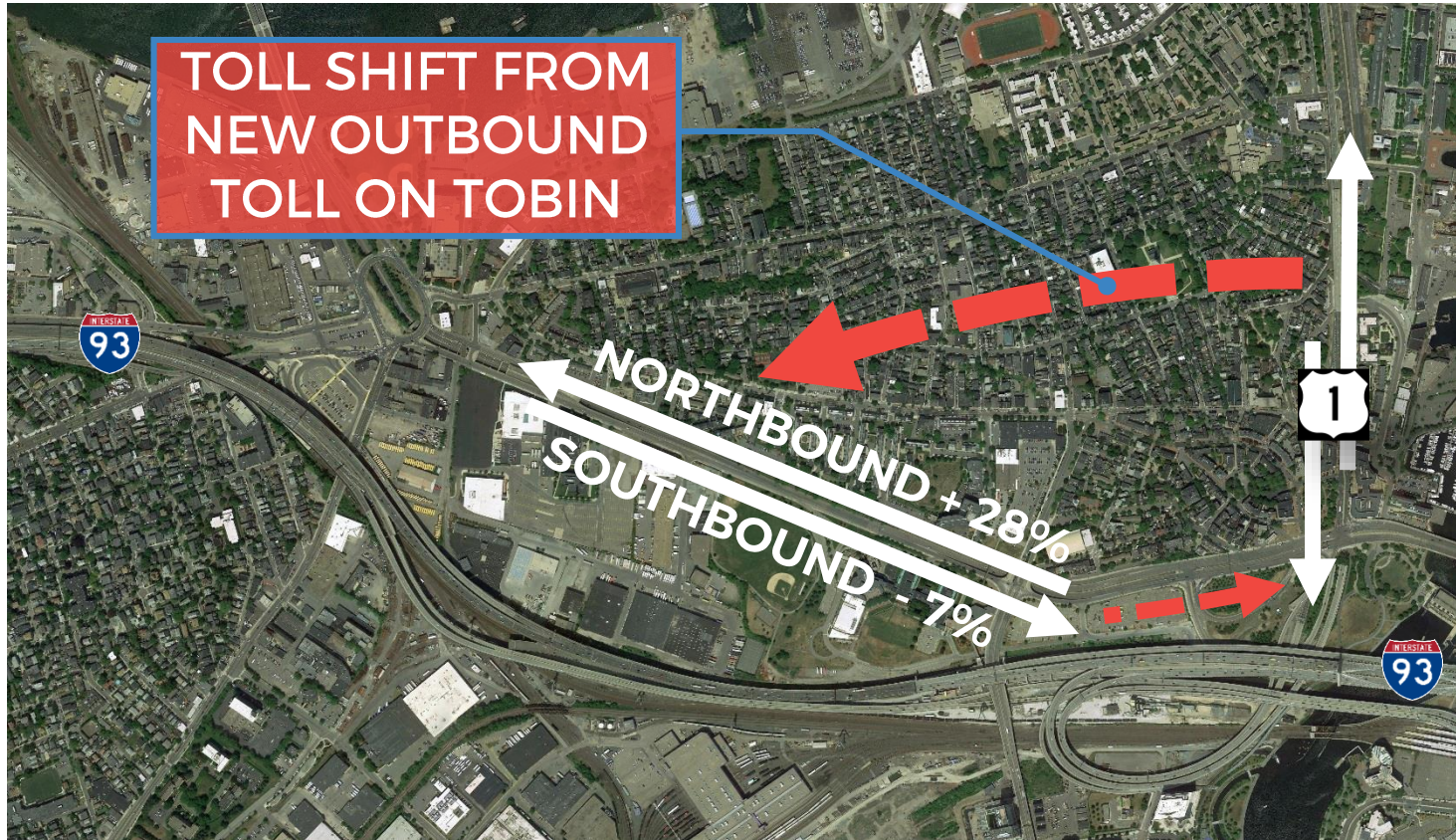
Vehicles Through Toll Plaza*

Before Toll Change Southbound	38,119
<u>After Toll Change Southbound</u>	<u>38,867</u>
Change Southbound	748 (+2.0%)
Before Toll Change Northbound	51,488
<u>After Toll Change Northbound</u>	<u>47,739</u>
Change Northbound	-3,749 (-7.3%)
Total Before Toll Change	89,607
<u>Total After Toll Change</u>	<u>86,606</u>
Change Total	-3,001 (-3.3%)



Source: MassDOT

*Seasonally Adjusted Average (Nov 2016 – Jan 2017)



Impact to Rutherford Ave

- NB Daily Traffic up 28%
 - 6,800 to 8,700 vehicles (still a low number)
- SB Daily Traffic down 7%
 - 19,400 to 18,200 vehicles

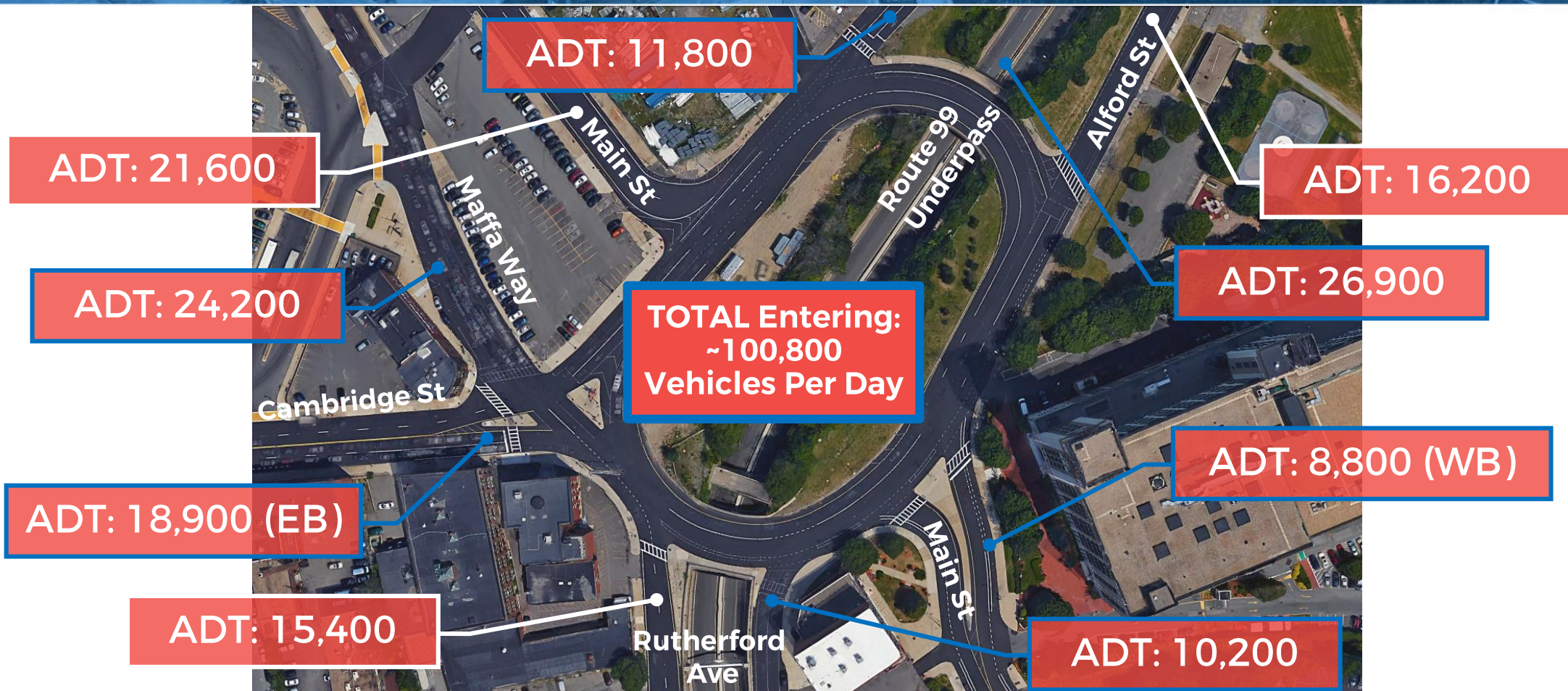


2017 - DAILY CORRIDOR VOLUMES



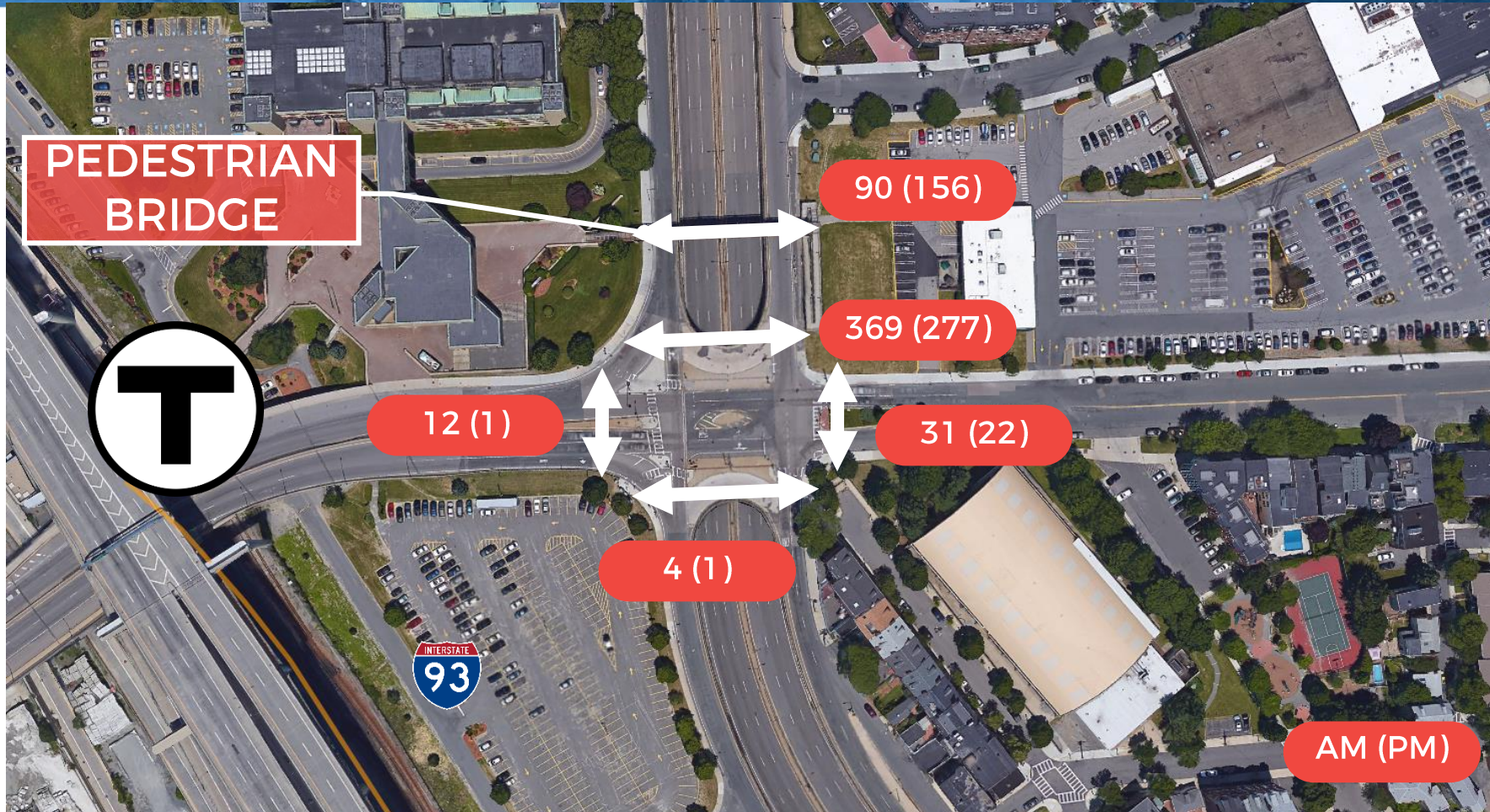


2017 SULLIVAN SQUARE DAILY VOLUMES





AUSTIN STREET PEDESTRIAN UPDATE



DAILY RUTHERFORD CROSSINGS:

5900 Peds ± 9%

1/3 USE PED BRIDGE

2/3 USE STREET



LOWER MYSTIC WORKING GROUP



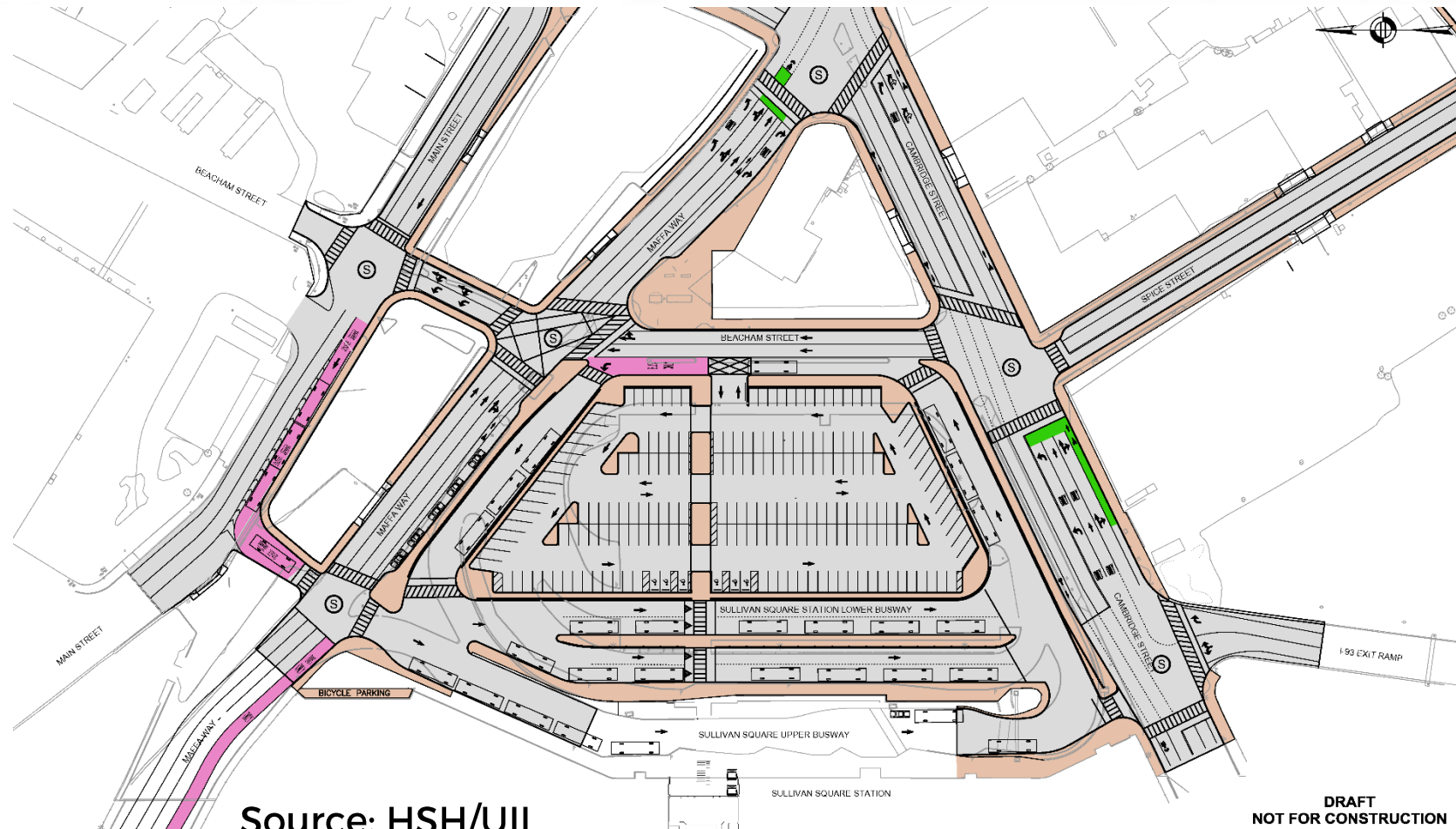
LOWER MYSTIC REGIONAL WORKING GROUP

- Continuing to model numerous scenarios
 - Highway, and Transit Solutions
- See Website: lowermysticstudy.org



MBTA SULLIVAN STATION CIRCULATION

- Third Busway added
- 9 Berths added (13 existing)
- Pedestrian access with covered walkways
- Egress direct to Cambridge Street for 86, 91, CT2
- Dedicated Bus Lane on Main Street
- Covered bicycle parking
- Curbside pickup/drop-off







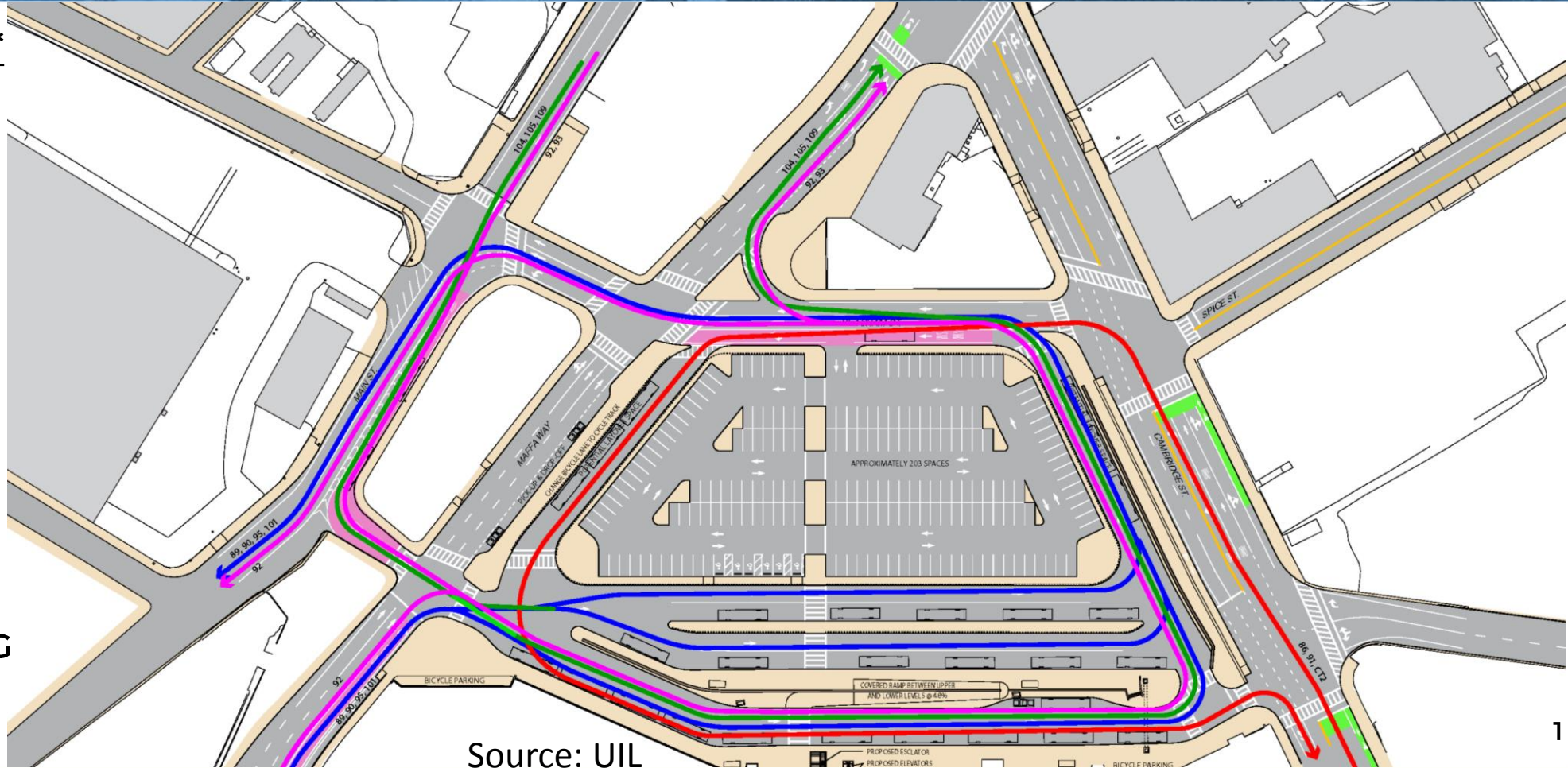
Source: HSH/UIL

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NOT FOR CONSTRUCTION



NEW CIRCULATION*

-  89, 90, 95, 101
-  86, 91, CT2
-  104, 105, 109
-  92, 93



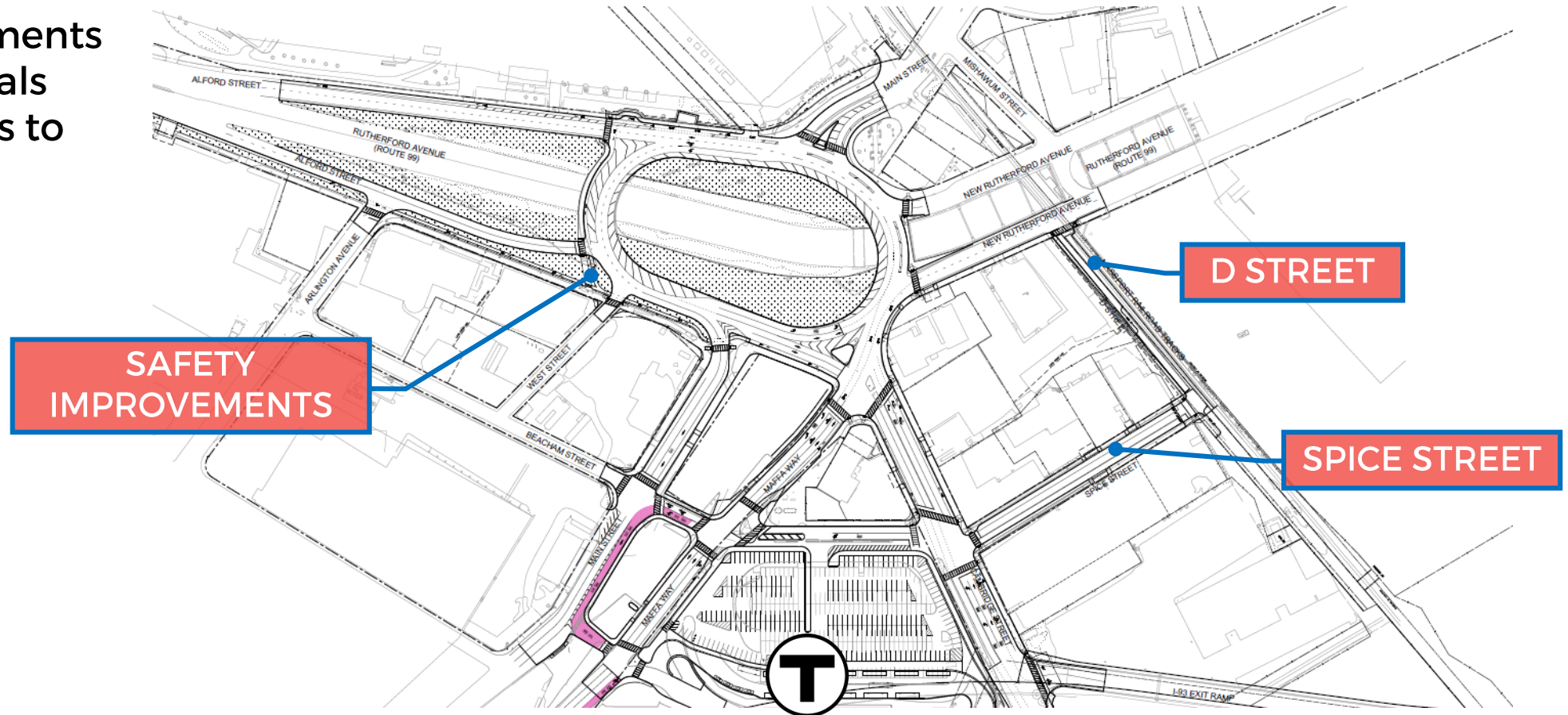
*MBTA STILL EVALUATING FUTURE ROUTES AND ACCESS

Source: UIL



WYNN IMPROVEMENTS

- Safety Enhancements
- New Traffic Signals
- Communications to TMC
- Spice Street
- Beacham Street





CHARLESTOWN RESILIENCY STUDY

100 Year Flood

500 Year Flood



- Consultant team has been selected (Kleinfelder)
- Study began in February
- Team will coordinate with Rutherford Avenue project



CLIMATE READY CHARLESTOWN

DESIGN GOALS:

- ✓ Protect the Community from Coastal Flooding
- ✓ Make Infrastructure Resilient
- ✓ Enhance Waterfront Access
- ✓ Expand Open Space

PROJECT SCHEDULE:

- March to April 2017 – Public Outreach
- May to June 2017 – Public Workshops
- July 2017 – Conceptual Designs & Final Report

- Join a Neighborhood Team
www.greenovateboston.org
- Learn More and Get Updates
www.boston.gov/climate-ready



RUTHERFORD AVENUE CONCEPTS

- On-going development and analysis
 - New Traffic Data
 - Input from Charlestown Flood Risk Study
 - MBTA Sullivan Station Circulation
- Future Design Hourly Volumes
 - Under Development with LMRWG
- Three Key Areas
 - Sullivan Square \ North Gateway
 - Mid-Section
 - Austin Street



NORTH GATEWAY TO SULLIVAN SQUARE

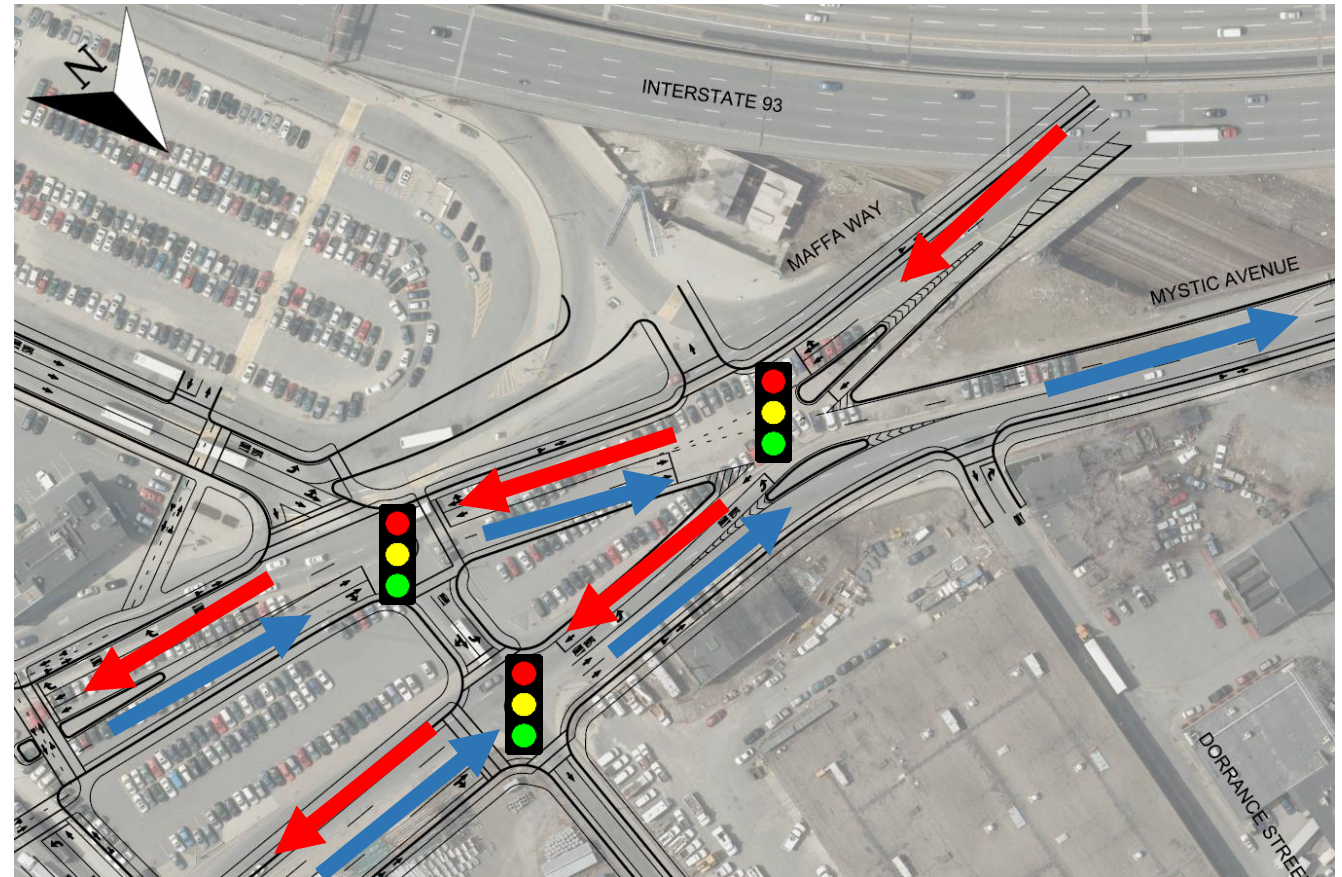
- Maffa Way Today
- Left maneuvers to Charlestown are challenging
- IDEA:
 - Split traffic to reduce left turns
 - More direct route for local traffic





NORTH GATEWAY TO SULLIVAN SQUARE

- Maffa Way Left Turn Diversions
- Maffa Way & Main Street two-way
- Spreads out traffic flow and reduces turns at major intersections
- Staged Pedestrian crossing
- “X” geometry is not typical
- Dedicated Left turn for buses to MBTA station
- Mystic Avenue 3 lanes
- Main Street continuous flow except for pedestrian crossing





GRID CONCEPT

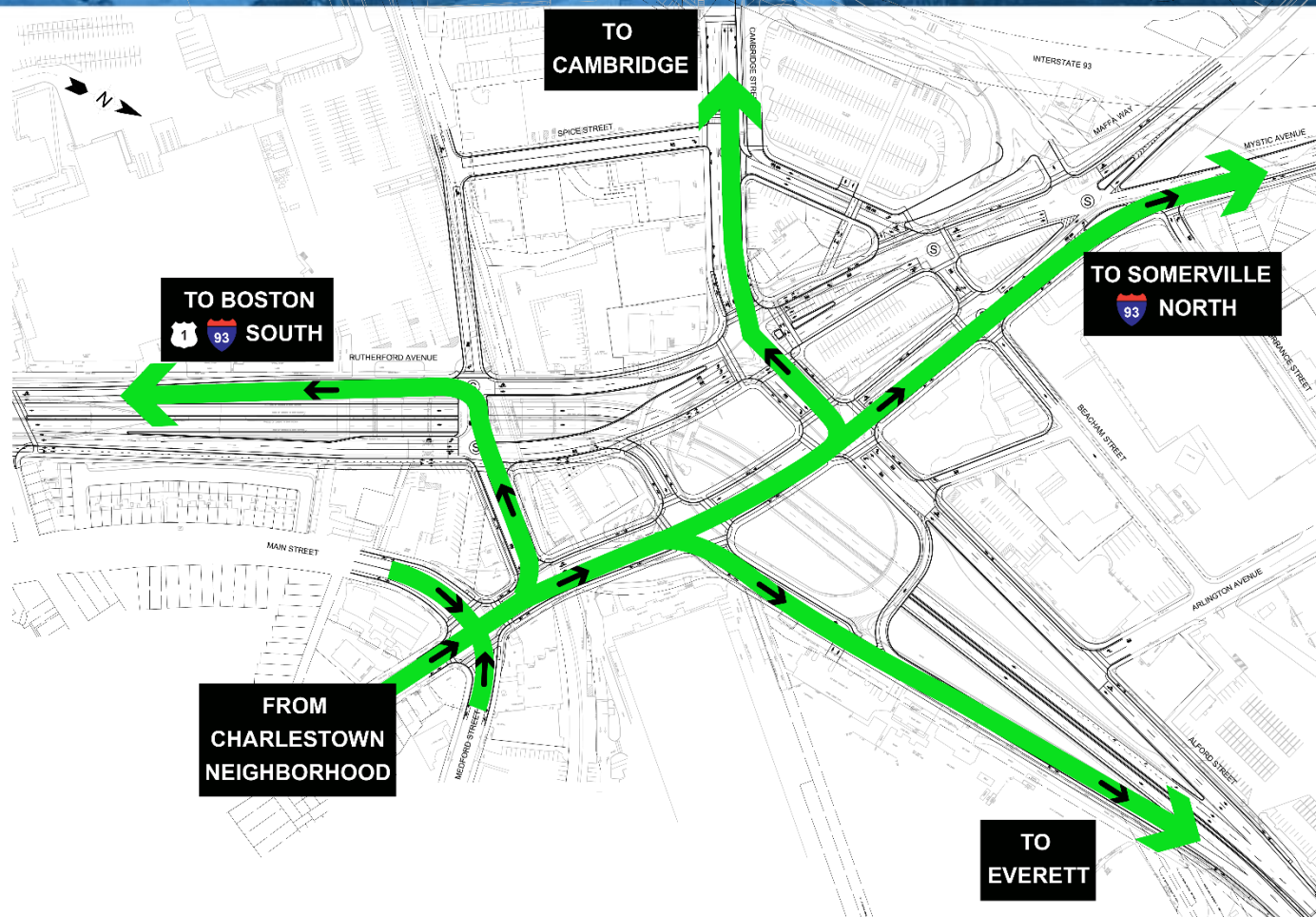
- More direct access/egress from neighborhood to Maffa/Mystic Ave
- Complete streets with pedestrian and bicycle facilities
- Two-way Separated bike lane
- New bridges span the underpass

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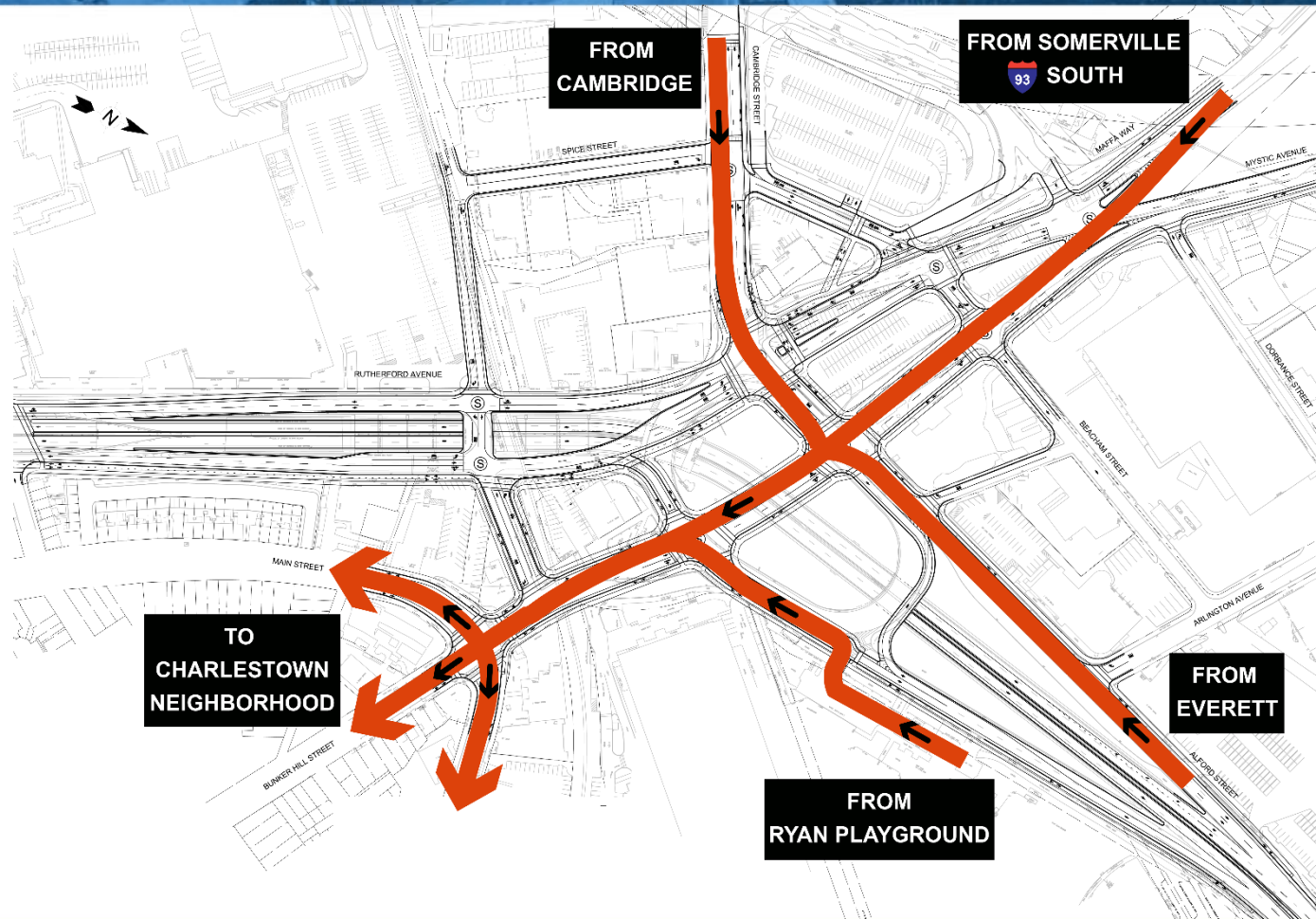


ROUTES FROM NEIGHBORHOOD - GRID



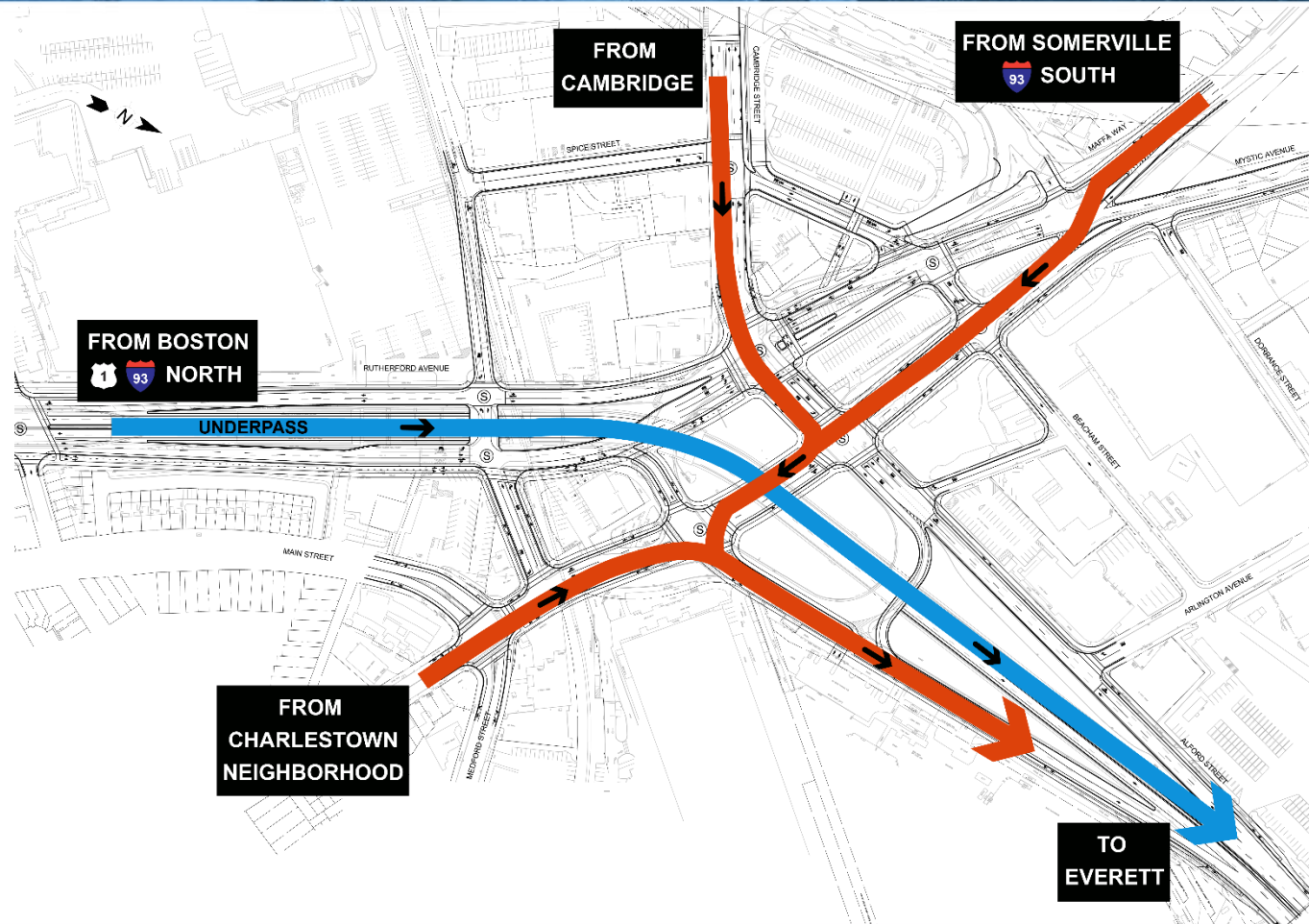


ROUTES TO NEIGHBORHOOD - GRID



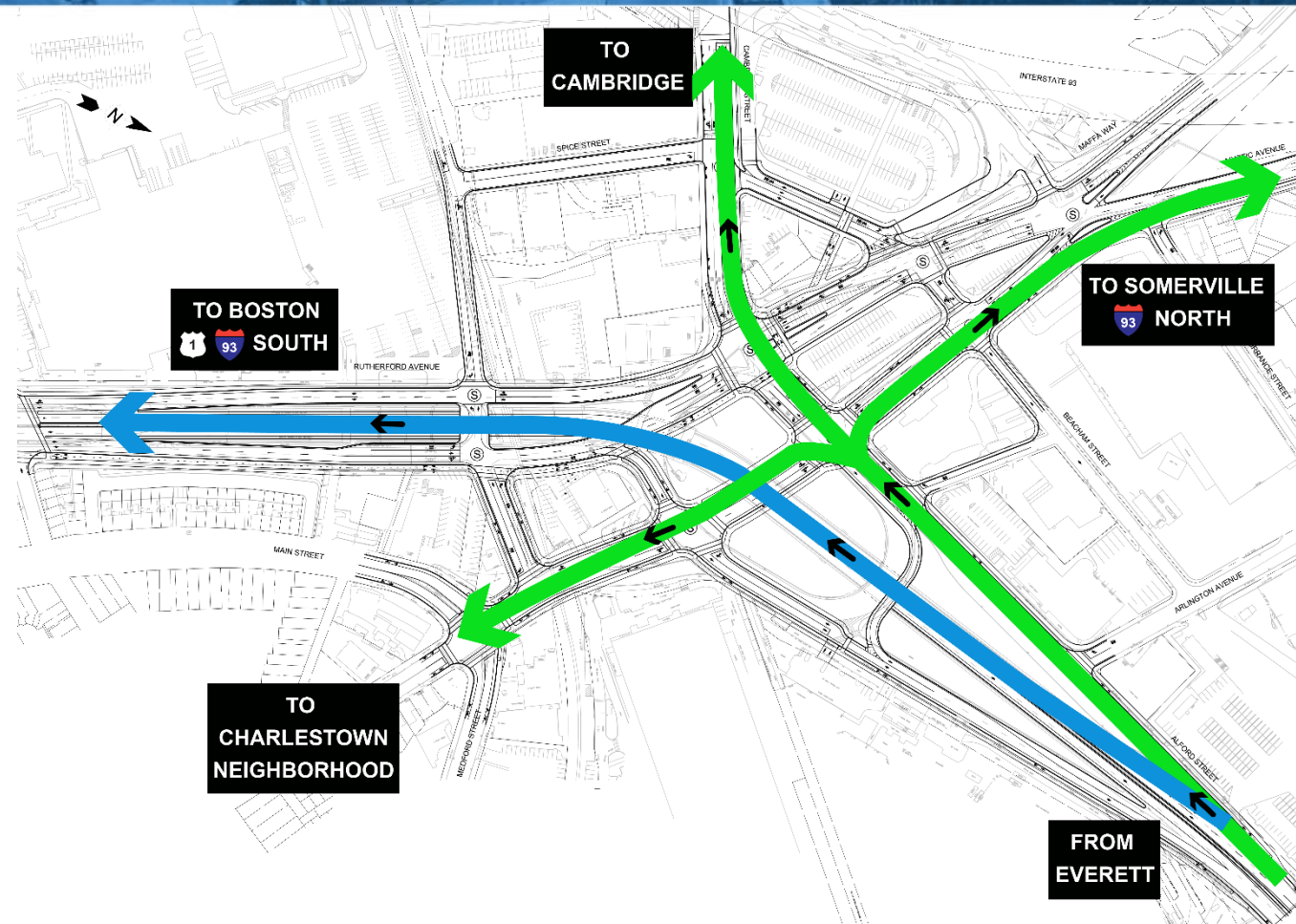


ROUTES TO EVERETT - UNDERPASS





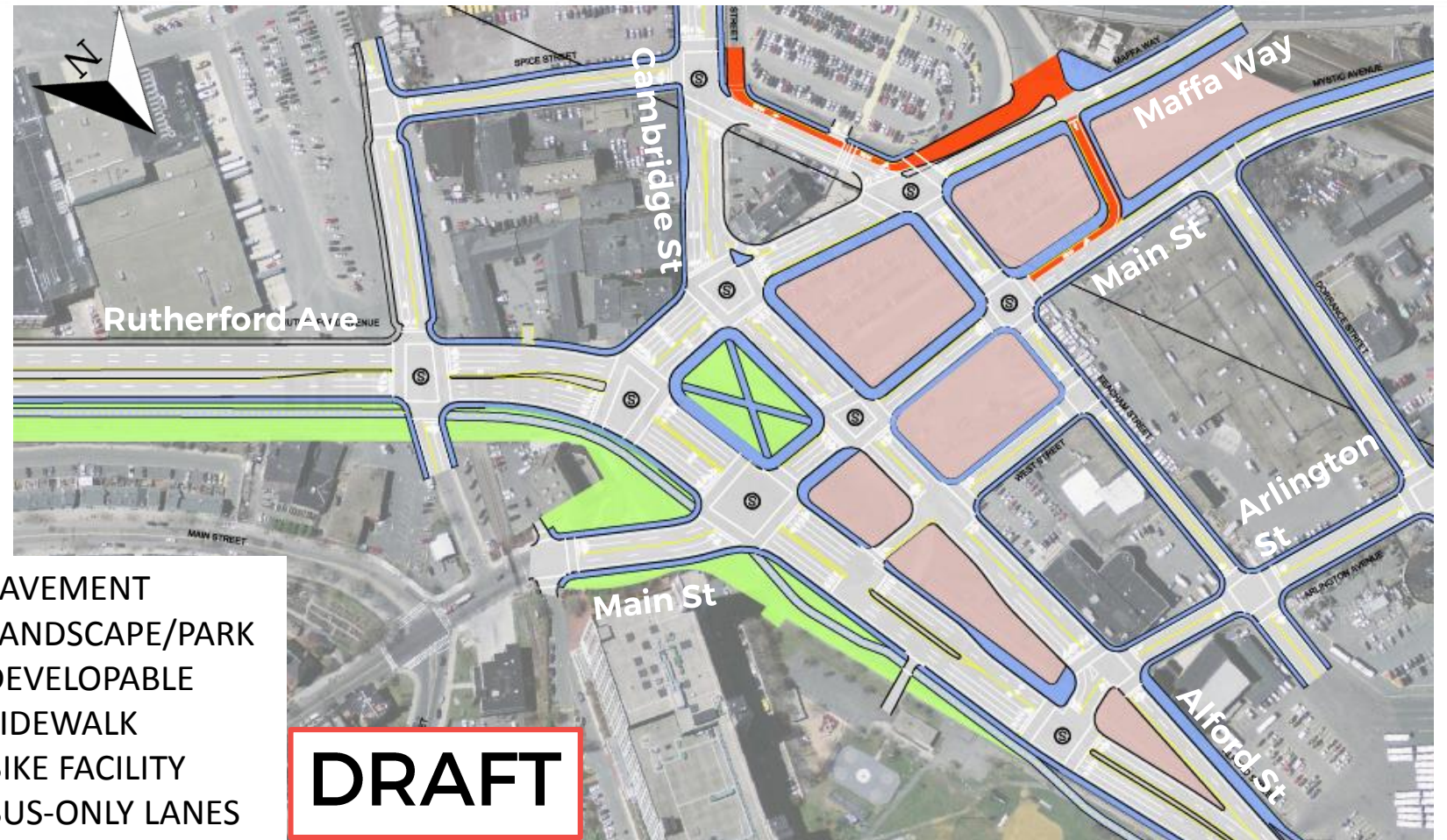
ROUTES FROM EVERETT - UNDERPASS





AT-GRADE CONCEPT

- Emulates underpass
- Maffa Way as 1-way
- Main Street 1-way
- Heavy turning traffic
- Traffic Analysis is ongoing





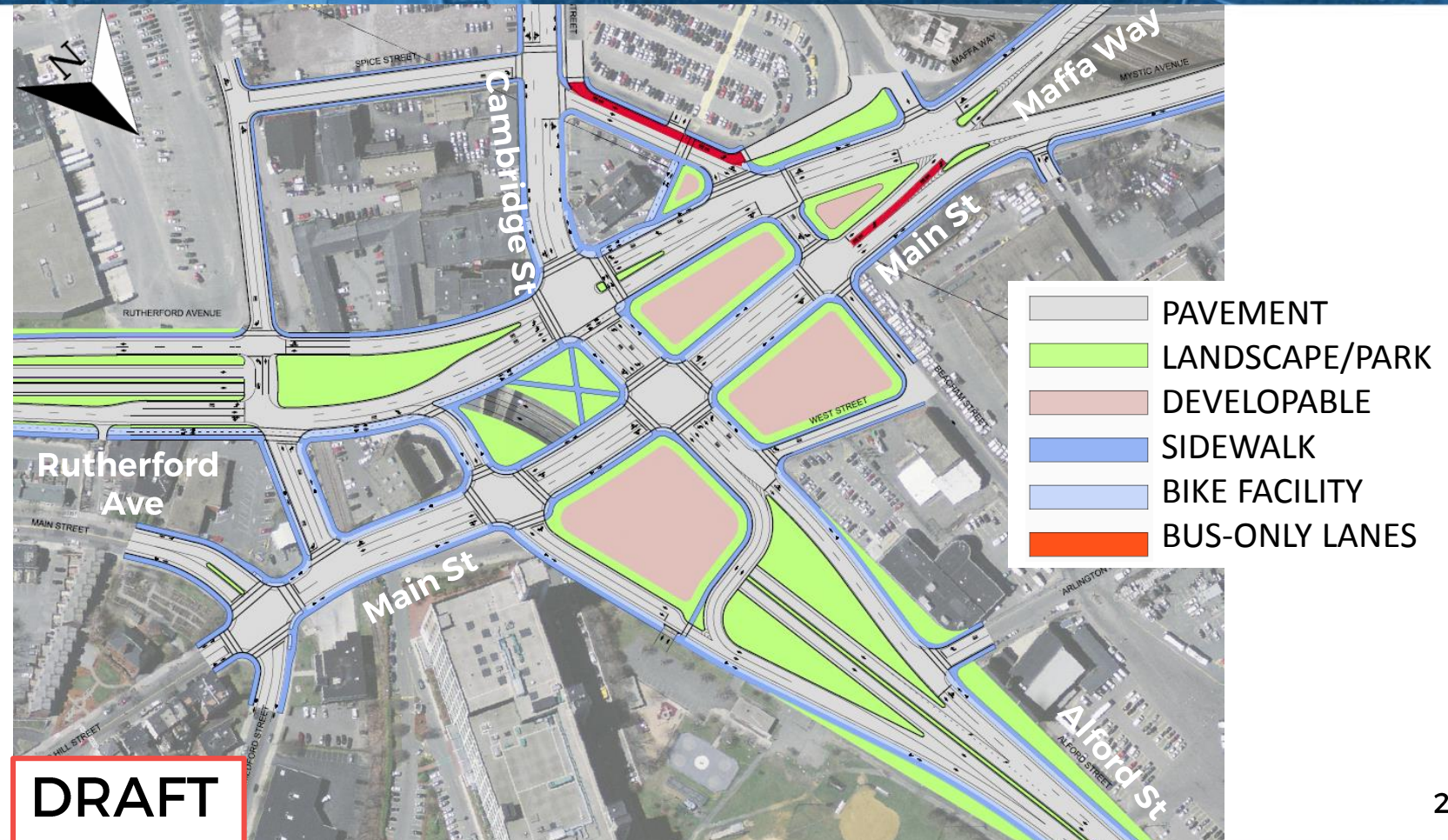
AT-GRADE HIGHLIGHTS

- UNDERPASS REMOVAL
- MORE LANES AT SURFACE
- PARCEL FLEXIBILITY
- TRANSIT ORIENTED DEVELOPMENT
- NEED TRAFFIC ANALYSIS:
 - Traffic Delays
 - Traffic Queues
 - Impact to Transit Operations



UNDERPASS HIGHLIGHTS

- UNDERPASS REDUCED TO 1 LANE EACH DIRECTION
- FUTURE EXPRESS BUSES
- REHAB REQUIRED
 - ONGOING MAINTENANCE, DRAINAGE ISSUES
- AIR-RIGHTS CONSTRUCTION DIFFICULT
- TUNNEL STANDARD?
 - VENTILATION
 - EMERGENCY EGRESS





UNDERPASS REDUCTION

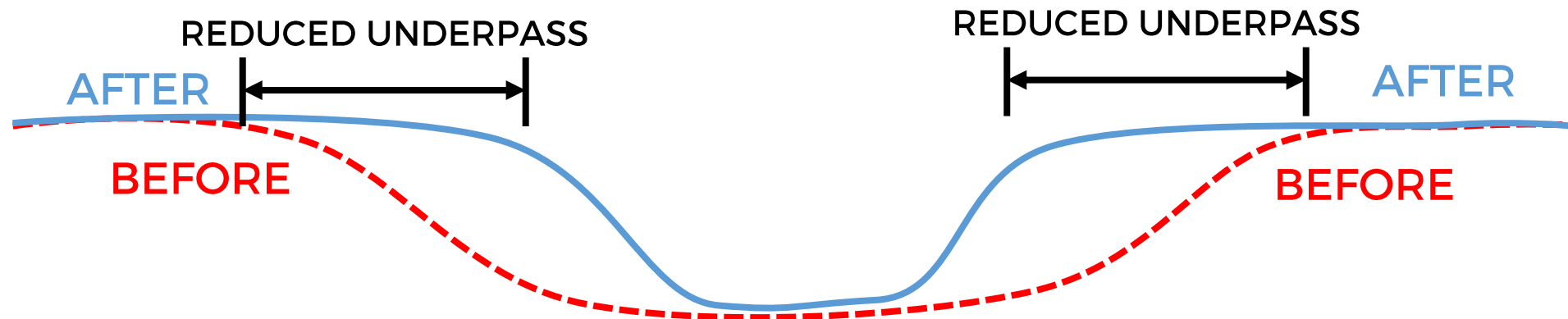
AUSTIN STREET

	EXISTING	CONCEPT PROPOSED
GRADE	4%	6%
LENGTH	1800'	1100'

SULLIVAN SQUARE

	EXISTING	CONCEPT PROPOSED
GRADE	4%	6%
LENGTH	3400'	1900'

UNDERPASS TYPICAL ROADWAY PROFILE (EXAGGERATED)

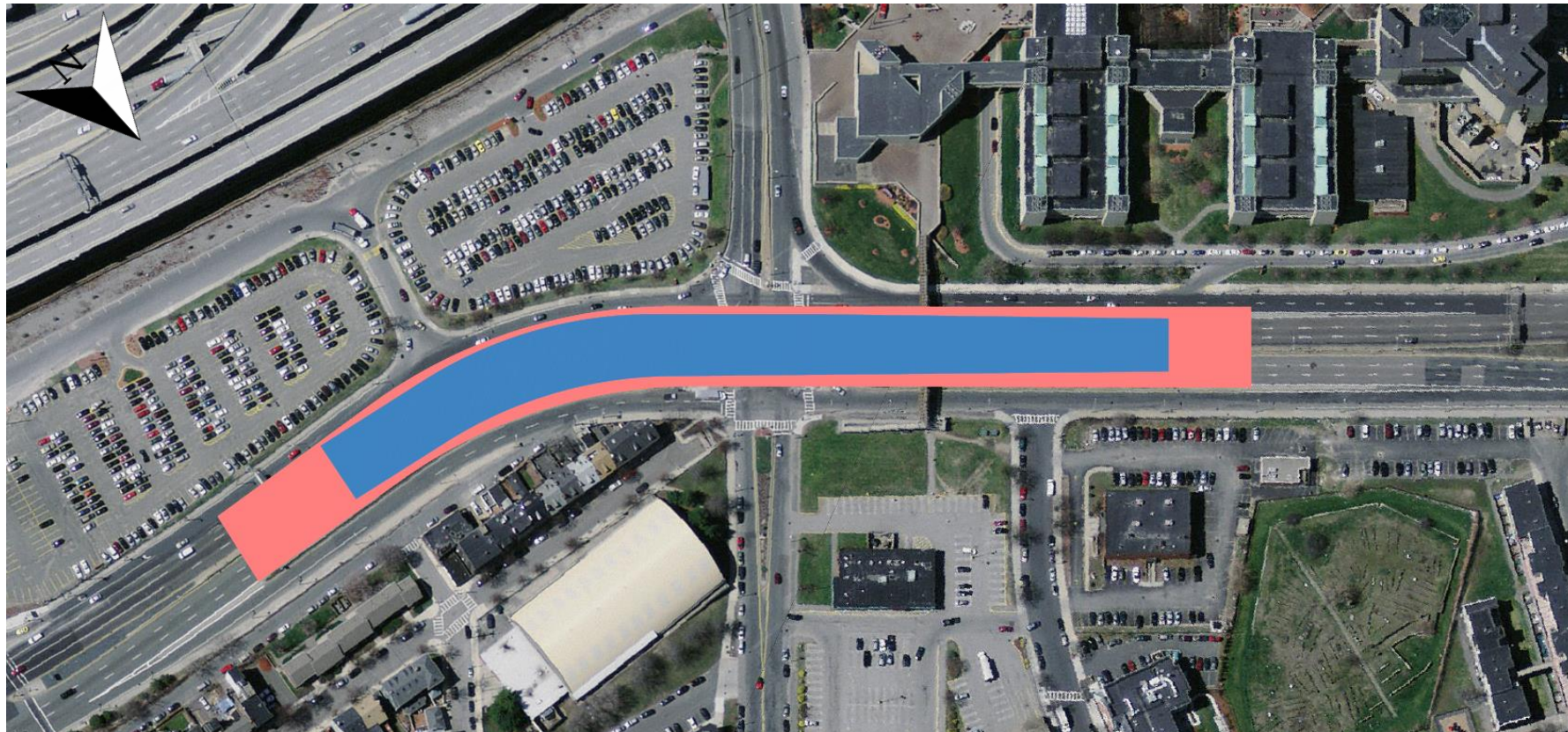




AUSTIN STREET UNDERPASS LIMITS

 OLD UNDERPASS LIMITS

 NEW UNDERPASS LIMITS

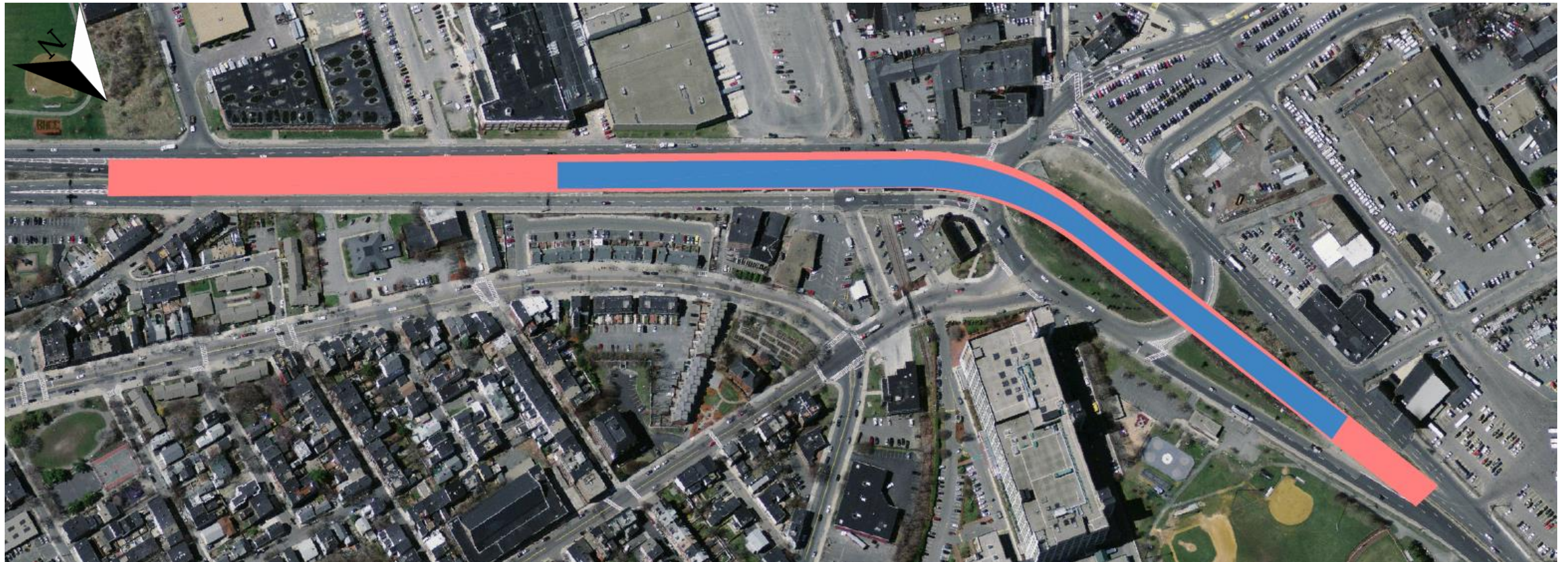




SULLIVAN SQUARE UNDERPASS LIMITS

 OLD UNDERPASS LIMITS

 NEW UNDERPASS LIMITS



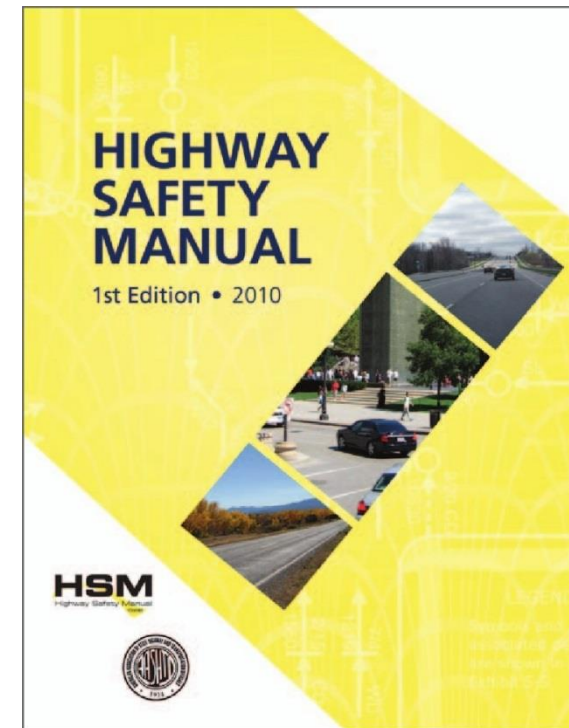


UNDERPASS SAFETY BENEFITS

- At-grade to grade-separated facility conversions*
 - 42% Reduction in All Crashes
 - 57% Reduction in Serious and Minor Injury Crashes

*Applies to Underpass movements only

Source: FHWA Crash Modification Factor Clearinghouse
http://www.cmfclearinghouse.org/study_detail.cfm?stid=13



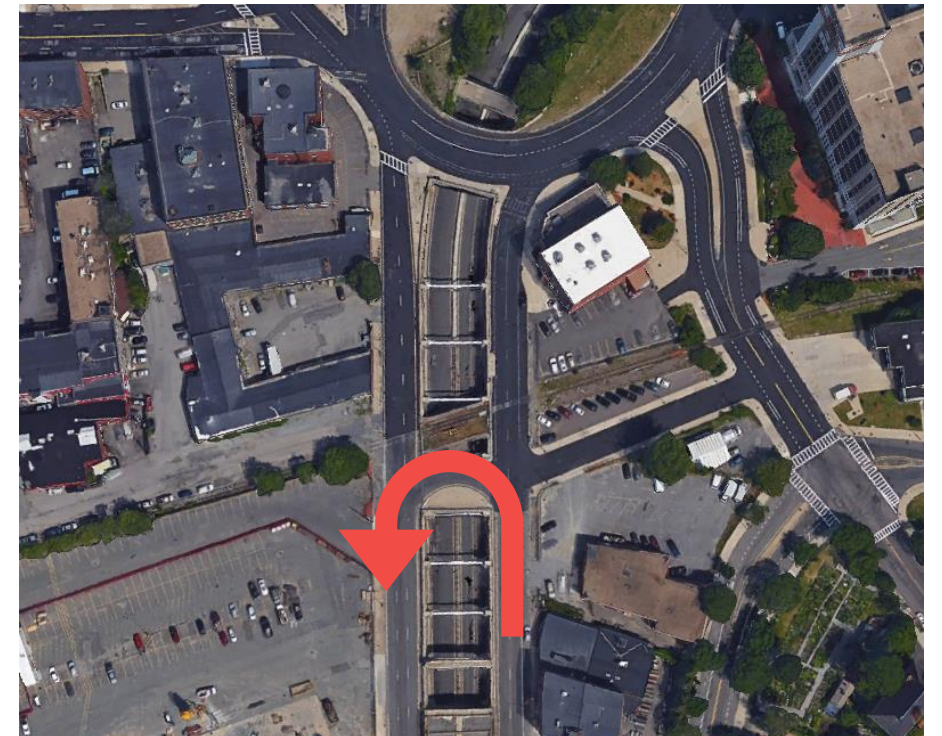


NEED TO RELOCATE U-TURNS

- DIRECT ACCESS TO PARCELS
- FACILITATE TRUCK MOVEMENTS
- REMOVE U-TURNS



RUTHERFORD AT AUSTIN

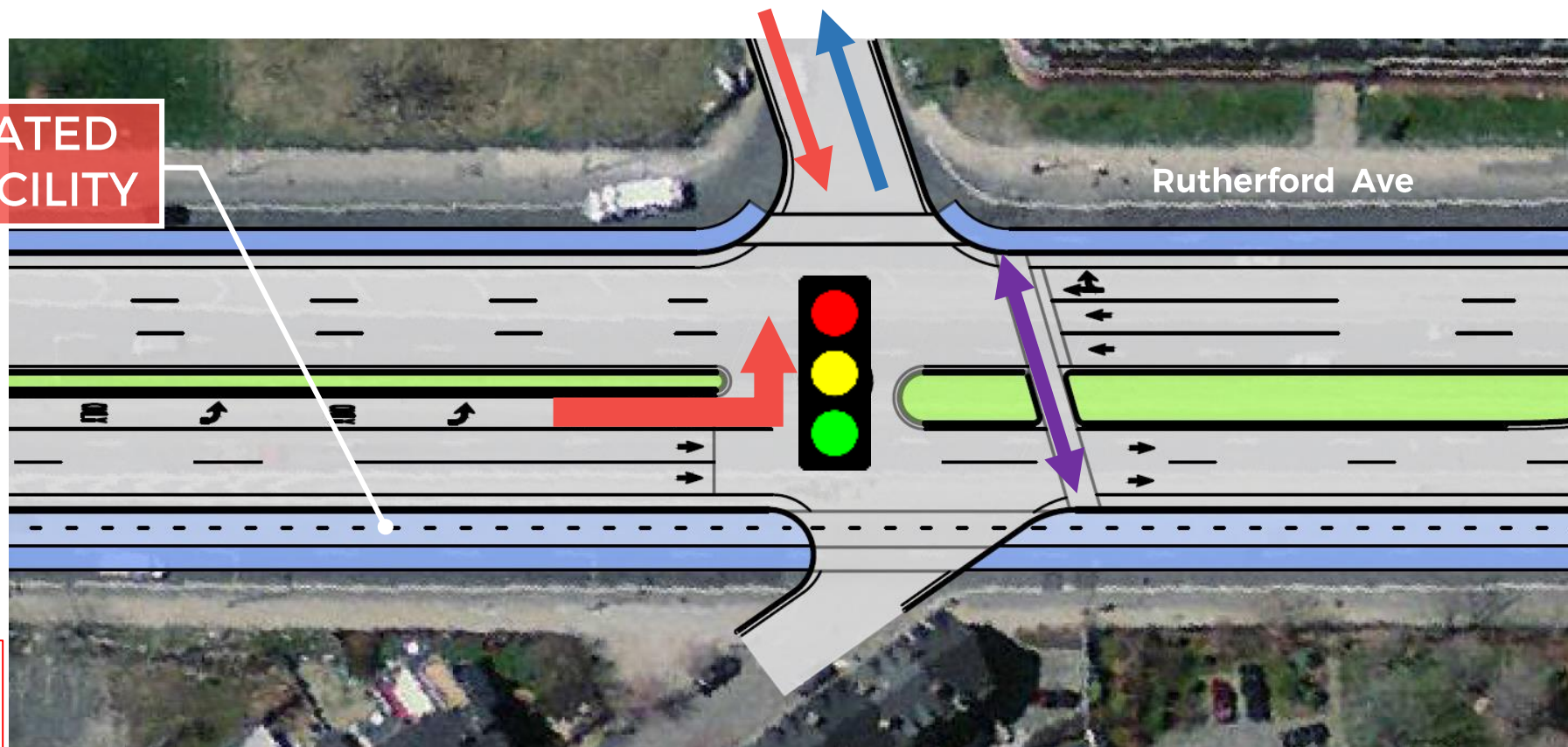


RUTHERFORD AT MISHAWUM



TYPICAL INTERMEDIATE RUTHERFORD SIGNAL

SEPARATED BIKE FACILITY

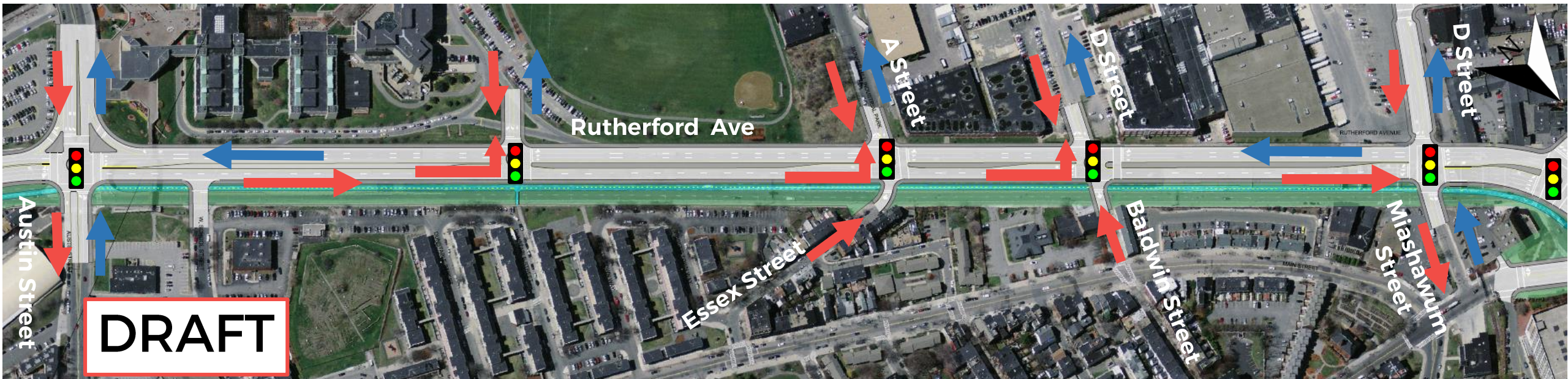


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INTERMEDIATE RUTHERFORD SIGNAL

- Old overpass structure removed
- Allows for at-grade signalized intersection and pedestrian crossing at Baldwin Street
- Additional signalized crossings planned for:
 - Essex St/A Street, Community College
- New signals meter speed along Rutherford
- Left turns northbound reduces traffic in Sullivan Square
- Left turn egress to northbound reduces U-turn traffic at Austin Street





Thank you for your continued involvement

- QUESTIONS?
- COMMENT FORM
- NEXT MEETINGS:
 - TBD



Austin, TX
Lance Armstrong path
Photo credit: Adam
Coppola Photography