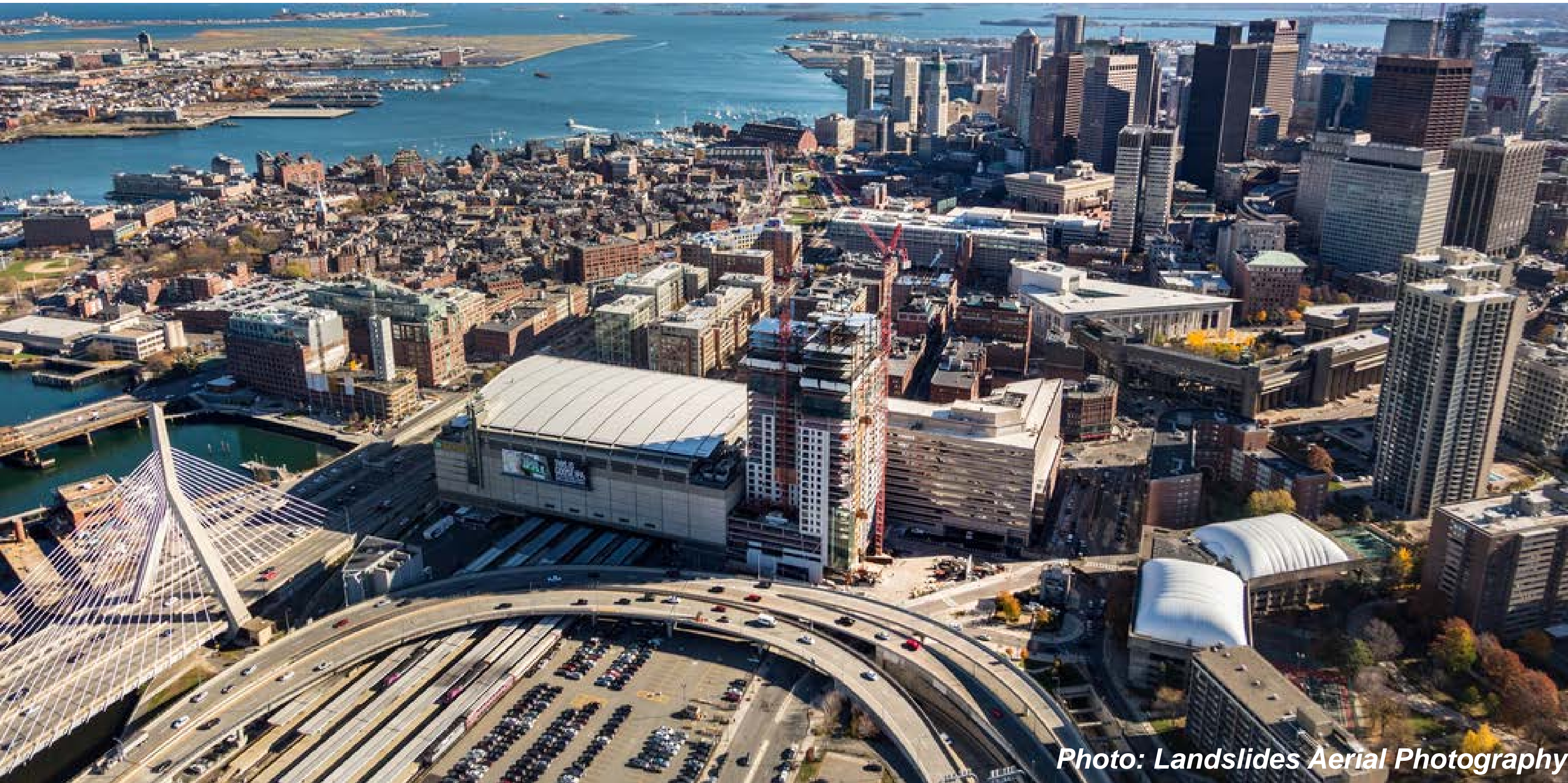


# North Station Area Mobility Action Plan



Third Public Meeting; September 20, 2016



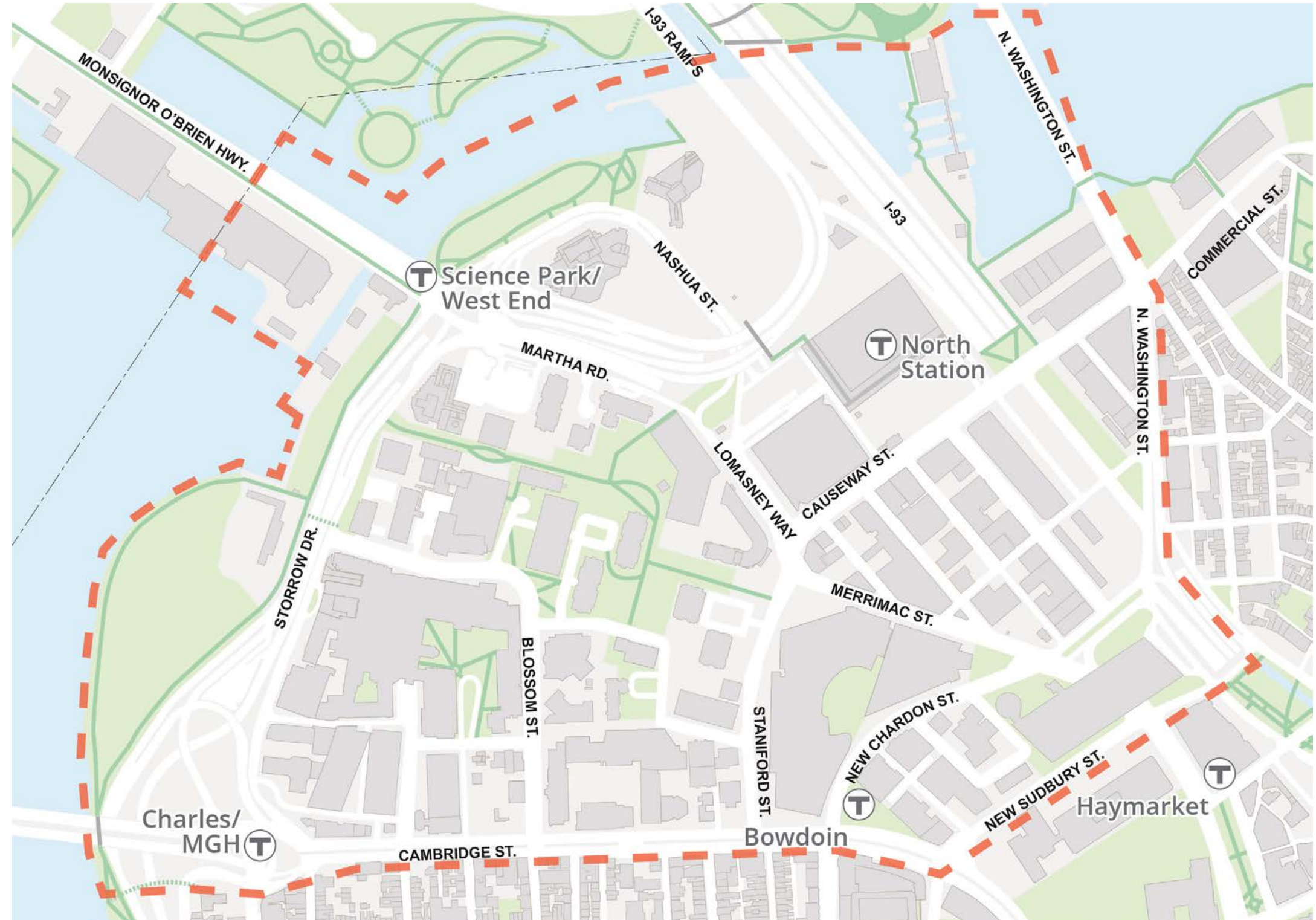
*Photo: Landslides Aerial Photography*



# Agenda



- I. Welcome
- II. Future Conditions
  - I. Pedestrians
  - II. Bikes
  - III. Transit
  - IV. Motor Vehicles
  - V. New Options
- III. Community-Suggested Action Items



# Project Timeline



- **JUNE – JULY**
  - Existing Conditions and First Public Meeting
- **JULY – SEPTEMBER**
  - Goals and Vision
- **SEPTEMBER – NOVEMBER**
  - Develop and Analyze Potential Improvements
- **OCTOBER – DECEMBER**
  - Incorporating Public Feedback into Improvements, including design for top 1 to 3
- **JANUARY**
  - Draft Action Plan for Public Comment
- **FEBRUARY**
  - Final Action Plan

# Overview of Public Meetings



- **Late June:** *Define the Problems and Share Your Visions and Ideas*
- **July-September:** *Establish Shared Goals, Develop Strategies and Vision*
- **TODAY: Review Future Conditions and Brainstorm-List of Potential Action Items and Gather Feedback**
- **September-October:** *Prioritize Options using Shared Goals (Benefits), Feasibility and Cost*
- **November-December:** *Develop a Concept for One or More Top Short-Term Alternatives*
- **January:** *Introduce Draft Action Plan + Collect Feedback*





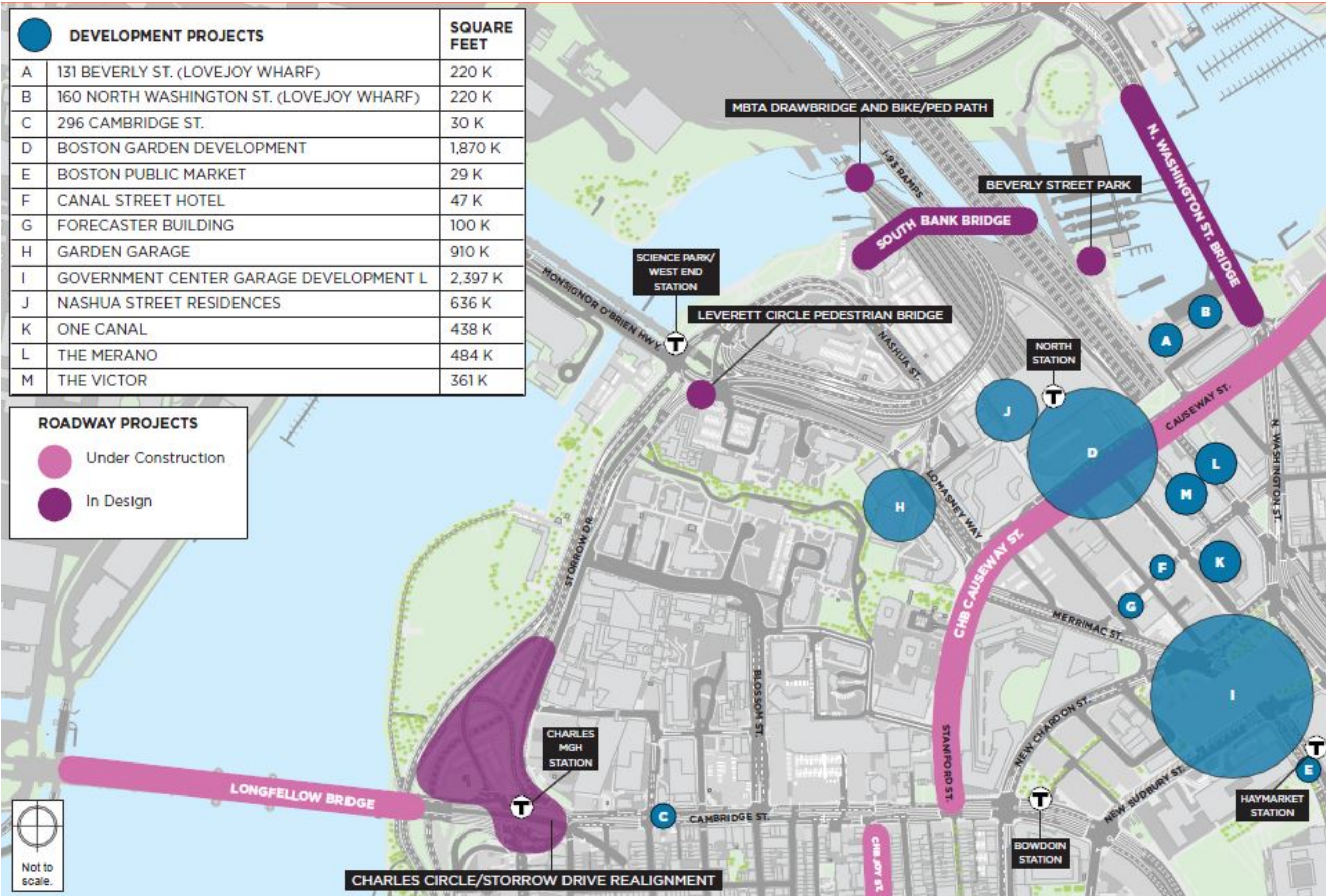


# Development and Infrastructure Projects



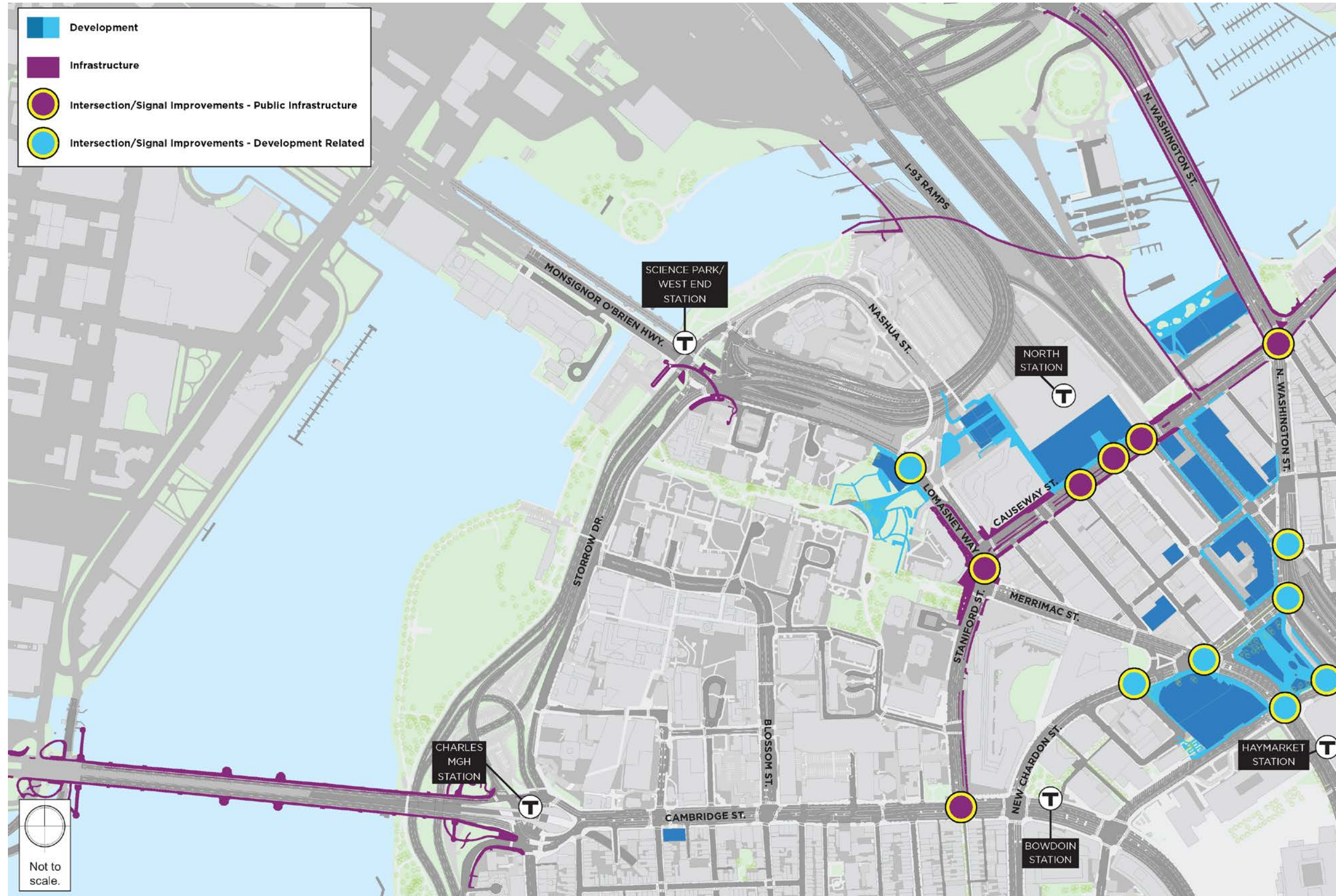
DEVELOPMENT PROJECTS		SQUARE FEET
A	131 BEVERLY ST. (LOVEJOY WHARF)	220 K
B	160 NORTH WASHINGTON ST. (LOVEJOY WHARF)	220 K
C	296 CAMBRIDGE ST.	30 K
D	BOSTON GARDEN DEVELOPMENT	1,870 K
E	BOSTON PUBLIC MARKET	29 K
F	CANAL STREET HOTEL	47 K
G	FORECASTER BUILDING	100 K
H	GARDEN GARAGE	910 K
I	GOVERNMENT CENTER GARAGE DEVELOPMENT L	2,397 K
J	NASHUA STREET RESIDENCES	636 K
K	ONE CANAL	438 K
L	THE MERANO	484 K
M	THE VICTOR	361 K

ROADWAY PROJECTS	
<span style="color: #e91e63;">●</span>	Under Construction
<span style="color: #9c27b0;">●</span>	In Design



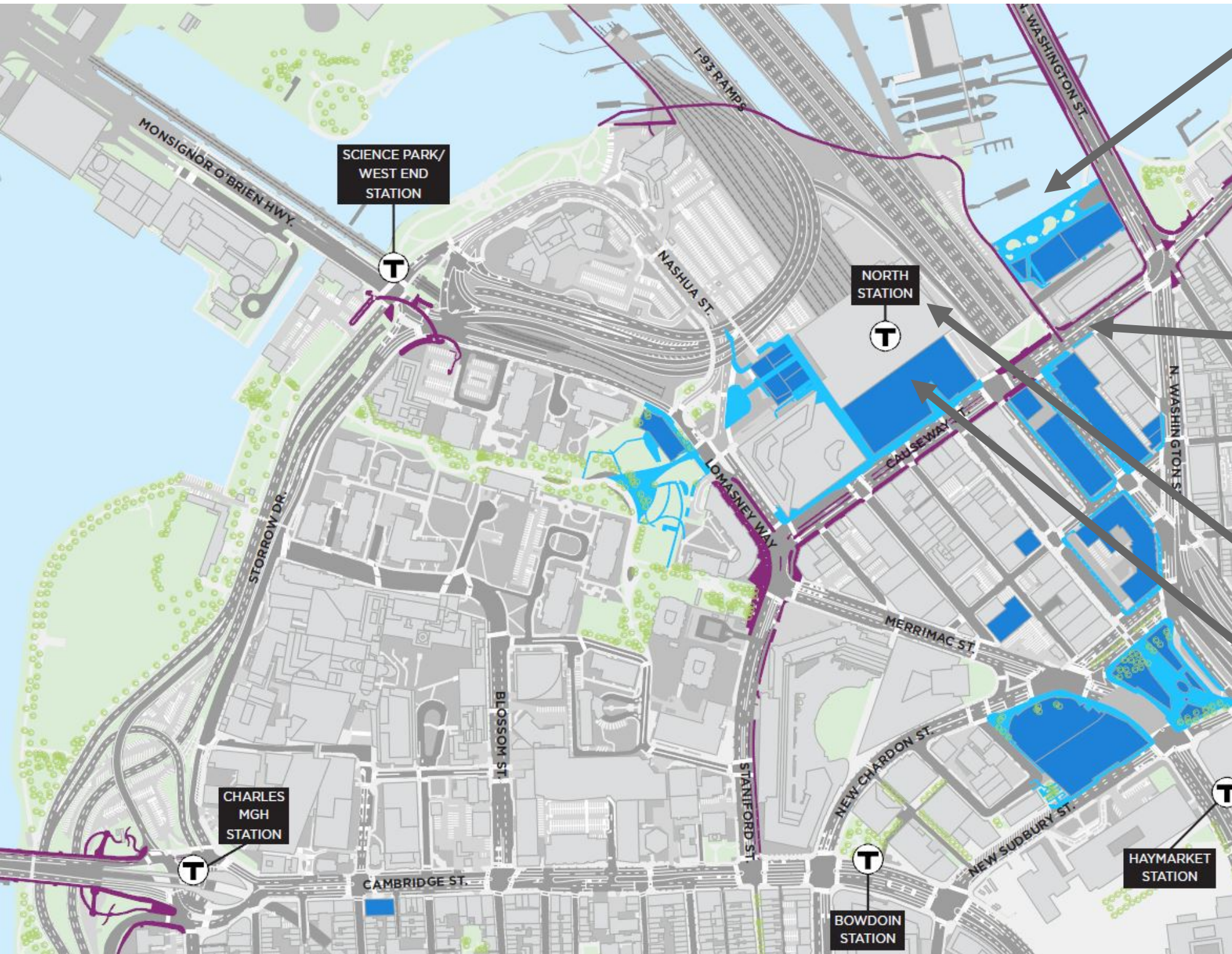


# Infrastructure Improvement Commitments





# Update on “Off-Site” Transportation Mitigation - \$9.5M+\*



- Lovejoy Wharf - \$2.5M +
- Water Shuttle – Dock/Operations/Planning
    - \$1.5M – 131 Beverly/160 N. Wash.
    - \$1M – Boston Garden
  - Water Taxi Dock
    - 131 Beverly/160 N. Wash.
  - Harborwalk & Connection to N. Wash. Bridge
    - 131 Beverly/160 N. Wash.

- Causeway Street - \$2.4M (Part of \$12M+ Project)
- \$437K – One Canal
  - \$350K – Nashua St Residences
  - \$300K – The Merano
  - \$1M - Boston Garden
  - \$300K - The Victor (Simpson)

- Pedestrian Improvements to the Charles River
- Boston Garden

- North Station to Orange/Green Lines Connector
- Boston Garden

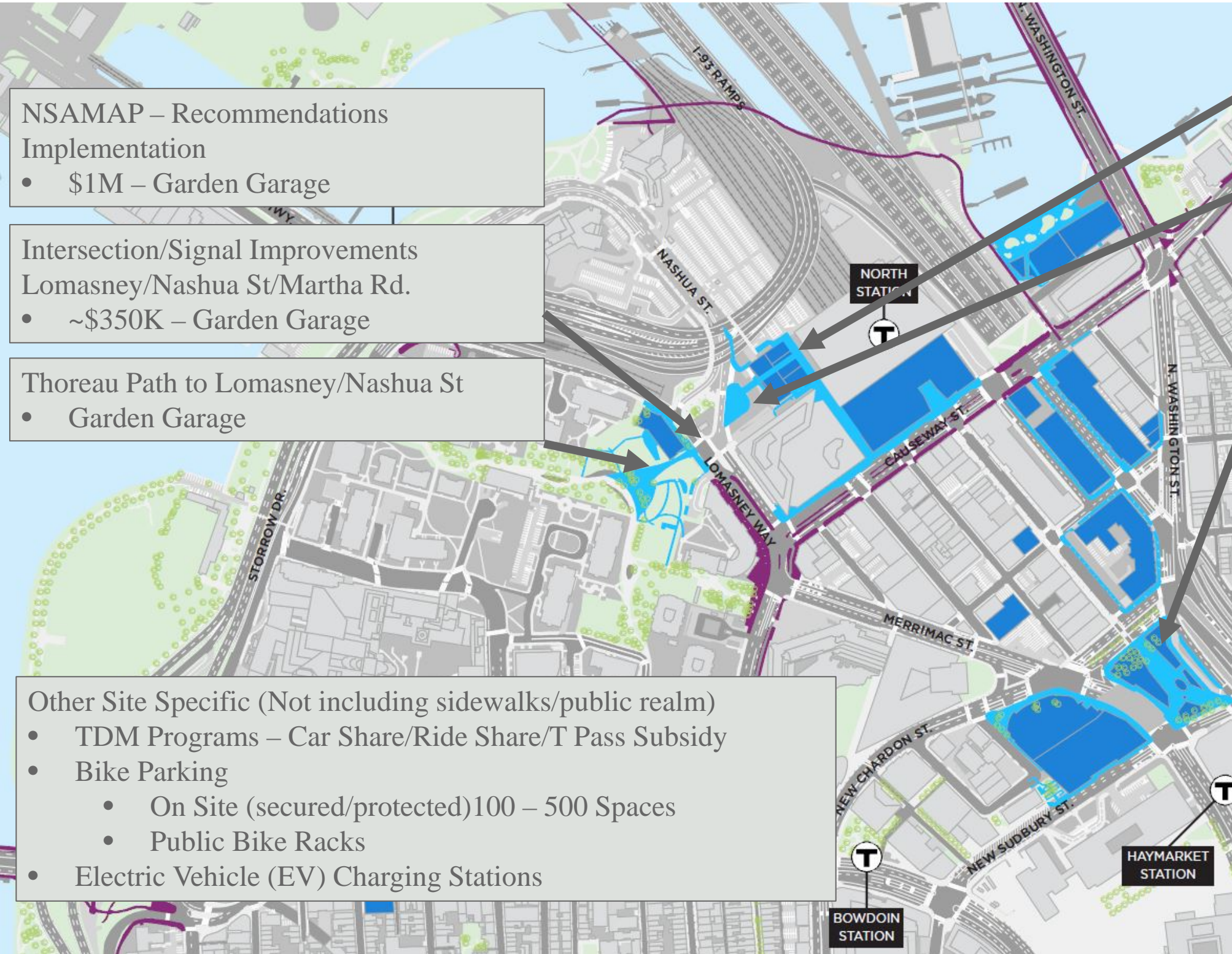
- Pedestrian Wayfinding
- \$250K - Boston Garden

- Public Art & Open Space
- \$2.6M - Boston Garden

\*Not Including Unknown \$ or Gov't Center Garage



# Update on “Off-Site” Transportation Mitigation - \$9.5M+\*



Nashua St. Public Ped. Connection to N. Station

- Nashua St Residences

Nashua St. “Triangle” Pedestrian Improvements

- Nashua St Residences

Haymarket Station Improvements

Gov’t Center Garage

- Headhouse & Station
- Busway
- Bus Stop Improvements on Congress St
- Ped. Connections

Other Gov’t Center Garage Improvements

- \*Draft Master TAPA Under Review
- \*Each Project Phase Will Have Separate TAPA
- \*Proposed Draft “Framework” of Improvements:
  - 7 Intersection Improvement Locations
  - 5 Signalization Improvement Locations
  - Ped. Crossing Improvements at New Chardon/Bowker Streets
  - Evaluate/Implement Bike Accommodations
    - Congress St
    - New Chardon St
    - New Sudbury St

\*Not Including Unknown \$ or Gov’t Center Garage

NSAMAP – Recommendations Implementation

- \$1M – Garden Garage

Intersection/Signal Improvements Lomasney/Nashua St/Martha Rd.

- ~\$350K – Garden Garage

Thoreau Path to Lomasney/Nashua St

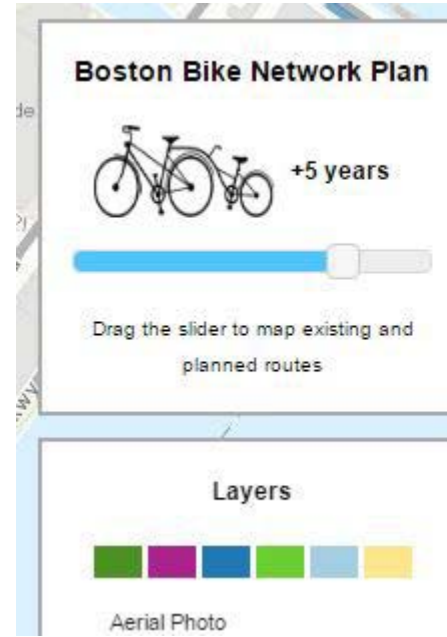
- Garden Garage

Other Site Specific (Not including sidewalks/public realm)

- TDM Programs – Car Share/Ride Share/T Pass Subsidy
- Bike Parking
  - On Site (secured/protected) 100 – 500 Spaces
  - Public Bike Racks
- Electric Vehicle (EV) Charging Stations



# Action Plan



Develop a variety of improvements for all modes, identify community priorities, and prioritize projects for implementation based on vision, feasibility, and cost



# Project Team



## ■ City Team

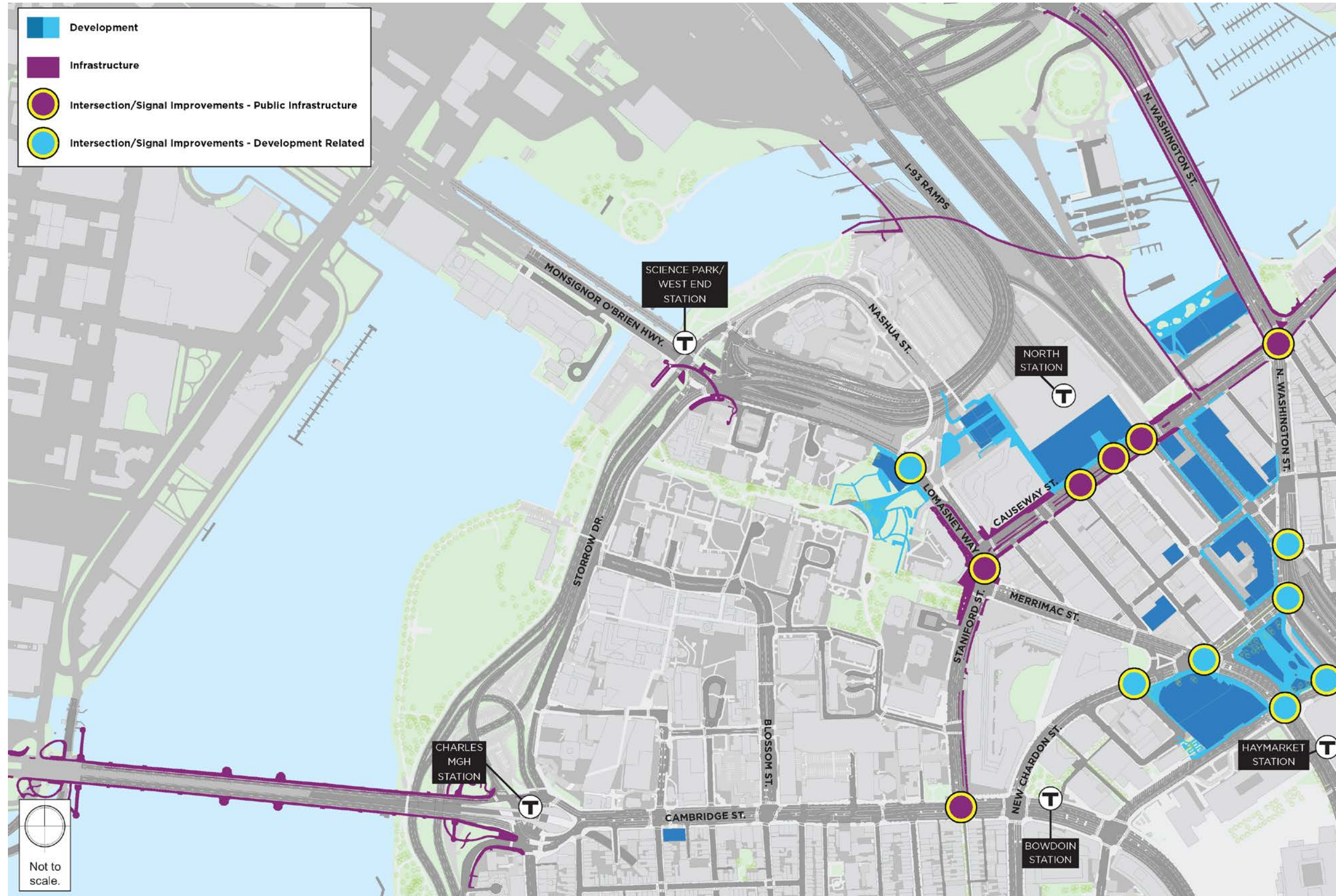
- Boston Redevelopment Authority
- Boston Transportation Department
- Office of Neighborhood Services
- Public Works Department

## ■ Consultant Team

- Howard Stein Hudson (HSH) – Transportation Engineering
- NBBJ – Urban Design and Visioning
- Marlene Connor Assoc. - Transit



# Mitigation Details in Process

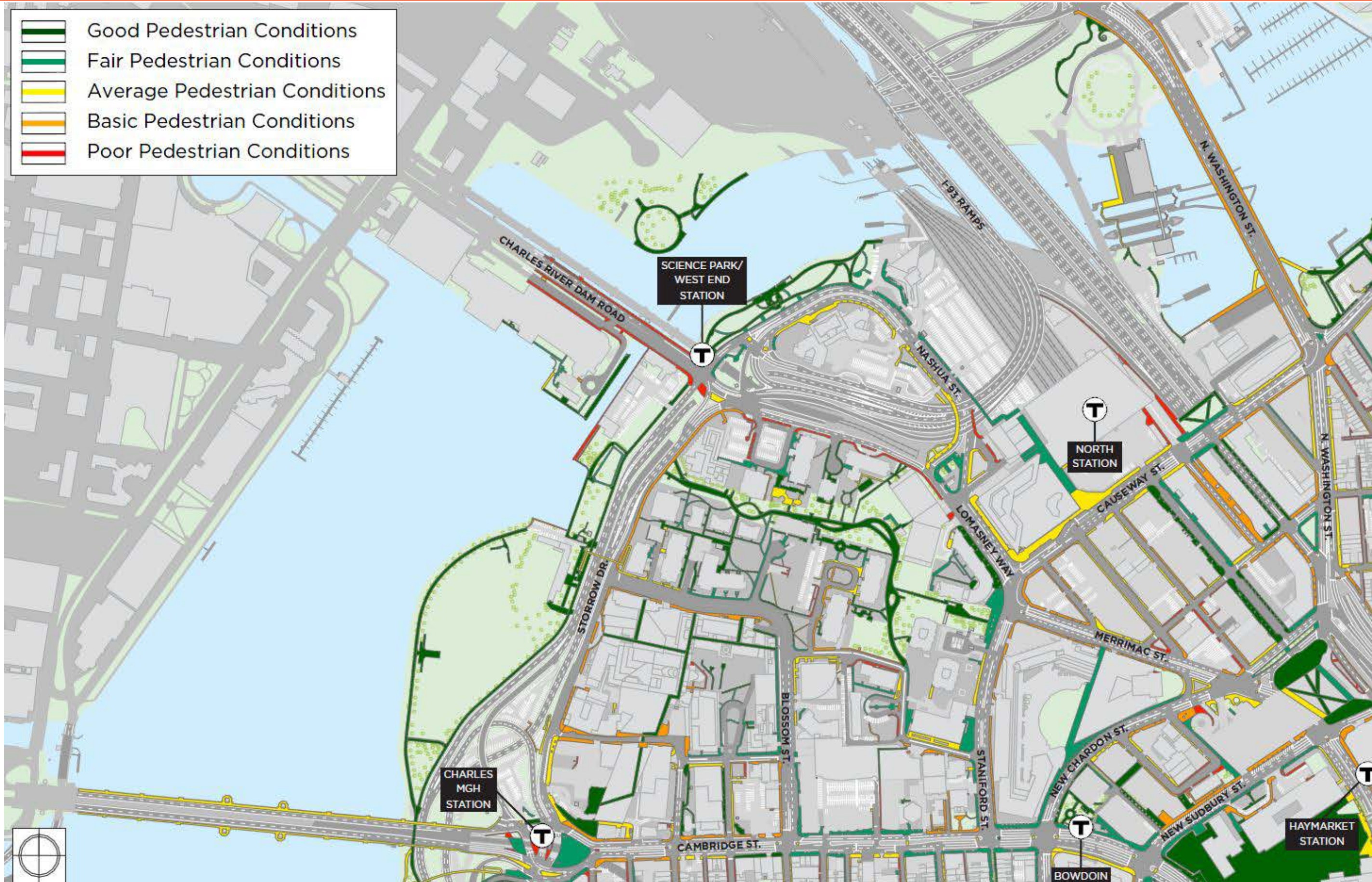




# Existing Pedestrian Conditions



- Good Pedestrian Conditions
- Fair Pedestrian Conditions
- Average Pedestrian Conditions
- Basic Pedestrian Conditions
- Poor Pedestrian Conditions





# Committed Improvements – Pedestrian Conditions

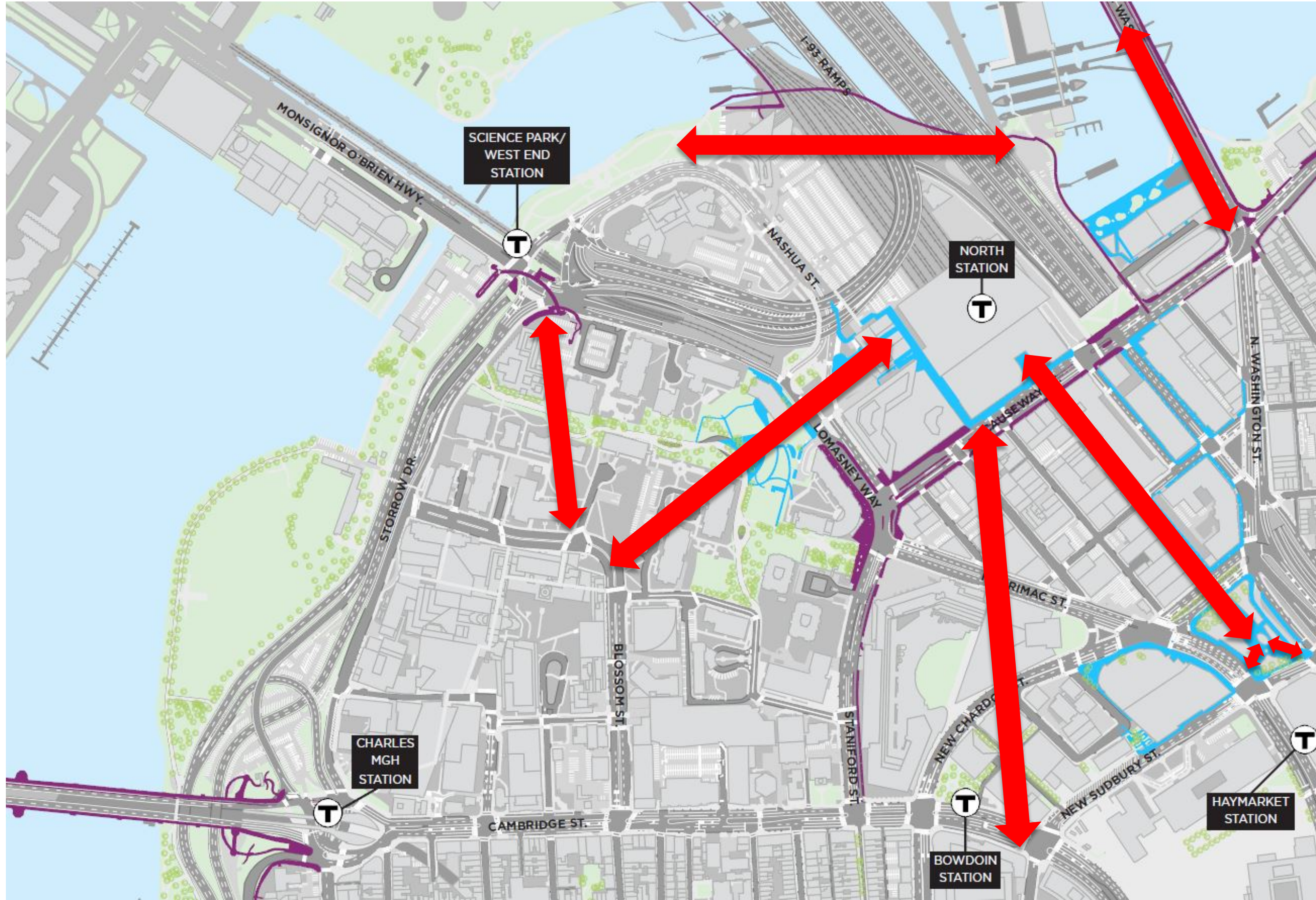


- Good Pedestrian Conditions
- Fair Pedestrian Conditions
- Average Pedestrian Conditions
- Basic Pedestrian Conditions
- Poor Pedestrian Conditions






# Future General Pedestrian Desire Lines

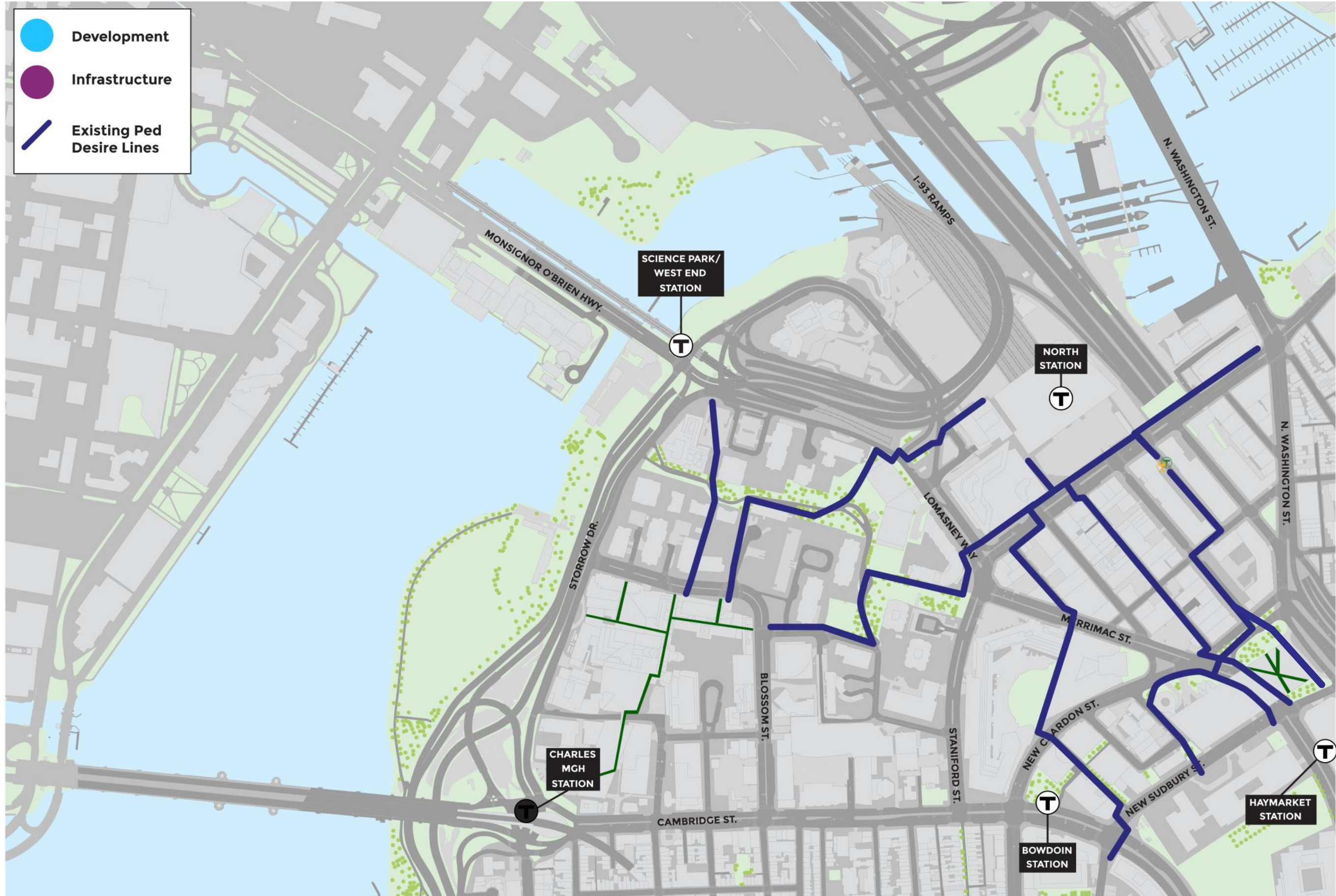




# Existing Paths



-  Development
-  Infrastructure
-  Existing Ped Desire Lines

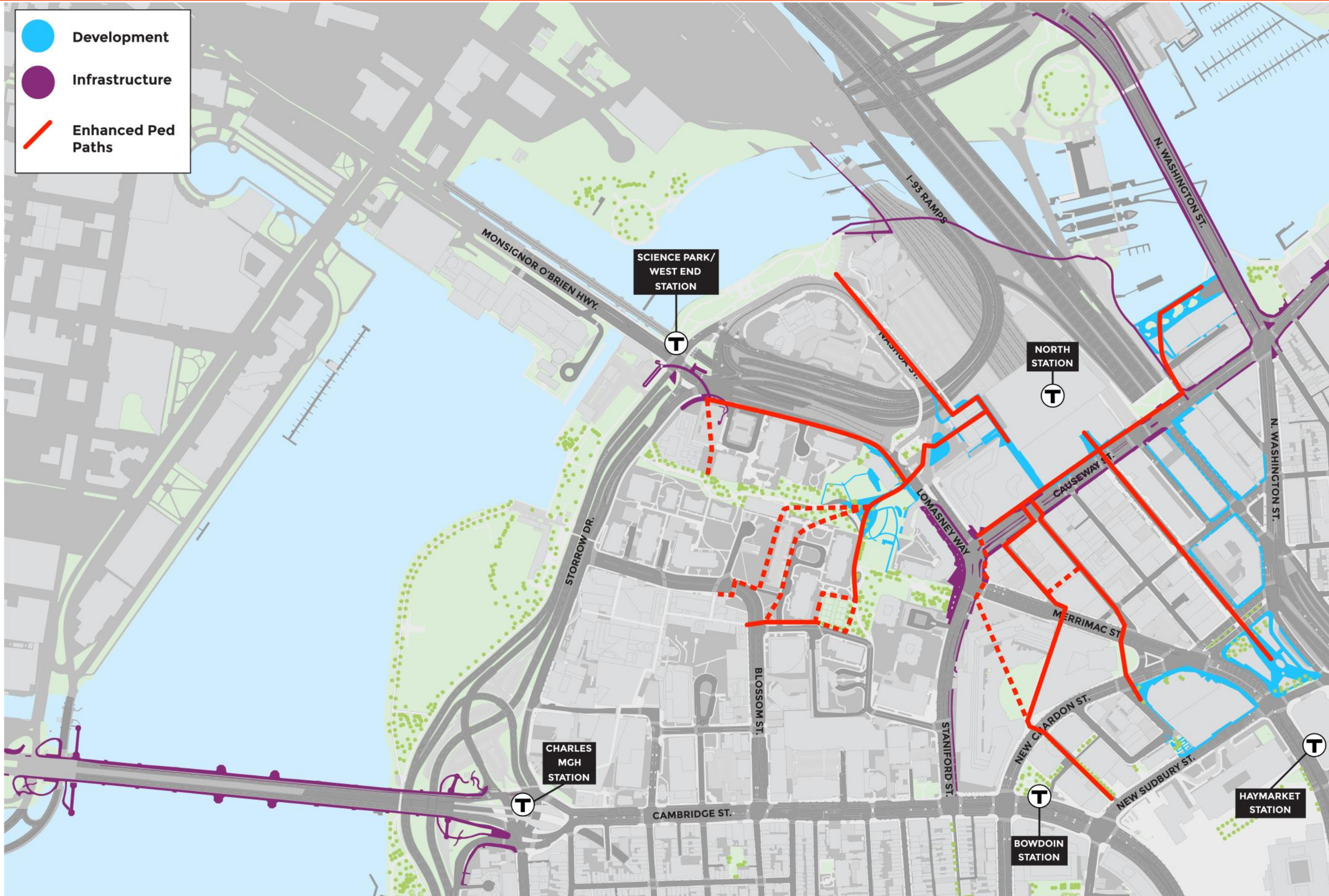




# Opportunities for Enhancement

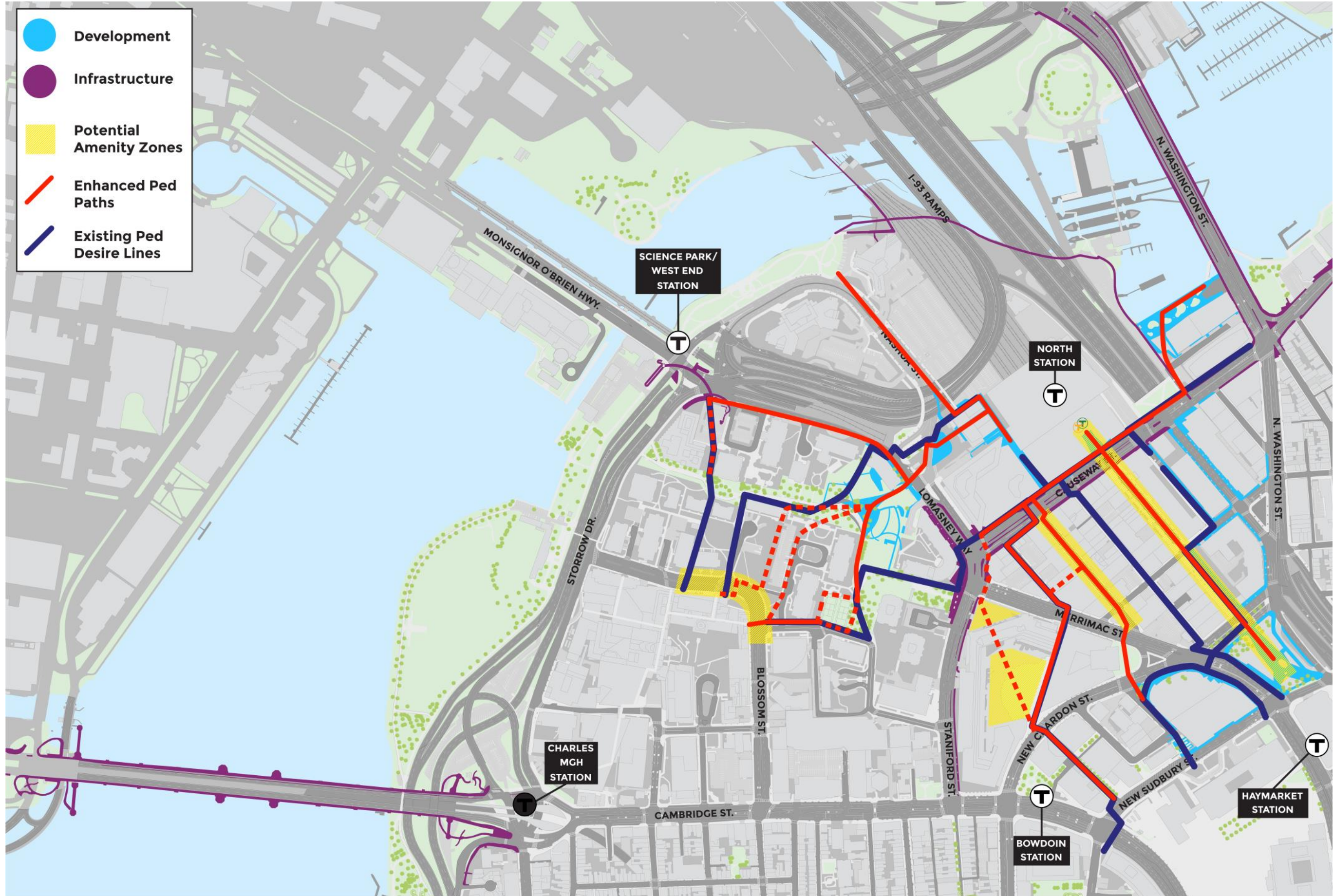


- Development
- Infrastructure
- Enhanced Ped Paths





# Path Convergence/High Impact Zones



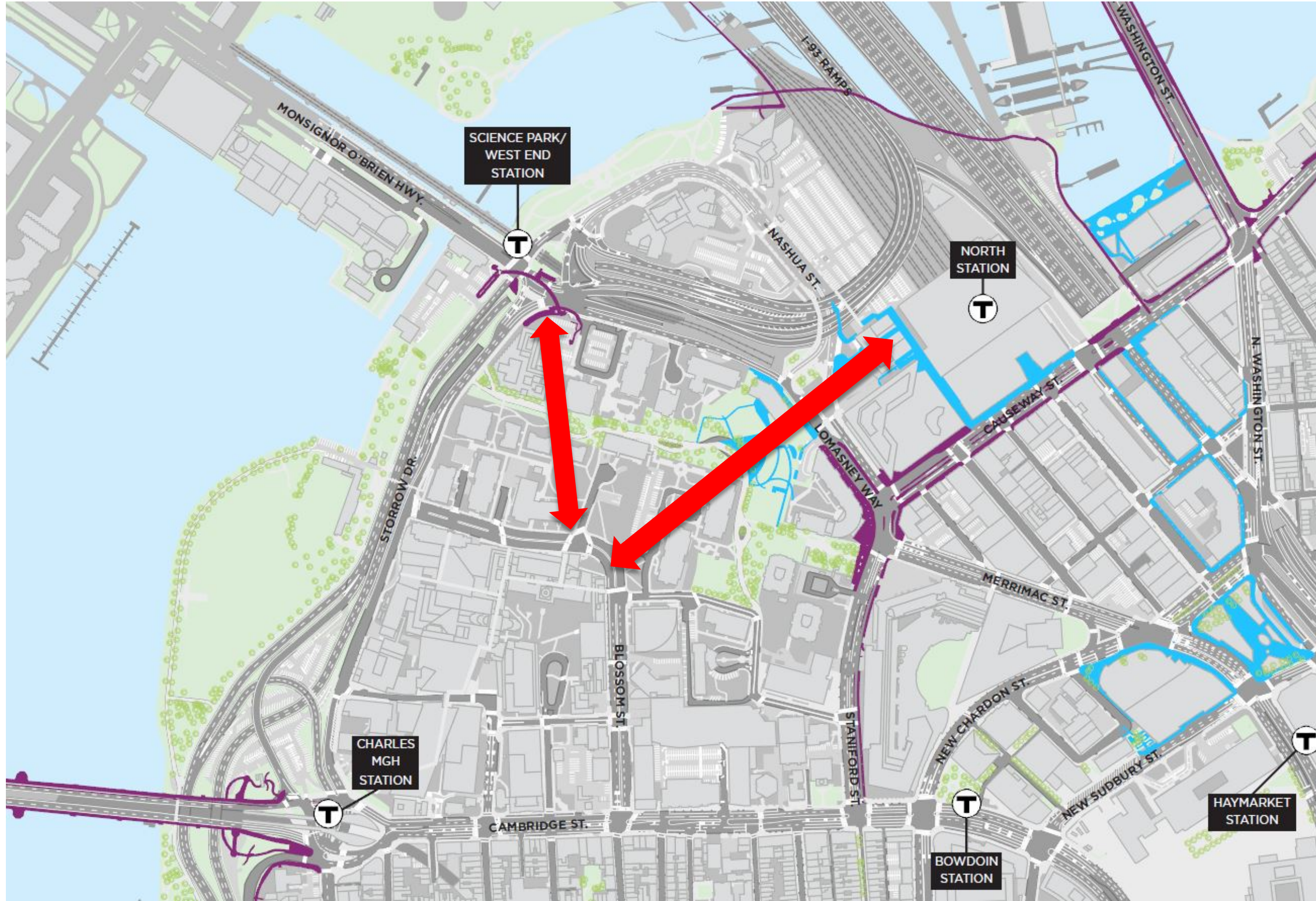


# Opportunities for Enhancement





# MGH Pedestrian Desire Lines



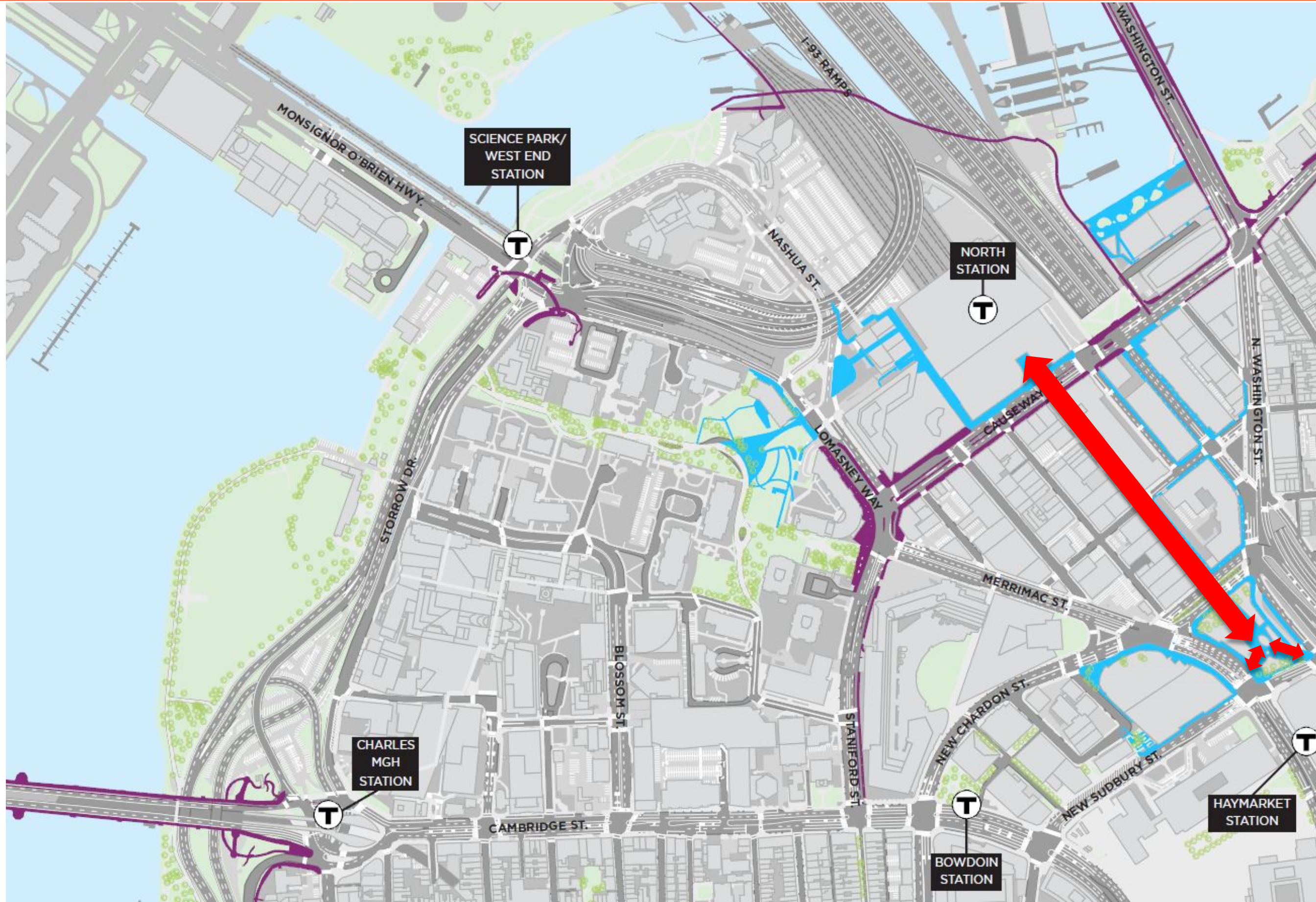


# Opportunities for Placemaking



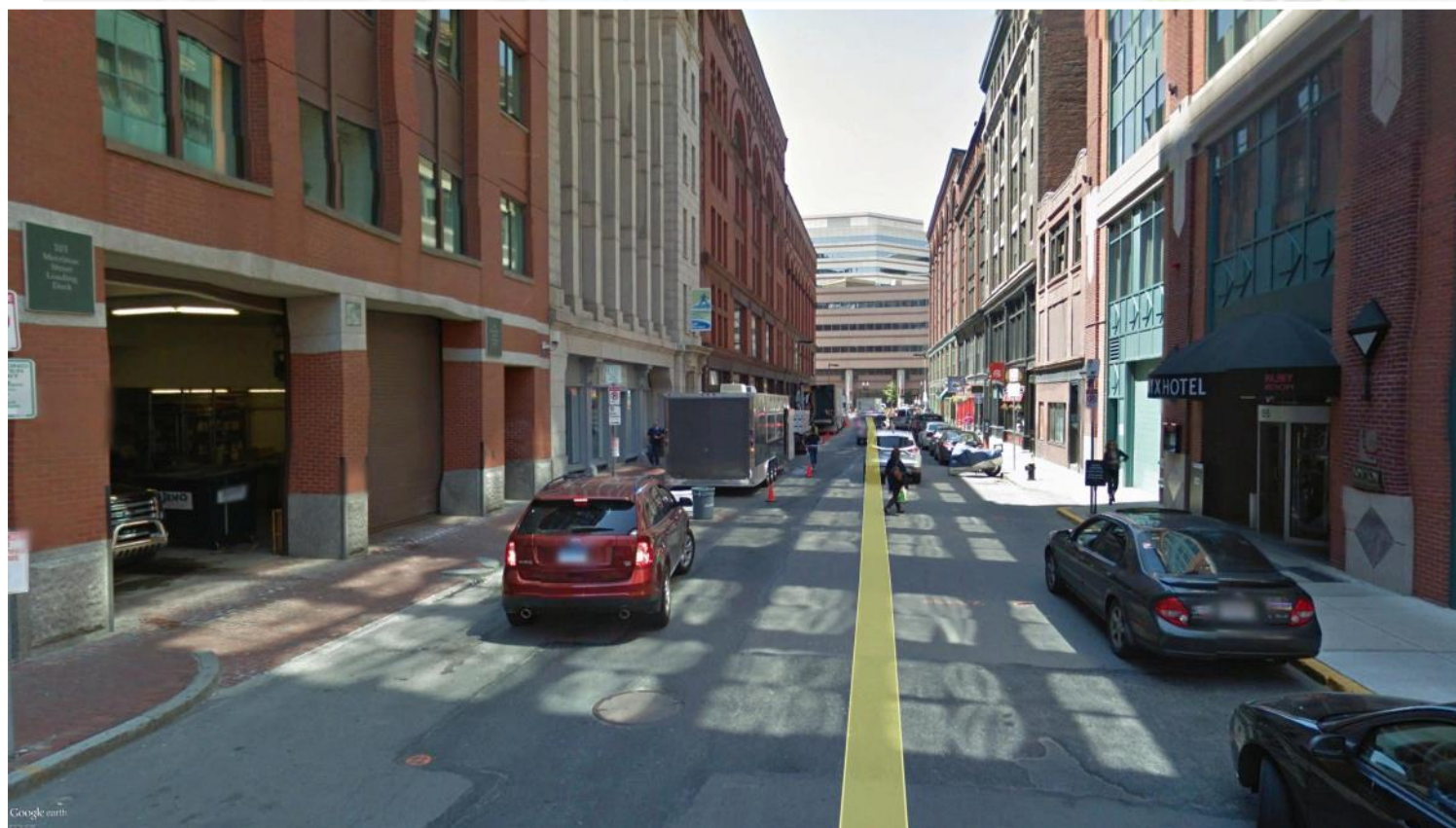


# Increased Pedestrian flow on Canal



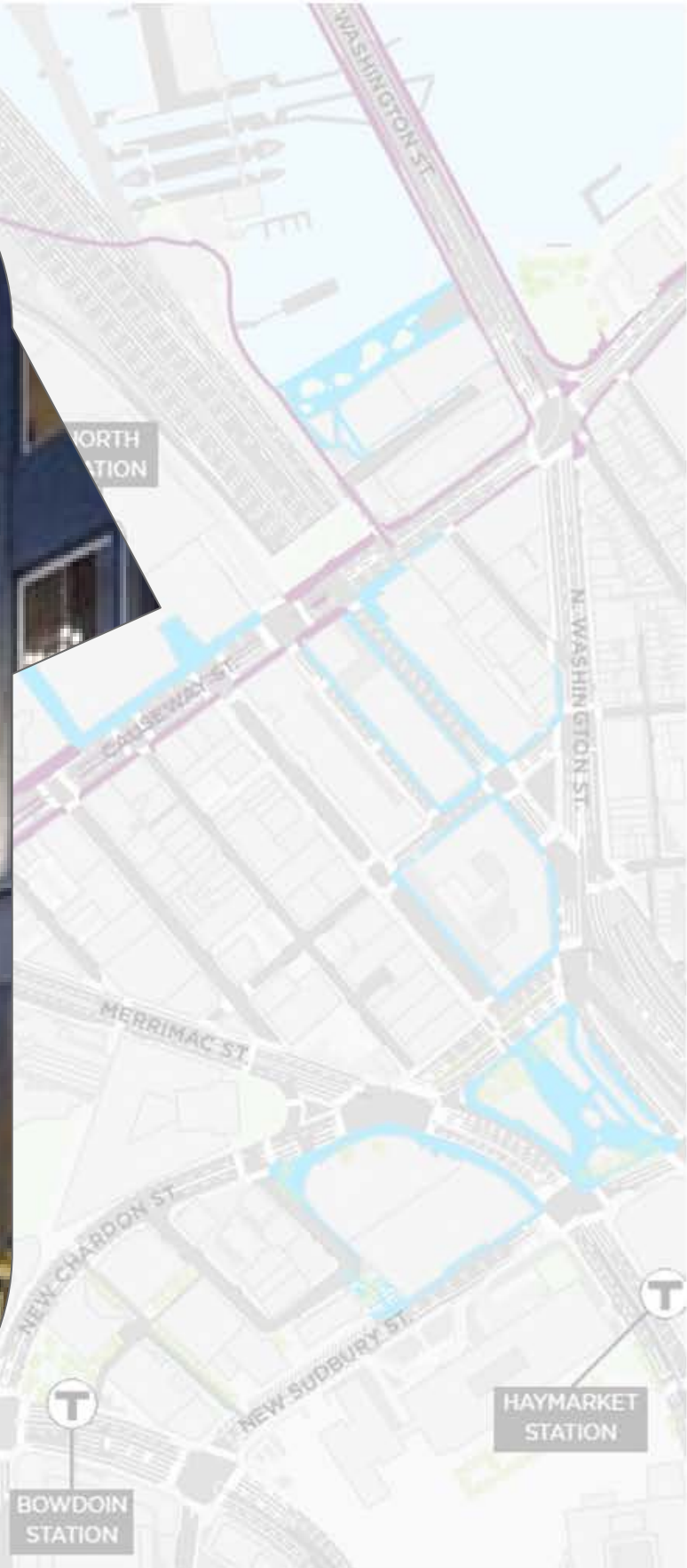


# Opportunities for Placemaking



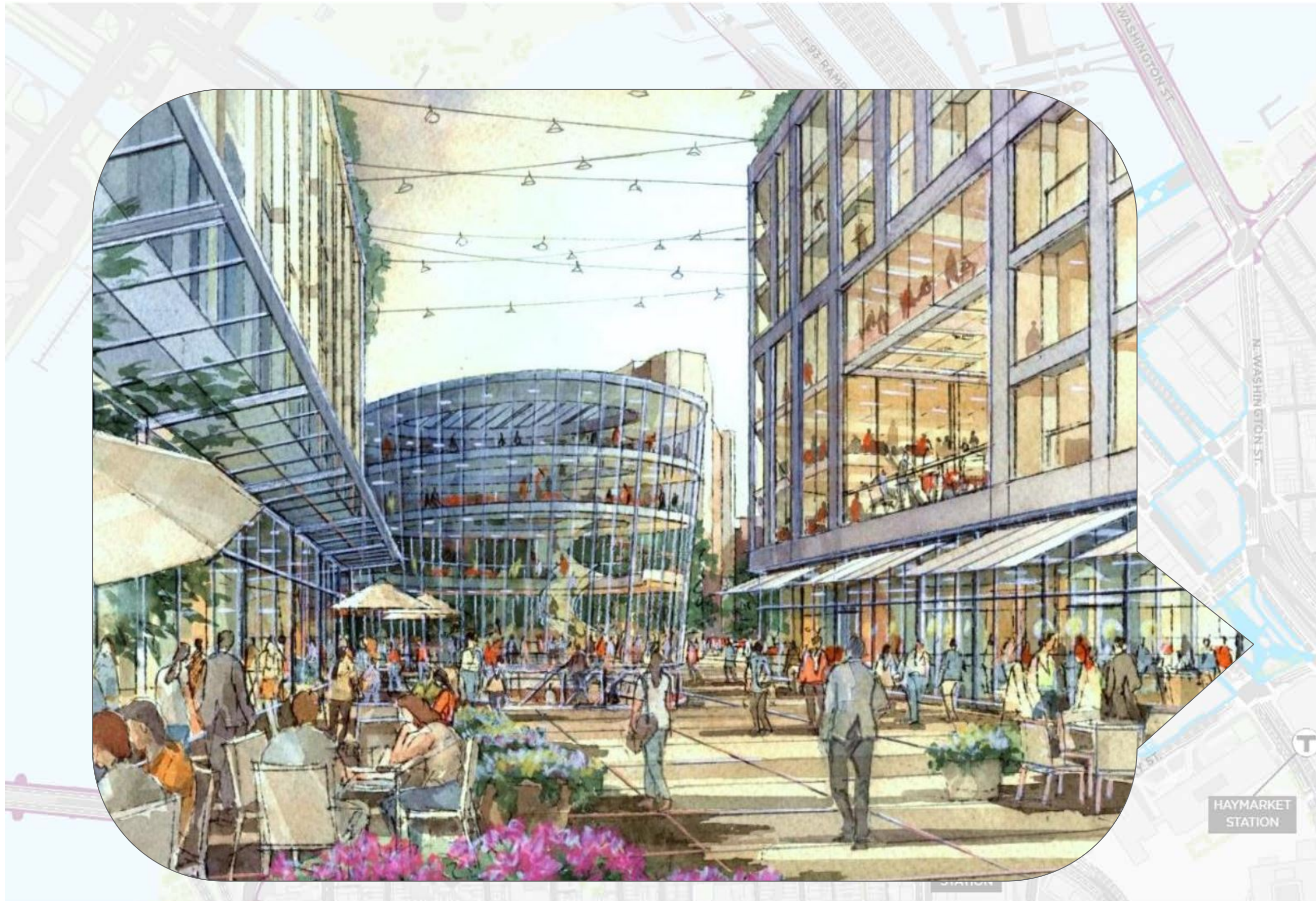


# TD Garden and North Station Entrance





# Govt. Center Garage and Haymarket MBTA



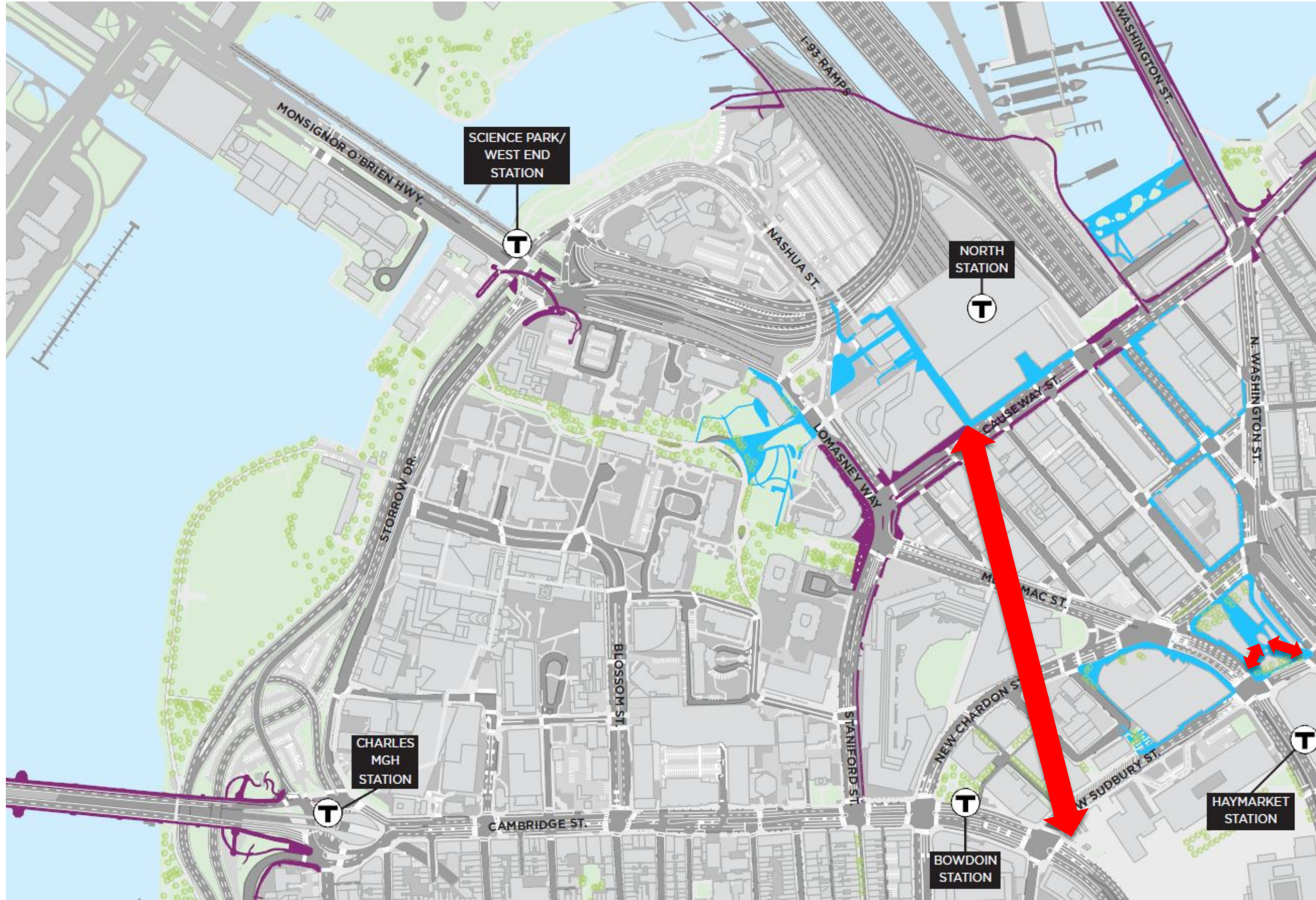


# Existing Canal Street Environment



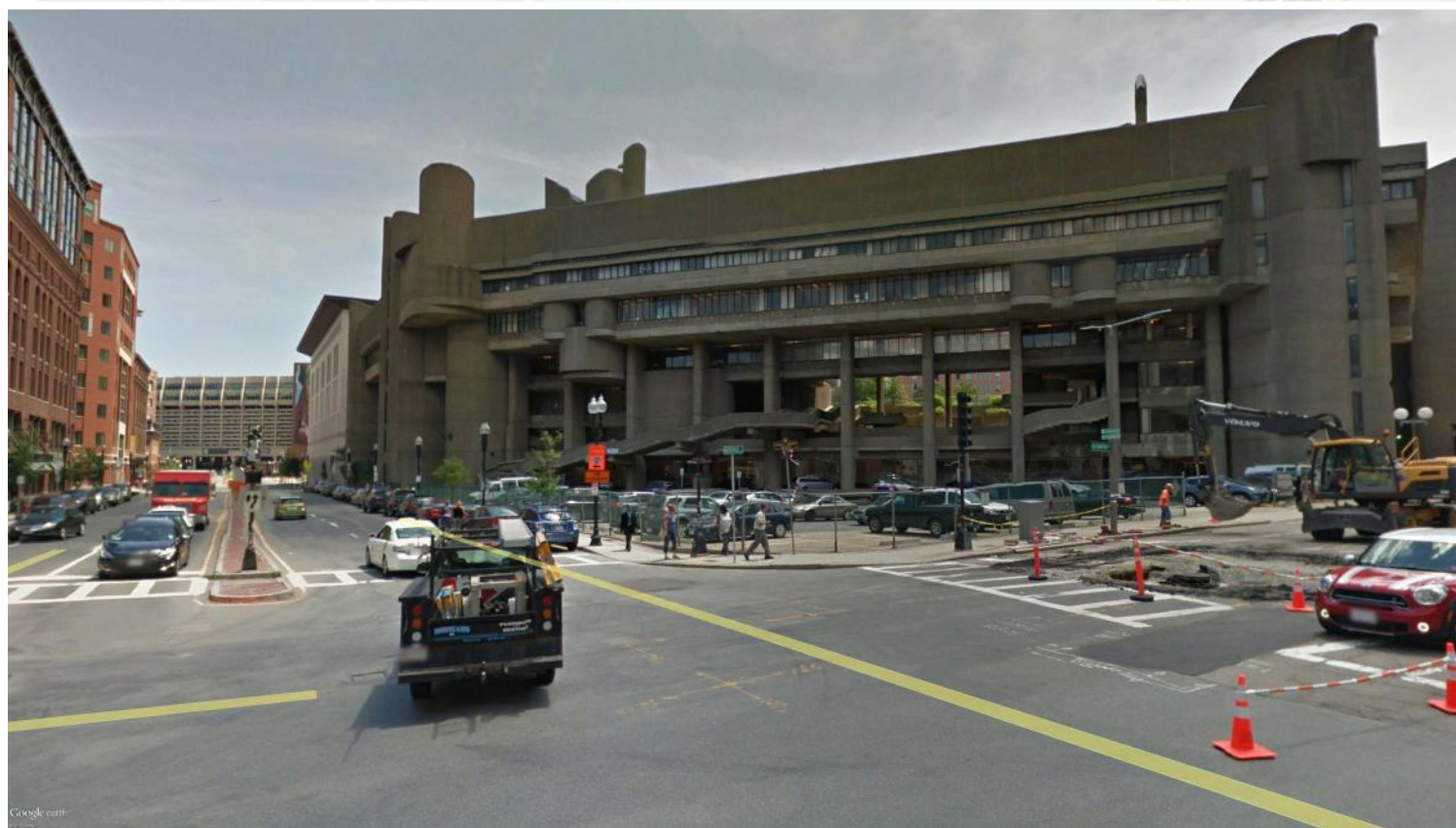


# Government Center to TD Garden



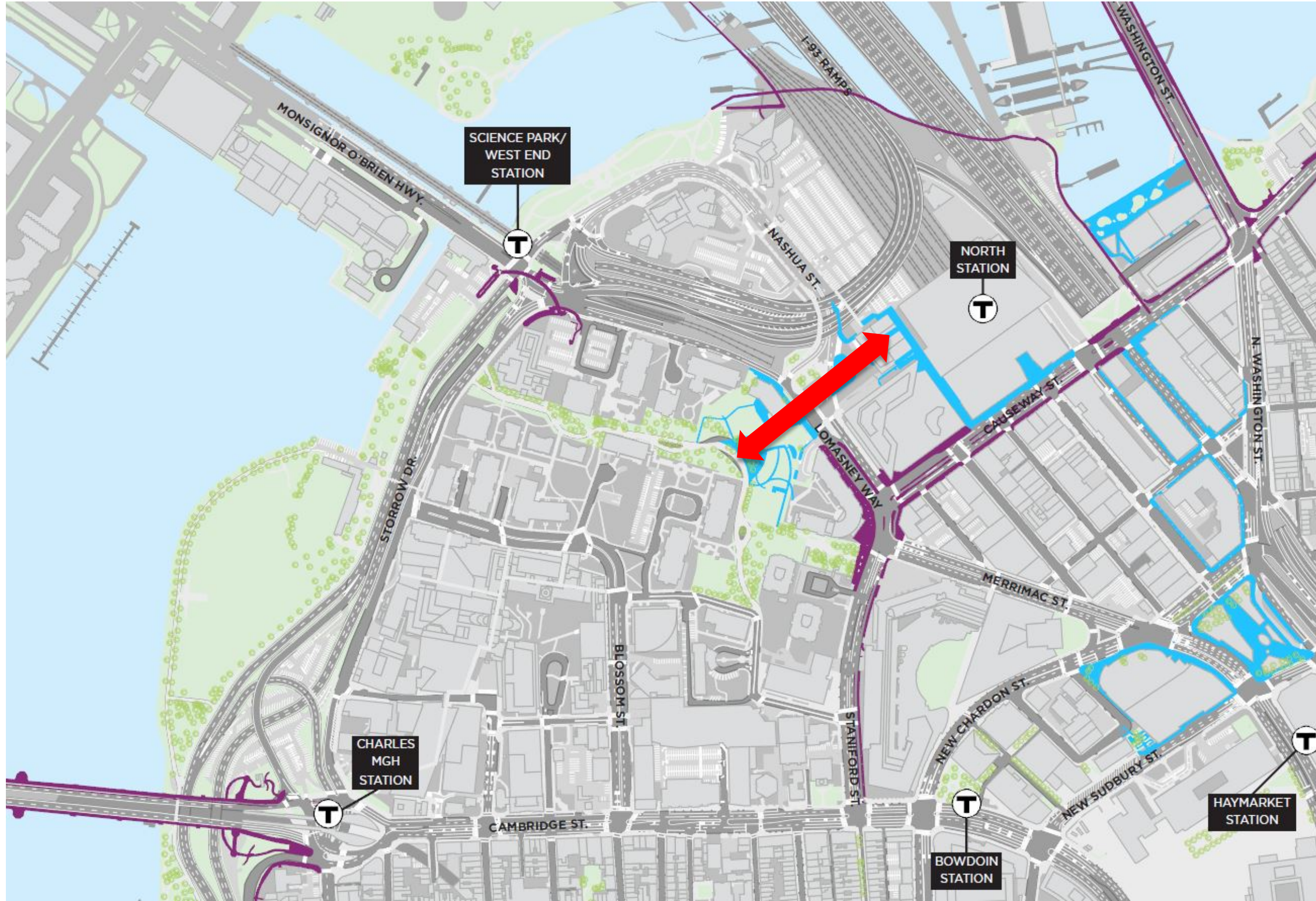


# Opportunities for Placemaking



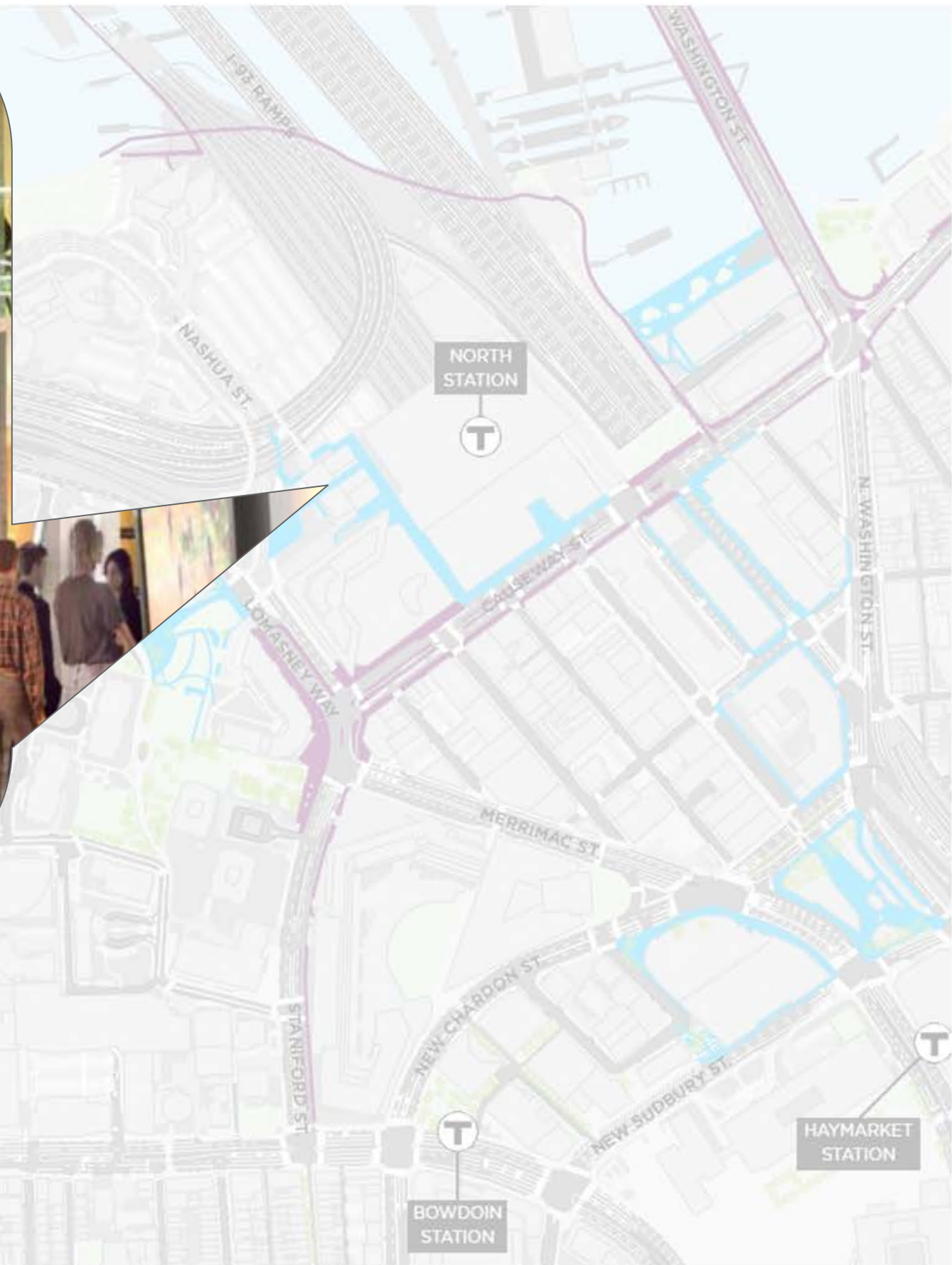


# TD Garden to Thoreau Path



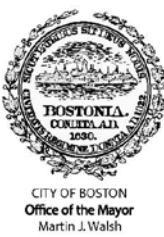


# Pathway thru N. Station and Nashua Street Residences



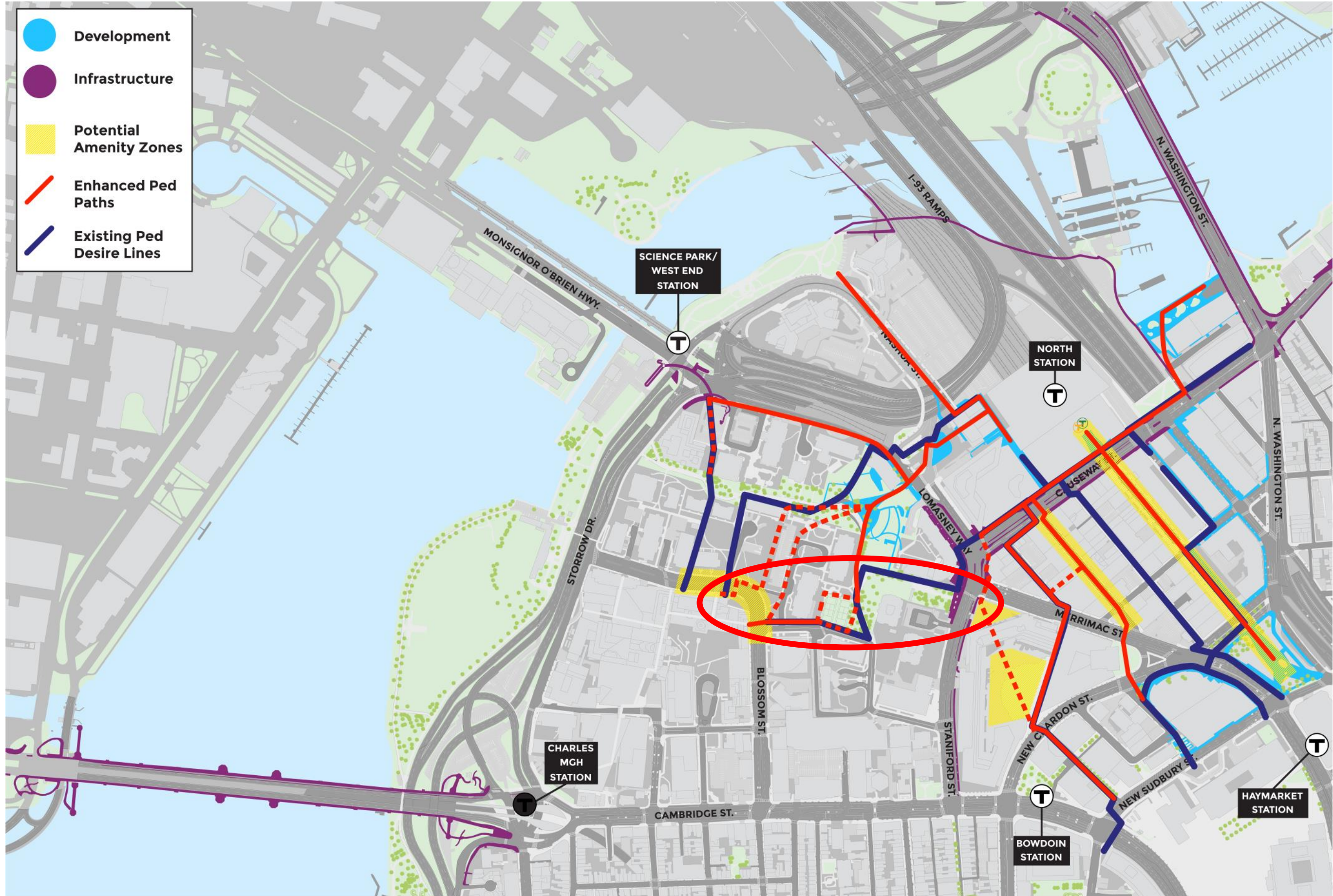


# New Path from Thoreau to N. Station



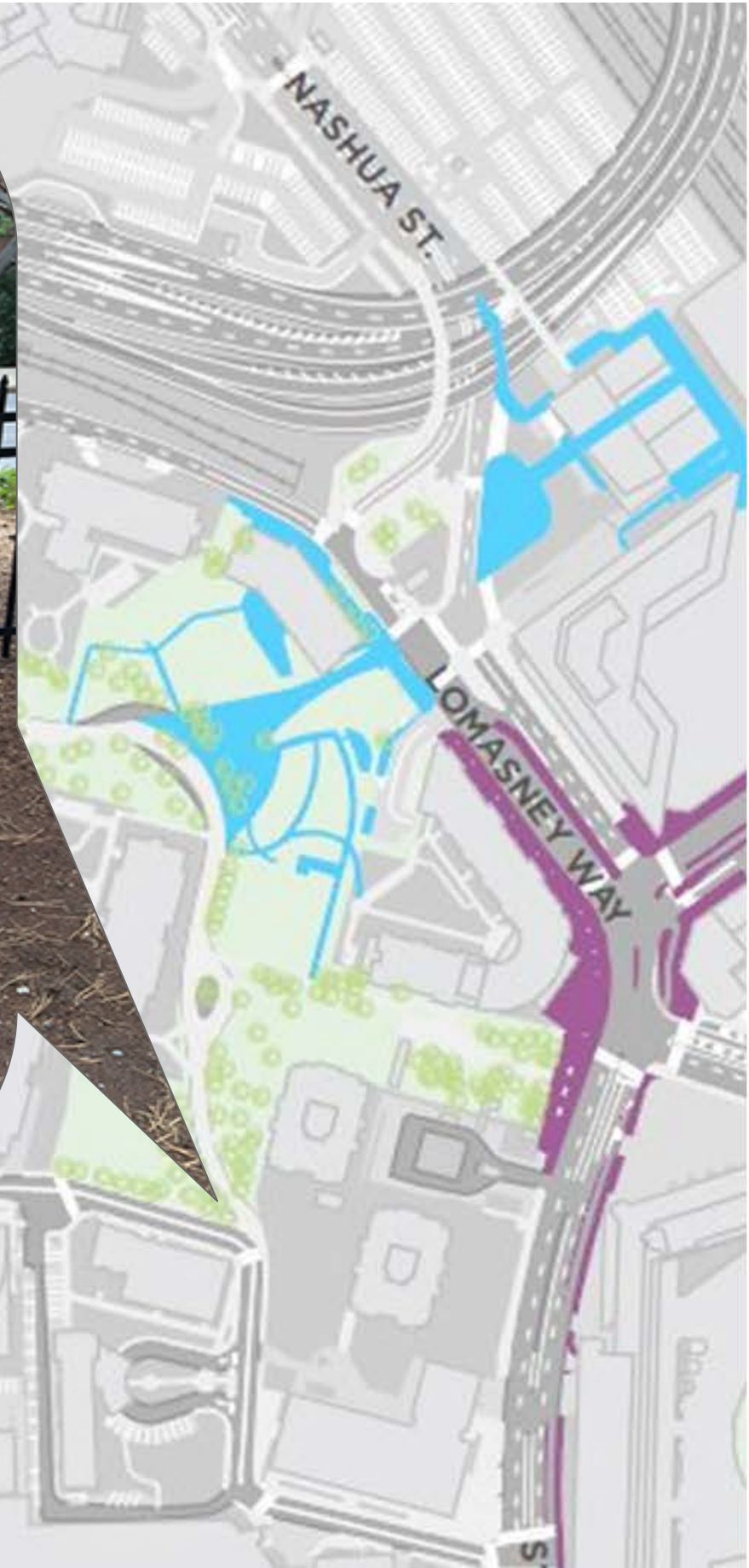


# Opportunity for Signed MGH Route?





# Desire Line to Thoreau Path





# O'Connell Way Desire Line





# North Washington St. Bridge



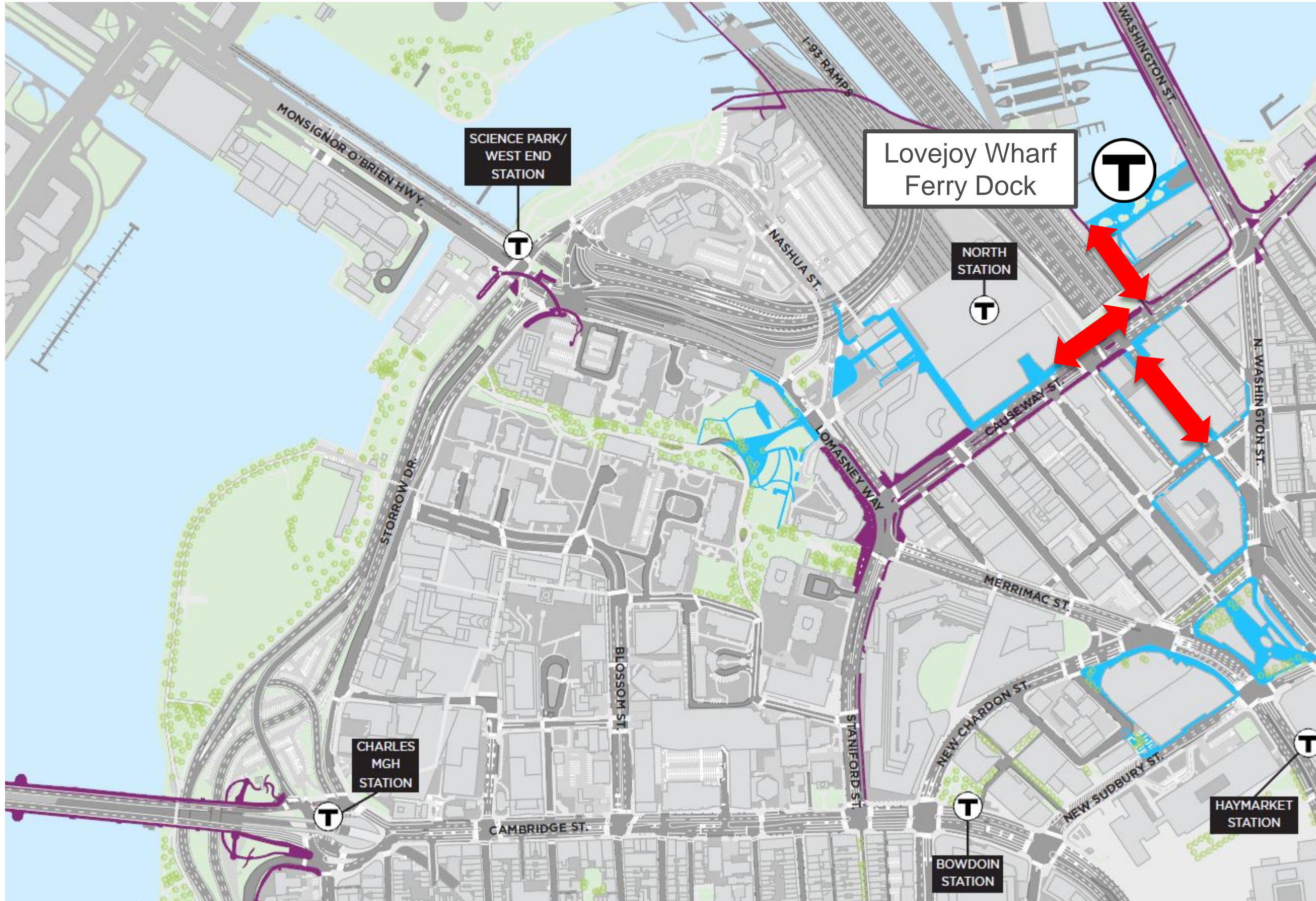


# N. Washington St. Bridge





# New Pedestrian Desire Lines



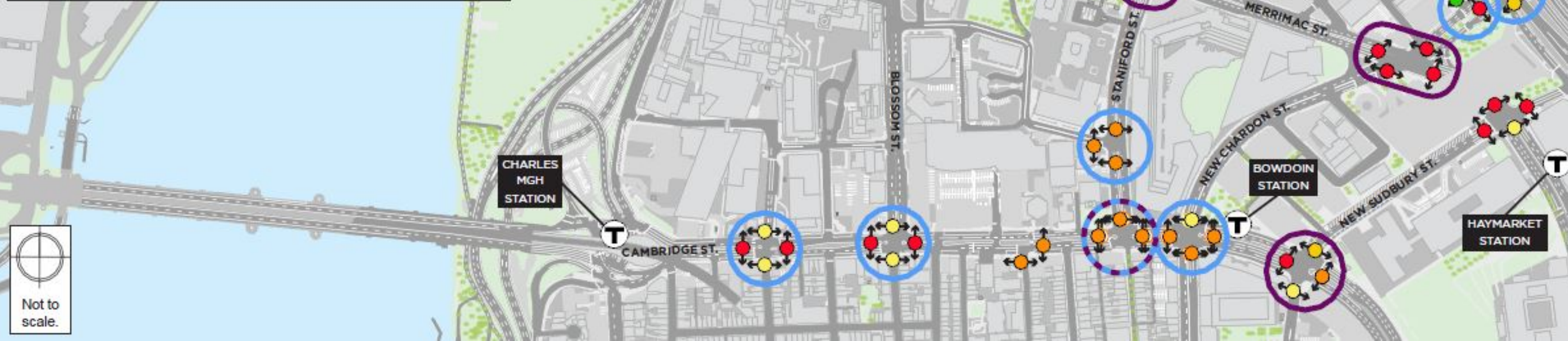


# Existing Ped Delay



LOS	Average Ped. Delay	Likelihood of Ped. Noncompliance
<b>A</b>	<10 Seconds	Low
<b>B</b>	10-19 Seconds	
<b>C</b>	20-29 Seconds	Moderate
<b>D</b>	30-39 Seconds	
<b>E</b>	40-59 Seconds	High
<b>F</b>	>60 Seconds	Very High

	Pedestrian Signal Actuated
	Concurrent Pedestrian Phase
	Both Actuated and Concurrent





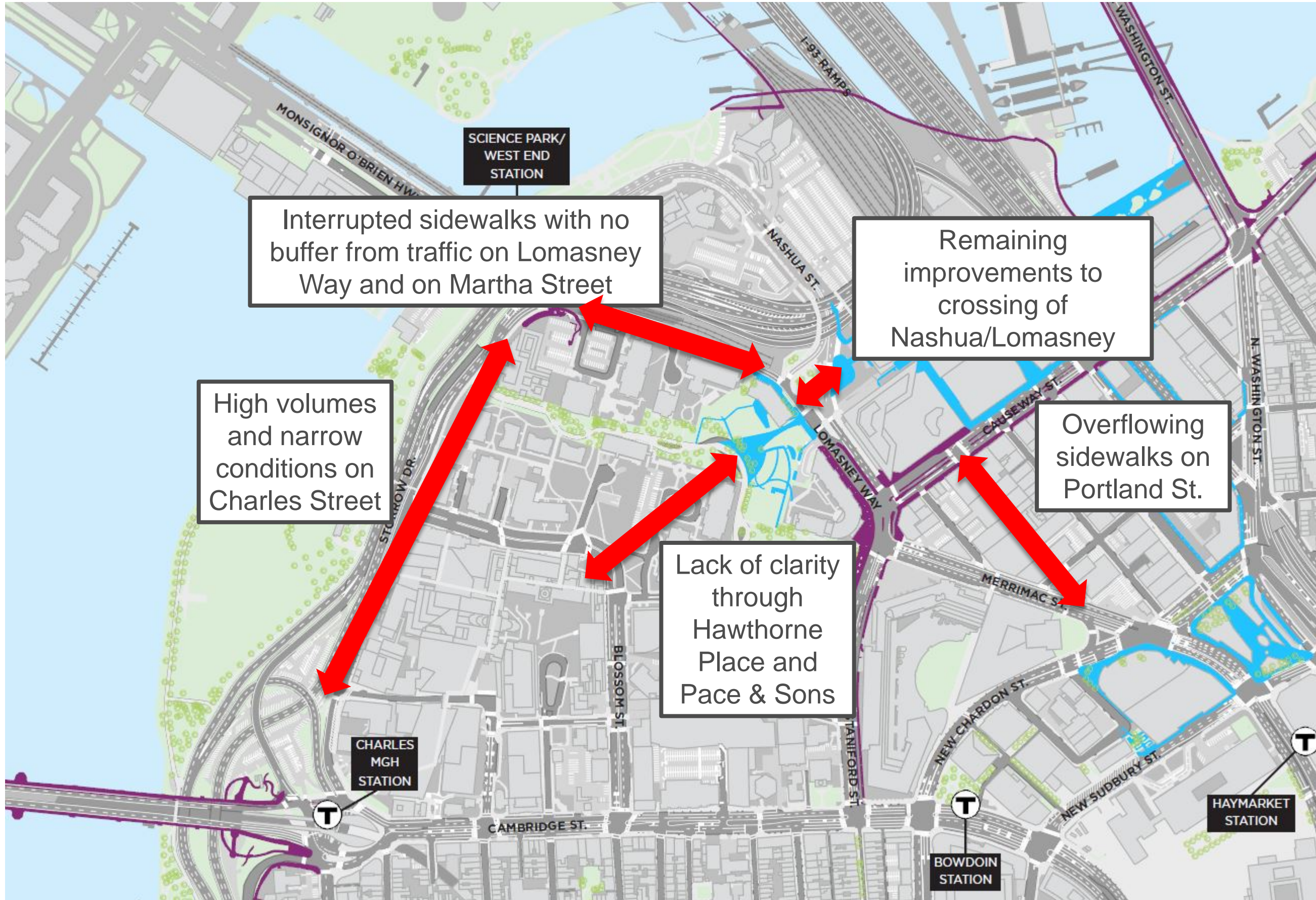
# 50 Percent Increase in Residents



- Increased demand for services.
- Bulfinch more of a “24-hour” neighborhood.



# Remaining Pedestrian Challenge

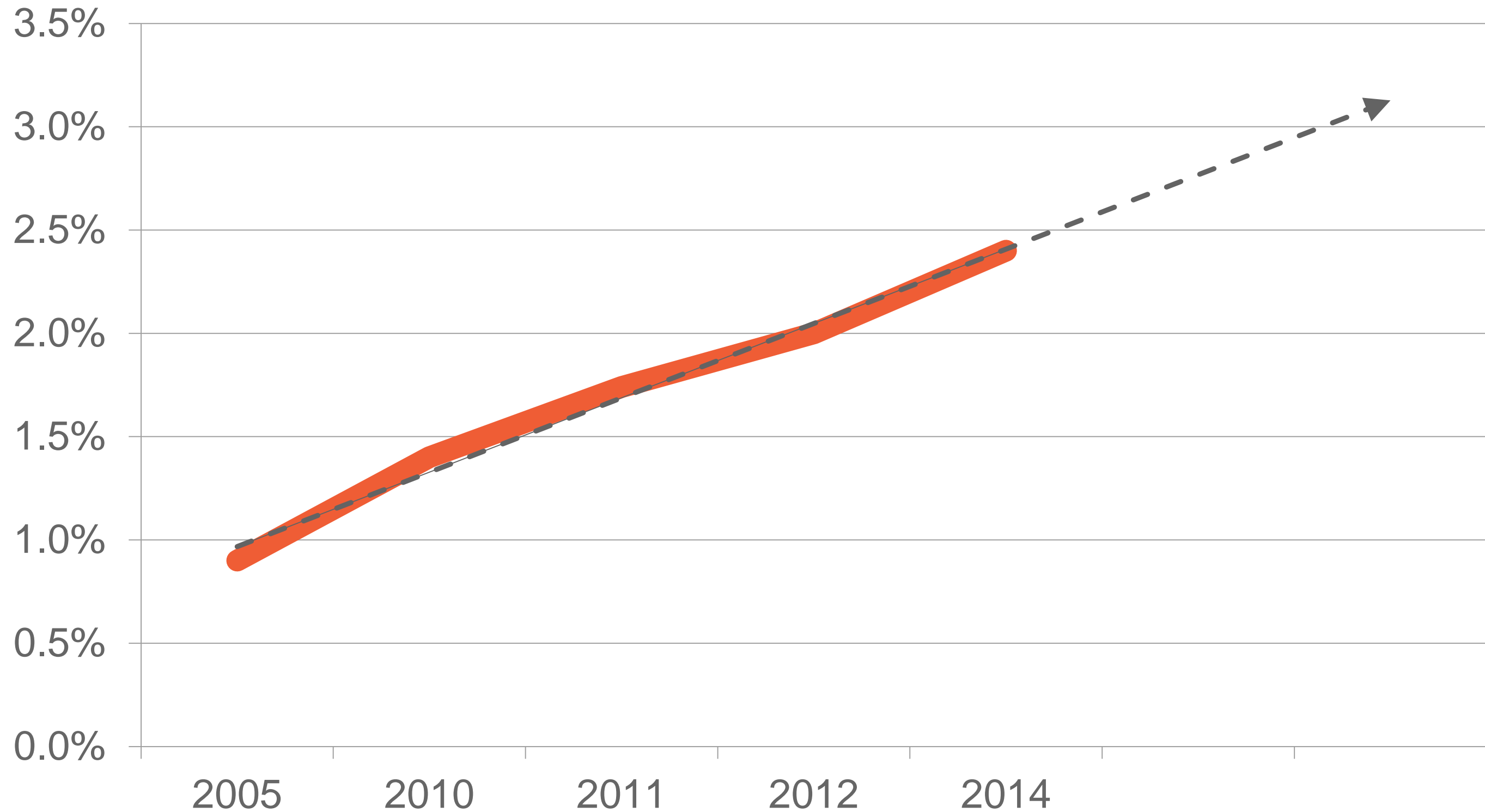




# Bicycle Use Increasing



## Percent Bicycling to Work in Boston





# Hubway Growth

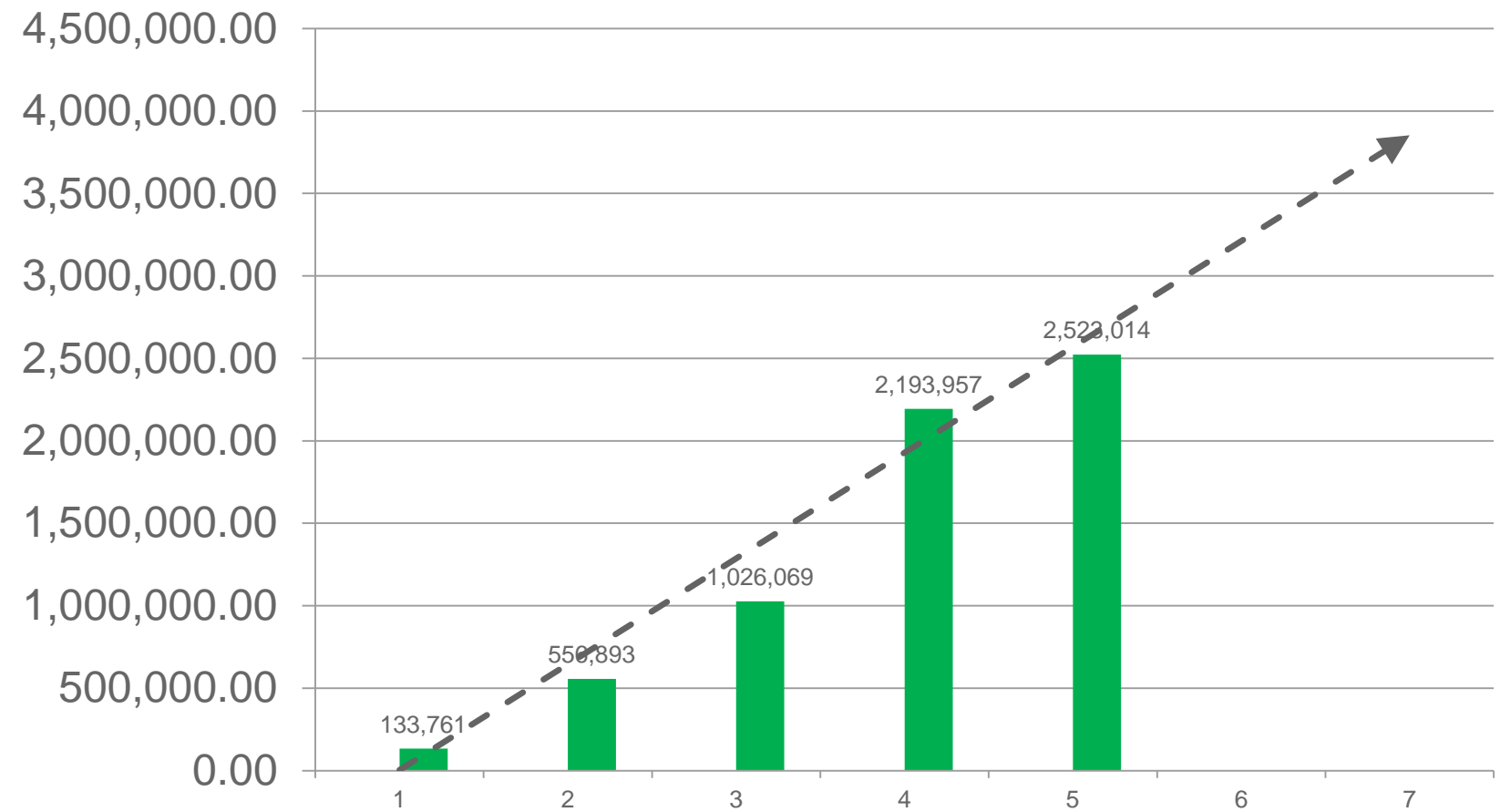


## Hubway in 2016:

- 185 Stations
- 1,750 Bicycles

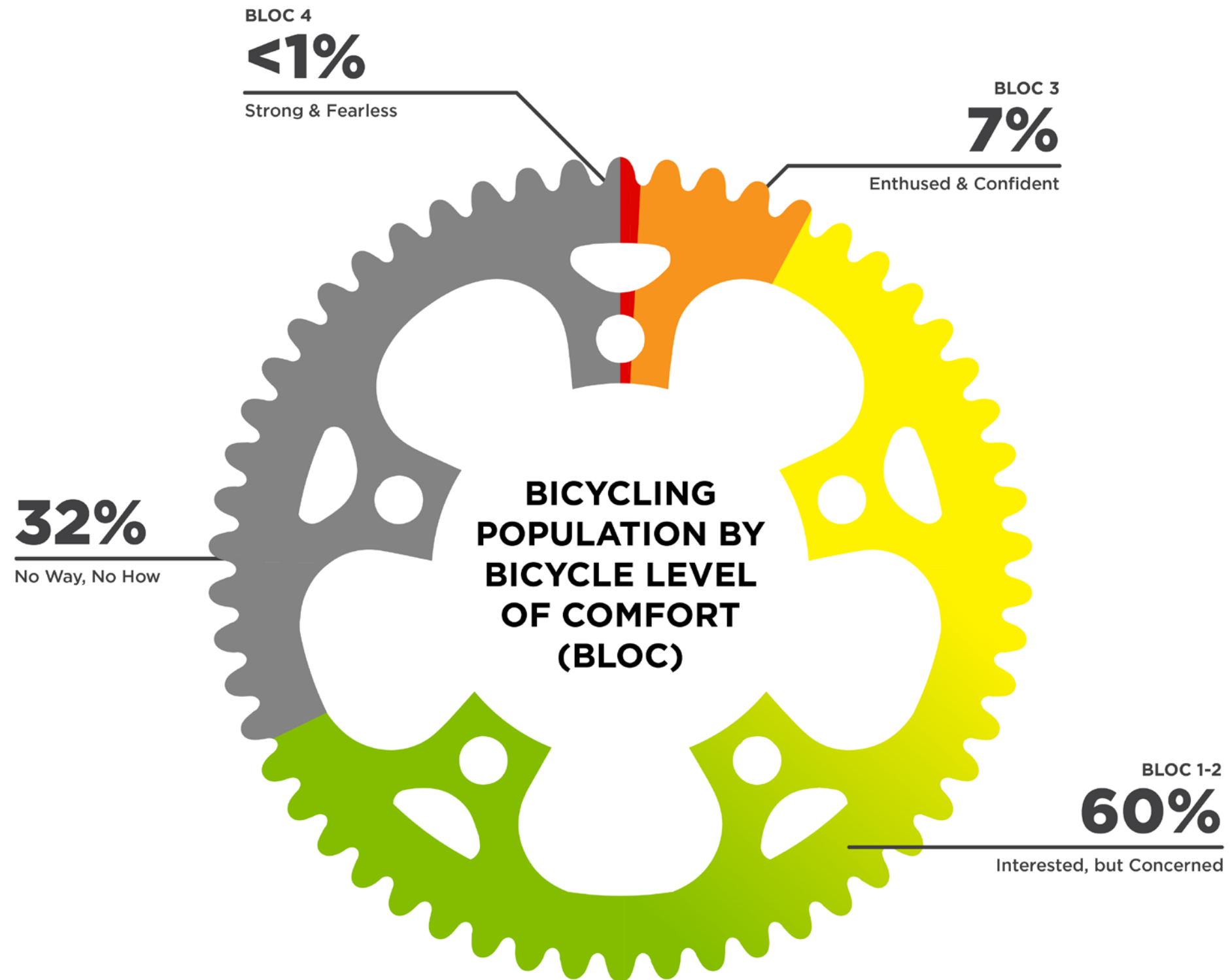
New RFP would add 100 new stations.

Hubway Miles Traveled 2011-2015










# Bicycle Level of Comfort





# Bicycle Level of Comfort – Existing Conditions








-  Interested but Concerned
-  Interested but Concerned
-  Enthused and Confident
-  Strong and Fearless
-  Hubway

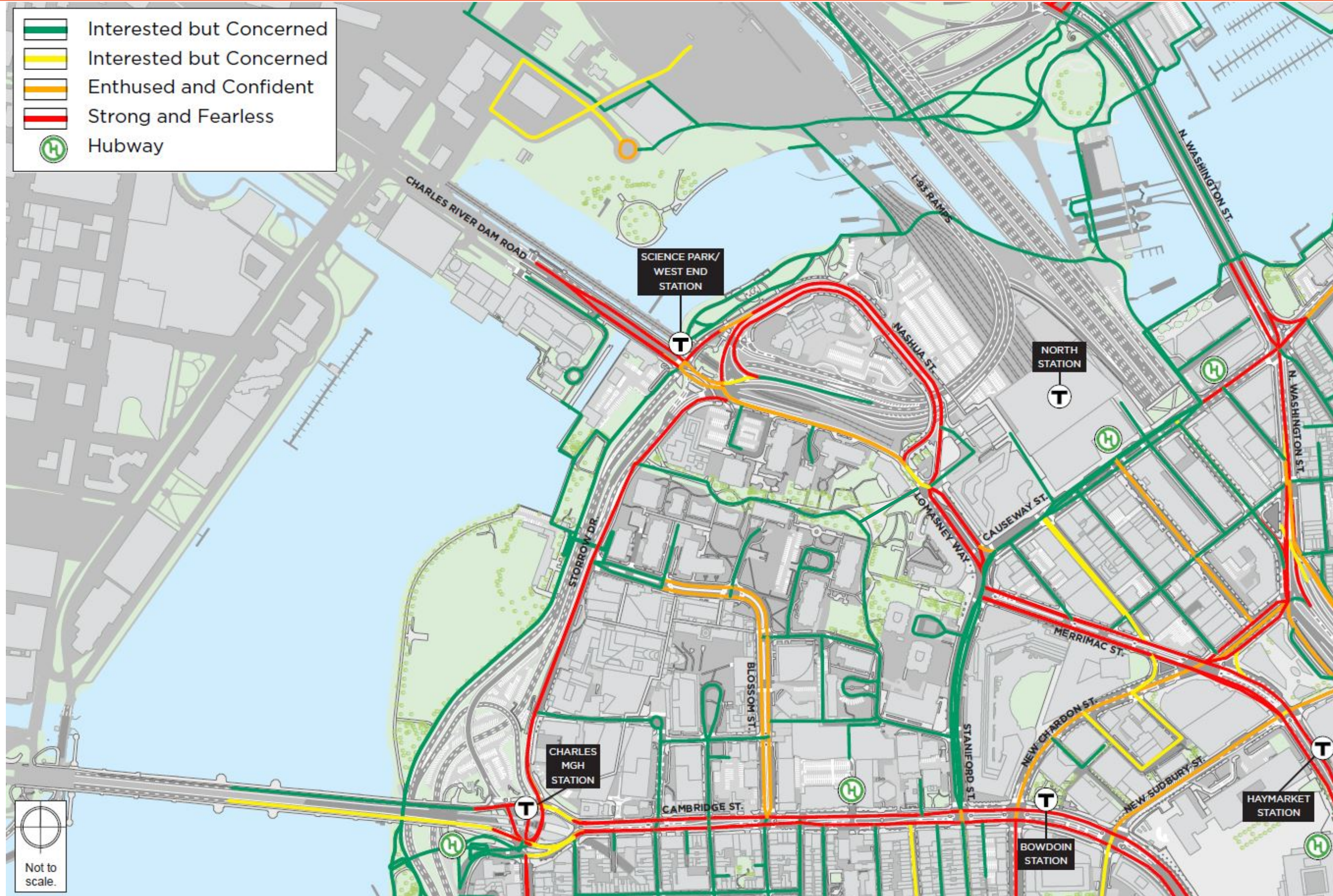




# Bicycle Level of Comfort – Committed Improvements

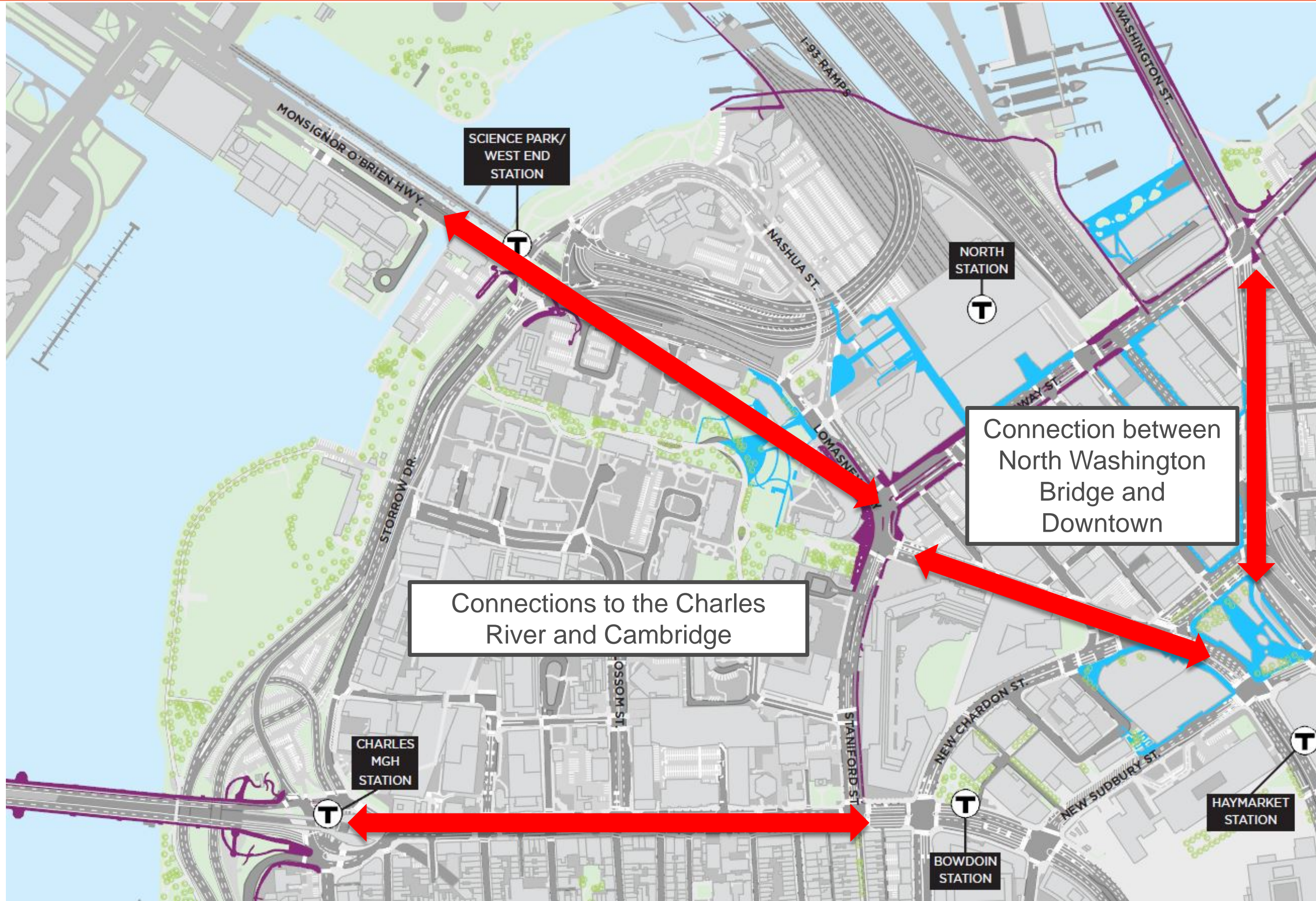


-  Interested but Concerned
-  Interested but Concerned
-  Enthused and Confident
-  Strong and Fearless
-  Hubway



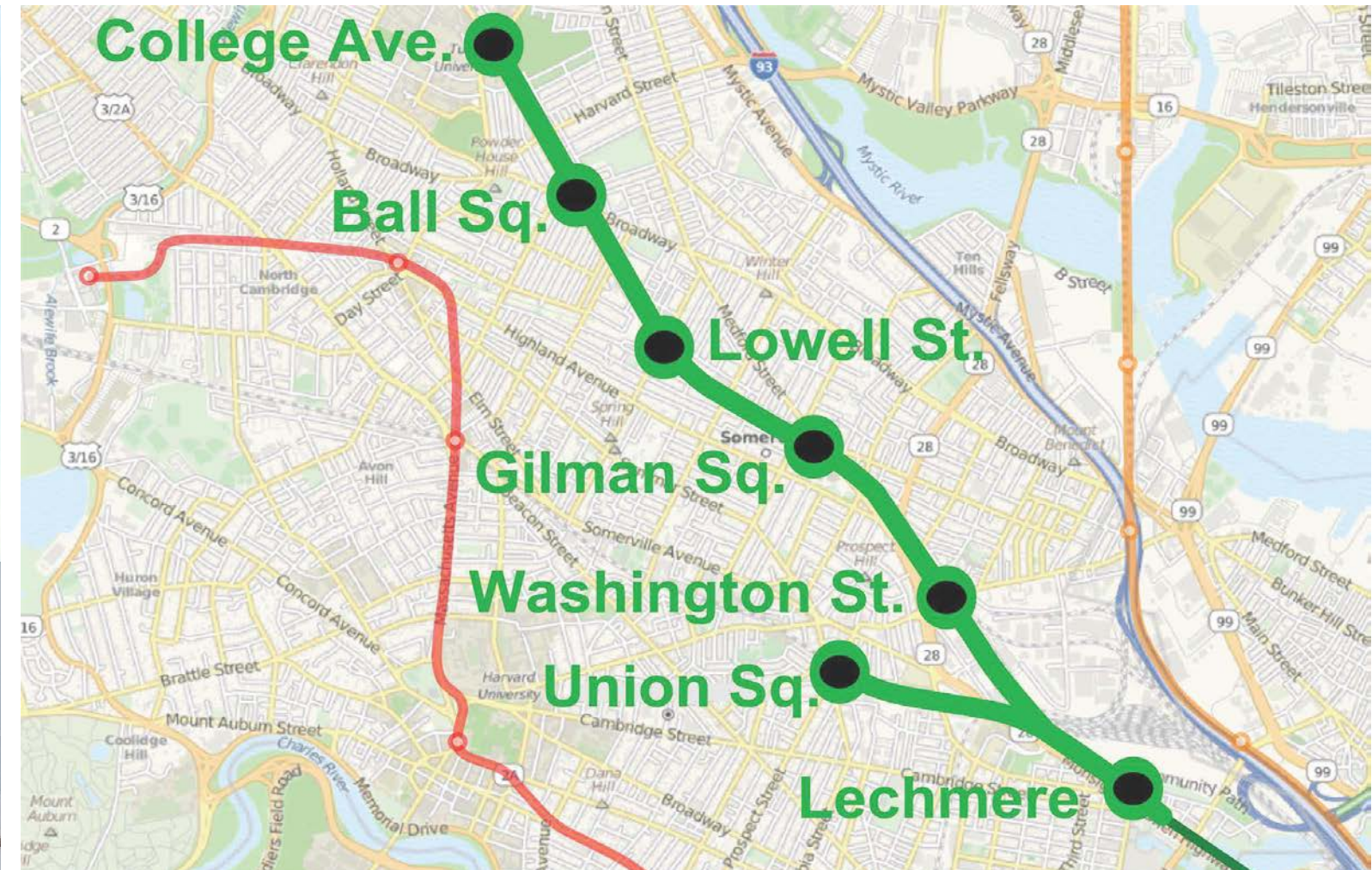


# Remaining Bicycle Challenges





# GLX Extension

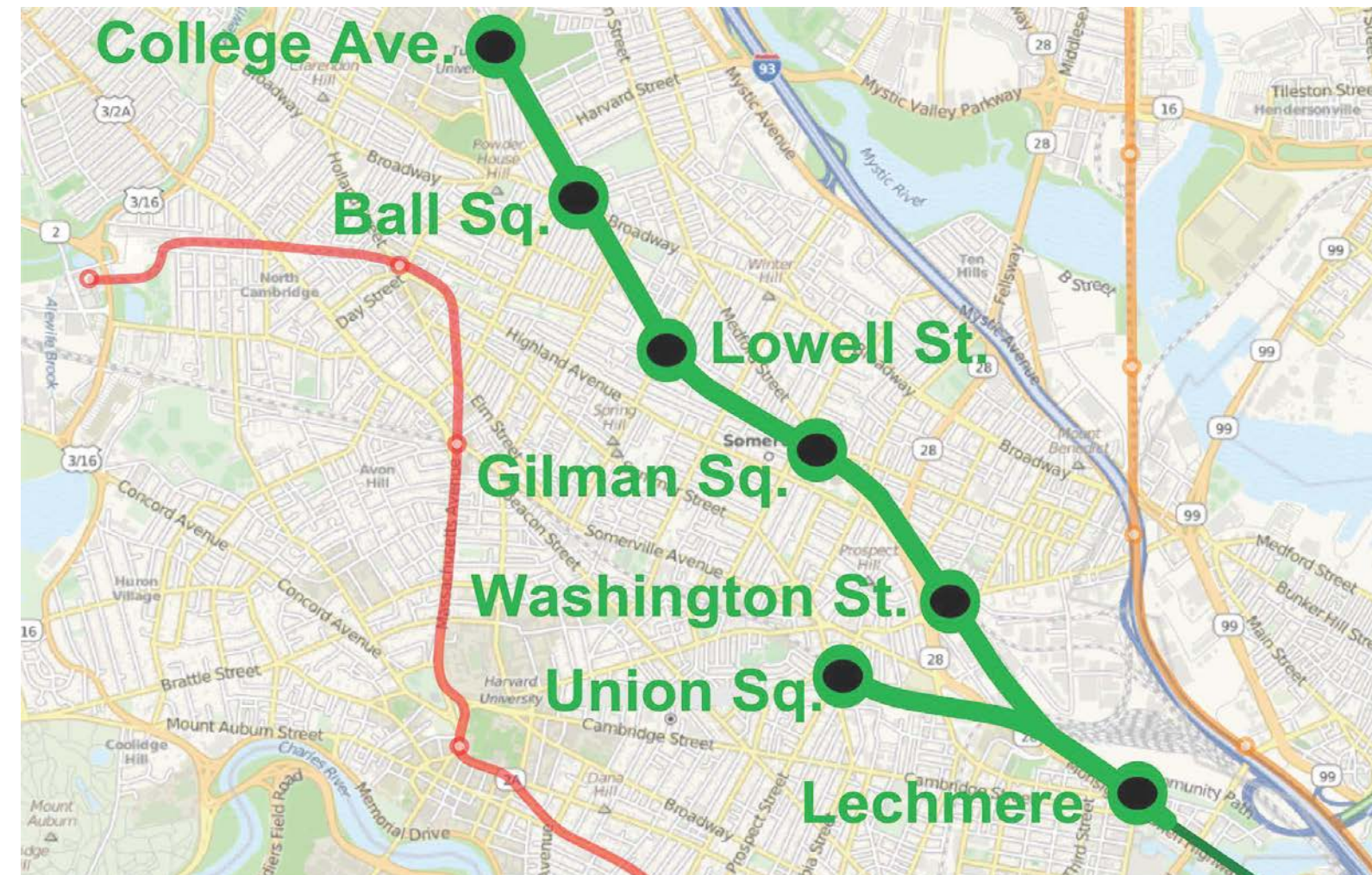




# GLX Extension



- Significant increase in pedestrian demand at Science Park Station.
- Also increased use at North Station and Haymarket Station.





# MBTA Car Replacement



- 284 new cars for Orange and Red Lines
- More frequent trains at rush hour for Orange Line results in 30-35% increase in capacity
- Increased reliability

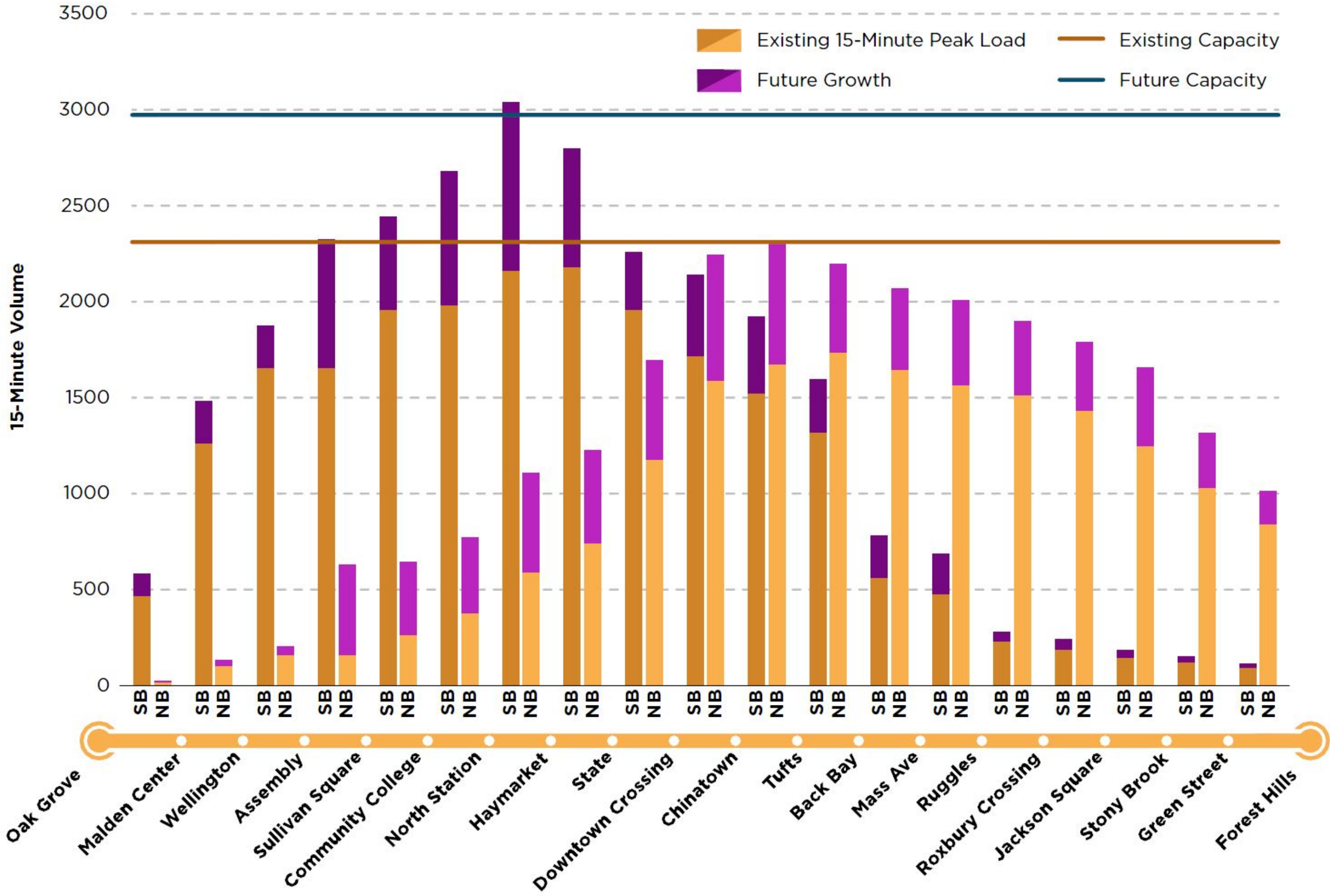


**Estimated Completion Date:  
End of 2022**





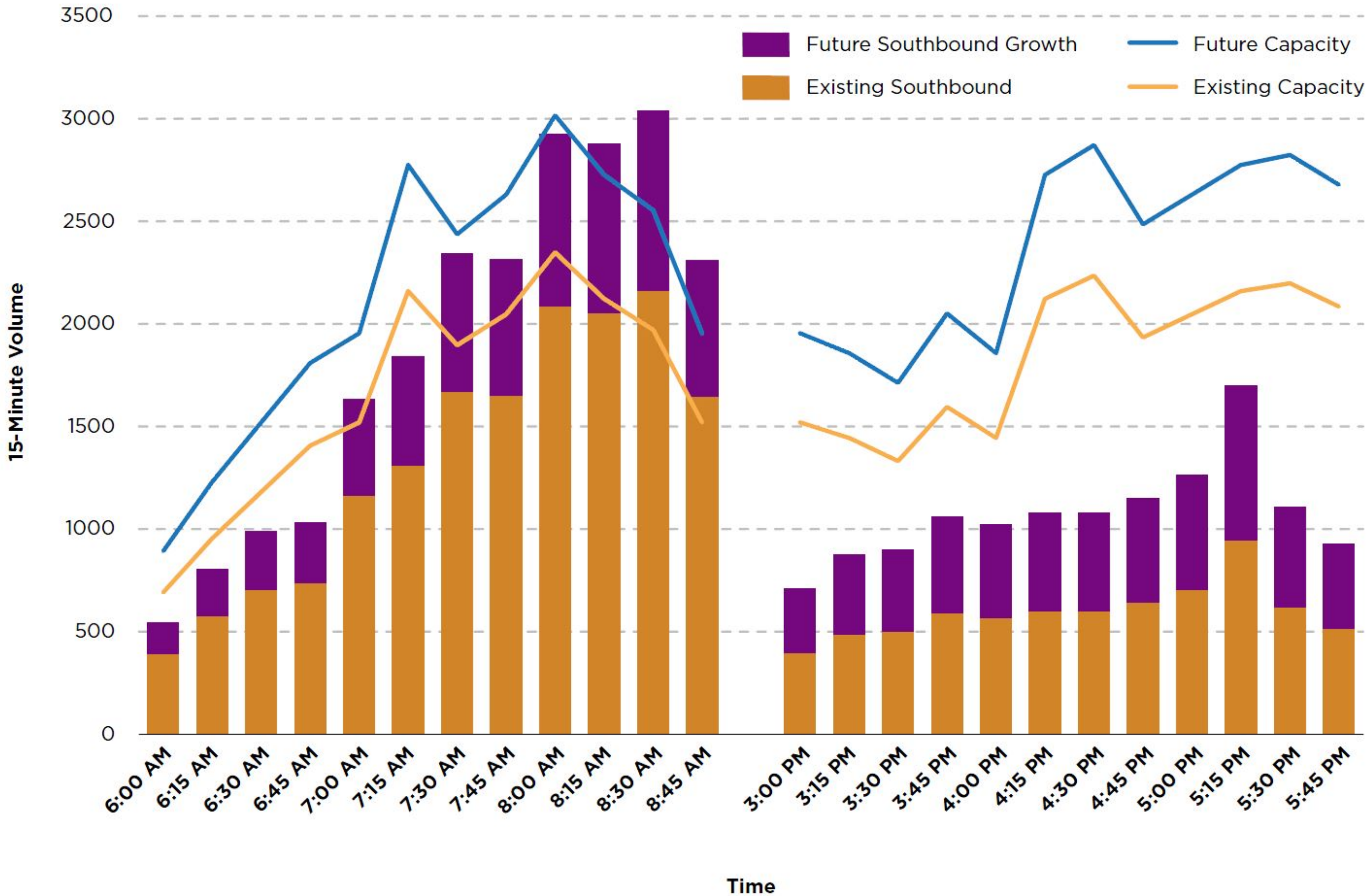
# Orange Line: Ridership vs Capacity Increase 2040





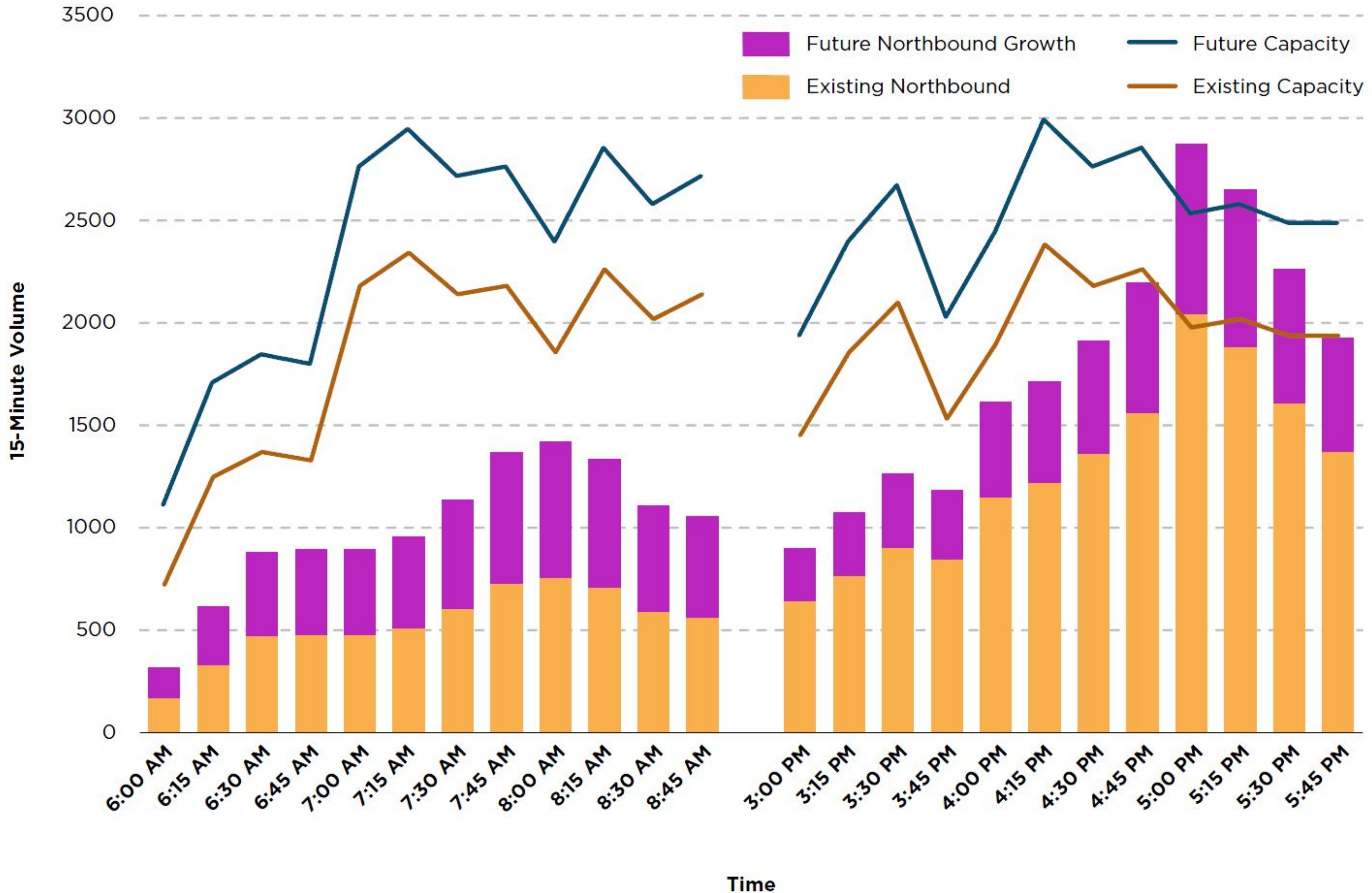
# Orange Line Capacity SB 2040

## North Station to Haymarket Station





# Orange Line Capacity NB 2040: Haymarket Station to North Station





# Transit Oriented Development



- Land Use, Transit-Oriented Development



Assembly Square – 2,100 Units



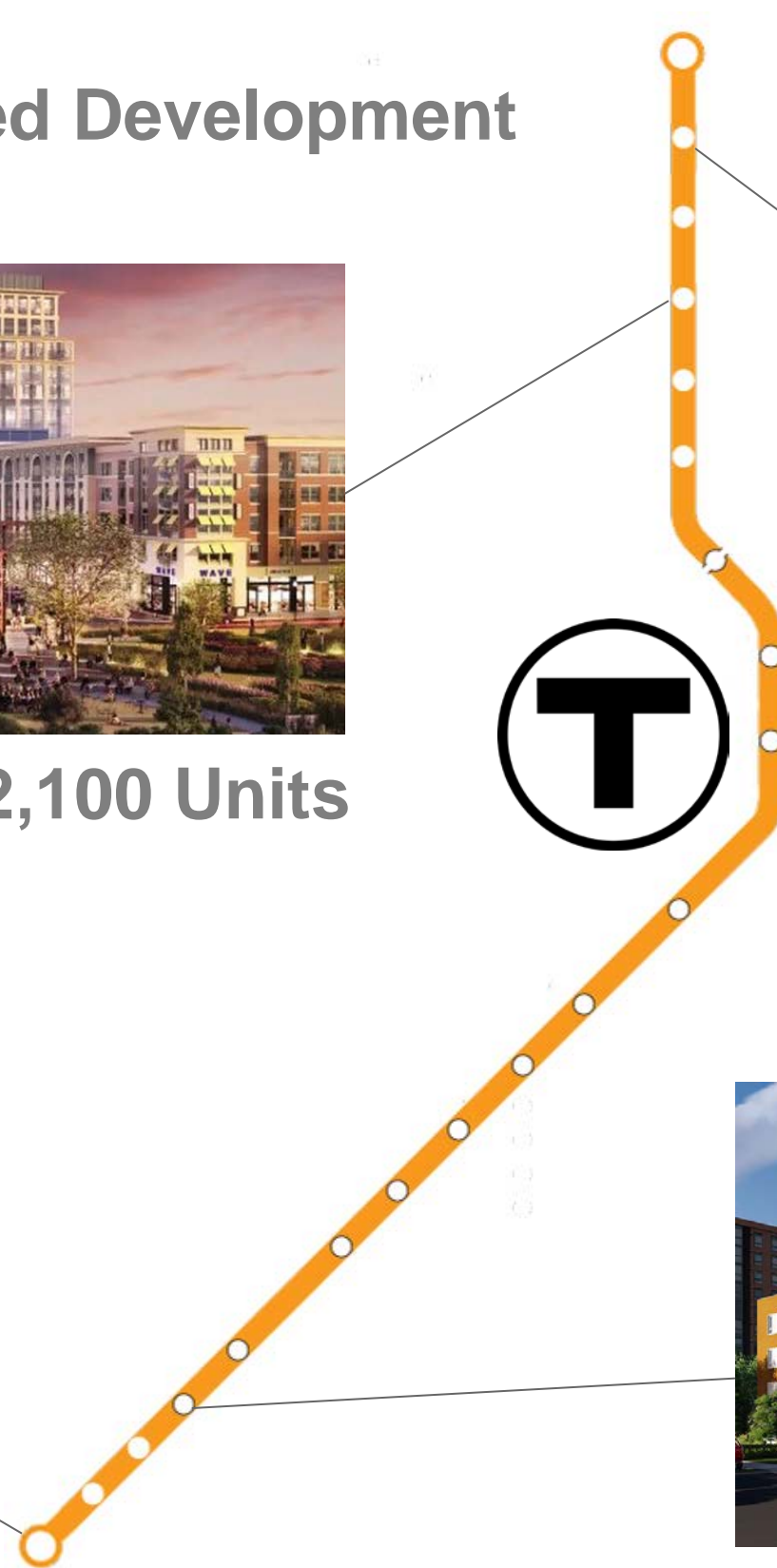
Malden Station – 250 Units



Forest Hills – 285 Units

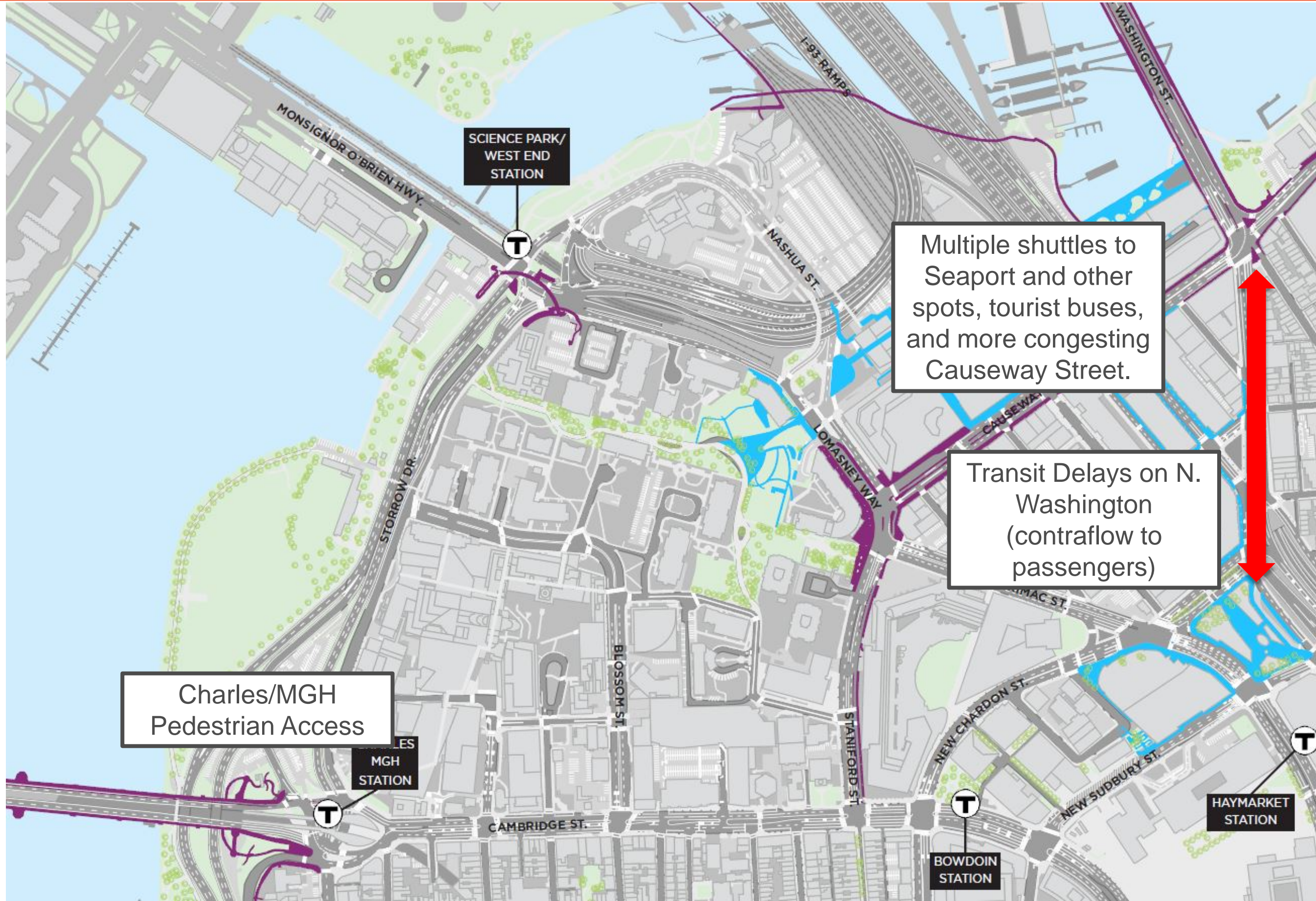


Jackson Square – 105 Units



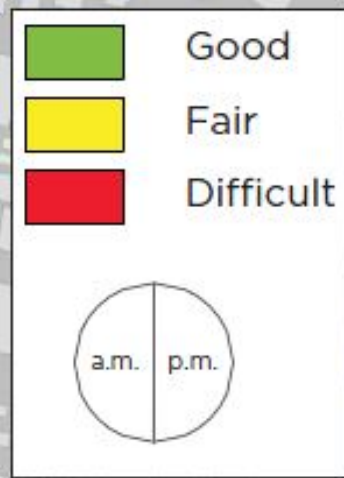


# Local Transit Challenges





# Motor Vehicle LOS - Future

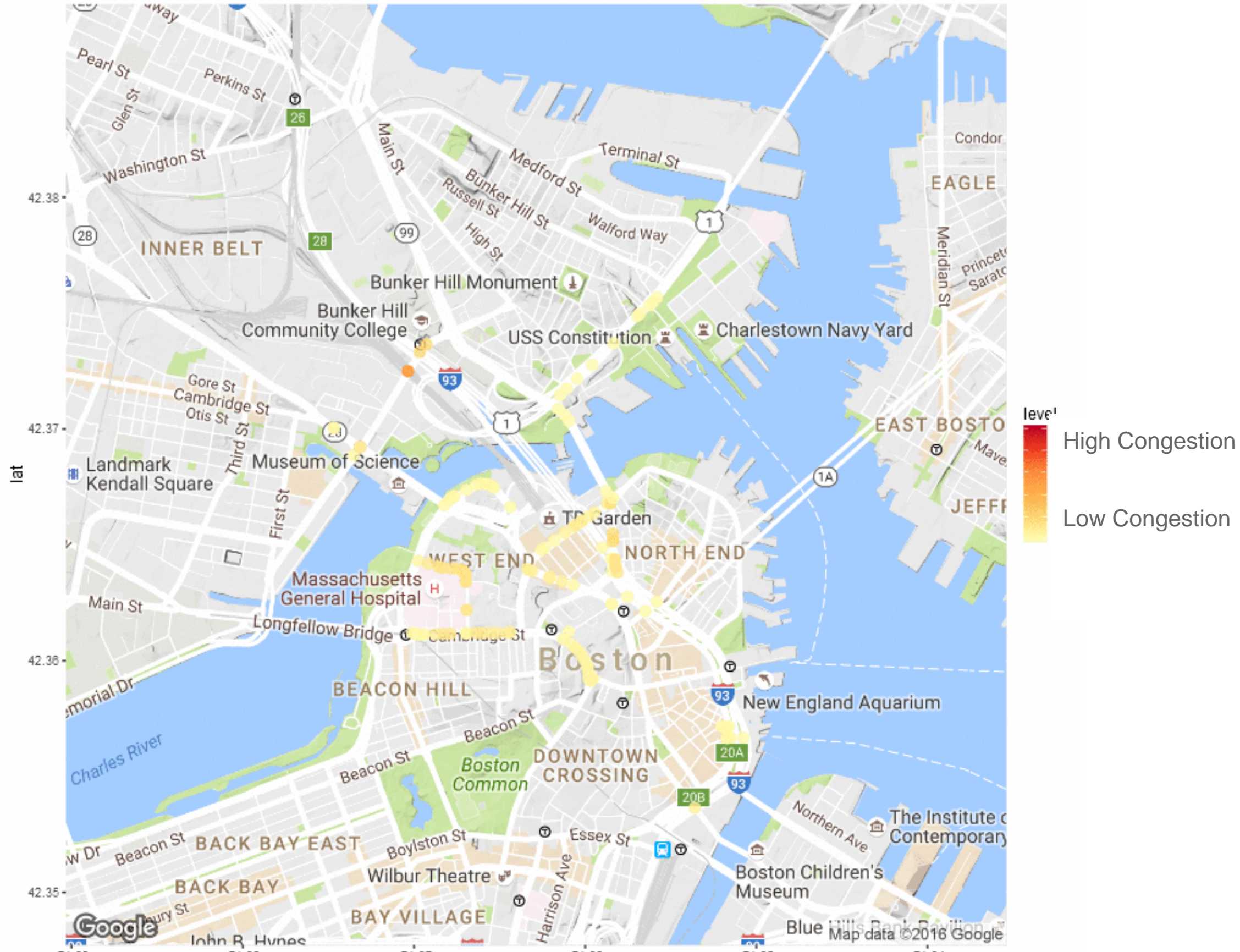




# Motor Vehicle Traffic



Time: 07:00:00

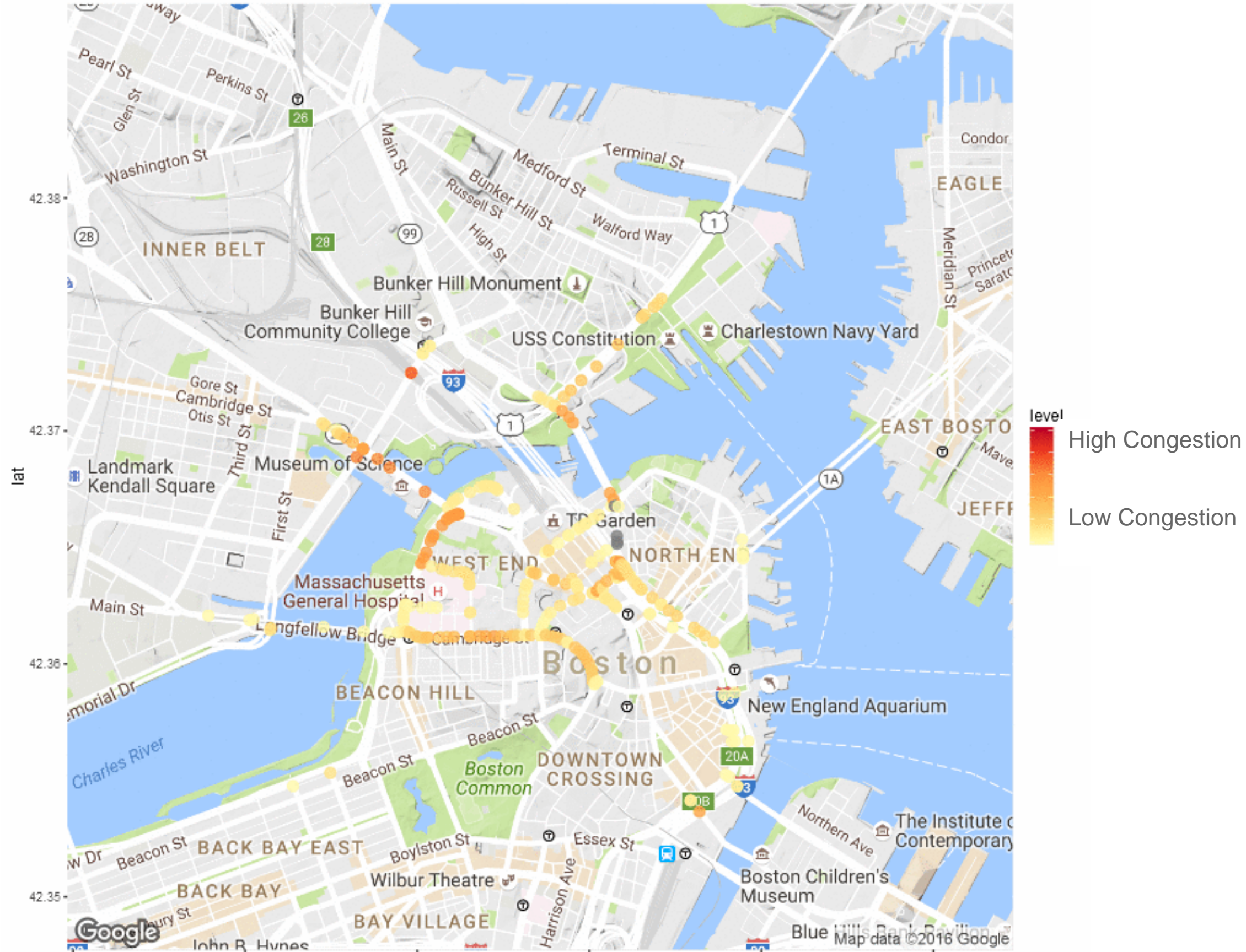




# Motor Vehicle Traffic

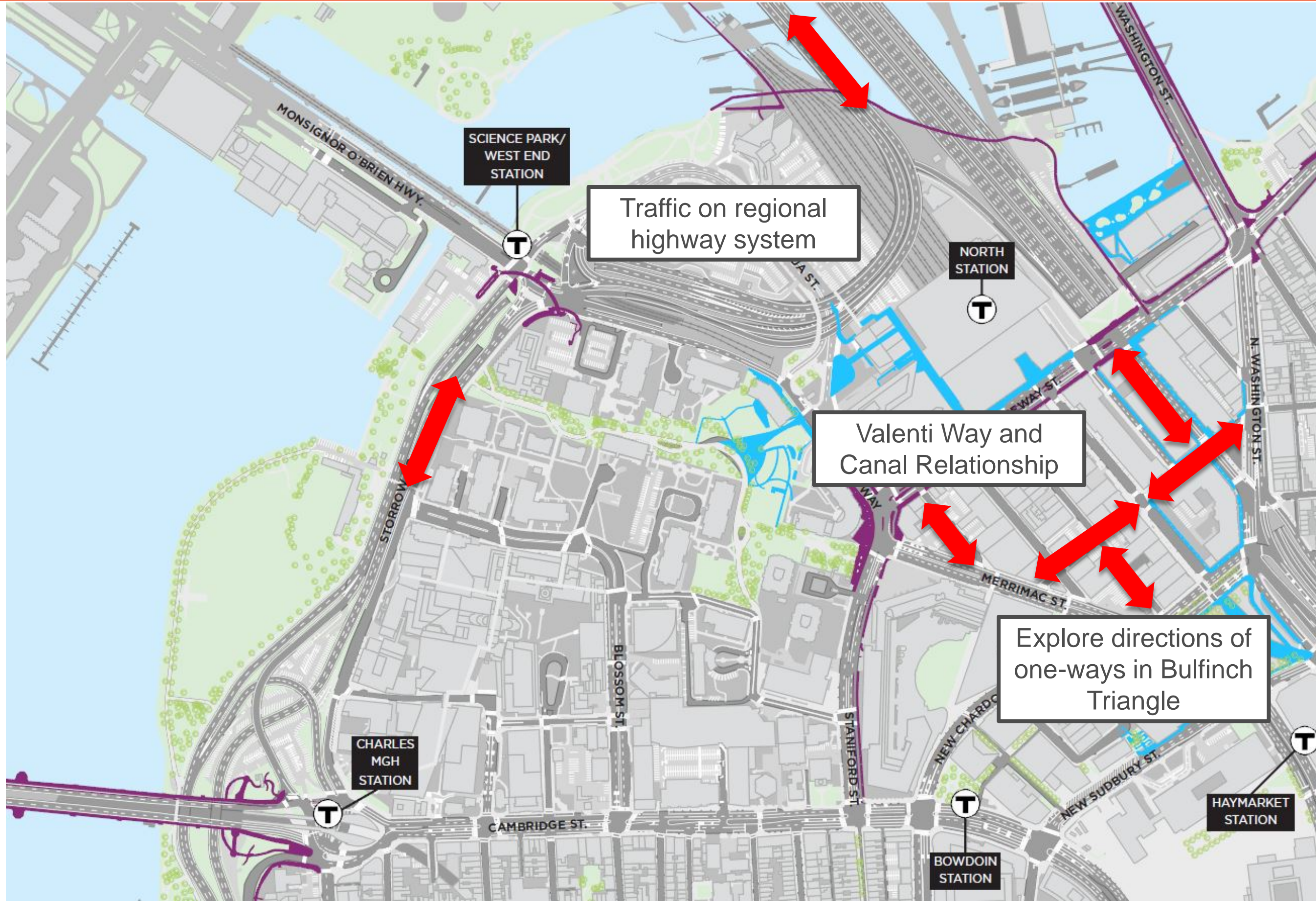


Time: 16:00:00





# Motor Vehicle Challenges





# Trends in the Cost of Driving

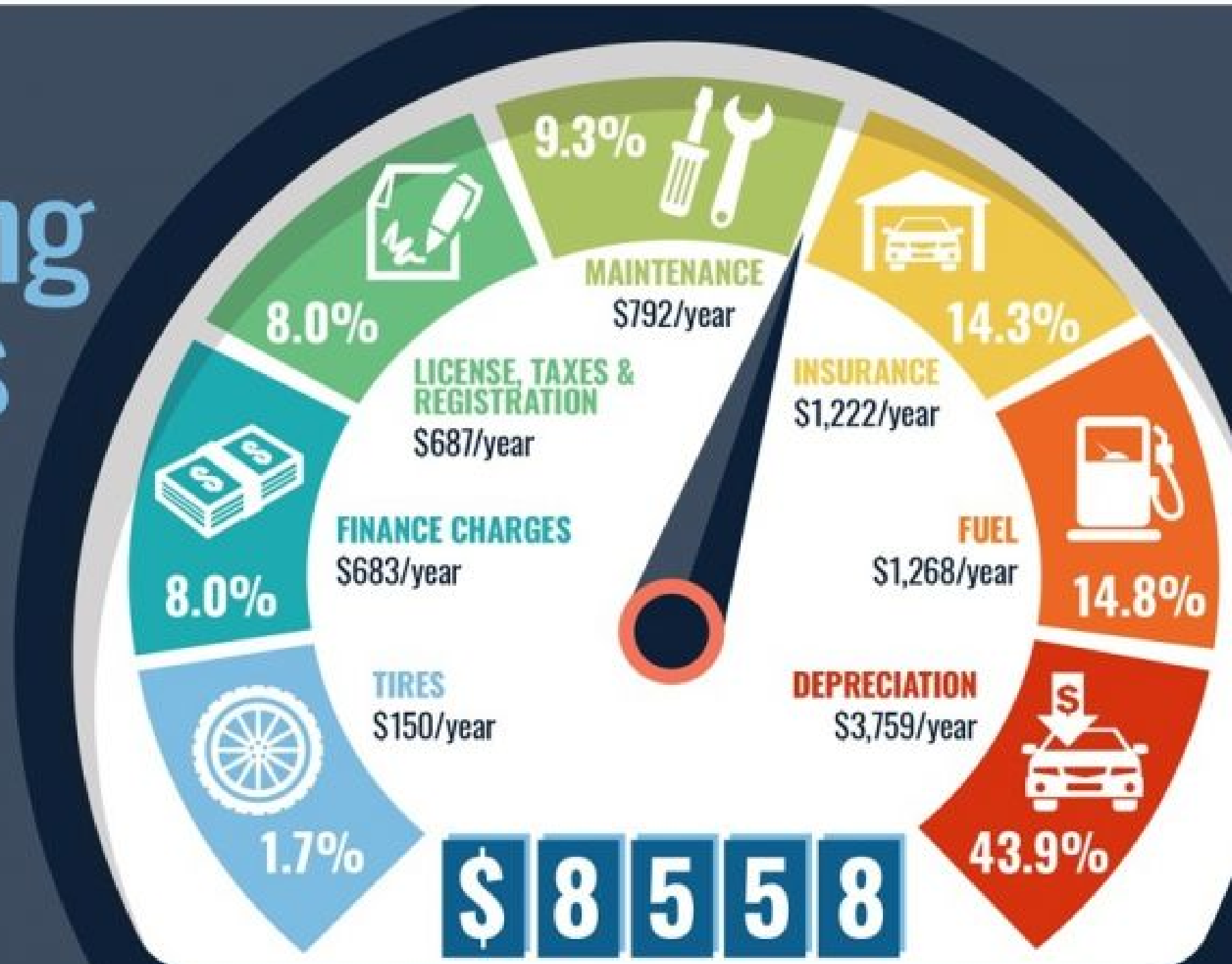


## Your Driving Costs

2016



NewsRoom.AAA.com


















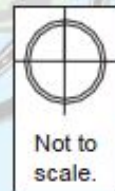
is the average annual cost to own and operate a vehicle in the U.S., which is down 1.6% from 2015.



# Curb Use, Pick-Up and Drop-Off



-  No Parking/Stopping
-  Permit Parking
-  Visitor
-  Handicapped Parking
-  Commercial Vehicles
-  City Vehicles
-  Cab Stand/Valet
-  Ambulance Parking
-  Partners Shuttle
-  Pick-up/Drop-off
-  Metered Parking
-  Metered Parking (No Parking 7 a.m.-9:30 a.m.)
-  Food Truck
-  Special
-  MBTA Bus Stop





# New Options





# Community Suggestion Highlights for Walking – Crossings



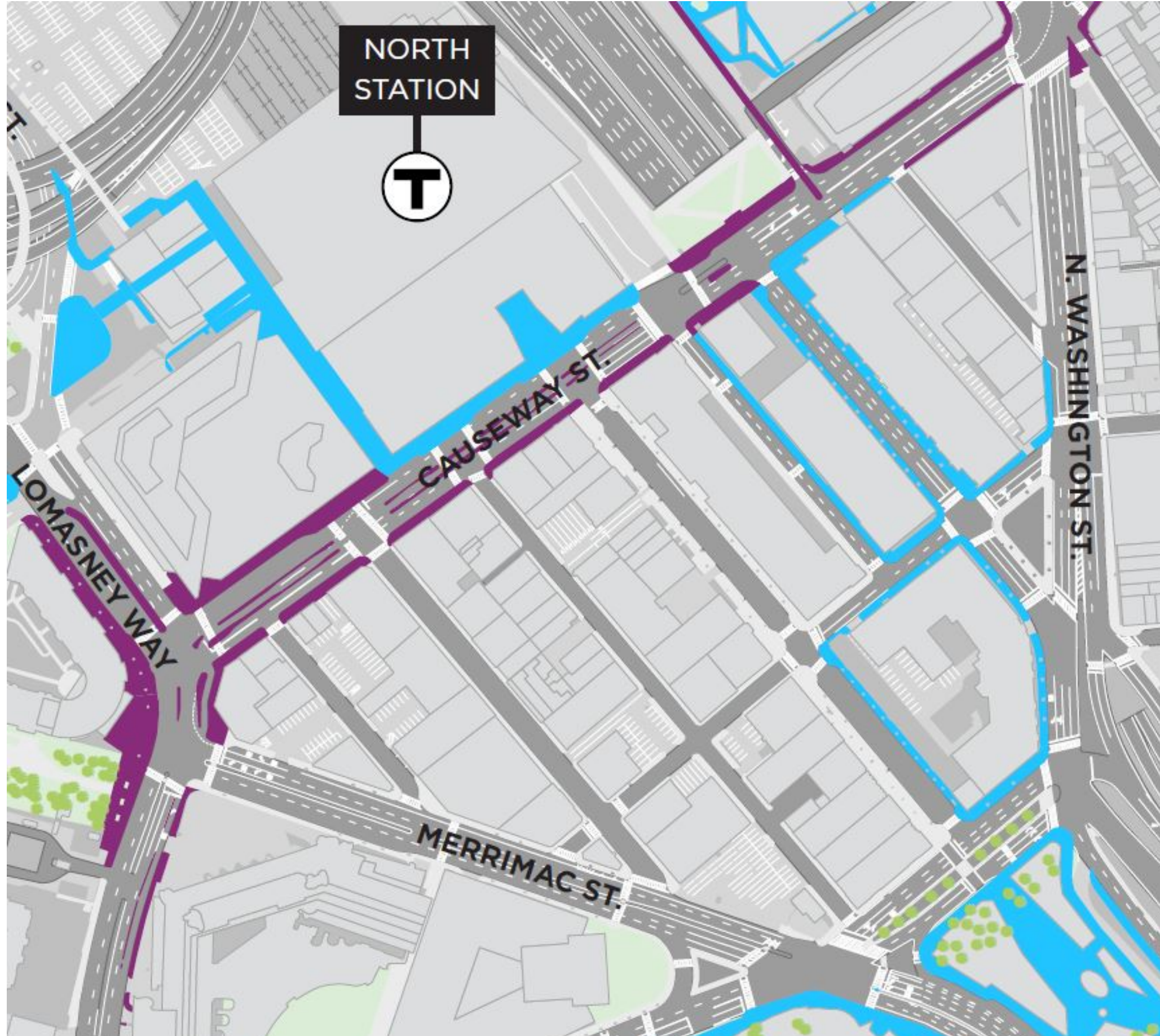
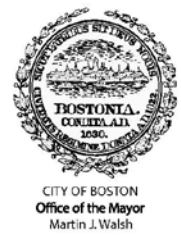


# Community Suggestion Highlights for Motorists – Pick Up/Drop Off



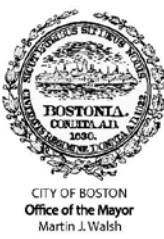


# Community Suggestion Highlights for Motorists – Bulfinch Circulation





# Community Suggestion Highlights for Motorists – Don't Block the Box



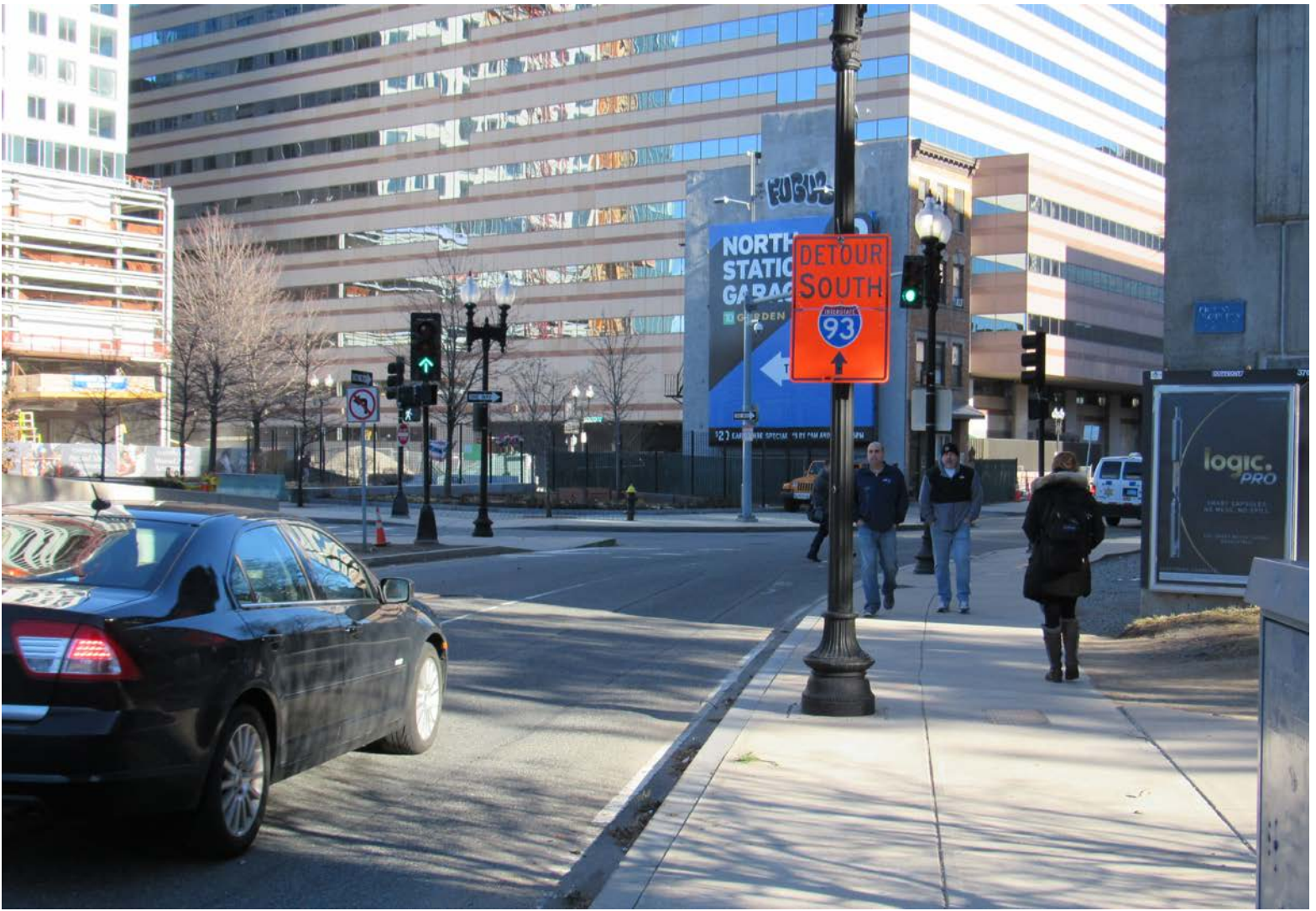


# Community Suggestion Highlights for Walking – Pedestrianization





# Community Suggestion Highlights for Walking – New and/or Improved





# Community Suggestion Highlights for Biking – Better Bikeways





# Community Suggestion Highlights for Biking – Bike Parking



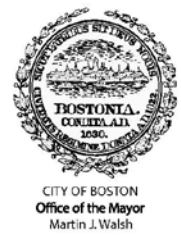


# Community Suggestion Highlights for Transit – Airport Bus Connection





# Community Suggestion Highlights for Transit – Shuttle Consolidation





# Community Suggestion Highlights for Transit – Ferry to Seaport +



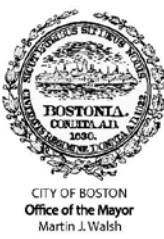


# Community Suggestion Highlights for TDM – Price of Driving





# Community Suggestion Highlights for Placemaking – GSC Parking Lot





# Community Suggestion Highlights for Placemaking – Portal Park



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- **Peruse the rough draft of the Community-Supporter Action Item List.**
- **Anything still missing?**
- **Let [Josh.Weiland@Boston.gov](mailto:Josh.Weiland@Boston.gov) know!**



# Thank You!



## ■ Next meeting:

- *Explore and Prioritize Options using Shared Goals (Benefits), Feasibility and Cost*
  - *Late October or Early November*