

KENDALL SQUARE MOBILITY TASK FORCE

Meeting #10
Public Meeting #2
February 28, 2017





AGENDA

- Review Boards 30 min
- Presentation 35 min
 - Overview of Task Force
 - Background
 - Draft Recommendations
- Question and Answer, Review Boards and Provide Comments 55 min





KENDALL SQUARE MOBILITY TASK FORCE

- Established in 2015 to take a comprehensive look at mobility issues in the Kendall Square area of Cambridge
- The process was focused on existing mobility issues and the need to address future growth
- Task Force goal was to develop a set of policy and project recommendations



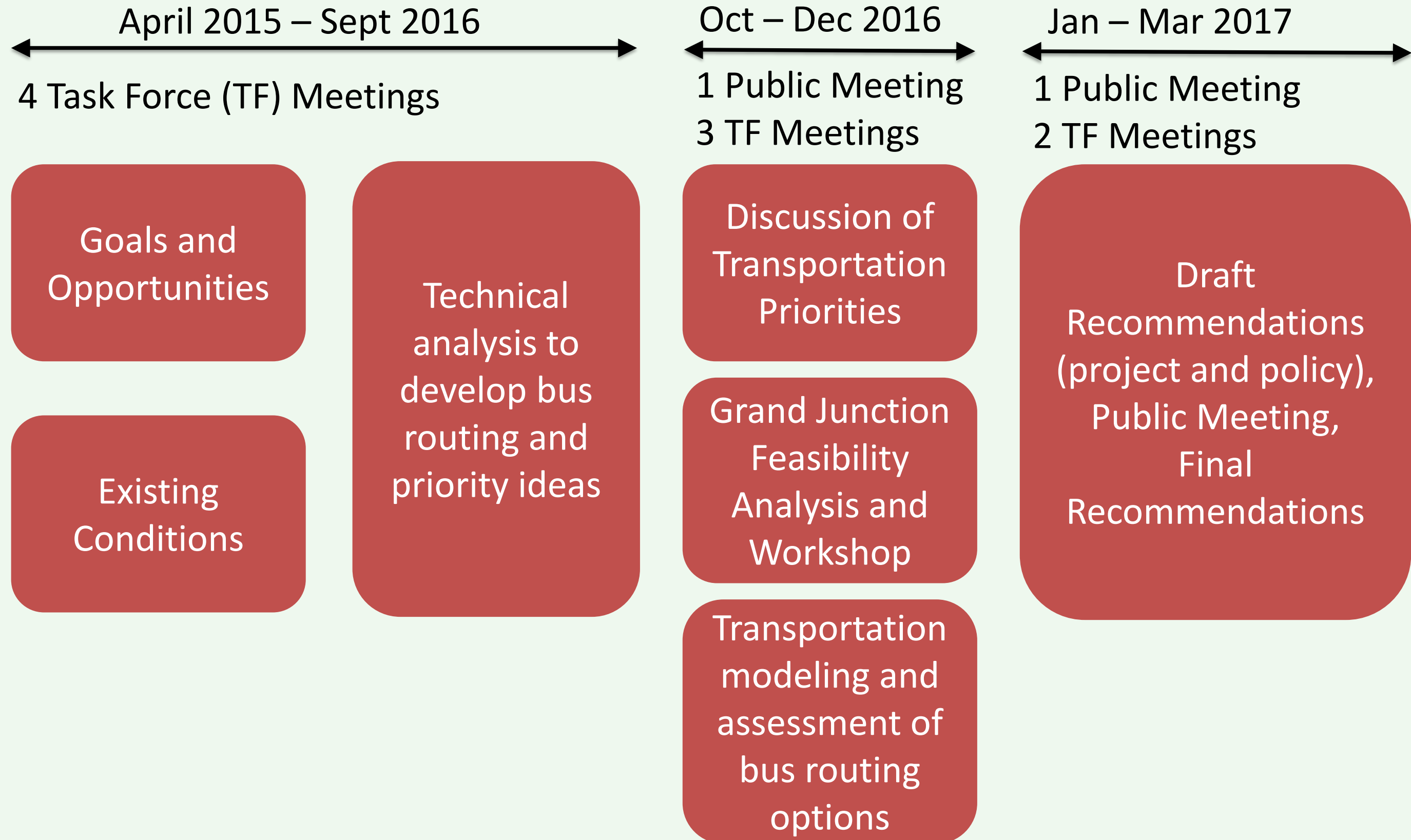
TASK FORCE MEMBERS

Kendall Square Mobility Task Force Members			
Co-chairs			
City of Cambridge, Environmental & Transportation Planning Division: Susanne Rasmussen		Kendall Square Association/Cambridge Innovation Center: Brian Dacey	
Agencies			
MassDOT: Scott Hamwey	MBTA: Melissa Dullea	Charles River TMA: Jim Gascoigne	Volpe National Systems Center: Robert Dorer
City of Cambridge, Traffic, Parking, and Transportation: Joe Barr		Cambridge Redevelopment Authority: Tom Evans	
Businesses/Developers			
Biogen: Chris Barr		Boston Properties: Mike O'Hearn	
Institutions/Associations/Advocates/Other			
MIT: Kelley Brown	MIT Investment Management Company: Michael Owu	Livable Streets Co-founder/MIT student: Jeffrey Rosenblum	Friends of the Grand Junction: John Sanzone
East Cambridge Planning Team: Peter Crawley		East Cambridge Business Association: Patrick Magee	

<http://www.cambridgema.gov/CDD/Projects/Transportation/kendallsquaremobilitytaskforce>



TASK FORCE WORK





BACKGROUND: KENDALL SQ. GROWTH

TIGHTEST OFFICE MARKET IN THE COUNTRY STARTING TO LOSE BUSINESS?

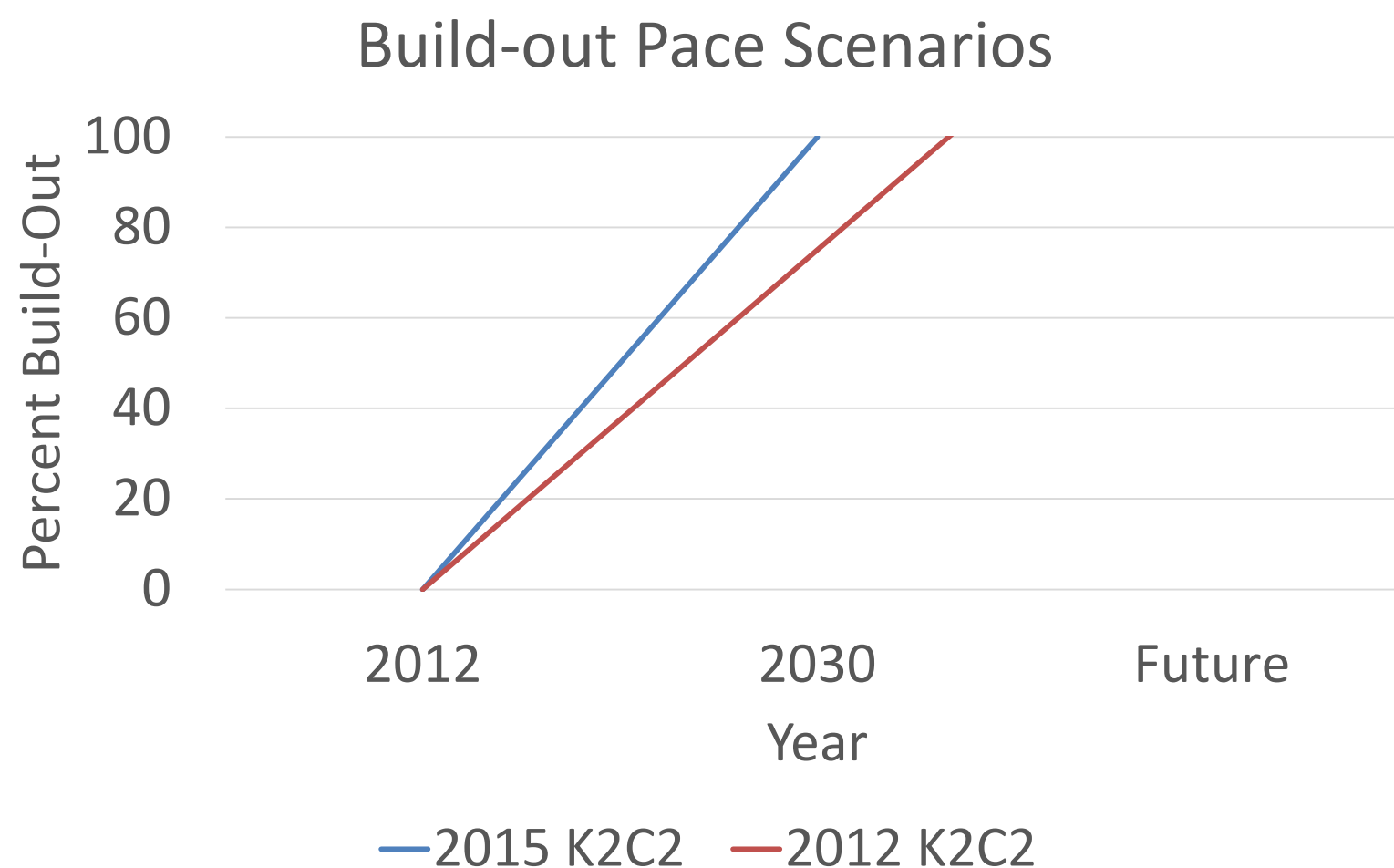
Feb 21, 2017 | Cameron Sperance, Bisnow Boston 



The Cambridge-Boston office market is the tightest in the country. Its practically zero-vacancy climate is causing the life science industry to elbow out technology and startup companies, leaving subleasing as the only option to find space.

BACKGROUND: KENDALL SQ. GROWTH

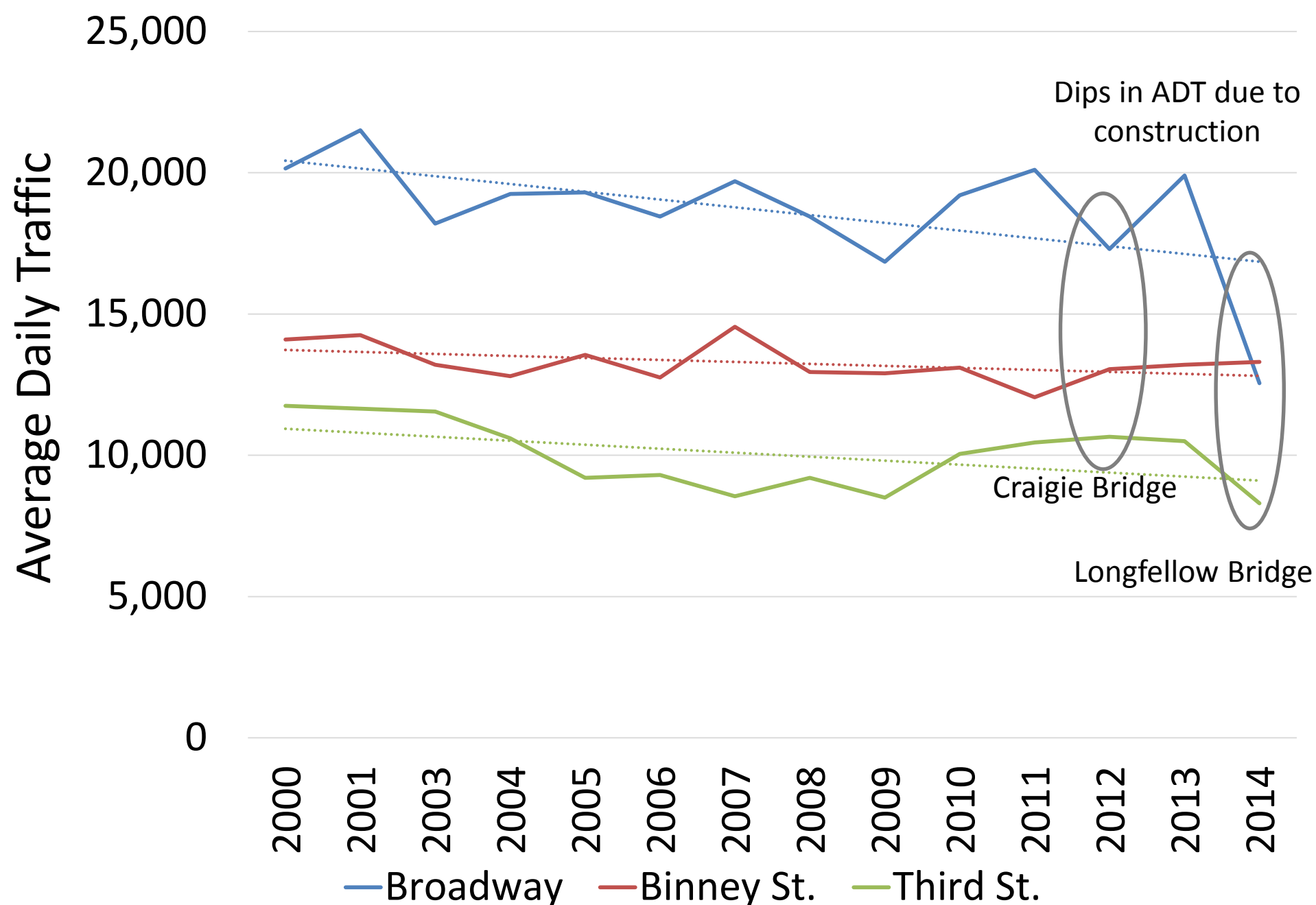
- MIT received approval for a zoning change to build significant additional square footage in 2013
- Boston Properties/Cambridge Redevelopment Authority were approved for an additional one million square feet in 2015
- The planned development could happen at a faster pace than was anticipated in a Kendall Square planning process (K2C2) carried out in 2012 to assess the potential transportation impacts





BACKGROUND: KENDALL SQ. GROWTH

**Kendall Square Average Daily Traffic
with Trend Lines**



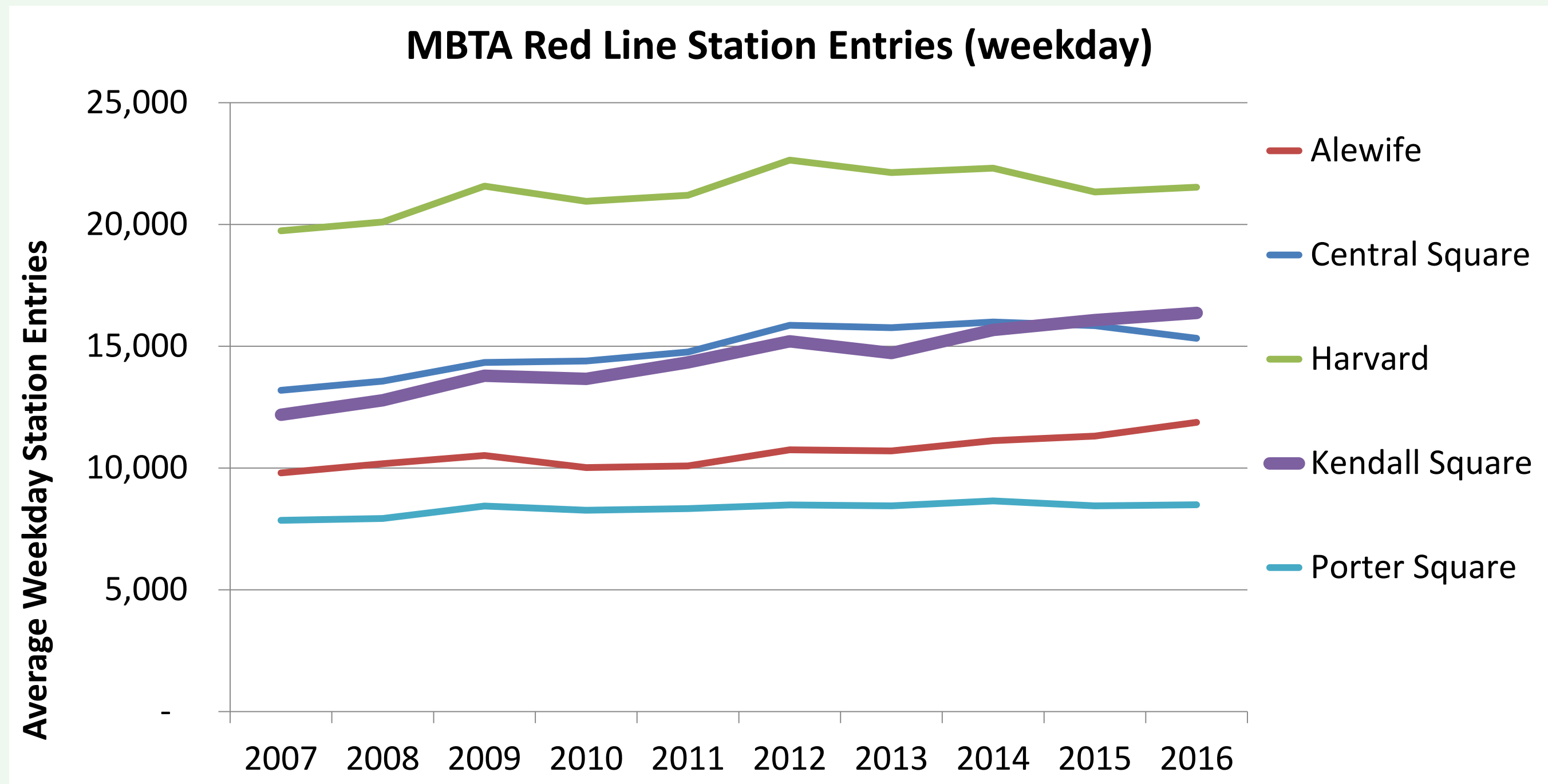
- Added more than 4.5 million square feet in Greater Kendall since 2000
- An additional almost 1 million square feet are currently under construction
- 93% growth in built square footage (including under construction)
- Daily Traffic Volumes remained consistent or have been reduced





BACKGROUND: KENDALL SQ. GROWTH

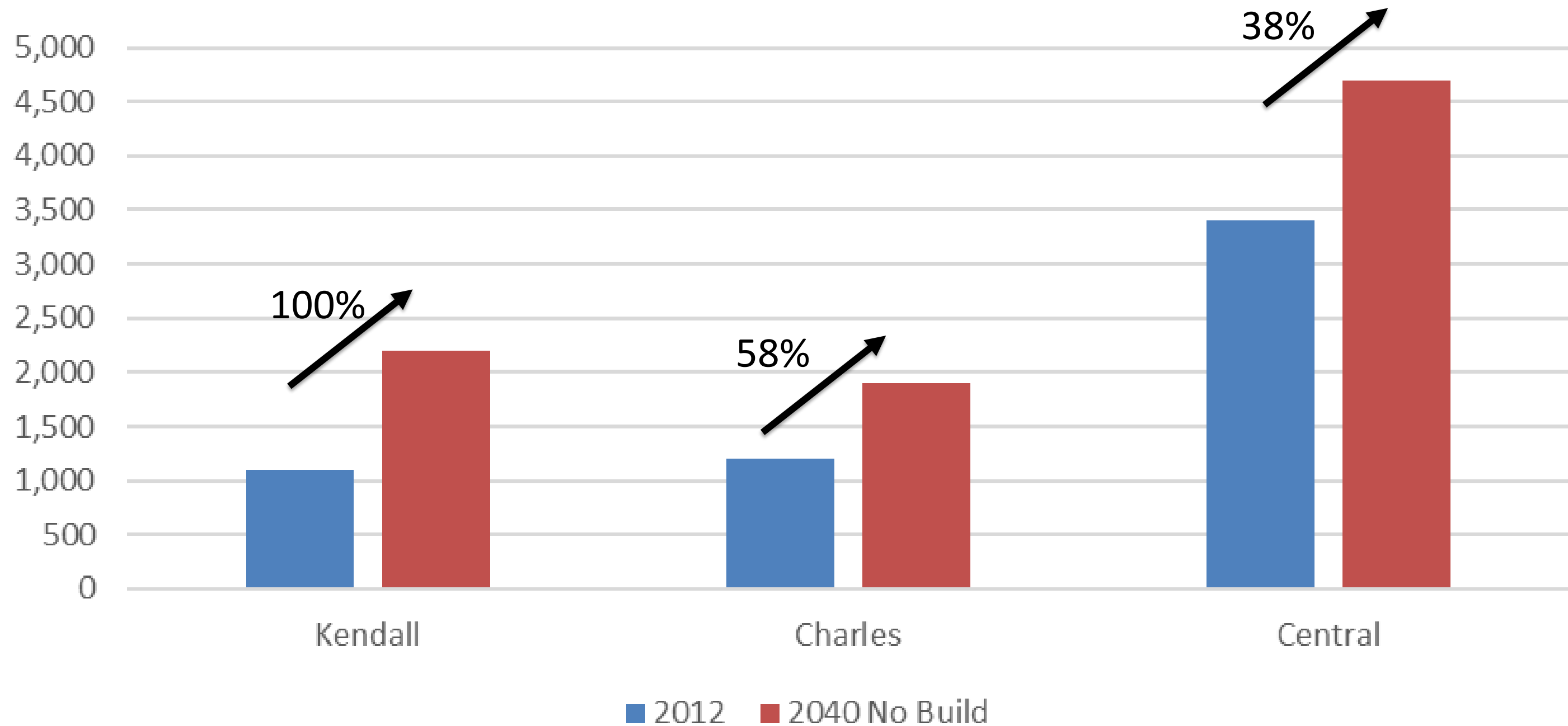
Increasing demand for Red Line, including at Kendall Sq.





BACKGROUND: KENDALL SQ. GROWTH

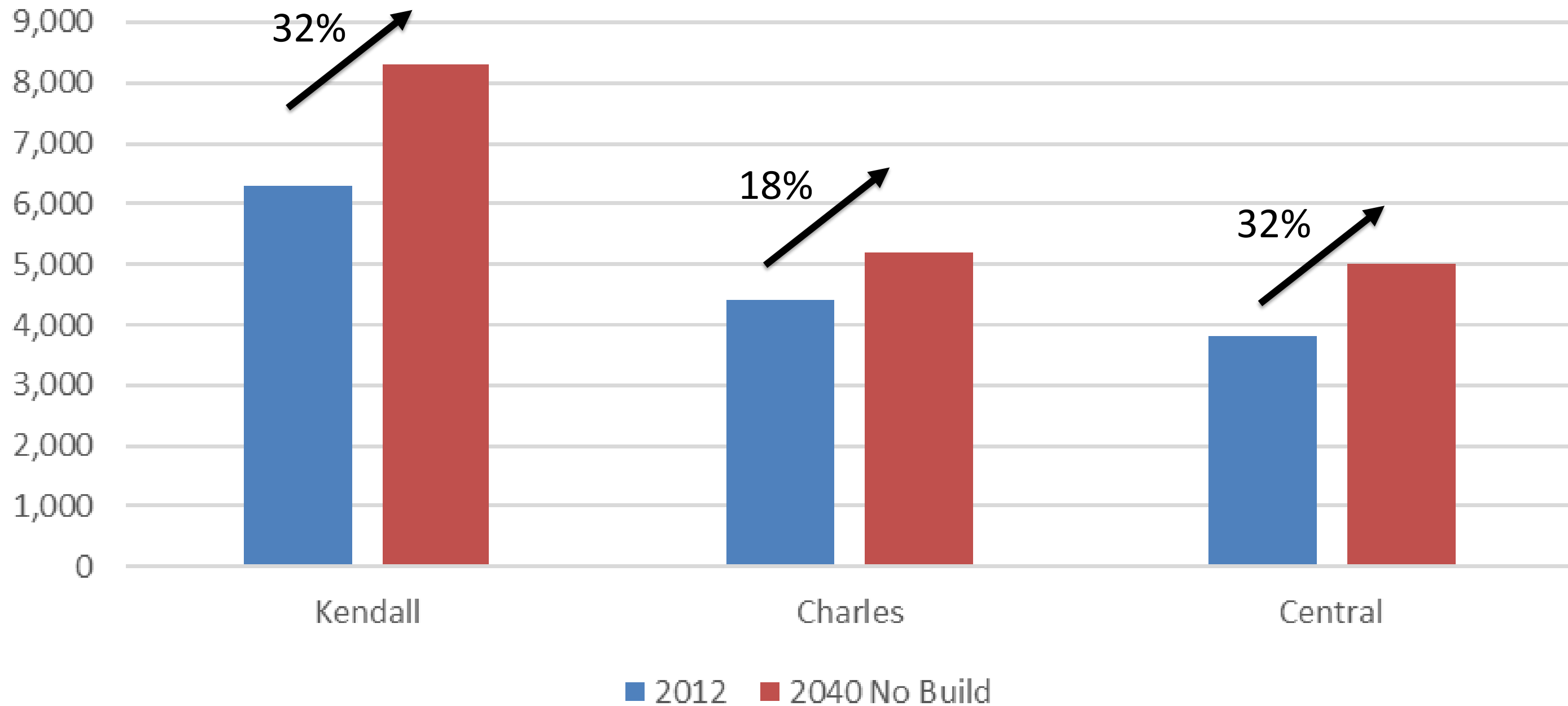
Estimated Growth in Red Line Station Entries
2012 to 2040 "No Build", AM Peak





BACKGROUND: KENDALL SQ. GROWTH

Estimated Growth in Red Line Station Entries
2012 to 2040 "No Build", PM Peak



KSMTF FOCUS AREAS

Five major focus areas determined by the Task Force, and presented at the first public meeting include:

- 1. Increasing direct transit access (fewest transfers)**
- 2. Improve MBTA service reliability and capacity**
- 3. Decrease challenges on local street network (improve mobility for buses, pedestrians, cyclists, cars)**
- 4. Policy and Outreach**
- 5. Increased financing**



TRANSPORTATION PRIORITIES

- Red Line capacity
- Bus
 - Bus priority corridor
 - Enhanced bus connections
- Grand Junction transportation options
- Shuttles and Transportation Network Companies (TNCs)/Ride-hailing services (Uber, Lyft, Bridj)



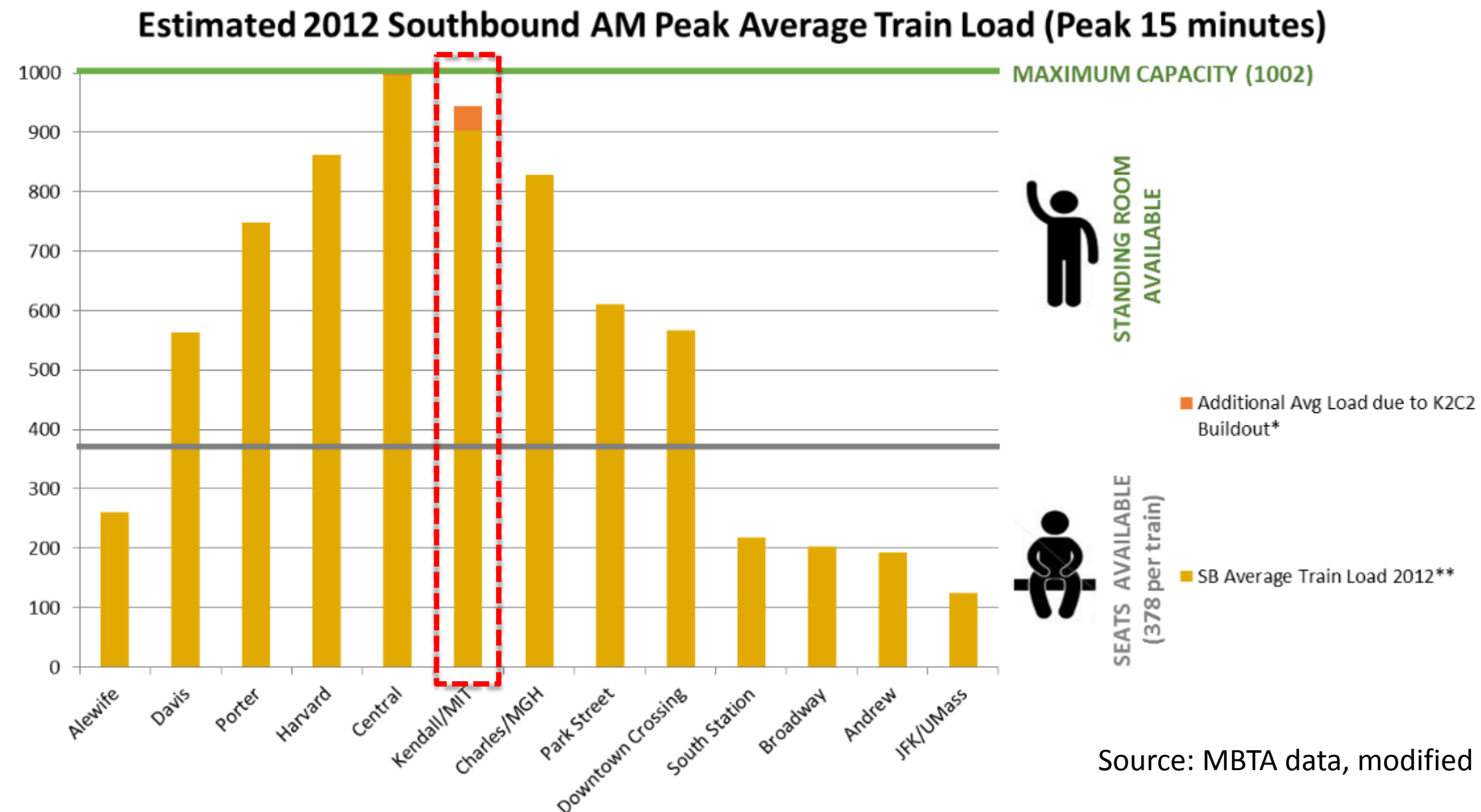
TRANSPORTATION PRIORITY: RED LINE



CHALLENGE: RED LINE CAPACITY

In **theory**, the Red Line has just enough capacity to meet demand.

BUT, in real-world conditions, people are getting left behind at stations during their commute.



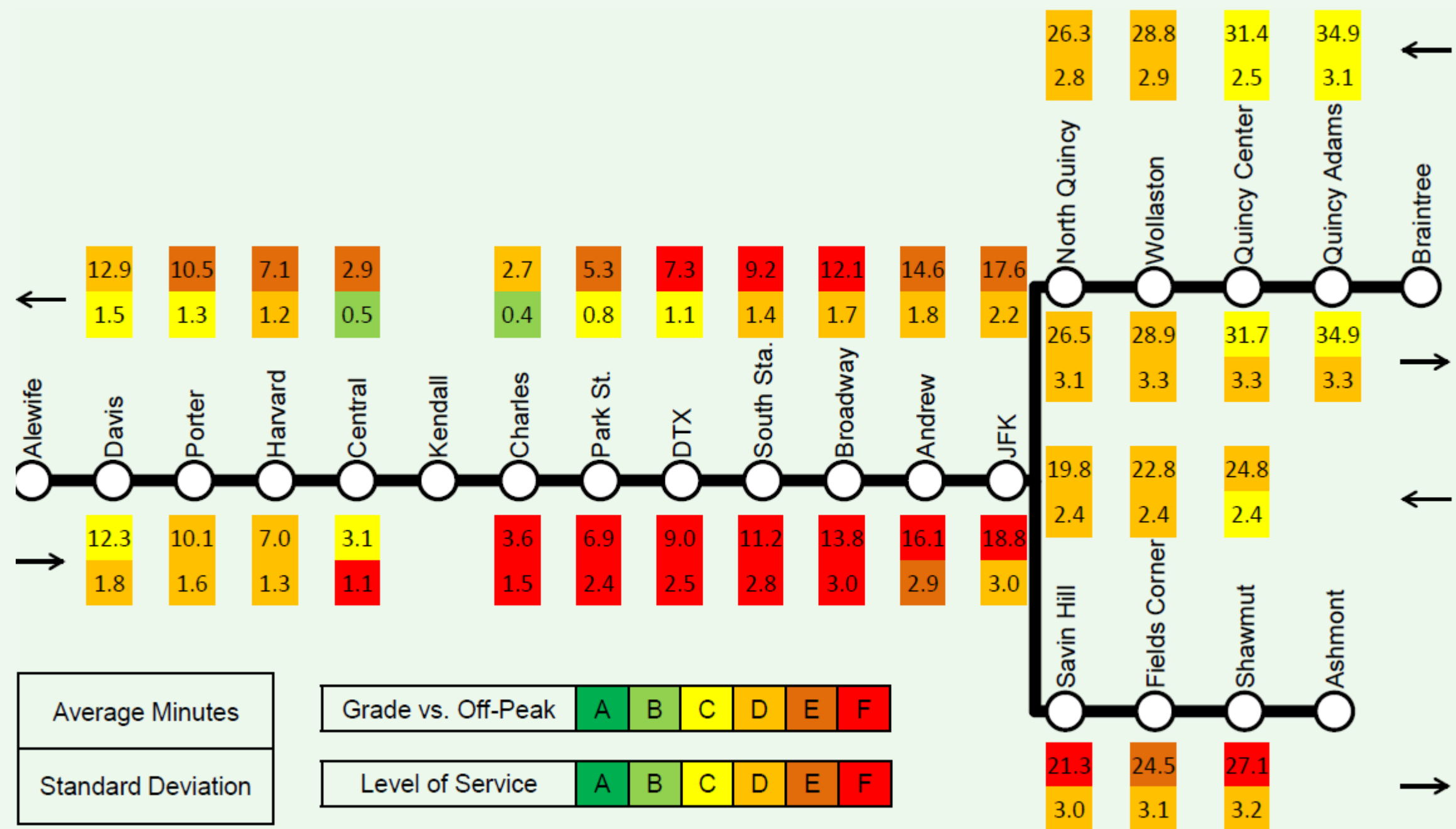
Source: MBTA data, modified

* K2C2 buildout determined from the 2013 Kendall Square Central Square Planning Study

** Average Train Load based on total station entries (from MBTA data) divided by number of total number of cars (6 per train) over all trains (13.333 per hour) during the time period. Uses Peak Factor = 1.5 (from MIT Kendall Square Initiative TIS, certified by TP&T on July 21, 2015)

CHALLENGE: RED LINE QUALITY

The Red Line is both **slow** (9.4-11.6mph) and **unreliable** with excessive wait times.

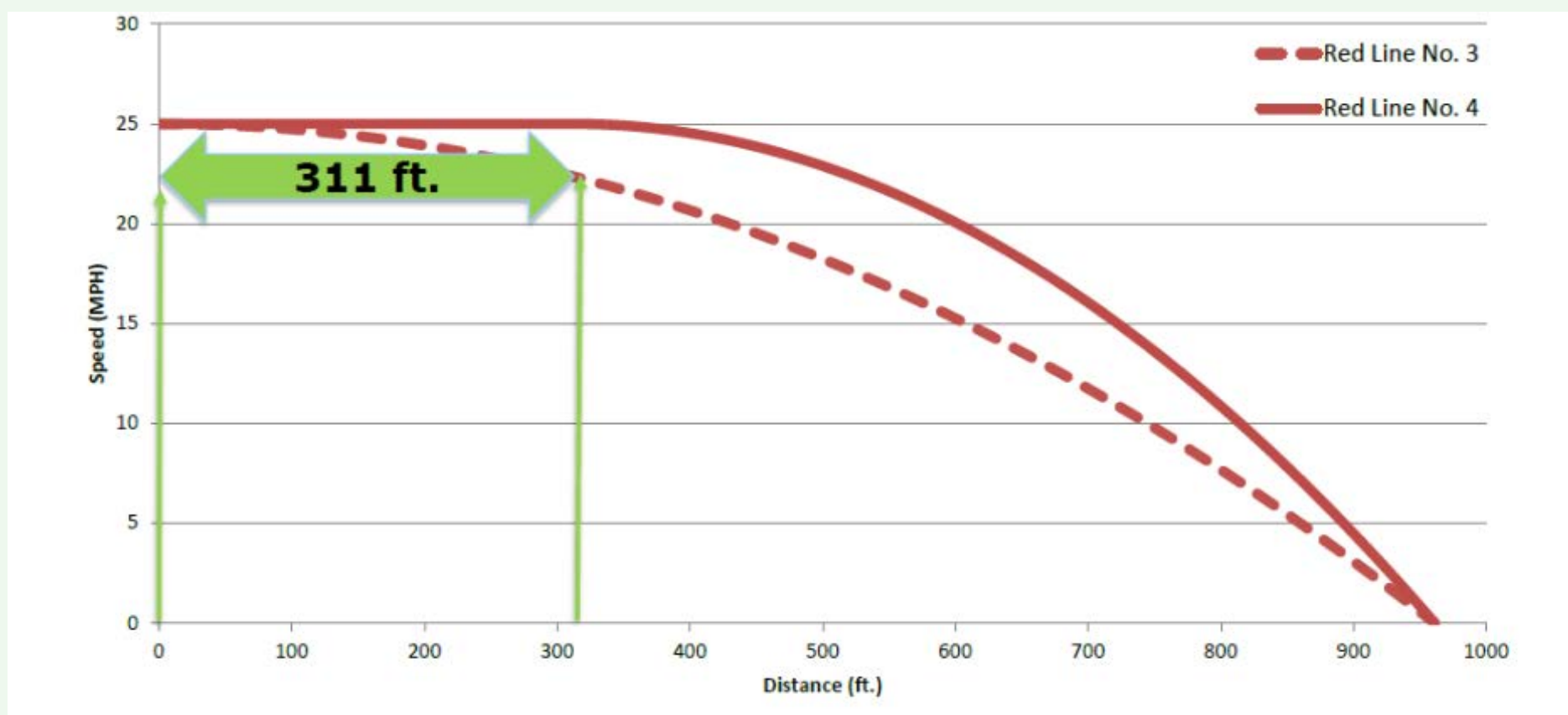




CURRENT RED LINE IMPROVEMENTS

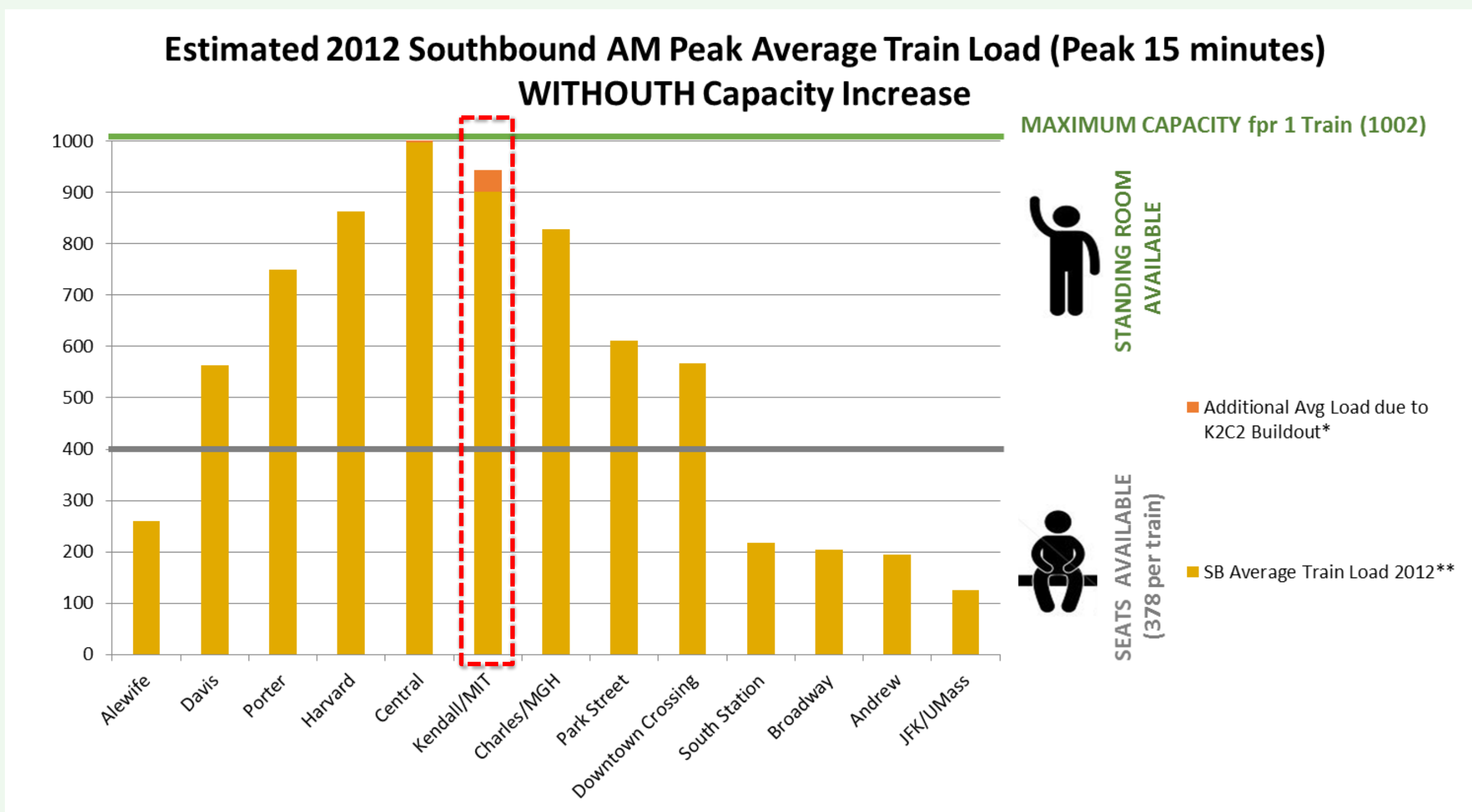
The Fiscal and Management Control Board approved the purchase of all new Red Line cars (to be in place by 2024)

- The new cars reduce braking distance by 30%, so they run faster for longer
- **Theoretically**, this will allow for 20, instead of 13, trains per hour
- A Better City (ABC) received funding from the Barr Foundation to review the assumptions of MBTA capacity analysis



CURRENT RED LINE IMPROVEMENTS

Effect of purchase of new Red Line cars (theoretical)

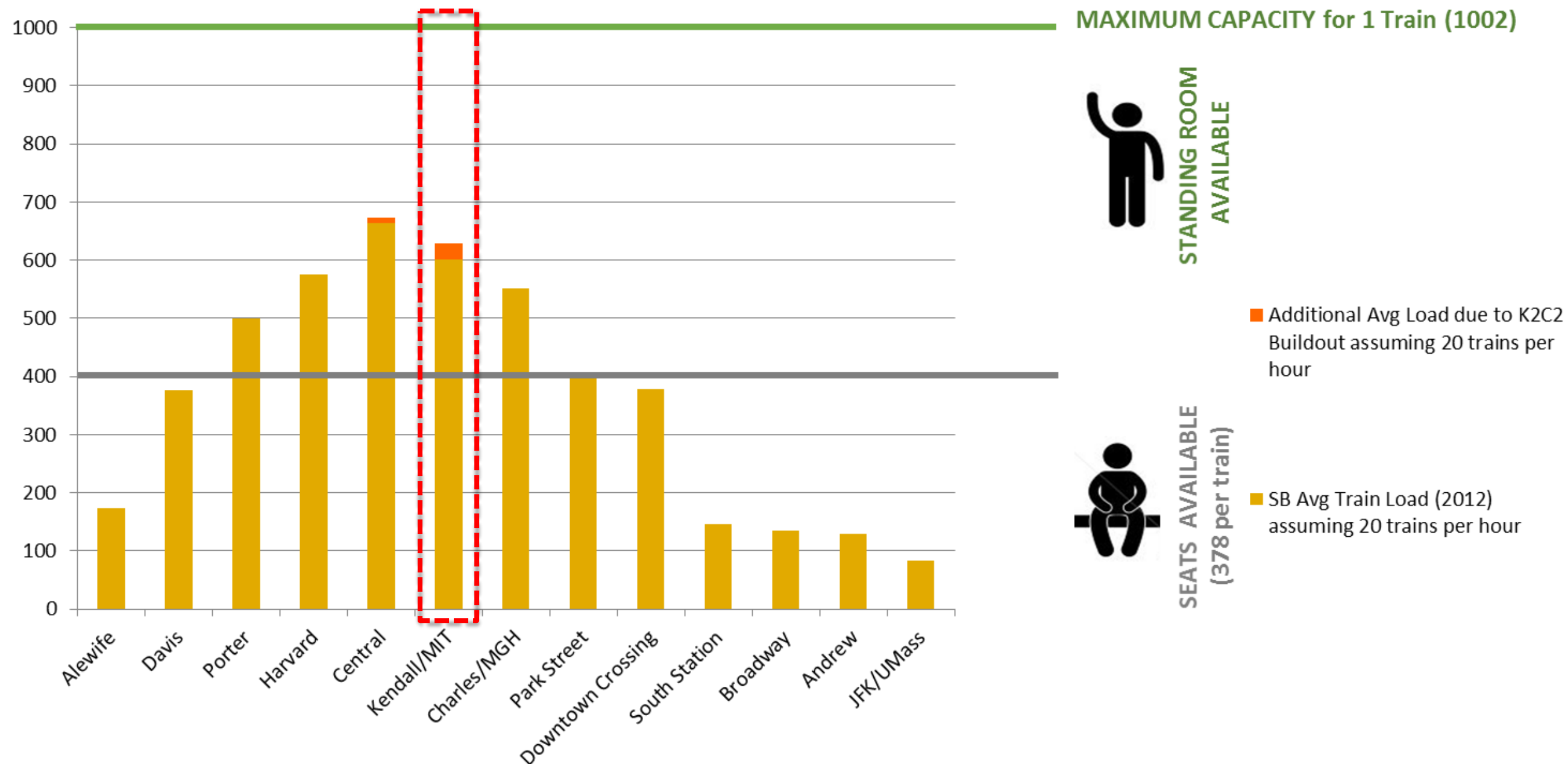




CURRENT RED LINE IMPROVEMENTS

Effect of purchase of new Red Line cars (theoretical)

Estimated 2012 Southbound AM Peak Average Train Load (Peak 15 minutes)
with Capacity Increase





CURRENT RED LINE IMPROVEMENTS

- Headhouses
 - MIT will reconstruct the south headhouse
 - Boston Properties will fund up to \$400k towards repairs of the north headhouse



DRAFT RECOMMENDATIONS: RED LINE

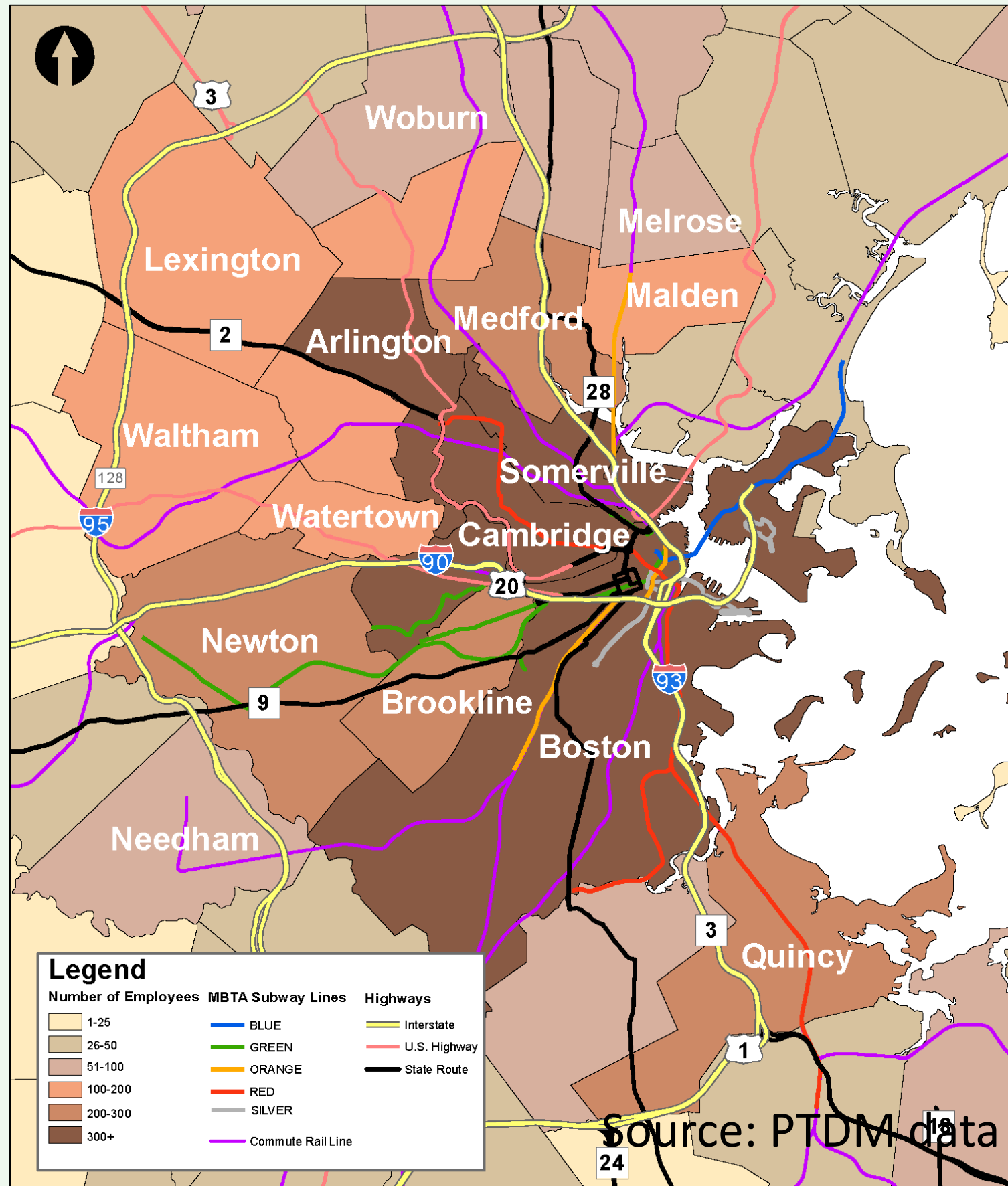
- Review results of ABC analysis and advocate for continuing analysis of further capacity improvements, if needed
- Advocate for exploring additional station improvements that could accomplish:
 - Quicker boarding (e.g. marking platforms where to wait)
 - Increased capacity for passengers entering, existing, and waiting at Kendall Station as demand grows
- Advocate for repairs to the Red Line portal and including it in the MBTA's vulnerability and resiliency assessment



TRANSPORTATION PRIORITY: BUS



KENDALL SQUARE EMPLOYEE ORIGINS



- Greatest concentration of employees from:
 - Cambridge
 - Boston
 - Somerville
 - Arlington



KENDALL SQUARE BUS TRIPS

- 22% of transit trips to the Kendall study area arrive via bus with the most on:
 - MBTA 1 (Boston) – 6% (1,250 trips)
 - EZRide – 6% (1,225 trips)
 - MBTA 64 – 4% (775 trips)
 - MBTA 85 – 3% (625 trips)
- Of those bus trips, about 19% of passengers entering the study area are transfers to the Red Line



CHALLENGE: BUS DELAY & ROUTING

- Service planning for buses has not occurred for over eight years
- There are major gaps in transit connectivity to Kendall Square – particularly Allston/Brighton and Back Bay
- Connectivity is inadequate (slow, indirect) to other areas: North Station, other parts of Cambridge, Somerville

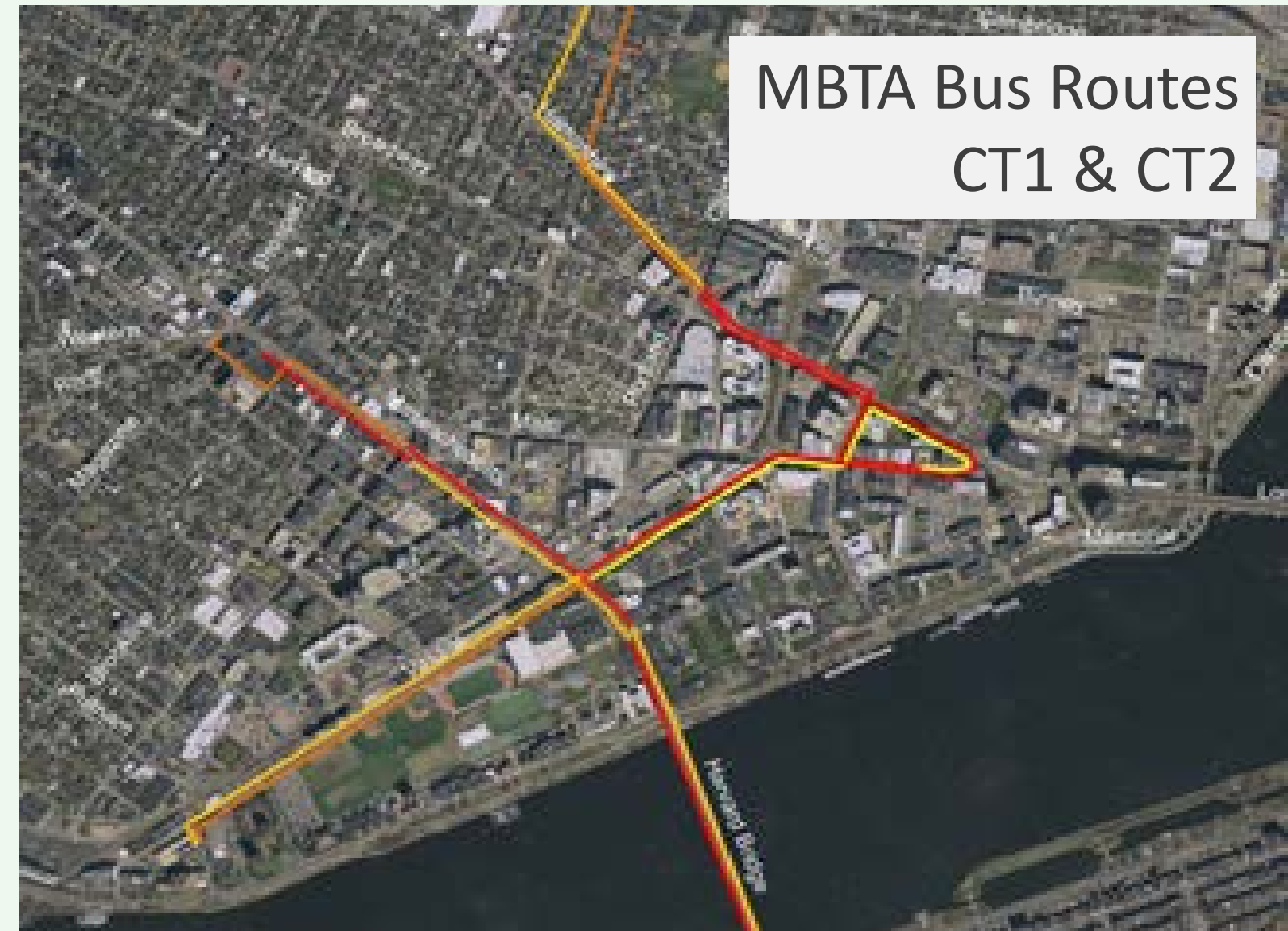




CHALLENGE: BUS DELAY

Connecting bus services are generally slow (8mph during peaks) and unreliable (level of service E and F)

PM Peak Bus Level of Service (LOS)





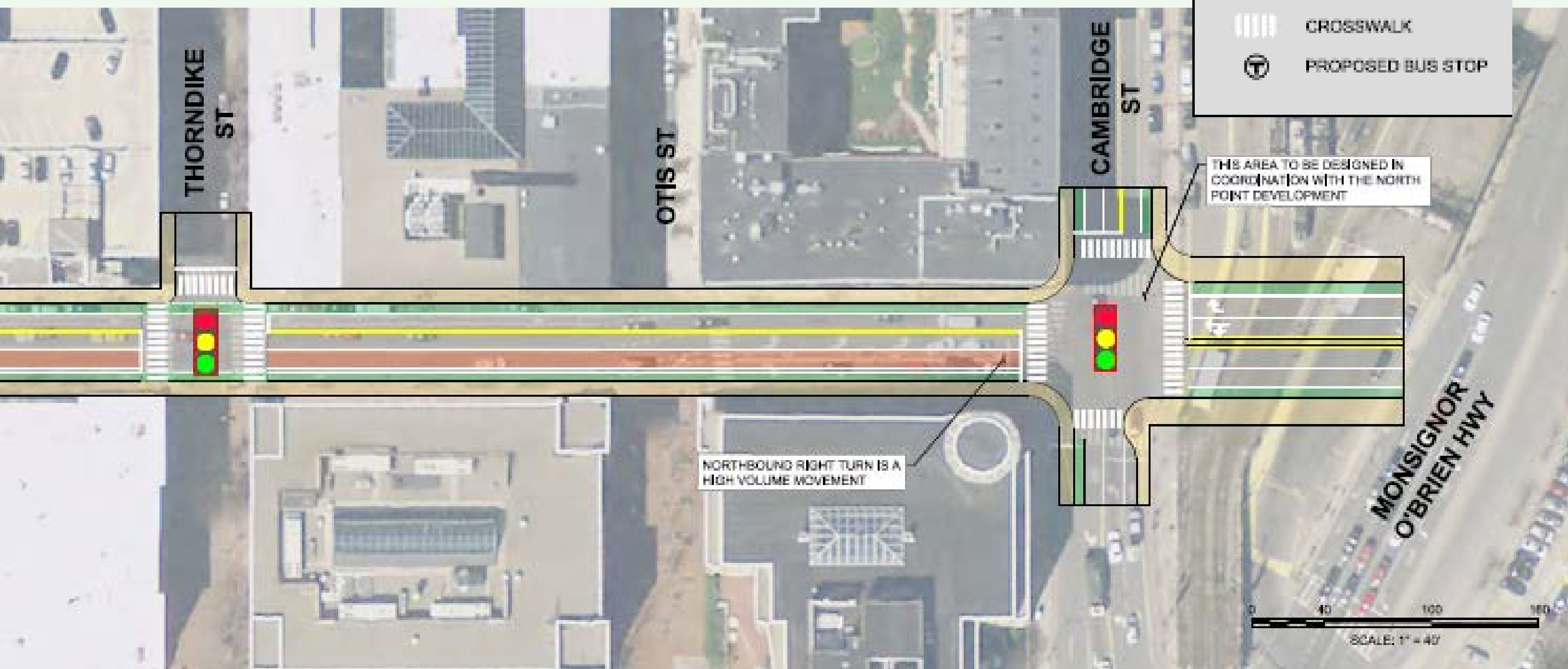
DRAFT RECOMMENDATIONS: BUS

- Consider implementing bus priority corridor, for example:
 - Sections of exclusive bus lane
 - Queue jumpers
 - Transit signal priority
- Possible locations for consideration:
 - First Street
 - Binney between First and Third
 - Third or continue on Binney/Galileo Galilei Way



DRAFT RECOMMENDATIONS: BUS

- Example of bus priority treatment on First Street
(concept only, NOT a final recommendation for design)



DRAFT RECOMMENDATIONS: BUS

- Next steps for bus priority corridor include:
 - Better understand implications for current curb uses
 - Develop case for benefits and more detailed designs *before* implementing bus priority

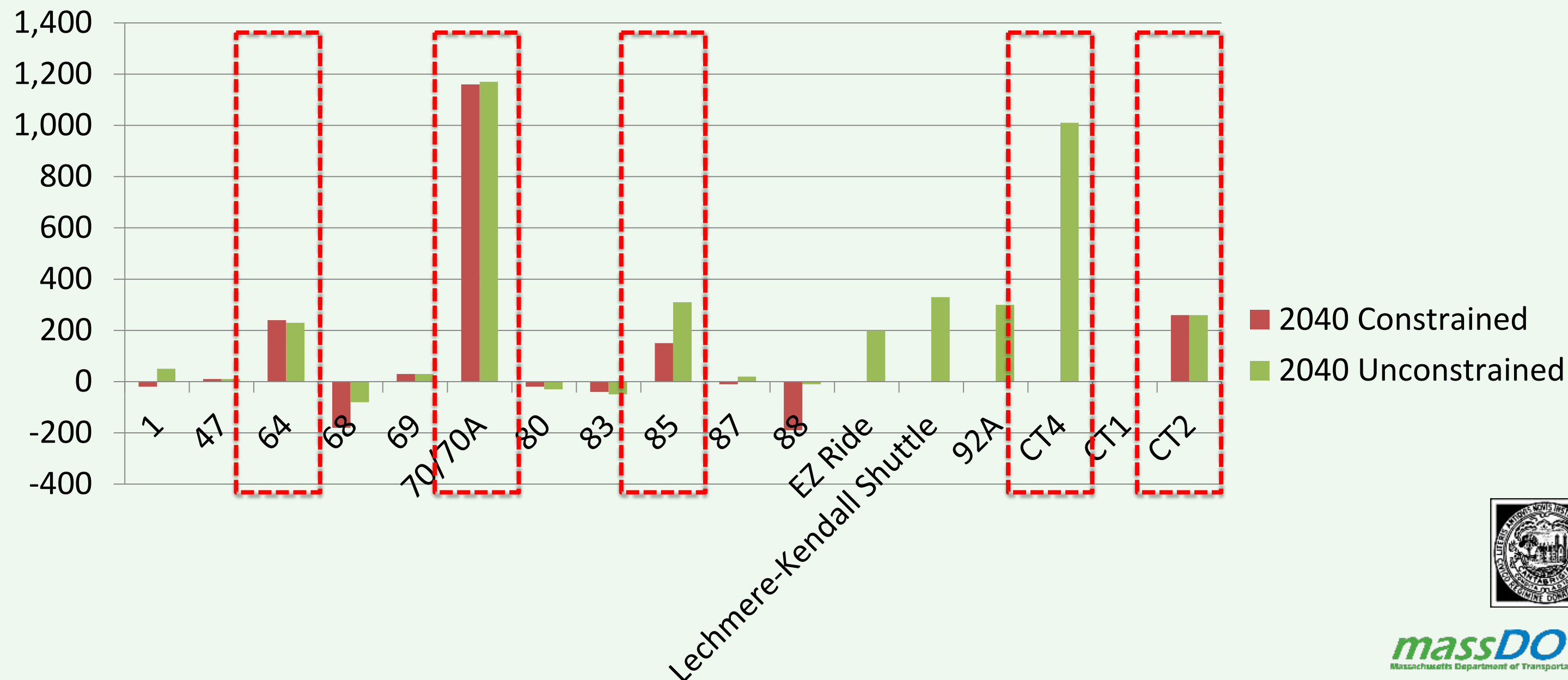


Graphic: Current curb uses

DRAFT RECOMMENDATIONS: BUS

- Draft recommended routing and service changes are based on scenario modeling

Ridership Changes from Future No Build Scenario - AM Peak Period



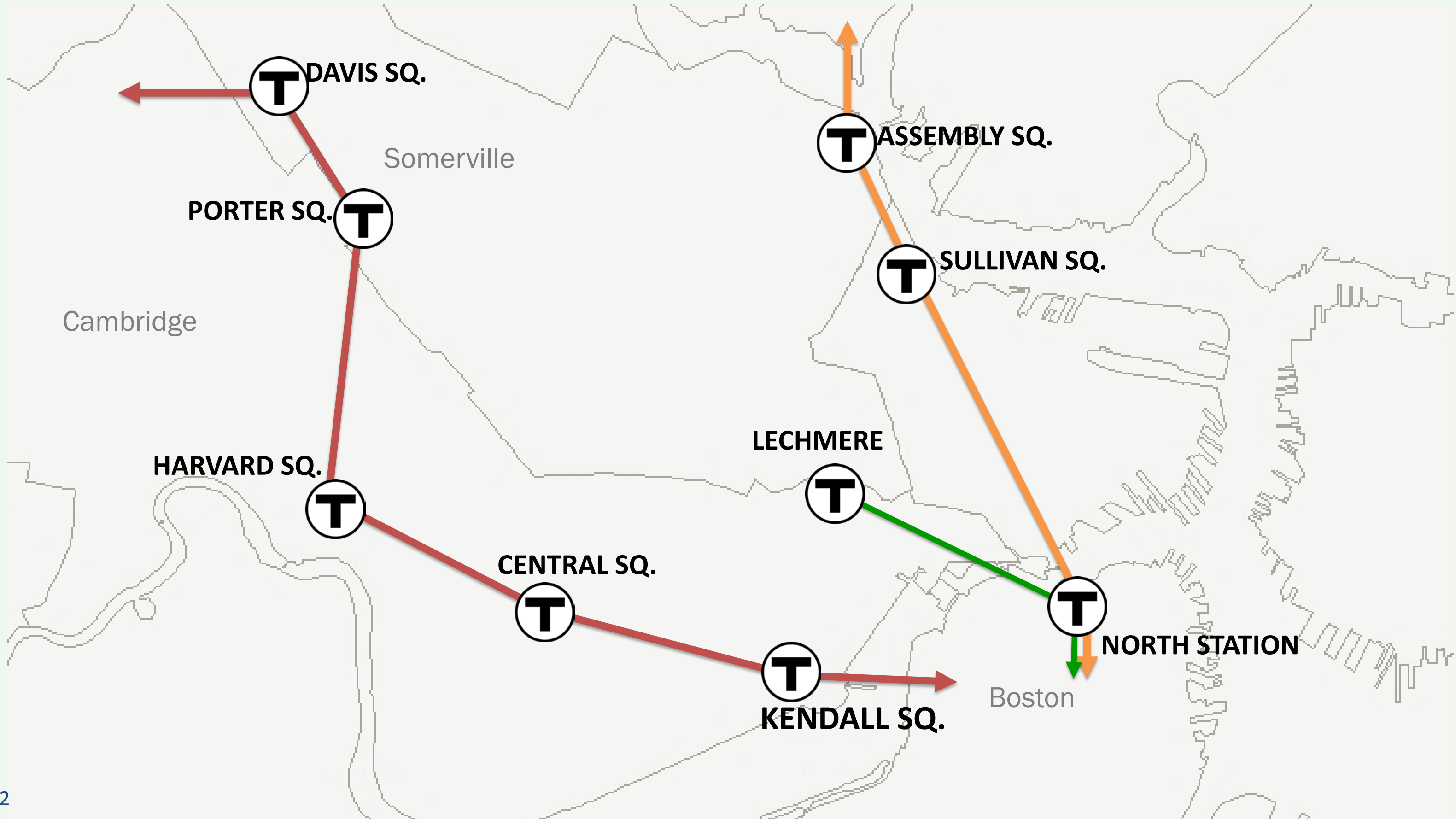
DRAFT RECOMMENDATIONS: BUS

- Draft recommended routing and service changes (requires additional resources/buses)
 - Extend 64/70 into Kendall during peak If successful, extend 64/70 all day
 - Transit Signal Priority and stop consolidation on the 85 and CT2 routing
 - Increased EZ Ride service (8.5 to 15 trips per hour per direction)
 - New “CT4” service between Sullivan, Kendall, and beyond



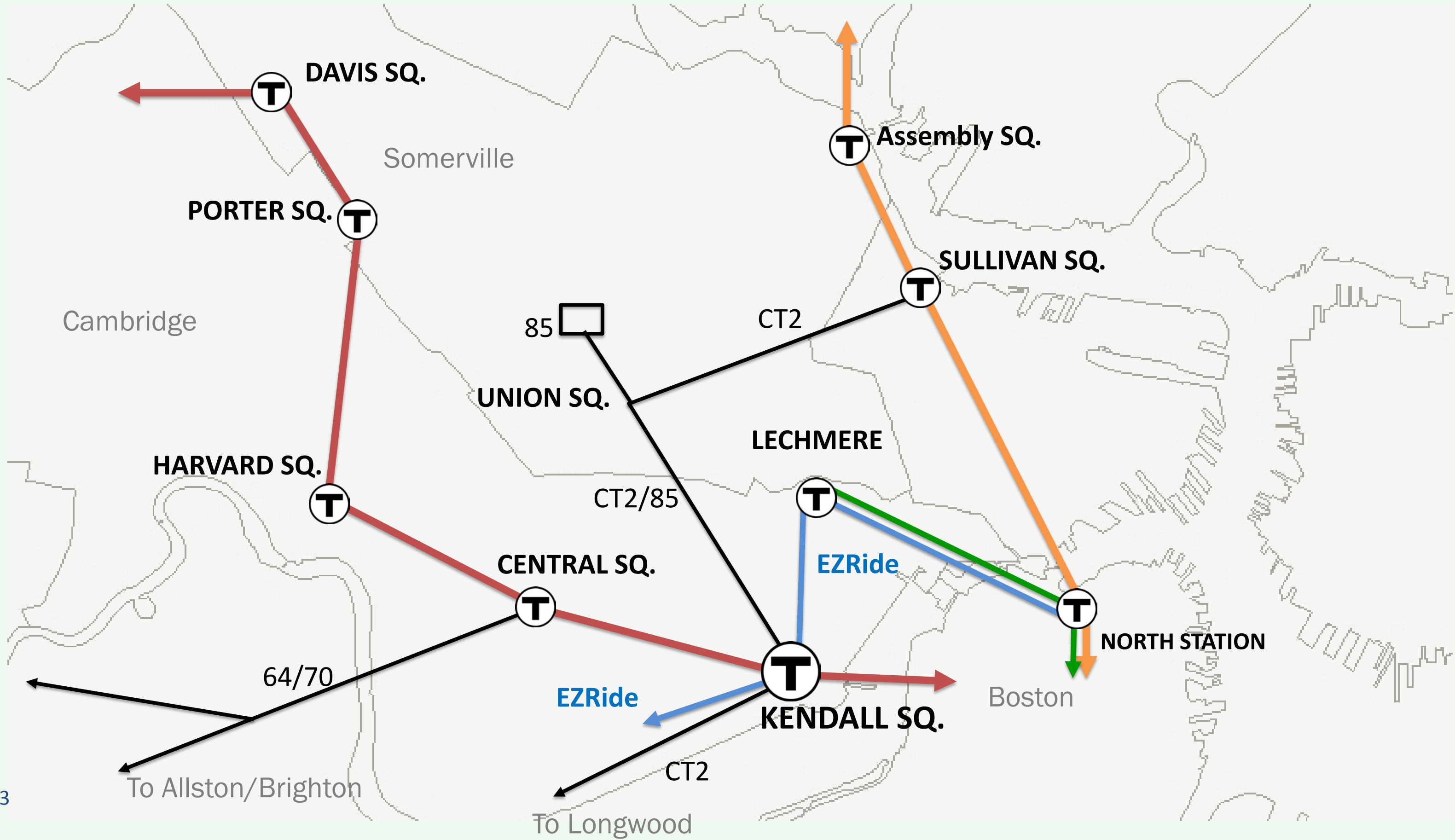


DRAFT RECOMMENDATIONS: BUS



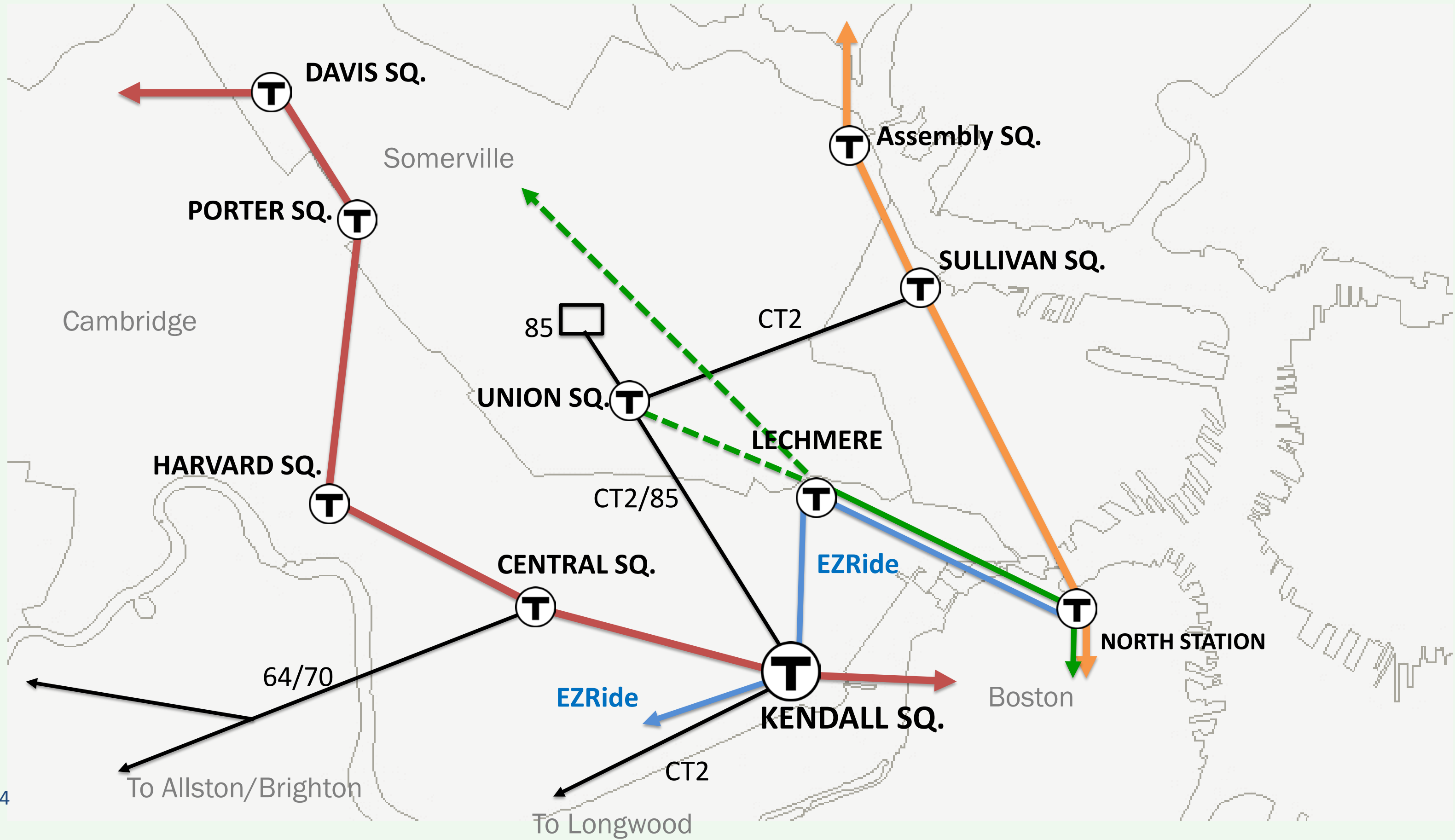


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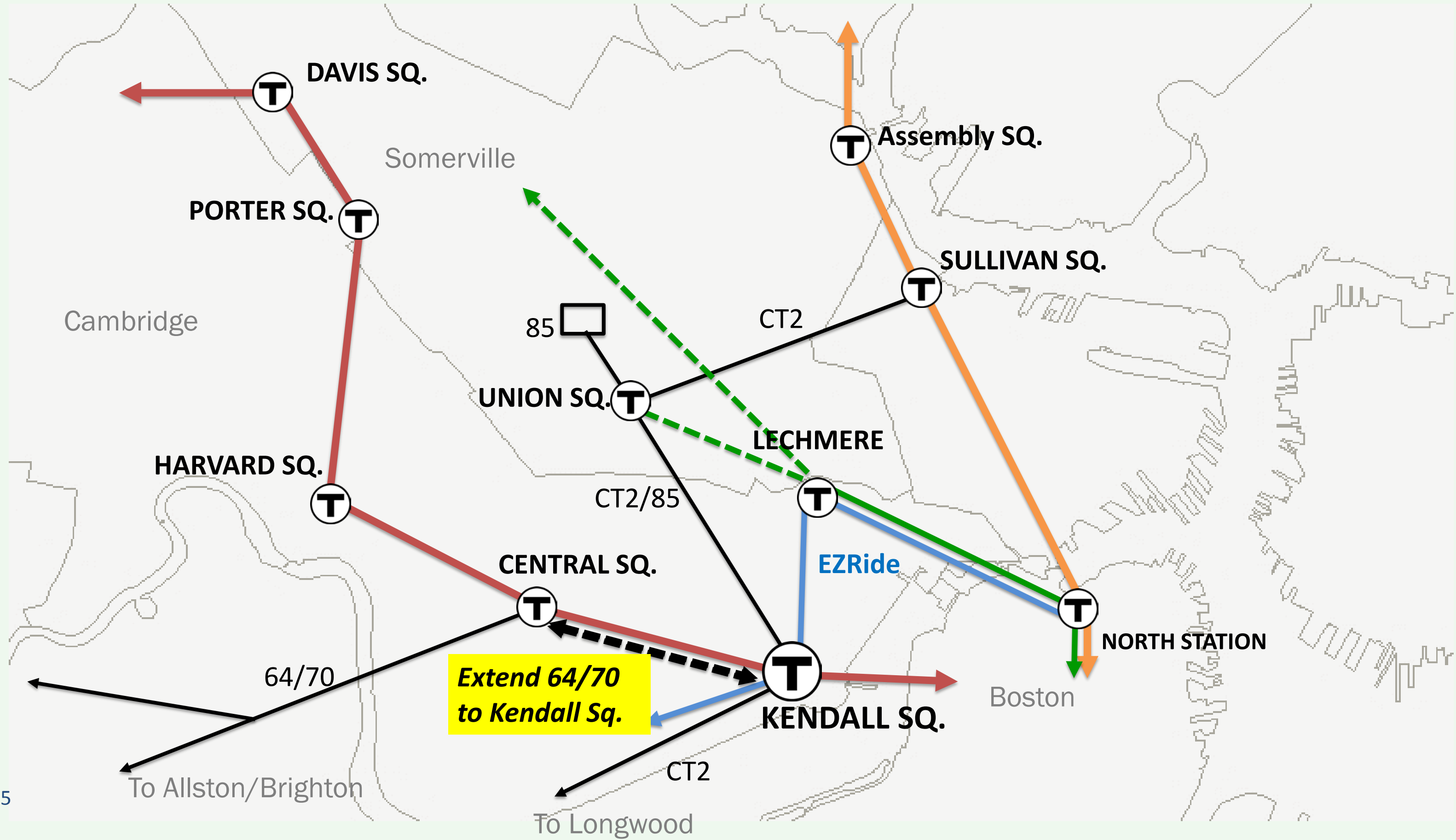


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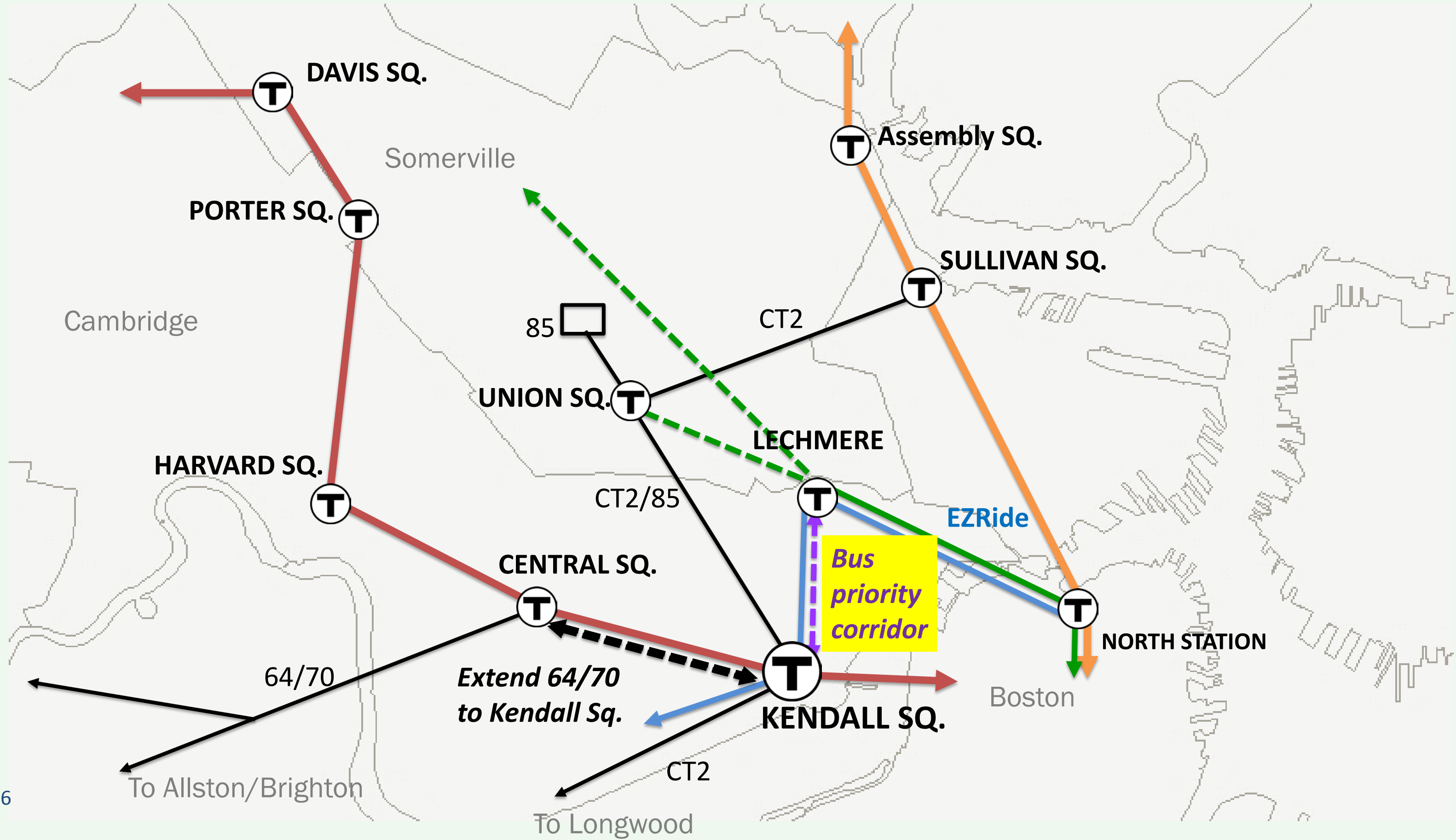




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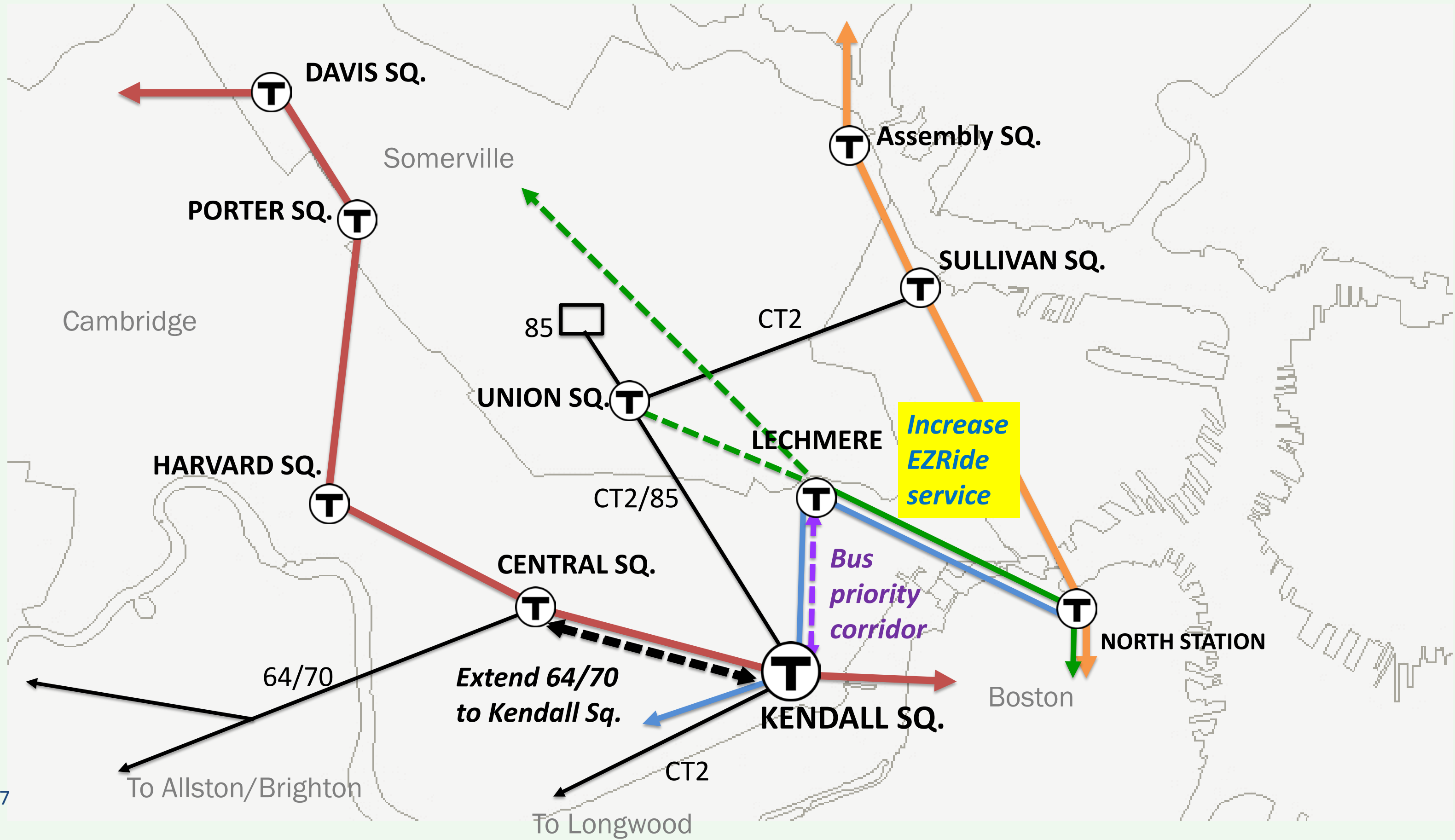


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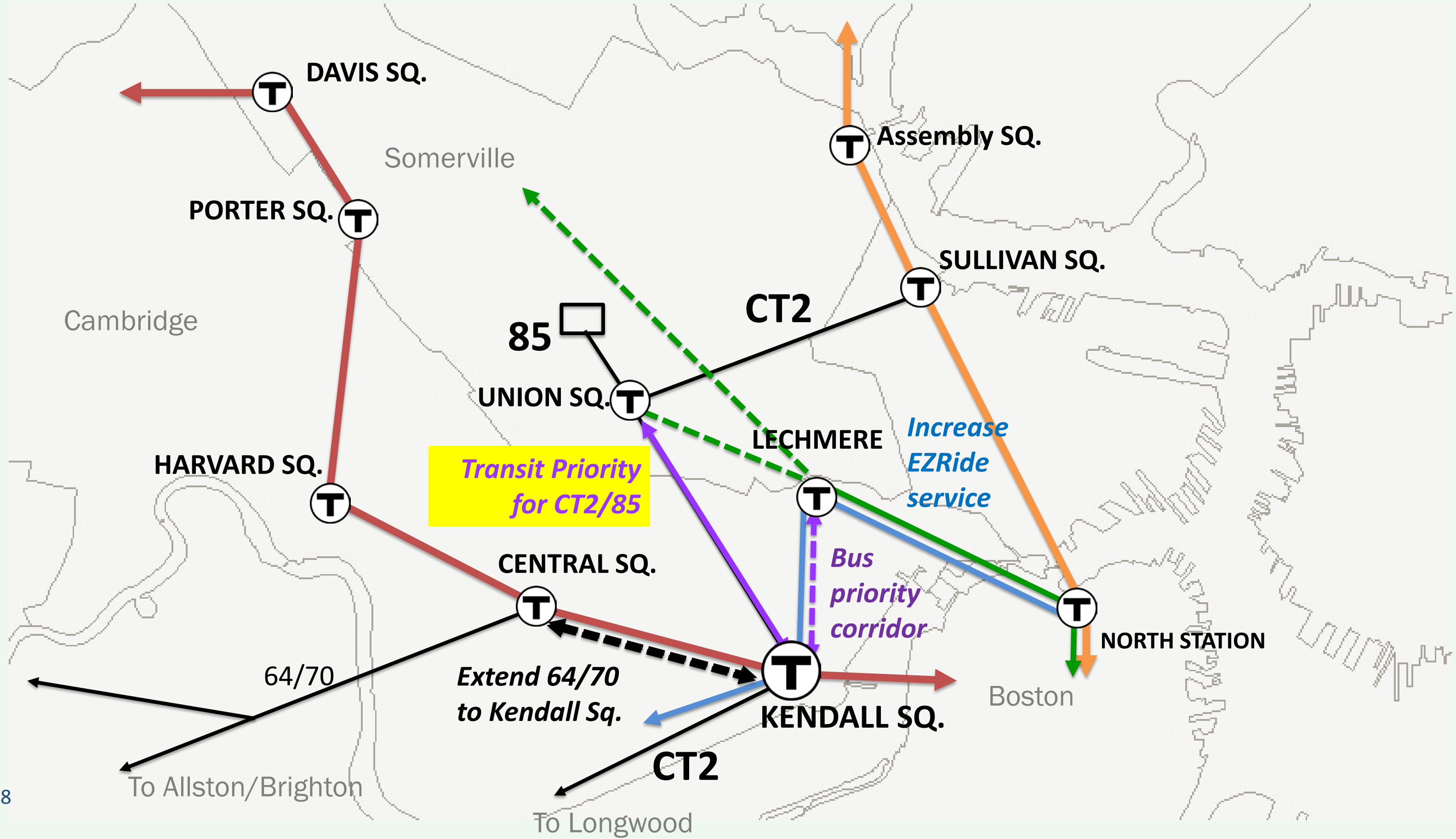


DRAFT RECOMMENDATIONS: BUS



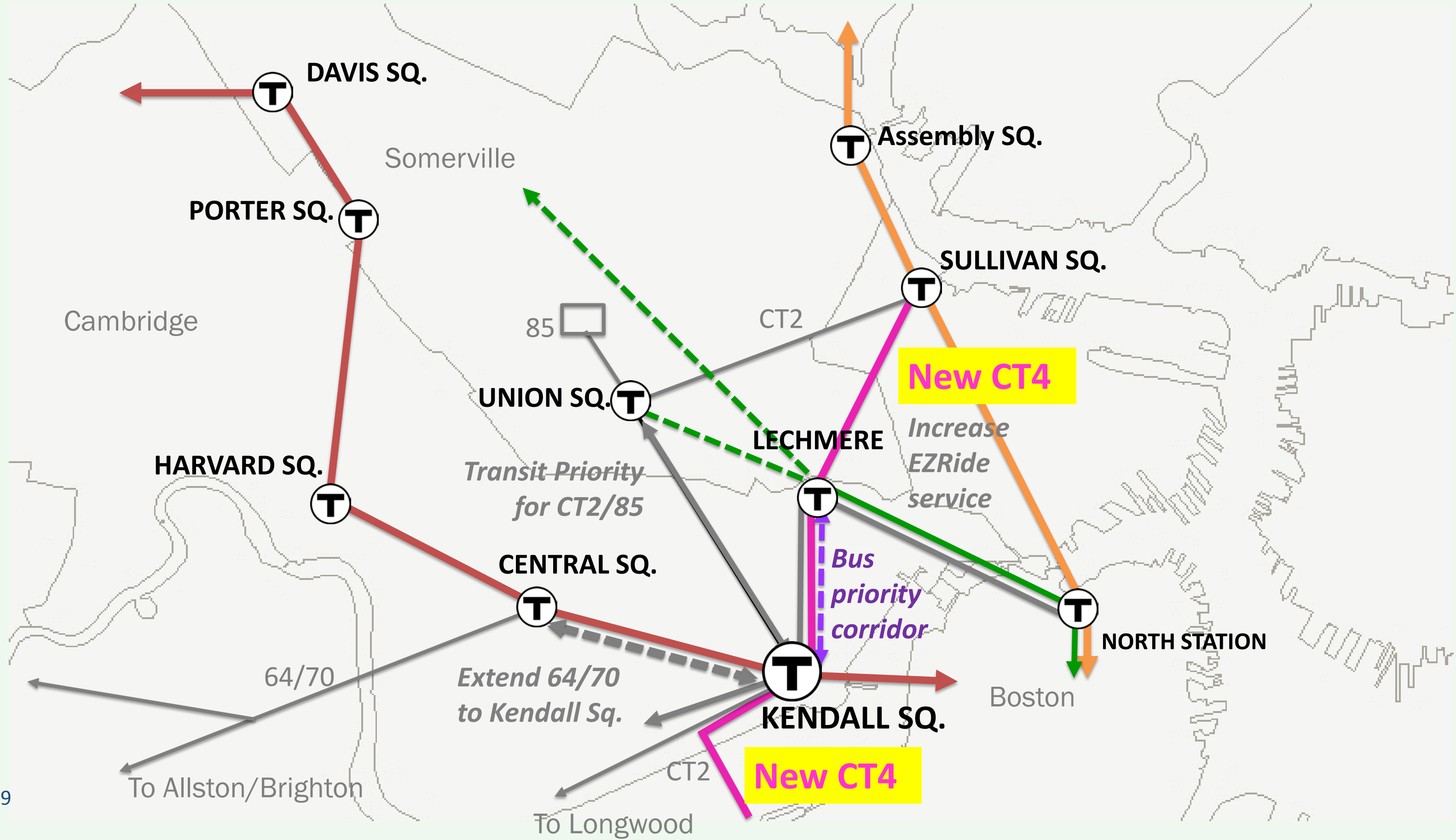


DRAFT RECOMMENDATIONS: BUS





DRAFT RECOMMENDATIONS: BUS



TRANSPORTATION PRIORITY: GRAND JUNCTION PATH AND TRANSIT

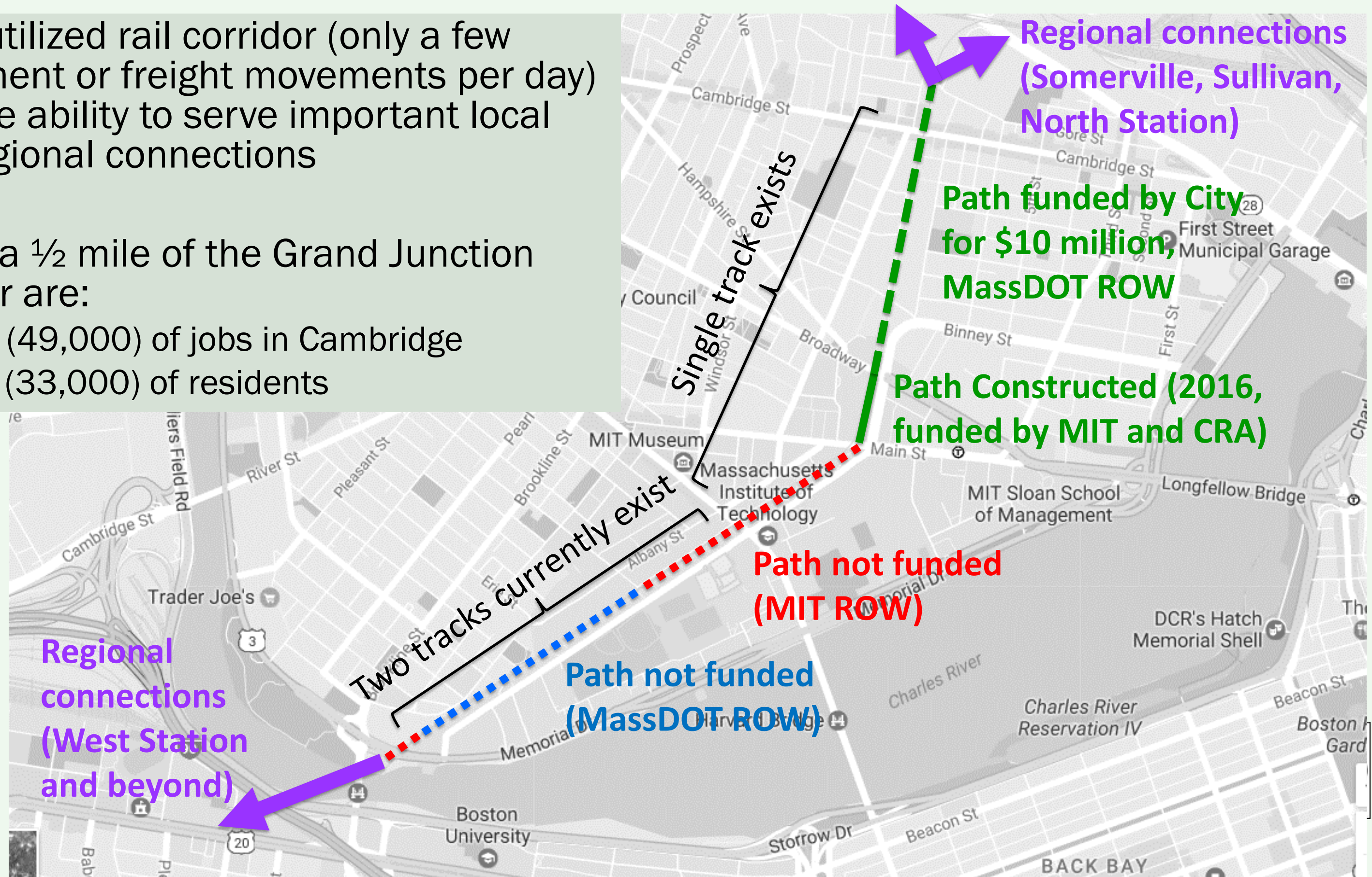


CHALLENGE: GRAND JUNCTION

Underutilized rail corridor (only a few equipment or freight movements per day) with the ability to serve important local and regional connections

Within a ½ mile of the Grand Junction corridor are:

- 42% (49,000) of jobs in Cambridge
- 31% (33,000) of residents





DRAFT RECOMMENDATIONS: GRAND JUNCTION

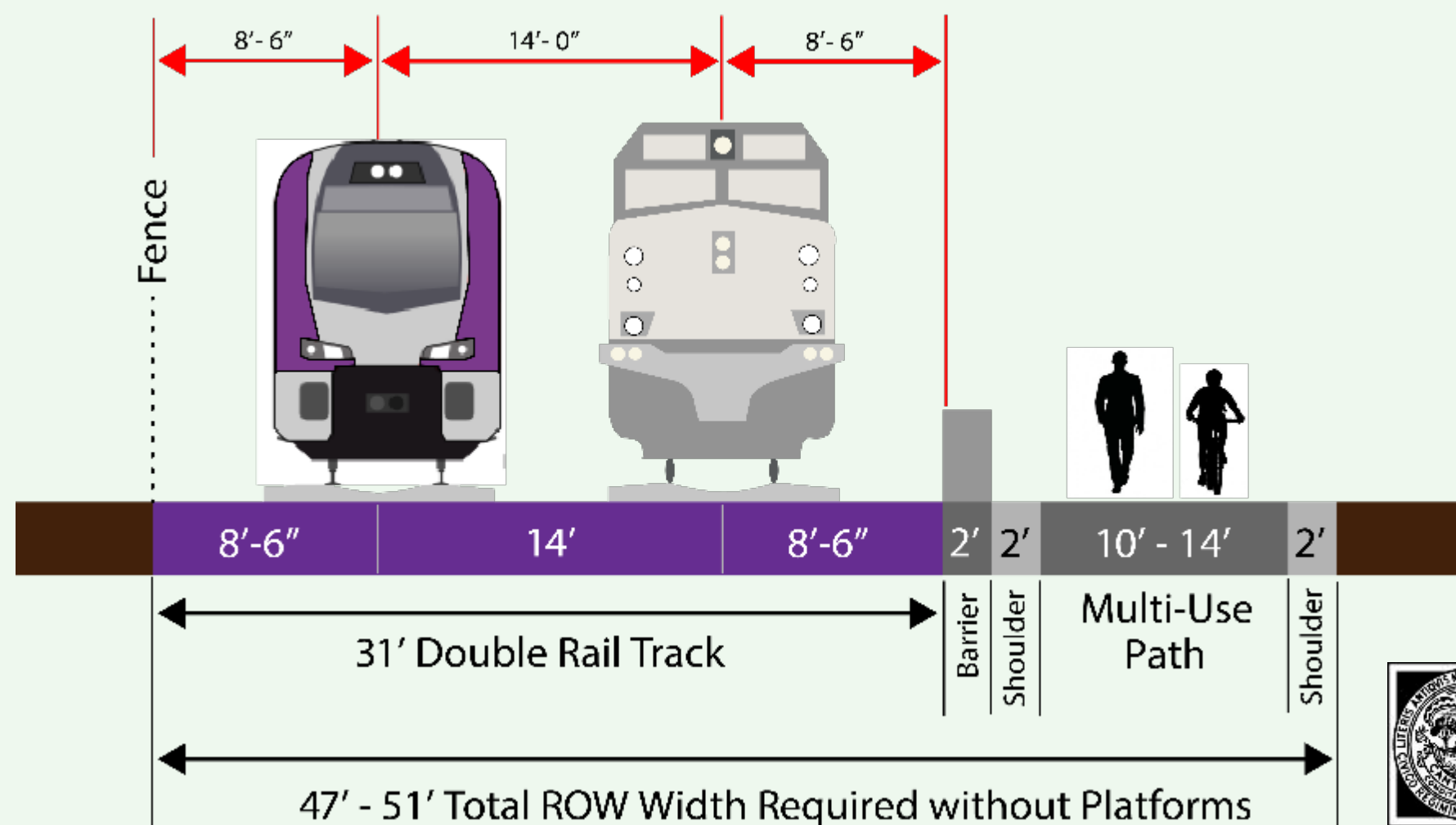
- Create a working group to collaborate on implementing the multi-use path
 - There is already wide-spread support for the path
 - City funded \$10 million for the northern portion
 - Need to engage with MassDOT regarding planning for Rail with Trail
- Clearly define the goals for the design of the path related to transit:
 - Maximize flexibility for allowing for future transit
 - Accommodate 6-15 minute frequency (two-tracks)
 - Enable more regional connections (North Station, West Station, GLX, regional path network)





DRAFT RECOMMENDATIONS: GRAND JUNCTION

- Transit Recommendations:
 - Finish ROW survey and confirm space for two tracks and path for the entire length
 - Develop transit conceptual designs to not preclude rail options with at least one station
 - Work with MassDOT to produce new demand estimations
 - Continue to explore feasibility and advocate for regional connections

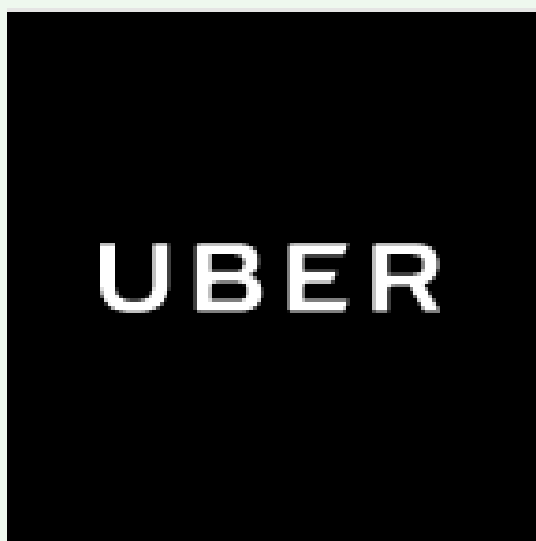


TRANSPORTATION PRIORITY: SHUTTLES AND RIDE-HAILING SERVICES



CHALLENGE: RIDE-HAILING SERVICES AND SHUTTLES

- Need to understand the importance of TNC/ride-hailing trips to Kendall Square and the impact on the transportation network
- Need to better understand the individual shuttle services and opportunities for consolidation



DRAFT RECOMMENDATIONS: RIDE-HAILING SERVICES AND SHUTTLES

- Continue meeting with shuttle providers and ride-hailing companies to request information and determine challenges and opportunities
 - Met with Uber and Lyft and requested origin and destination information for trips into and out of Kendall Square
- Continue collaborating with other stakeholders to gather more information that is applicable to Cambridge and the region (e.g. City of Boston, MBTA, MAPC, CTPS)



Heatmap of top origin points for trips ending in Kendall



PUBLIC QUESTIONS AND INPUT



- Recommendations
 - Draft Recommendations
 - Draft Items for Further Analysis
- Bus
 - Description of routing scenarios
 - Evaluation of routing scenarios
- Grand Junction
 - Grand Junction Multi-use Path
 - Possible cross sections
 - Right-of-way constraints



GENERAL INFORMATION

- Website: <http://www.cambridgema.gov/CDD/Projects/Transportation/kendallsquaremobilitytaskforce>
- Contact:
 - Brian Dacey, President, Cambridge Innovation Center
617-401-2870, dacey@cictr.com
 - Susanne Rasmussen, Director of Environmental & Transportation Planning, City of Cambridge
617-349-4607, srasmussen@cambridgema.gov
 - Tegin Teich Bennett, Transportation Planner, City of Cambridge
617-349-4615, tbennett@cambridgema.gov
- Final Task Force Meeting: tentatively Thursday, April 6, 2017

