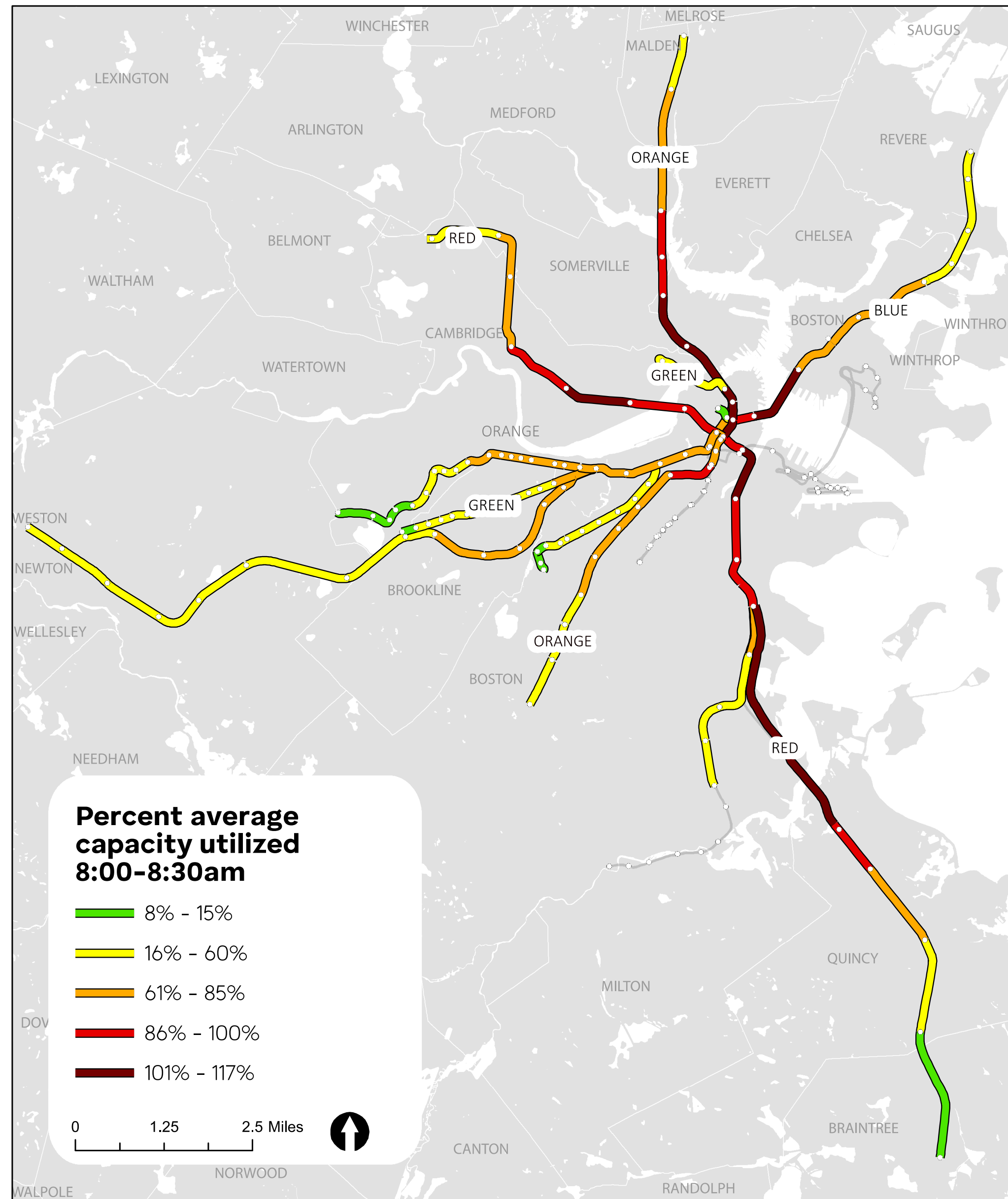


Capacity Gap Analysis

As Boston's population and demand for public transportation grows, the MBTA increasingly faces challenges in providing enough service to meet demand, particularly during peak commuting periods. Focus40 is exploring capacity constraints – those experienced by today's customers, as well as those we can expect in the future as our region's cities and towns continue to plan for more growth – in order to prioritize investments that can address them.

Rapid Transit Capacity Today



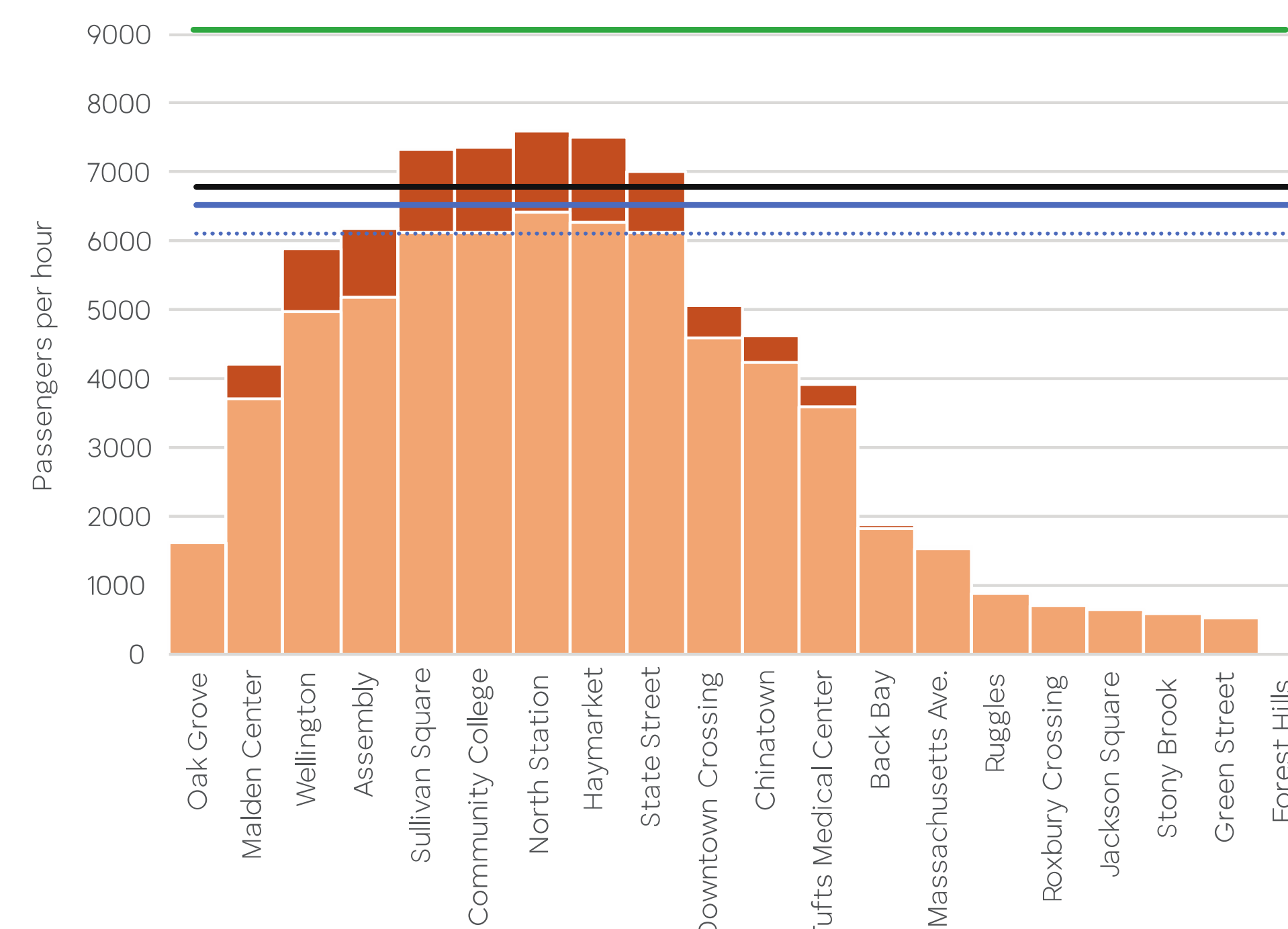
Where is Rapid Transit likely to experience capacity constraints by 2040?

Even as the MBTA works to address today's capacity challenges, cities and towns are permitting or planning for development along transit lines at rates not seen in several decades. Focus40 is coordinating with both the Metropolitan Area Planning Council and municipalities to understand the region's projected growth and plan for increased demand for the T.

Line	Direction	Peak Load Point	2010 - Households upstream	2040 - % additional households upstream	2010 - Jobs downstream	2040 - % additional jobs downstream
Blue	SB	Maverick	13,700	34%	307,000	10% - 13%
Green	NB	Copley	75,600	23%	312,400	7%
Green	SB	Park Street	26,300	30%-44%	288,800	10% - 13%
Orange	NB	Back Bay	31,100	26%	401,000	7% - 14%
Orange	SB	North Station	13,300	45%-65%	426,200	7% - 11%
Red	NB (Braintree Branch)	North Quincy	15,700	22%	284,500	9% - 16%
Red	NB	Broadway	22,000	32%	277,400	9% - 15%
Red	SB	Central	22,500	19%	268,900	10% - 16%

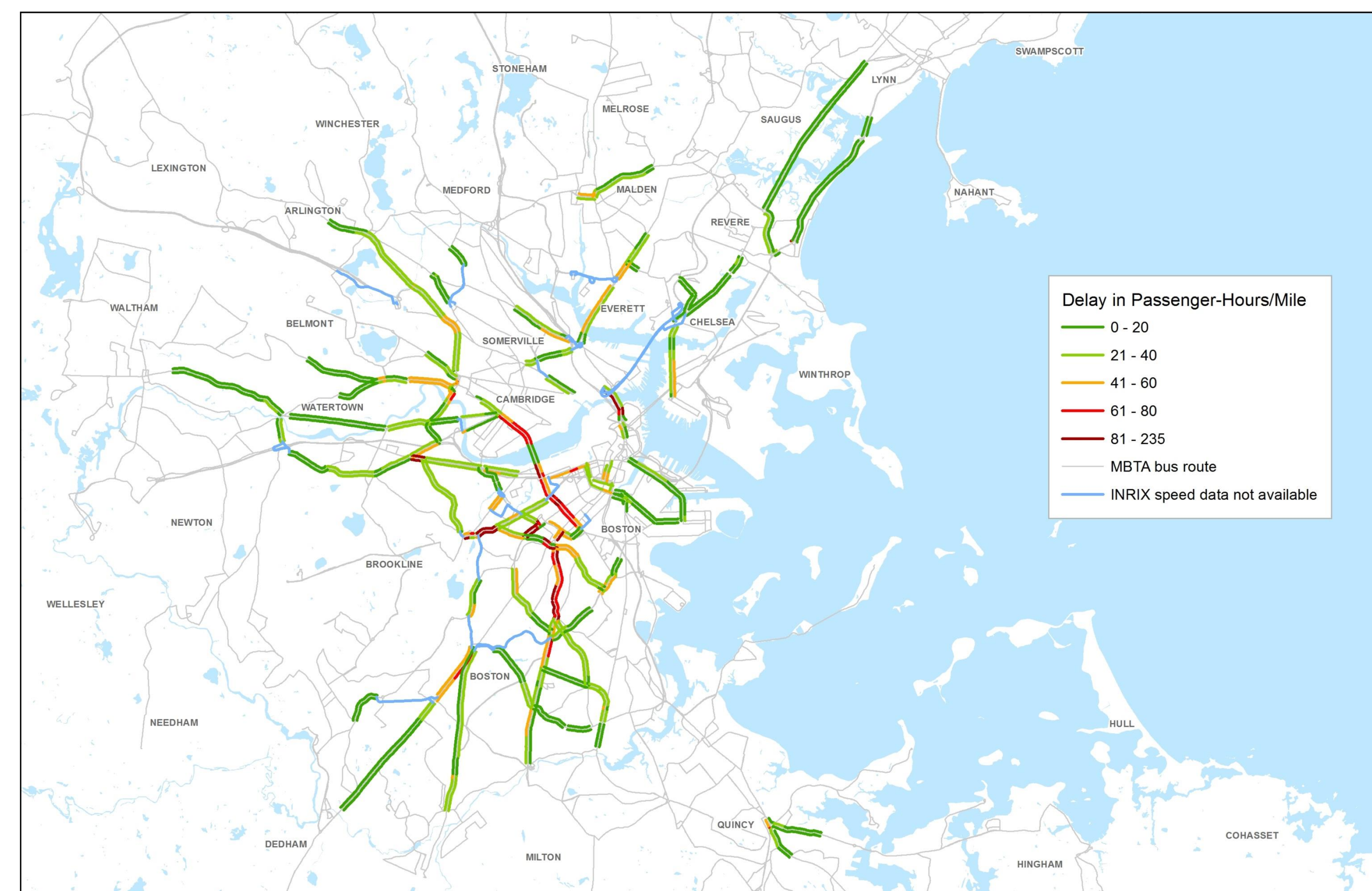
Orange Line Example

Southbound service is severely overcrowded in the AM peak today. However, the MBTA's procurement of a new and larger Orange Line fleet will allow for service every 4.5 minutes by 2022 (compared to every 6 minutes today). Solutions to other capacity constraints must be identified and funded.



Addressing Bus Capacity Issues

Many criticisms of bus service – too slow, unreliable – stem from buses navigating crowded city streets that, unlike rail corridors, are out of the MBTA's control. Focus40 identified the roadway segments that have the highest volume of bus passengers during the peak, experience the highest levels of traffic congestion, and where bus riders make up a significant portion of roadway users. MassDOT has been working with the City of Boston and other municipal partners to advance dedicated bus lanes on these and potentially other corridors.



Note: Highlighted roadway segments have are those with more than 1,500 bus passengers per day

Bus: Where is the bus system over capacity today?

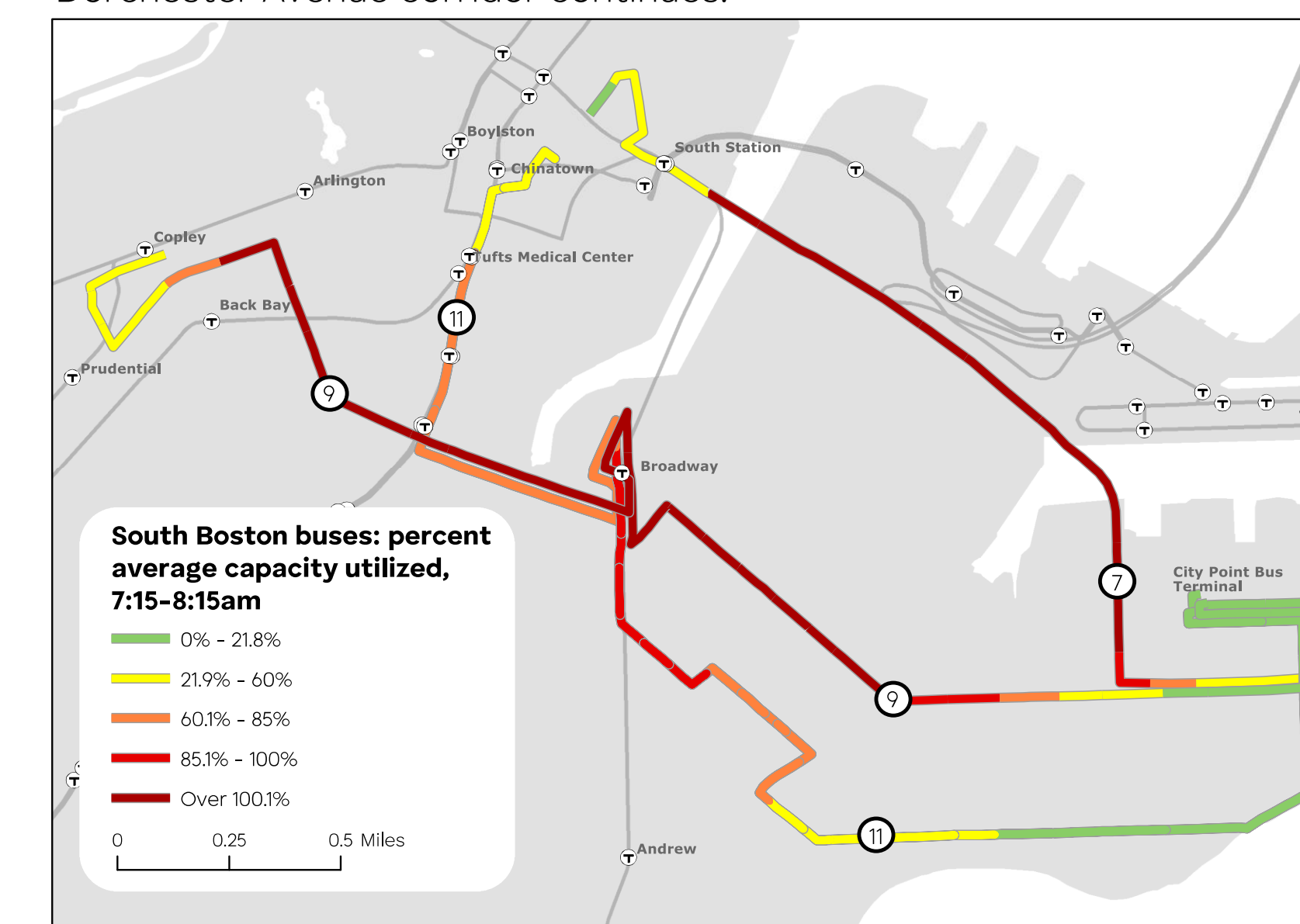
Buses, unlike rail service, can more easily be redeployed to meet demand. During peak periods, however, all of the MBTA's active buses are in service and most of them are less-patronized. A number of factors, including traffic congestion, result in less service operated than is actually scheduled. The introduction of a new fare collection system, and recent progress in dedicated space on streets for buses in high demand corridors, should help the MBTA deliver some additional service with the same resources.

Route	Corridor	Passengers over average operated capacity	Passengers over scheduled capacity	Passengers over capacity with AFC 2.0 + Dedicated Bus Lanes
1	Charles River	Y		
7	South Boston	Y	Y	Y
9	South Boston	Y	Y	Y
34	Roslindale-Forest Hills	Y	Y	
37	Roslindale-Forest Hills	Y		
40	Roslindale-Forest Hills	Y		
50	Roslindale-Forest Hills	Y		
57	Watertown-Waltham	Y	Y	
57A	Watertown-Waltham	Y	Y	
70	Watertown-Waltham	Y		
71	Watertown-Waltham	Y	Y	
73	Watertown-Waltham	Y	Y	Y
77	Arlington	Y		
87	Somerville	Y	Y	Y
111	Chelsea	Y		
117	Chelsea	Y		

	Under average operations	Under scheduled operations	With bus priority (AFC 2.0, bus lanes)
~ Estimated additional buses needed for AM Peak	21	11	5

Case Study: South Boston Bus Capacity

All of the bus routes connecting residential South Boston to downtown Boston and the Back Bay experience significant crowding during peak periods – a situation that may get worse as the rapid rate of development in the Seaport and along the Dorchester Avenue corridor continues.



Case Study: Watertown/Waltham buses

Unlike in South Boston, most MBTA bus routes are designed to deliver passengers to rapid transit to complete their trip. In Watertown and Waltham there are several high frequency options to connect to the Red or Green Line – all of which experience significant crowding during peak periods.

