



# Overview and Benefits

## GREEN LINE EXTENSION PROJECT



**massDOT**  
Massachusetts Department of Transportation



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# The Transportation Context

- The GLX communities are among the densest in the Boston region:
  - 19,000/square mile in Somerville
  - 15,760/square mile in Cambridge
  - 6,850/square mile in Medford
- Existing MBTA rail service exists only on the periphery of the corridor
- Approximately 60 percent of the residents of Cambridge, Somerville, and Medford live in Commonwealth-defined Environmental Justice areas
- Multiple MBTA commuter rail lines pass through the GLX corridor, but there are no stops in Somerville



*Elizabeth Corkery*

# The Transportation Context



- Approximately 26 percent of GLX project area households do not own a vehicle.
- Parking for vehicles and bicycles is minimal
- Access to jobs in Boston and elsewhere in the region is constrained by congested roadways and lengthy travel times. Transit patrons must make multiple transfers to reach Boston
- All but one bus route within the GLX project area failed to meet MBTA service standards.
- The average speed of MBTA buses in the corridor is nine miles per hour
- The project area is currently exposed to high levels of air pollutant emissions. Motor vehicles and truck traffic are the predominant sources of ozone precursor emissions within the project corridor



# The Project Vision

- Made up on two distinct branches: one to Union Square (Somerville) and one to College Avenue (Medford)
- Both branches will be built in existing MBTA Commuter Rail rights-of-way:
  - The MBTA Lowell Line will serve the existing D Branch of the Green Line and will terminate at College Avenue in Medford
  - The MBTA Fitchburg Line will serve the existing E Branch of the Green Line and will terminate at Union Square in Somerville
- Lechmere Station in East Cambridge will be relocated to the opposite side of Monsignor O'Brien Highway in order to facilitate both the Extension and the Northpoint development.
- Six new stations will be constructed
  - Four in Somerville
  - Two in Medford



New College Avenue Station  
5,200 daily weekday riders  
Comparable to Longwood on the  
D Line  
Heart of the Tufts campus and  
adjacent to residential  
neighborhoods

New Ball Square Station  
3,300 daily weekday riders  
Comparable to Newton Center on  
the D Line  
Historic urban village, walkable to  
Tufts, residential neighborhoods

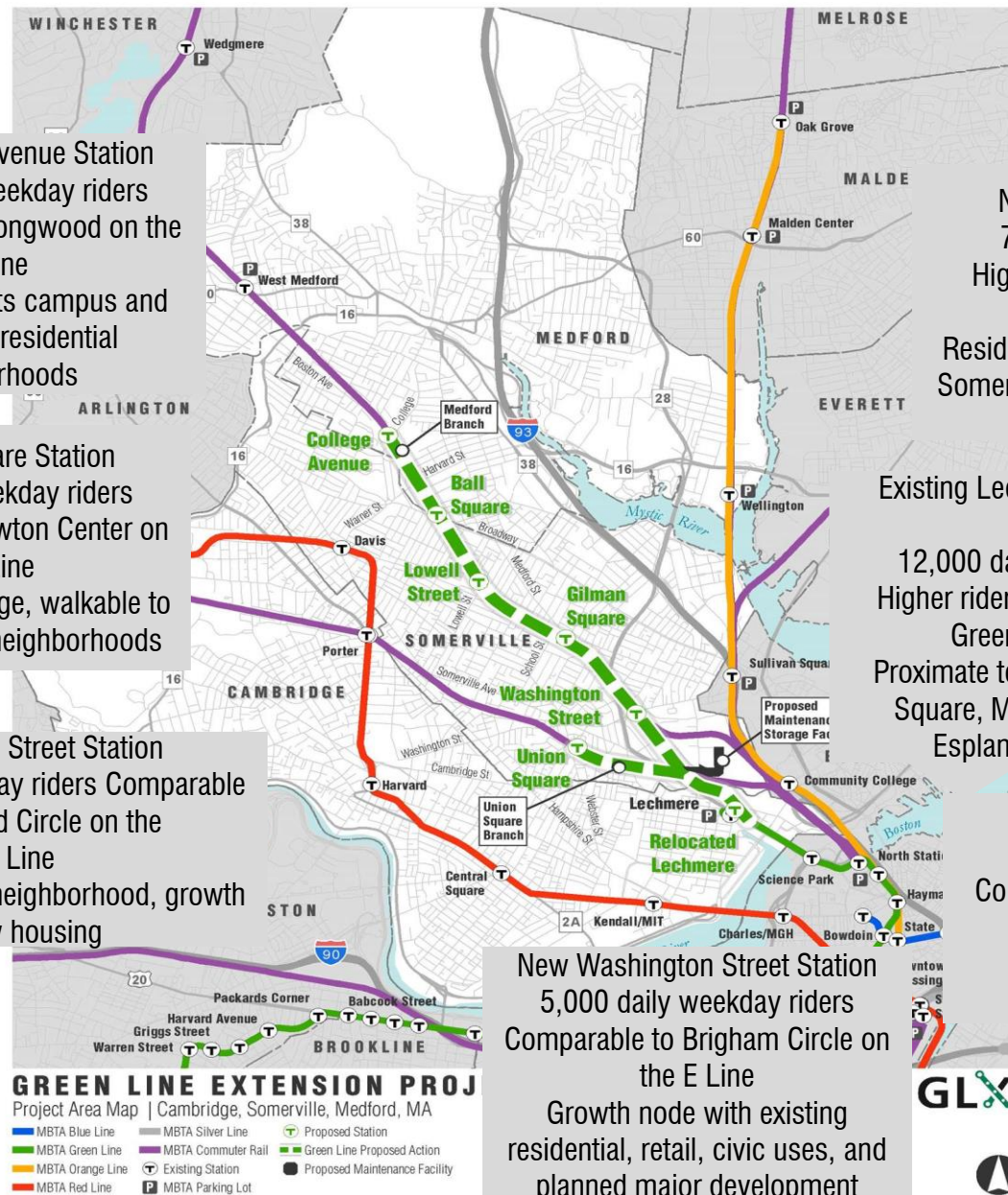
New Lowell Street Station  
2,600 daily weekday riders Comparable  
to Cleveland Circle on the  
C Line  
Dense residential neighborhood, growth  
in new housing

New Gilman Square Station  
7,400 daily weekday riders  
Higher ridership than all surface  
Green Line stations  
Residential neighborhood adjacent to  
Somerville City Hall, High School, and  
Public Library

Existing Lechmere Station to be  
relocated  
12,000 daily weekday riders  
Higher ridership than all surface  
Green Line stations  
Proximate to NorthPoint, Kendall  
Square, Museum of Science,  
Esplanade, TD Garden

New Union Square Station  
7,200 daily weekday riders  
Comparable to Longwood on the  
D Line  
Growth node with major  
developments planned

New Washington Street Station  
5,000 daily weekday riders  
Comparable to Brigham Circle on  
the E Line  
Growth node with existing  
residential, retail, civic uses, and  
planned major development

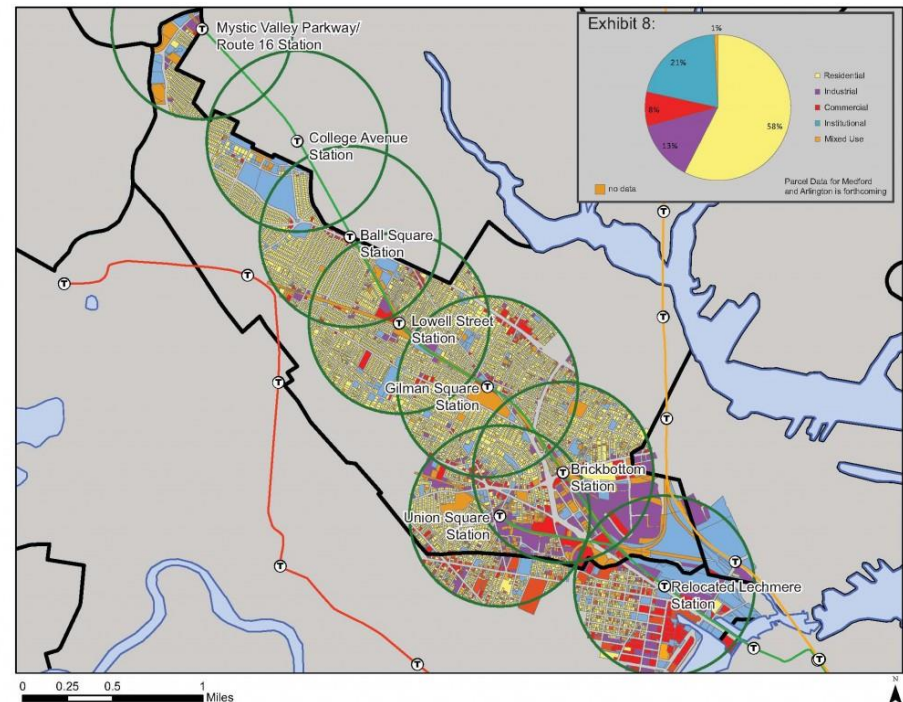


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# The GLX Project: Myriad Benefits

- Faster and better transportation to housing, employment, services, and major institutions in a corridor that will now include Medford, Somerville, Cambridge, Boston, Newton, and Brookline
- A directly link the economic powerhouses of Kendall Square, downtown Boston, and the Longwood Medical Area
- A key jumpstart to the emerging areas of NorthPoint, Inner Belt, Union Square, and Boynton Yards
- Opportunity to leverage years of community planning work done throughout the corridor to encourage transit-oriented development
- An estimated 49,000 daily riders at new stations, including the relocated Lechmere Station
- 92 percent of the new riders are anticipated to ride the Green Line Extension in its first year of service



# The GLX Project: Myriad Benefits

- Reduced pressure for regional growth to expand outward by providing support to existing compact, revitalized, low-carbon footprint urban communities
- The three corridor communities anticipate GLX-related mixed-use development of \$4 billion - \$5 billion:

	LOW	HIGH
Private Construction Investment	\$4.3 billion	\$5.1 billion
Construction Jobs Created	34,000	41,000
Permanent Jobs Created	8,500	15,000
Housing Units Created	8,300	8,300
State Tax Receipts	\$2.3 billion	\$3.2 billion
MBTA Operating Revenues	\$1 billion	\$1.2 billion
Local Tax Receipts	\$820 million	\$1.4 billion
<b>TOTAL STATE + LOCAL BENEFITS</b>	<b>\$4.1 billion</b>	<b>\$5.8 billion</b>

- Elimination of upwards of 26,000 miles per of vehicle travel per day on congested local and regional roadways in areas with high rates of childhood asthma
- The GLX project succeeded in the very competitive 'New Starts' process to receive a commitment of \$1 billion in federal funding for design and construction



# Case Study: NorthPoint - East Cambridge

- 45-acre development site
- 5.2 million square feet of total development rights
- 20 development parcels, residential and commercial
- Fully permitted and approved in Boston, Cambridge, and Somerville
- Close collaboration between MBTA and NorthPoint team to design the relocated Lechmere Station to facilitate development and roadway improvements (funded by the developer)





# Case Study: Union Square Redevelopment

- The City of Somerville has rezoned the Union Square area to increase economic opportunity and encourage laboratory, office and mixed-use development, all built around the anticipated Green Line service
- The Somerville Redevelopment Authority has selected Union Square Station Associates (US2) as the master developer partner for the Union Square revitalization plan
- US2 will work in partnership with the City and the Union Square community to achieve goals outlined in the SomerVision community planning process
- Transit-oriented development is planned directly adjacent to the GLX Union Square station and the project has signed agreements with Somerville where the City and US2 provide access to property to facilitate the building of the station



# The GLX Project: Benefits of Union Square

- According to assessments being prepared by the City of Somerville, the potential for development brought on by the Union Square portion of the project is particularly impressive.

	LOW	HIGH
Private Construction Investment	\$1.2 billion	\$1.5 billion
Construction Jobs Created	10,000	12,000
Permanent Jobs Created	3,000	4,300
Housing Units Created	2,000	2,400
State Tax Receipts	\$590 million	\$735 million
MBTA Operating Revenues	\$190 million	\$230 million
Local Tax Receipts	\$290 million	\$410 million
<b>TOTAL STATE + LOCAL BENEFITS</b>	<b>\$1.1 billion</b>	<b>\$1.4 billion</b>

# Case Study: Tufts University Air Rights Project

- 99-year lease between the MBTA and Tufts for air rights at the College Avenue Station
- Tufts to fund any necessary redesign for the Station
- The new academic building will include plazas, better sidewalks, and safer crosswalks to the Station
- Tufts will also build a pedestrian bridge over Boston Avenue
- Tufts will pay significant community benefit funds to the City of Medford
- 750-1,000 construction jobs are anticipated
- Tufts will provide long-term security, maintenance, and snow removal for the Station

