



GREEN LINE EXTENSION PROJECT

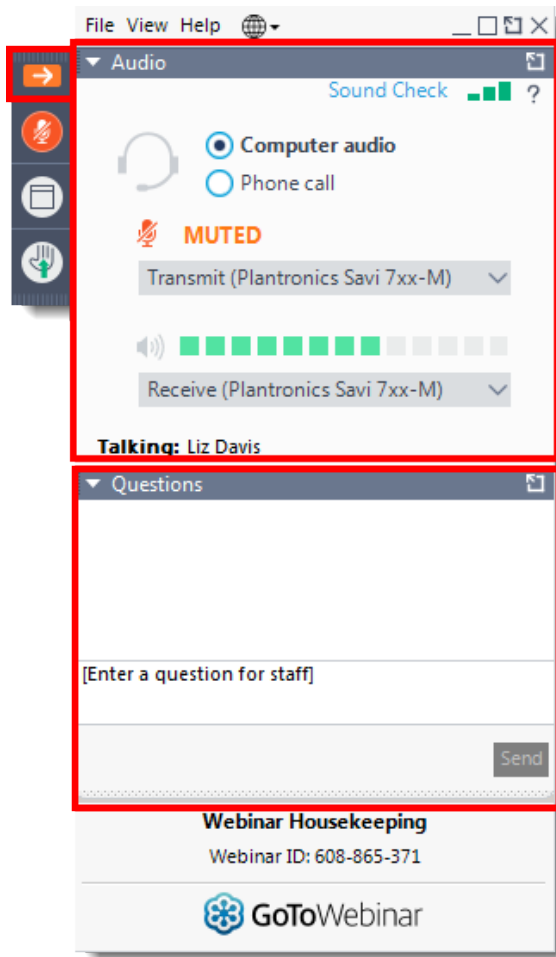


massDOT
Massachusetts Department of Transportation



GLX Community Working Group
Monthly Meeting
April 7, 2020

Go-to-Webinar Housekeeping



Open and close your control panel

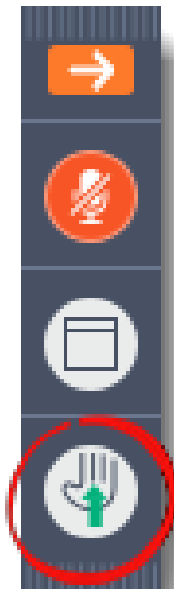
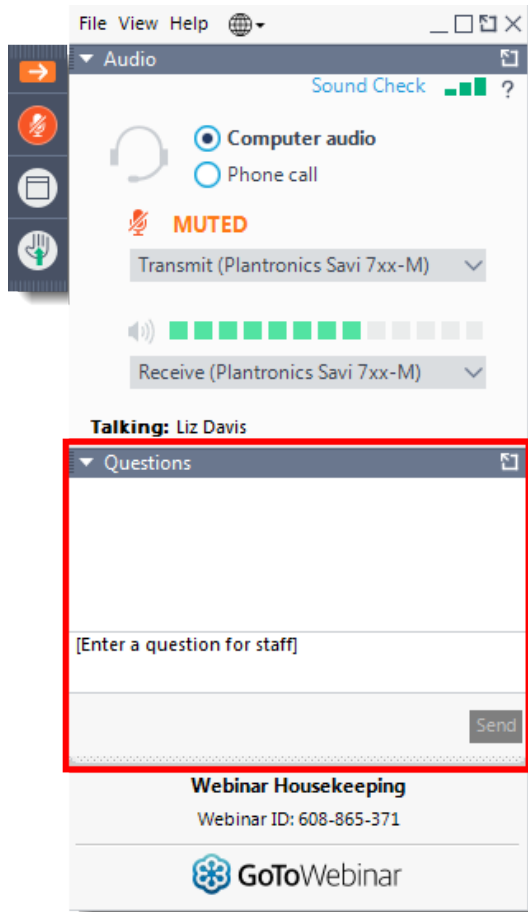
Join audio:

- Choose **Mic & Speakers** to use VoIP
- Choose **Telephone** and dial using the information provided

Submit questions and comments via the Questions panel

You will be automatically be muted and taken off mute for introductions and questions

Go-to-Webinar Housekeeping-Questions



- Please continue to submit your text questions and comments using the Questions panel
- Please raise your hand to be unmuted for verbal questions.

For more information, please contact Erin Reed
ereed@hshassoc.com

Note: Today's presentation is being recorded

Agenda

Welcome & Introduction

- Terry McCarthy, MBTA GLX Deputy Program Mgr., Stakeholder Engagement
- Horace Cooper, MBTA GLT Senior Project Manager, Green Line Transformation

Lechmere Construction Update

- T.J. Steinhilber, GLXC Structures Area Manager

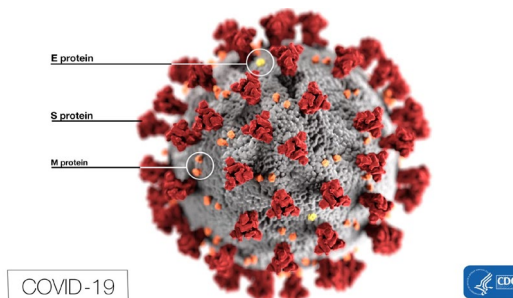
Construction Update

- Jeff Wagner, GLXC Public Involvement Manager





Commonwealth of Massachusetts
COVID-19 GUIDELINES AND PROCEDURES
FOR ALL CONSTRUCTION SITES AND WORKERS AT ALL
PUBLIC WORK



COVID-19 PROCEDURES FOR CONSTRUCTION

Introduction

Governor Baker issued COVID-19 Safety Order:

- Order issued March 23, 2020
- Titled “Assuring continued operation of essential services in the Commonwealth, closing certain work places, and Prohibiting gathering of more than 10 people”

COVID-19 PROCEDURES FOR CONSTRUCTION (2)

Functions and Objectives of the Order

- To designate critical services referred to as “***COVID-19 Essential Services***” and ensure safe/continued operation during the ***State of Emergency***.
- Designates workers engaged in delivering these essential services, as the “***COVID-19 Essential Workforce***.”

COVID-19 PROCEDURES FOR CONSTRUCTION (3)

Essential Services

- Many MA Transportation Projects are identified as an essential service
- Projects (like GLX) are allowed to continue construction operations during this COVID-19 *State of Emergency*;
 - But, if continuing, all projects (like GLX) must deploy and maintain ‘*social distancing protocols*’ and other requirements as outlined in the “guidelines and procedures” document.
 - ‘Distance’ protocols must be consistent with guidance provided with the new procedures of OSHA, the CDC and the Department of Public Health.

COVID-19 PROCEDURES FOR CONSTRUCTION (4)

Guidelines

- There are new detailed COVID-19 related safety procedures and best practices (guidelines) for all MA construction projects
- **Mandated - each project must conduct a “Safety Stand-down Day” ...**
this is to make sure that everyone understands and complies with the newly established guidelines

COVID-19 PROCEDURES FOR CONSTRUCTION (5)

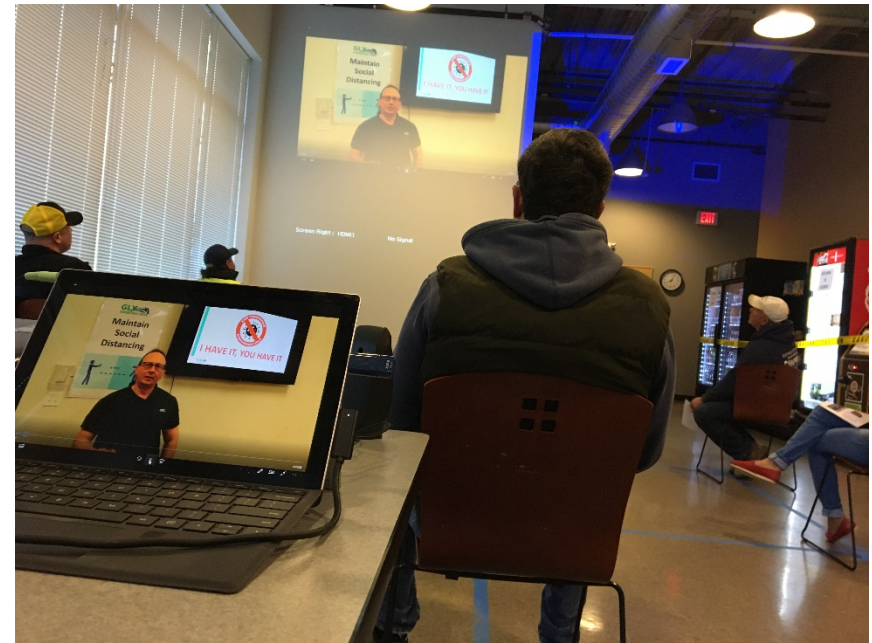
Stand-down Day

The *stand-down day* shall also be one of many training steps to:

- Review the newly established guidelines
- Ensure all workers involved in the project are familiar with the health and safety practices required for the continued operation of the project
- Ensure all workers take personal responsibility for understanding the new procedures
- To be certain that everyone is compliant every day
- And to help ensure that no worker is endangering others around them
(*by not understanding or not complying*)

Safety – COVID-19 Training

- On Monday, March 29 GLXC held briefing sessions for employees and subcontractors at the 200 Inner Belt office. Approx. 500 attended,
- 6 conference rooms were used with 9 participants per room
- 25-minute video with HSE Director Michael Weatherred covered governor's guidance for construction worker safety



COVID-19

Key Points – New Procedures / Guidelines

ZERO TOLERANCE **FOR SICK WORKERS REPORTING TO WORK**

IF YOU ARE SICK, *STAY HOME!*

IF YOU FEEL SICK, *GO HOME!*

IF YOU SEE SOMEONE SICK, *SEND THEM HOME!*



MBTA

- Lechmere Station & Viaduct - Demolition, Reconstruction, & Relocation
- GLX Bus Replacement Service Overview



Current Status

Lechmere Area - Old and New



Image - March 17, 2020



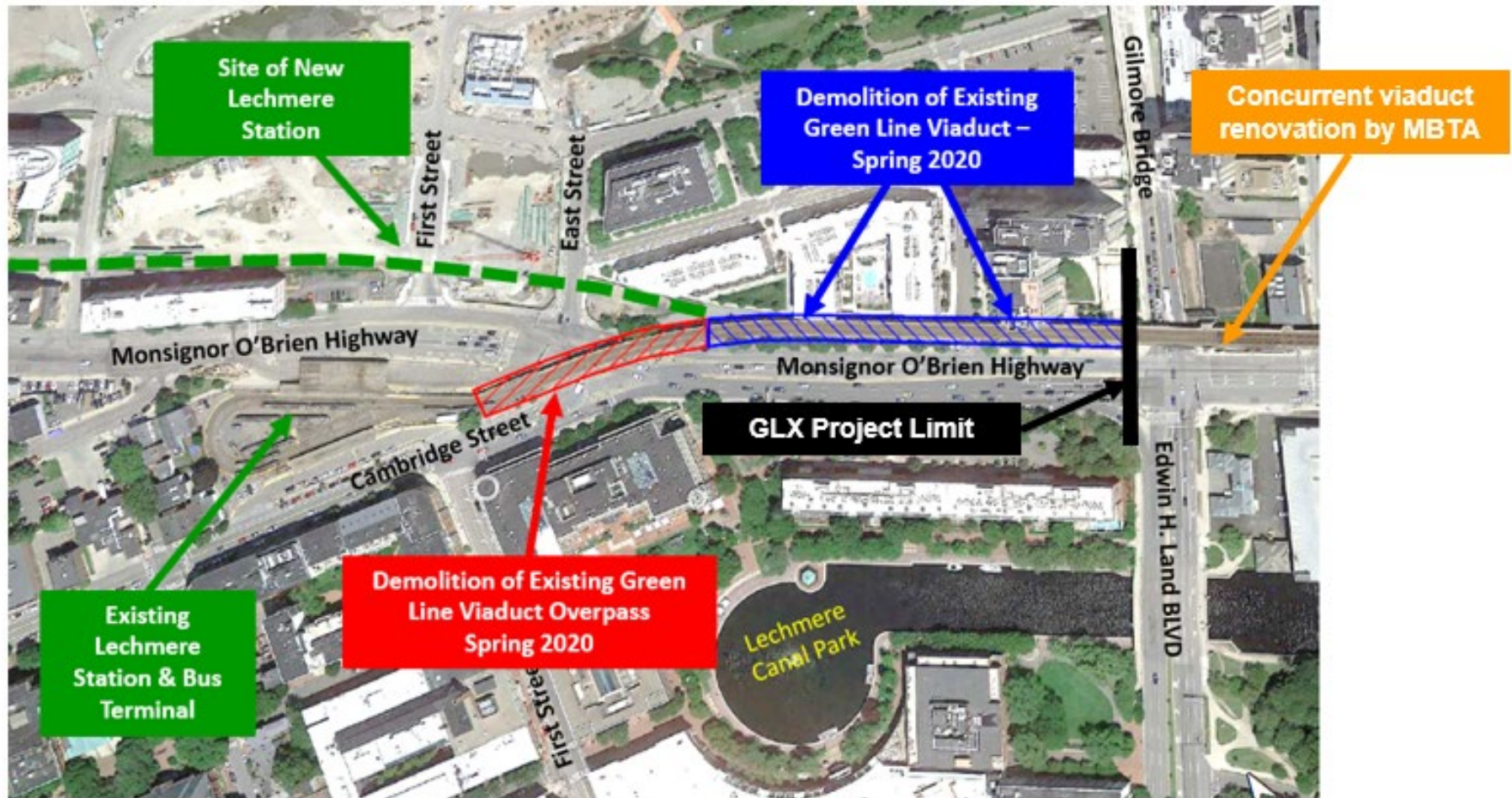
Lechmere Station & Viaduct Alternate Service

Lechmere Station will be closed to Green Line service for approximately one year beginning Spring of 2020 to remove, rebuild, and relocate a viaduct section and station

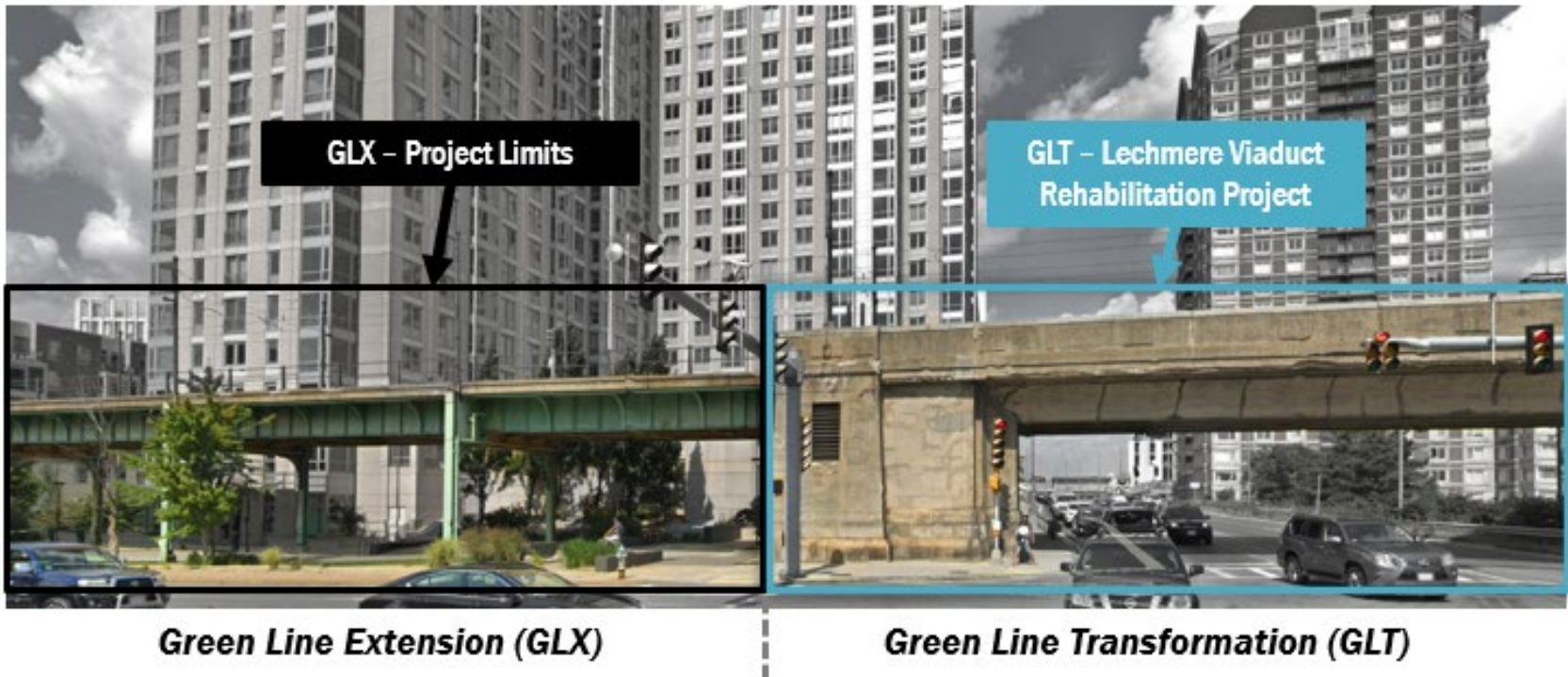
- Existing commuter bus routes (69, 80, 87, & 88) will continue to provide service to the existing bus garage at Lechmere Station during Green Line service outage
- Green Line service between Lechmere Station and North Station will be diverted to a replacement bus service
- Weekday average Green Line trips to/from Lechmere Station and Science Park is approximately ~14,000
- Initial estimates indicate 12 to 14 buses will be required during peak periods



Lechmere Station Demolition & New Viaduct Section



Lechmere Project Limits



GLT Lechmere Viaduct Rehabilitation Project



Physical Conditions

- The existing railing, deck, and stringer conditions warrant replacement due to extensive chloride intrusion and map cracking of the concrete
- Additional concrete and steel repairs necessary to extend the life of the structure

Strength Requirements

- The structure's current load rating indicates the concrete arches are **below statutory requirements**, restricting the number of simultaneous revenue vehicles and work cars on the viaduct



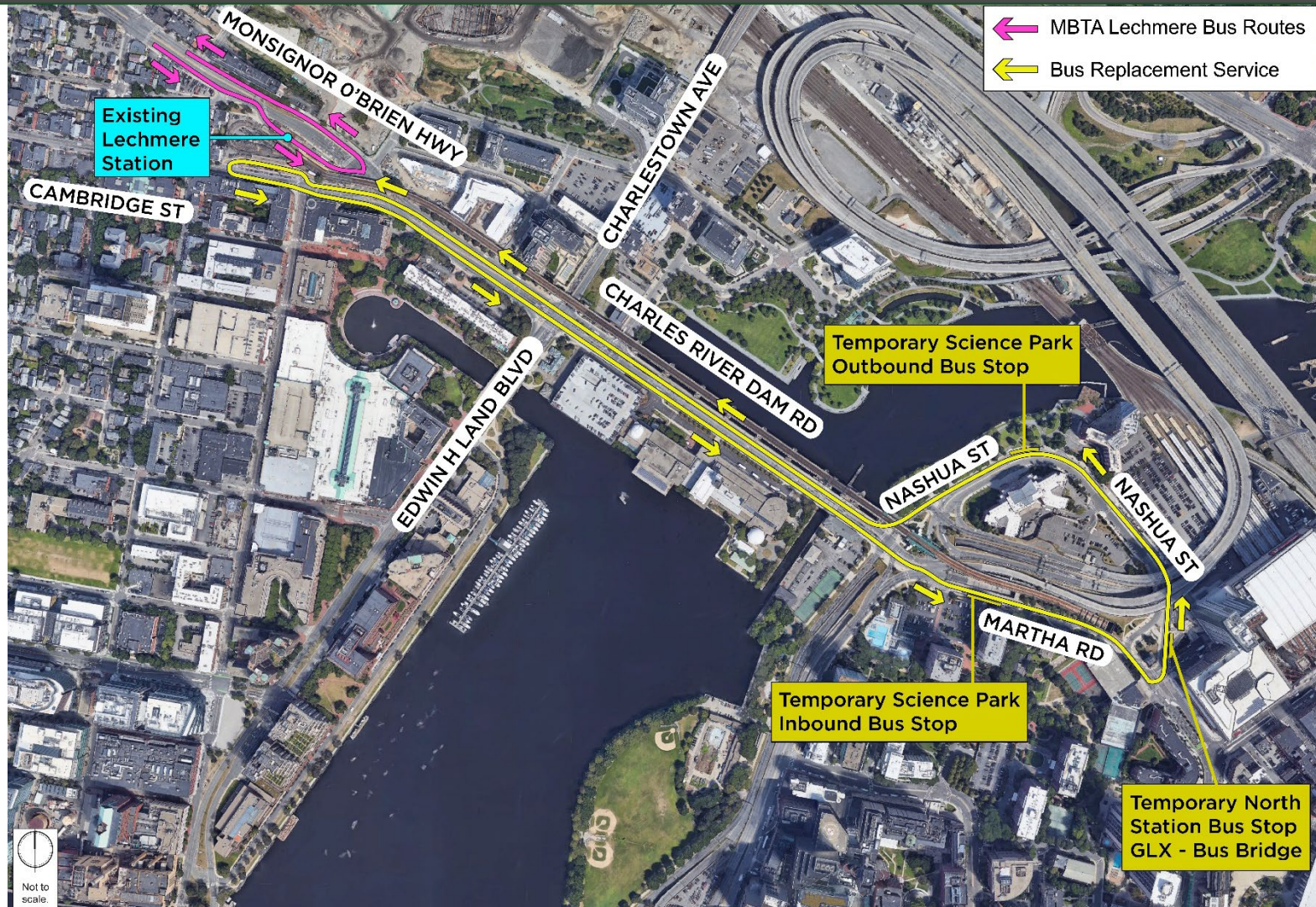


Lechmere to North Station

Bus Replacement Planning



Lechmere Bus Replacement Service



Lechmere Bus Replacement Service (2)

Lechmere Station Operations

- **Existing Service Maintained:** Bus Routes 69, 80, 87, and 88 continue to connect Somerville, Cambridge, Arlington, and Medford to Lechmere
- **Green Line Shuttle:** A separate fleet of accessible shuttle buses will connect Lechmere to North Station to meet or exceed existing headways
- **Station Bus Infrastructure:** Existing Bus Garage and Operator Facilities to remain until new bus loop and new Lechmere Station are fully functional

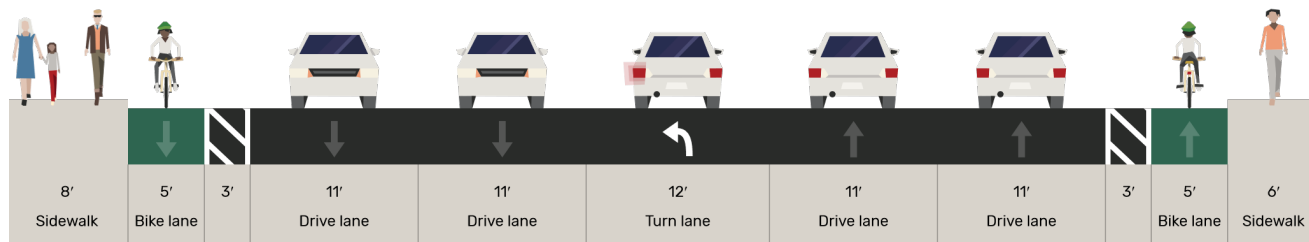


Lechmere Bus Replacement Service (3)

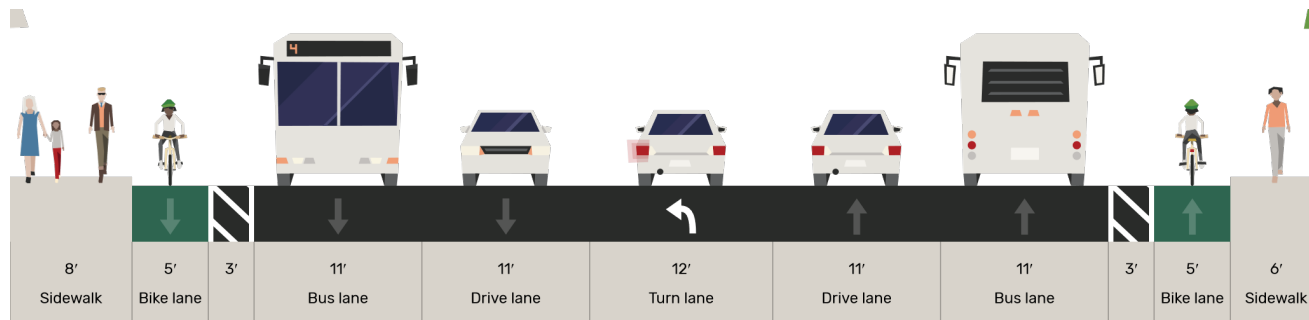
Charles River Dam Road (Craigie Dam)

- Conversion to all-day two-way bus lanes, and accompanying bus lanes conversion in Cambridge and Boston

Existing



*Conversion with
bus lanes*



Lechmere Bus Replacement Service (4)

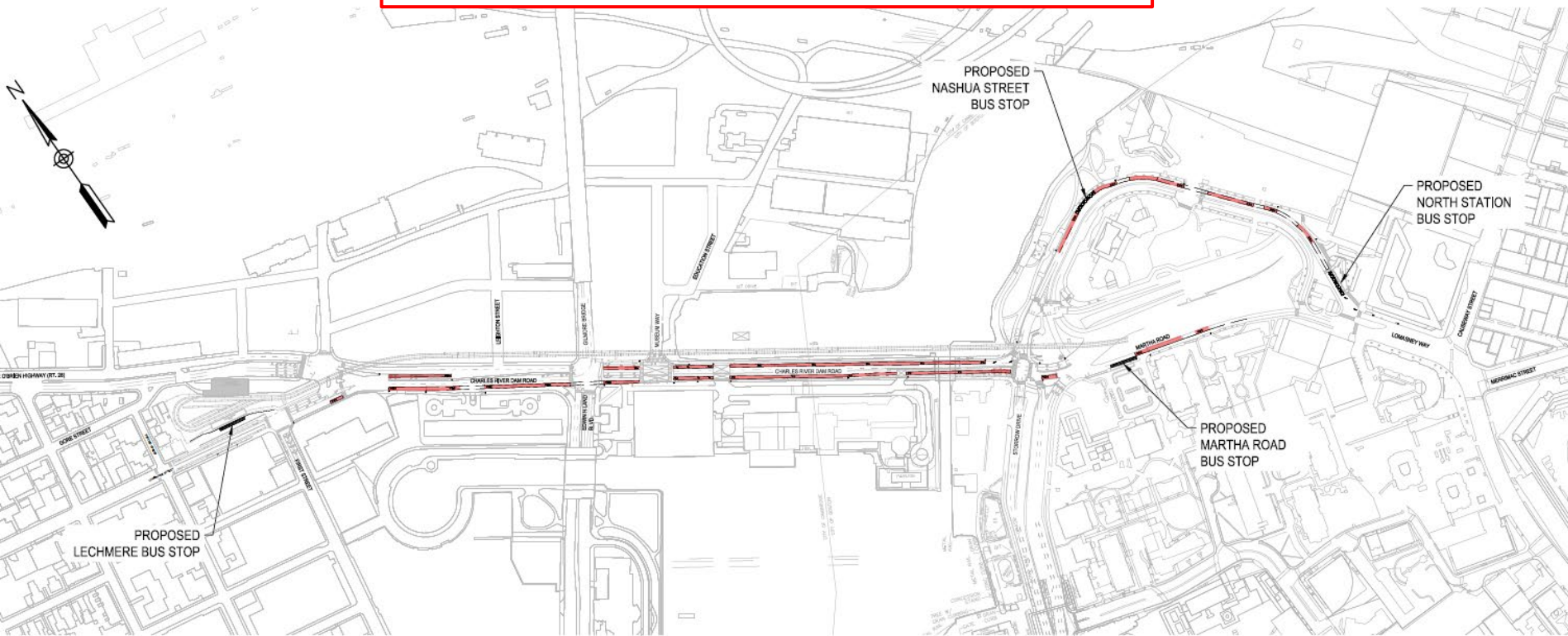
Bus lanes are needed to maintain people capacity

- In the absence of buses, many of the 14,000+ Green Line riders would likely choose to drive and overload the roadway system
- Congestion may increase with or without bus lane, but bus lane guarantees a reliable transit alternative
- Bus Lanes also projected to save up to 15 minutes round-trip per passenger during weekday peak travel times

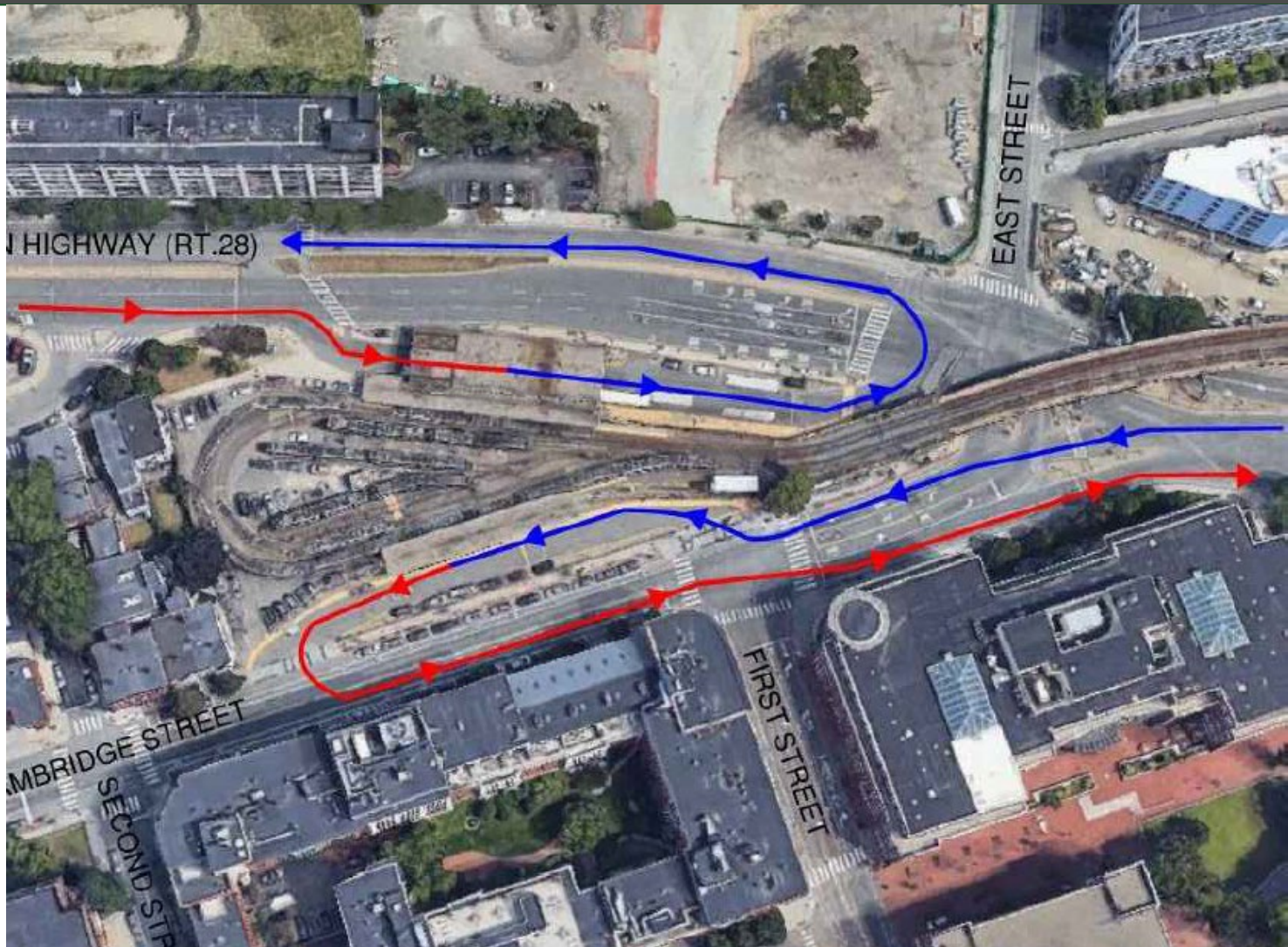


Lechmere Bus Replacement Service (5)

- Draft Proposal – For Discussion Purposes Only -



Lechmere Bus Replacement Service (6)

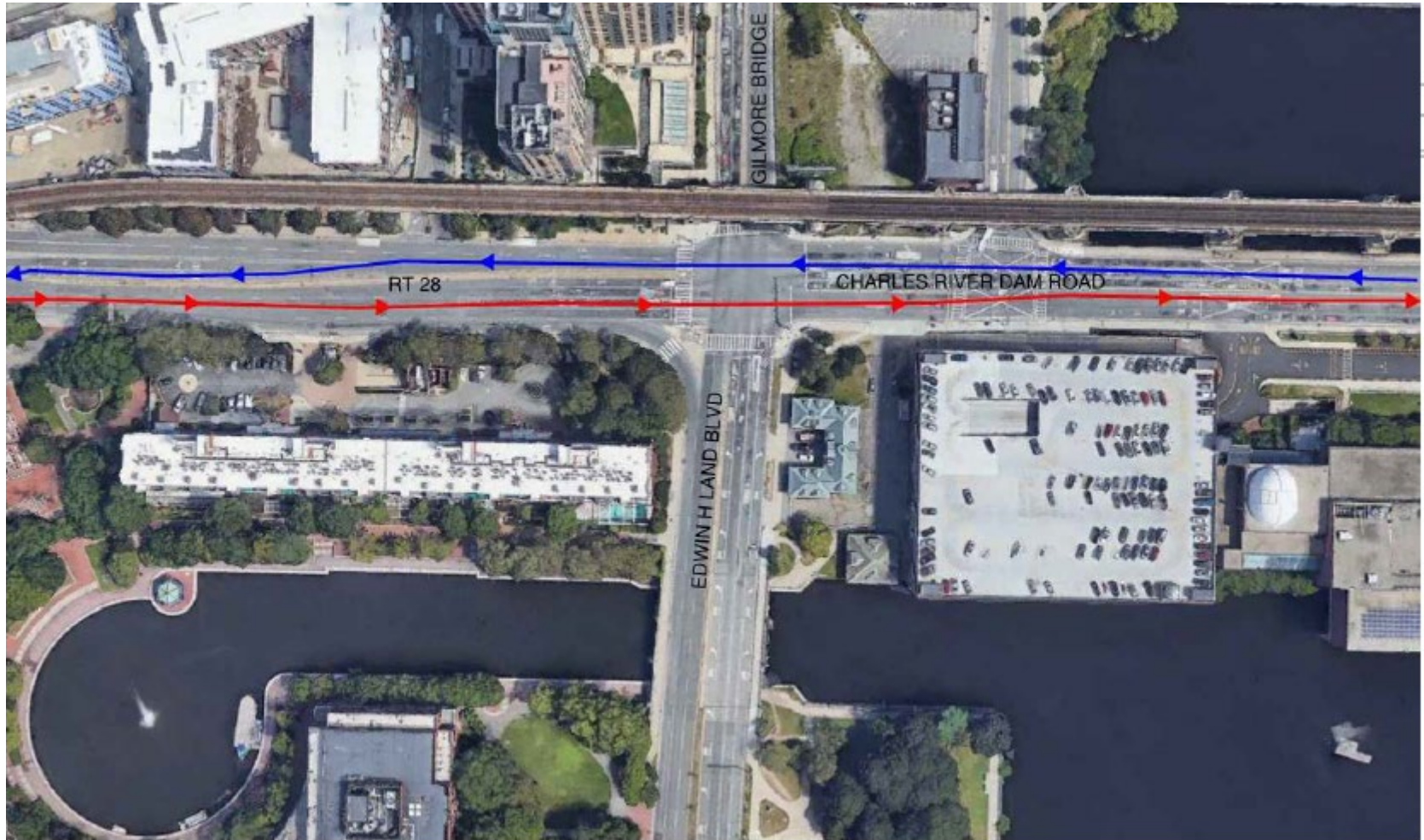


Government	Percentage
Current government	85%
Previous government	15%

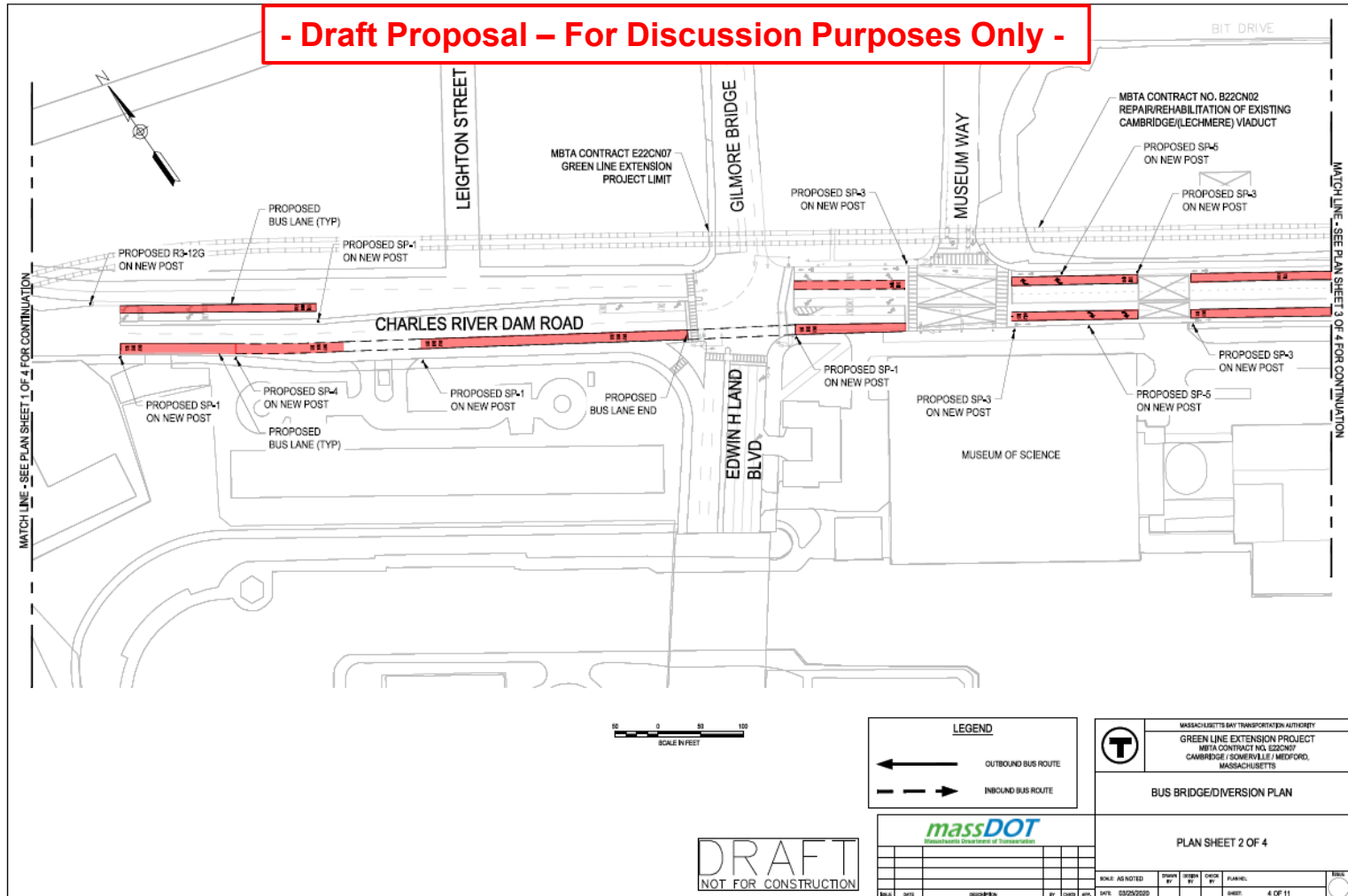


Lechmere Bus Replacement Service (8)

Charles River Dam Road

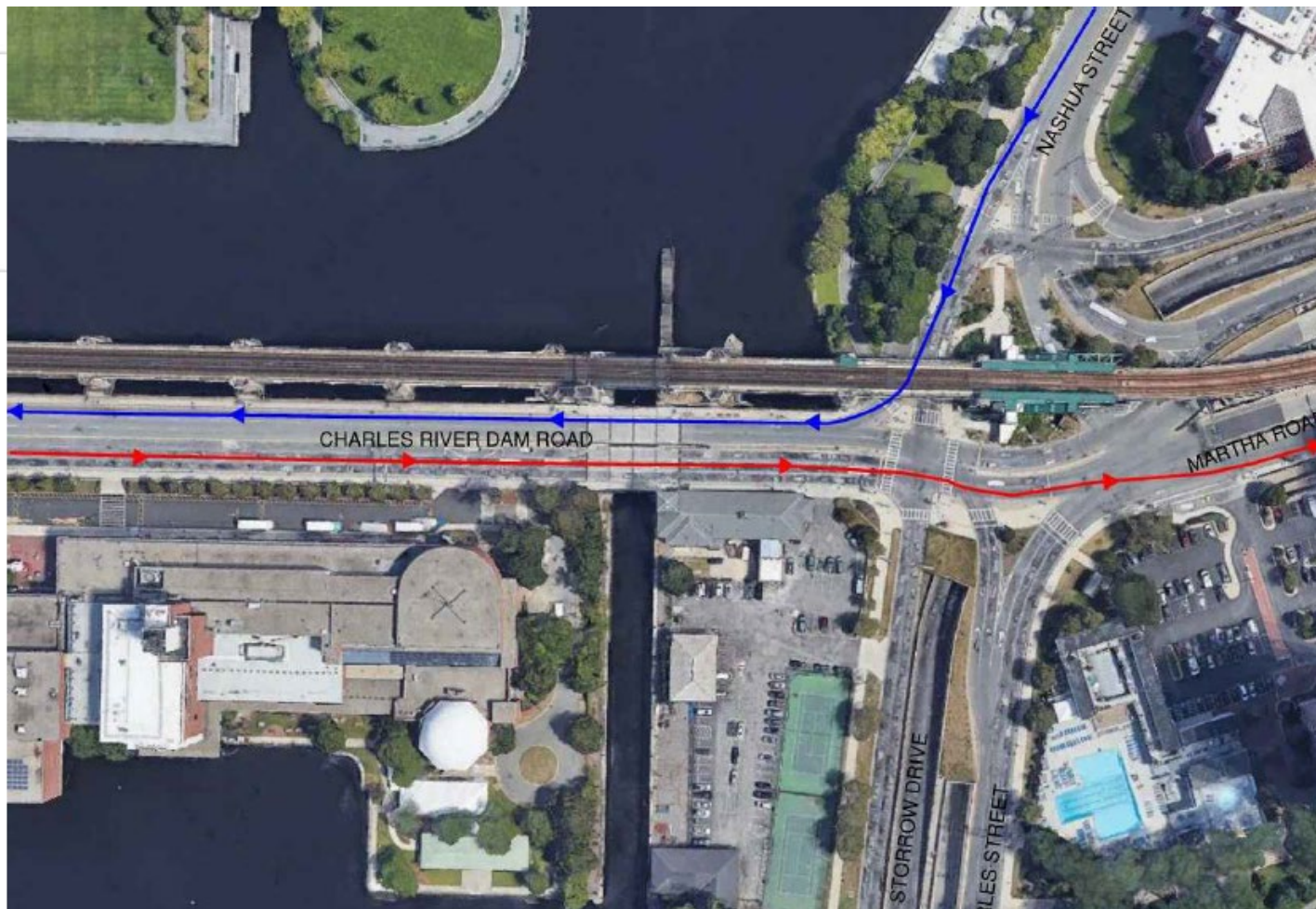


Charles River Dam Road



Lechmere Bus Replacement Service (10)

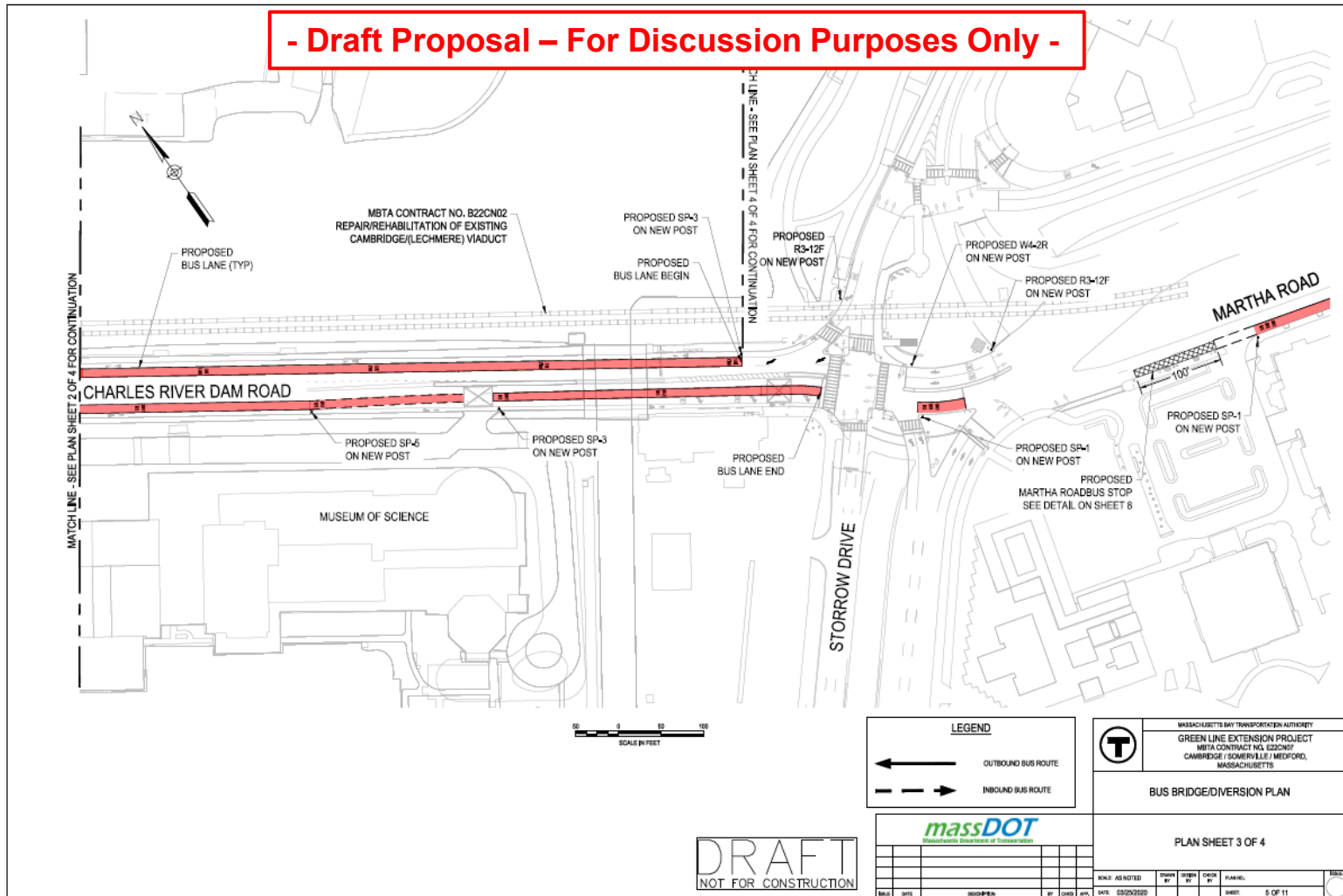
Leverett Circle



Lechmere Bus Replacement Service (11)

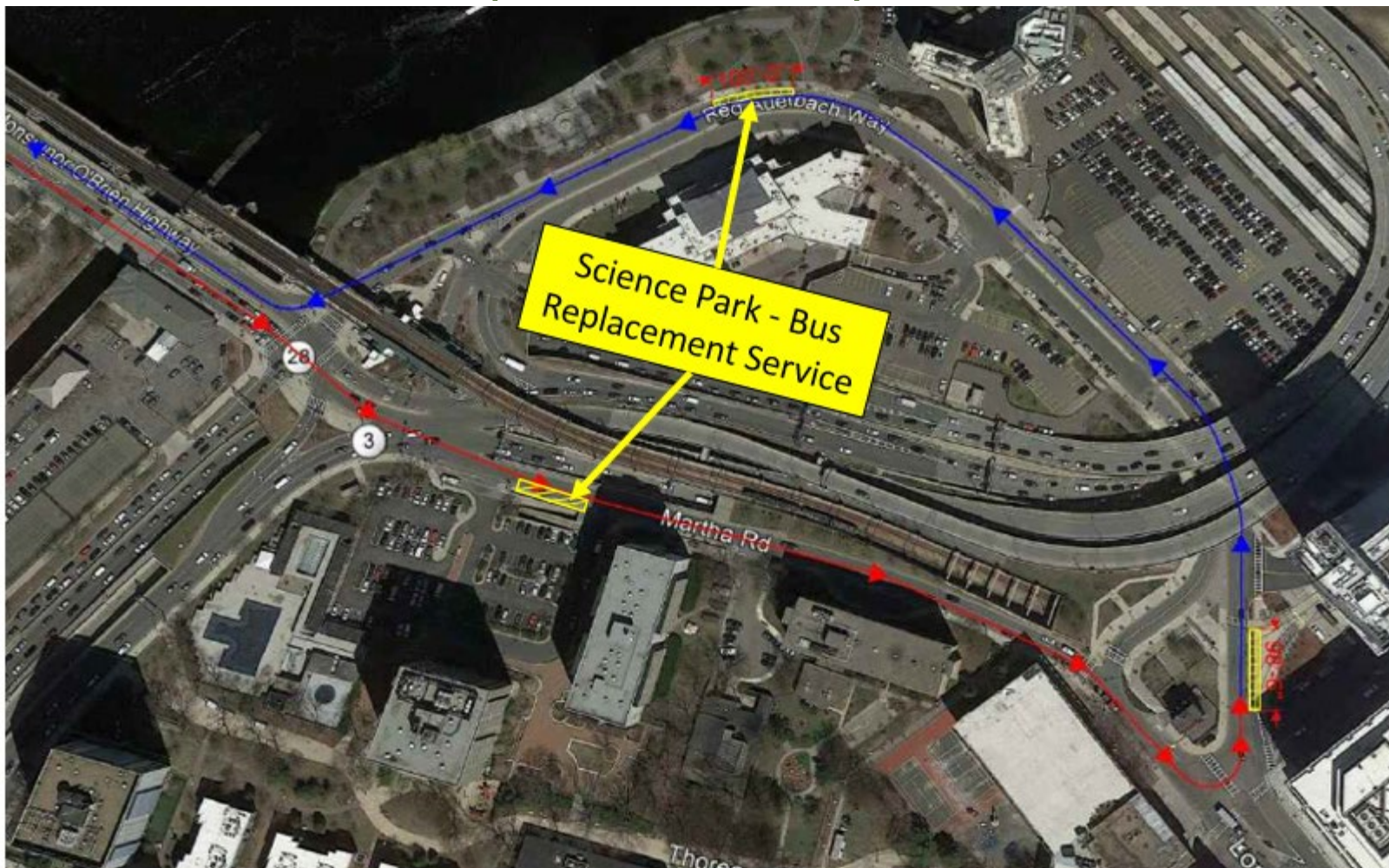
Leverett Circle

- Draft Proposal – For Discussion Purposes Only -

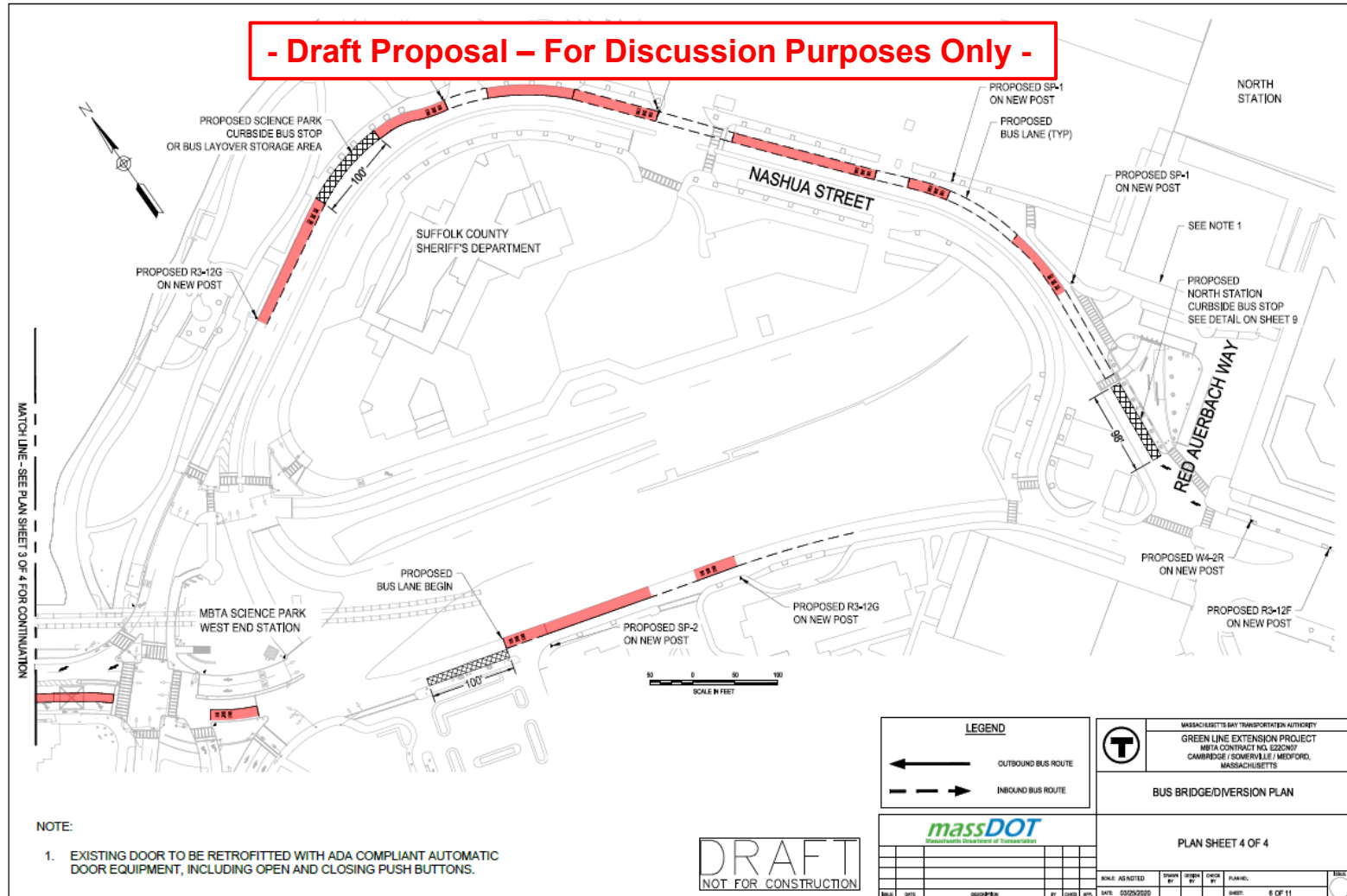


Lechmere Bus Replacement Service (12)

Science Park – Proposed Bus Stop



Science Park – Proposed Bus Stop



Lechmere Bus Replacement Service (14)

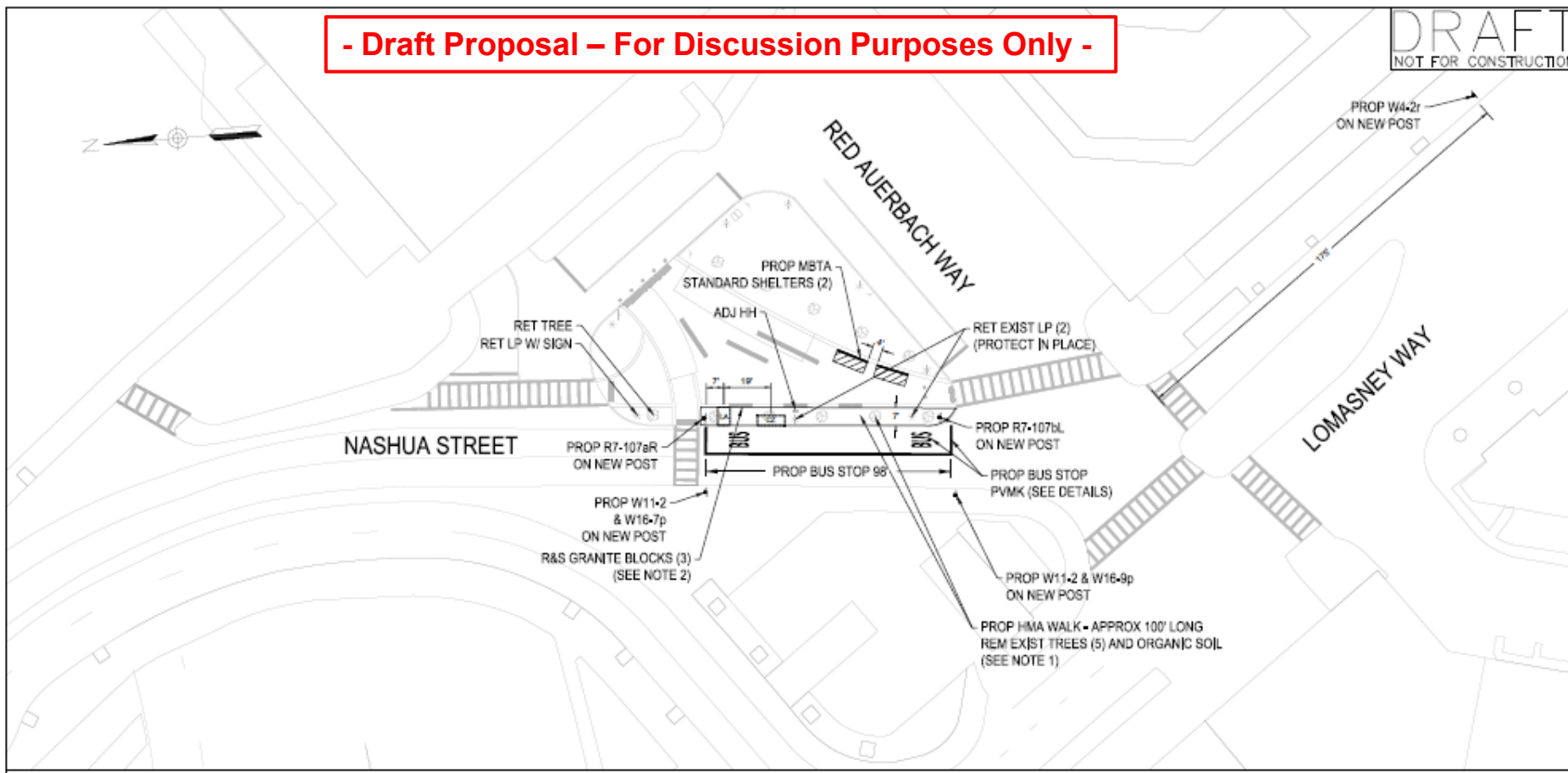
North Station – Proposed Bus Stop



Lechmere Bus Replacement Service (15)

North Station – Proposed Bus Stop

- Draft Proposal – For Discussion Purposes Only -



Lechmere Viaduct Outreach Underway

Target Audience	Tactics/Approach
<ul style="list-style-type: none">• Commuting public• Neighboring cities/towns (>1M People)• 84 media outlets• 29 Hospitals and medical facilities• 26 Colleges/Universities• Chamber of Commerce & large employer database• Regional bus companies• MBTA ridership (Alerts)	<ul style="list-style-type: none">• Variable Message Signs (VMS)• Reboot Your Route campaign• Email blasts (More than 7,400 registered recipients)• MassDOT social media• Public Service Announcements• Municipal websites• News media engagement



Construction Plans for 2020

- **TJ Steinhilber – GLXC Structures Discipline Lead**
- **Presentation Overview**
 - Scope of Work – Overview
 - Where are we now, where will we be?
 - Lechmere Viaduct – Gilmore Bridge to East Street
 - Demolition
 - Pier Cap/Structural Steel Installation
 - Superstructure Installation
 - Track Build/Systems Installation/Testing



Construction Plans for 2020

Where are we now?

- **Three Different Areas**

- Lechmere Viaduct – Gilmore Bridge to East St.
- Lechmere Viaduct – East St. to North First St.
- Lechmere Viaduct – North First St. to Water St.

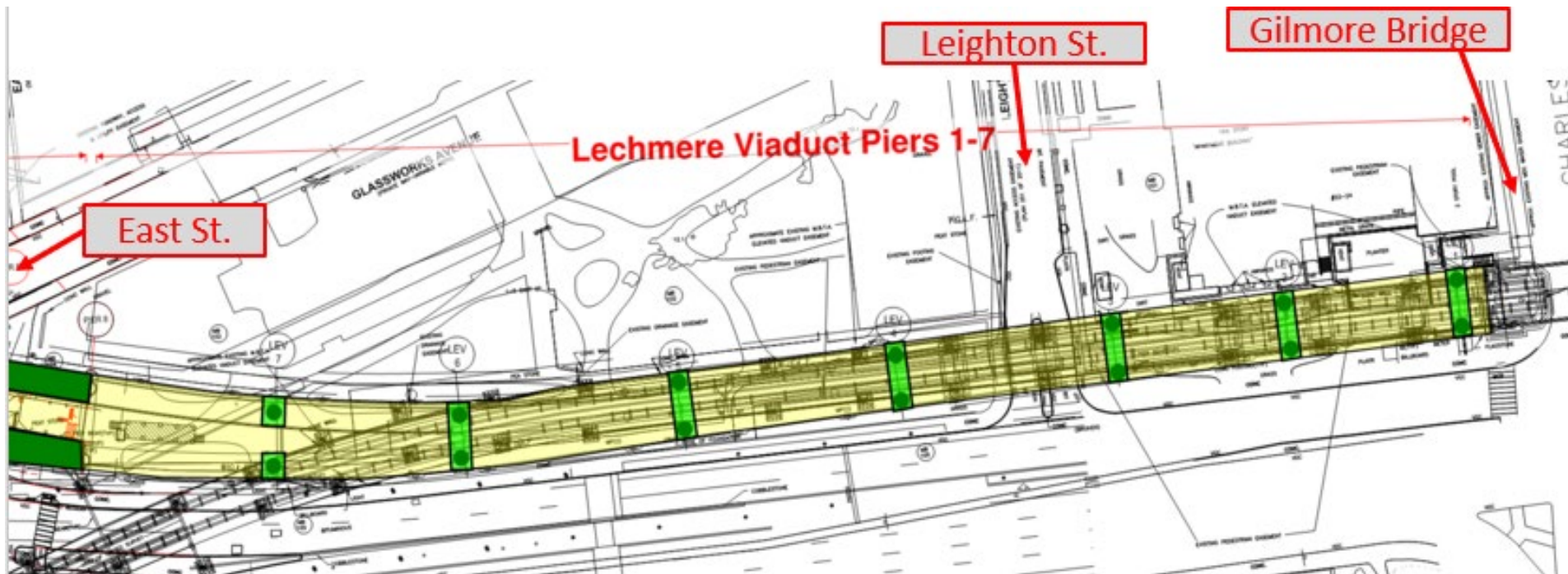


Construction Plans for 2020

Work to be completed prior to demolition

Lechmere Viaduct – Gilmore Bridge to East Street

- Foundation Prep/Excavation Complete
- Foundations (Micropile) Installation Complete
- Column Installation Largely Complete



Construction Plans for 2020

Existing Lechmere Viaduct – Gilmore Bridge to Lechmere Station

- **Work Period # 1 Demolition**

- Work will start from Lechmere station towards Gilmore Bridge
- Work Hours
 - Monday through Friday
 - Friday (after rush hour ~ 9PM) through Monday Morning (prior to rush hour ~3 AM)
 - Outbound lane closures expected, Hwy 28
 - Demolition and haul off

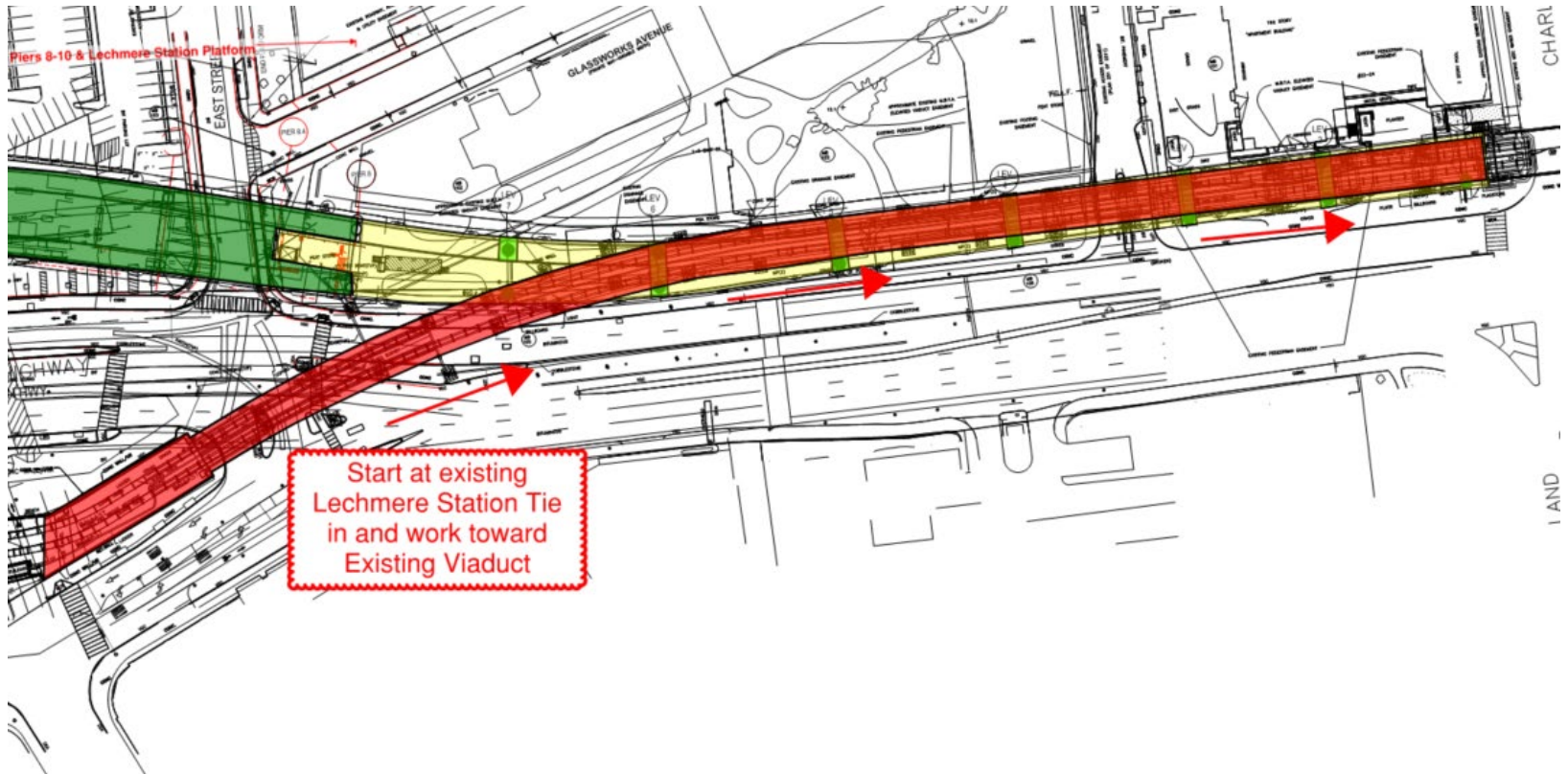


Construction Plans for 2020

Lechmere Viaduct Demolition / Replacement

- **Work Period # 1 Demolition**

- Work will start from Lechmere Station and work toward Gilmore Bridge



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East Street

- **Work Period # 2 Pier Cap and Structural Steel Installation**

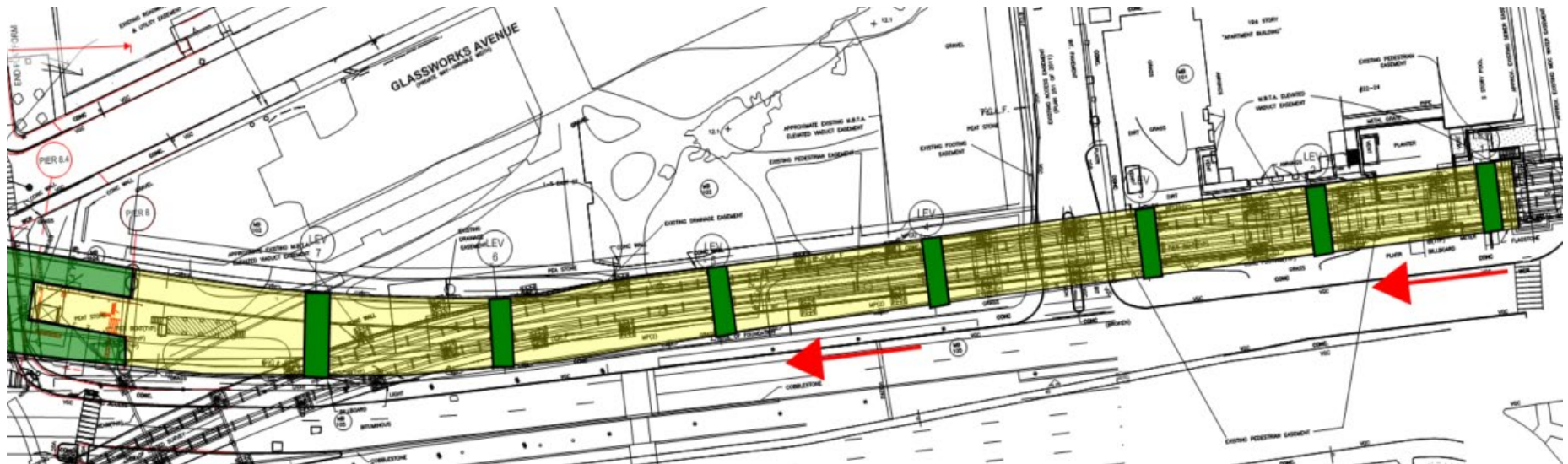
- Work will start from Charlestown Ave and work towards East Street
- Work Hours
 - Monday through Friday
 - ☐ Performing work to increase weekend work efficiency
 - ☐ Performing grouting and curing activities
 - ☐ Bolting up structural steel, installing decking
 - Friday (after rush hour ~ 9PM) through Monday Morning (prior to rush hour ~3 AM)
 - ☐ Outbound lane closures expected - Hwy 28



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East Street (cont.)

- **Work Period # 2 Pier Cap and Structural Steel Installation**
 - Once demo is complete, Precast Pier Cap 1-6 Installation begins and cast-in-place Pier Cap 7 begins
 - Will start from Charlestown Ave and work towards East Street



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East St. (cont. 3)

- **Work Period # 3 Superstructure Construction**

- Once Structural steel erection, decking and deck formwork is out in front, superstructure construction will begin.
- Will start from Charlestown Ave and work towards East Street
- General sequence
 - ☐ Rebar installation
 - ☐ Deck Pour/Cure
 - ☐ Parapet Form/Pour/Cure
 - ☐ Overhead Catenary System (OCS) Pole Foundation Form/Pour/Cure
 - ☐ Joint/Waterproof Installation
- Work Hours
 - ☐ Monday through Friday
 - ☐ Weekends

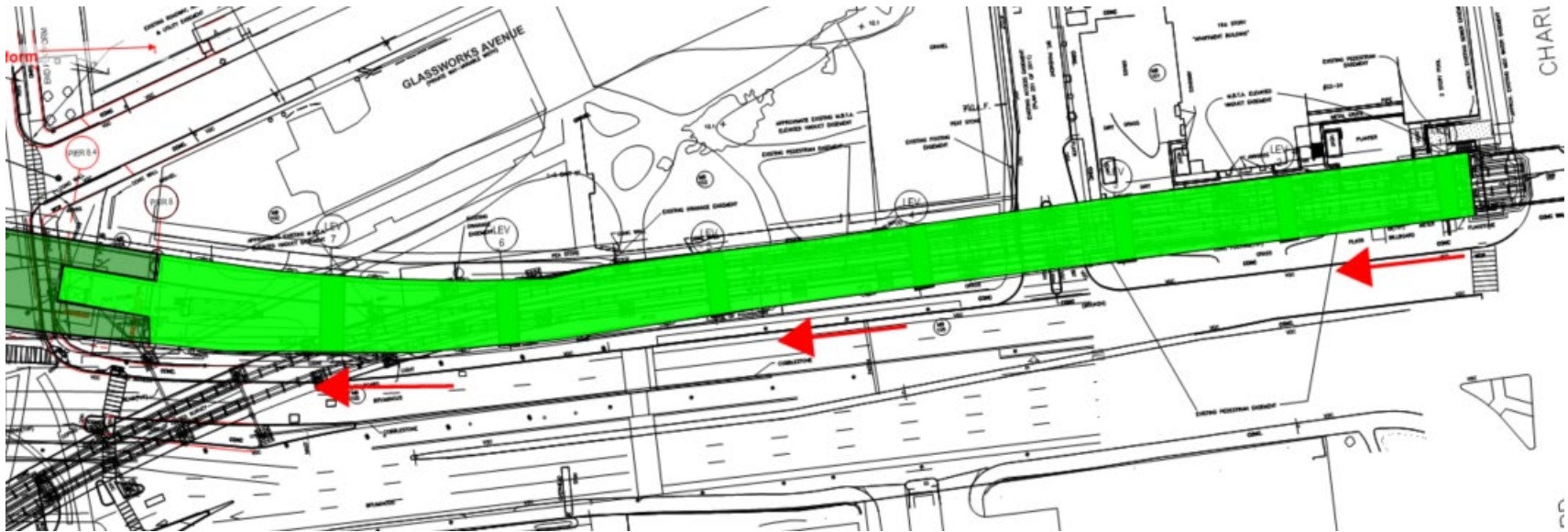


Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East St. (cont. 4)

- **Work Period # 3 Superstructure Construction**

- Once Structural steel erection, decking and deck formwork is out in front, superstructure construction will begin.
- Will start from Charlestown Ave and work towards East Street



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East St. (cont. 5)

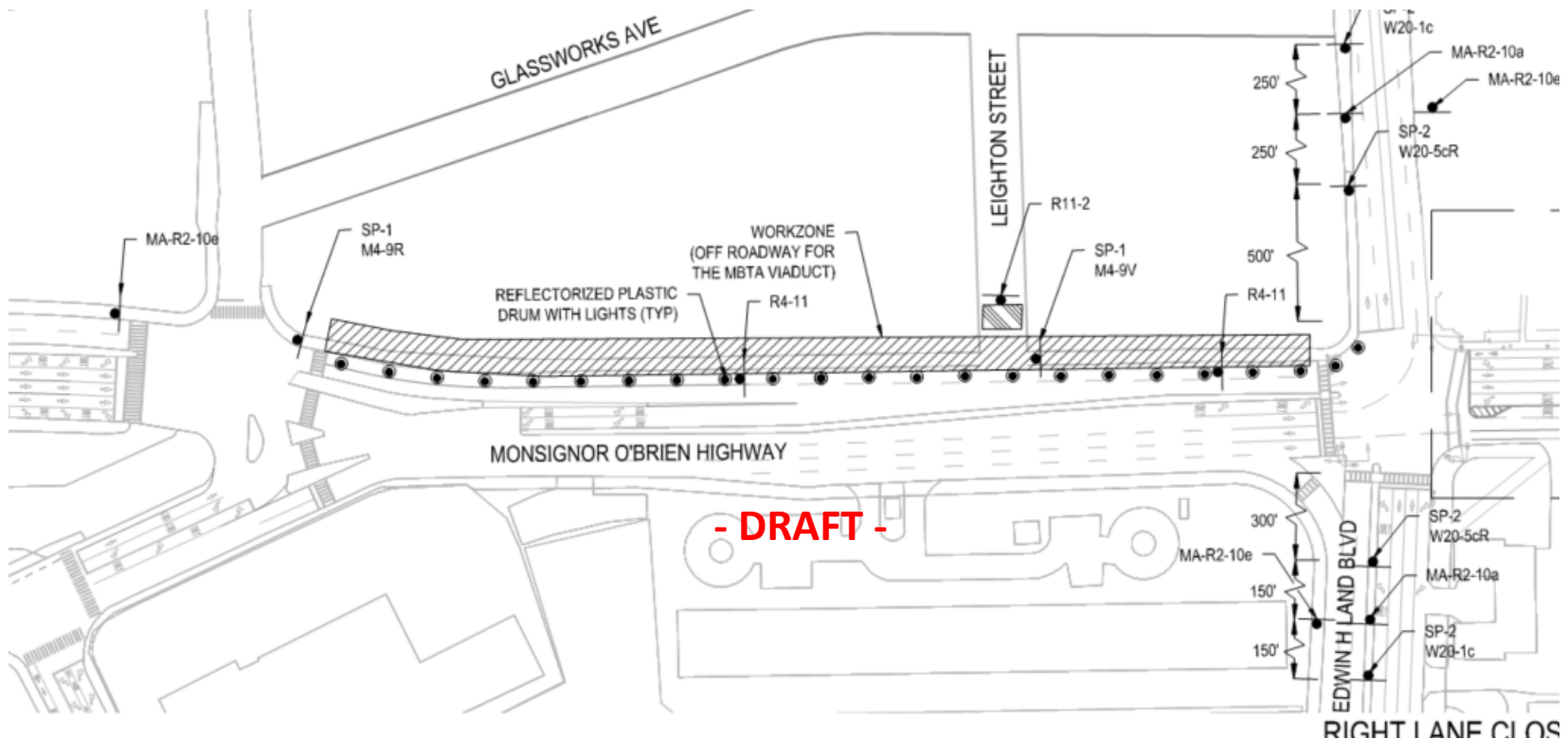
- **Work Period # 4 Track Build/Systems Install/Testing**
 - Will start from Charlestown Ave and work towards East Street
 - General sequence
 - ☐ Ballast/Track Install
 - ☐ Systems Infrastructure/Poles
 - ☐ Testing
 - ☐ Service Start
 - Work Hours
 - ☐ Monday through Friday
 - ☐ Weekends



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East Street (cont. 6)

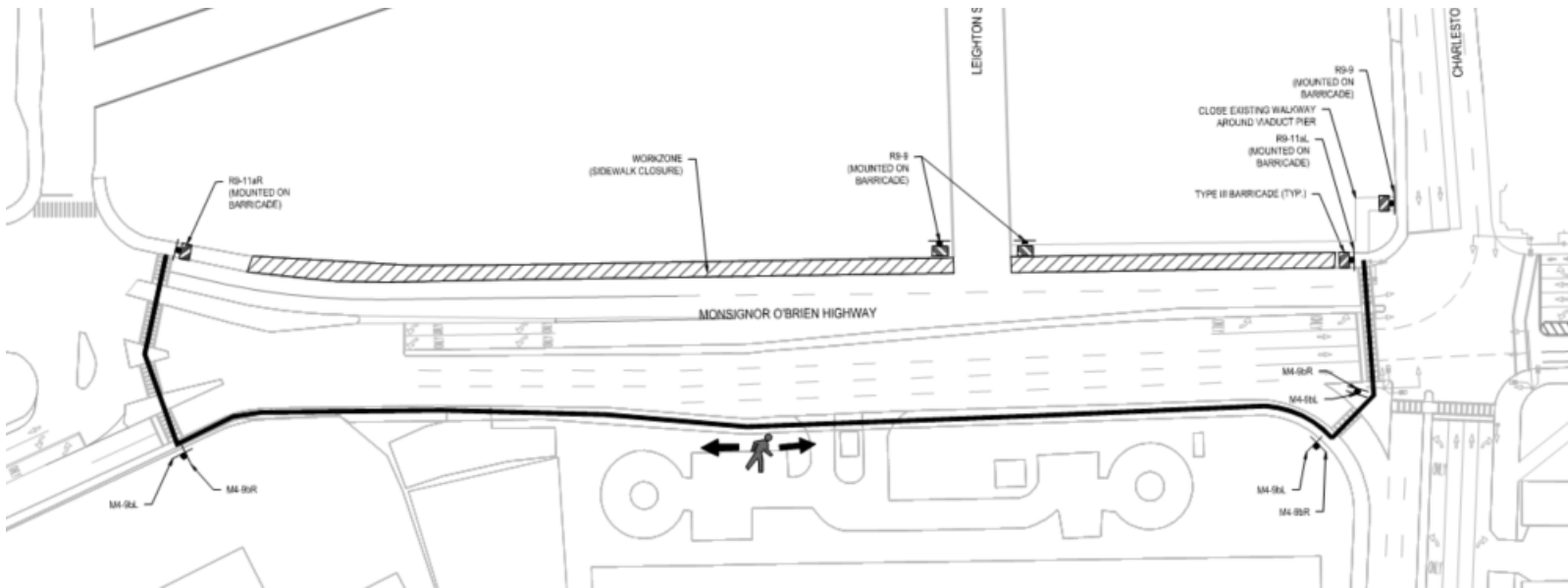
- Vehicular and Pedestrian Traffic Detour Plan During All Work Periods
- Single Lane Closure (Right Lane Outbound Hwy 28)
 - Vehicular Detour



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East St. (cont. 7)

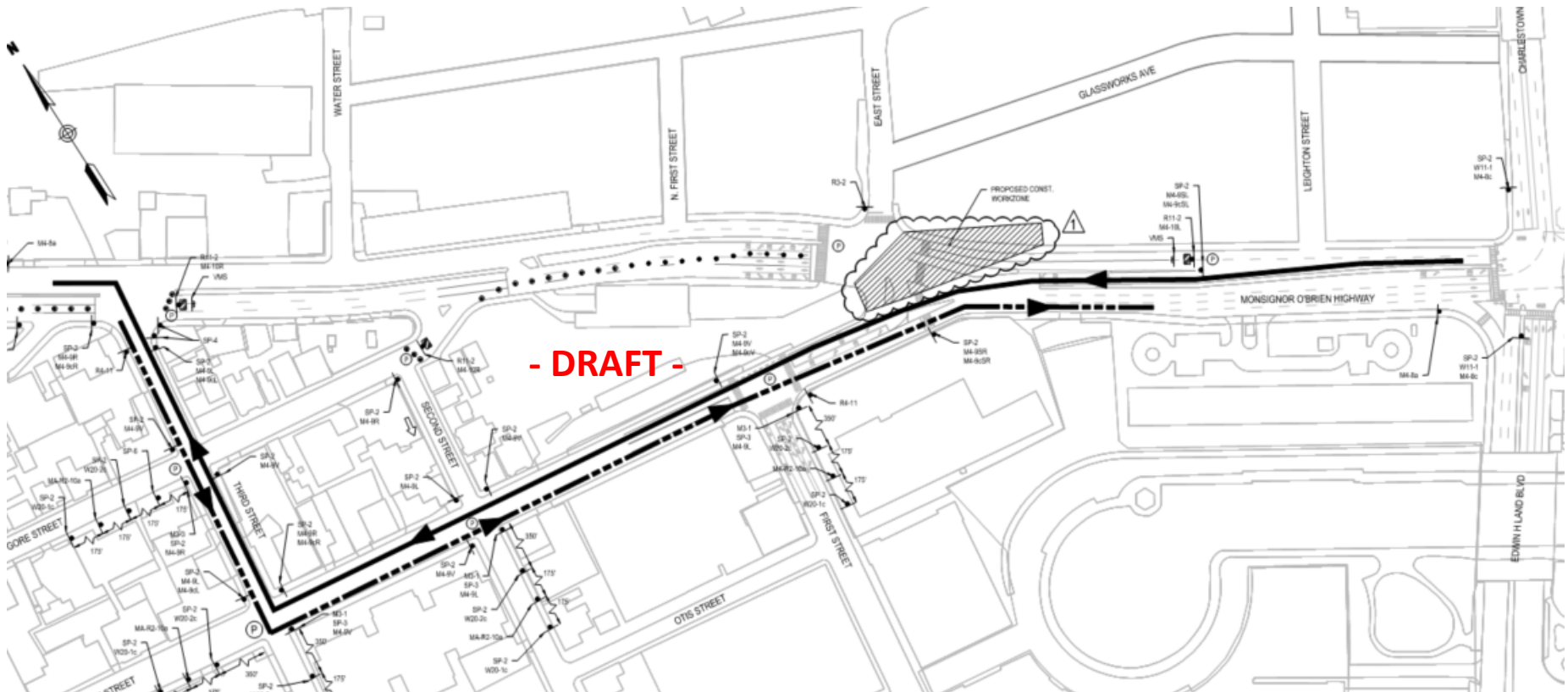
- Vehicular and Pedestrian Traffic Detour Plan During All Work Periods
- Single Lane Closure (Right Lane Outbound Hwy 28)
 - Pedestrian Detour



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East Street (cont. 8)

- Vehicular and Pedestrian Traffic Detour Plan During All Work Periods
- Demolition of Existing Viaduct over Hwy 28, Closure
 - Vehicular Detour



Construction Plans for 2020

Lechmere Viaduct – Gilmore Bridge to East St. (cont. 9)

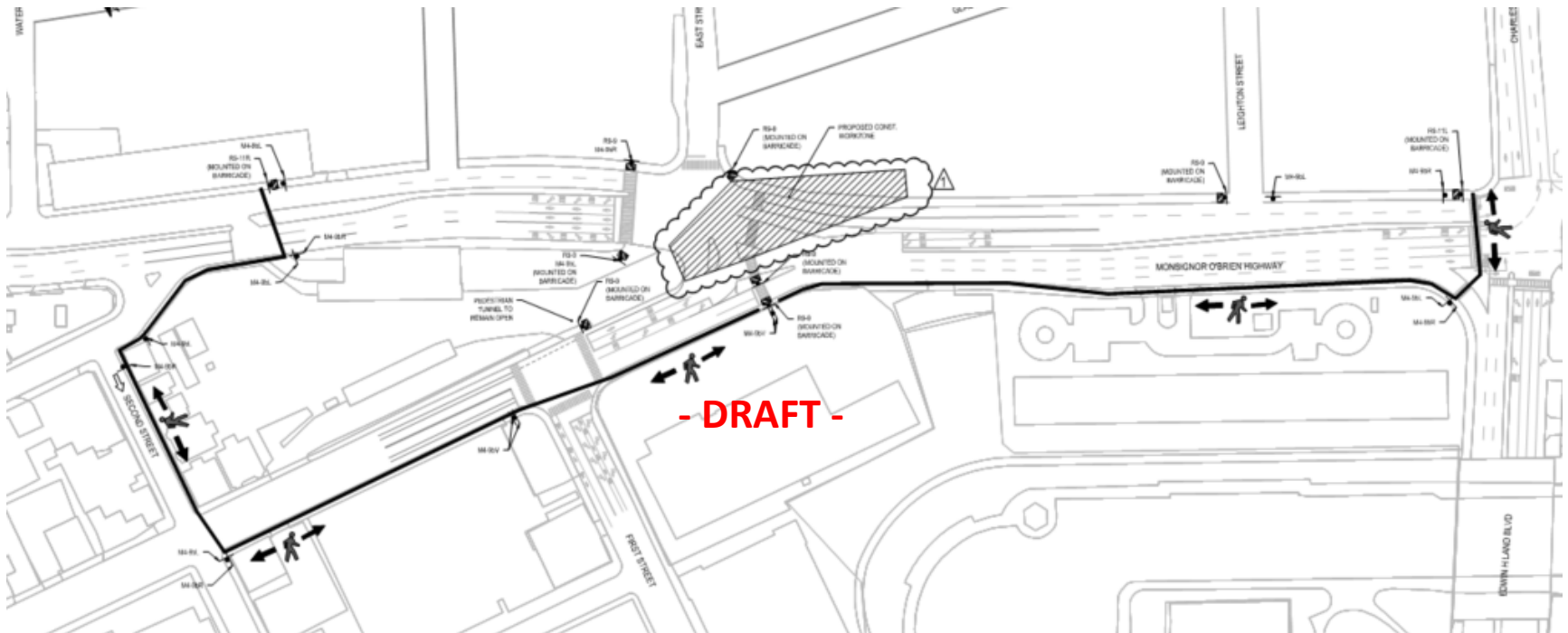
- Vehicular and Pedestrian Traffic Detour Plan During All Work Periods
- Demolition of Existing Viaduct over Hwy 28 / Closure
 - Pedestrian Detour



Construction Plans for 2020

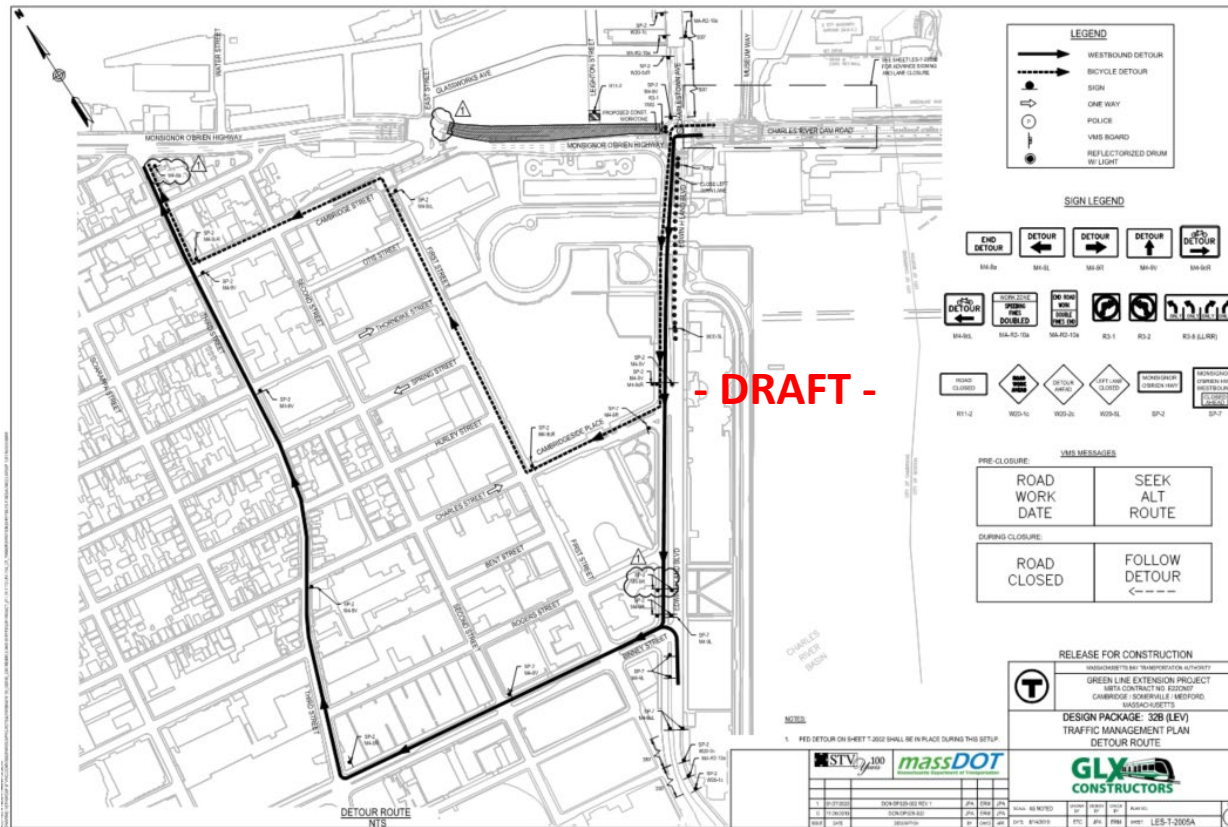
Lechmere Viaduct – Gilmore Bridge to East St. (cont. 10)

- **Vehicular and Pedestrian Traffic Detour Plan During All Work Periods**
- **Complete Closure of Outbound Hwy 28 (Weekends)**
 - Vehicular Detour
 - Pedestrian Detour will follow same route as previous slide.



Lechmere Viaduct – Gilmore Bridge to East St. (cont. 11)

- **Vehicular and Pedestrian Traffic Detour Plan During All Work Periods**
- **Complete Closure of Outbound Hwy 28 (Weekends)**
 - Vehicular Detour





GLXC Construction Update



Union Square Station Area

- Foundation construction continues at future Union Square Station
- Retaining wall construction and sheet pile driving progressing behind GLXC office & Target



Lechmere Area

- Steel placement across N. First St. continues to advance toward Water St.



Lechmere Area con't

- Underneath the old viaduct micropile drilling is well underway. This will serve as the foundation for new viaduct



Boston Engine Terminal Area



- Deck construction progressing over the Boston Engine Terminal tracks



Vehicle Maintenance Facility

- Retaining wall work and drainage installation continues
- Foundation work on VMF and Transportation Building underway



East Somerville Station Area

- The East Somerville Station is starting to take shape
- Drainage and bridge abutment construction continues at the Washington St. rail overpass



Future Gilman Square Station Area



- Track shift complete
- Wall work continues and we are removing soil that supported drilling operations
- Medford St. bridge modifications are ongoing
- School St. closed for storm sewer connections



Ball Square Station Area



- Work on the east & west abutments and center pier on Broadway Bridge is advancing
- The drainage tie in the middle of Granville Ave. complete
- Traction power substation foundation & utilities work is progressing



Medford/Tufts Station Area



- Foundation drilling for the retaining wall along Boston Ave.



Work on the West Side

- Track shifts make way for work to ramp up on the west side of alignment



Outreach – Hotline Responses

- **1,165** Inquiries thru Hotline, e-mail or direct contact with outreach staff project to date. 60 contacts received in March
- **1,053** actions closed out (Majority of close-out items are tied to future construction activities)



Q & A

