



**Commonwealth of Massachusetts
Division of Occupational Licensure
Office of Public Safety and Inspections
Architectural Access Board**

1000 Washington St., Suite 710 • Boston • MA • 02118
V: 617-727-0660 • www.mass.gov/aab

Docket Number

(Office Use Only)

APPLICATION FOR VARIANCE

INSTRUCTIONS:

- 1) Answer all questions on this application to the best of your ability.
 - a. Information on the Variance Process can be found at:
<https://www.mass.gov/guides/applying-for-an-aab-variance>.
- 2) Attach whatever documents you feel are necessary to meet the standard of impracticability laid out in 521 CMR 4.1. You must show that either:
 - a. Compliance is technologically infeasible, or
 - b. Compliance would result in an excessive and unreasonable cost without any substantial benefit for persons with disabilities.
- 3) Sign the certification on Page 8.
- 4) If the applicant is not the owner of the building or his or her agent, include a signed letter from the owner granting permission for you to apply for variance.
- 5) Serve copies of the completed application and all attachments via electronic or physical delivery based on the recipient's preference to:
 - a. Local Building Department,
 - b. Local Commission on Disability (if applicable in the town where the project is located) (A list of all active Disability Commissions can be found at: <https://www.mass.gov/commissions-on-disability>), and
 - c. The Independent Living Center (ILC) for your area.
(Your ILC can be found at: <http://www.masilc.org/findacenter>.)
- 6) Complete the Service Notice included with the Application and sign it.
- 7) Deliver the completed Application and all attachments to the Board via electronic or physical delivery:
 - a. Electronic:
 - i. Applications should be sent via email to william.joyce@mass.gov & molly.griffin@mass.gov.
 - ii. The email submission must have the subject line: Variance Application - <Address>, <City>
 - iii. The application and all attachments must be in .pdf format
 - iv. The application and all attachments should be included in a single email, except where that email would exceed 15 megabytes in size.
 - v. Please submit the \$50 filing fee via check or money order via mail to the mailing address listed above with either a cover letter or, "Variance - <Address>, <City>" in the memo line.
 - b. Physical
 - i. Applications should be sent to the mailing address listed above and must include:
 1. The completed application and all attachments.
 2. A copy of the application and all attachments on a CD/DVD (Thumb Drives will not be accepted),

- 3. **The completed and signed Service Notice.**
- 4. **A check or money order in the amount of \$50 dollars, made out to the Commonwealth of Massachusetts.**
- ii. **Please ensure that all documents included are no larger than 11" x 17".**
- iii. **Incomplete applications will be returned via regular mail to the applicant with an explanation as why it was unable to be docketed.**

In accordance with M.G.L., c.22, § 13A, I hereby apply for modification of or substitution for the rules and regulations of the Architectural Access Board as they apply to the building/facility described below on the grounds that literal compliance with the Board's regulations is impracticable in my case.

1. State the name and address of the building/facility:

N/A

2. State the name and address of the owner of the building/facility:

N/A

E-mail: _____

Telephone: _____

3. Describe the facility (i.e. number of floors, type of functions, use, etc.):

N/A

4. Total square footage of the building/facility: N/A

Per floor: N/A

a. Total square footage of tenant space (if applicable): _____

5. What was the original year of construction for the building/facility: N/A _____?

6. Check the nature of the work performed or to be performed:

New Construction

Addition

Reconstruction/Remodeling/Alteration

Change of Use

7. Briefly describe the extent and nature of the work performed or to be performed (use additional sheets if necessary):

REFER TO ATTACHMENTS A & B

8. Is the building or facility historically significant? Yes No

a. If yes, check one of the following and indicate date of listing:

National Historic Landmark _____

Listed individually on the National Register of Historic Places _____

Located in registered historic district _____

Listed in the State Register of Historic Places _____

Eligible for listing _____

(In which registry?)

b. If you checked any of the above **and** your variance request is primarily based upon the historical significance of the building, you *must* complete the ADA Consultation Process of the [Massachusetts Historical Commission](#), located at 220 Morrissey Boulevard, Boston, MA 02125.

9. Which section(s) of the Board's Jurisdiction (*see Section 3 of the Board's Regulations*) has been triggered?

2.6 3.2 3.3.1(a) 3.3.1(b) 3.3.2 3.3.4 3.4

10. List **all** building permits that have been applied for within the past 36 months, include the issue date and the listed value of the work performed:

<u>Permit #</u>	<u>Date of Issuance</u>	<u>Value of Work</u>
N/A	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(Use additional sheets if necessary.)

11. List the anticipated construction cost for any work not yet permitted or for any relevant work which does not require a permit:

N/A

12. Has a certificate of occupancy been issued for the facility? Yes No

If yes, state the date it was issued: N/A

13. To the best of your knowledge, has a complaint ever been filed with the AAB on this building or facility relative to accessibility? Yes No

a. If so, list the AAB docket number of the complaint _____

14. For existing buildings or facilities, state the actual assessed valuation of the **BUILDING/IMPROVEMNTS ONLY**, as recorded in the **Assessor's Office** of the municipality in which the building or facility is located: N/A

Is the assessment at 100%? Yes No

If not, what is the town's current assessment ratio? N/A

15. State the phase of design or construction of the facility as of the date of this application:
CONSTRUCTION COMPLETE (AND SIDEWALK IS IN USE)

16.

Please list specific technical sections, not 521 CMR 3.

Request #1

Section(s) for which you are seeking relief: 521 CMR 20.9

Are you seeking temporary relief: Yes No

Types of Attachments for this Request:
[] Floor/Site Plans, [] Cost Estimates,
[X] Photographs, [] Test Drawings,
[] Other(s): EXPLANATORY NOTE

If yes, what date do you propose to be in compliance by: _____?

Please describe in detail why compliance with the Board's regulations are impracticable (as defined in 521 CMR 5) for the subject of this request, and attach whatever documents are relevant to support your argument that compliance is impracticable (attach additional pages if necessary, please identify which request each attachment is in support of):

REFER TO ATTACHMENTS A & B

Request #2

Section(s) for which you are seeking relief: _____

Are you seeking temporary relief: Yes No

Types of Attachments for this Request:
[] Floor/Site Plans, [] Cost Estimates,
[] Photographs, [] Test Drawings,
[] Other(s): _____

If yes, what date do you propose to be in compliance by: _____?

Please describe in detail why compliance with the Board's regulations are impracticable (as defined in 521 CMR 5) for the subject of this request, and attach whatever documents are relevant to support your argument that compliance is impracticable (attach additional pages if necessary, please identify which request each attachment is in support of):

Request #3

Section(s) for which you are seeking relief: _____

Are you seeking temporary relief: Yes No

If yes, what date do you propose to be in compliance by: _____?

Please describe in detail why compliance with the Board's regulations are impracticable (as defined in 521 CMR 5) for the subject of this request, and attach whatever documents are relevant to support your argument that compliance is impracticable (attach additional pages if necessary, please identify which request each attachment is in support of):

Types of Attachments for this Request:
 Floor/Site Plans, Cost Estimates,
 Photographs, Test Drawings,
 Other(s): _____

Request #4

Section(s) for which you are seeking relief: _____

Are you seeking temporary relief: Yes No

If yes, what date do you propose to be in compliance by: _____?

Please describe in detail why compliance with the Board's regulations are impracticable (as defined in 521 CMR 5) for the subject of this request, and attach whatever documents are relevant to support your argument that compliance is impracticable (attach additional pages if necessary, please identify which request each attachment is in support of):

Types of Attachments for this Request:
 Floor/Site Plans, Cost Estimates,
 Photographs, Test Drawings,
 Other(s): _____

If you require more than 4 requests, please use the *Additional Request Sheet* and complete the *Large Variance Tally Sheet*, both of which are available on the “Forms and Applications” page of the Board’s website (<http://www.mass.gov/aab>).

17. State the name and address of the architectural or engineering firm, including the name of the individual architect or engineer responsible for preparing drawings of the facility:

ANDREW BRADSHAW, STV INCORPORATED

ONE FINANCIAL CENTER, BOSTON, MA 02111

E-mail: andrew.bradshaw@stvinc.com

Telephone: (617) 947-4681

18. State the name and address of the building inspector responsible for overseeing this project:

ROBERT SCOTT, DIVISION OF OCCUPATIONAL LICENSURE

OFFICE OF PUBLIC SAFETY & INSPECTIONS

1000 WASHINGTON STREET, SUITE 710, BOSTON, MA 021118

E-mail: robert.scott@mass.gov

Telephone: (617) 947-4681

I DECLARE UNDER THE PENALTY OF PERJURY THAT THE INFORMATION PROVIDED IN THIS APPLICATION AND SUPPORTING DOCUMENTATION IS TRUE AND CORRECT

Date: 6/14/2024

DocuSigned by:
Maureen McDonough
40C65697FA7E412...

Signature of owner or authorized agent (required)

PLEASE PRINT:

MAUREEN McDONOUGH

Name

MBTA

Organization (If Applicable)

10 PARK PLAZA

Address 2 (optional)

BOSTON	MA	02116
City/Town	State	Zip Code

mmcdonough@mbta.com

E-mail

(617) 448-8810

Telephone

SERVICE NOTICE

I, MAUREEN McDONOUGH,
(Name)

as MBTA GLX PROGRAM MANAGER
(Relationship to the applicant)

HEREBY CERTIFY UNDER THE PAINS AND PENALTIES OF PERJURY THAT I SERVED OR CAUSED TO BE SERVED, A COPY OF THIS VARIANCE APPLICATION ON THE FOLLOWING PERSON(S) IN THE FOLLOWING MANNER:

<u>NAME AND ADDRESS OF PERSON OR AGENCY SERVED</u>	<u>METHOD OF SERVICE</u>	<u>DATE OF SERVICE</u>
1 Building Department NICHOLAS ANTANAVICA DIRECTOR OF INSPECTIONAL SERVICES DEPARTMENT 1 FRANEY ROAD, SOMERVILLE, MA 02145 nantavica@somervillema.gov	e-mail	6/24/2024
2 Local Commission on Disability (If Applicable) ADRIENNE POMEROY ADA COORDINATOR CITY OF SOMERVILLE 93 HIGHLAND AVENUE, SOMERVILLE, MA 02143 ada@somervillema.gov	e-mail	6/24/2024
3 Independent Living Center BILL HENNING, EXEC DIRECTOR BOSTON CENTER FOR INDEPENDENT LIVING 60 TEMPLE PLACE, BOSTON, M2 02111 bhenning@bostoncil.org	e-mail	6/24/2024

DocuSigned by:



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6/24/2024

Signature

Date

ATTACHMENT A: MAAB VARIANCE REQUEST FOR GLX NON-COMPLIANT SIDEWALK AT MEDFORD STREET, SOMERVILLE

The Green Line Extension (GLX) project is an initiative of the Massachusetts Department of Transportation and the Massachusetts Bay Transportation Authority (MBTA). The project has extended the existing MBTA Green Line light rail service from a relocated Lechmere Station through the densely settled communities of Cambridge, Somerville, and Medford northwest of Boston.

GLX Background & Goals:

Project Goals

The goal of the GLX project is to improve transit service, mobility and regional access for residents and visitors in Cambridge, Somerville, and Medford. Bringing MBTA light rail service to these densely populated cities will address longstanding transportation inequities, result in fewer automobiles on local roads, and help to combat greenhouse gas emissions and other components of air pollution.

The GLX project will also support municipal plans for local economic growth and provide residents of environmental justice and disabled populations with faster rides to jobs, schools, health care and other destinations.

Project Context

The GLX project begins at the intersection of Land Boulevard and Monsignor O'Brien Highway in Cambridge at the existing Green Line Viaduct north of Science Park Station. The new Green Line alignment stays on the northeast side of the Monsignor O'Brien Highway, where the relocated Lechmere Station is sited. Just north of Lechmere Station the extension splits into two branches. The Union Square branch follows the Fitchburg Commuter Rail Line for approximately one-mile northwest into Union Square, terminating at the new Union Square Station. After the split from the Union Square Branch, the Medford Branch follows the New Hampshire Commuter Rail Line north for 3.2 miles through Somerville and terminates in Medford at the College Avenue. There are five (5) new stations on the Medford Branch. Figure 1 shows the route of the project and the station locations.

Project Elements

Principal elements of the project include the following:

- Reconstruction/rehabilitation of three (3) rail bridges and five (5) roadway bridges
- Widening of the existing railroad corridor & relocation of approximately 4 miles of commuter rail
- Seven (7) fully accessible stations
- New Green Line Vehicle Maintenance and Storage Facility
- 3.8 mile extension of light rail service on the Medford Branch
- 0.9 mile extension of light rail service on the Union Square Branch
- An extension of the accessible, multi-use Somerville Community Path

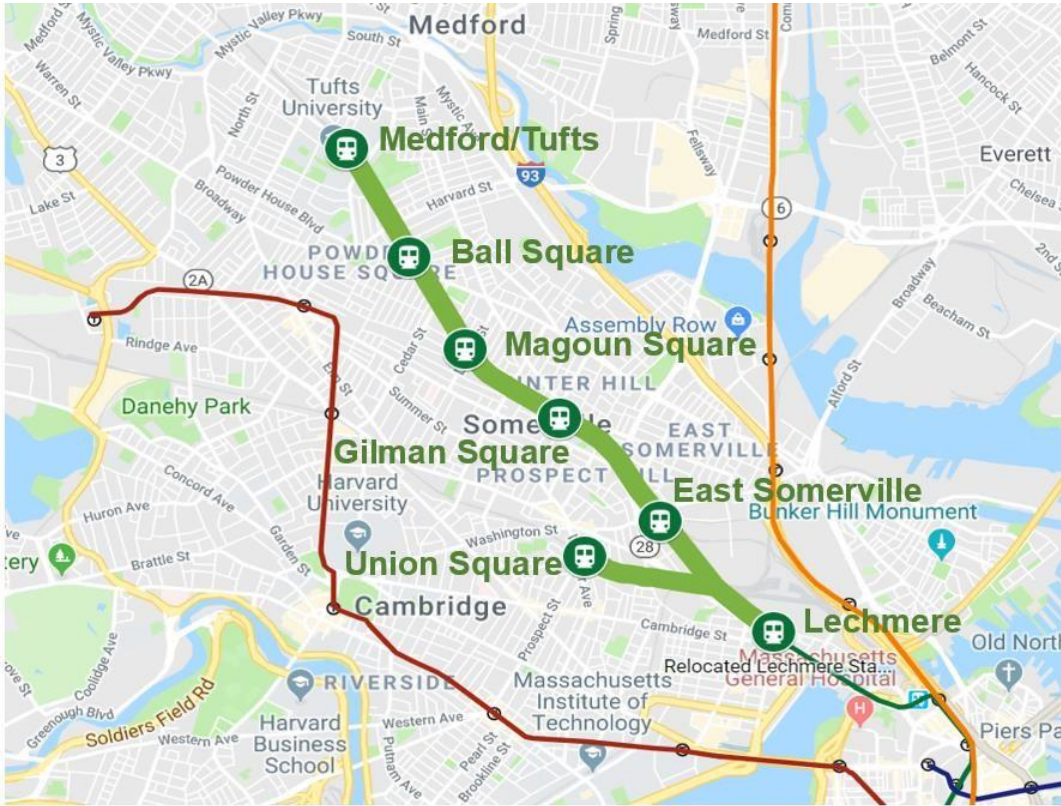


Figure 1: Route of GLX project

Design History & FTA Review:

The GLX initiative began nearly a decade ago and was procured by MBTA as a CM/GC and the contracting entity received a Notice-to-Proceed on July 19, 2013. In addition, the MBTA hired a design consultant (AECOM/HNTB) to provide complete engineering design services for the seven stations. Due to cost escalations exceeding the MBTA's estimate, the MassDOT Board of Directors halted the project in late 2015, and the MBTA, in turn, terminated the contract in early 2016. This period of work is referred to as "Episode 1" of GLX.

The current GLX project took over after the termination of Episode 1 and is a Design Build project.

The previous design consultant prepared design solutions for access routes and accesses to the proposed station locations, and many of these design layouts are applicable to the current GLX project design.

On March 15, 2021, the GLX project submitted six variance requests to MAAB. In the MAAB Notice of Action (5/12/21), it was determined that no relief was required for three requests, and the other three were approved.

Aside from the locations that were the subject of the previous variance request, the project has been able to comply with all applicable State & Federal accessibility requirements. However, due to existing roadway conditions at Medford Street, the project is seeking an additional variance for accessibility as documented in this application. This location was not previously submitted in March 2021 because it only came to light in August 2023 after construction was completed.

This application relates to one specific location where an ADA/MAAB compliant solution is considered technically infeasible due to existing conditions.

Location where a variance is sought:

MAAB #7 - Immediately north of Medford Street Bridge a variance from a maximum running slope of 5% (reference 521 CMR 22.3) is sought

A plan of Medford Street showing the location of the non-compliant sidewalk length (approximately 30 ft), on the east side, is shown below in Figure 2.

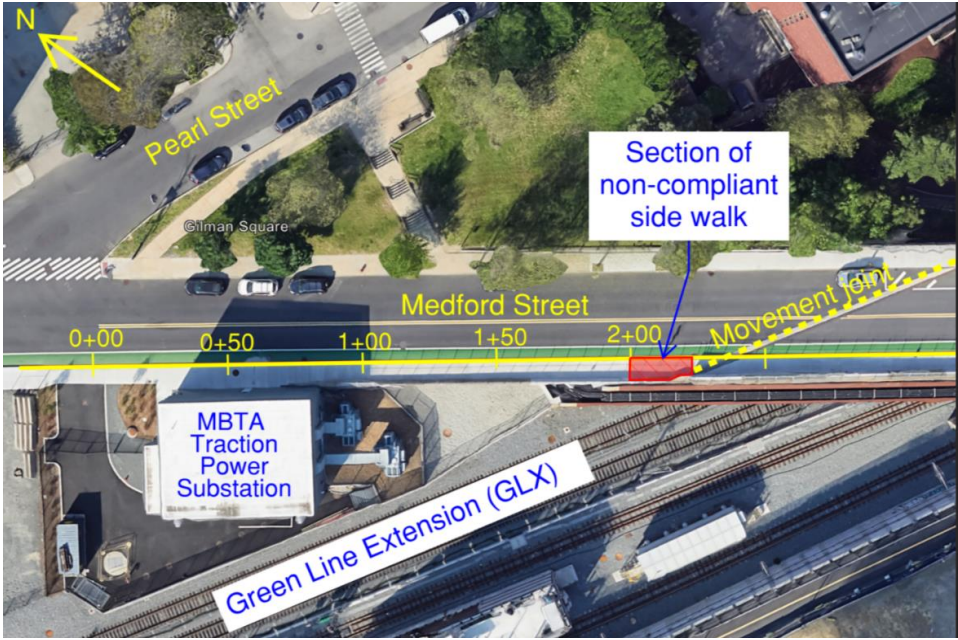
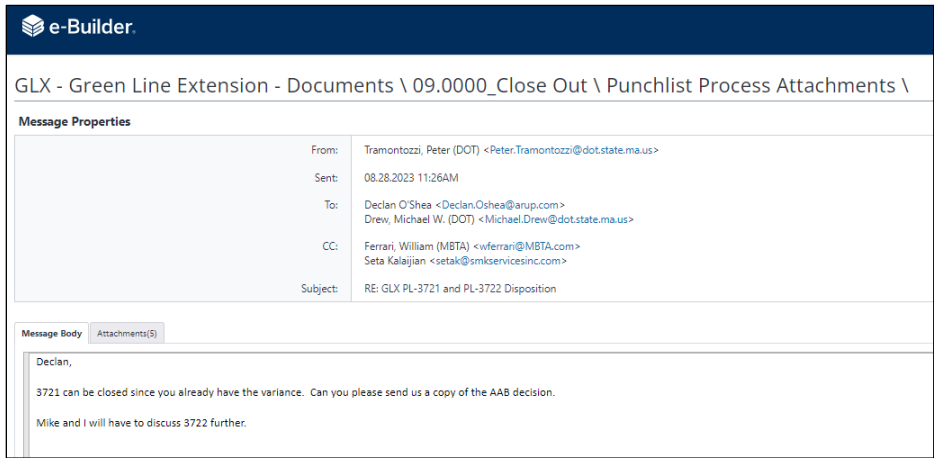


Figure 2 - Plan of Medford Street, north of existing bridge

This section of sidewalk is owned by the City of Somerville but was rebuilt by the Design Build contractor as part of the broader GLX project to complete the bridge work scope.

A joint site inspection took place in August 2023 with GLX project members and MassDOT representatives. MassDOT accepted the sidewalk construction work, but requested a copy of the MAAB decision – see record below from MBTA GLX project documentation



The sidewalk broadly follows the existing running slope of the roadway and varies between approximately 6-8%, falling from the bridge movement joint northwards to the intersection with Pearl Street. (See Figure 3)

A 30 ft length of the east sidewalk exceeds the roadway running slope, with an average slope of 8.75%. The running slope of the sidewalk on the actual Medford Street bridge is approximately 3.3%.

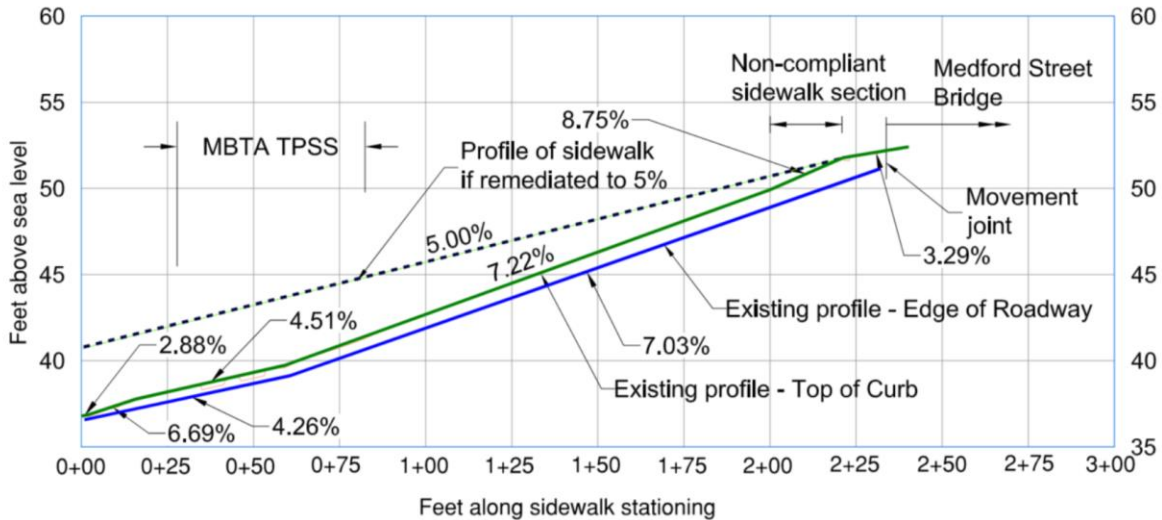


Figure 3 - Profile along Medford Street, north of existing bridge movement joint

A further complication at this location is that for the sidewalk curb profile to match the existing bridge deck sidewalk profile, the curb reveal immediately north of the bridge joint is 15" to maintain the roadway elevation at this point. The slope of the sidewalk away from the bridge is steeper for a 30 ft length away (northwards) from the bridge movement joint to achieve the standard curb reveal of 6". See Figure 4.

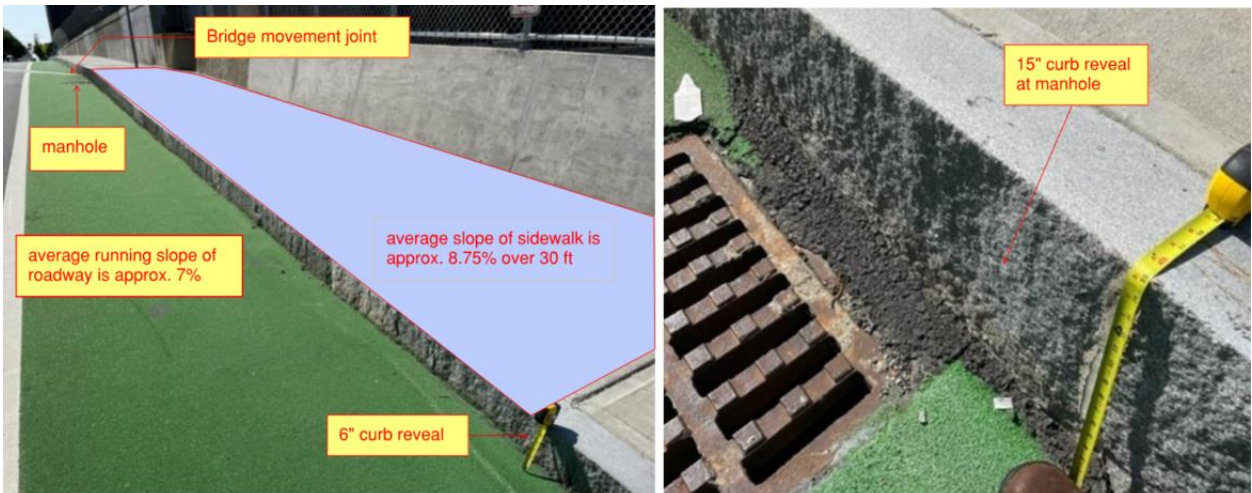


Figure 4 – sidewalk curb reveal at non-compliant length

The GLX project bridge scope of work also included the installation of a new cover plate on the bridge expansion joint in the sidewalk (see figure 5 below). The top of the cover plate must be at the correct elevation to be flush with adjacent existing sidewalk surface (to the south) and with the reconstructed

sidewalk (to the north). This resulted in added height to the curb reveal to comply with a 2% maximum sidewalk cross slope.

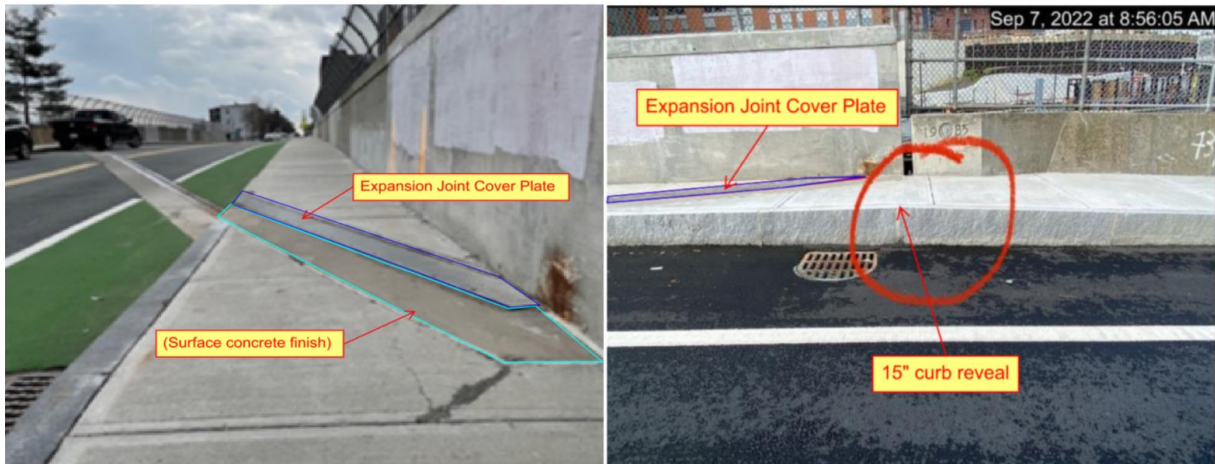


Figure 5 – Bridge expansion joint cover plate on sidewalk

For the sidewalk running slope to match the roadway running slope at this location, without impacting the bridge, the roadway profile would have to be raised by 9” in the vicinity of the bridge expansion joint. This would result in a 9” step in the roadway across the bridge expansion joint and is not considered a practical solution. An alternative is for the sidewalk to be lowered by 9” adjacent to the bridge expansion joint – this would result in a 9” step across the sidewalk in the vicinity of the bridge expansion joint, which also is not considered a practical solution.

Another option considered is the impact of a 5% sidewalk running slope. As shown in Figure 3, reprofiling of the sidewalk to achieve an ADA compliant running slope of 5% would lead to a significant elevation difference between the roadway and sidewalk as it runs north from the bridge movement joint. This would result in a level difference of approximately 5 ft at the intersection with Pearl Street, requiring the entire intersection to be raised, or construction of a retaining wall between the sidewalk and roadway. Refer to Attachment B for further details.

While the topographical survey terminates at the intersection with Pearl Street, Medford Street continues to fall to the north, meaning any reprofiling would require chasing this grade beyond the junction for a significant distance - further increasing cost, disruption, and access

Either option would have significant costs, disruption and affect access to existing frontages.

For the reasons above, it is considered technically infeasible to meet the ADA requirement (reference 521 CMR 22.3) of a 5% running slope for the 30 ft section of Medford Street sidewalk in question.

Medford street bridge and sidewalks was part of the FTA review in 2013 and was accepted by the FTA as being technically infeasible. After that time, and as part of the GLX project redefinition in 2016, the station concept and the station access points changed. Notwithstanding this change, the Medford Street sidewalk slope variance (on the westside of the street) is still valid. An extract from the 2013 review is given below (Figure 6) and indicates “Variance #1” applied to both sidewalks.

In previous correspondence with FTA, there was concurrence that this area was technically infeasible to bring it into compliance.

Alternative / compliant pathways that exist for people accessing the station from Medford Street. Medford Street and School Street both have steep sidewalk slopes. There is a community path connection to Medford Street that provides access to the GLX Gilman Square station – see Figure 7 below.

The previous station entrance at Medford Street (2013) was eliminated at the project redefinition stage in 2016 (see Figure 6), and a new station entrance off School Street was subsequently added (see Figure 7).

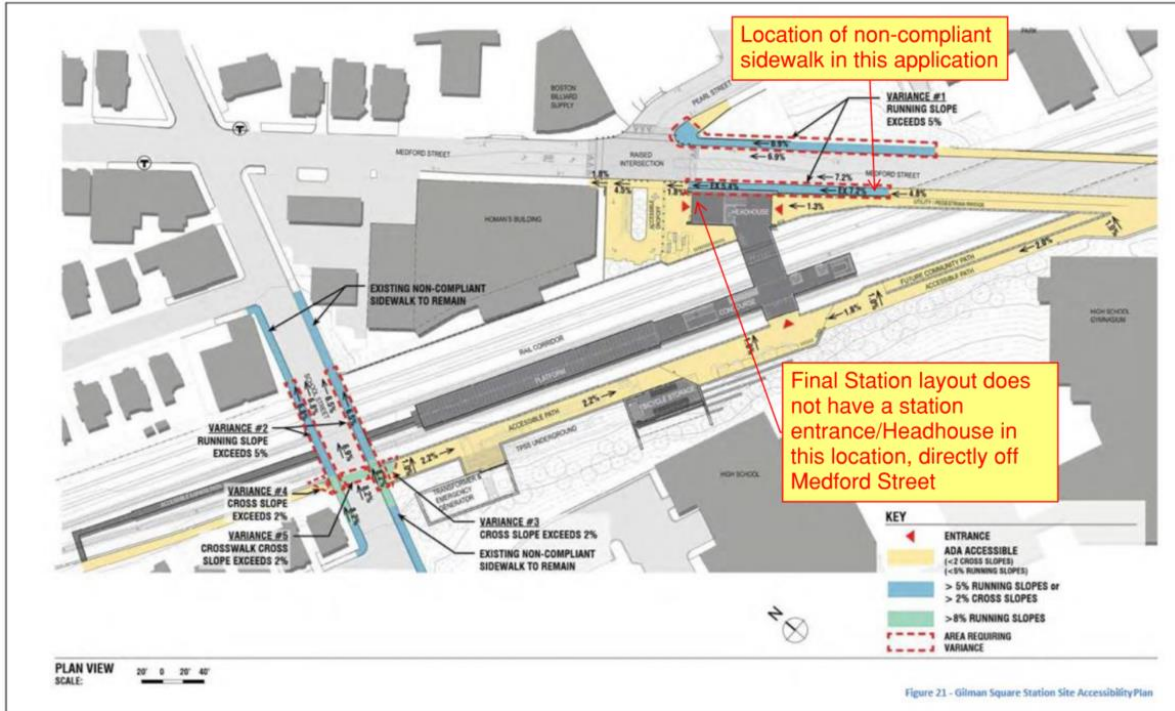


Figure 6 – 2013 variance locations & Station layout

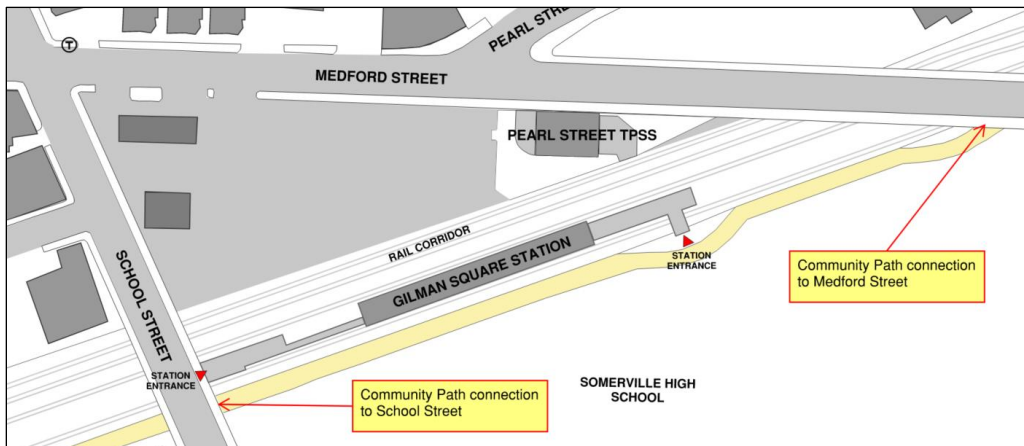


Figure 7 – Final station layout under current Design Build contract

ATTACHMENT B

The only work that was carried out in the GLX project contract was local repair to the sidewalk on the eastside of Medford Street, for a length of approximately 15 ft adjacent to the movement joint. No bridgework to the north of the movement joint was included in the GLX project scope.

Any work related to addressing the 7% running slope of the existing sidewalks was not a part of the GLX project because the existing sidewalks match the running slope of the street from the bridge movement joint towards the intersection with Pearl Street.

Impact of a 5% sidewalk running slope

If the sidewalk was reconstructed and reprofiled to achieve a 5% slope, the impacts would be as follows:

- The need to build a retaining wall for the sidewalk for a length of approximately 250 ft. (Figure 1), along the roadside edge of the sidewalk
- A further retaining wall and pedestrian guard rail would also be needed on the outside edge of the sidewalk, north of PSTPP to the Mobil gas station on Medford Street, for a length of approximately 100ft.
- The need to increase the height of the existing wall on the outside edge of the sidewalk, and replace the fencing, from Medford Street Bridge to the new MBTA Pearl Street Traction power Substation (PSTPSS) (Figure 1)
- Access to the PSTPSS would be rendered impossible – both at the location of the doors (for MBTA personnel) and for vehicular access. This would not be acceptable to the MBTA as it would give no ability to operate and maintain the PSTPSS (which is crucial to provide power to the GLX system) (Figures 2, 3, 4 & 5)
- The need to excavate the edge of the existing road pavement adjacent to the sidewalk edge to allow for foundations for the retain wall. This would also result in the need to reconstruct the road drainage system
- Potential impact to the accessible width along the sidewalk due to the need to have at least a 1ft wide retaining wall (to install a guard rail system on top of the wall to protect pedestrians)
- Vehicular access to the existing Somerville High School parking lot (off Medford Street) would be rendered impossible
- Potential impact to the Mobil gas station access on Medford Street due to the need to raise the sidewalk elevation

Design work has not been undertaken to prepare a layout of the potential reprofiled sidewalk. This would be a significant undertaking with a significant cost, particularly given that such a potential solution (i.e. reprofiling of the sidewalk) is not feasible and is not a requirement of the GLX project. Likewise, a cost estimate has not been undertaken for the same reasons.



Figure 1: Medford Street looking North (from rail bridge)

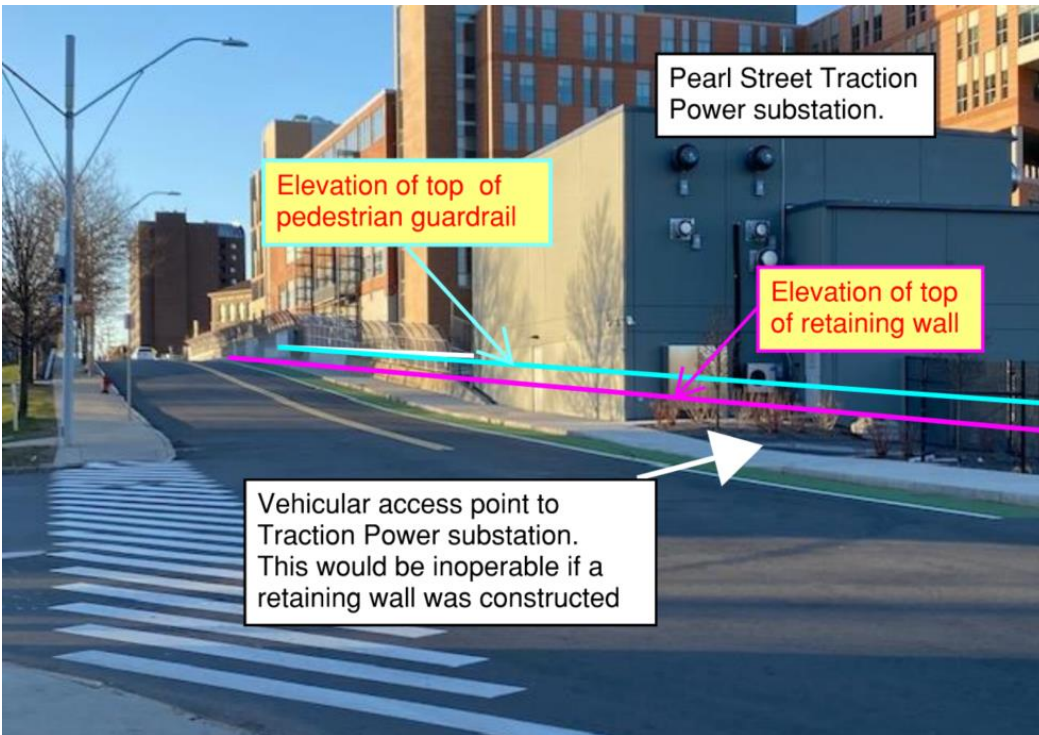


Figure 2: Medford Street looking South (to rail bridge and to PSTPSS)

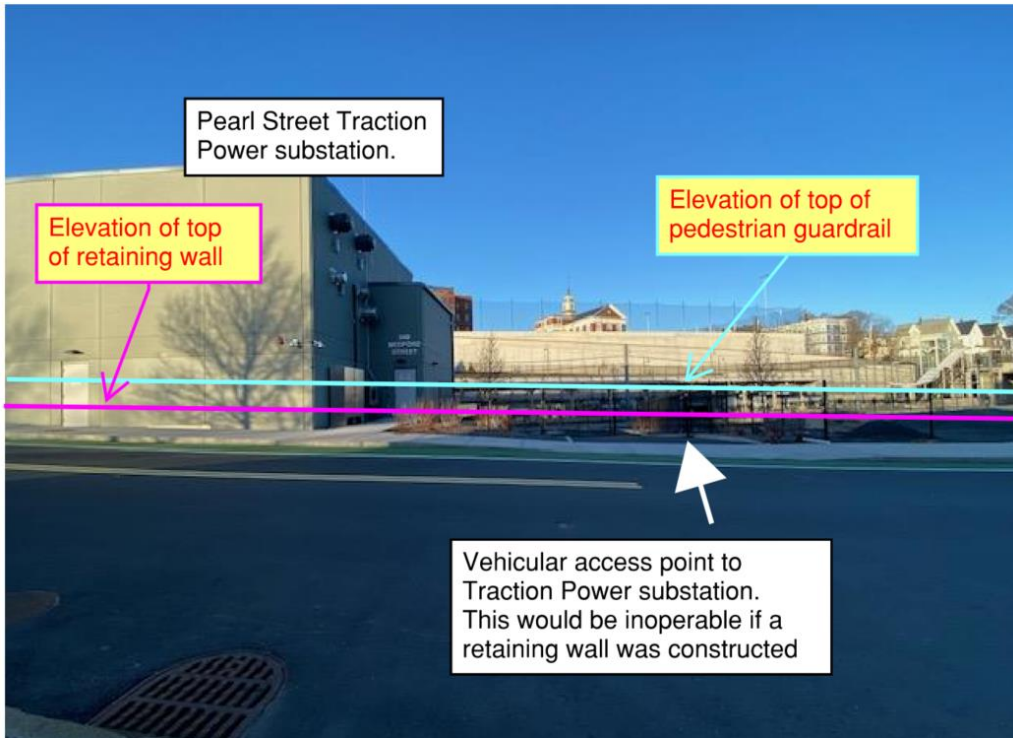


Figure 3: Medford Street facing the MBTA PSTPSS

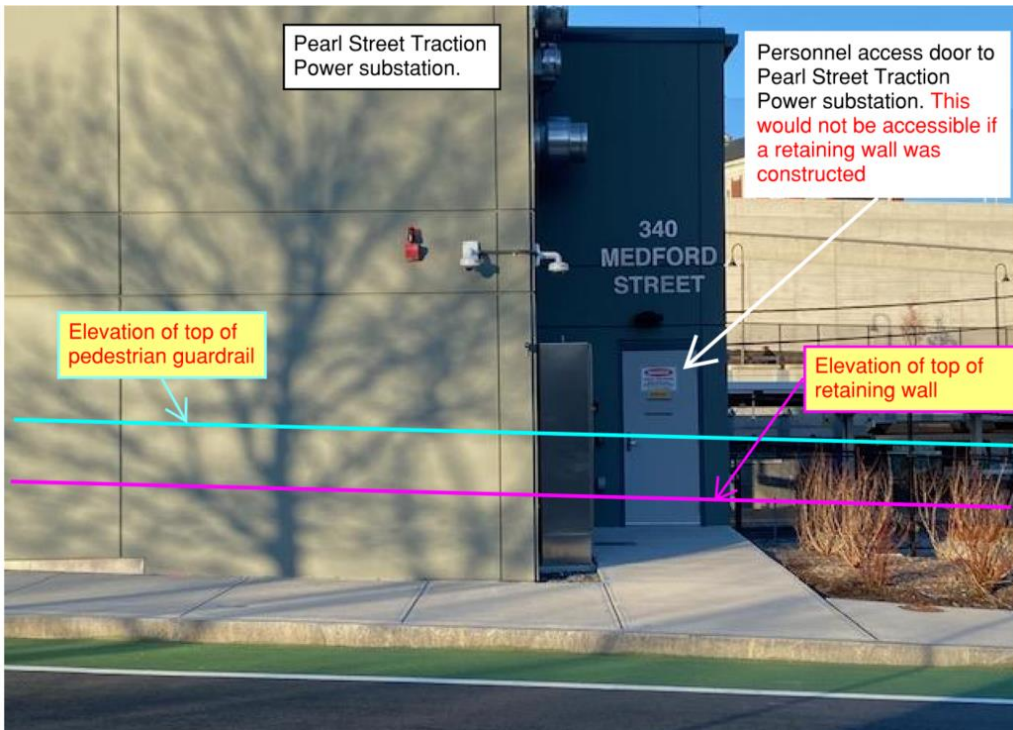


Figure 4 - Medford Street facing the MBTA PSTPSS personnel access door

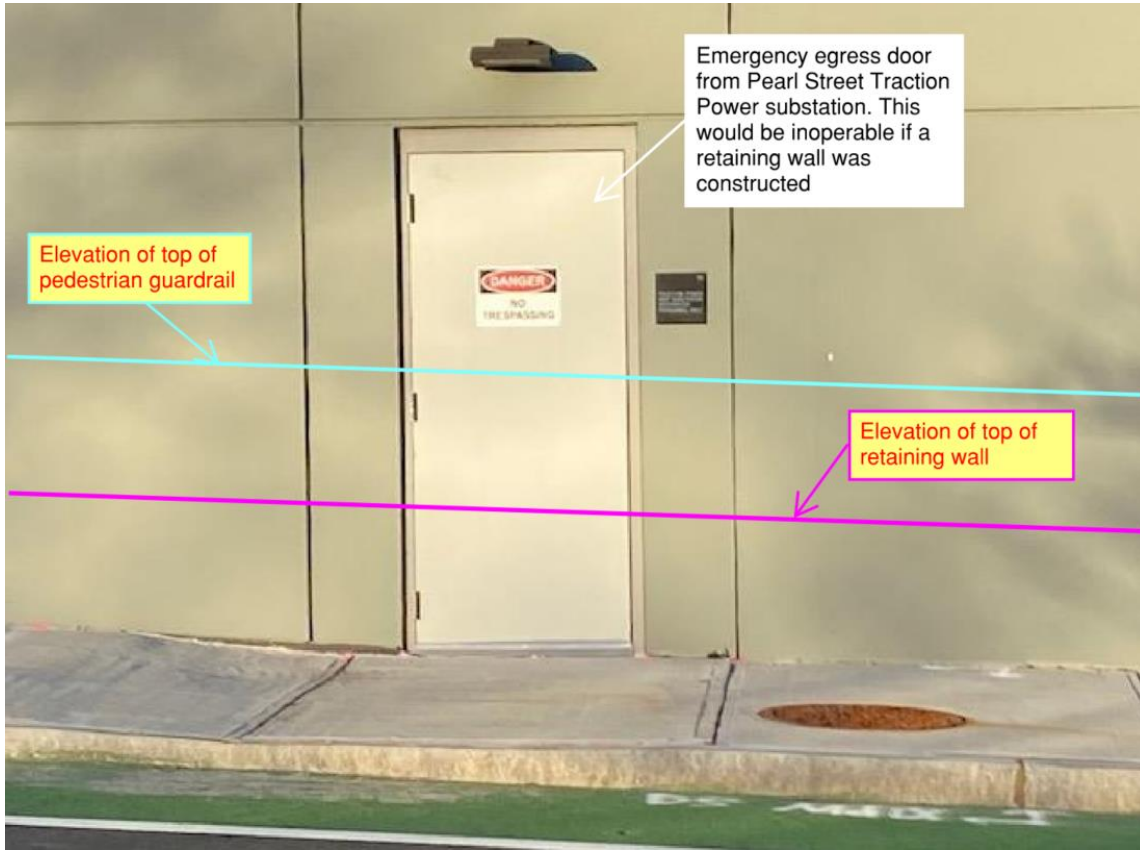


Figure 5 - Medford Street facing the MBTA PSTPSS emergency egress door