



## BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

---

Stephanie Pollack, MassDOT Secretary and CEO and MPO Chair  
Tegin L. Teich, Executive Director, MPO Staff

### ***WORK PROGRAM***

## **SERVICE EQUITY ANALYSIS FOR THE GREEN LINE EXTENSION SERVICE**

OCTOBER 15, 2020

### **Proposed Motion**

The Boston Region Metropolitan Planning Organization (MPO) votes to approve this work program.

### **Project Identification**

#### **Unified Planning Work Program (UPWP) Classification**

Not listed in Federal Fiscal Year (FFY) 2021 UPWP

**Project Number** 11428

#### **Client**

Massachusetts Bay Transportation Authority (MBTA)

*Client Supervisor: Melissa Dullea*

#### **Project Supervisors**

*Principal: Paul Christner*

*Manager: Steven Andrews*

#### **Funding Source**

Future MBTA Contract

### **Schedule and Budget**

**Schedule:** Five months from notice to proceed

**Budget:** \$37,000

Schedule and budget details are shown in Exhibits 1 and 2, respectively.

### **Relationship to MPO Work**

This study is supported in full with non-MPO funding. Committing MPO staff to this project will not impinge on the quality or timeliness of MPO-funded work.

## Background

The MBTA plans to open the first branch of the Green Line Extension (GLX) in August 2021, and the second branch in October 2021. The MBTA, as a recipient of federal funds through the Federal Transit Administration (FTA), is required to comply with Title VI of the Civil Rights Act of 1964 (49 CFR 21). The FTA provides guidance to its subrecipients for carrying out Title VI obligations in Circular 4702.1B. This circular includes a requirement that transit providers who are implementing a New Start, Small Start, or other new fixed-guideway capital project conduct a service and fare equity analysis six months prior to the beginning of revenue operations to evaluate whether the new service would have a discriminatory impact on the basis of race, color, or national origin. Although low-income populations are not a protected class under Title VI, the FTA also requires transit providers to determine whether low-income populations would bear a disproportionate burden (or if non-low-income populations would receive a disproportionate benefit) from the new service. Because GLX is a New Starts project, the MBTA is required to complete a service equity analysis six months prior to the beginning of revenue operations. The MBTA has requested that the Central Transportation Planning Staff (CTPS) of the Boston Region MPO, which has traditionally conducted all required service equity analyses for the MBTA, conduct the service equity analysis.

## Objectives

The objective of this work is to support the MBTA in conducting the required Title VI service equity analyses for the planned GLX.

## Work Description

The work required to accomplish the project's objective will be carried out in the two tasks described below:

### **Task 1 Conduct Service Equity Analysis**

CTPS will conduct a service equity analysis for the GLX service, which will begin in August (the first branch) and October (the second branch) 2021. CTPS will work with the MBTA to determine the particular data that will be used for quantifying the impacts of the service changes based on the nature of the service changes and discussions with FTA. CTPS will use its Modified Transit Opportunity Index (MTOI) for the service equity analysis. The MTOI metric comprises three components (access opportunity, trip opportunity, and temporal comparability) that combine to measure the degree of transit service provided to a population. MTOI is used by defining the impacts of a potential service change as the overall increase or decrease in the MTOI metric for each population within the service area. This methodology improves on the procedures provided by FTA by, 1) identifying a more comprehensive set of the population impacted by a service change; 2) quantifying

impacts in relation to the magnitude of the change in service; and 3) accounting for reasonable alternative transit options that mitigate the overall impact of the service change. CTPS will use General Transit Feed Specification (also known as GTFS) files provided by the MBTA's Service Planning Department as inputs for the analyses.

CTPS will apply the MBTA's Disparate Impact and Disproportionate Burden Policy to the quantified impacts of the GLX service to evaluate whether the new service may result in disparate impacts on minority populations and/or disproportionate burdens on low-income populations.

***Products of Task 1***

Results of the service equity analysis

**Task 2 Document Results of Service Equity Analysis**

CTPS will provide the MBTA's Service Planning Department and MassDOT's Office of Diversity and Civil Rights with documentation of the service equity analysis in a technical memorandum, along with technical support for publishing and presenting the results.

***Product of Task 2***

Technical memorandum documenting the service equity analysis for the GLX service

The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 sections 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

A complaint form and additional information can be obtained by contacting the MPO or at [http://www.bostonmpo.org/mpo\\_non\\_discrimination](http://www.bostonmpo.org/mpo_non_discrimination). To request this information in a different language or in an accessible format, please contact

Title VI Specialist  
Boston Region MPO  
10 Park Plaza, Suite 2150  
Boston, MA 02116  
[civilrights@ctps.org](mailto:civilrights@ctps.org)  
857.702.3700 (voice)  
617.570.9193 (TTY)

**Exhibit 1**  
**ESTIMATED SCHEDULE**  
**Service Equity Analysis for the Green Line Extension Service**

Task	Month				
	1	2	3	4	5
1. Conduct Service Equity Analysis					
2. Document Results of Service Equity Analysis					A

Products/Milestones

A: Technical memorandum

**Exhibit 2**  
**ESTIMATED COST**  
**Service Equity Analysis for the Green Line Extension Service**

<b>Direct Salary and Overhead</b>	<b>\$37,000</b>
-----------------------------------	-----------------

Task	Person-Weeks				Direct Salary	Overhead (106%)	Total Cost
	M-1	P-5	P-2	Total			
1. Conduct Service Equity Analysis	2.6	3.6	2.2	8.4	\$12,916	\$13,691	\$26,608
2. Document Results of Service Equity Analysis	1.4	1.0	1.0	3.4	\$5,045	\$5,347	\$10,392
Total	4.0	4.6	3.2	11.8	\$17,961	\$19,039	\$37,000

<b>Other Direct Costs</b>	<b>\$0</b>
---------------------------	------------

<b>TOTAL COST</b>	<b>\$37,000</b>
-------------------	-----------------

**Funding**  
 Future MBTA Contract