



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

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The Boston Region MPO is
composed of:

Massachusetts Department of
Transportation

Metropolitan Area Planning Council

Massachusetts Bay Transportation
Authority Advisory Board

Massachusetts Bay Transportation
Authority

Massachusetts Port Authority

Regional Transportation Advisory
Council

City of Boston

City of Beverly

City of Everett

City of Newton

City of Somerville

City of Woburn

Town of Arlington

Town of Bedford

Town of Braintree

Town of Framingham

Town of Lexington

Town of Medway

Town of Norwood

Federal Highway Administration
(nonvoting)

Federal Transit Administration
(nonvoting)

MEMORANDUM

DATE April 5, 2012
TO Boston Region Metropolitan Planning Organization
FROM Karl H. Quackenbush
CTPS Executive Director
RE Work Program for: MBTA Assembly Square Station Service and Fare
Equity Analysis

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Boston Region Metropolitan Planning Organization, upon the recommendation of the Massachusetts Bay Transportation Authority, vote to approve the work program for Assembly Square Station Service and Fare Equity Analysis in the form of the draft dated April 5, 2012.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification
Technical Support/Operations Analysis

CTPS Project Number
23321

Client
Massachusetts Bay Transportation Authority
Project Supervisor: Joe Cosgrove

CTPS Project Supervisors
Principal: Scott Peterson
Manager: Sreelatha Allam

Funding
Future MBTA contract

IMPACT ON MPO WORK

The MPO staff has sufficient resources to complete this work in a capable and timely Manner. By undertaking this work, the MPO staff will neither delay the completion of nor reduce the quality of other work in the UPWP.

BACKGROUND

This study involves performing a fare equity analysis for the new Assembly Square Station in Somerville on the Orange Line. Assembly Square Station will be a new Orange Line Station between Sullivan Square and Wellington Circle. The new station will provide a direct connection to Assembly Square Row, a mixed-use redevelopment with commercial, residential, and retail services.

The Assembly Square redevelopment district in Somerville is the site of a proposed large-scale, mixed-use redevelopment project of 2,100 residential units, more than 2.75 million square feet of retail and office space, and a 200-room hotel. The district where the proposed project will be developed, over a span of 20 years, is a brownfield. It is designed to be a mixed-use neighborhood with offices, stores, hundreds of homes, a new MBTA station, and a refurbished park on the Mystic River. The first phase of construction is expected to begin early next year. The new Orange Line station at this redevelopment area, between Wellington and Sullivan Square stations, is planned to provide regional transit access and an alternative to auto traffic. The construction of the new station is proposed to be completed in the fall of 2014. This project received full funding from federal, state, and private resources.

CTPS has been requested by the MBTA to perform a fare equity analysis for the new Assembly Square Station. This analysis is mandated by the FTA's Small Starts program. It will assess the effects of the proposed service changes and the alternatives available to people affected by the changes, and will determine if the proposed construction of a new Orange Line station would have an adverse effect on low-income and minority populations. The purpose of this work scope is to clearly specify the tasks that CTPS staff will perform in this study.

OBJECTIVE

The objective of this study is to perform a travel demand analysis for the 2035 build scenario in order to perform a service and fare equity analysis under the FTA Small Starts program.

WORK DESCRIPTION

Task 1 Develop a Calibrated 2010 Base-Year Model Set

This study will calibrate a 2010 base-year model to transit and highway counts and survey data in the study area by time period. The focus of the calibration of this study will be on the the various transportation modes that compete with the Orange Line in Medford, Somerville, and Boston.

Product of Task 1

A calibrated base-year model

Task 2 Prepare Inputs for the 2035 Future Year Scenarios and Apply the Model

CTPS will perform travel demand analysis for a 2035 no-build and build scenario. Model inputs – socioeconomic data, congested highway travel times, auto operating costs, central business district (CBD) parking costs, transit fares, and travel times – will be consistent with the currently adopted land use and background transportation projects that were adopted in the Boston Region MPO’s federal fiscal year 2011 amended Long-Range Transportation Plan. The no-build will be the first scenario developed and modeled.

The build scenario will be developed after the no-build and include the new Assembly Square Station. The MBTA will be consulted regarding any changes to operations on the Orange Line or on the bus routes in the study area.

Products of Task 2

Travel demand results for the 2035 no-build and build scenarios

Task 3 Analyze and Summarize Travel Model Results and Perform a Fare Equity Analysis

The systemwide transit and highway results obtained from the travel demand model for the no-build and build scenario will be summarized, and will be used to analyze the demand associated with the new transit station at Assembly Square.

In the service and fare equity analysis, geographic areas of minority and low-income populations and non-minority and non low-income populations will be identified and the travel model results will be used to compared the two population groups. Performance measures such as mobility, accessibility to jobs, and average travel times to and from the area around the new station will be used to understand the benefits and burdens of the build scenario relative to the no-build scenario.

Product of Task 3

A spreadsheet summarizing the travel demand results and the service and fare equity analysis results

Task 4 Produce a Technical Memorandum

CTPS will produce a technical memorandum describing the travel demand model results and the service and fare equity analysis results.

Product of Task 4

A technical memorandum documenting the project

ESTIMATED SCHEDULE

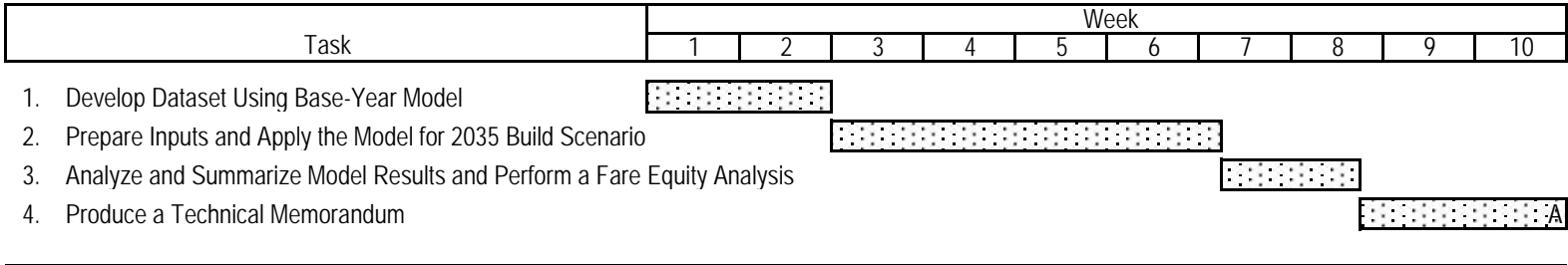
It is estimated that this project will be completed 10 weeks after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 1.

ESTIMATED COST

The total cost of this project is estimated to be \$26,956. This includes the cost of 10.2 person-weeks of staff time and overhead at the rate of 94.57 percent. A detailed breakdown of estimated costs is presented in Exhibit 2.

KQ/SA/sa

Exhibit 1
 ESTIMATED SCHEDULE
 MBTA Assembly Square Station Service and Fare Equity Analysis



Products/Milestones
 A: Technical memorandum

Exhibit 2
 ESTIMATED COST
 MBTA Assembly Square Station Service and Fare Equity Analysis

Direct Salary and Overhead **\$26,956**

Task					Direct Salary	Overhead (@ 94.57%)	Total Cost
	M-1	P-5	P-4	Total			
1. Develop a Calibrated 2010 Base-Year Model	0.5	0.0	1.5	2.0	\$2,664	\$2,519	\$5,183
2. Prepare Inputs for 2035 Future Year Scenarios and Apply the Model	1.0	0.4	3.0	4.4	\$5,981	\$5,656	\$11,637
3. Analyze and Summarize Model Results and Perform a Fare Equity Analysis	0.5	0.0	1.0	1.5	\$2,051	\$1,940	\$3,990
4. Produce a Technical Memorandum	0.8	0.0	1.5	2.3	\$3,159	\$2,987	\$6,146
Total	2.8	0.4	7.0	10.2	\$13,854	\$13,102	\$26,956

Other Direct Costs **\$0**

TOTAL COST **\$26,956**

Funding
Future MBTA Contract