



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Monica Tibbits-Nutt, MPO Chair | Secretary and CEO, Massachusetts Department of Transportation
Tegin Leigh Teich, Executive Director, MPO Staff

WORK PROGRAM

BLUEBIKES AND MBTA CONNECTIONS

OCTOBER 24, 2024

Proposed Motion

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

Project Identification

Unified Planning Work Program (UPWP) Classification

Boston Region MPO Planning Studies and Technical Analyses

Project Number 13819

Client

Boston Region MPO

Project Supervisors

Principal: Rounaq Basu

Manager: Tanner Bonner

Funding Source

MPO Planning Contract and MPO §5303 Contract 126734

Schedule and Budget

Schedule: 11 months after work commences

Budget: \$59,452

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

Relationship to MPO Goals

The Boston Region MPO elected to fund this study with its federally allocated metropolitan planning funds during federal fiscal year (FFY) 2025. The work completed through this study will address the following goal areas established in the MPO's Long-Range Transportation Plan: access and connectivity, mobility and reliability, and equity.

Background

A well-integrated and safe multimodal network is essential for serving a variety of trip needs and shifting further away from car-dependent travel. Bikeshare offers significant utility by connecting with public transit and facilitating multimodal trips throughout the Boston region. One of its key roles is addressing what is known as the first- and last-mile problem, making it easier for riders to access transit stations and complete their trips efficiently without the need of a car. Additionally, Bluebikes can substitute for transit for trips that may otherwise take longer or be less convenient, offering riders a flexible and often quicker alternative. In these ways, Bluebikes and the Massachusetts Bay Transportation Authority (MBTA) can both complement and compete with each other.

Central Transportation Planning Staff, the staff to the MPO, has worked with the MBTA and the Cities of Boston, Cambridge, and Somerville to understand how riders interact with the Bluebikes system. This study will allow the MPO to further understand how we could improve our existing bicycle network and how both Bluebikes and the MBTA can serve as a more viable option for people to travel.

Staff recently conducted a literature review and an exploratory analysis to develop a baseline understanding of the complementary relationships between bikeshare and transit. While we found that a great majority of existing Bluebikes stations are near MBTA stops, there are still gaps in system connectivity and a variety of factors left unexplored. With the use of additional data, tools, and methodologies, along with stakeholder input, staff will build upon this previous work to analyze where the Bluebikes and the MBTA allow for complementary and competitive trips and how rider behavior reflects available bikeshare and transit opportunities.

This research complements existing MPO efforts, including a Bluebikes fare equity analysis and demographic survey, development of a Baseline Equity Metrics dashboard, and the Boston Region MPO's Bicycle and Pedestrian program. The findings could inform continued investment in bicycle and pedestrian infrastructure projects, cooperative planning efforts between Bluebikes and the MBTA, and other efforts that may lead to an increase in both Bluebikes and MBTA ridership.

Objective

This work will build on previous research on the interaction between the Bluebikes and MBTA systems using additional data and expanded methodologies to understand system connectivity and rider behavior.

Work Description

Staff will conduct analysis and engagement to consider how the Bluebikes system interacts with the MBTA. This work will analyze where the Bluebikes and the MBTA

allow for complementary and competitive trips and how rider behavior reflects available bikeshare and transit opportunities.

Task 1 Plan and Prepare Analysis

MPO staff will identify specific analysis areas of interest depending on available data and stakeholder input.

Subtask 1.1 Review Previous Work

MPO staff will organize the analyses in the GitHub repository, holistically review the findings from our previous work, and identify focus areas for extending the research.

Subtask 1.2 Consult Stakeholders

To inform data source choices, analysis approach, and delivery of the final work product, staff will identify and engage with stakeholders who may include municipal planners, MBTA staff, community groups, bikeshare users, and/or advocacy organizations.

Subtask 1.3 Identify Data Sources and Analysis Tools

Staff will determine the potential of various datasets (e.g., ridership patterns and geographic data) to provide more granular insight, with the goal to integrate advanced analysis tools.

Subtask 1.4 Prepare Data

After data sources and analysis tools are identified, staff will clean and process data as necessary.

Products of Task 1

A defined approach for analyzing interactions between Bluebikes and the MBTA.

Task 2 Conduct Analysis

Staff will follow the methodology and focus areas of interest formulated in Task 1 to conduct analysis. Analysts will incorporate feedback from contributors and stakeholders as appropriate, conduct quality control and management, and decide on useful metrics and statistics for reporting.

Products of Task 2

A set of analytical findings synthesized from various datasets, including a clear identification of key gaps and opportunities in the Bluebikes–MBTA network and existing patterns of multimodal travel behavior.

Task 3 Document and Communicate Results

Before, during, and after the analysis, staff will keep internal documentation up-to-date and explore options for data visualizations and report format. After the analysis, staff will create a report and communicate the results to the MPO board.

Products of Task 3

A report detailing the study motivation, methodology, analysis findings, and key takeaways (including suggestions for improving transit and bikeshare integration), along with robust internal documentation.

Exhibit 1
ESTIMATED SCHEDULE
Bluebikes and MBTA Connections

Task	Month											
	1	2	3	4	5	6	7	8	9	10	11	
1. Plan and Prepare Analysis												
2. Conduct Analysis												
3. Document and Communicate Results												
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Products/Milestones
 A: Report

Exhibit 2
ESTIMATED COST
Bluebikes and MBTA Connections

Direct Salary and Overhead	\$59,452
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Task	Person-Weeks by Pay Grade					Direct Salary	Overhead (120.3%)	Total Cost
	G-9	G-8	G-7	G-6	Total			
1. Plan and Prepare Analysis	0.0	0.7	0.6	4.0	5.3	\$8,250	\$9,924	\$18,174
2. Conduct Analysis	0.0	0.7	0.6	5.0	6.3	\$9,675	\$11,639	\$21,313
3. Document and Communicate Results	0.5	1.0	0.0	4.0	5.5	\$9,062	\$10,902	\$19,965
Total	0.5	2.4	1.2	13.0	17.1	\$26,987	\$32,465	\$59,452

Other Direct Costs	\$0
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TOTAL COST	\$59,452
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Funding
MPO Planning Contract 126734
MPO §5303 Planning Contract 126734

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Boston, MA 02116

Phone: 857.702.3700

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