



EXECUTIVE SUMMARY

FEDERAL FISCAL YEARS 2020-24

TRANSPORTATION IMPROVEMENT PROGRAM

INTRODUCTION

The Boston Region Metropolitan Planning Organization’s (MPO) five-year transportation capital investment plan, the Federal Fiscal Years (FFYs) 2020-24 Transportation Improvement Program (TIP), is the near-term investment program for the region’s transportation system. Guided by the Boston Region MPO’s vision, goals, and objectives, the TIP prioritizes investments that preserve the current transportation system in a state of good repair, provide safe transportation for all modes, enhance livability, and improve mobility throughout the region. These investments fund major highway reconstruction, arterial roadway and intersection improvements, maintenance and expansion of the public transit system, bicycle path construction, and infrastructure improvements for pedestrians.

The Boston Region MPO is guided by a 22-member board with representatives of state agencies, regional organizations, and municipalities; its jurisdiction extends roughly from Boston north to Ipswich, south to Marshfield, and west to municipalities along Interstate 495. Each year, the MPO conducts a process to decide how to spend federal transportation funds for capital projects. The Central Transportation Planning Staff (CTPS), which is the staff to the MPO, manages the TIP development process.

MPO staff coordinates the evaluation of project funding requests, proposes programming of current and new projects based on anticipated funding levels, supports the MPO board in developing a draft TIP document, and facilitates a public review of the draft before the MPO board endorses the final document.

FFYS 2020-24 TIP INVESTMENTS

The complete TIP program is available in Chapter 3 of this document and online at www.ctps.org/tip. The TIP tables provide details of how funding is allocated to each programmed project and capital investment program. These tables are organized by federal fiscal year, and are grouped by highway and transit programs.

Highway Program

The Highway Program of the TIP funds the priority transportation projects advanced by the Massachusetts Department of Transportation (MassDOT) and the cities and towns within the Boston region. The program is devoted primarily to preserving and modernizing the existing roadway network by resurfacing highways, replacing bridges, and reconstructing arterial roadways.

In Massachusetts, Federal-Aid Highway Program funding is apportioned by MassDOT, which allocates funding to Grant Anticipation Notes (GANs) payments, various statewide programs, and Regional Targets for the state's MPOs. In the FFYs 2020–24 TIP, roadway, bridge, and bicycle and pedestrian programs account for more than \$1.2 billion in funding to the Boston region. The Regional Target funding provided to the MPOs may be programmed for projects at the discretion of each MPO, whereas MassDOT has discretion to propose its recommended projects for statewide programs, such as those related to bridge repairs and interstate highway maintenance.

Transit Program

The Transit Program of the TIP provides funding for projects and programs that address the capital needs prioritized by the three transit authorities in the region: the Massachusetts Bay Transportation Authority (MBTA), the Cape Ann Transportation Authority (CATA), and the MetroWest Regional Transit Authority (MWRTA). The Transit Program is predominantly dedicated to achieving and maintaining a state of good repair for all assets throughout the transit system. The FFYs 2020–24 TIP includes \$3.1 billion in transit investments by the transit authorities that will support state of good repair, modernize transit systems, and increase access to transit. The Green Line Extension project is a major project programmed in this TIP that will expand transit service.

REGIONAL TARGET PROGRAM DETAILS

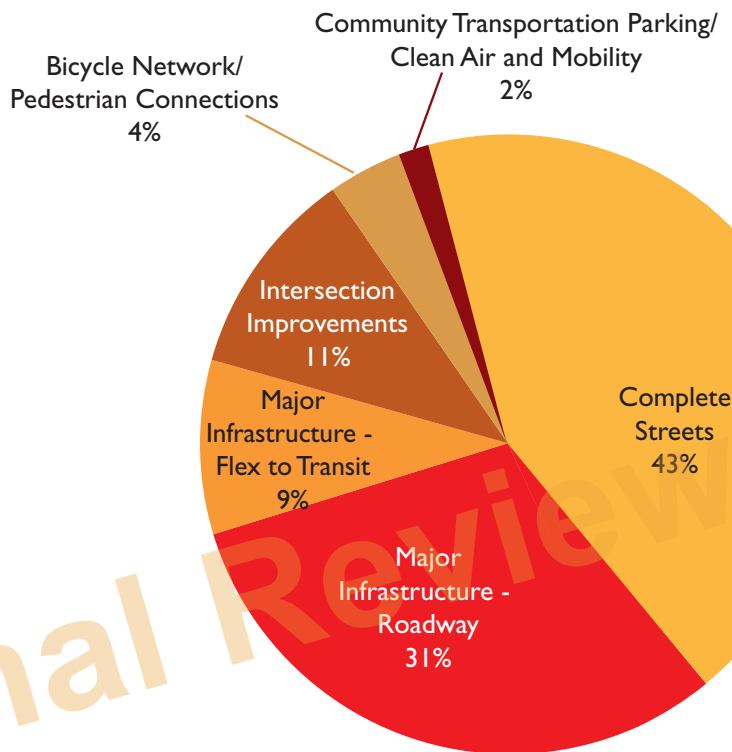
During FFYs 2020–24, the Boston Region MPO plans to fund 47 projects and programs with its Regional Target funding:

- 26 Complete Streets projects, such as the rehabilitation of Essex Street in Lynn
- Five Major Infrastructure projects, such as the reconstruction of Rutherford Avenue in Boston
- Eleven Intersection Improvements projects, such as improvements to the intersection of Lowell Street and Woburn Street in Wilmington

- Four Bicycle Network and Pedestrian Connections projects, such as the extension of the Independence Greenway in Peabody
- A Community Transportation Program, which will support projects that provide first- and last-mile connections in the region

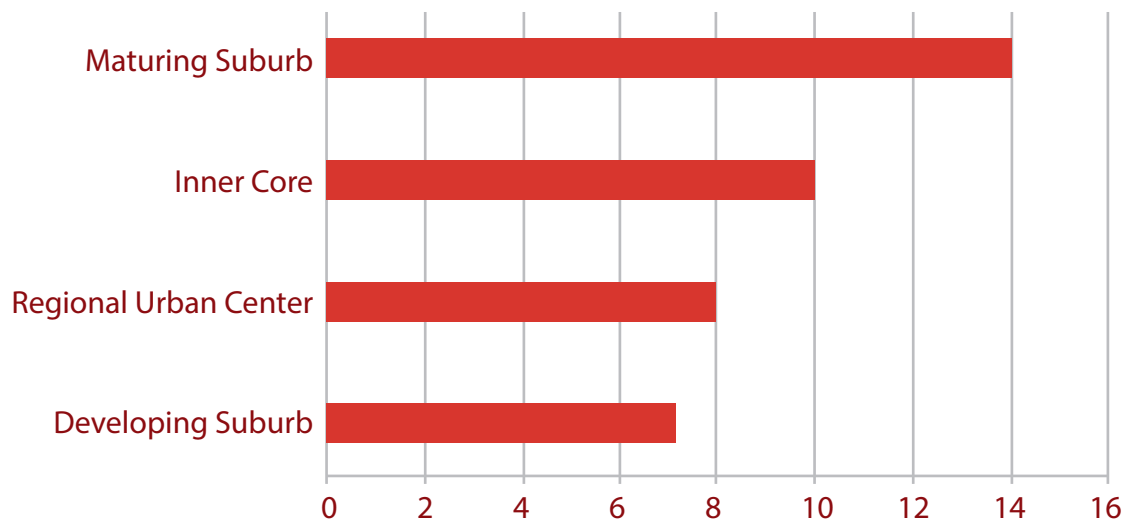
Figure ES-1 shows how the Regional Target funding for FFYs 2020–24 is distributed across the MPO’s investment programs. As the chart shows, the Boston Region MPO’s Regional Target Program is devoted primarily to modernizing and expanding the transportation network through Major Infrastructure and Complete Streets investments.

Figure ES-1
FFYs 2020-24 TIP Regional Target Funding by Investment Program



These investments will be implemented in 39 cities and towns throughout the MPO region, ranging from high-density, built-out, inner core communities to developing suburbs. Figure ES-2 identifies the type of communities—as defined by the Metropolitan Area Planning Council (MAPC)—that will receive these investments.

FIGURE ES-2
MPO Municipalities Containing FFYs 2020–24 TIP Program Projects by Community Type



- *Developing suburb* investments include roadway reconstruction and corridor improvements in Bellingham, Cohasset, Hopkinton, Ipswich, Littleton, and Walpole; and intersection improvements in Littleton and Wrentham.
- *Regional urban center* investments include intersection improvements in Beverly, Framingham, and Norwood; pedestrian and bike improvements in Peabody and Framingham; and roadway reconstruction and corridor improvements in Beverly, Framingham, Lynn, Milford, Peabody, Quincy, and Woburn.
- *Inner core* investments include corridor reconstructions in Boston, Chelsea, Everett, Malden, Newton, Watertown, and Winthrop; and the Green Line Extension in Cambridge, Medford, and Somerville.
- *Maturing suburb* investments include intersection improvements in Acton, Marblehead, Reading, Wilmington, and Ashland; bikeway extensions in Bedford and Sudbury; a community transportation program in Burlington; and corridor improvements in Ashland, Dedham, Hingham, Holbrook, Hull, Needham, and Wilmington.

FINANCING THE FFYS 2020-24 TIP

Highway Program

The TIP Highway Program was developed with the assumption that federal funding for the state would range between \$676 million and \$739 million annually over the next five years (these amounts include only federal funds and include the funds that would be set aside as payments for the Accelerated Bridge Program).

The process of deciding how to use this federal funding in the Boston region follows several steps. First, MassDOT reserves funding for GANs debt service payments for the Accelerated Bridge Program; annual GANs payments range between \$81 million and \$98 million annually over the five years of this TIP.

The remaining Federal-Aid Highway Program funds are budgeted to support state priorities and regional (that is, MPO) priorities. In this planning cycle, \$734 million to \$792 million annually was available for programming statewide (these amounts include both federal dollars and the local match). MassDOT customarily provides the local match (which can also be provided by other entities); thus, projects are typically funded with 80 percent federal dollars and 20 percent state dollars, depending on the funding program.

Next, MassDOT allocates one third of the remaining funding among the state's MPOs for programming. This discretionary funding for MPOs is sub-allocated by formula to determine the Regional Target amounts. MassDOT develops these targets in consultation with the Massachusetts Association of Regional Planning Agencies (MARPA). This TIP was programmed with the assumption that the Boston Region MPO will have between \$102 million and \$110 million annually for Regional Target amounts (which consist of federal funding and state funding for the local match).

Finally, MassDOT allocates the remaining funding across the following funding categories:

- **Reliability Programs:** These programs include the Bridge Program—comprising inspections, systematic maintenance, and National Highway System (NHS) and non-NHS improvements—the Pavement Program, the Roadway Improvements Program, and the Safety Improvements Program.
- **Modernization Programs:** These programs include the Americans with Disabilities Act (ADA) Retrofit Program, the Intersection Improvement Program, the Intelligent Transportation Systems (ITS) Program, and the Roadway Reconstruction Program.
- **Expansion Programs:** These programs include the Bicycle and Pedestrian Program and the Capacity Program.

Each MPO may decide how to prioritize its Regional Target funding. Given that the Regional Target funding is a subset of the Highway Program, the MPO typically programs the majority of funding for roadway projects; however, the MPO has flexed portions of its highway funding to the Transit Program for both transit expansion and transit modernization projects. The TIP Highway Program details the projects that will receive Regional Target funding from the Boston Region MPO and statewide infrastructure projects within the Boston region.

Transit Program

The Federal Transit Administration (FTA) allocates the funds programmed in the TIP Transit Program according to formula. The three regional transit authorities in the Boston Region MPO area that are recipients of these funds are the MBTA, CATA, and MWRTA. The MBTA, with its extensive transit program and infrastructure, is the recipient of the preponderance of the region's federal transit funds.

Under the federal transportation legislation, Fixing America's Surface Transportation (FAST) Act, funding is allocated by the following categories:

- **Section 5307 (Urbanized Area Formula Grants):** Provides grants to urbanized areas to support public transportation based on levels of transit service, population, and other factors
- **Section 5337 (Fixed Guideway/Bus):** Seeks to maintain public transportation systems in a state of good repair through replacement and rehabilitation capital projects
- **Section 5339 (Bus and Bus Facilities):** Provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities
- **Section 5309 (Fixed Guideway Capital Investment Grants):** Provides grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors
- **Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities):** Provides funding to support transportation to meet the special needs of older adults and persons with disabilities

THE TIP DEVELOPMENT PROCESS

Overview

When determining which projects to fund through the Regional Target funding process, MPO members collaborate with municipalities, state agencies, members of the public, advocacy groups, and other stakeholders. The MPO board uses evaluation criteria in its project selection process to help identify and prioritize projects that advance the MPO's goals, which are categorized as follows:

- Safety
- System Preservation
- Capacity Management/Mobility
- Clean Air/Sustainable Communities
- Transportation Equity
- Economic Vitality

Additionally, the MPO has established investment programs, which are designed to direct Regional Target funding towards MPO priority areas over the next 25 years, to help meet these goals. The investment programs used for the FFYs 2020-24 TIP, which were established by the MPO's current Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*, are as follows:

- Intersection Improvements
- Complete Streets
- Major Infrastructure
- Bicycle Network and Pedestrian Connections
- Community Transportation/Parking/Clean Air and Mobility

Projects that the MPO selects to receive Regional Target funding through the TIP development process are included in one of the five programs listed above. *Destination 2040*, the MPO's new LRTP scheduled for completion in July 2019, is expected to add one new investment program to these five existing programs that allocates funding to transit modernization projects. *Destination 2040* will also reflect an updated set of priorities for the MPO's Complete Streets investment program, adding dedicated bus lanes and climate resiliency measures to the types of projects targeted for funding through this program. The MPO will allocate funding to projects in these updated programs in future TIP cycles.

In recent years, the MPO has been incorporating performance-based planning and programming (PBPP) practices into its TIP development and other processes. These practices are designed to help direct MPO funds towards achieving specific outcomes for the transportation system. The MPO's goals and investment programs are key components of its PBPP framework. In FFY 2018, the MPO began to set targets for specific performance measures. Over time, the MPO will more closely link its performance targets, investment decisions, and monitoring and evaluation activities.

Outreach and Data Collection

The outreach process begins early in the federal fiscal year, when cities and towns designate TIP contacts and begin developing a list of priority projects to be considered for federal funding, and the MPO staff asks the staffs of cities and towns in the region to identify their priority projects. MPO staff compiles the project funding requests into a *Universe of Unprogrammed Projects*, a list of all projects identified as potential candidates to receive funding through the TIP. The *Universe* includes projects that are fully designed and ready to be advertised for construction, those that are undergoing preliminary engineering and design, and projects still in the conceptual or planning stage. MPO staff also collects data on each project in the *Universe* so that the projects may be evaluated.

Project Evaluation

MPO staff evaluates projects based on how well they address the MPO's goals. In order for MPO staff to conduct a complete project evaluation, the project must have a functional design

report or be at a 25-percent design stage; or its plans must include the level of detail defined in a functional design report. The evaluation results are posted on the MPO's website where project proponents, municipal officials, and members of the public may review them and provide feedback.

TIP Readiness Day

An important step toward TIP programming takes place midway through the TIP development cycle at a meeting—referred to as TIP Readiness Day—that both MassDOT and MPO staff attend. At this meeting, MassDOT staff provide updates about cost and schedule changes related to currently programmed projects. These cost and schedule changes must be taken into account as MPO staff helps the MPO board consider updates to the already programmed years of the TIP, as well as the addition of new projects in the outermost year of the TIP.

Staff Recommendation and Draft TIP

Using the evaluation results and information about project readiness (that is, when a project likely would be fully designed and ready for construction), staff prepares the *First-Tier List of Projects*. This list contains those projects that are supported by a project proponent (a municipality or MassDOT) and that could be made ready for advertising within the TIP's time horizon—the next five federal fiscal years. The projects are ranked based on the evaluation results.

MPO staff then prepares a recommendation or a series of programming scenarios for how to program the Regional Target funding in the TIP based on the *First-Tier List of Projects* and other considerations, such as whether a project was included in the LRTP, addresses an identified transportation need, or promotes distribution of transportation investments across the region. The staff recommendation is always financially constrained—meaning, subject to available funding. There was approximately \$533 million of Regional Target funding available to the Boston Region MPO for FFYs 2020–24. In this TIP cycle, the MPO discussed the staff recommendation and programming scenarios for the Regional Target Program for highway projects and selected a preferred program in March, 2019.

In addition to prioritizing the Regional Target funding, the MPO also reviews and endorses the Statewide Infrastructure Items and Bridge Programs that MassDOT recommends for programming. The MPO also reviews and endorses programming of funds for the MBTA's, CATA's, and MWRTA's capital programs.

APPROVING THE TIP

After selecting a preferred programming scenario, usually in April, the MPO votes to release the draft TIP for a 21-day public review period, during which the MPO invites members of the public, municipal officials, and other stakeholders in the Boston region to review the proposed program. During the public review period, MPO staff hosts open-house style public meetings to discuss the draft TIP document and elicit additional comments.

After the public review period ends, the MPO reviews all municipal and public comments and may change elements of the document or its programming. The MPO then endorses the TIP and submits it to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for approval. MassDOT incorporates the MPO-endorsed TIP into the State Transportation Improvement Program (STIP). The FHWA, FTA, and US Environmental Protection Agency review the STIP for certification by September 30, the close of the federal fiscal year.

UPDATES TO THE TIP

Even after the TIP has been finalized, administrative modifications, amendments, and adjustments often must be introduced because of changes in project status, project cost, or available revenues. This may necessitate reprogramming a project in a different funding year or programming additional funds for a project.

Notices of administrative modifications and amendments are posted on the MPO's website. If an amendment is necessary, the Regional Transportation Advisory Council—the public advisory board to the MPO—is informed, and the MPO notifies affected municipalities and other stakeholders via email. The MPO typically holds a 21-day public review period before taking final action on an amendment. In extraordinary circumstances, the MPO may vote to shorten the public comment period to a minimum of 15 days. Administrative modifications and adjustments are generally minor and usually do not warrant a public review period.

STAY INVOLVED WITH THE TIP

Public input is an important aspect of the transportation planning process. Please visit www.bostonmpo.org for more information about the MPO, to view the entire TIP, and to submit your comments. You also may wish to sign up for email news updates and notices by contacting publicinfo@ctps.org or signing up at www.ctps.org/subscribe. To request a copy of the TIP in accessible formats, please contact the MPO staff by any of the following means:

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