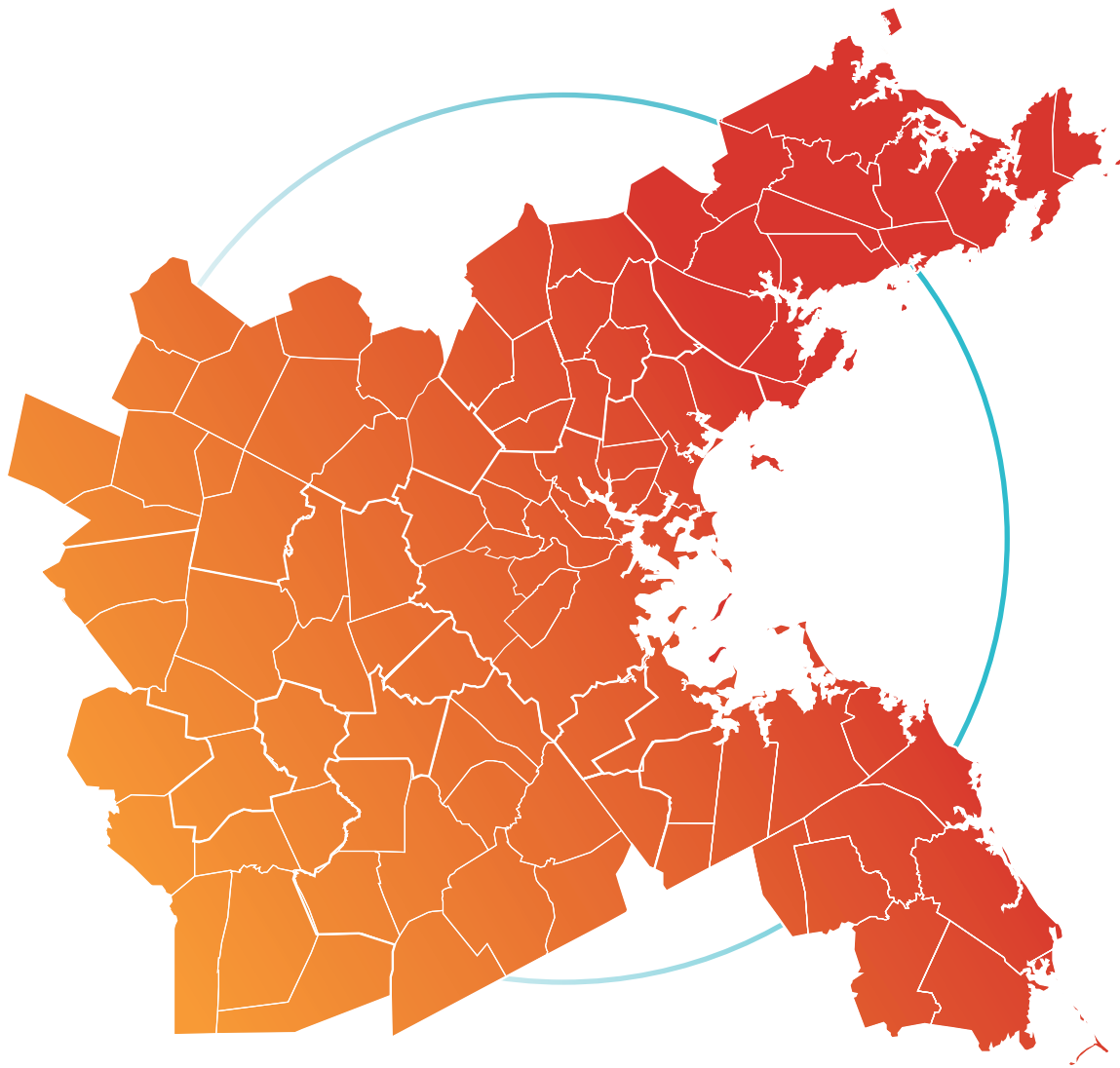




HEADING TO DESTINATION 2040

Boston Region Metropolitan Planning Organization



Preparing for the Next Long-Range Transportation Plan

Fall 2017

destination
2040

THE LONG-RANGE TRANSPORTATION PLAN

The Boston Region Metropolitan Planning Organization (MPO) continuously monitors the state of the transportation system in the Boston region for all travel modes, tracking changes in travel behavior and evaluating potential improvements. Every four years, the MPO identifies the system's strengths and weaknesses and creates a plan, with a horizon of at least 20 years, to improve transportation in the region. This **Long-Range Transportation Plan (LRTP)** is the guiding document for coordinated transportation investments in the Boston region. The LRTP shapes all planning processes and activities carried out by the MPO, including the **Transportation Improvement Program (TIP)** and **Unified Planning Work Program (UPWP)**.

The MPO is starting to prepare its next LRTP, *Destination 2040*, which is scheduled for publication in spring of 2019. This new plan will reflect new planning efforts, updated data and analysis, and public input, and will explore investment strategies to meet the region's transportation needs. Your feedback will help the MPO create an effective plan, and we invite you to join us in this planning process.

In this booklet, you'll find out more about the following:

- What an LRTP contains, why it matters, and how it relates to other MPO plans [page 3](#)
- The implementation of the current LRTP, *Charting Progress to 2040*, which is the springboard for *Destination 2040* [page 4](#)
- What transportation needs the MPO has identified in the Boston region [page 13](#)
- How you can provide input on your transportation needs and stay involved in the planning process [page 20](#)

Are you new to the Boston Region MPO and the work it does? Get the basics by exploring **bostonmpo.org**.

THE LONG-RANGE TRANSPORTATION PLAN: WHY IT MATTERS

The LRTP outlines the MPO's recommended plan to spend federal funding on transportation projects over a timeframe of at least 20 years. The current LRTP, *Charting Progress to 2040*, plans for investments out to the year 2040. The LRTP does the following:

- Identifies the **transportation needs** of the region
- Defines the MPO's **vision and goals**, and guides the MPO's decisions on funding transportation projects and studies
- **Prioritizes and plans** for implementation and construction of major infrastructure projects and transportation improvements

Transportation needs are addressed by the Massachusetts Department of Transportation (MassDOT), transit agencies, and municipalities, which advance the planning, design, and construction of infrastructure projects.

The MPO's goals are reflected in a set of criteria it uses for selecting projects for funding. These goals will be used to establish performance measures and targets to examine how investments are meeting the region's transportation needs.

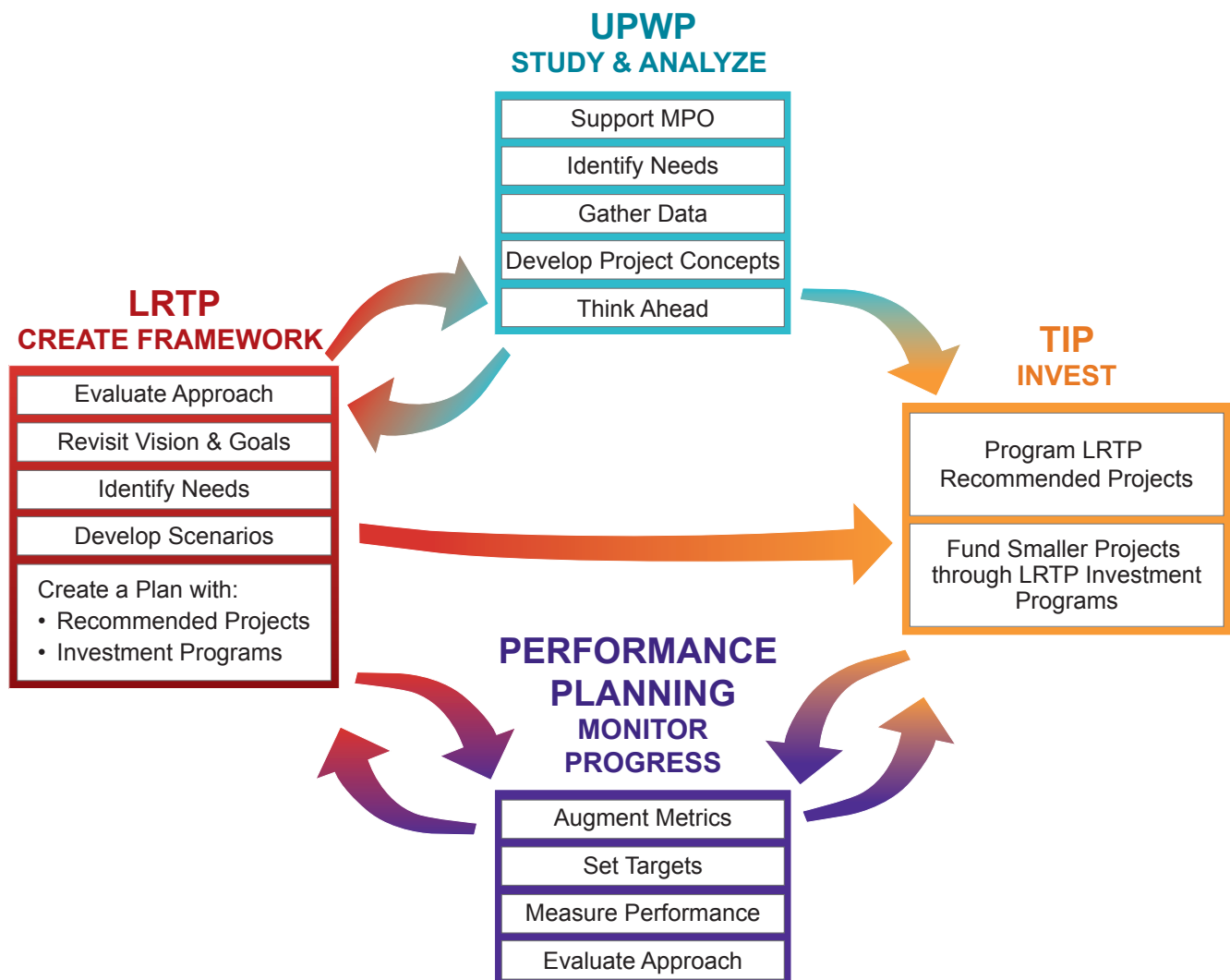
The LRTP also incorporates the following:

- Transportation equity and air quality impacts of projects that are candidates for funding and for projects that are ultimately programmed in the LRTP.
- Documentation of funding for major projects that MassDOT, the Massachusetts Bay Transportation Authority (MBTA), Cape Ann Transportation Authority (CATA), and MetroWest Regional Transit Authority (MWRTA) plan to fund and those agencies' revenues.
- Population and employment forecasts established through a coordinated process with the Metropolitan Area Planning Council (MAPC) and other MPOs across the Commonwealth.

WHERE ARE WE STARTING FROM? CHARTING PROGRESS TO 2040

The MPO’s active LRTP, *Charting Progress to 2040* (in effect until September 2019), houses the principles and framework that guide how the MPO invests in transportation in the region. Each year the MPO identifies the capital transportation projects—roadway, bridge, bicycle, pedestrian, and transit improvements—that it, MassDOT, and regional transit authorities (RTAs) will fund with federal dollars, and documents these investment decisions in the five-year TIP. The MPO also identifies studies and technical assistance programs necessary to advance transportation improvements, and sets aside funds for these activities in its annual UPWP. The content of *Charting Progress of 2040* also forms the starting point from which we will advance to *Destination 2040*.

Boston MPO Planning Process



Charting Progress to 2040 details the following:

The Boston Region MPO's Vision

The Boston Region Metropolitan Planning Organization envisions a modern transportation system that is safe, uses new technologies, and provides equitable access, excellent mobility, and varied transportation options—in support of a sustainable, healthy, livable, and economically vibrant region

MPO Goal Areas

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

These goal areas include specific objectives to mark progress toward the goals. Some of the measures that the MPO considers include traffic congestion, transit ridership, and mode share. A detailed list of the MPO's vision, goals, and objectives is available in the Additional Resources section at bostonmpo.org/lrtp.

MPO Investment Programs for Capital Projects

These investment programs are designed to move the MPO toward its transportation goals and ultimately to achieve its desired vision. They also guide the selection of TIP projects. The program descriptions are as follows:

- **Intersection Improvements** – Modernizes intersections to improve safety, mobility, and accessibility. Funds projects that upgrade or add traffic signals, or make other improvements such as adjusting signal timing, adding turning lanes, enhancing pavement makings, and improving signs.

- **Complete Streets** – Redesigns roadways to enhance safety and mobility for all users and encourage biking, walking, and transit use. In addition to roadway reconstruction, Complete Streets infrastructure improvements include constructing continuous sidewalks, adding bicycle lanes, and updating traffic signals.
- **Bicycle Network and Pedestrian Connections** – Expands the bicycle and pedestrian networks to provide safe access to transit, schools, employment centers, and shopping destinations.
- **Community Transportation/Parking/Clean Air and Mobility** – Funds the construction of additional parking spaces at transit stations, low-cost safety and wayfinding improvements, and the launch of locally developed bike-share programs and transit services supporting first- and last-mile connections.
- **Major Infrastructure** – Modernizes or expands expressways, major arterials, or transit systems to reduce congestion and improve safety. Funds highway and transit projects that cost more than \$20 million or add capacity to the transportation network. All major infrastructure projects, whether funded by federal or state funds, are listed in the LRTP.



HOW IS THE LRTP FUNDED?

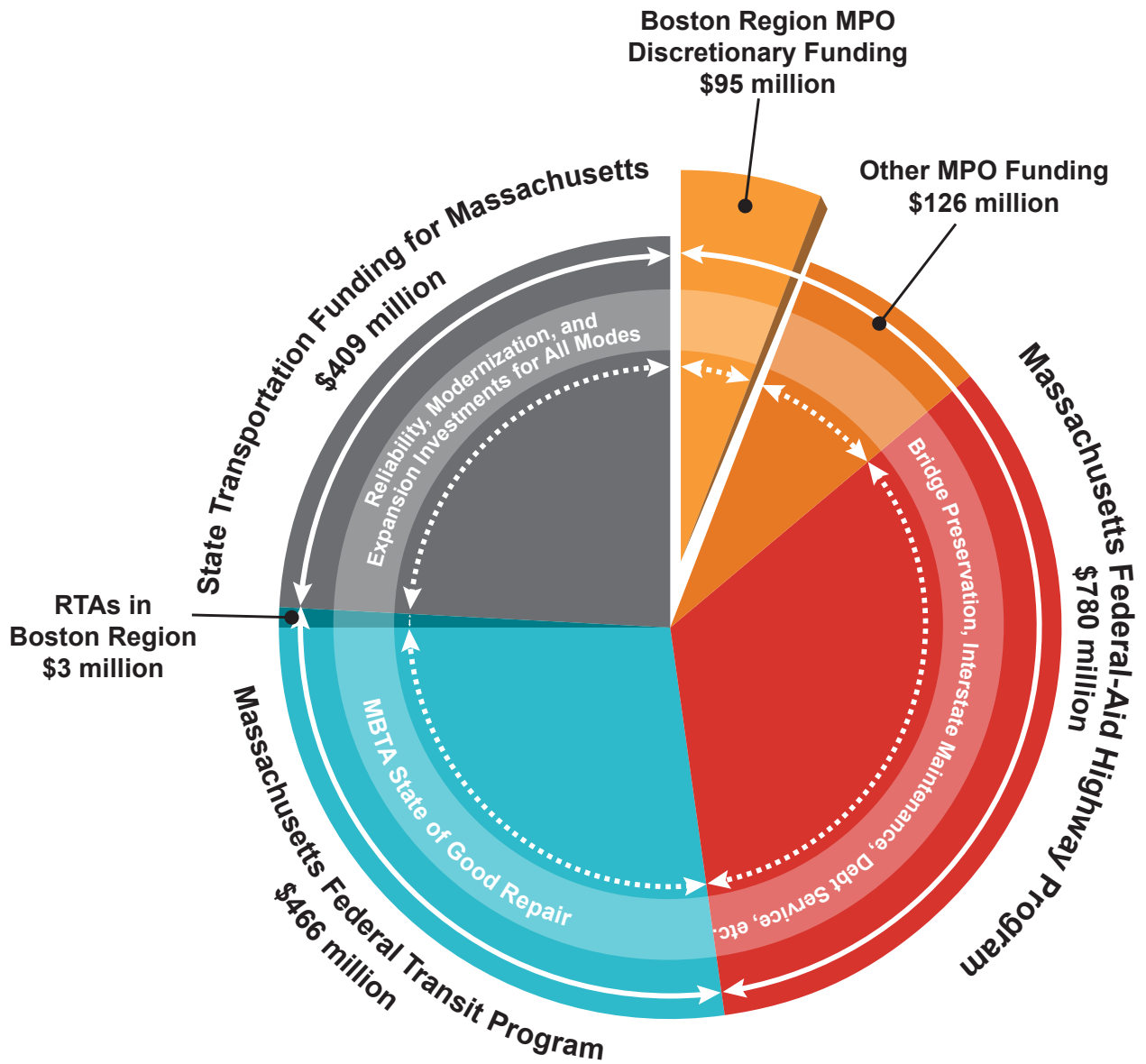
These sources provide the primary funding for maintenance, modernization, and expansion of the transportation system throughout the Commonwealth of Massachusetts:

- **Federal-Aid Highway Program*** – Funds maintenance of the highway system through the following activities:
 - Bridge preservation
 - Interstate maintenance
 - Roadway reconstruction
 - Intersection improvements
 - Bottleneck improvements (expressways and major arterials)
 - Bicycle and multi-use paths
- **Federal Transit Program*** – Funds projects to keep MBTA and RTA assets in a state of good repair
- **Statewide Program** – Funds various highway and transit needs across the Commonwealth

** The Federal-Aid Highway Program and Federal Transit Program funds are matched by “local” dollars provided by the Commonwealth or other implementing agencies.*

A portion of the funds from the **Federal-Aid Highway Program** are allocated by MassDOT to each Massachusetts MPO to be spent on regional transportation infrastructure priorities. The Boston Region MPO expects to receive \$95 million in discretionary funding in federal fiscal year (FFY) 2018 as shown on the following page. This amount is an estimate of the funding the MPO will have available annually to fund its priority transportation infrastructure improvements on federal-aid eligible roadways over the next two decades. The Federal-Aid Highway Program allows MPOs the option to “flex” some of their highway funding to transit projects.

Expected FFY 2018 Annual Transportation Funding for Capital Investments Statewide

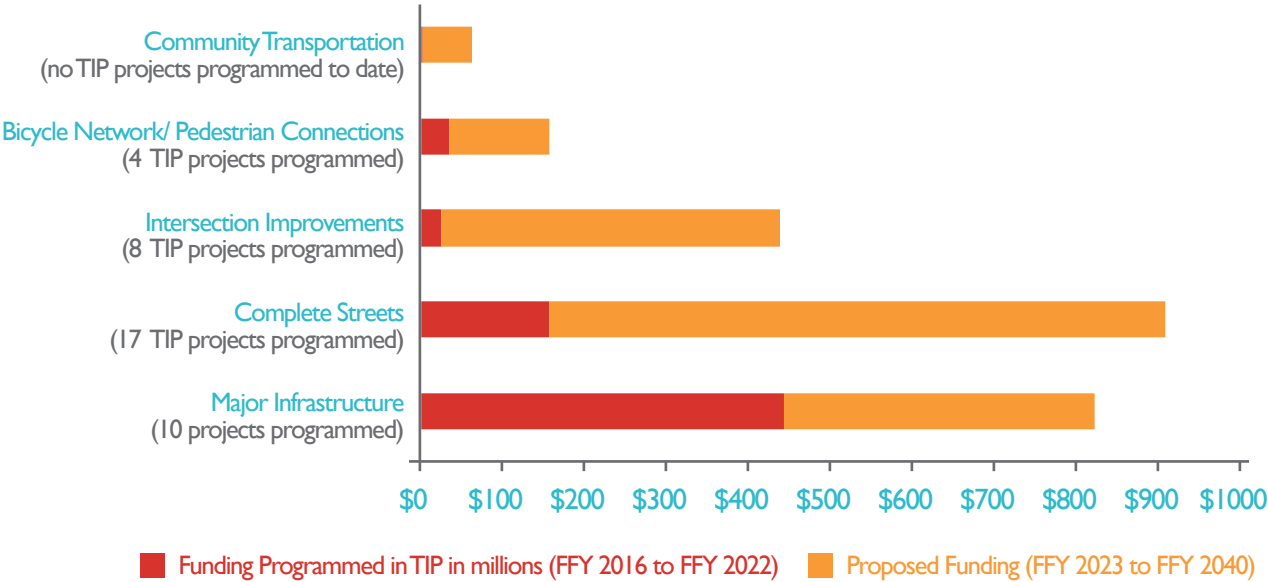


CHARTING PROGRESS TO 2040 STATUS

In *Charting Progress to 2040*, the MPO distributed almost \$2.85 billion of its highway discretionary funding across its five investment programs for the period between FFY 2016 to FFY 2040 (accounting for inflation). Since FFY 2016, \$658 million has been programmed in the TIP. The chart below shows the programmed funding in *Charting Progress to 2040* (as amended in August 2016) in each of these investment programs and the number of TIP projects that have been programmed through FFY 2022.

The chart also shows the amount of funds the MPO proposes to program in each of the investment programs between FFY 2023 and FFY 2040. These amounts were determined by a number of factors, including assumptions about available funding during this period; major infrastructure projects that would be implemented during the planning period; scenario planning results; and public feedback. A goal of creating these investment programs was to convey that the MPO plans to make funding available to municipalities for these types of projects. The actual amounts that will be spent in each program depend on proposed projects and how well they meet the MPO’s goals and objectives.

Status of Charting Progress to 2040 Discretionary Funding by Investment Program



* Note: The MPO has set aside funds in the TIP for the Community Transportation Program in FFYs 2021 and 2022, but no specific projects have been programmed.

Major Infrastructure projects in the LRTP that have been programmed in the TIP from FFY 2016 to FFY 2022 are as follows:

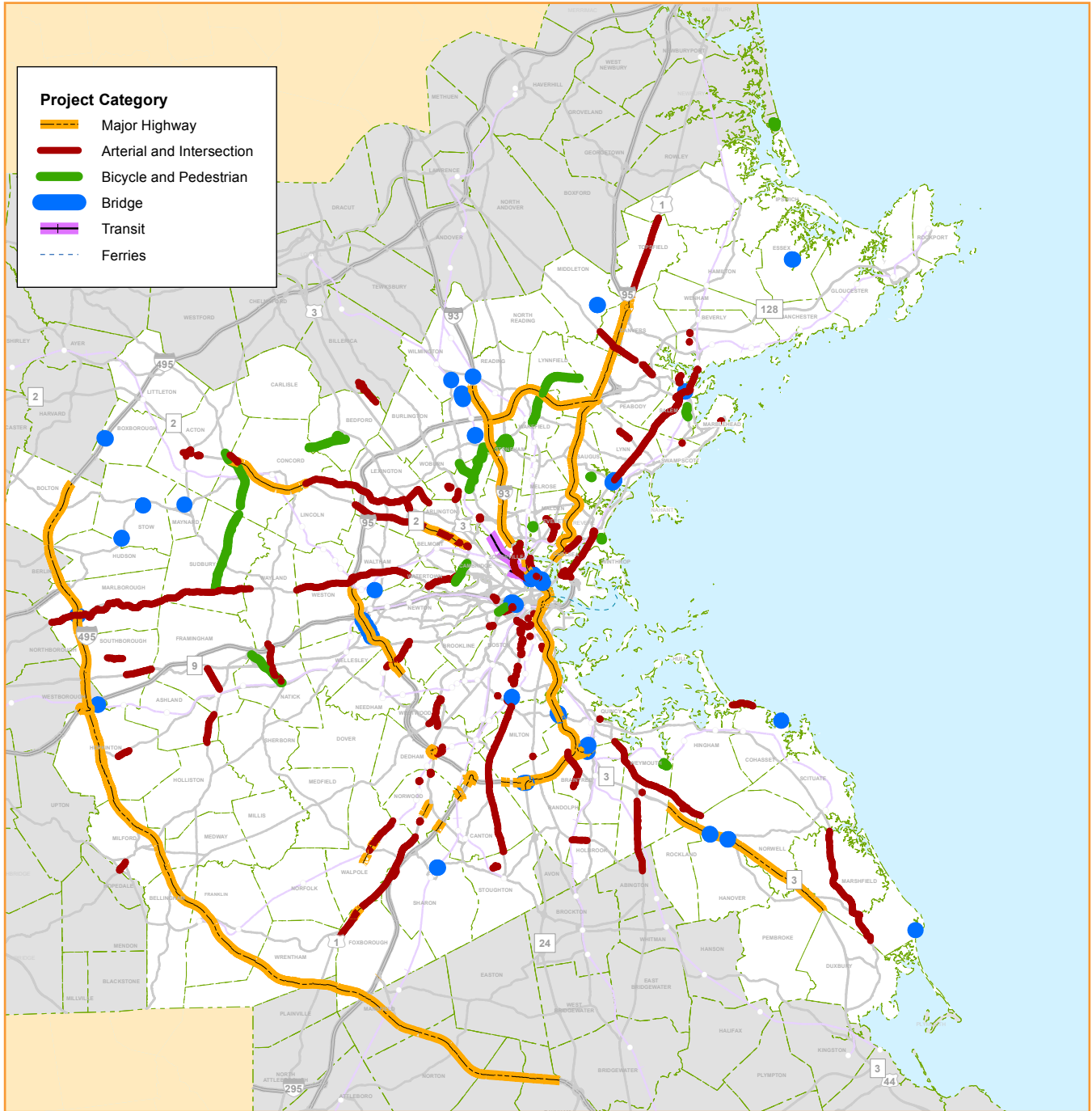
- Middlesex Turnpike Improvements (Bedford, Billerica, and Burlington)
- Reconstruction of Melnea Cass Boulevard (Boston)
- Reconstruction of Rutherford Avenue (Boston)
- Reconstruction of Highland Avenue, Needham Street, and Charles River Bridge (Newton and Needham)
- Green Line Extension to College Avenue and Union Square (Somerville and Medford)
- Route 128 Add-A-Lane (Randolph to Wellesley)
- Route 18 Widening (Weymouth and Abington)
- New Boston Street Bridge Replacement (Woburn)
- Reconstruction of Montvale Avenue (Woburn)

Recommended Major Infrastructure Projects programmed in later years in the LRTP are as follows:

- Intersection Improvements at Routes 126 and 135 (Framingham)
- Routes 4/225 (Bedford Street) and Hartwell Avenue (Lexington)
- McGrath Highway (Somerville)
- Bridge Replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and Interchange Improvements (Natick)

The map on the following page shows the location of all projects programmed in the TIP from FFY 2016 through FFY 2022, including projects prioritized by both the MPO and MassDOT.

MPO and MassDOT Projects Funded from FFY 2016 through FFY 2022



WHAT'S AHEAD FOR THE LRTP AND MPO PLANNING

Your input and feedback on the LRTP are crucial to developing a plan that will best serve the region. The next plan, *Destination 2040*, will include these elements:

- **Identifying Needs** – The MPO is identifying transportation needs in the region by reviewing new data on traffic volumes and patterns, transit system performance, and infrastructure condition, among related measures. Your experiences using the transportation system every day will help to inform our analyses about where improvements need to be made.
- **Revisiting Values** – *Destination 2040* provides an opportunity to revisit the vision, goals, and objectives that the MPO established when developing *Charting Progress to 2040* to ensure they are addressing your values.
- **Developing Investment Strategies** – In *Charting Progress to 2040*, the MPO made a commitment to prioritize its investments on smaller-scale, lower-cost projects rather than allocate the majority of its discretionary funds to major infrastructure projects. The investment programs described on [pages 5 and 6](#) support this approach.

For *Destination 2040*, the MPO will analyze different sets of investment strategies and weigh their benefits and tradeoffs. The MPO will coordinate this work with complementary regional planning processes—those plans that propose major infrastructure projects—to maximize progress on achieving transportation goals for the region. Other plans and planning efforts include the following:

- MassDOT's Capital Investment Plan – A five-year plan for programming state-funded and federally funded improvements (developed annually)
- MBTA's Focus40 – A 25-year investment plan for the MBTA's transit system (typically developed every five years)
- RTA planning (annually)
- Municipal planning (ongoing)

GETTING STARTED BY IDENTIFYING NEEDS

The LRTP process known as the Needs Assessment helps the MPO understand the challenges facing the region's transportation system, for all modes, so it can include effective investment strategies in the LRTP. The Needs Assessment includes the results of analyses conducted by MPO staff, information from other planning processes, and public feedback. The MPO will start work on *Destination 2040* by updating the Needs Assessment.

Find existing information on transportation needs at
bostonmpo.org/lrtp_needs

Explore data for your subregion and the whole Boston region here:

The *Charting Progress to 2040* Needs Assessment:
bostonmpo.org/lrtp_needs

The MPO's Needs Assessment Application:
bostonmpo.org/map/www/apps/lrtpNeedsAssessmentApp/index.html

The MPO's Performance Dashboard:
bostonmpo.org/dv/lrtp_dashboard/

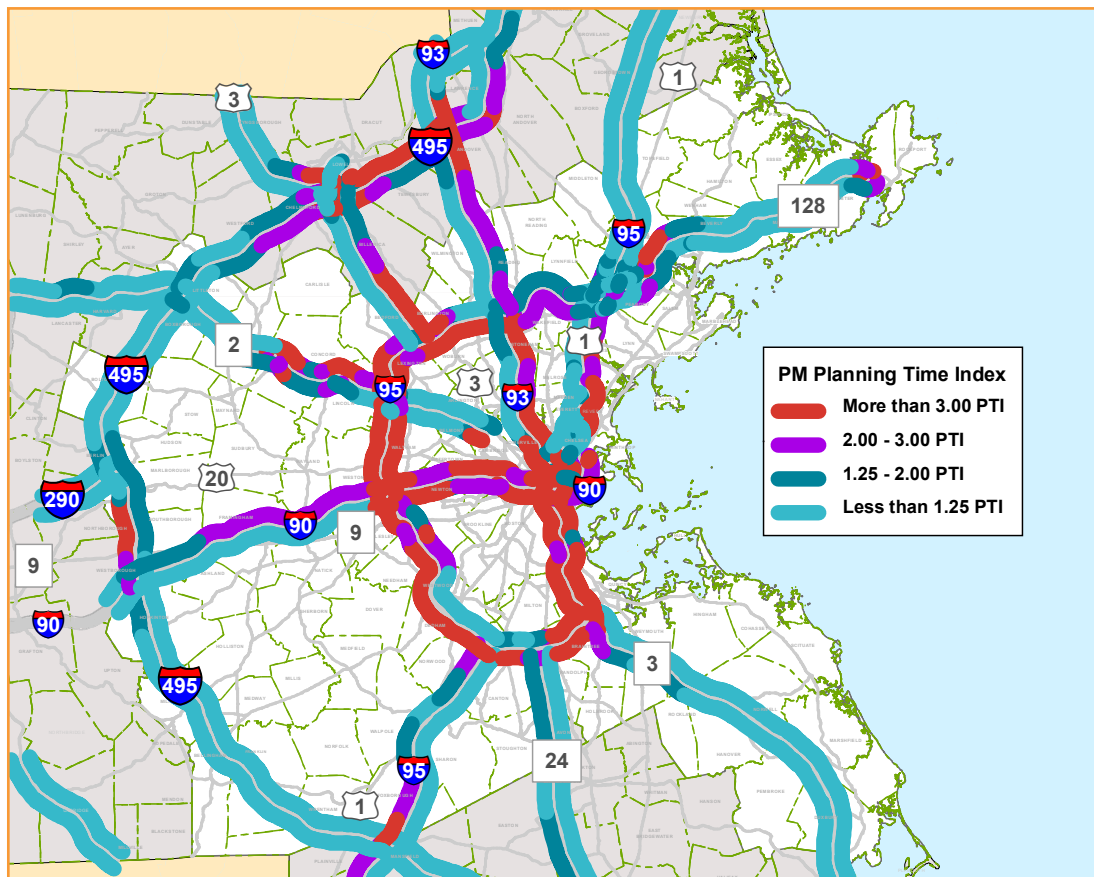
The MPO will be updating information on needs in the development of *Destination 2040*.



Snapshots of Existing Needs

The maps below highlight needs related to MPO goal areas.

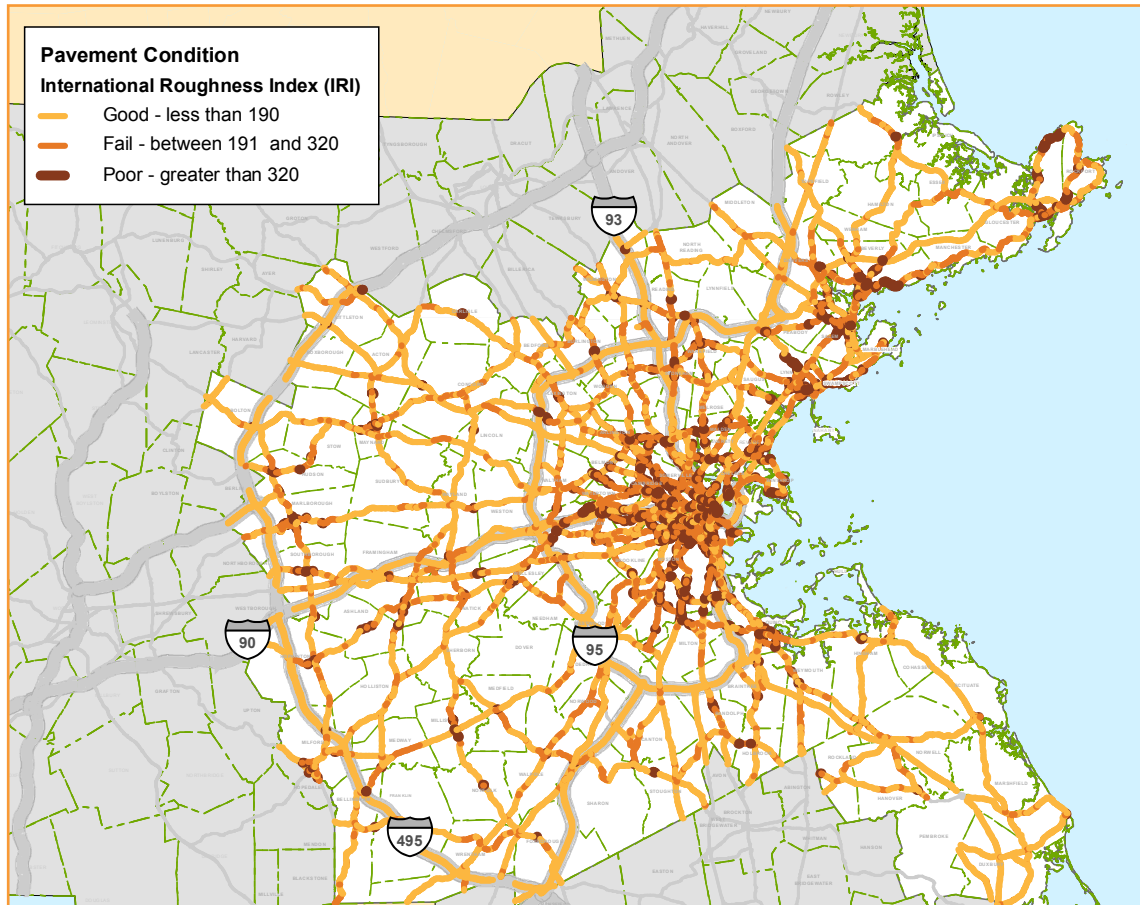
Capacity Management/Mobility Goal – Congestion (Express Highway and Arterials)



This map displays 2015 congestion data on highways by planning time index. Planning time index measures the reliability of congestion based on the ratio of the 95th percent peak-period travel time to the free-flow travel time.



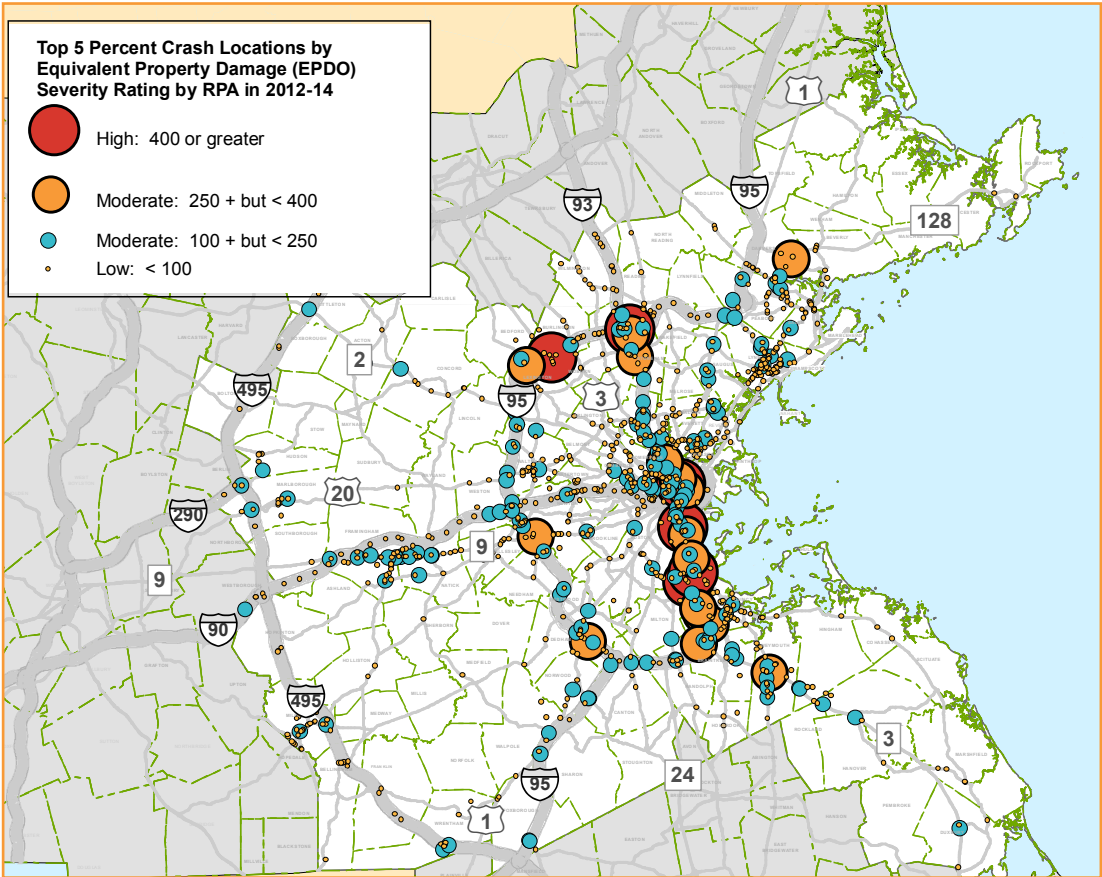
System Preservation Goal – Pavement Conditions



This map displays the pavement conditions for the MassDOT-maintained roadways based on the International Roughness Index, which measures riding comfort.



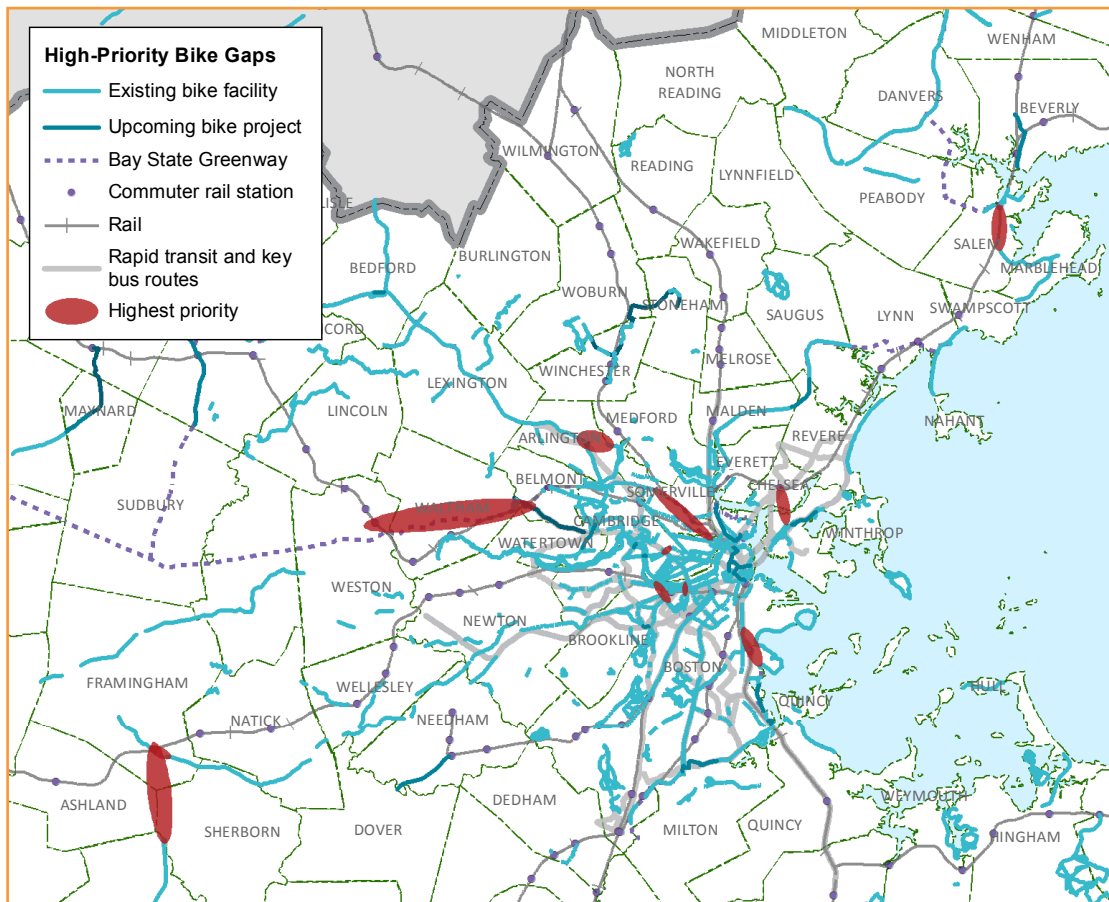
Safety Goal – High-Crash Locations



This map displays high crash locations by equivalent property damage only (EPDO). EPDO measures crash severity based on property damage, personal injuries, and fatalities.



Capacity Management /Mobility Goal – Bicycle Gaps



This map displays the high-priority bike gaps in the regional bike network as prioritized by access to underserved communities, employment centers, town centers, central business districts, schools, universities/colleges, and parks or open space. The gaps were identified in the 2014 Bicycle Network Evaluation study.

Public input on transportation needs is an important component of the LRTP Needs Assessment and subsequent phases of the plan development. During the development of *Charting Progress to 2040*, you provided input on specific locations or facilities—including interchanges, regional arterial roadways, local intersections, and transit systems—that need improvements to address safety, mobility, and congestion issues. You also told us about broader transportation needs and improvements you'd like to see to the system.

Below are some themes on transportation needs that we heard when developing *Charting Progress to 2040*:

- Arterial roadways are congested in numerous places around the region.
- More parking is needed at transit stations. Stations such as Alewife, Braintree, and Kingston are significant transit hubs that are in need of additional parking capacity.

Feedback about first- and last-mile services, community transportation, and parking needs provides a great example of

- how public input influenced the development of *Charting Progress to 2040*; and
- how the LRTP, TIP, and UPWP will work together to meet these needs.

Multiple MAPC subregional councils and other stakeholders commented on the lack of these transportation services and facilities when discussing their needs with MPO staff.

Ultimately, the MPO created the **Community Transportation/Parking/Clean Air and Mobility** investment program, which supports first- and last-mile connections, additional parking at transit stations, and projects that enhance mobility, improve air quality, and promote mode shift. *Charting Progress to 2040* recommends setting aside funding for this program over the life of the plan. Since the publication of *Charting Progress to 2040*, the MPO has funded several technical assistance studies through the UPWP that resulted in recommendations for first-and last-mile solutions. In FFY 2018, the MPO will fund a study that supports the implementation of the investment program. This will help create projects that can be funded through the TIP, potentially starting in FFY 2021.

- First- and last-mile service to transit stations is needed throughout the region, particularly those services that support connections to commuter rail stations in suburban communities.
- Strategies are needed to support the movement of both trucks and autos on the region's roadways.
- Many communities want more transit options, such as expanded or improved service on existing fixed-route systems, extensions of transit lines, suburban transit services, and transit that serves multiple generations, particularly youths and seniors.
- Safer conditions are needed for pedestrians, including those who are boarding or alighting transit vehicles.
- More connections between facilities are needed in the region's bike network.

Public input on needs is an important component of the LRTP Needs Assessment, as well as subsequent phases of the plan development. From now through spring 2018, MPO staff will be updating Needs Assessment analyses and asking for your input at meetings and events, and through the public involvement features on the MPO's website, bostonmpo.org. Share your transportation needs and tell us about opportunities you see for improving transportation in your community.

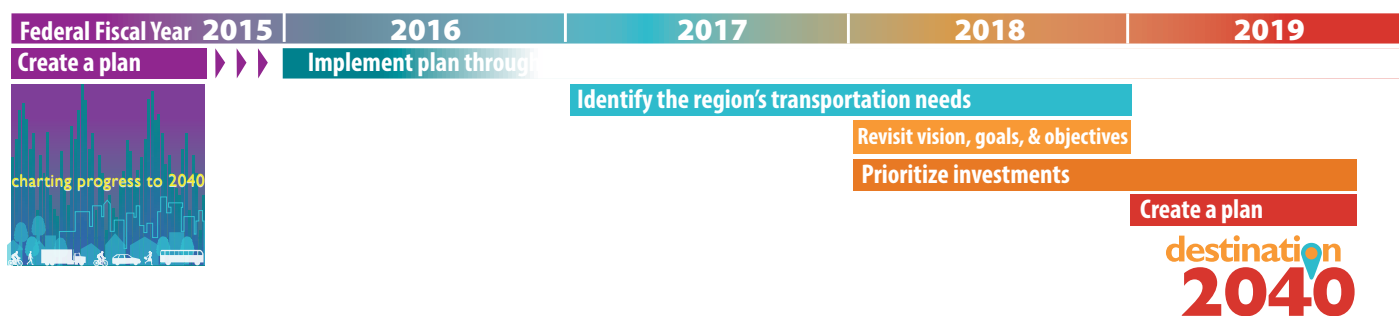
- What are your transportation needs for travel around the region?
- What barriers affect your ability to travel on the mode you would like?
- What specific locations or transportation facilities in your community need improvements?
 - Where are the most dangerous intersections, corridors, and interchanges?
 - Where is the most severe congestion?
 - Where are the gaps in the walking, biking, and transit network?
- How do you expect your transportation needs might change five, 10, or 20 years from now?
- What's working well about the transportation system in your community?
- What are the transportation facilities or services in your community, or that you regularly use, that you'd like to preserve or enhance?
- What challenges will affect the transportation system in your community five, 10, or 20 years from now?
- What would a better transportation system look like to you?
- What opportunities could make the transportation system in your community better five, 10, or 20 years from now?

See [page 20](#) to learn more about how to provide feedback and get updates on the *Destination 2040* process.

STAY INVOLVED WITH *DESTINATION 2040*

We hope you'll help us kickoff *Destination 2040* by providing your input on transportation needs. The schedule below highlights the timeframes for major LRTP activities between now and the publication of *Destination 2040* in the spring of 2019. The MPO will be engaging stakeholders like you as part of each activity. Stay up-to-date with how *Destination 2040* is developing by subscribing to MPO mailing lists at bostonmpo.org/subscribe. Visit bostonmpo.org/lrtp to learn more about how the process is unfolding and to access materials and key resources. For questions and comments, contact LRTP Program Manager Anne McGahan (857-702-3676 | amcgahan@ctps.org).

Timeline of Participation Opportunities in Long-Range Transportation Planning



The MPO wants to hear from as many people as possible when developing *Destination 2040*. This includes traditionally underserved and underrepresented communities—people of color, people with low incomes, seniors, youths, people with disabilities, and people with limited-English proficiency.

If you know of or are involved in organizations representing these groups, please contact us. The MPO seeks to work with these organizations and stakeholders to better plan for all transportation users in the Boston region.

STAY INVOLVED IN RELATED MPO PLANNING PROCESSES

Transportation Improvement Program

Each year, the MPO creates a five-year TIP that describes the transportation construction projects that will be funded with federal dollars in the Boston region. The TIP includes the projects that will be funded by the MPO, MassDOT, the MBTA, CATA, and MWRTA.

Municipal staff and MassDOT District staff supports the process by providing updated information on their municipal and state projects, while continuing to work with MassDOT to advance them through the design process. All stakeholders, including members of the public, can provide feedback on their priorities for TIP spending.

Stay involved with the upcoming TIP by visiting bostonmpo.org/tip or contacting TIP Manager Ali Kleyman (857-702-3709 | akleyman@ctps.org).

Unified Planning Work Program

Each year, the MPO creates a UPWP that describes how the MPO and MAPC will spend federal planning dollars on transportation studies that advance our understanding of the transportation system, new technologies, regulations, and user preferences. The UPWP also supports technical assistance programs.

All stakeholders, including members of the public, can suggest ideas for studies or provide feedback on their transportation priorities for study. Municipal and agency representatives can apply for technical assistance.

Stay involved with the upcoming UPWP by visiting bostonmpo.org/upwp or contacting UPWP Manager Sandy Johnston (857-702-3710 | sjohnston@ctps.org).

Stay Informed

Follow us via email at bostonmpo.org/subscribe.

Follow us on Twitter [@BostonRegionMPO](https://twitter.com/BostonRegionMPO).

Attend a meeting of the MPO or any of its committees, an MPO-sponsored event, or a meeting of the MPO's advisory board, the Regional Transportation Advisory Council.

Check the MPO meeting calendar at bostonmpo.org/calendar/month.

For more information about ways to stay informed, visit bostonmpo.org/public_involvement.

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