

destination 2040



IMPLEMENTING THE LONG-RANGE TRANSPORTATION PLAN

The Boston Region Metropolitan Planning Organization (MPO) envisions a modern, well-maintained transportation system that supports a sustainable, healthy, livable, and economically vibrant region. To achieve this vision, the transportation system must be safe and resilient; incorporate emerging technologies; and provide equitable access, excellent mobility, and varied transportation options.

In recognition of the diversity of transportation needs throughout the Boston region and to fulfill this vision, the MPO's 2019 Long-Range Transportation Plan (LRTP), *Destination 2040*, prioritizes spending on transportation projects that are shaped by six goals areas:



SAFETY

Transportation by all modes will be safe



SYSTEM PRESERVATION AND MODERNIZATION

Maintain and modernize the transportation system and plan for its resiliency



CAPACITY MANAGEMENT AND MOBILITY

Use existing facility capacity more efficiently and increase transportation options



CLEAN AIR AND SUSTAINABLE COMMUNITIES

Create an environmentally friendly transportation system



TRANSPORTATION EQUITY

Ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex



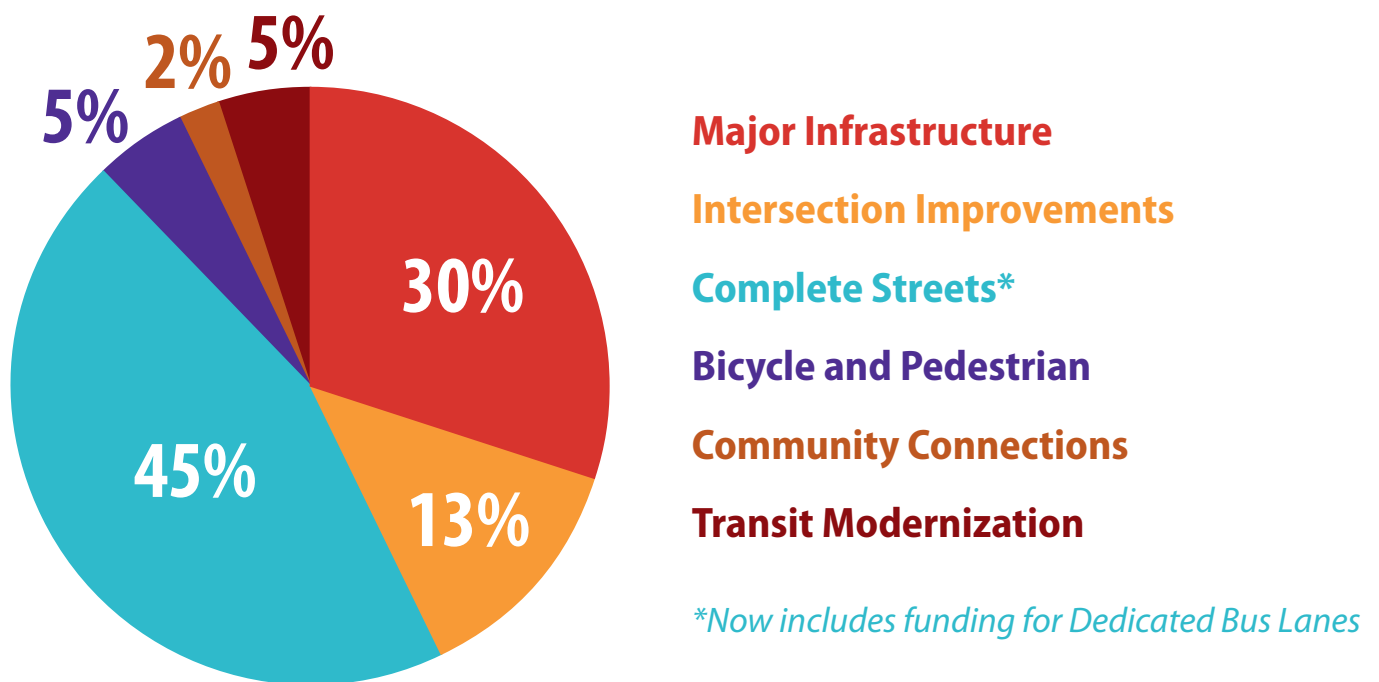
ECONOMIC VITALITY

Ensure our transportation network provides a strong foundation for economic vitality

These goal areas include specific objectives to mark progress toward goals.

How does the MPO spend federal transportation funding?

While *Destination 2040* guides the MPO in organizing the types of projects funded over a 20-year period, the **Transportation Improvement Program (TIP)** is the implementation arm of the LRTP designating construction funding for projects over a five-year period. The MPO has approximately \$110 million annually to complement state and local investments in transportation infrastructure in the 97 cities and towns in the Boston Region. Funding is categorized into six investment programs that are designed to move the MPO toward its transportation goals.



The following pages describe in more detail the types of projects funded in each investment program and how those projects meet MPO goals.

How does the MPO prioritize projects?

The MPO looks at areas with the highest needs for safety, system preservation, and access to different modes of travel among other priorities when deciding which projects to fund in the TIP. The MPO uses project evaluation criteria linked to each MPO goal area to incorporate these priorities. After the MPO's endorsement of *Destination 2040*, the MPO voted to revise the project evaluation criteria. The new criteria will better reflect the vision and investments outlined in *Destination 2040*.

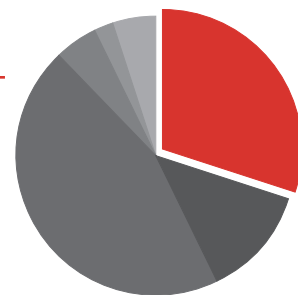
A major theme that emerged from *Destination 2040* is the need to address the imminent and future issues surrounding climate change. The MPO is addressing the need for resiliency planning on multiple fronts; first by encouraging resilient design of projects and second by funding a new Unified Planning Work Program study titled, "Exploring Resilience in MPO-Funded Corridor and Intersection Studies." The MPO is exploring the creation of more specific criteria that address resiliency in project design. To minimize the negative impacts of climate change, the MPO is taking steps to decrease the Boston region's carbon footprint while simultaneously adapting the transportation system to minimize damage from natural hazards.

Another major MPO goal emphasized in *Destination 2040* is access to equitable transportation services across the region, which includes providing transportation options to low-income and minority communities for travel to jobs, services, and more. The MPO will also explore additional issues as part of the reimagining of the project evaluation criteria.

Learn more about how to get involved in the TIP project evaluation criteria conversations by subscribing to the MPOinfo email list at bostonmpo.org/subscribe

THE INVESTMENT PROGRAMS

MAJOR INFRASTRUCTURE—30 PERCENT



The Major Infrastructure program invests in projects that modernize or expand expressways, major arterials, or transit systems to reduce congestion and improve safety. Major infrastructure projects need to be evaluated and programmed in the LRTP to receive funding through the TIP. In *Destination 2040*, the Boston Region MPO defined a major infrastructure project as one:

- that costs more than \$20 million; and/or
- adds capacity to the existing system through the addition of a travel lane, construction of an interchange, the extension of a commuter rail or rapid transit line, or the procurement of additional (not replacing) public transportation vehicles.

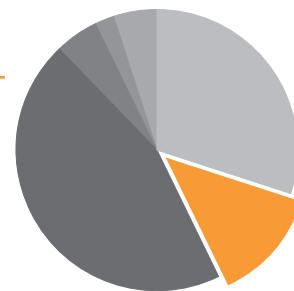
In *Destination 2040*, the MPO decided that no more than 30 percent of available funding in each five-year time band would be allocated to major infrastructure projects—approximately \$1.8 billion over 20 years—and if one major infrastructure project required more than 30 percent of funding in a particular time band, it would not be programmed. This is to make space for investment program funding to serve the region more equitably and have a larger impact with the available funding. The following table lists the major infrastructure projects programmed in *Destination 2040* from 2020 to 2040. Some funding was left unallocated in the later time band of the LRTP to allow for cost overruns or projects that may emerge in the future.

PROJECT NAME	CURRENT COST
Reconstruction of Rutherford Avenue, from City Square to Sullivan Square (Boston)	\$152,000,000
Roadway, ceiling and wall reconstruction, new jet fans, and other control systems in Sumner Tunnel (Boston)	\$126,544,931
Intersection improvements at Route 126 and Route 135/MBTA and CSX Railroad (Framingham)	\$115,000,000
Route 4/225 (Bedford Street) and Hartwell Avenue (Lexington)	\$30,557,000
Western Avenue (Lynn)	\$36,205,000
Bridge replacement, Route 27 (North Main Street) over Route 9 (Worcester Street) and interchange improvements (Natick)	\$25,900,000
McGrath Boulevard (Somerville)	\$66,170,710
Reconstruction of Route 1A (Main Street) (Walpole)	\$19,906,000
Bridge Street Replacement (Woburn)	\$15,482,000

MBTA = Massachusetts Bay Transportation Authority.

Source: Boston Region Metropolitan Planning Organization.

INTERSECTION IMPROVEMENTS—13 PERCENT

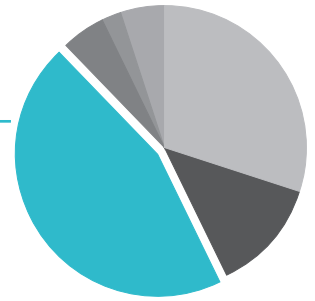


The Intersection Improvements investment program supports projects that enhance intersections for pedestrians, cyclists, cars, and buses. Projects can include the following:

- Modernizing existing signals or adding signals to improve safety and mobility
- Adding turning lanes
- Shortening crossing distances for pedestrians
- Improving curb cuts
- Adding striping and lighting for bicyclists

MPO GOAL AREA	SPECIFIC GOALS OF INTERSECTION IMPROVEMENT PROJECTS
Safety	Improve safety at high-crash locations for motorists, trucks, pedestrian, and bicyclists through changes like upgraded geometry, shortened crossing distances, and enhanced signage and lighting.
System Preservation and Modernization	Improve pavement condition and modernize signal equipment.
Capacity Management and Mobility	Reduce congestion, improve mobility and accessibility for all modes, and reduce emissions.
Clean Air and Sustainable Communities	Reduce emissions because of enhanced operations for all vehicles, and through mode shift, accompanied by improvements in transit reliability and bicycle and pedestrian infrastructure.
Transportation Equity	Enhance transit services through improved operations and provide improved bicycle and pedestrian connections to make more opportunities for multimodal transportation.
Economic Vitality	Reduce congestion by improving signal timings, which will improve mobility and access to centers of economic activity. Include pedestrian and bicycle elements that will improve mobility for bicyclists, and mobility and accessibility for pedestrians in centers of economic activity.

COMPLETE STREETS, INCLUDING ADDITIONAL FUNDING FOR DEDICATED BUS LANES—45 PERCENT



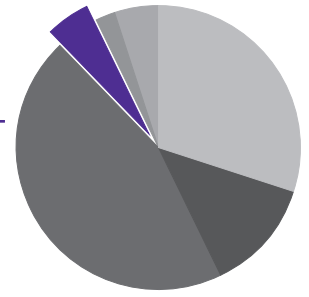
The Complete Streets investment program funds projects to modernize roadways and improve safety and mobility for all users. Improvements can consist of the following elements:

- Continuous sidewalks
- Bicycle lanes, cycle tracks, and other bicycle facilities
- Dedicated bus lanes
- Updated signals at intersections along a corridor
- Roadway infrastructure improvements in the corridor, such as bridges, drainage, pavement, and roadway geometry

MPO GOAL AREA	SPECIFIC GOALS OF COMPLETE STREETS PROJECTS
Safety	Modernize the roadway network to provide safe conditions for all modes of travel along the corridor. Improvements could consist of lane reconfiguration, traffic signal and access improvements for motorists, new sidewalks, curb ramps, improved roadway crossings for pedestrians, and continuous bicycle facilities to reduce conflicts between bicyclists and motor vehicles.
System Preservation and Modernization	Address pavement condition, upgrade sidewalk and bicycle accommodations, and improve bridges and culverts (including adaptations to transportation infrastructure that is vulnerable to climate change and other hazards).
Capacity Management and Mobility	Increase transportation options by adding new sidewalks, bus lanes, and bicycle facilities. Improve mobility for transit services through the addition of dedicated bus lanes.
Clean Air and Sustainable Communities	Improve bicycle, pedestrian, and transit infrastructure improvements to reduce vehicle-miles traveled through improved operations and mode shift.
Transportation Equity	Enhance transit service operations and provide better and more bicycle and pedestrian connections.
Economic Vitality	Increase transportation options and access to places of employment and centers of economic activity by improving traffic operations and transit service and adding sidewalks and bicycle facilities.

The MPO wants to hear from you about routes or locations to consider for Dedicated Bus Lanes. Submit your comments at bostonmpo.org/comment or email MPO staff at publicinfo@ctps.org.

BICYCLE NETWORKS AND PEDESTRIAN CONNECTIONS— 5 PERCENT

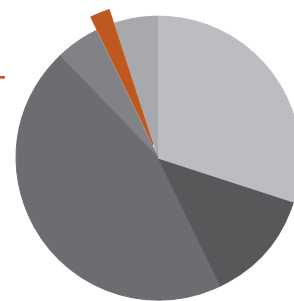


The Bicycle Networks and Pedestrian Connections investment program will expand bicycle and pedestrian networks to improve safe access to transit, school, employment centers, and shopping destinations. Bicycle and pedestrian connection projects could include elements of the following:

- Constructing new, off-road bicycle or multi-use paths
- Improving bicycle and pedestrian crossings
- Building new sidewalks
- Improving traffic-calming features
- Expanding the sidewalk network
- Implementing upgrades similar to those in a Complete Streets Program
- Enhancing signage and lighting

MPO GOAL AREA	SPECIFIC GOALS OF BICYCLE NETWORK AND PEDESTRIAN CONNECTIONS PROJECTS
Safety	<p>Create a safe pedestrian and bicycle corridor that connects activity centers while avoiding high-crash locations on the roadway system.</p> <p>Implement safety improvements to facilitate pedestrian access to transit or other activity centers.</p>
System Preservation and Modernization	<p>Improve bicycle and pedestrian crossings and sidewalks.</p>
Capacity Management and Mobility	<p>Increase transportation options, provide access to transit or other activity centers, and support last-mile connections.</p>
Clean Air and Sustainable Communities	<p>Help reduce vehicle-miles traveled through mode shift.</p>
Transportation Equity	<p>Provide better access to transit and improve pedestrian and bicycle infrastructure.</p>
Economic Vitality	<p>Increase transportation options and access to places of employment and centers of economic activity by adding new sidewalks and bicycle facilities and improving operations.</p>

COMMUNITY CONNECTIONS—2 PERCENT

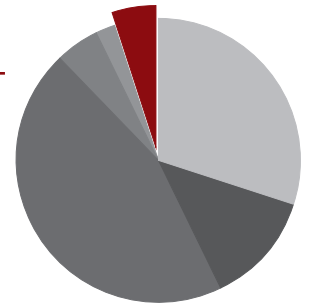


This program includes a combination of the following types of projects:

- **Transit Operations:** Projects that close gaps in the transit network (first-mile/last-mile shuttles, partnerships with transportation network companies, transit enhancements, and technology updates)
- **Parking Management:** Additional parking for automobiles and bicycles and leasing off-site parking near transit stations with shuttle connections
- **Bicycle and Pedestrian Improvements:** Bicycle and pedestrian improvements for transit access, improvements to nonautomotive transportation infrastructure for travelers with mobility impairments, and training and equipment for bicycles on transit
- **Education and Wayfinding:** Projects could include travel instruction, training on new technologies, signage, and pilot or demonstration projects
- **Connect Elderly Adults with Transportation:** Projects that connect elderly adults with transportation options, such as transportation network companies

MPO GOAL AREA	SPECIFIC GOALS OF COMMUNITY CONNECTIONS PROJECTS
Capacity Management and Mobility	<p>Increase transit ridership by expanding automobile and bicycle parking at commuter rail and rapid transit stations.</p> <p>Start new, locally developed transit services and supporting last-mile connections.</p> <p>Provide mobility options for elderly adults.</p>
Clean Air and Sustainable Communities	<p>Improve bicycle and pedestrian infrastructure, locally developed transit services, and first-mile/last-mile connections to help reduce vehicles-mile traveled and emissions through mode shift.</p>
Transportation Equity	<p>Start new, locally developed transit services that include transit vehicles and coordination of service to transportation equity populations in suburban areas.</p>
Economic Vitality	<p>Increase transportation options and access to places of employment and centers of economic activity by starting new, locally developed transit services, adding new sidewalks and bicycle facilities, and improving operations.</p>

TRANSIT MODERNIZATION—5 PERCENT



This investment program would flex MPO discretionary funding to transit maintenance and modernization projects identified through coordination with the Massachusetts Department of Transportation, Massachusetts Bay Transportation Authority (MBTA), MetroWest Regional Transit Authority, the Cape Ann Transit Authority, and municipalities. It could also include climate resiliency projects to improve transit infrastructure. Increasing investments in transit modernization and maintenance projects would allow the MPO to use its discretionary funding to augment planned transit improvements throughout the region and help the MPO reach its goals established in the LRTP. The types of projects that could be funded under this program include the following:

- Accessibility Improvements
- Station Modernization Improvements
- Parking Improvements at Stations
- Infrastructure State of Good Repair
- Fleet Modernization
- Bus Maintenance Facilities Upgrades

MPO GOAL AREA	SPECIFIC GOALS OF TRANSIT MODERNIZATION PROJECTS
System Preservation and Modernization	<ul style="list-style-type: none"> • Modernize stations with system upgrades, customer amenities, or capacity enhancements at existing rapid transit and commuter rail stations. • Modernize fleets by replacing regional transit authority buses and MBTA bus and Silver Line fleets with a mix of hybrid and battery electric vehicles and single-level commuter rail coaches with higher capacity bi-level coaches, and implementing other upgrades and overhauls to improve service reliability. • Attain infrastructure state of good repair by upgrading track, signals, and power systems to improve service reliability and enhance climate resiliency. • Improve state of good repair, support additional capacity, and accommodate future fleets by upgrading and replacing bus maintenance facilities.
Capacity Management and Mobility	<ul style="list-style-type: none"> • Improve access to MBTA stations and support first-mile and last-mile access to transit by improving parking at stations. Eligible projects could include upgrades at existing parking facilities or new or expanded parking facilities.

(cont.)

MPO GOAL AREA	SPECIFIC GOALS OF TRANSIT MODERNIZATION PROJECTS
Clean Air and Sustainable Communities	<ul style="list-style-type: none">• Fleet modernization projects: planned replacements of regional transit authority buses and MBTA bus and Silver Line fleets with a mix of hybrid and battery electric vehicles, replacement of single-level commuter rail coaches with higher capacity bi-level coaches, and various other upgrades and overhauls to improve emissions.
Transportation Equity	<ul style="list-style-type: none">• Accessibility projects: construction or replacement of redundant elevators at MBTA rapid transit or commuter rail stations, installation of high-level platforms at presently inaccessible stations, or removal of other barriers to accessibility at stations and MBTA and regional transit authority bus stops.• Station modernization projects: system upgrades, customer amenities, or capacity enhancements at existing rapid transit and commuter rail stations, improving mobility to transportation equity populations.
Economic Vitality	<ul style="list-style-type: none">• Improvements will contribute to a more reliable and accessible transit system that will support economic vitality in the region.

The MPO wants to hear about your ideas for the types of projects that the Transit Modernization investment program could fund. Submit your comments at bostonmpo.org/comment or email MPO staff at publicinfo@ctps.org.





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