

South West Area Advisory Planning Committee (SWAP)

Transportation Needs, Construction Projects,
and Studies in Your Subregion



Bellingham • Dover • Franklin • Hopkinton • Medway • Milford • Millis • Norfolk • Sherborn • Wrentham

FALL 2020

WHAT TRANSPORTATION NEEDS DID THE MPO IDENTIFY IN SWAP COMMUNITIES?

[The Boston Region Metropolitan Planning Organization \(MPO\)](#) conducted an assessment of transportation needs in the Boston region to inform the MPO's Long-Range Transportation Plan (LRTP), [Destination 2040](#). The MPO staff identified existing transportation conditions and made projections of future conditions and demand on the system. MPO staff also reached out to various subregional groups to discuss transportation needs and opportunities to improve transportation in the subregional communities. The resulting [LRTP Needs Assessment](#) serves as a tool for planning the region's future transportation network and prioritizing the MPO's limited funding for transportation projects and studies.

The information that follows highlights some of the transportation needs identified in the SWAP subregion based on MPO analysis, and past visits to SWAP communities. This information has been updated from Federal Fiscal Year (FFY) 2020 with comments MPO staff heard from fall 2019 to spring 2020.

Projects Programmed in the FFYs 2021–25 TIP in the SWAP Subregion

TIP Identification Number	Project	Category	Municipality	Year Programmed
608887	South Main Street (Route 126): Douglas Drive to Mechanic Street Reconstruction (Route 140)	Complete Streets	Bellingham	2022
608045	Rehabilitation on Route 16 from Route 109 to Beaver Street	Intersection Improvements	Milford	2025
603739	Construction of I-495/Route 1A ramps	Intersection Improvements	Wrentham	2024

TIP = Transportation Improvement Program.

SWAP Transportation Projects in the TIP Universe of Projects

Project	Category	Municipality	Scored by the MPO
South Main Street (Route 126) - Elm Street to Douglas Drive Reconstruction	Complete Streets	Bellingham	No
Ramp Construction & Relocation, I-495 at Route 127 (Hartford Avenue)	Major Infrastructure	Bellingham	No
Resurfacing and Intersection Improvements on Route 140, from Beaver Street to I-495 Ramps	Complete Streets	Franklin	No

MBTA = Massachusetts Bay Transportation Authority. MPO = metropolitan planning organization. TIP = Transportation Improvement Program.

Transportation Studies Conducted in SWAP Subregion through the [Unified Planning Work Program \(UPWP\)](#)

- [SWAP Regional Public Transit Feasibility Study \(FFY 2014\)](#)
- [Route 1A Subregional Roadway Study in Wrentham \(FFY 2017\)](#)
- [Route 140 Priority Corridor Study in Franklin \(FFY 2014\)](#)
- Safety and Operations Analysis at Selected Intersections
 - [Hartford Avenue \(Route 126\) in Bellingham \(FFY 2018\)](#)
 - [Medway Road \(Route 109\) in Milford \(FFY 2014\)](#)
 - Prospect Street in Milford (FFY 2010)

Read more studies on the [Boston Region MPO's Recent Publications webpage](#).

Region-wide Transportation Studies

- [How to Operate a Successful Community Shuttle](#)
- [Pedestrian Report Card Assessment Interactive Database](#)
- [New Emerging Metrics](#)



Transportation Needs Identified through Outreach in the SWAP Subregion

The comments below include transportation needs identified in outreach for the LRTP Needs Assessment and new comments heard during MPO outreach from fall 2019 to spring 2020. **The new comments are in red.**



Roadway

- Improve intersection of Route 16 and Route 27 near entrance to the middle school in Sherborn
- Build on corridor study of Route 1 and 1A corridors, particularly with the intersections of Route 1A and Route 140
- Enhance the intersections of Trotter Drive and Route 109 and Interstate (I)-495/Route 109 in Medway
- Improve Route 16 corridor and reduce congestion
- Reduce congestion at Forge Park in Franklin
- Reconstruct Route 109 from west of Maine Village to the Milford Line
- Apply Complete Streets upgrades and condition improvements to Route 126 corridor in Bellingham with curb and sidewalk reconstruction for Americans with Disabilities Act compliance and intersection improvements at Douglas Drive, Elm Street, Pulaski Boulevard, and Maple Street
- Reduce peak congestion across the subregion and improve options for all modes
- Implement capacity and safety improvements at dual intersections for Route 140 and Route 126
- Improve gateways to towns and corridors for residents and industrial development to access I-495
- Reconstruct the Route 126 and I-495 interchange
- Improve intersection at Route 109 and I-495 at Beaver Street in Milford
- Reduce congestion in Sherborn center
- Improve Route 115 corridor
- Implement improved design of intersection by the Medway Town Hall



Transit

- **Make Franklin/Dean College Station wheelchair accessible**
- **Increase transit service in Franklin area to accommodate late afternoon/night transportation needs to Boston.**
- **Coordinate shuttle programs in Franklin, Bellingham, Milford, and Wrentham collectively rather than individually running the programs**
- **Increase connectivity for SWAP municipalities to Boston**

- Expand shuttle service and replicate CrossTown Connect model
- Test Dial-a-Ride service before implementing fixed route
- Partner with Councils on Aging to coordinate shuttle services
- Implement reliable commuter rail services for Franklin Station and extend the double track to Norfolk Station and Forge Park Station
- Partner with Dean College to expand shuttle services
- Install bus stops on Franklin bus route since potential passengers are reluctant to wave down bus
- Enhance first- and last-mile connections to transit and I-495 to reduce congestion in Bellingham
- Employ incentives to encourage mode shift
- Add train services from Medfield to Framingham, Walpole, and Attleboro



Pedestrian

- Expand last-mile connections to transit stations in Bellingham. Currently, there are limited sidewalk connections and poor sidewalk conditions
- Improve sidewalk system throughout the subregion. The sidewalk system is disjointed and in poor condition, resulting in wheelchair users being forced to use the breakdown lane



Land Use and Technology

- **Coordinate increased commuter rail frequency in SWAP to support developing more housing in central business districts**
- **Improve storm water drainage in Bellingham**
- **Improve storm water flooding problems in Sherborn**
- Anticipate possible development projects with downtown rezoning in Wrentham
- Explore public and private partnerships for transportation options
- Increase scoring criteria to improve economic development and unlock development in suburbs
- Support Wrentham downtown revitalization by eliminated zoning issue for bus shelters and set backs
- Anticipate future development, particularly with housing impacts, and build supportive transportation options
- Implement new shuttle technology to increase use of service
- Anticipate tradeoffs in town center (such as increasing congestion) while still supporting vibrancy of downtown
- Support emerging technologies, such as autonomous vehicles (AV), and expand supportive infrastructure



Parking

- Expand parking and shuttle service. Park-and-ride options could include church parking lots when they are not in use
- Provide more parking opportunities at Franklin and Forge Park Stations, as they are at capacity. Norfolk Station is not at capacity but it is located further away. Some users will drive west to be able to park and take the train east
- Expand park-and-ride options near I-495 to support carpooling

Study Ideas and Opportunities in the SWAP Subregion



Roadway

- **Increase the number of UPWP studies in the SWAP subregion**
- **Conduct a field inventory of culverts and bridges in Sherborn**
- Analyze the increase in truck traffic in downtown Bellingham due to warehouse development, and research how to mitigate congestion and safety issues
- Study the Route 1 Corridor
- Investigate the impact of development on small roads
- Study the Route 109 corridor from Medway through Millis and Westwood, which is highly congested due to Route 128



Transit

- Examine and improve Franklin Line schedule
- Analyze the costs versus the benefits for first- and last-mile options to incentivize high functioning and innovative options
- Study bus options from Bellingham to Milford
- Study how to improve the success of regional transit authorities



Bicycle

- Study rail trail feasibility in abandoned rights-of-way to help implement multiuse trails for congestion reduction



Land Use and Technology

- **Explore how housing and transportation investments in transportation infrastructure can work together to make better use of land**

Public Comments on SWAP Regional Target Funded TIP Projects FFY 2021–25

Project	Number of comments	Comment
Rehabilitation and Related Work on Route 126 (Bellingham)	Legislative: 1 Support Municipal: 2 Support Organization: 1 Support	Supports continued inclusion of the Rehabilitation and Related Work on Route 126 in the FFY 2022 TIP element. The corridor, which is next to to the Bellingham Memorial Middle School, has seen many accidents and doesn't have sidewalks.

FFY = Federal Fiscal Year. TIP = Transportation Improvement Program.



Transportation Needs Identified in the *Destination 2040* Needs Assessment

Location of Identified Need	Municipality	MassDOT-Identified HSIP Crash Cluster (all modes)	Intersects MPO Staff-Identified Truck Crash Cluster(s)	Intersects Massachusetts Top Crash Location(s)	Truck Crash Cluster	Priority Congested Location
Route 126 (Hartford Avenue) at Deerfield Lane	Bellingham	●		●		
Interstate 90 near Wood Street	Hopkinton				●	
Route 85 (Cedar Street) at Fortune Boulevard	Milford	●	●	●		
Route 16/27	Sherborn					●
Route 1A at Premium Outlets Boulevard	Wrentham	●	●	●		

Note: MassDOT-identified HSIP crash clusters, MPO staff-identified truck crash clusters, and MassDOT Top Crash Locations were identified using crash data collected from 2013–15. Pedestrian crash clusters were identified using data on crashes involving pedestrians collected from 2006–15. More information on these locations is available in the Safety Chapter of the *Destination 2040* Needs Assessment report, while the Capacity Management and Mobility chapter of that report provides details about MPO staff-identified Priority Congested locations.

HSIP = Highway Safety Improvement Program. MassDOT = Massachusetts Department of Transportation. MPO = metropolitan planning organization. US = United States.

FINDINGS FROM BOSTON MPO REGION-WIDE SURVEY ON TRANSPORTATION PRIORITIES FOR TIP CRITERIA

Clean Air/Sustainable Communities

Participants advocated for dramatically reducing emissions and pollution and recommended improving pedestrian and bicycle safety, increasing pedestrian and bike connectivity, and promoting equitable transportation mobility to achieve this goal. Respondents also argued for stronger assessments on air pollution and for addressing the disproportionate health effects on low-income and minority communities living near high-emission roadways. They also argued for projects that reduce the number of personal vehicles on the road and for enhancing tree canopy coverage and green space. For additional Clean Air/Sustainable Communities priorities, participants advocated for smart growth, transit-oriented development, supporting active transportation, and prioritizing non-car modes.

Safety

Participants primarily focused on improving pedestrian and bike safety through expanding pedestrian and bike infrastructure, bringing sidewalks up to Americans with Disabilities Act accessibility standards, increasing connectivity to transit, and reducing auto speeds to prevent accidents. Participants shared their support for maintaining and expanding the transit system to increase mode shift away from single-occupancy vehicles and to increase bike and pedestrian safety. Many argued for separated bike facilities to make it easier and safer for anyone to bike and not just the experienced bicyclist. They advocated for shifting of spending to focus on Vision Zero projects, improving dangerous crossings, installing light-up crosswalks, and fixing poorly timed lights and poorly painted crosswalks. They also advocated for safe and convenient walkable routes to access jobs, services, and schools. Many advocated for prioritizing areas that primarily serve equity populations, fixing broken sidewalks, and reducing conflicts between pedestrians crossing the street and turning vehicles.

System Preservation and Modernization

Participants were asked about maintaining and improving existing sidewalks, roads, and bridges. Many focused more on improving overall safety rather than on the maintenance and improvement of specific elements of the roadway. However, when asked about maintaining the existing transit system, many picked it as their top priority. Participants advocated for making the transit system reliable, functional, clean, safe, and dependable to increase ridership and reduce congestion. They advocated for transit expansion and prioritizing dedicated bus lanes. They supported investing in maintenance of the transit system and argued for equitable transportation mobility. Creating connections to jobs and services through transit options was also identified as important as was implementing more multimodal infrastructure.

Capacity Management and Mobility

Many participants advocated for creating new connections in the bike network and argued for enhanced connections to the transit system. Participants argued for more separated shared-use paths to increase bike usage. They saw increased bike infrastructure as a tool to reduce emissions, reduce congestion, and promote public health by enhancing exercise and recreation options.

Many respondents highlighted the idea of implementing more dedicated bus lanes as a way to increase reliability, enhance access to jobs and services, increase equity in the transit system, and reduce emissions. Participants argued that dedicated bus lanes have a high impact for less investment, and can be more flexible to meet community needs. Bus frequency and reliability can increase ridership and reduce the number of single-occupancy vehicles on the road. Bus lanes can also be combined with bike lanes, which increase mobility options for residents. To reduce congestion, participants argued for more parking at commuter rail stations, enhancing walking options to commuter rail stations, and increasing safety for walking and biking. They advocated for prioritizing person throughput rather than vehicle throughput. To reduce congestion and conflicts with pedestrians and bicyclists, participants argued for implementing curb allocation policies for trucks and delivery vehicles.

Transportation Equity

Transportation equity was one of the most selected priorities in both the online survey and focus groups. To promote more equitable transportation mobility, participants argued for many of the other priorities with a focus on directing resources to those most overburdened by transportation emissions and underserved by a lack of adequate transportation options. They argued for enhancing transportation opportunities to jobs, food, education, services, and civic engagement opportunities. They advocated for safer connections to transit options and increased transit reliability. Expanding and fixing sidewalk infrastructure was also frequently mentioned. Many argued for prioritizing projects near affordable housing, supporting transit-oriented development, and incorporating more public health criteria.

Economic Vitality

To increase economic vitality, participants argued for more transportation access to jobs, services, and small businesses with increased transit, bicycle, and pedestrian infrastructure. Expanding the transit system was frequently mentioned as well as incorporating greater consideration for affordable housing and inclusionary zoning. Participants also advocated for supporting projects that serve multiple municipalities and maximize mobility for all using the most efficient means possible. They also argued for climate resiliency and safety to enhance access to jobs and services.

SELECT FINDINGS FROM BOSTON MPO REGION-WIDE NEEDS ASSESSMENT

Safety Needs

- Identify fatal and serious roadway crash factors and countermeasures
- Consider capital investment, education, enforcement, and other approaches to improve safety
- Address the MassDOT-identified Top 200 high-crash intersections in the Boston region (66 total), such as those on Route 9 in Framingham, Route 107 in Lynn and Salem, and Route 16 in Chelsea, Everett, and Medford
- Improve pedestrian connections at intersections, especially in top-ranking pedestrian crash cluster locations, including those in downtown areas in Chelsea, Lynn, Quincy, Boston, and Framingham
- Expand well-maintained and connected sidewalk and bicycle networks
- Develop separated shared-use paths for pedestrians and bicyclists
- Address top-ranking bicycle crash cluster locations, including those in Boston, Cambridge, and Somerville
- Modernize obsolete interchanges, such as I-90 and Interstate 95 (I-95) interchange in Weston and the I-95 Middlesex Turnpike interchange in Burlington, to reduce truck crashes
- Incorporate Complete Streets design and traffic calming principles in roadway projects
- Identify strategies to manage roadway user priority, parking, and curb space
- Identify and invest in priority transit state of good repair and modernization projects. For instance, positive train control and rapid transit vehicle upgrades
- Monitor advancements in AV technology and analyze the safety impacts of AV deployments, particularly in the Boston region



System Preservation and Modernization Needs

- Maximize the number of bridges in the region considered to be in good condition and minimize the number of bridges considered to be in poor condition
- Monitor the MassDOT Pavement Management program
- Identify the location of sidewalks and their condition, specifically sidewalks around transit stations
- Support investments that improve the accessibility of transit stations, bus stops, and paratransit services
- Support investments that upgrade transit fleets, facilities, and systems to provide more efficient, reliable, and sustainable service
- Support climate vulnerability assessments and invest in projects and programs resulting from these processes
- Improve connections between intermodal facilities and the regional road network
- Improve resiliency of the region's transportation system to prepare for existing or future extreme conditions, such as sea level rise and flooding

Capacity Management and Mobility Needs

- Reduce congestion on expressways, interchanges, and arterials
- Reduce congestion at bottleneck locations on the regional roadway network
- Continue to monitor car sharing as it is poorly integrated with other modes and not accessible in all areas
- Continue to monitor Transit Demand Management (TDM) services
- Research strategies for TDM as relatively few municipalities in the Boston region have TDM ordinances
- Reduce congestion on regional roadways to facilitate the movement of freight
- Reduce conflicts between automobiles and delivery trucks that are competing for curb space
- Improve access to transit service that runs frequently, and increase capacity at park-and-ride lots that are at or approaching capacity
- Improve the reliability of bus service as bus speeds are projected to decline due to increased congestion. The introduction of more dedicated bus lanes could be a potential solution
- Address increased transit delays resulting from the system's aging rapid transit infrastructure
- Address crowding on rapid transit lines and bus routes. According to a 2040 no-build scenario, crowding is projected to increase to unacceptable levels in some locations

- Address the need for sufficient MBTA garage space to fully modernize and expand the fleet
- Examine off-peak and reverse commute options between suburban areas and the Boston Central Business District as the commuter rail mostly serves peak-period travel
- Identify challenges to making first- and last-mile connections, which are major barriers to transit usage
- Expand pedestrian and bicycle infrastructure so that residential areas and employment locations are close to facilities that are conducive to regular use
- Connect the disjointed elements of the bicycle network to create a cohesive network
- Create a comprehensive inventory of existing sidewalk data, including sidewalk coverage and condition

Clean Air/Sustainable Community Needs

- Reduce carbon dioxide emissions from MPO-funded transportation projects and programs to help meet the requirements of the Global Warming Solutions Act, particularly projects that help to reduce vehicle-miles traveled
- Prioritize transportation projects that meet the Green Communities certification and assist municipalities in meeting or maintaining these certifications
- Provide data and assistance to municipalities in developing their greenhouse gas inventories and energy reduction plans
- Reduce volatile organic compounds, nitrogen oxides, carbon monoxide, and particulate matter emissions from MPO-funded transportation projects and programs (particularly those that help to reduce vehicle-miles traveled) to help maintain the air quality standards in the region
- Identify projects and programs that can meet criteria established to protect wetlands, cultural resources, open space, and wildlife
- Ensure that infrastructure to reduce storm water pollution and impacts from natural hazard events (for example, flooding or winter storms) is incorporated in project design

Transportation Equity Needs

- Address the lack of transit service for transportation equity (TE) populations compared to service available to non-TE populations
- Increase reliability of rapid transit and bus service for populations whose only option is transit
- Address inadequate access to safe bicycle facilities for elderly and youth populations
- Increase docked bikeshare facilities in the Inner Core for some communities with a high share of low-income or minority populations
- Increase off-road active transportation routes in communities with a high share of TE populations that live near congested roadways
- Improve coordination of schedules, routes, and services between towns and the MBTA and other regional transit authorities

- Expand transit service (late night, early morning, and reverse commute) between job-rich centers, such as Longwood Medical Area, the Seaport, suburban job centers, and underserved neighborhoods
- Provide new transit service between low-income suburban residential communities and suburban job centers
- Consider building transit-oriented developments that provide affordable housing near transit hubs and employment centers to meet the needs of TE populations
- Improve sidewalks and street crossings, especially around schools, so that they are safe for children and elderly adults
- Document potential exposure of TE populations to climate change impacts and determine how the ability to access transportation may be affected

Economic Vitality Needs

- Administer infrastructure improvements to support growth in the priority development areas, including improving equitable access to employment and housing via public transit, walking, and biking options
- Arrange better commuter rail scheduling including more frequent, reliable off-peak, late-night, and weekend service to support reverse commuting, especially for service workers
- Coordinate with regional transit authorities to address the needs of customers who travel between different regional transit authority service areas
- Provide funding sources to connect regional transit authority services





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Kreyòl Ayisyen (Haitian Creole)

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Title VI la nan nimewo 857.702.3700.

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