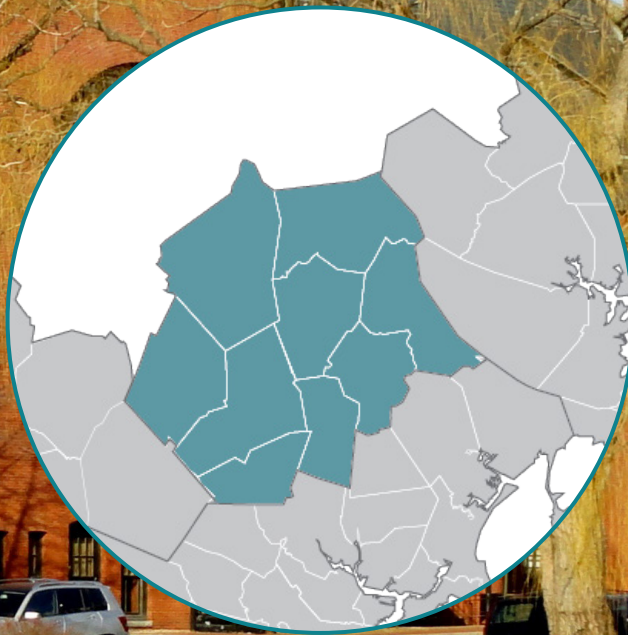


North Suburban Planning Council (NSPC)

Identifying Transportation Needs, Construction Projects,
and Studies in Your Subregion



Burlington • Lynnfield • North Reading • Reading • Stoneham • Wakefield • Wilmington • Winchester • Woburn

FALL 2020



WHAT TRANSPORTATION NEEDS DID THE MPO IDENTIFY IN NSPC 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 NSPC subregion based on MPO analysis, and past visits to NSPC 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 NSPC Subregion

TIP Identification Number	Project	Category	Municipality	Year Programmed
608067	Intersection Reconstruction at Route 3 (Cambridge Road) and Bedford Road and South Bedford Street	Intersection Improvements	Burlington Woburn	2025
607305	Intersection Signalization at Route 28 and Hopkins Street	Intersection Improvements	Reading	2021
609253	Intersection improvements at Lowell Street (Route 129) and Woburn Street	Intersection Improvements	Wilmington	2024
608051	Reconstruction of Route 38 (Main Street), from Route 62 to the Woburn City Line	Complete Streets	Wilmington	2024
604996	Bridge Replacement, New Boston Street over MBTA	Major Infrastructure	Woburn	2021
610662	Roadway and Intersection Improvements at Woburn Common, Route 38 (Main Street), Winn Street, Pleasant Street, and Montvale Avenue	Complete Streets	Woburn	2025

MBTA = Massachusetts Bay Transportation Authority. TIP = Transportation Improvement Program.



NSPC Transportation Projects in the TIP Universe of Projects

Project	Category	Municipality	Scored by the MPO
Improvements at Interstate 95 (Route 128)/Route 3 Interchange	Intersection Improvements	Burlington	No
Reconstruction of Summer Street	Complete Streets	Lynnfield	No
Improvements on Interstate 95	Major Infrastructure	Reading	No
Intersection Reconstruction at Route 3 (Cambridge Road) and Bedford Road and South Bedford Street	Intersection Improvements	Woburn	Yes
Middlesex Canal Park Improvements, from Alfred Street to School Street (Phase II—Segment 5)	Bicycle and Pedestrian	Woburn	No

MBTA = Massachusetts Bay Transportation Authority. LRTP = Long-Range Transportation Plan. MPO = metropolitan planning organization. TIP = Transportation Improvement Program.

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

- Low-Cost Improvements to Express-Highway Bottleneck Locations
 - [Interstate 93 northbound between Exit 40 \(Route 62\) and Exit 41 \(Route 125\) in Wilmington \(FFY 2019\)](#)
 - [Interstate 93 southbound between Exit 37C \(Commerce Way\) and Exit 37B \(Interstate 95\) in Woburn and Reading \(FFY 2017\)](#)
 - [Interstate 93 southbound between Interstate 95 and Montvale Avenue in Woburn and Stoneham \(FFY 2014\)](#)
- Safety and Operations Analysis at Selected Intersections
 - [Main Street \(Route 38/129\) and Church Street/Burlington Avenue \(Route 62\) in Wilmington \(FFY 2012\)](#)
 - Lowell Street (Route 129) and Woburn Street in Wilmington (FFY 2010)
 - Main Street (Route 28) and Franklin Street in Reading (FFY 2009)

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

Regionwide 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 NSPC 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 teal.**



Roadway

- **Address pedestrian safety concerns at Montvale Avenue and Hill Street intersection in Woburn.**
- Implement redesign of Route 28 in North Reading and Reading to incorporate other modes besides automobile.
- Explore redesign of North Street in Stoneham to support multiple modes.
- Fix roadway and transit bridges in the region.
- Redesign Route 28 (Main Street) with a focus on intersections at Washington, Hopkins, and Ash Streets, and Summer Avenue in Reading. The Massachusetts Department of Transportation (MassDOT) has started this process, but the project has since stalled.
- Implement Complete Streets design on Route 28 in Stoneham to improve signals, improve intersections at Franklin, Main, and Central Streets, expand walking options, and improve parking.
- Work to provide better connectivity from Walkers Brook Drive to downtown Reading.
- Reduce cut through traffic by supporting more multimodal transportation.



Transit

- **Introduce a unified payment system for all MBTA services.**
- **Improve consistency of transit stop announcements.**
- **Establish a shuttle service between Stoneham, Woburn, and Winchester.**
- Increase ridership for MBTA bus Routes 99 and 131.
- Redesign Burlington Mall as a regional transit hub.
- Electrify the commuter rail.

- Build the North–South Rail Link.
- Connect service from Anderson Regional Transit Center to Burlington.
- Expand transportation options to increase the number of people traveling to commuter rail stations.
- Expand reverse-commuting opportunities to regional employment centers.
- Improve public transportation and sidewalk infrastructure in North Reading.
- Expand public transportation north of Route 28 in Stoneham.
- Improve regional connections to transportation opportunities for Burlington.
- Increase transportation opportunities near new housing development in Wilmington.
- Increase capacity of paratransit service to create a community transportation system.



Pedestrian

- **Upgrade pedestrian signals to accessible pedestrian signals.**
- **Install ADA-compliant pedestrian barricades around construction sites.**
- Establish a multimodal path next to MBTA tracks.
- Improve walking conditions with better sidewalks and trees for shade.
- Expand walking options from housing to services for older adults and youth.



Bicycle

- **Prevent dockless bicycle parking on sidewalks.**
- Incorporate “complete” greenways for all types of users.
- Rebuild South Main Street in Stoneham to include a bike lane.
- Increase bike lanes on Route 28 (South Main Street) in Reading.



Land Use and Technology

- Improve east to west connections in the subregion.



Parking

- Improve parking management in downtown areas.
- Increase parking for MBTA riders by creating off-site parking and park-and-ride shuttles to transit stations.
- Expand parking near transit stations. Parking lots are more than 85 percent in use at the following stations:
 - Haverhill Line: Greenwood, North Wilmington, Reading, Wakefield, and Wilmington
 - Lowell Line: Wilmington and Winchester

Study Ideas and Opportunities in the NSPC Subregion



Roadway

- Study Interstate 93 and Interstate 95 interchange.
- Study Interstate 95 and Route 3 interchange.
- Study the potential increase in through traffic to Interstate 93 in the NSPC subregion.



Transit

- Study the lack of transit access and reliability in relation to medium income populations and property values.
- Examine possible scenarios for transit-oriented development as housing costs increase in the Inner Core.
- Explore public and private partnerships to help increase transportation options.



Land Use and Technology

- **Develop a transportation plan for the redevelopment of the former Kraft Foods site in Woburn.**
- **Repair aging infrastructure in Stoneham and Woburn.**
- **Implement policies to make the transportation system more resilient to climate-related hazards in Stoneham and Woburn.**



Parking

- Study parking opportunities at Wedgemere and Winchester Center Stations.



Public Comments on NSPC Regional-Target Funded TIP Projects FFYs 2021–25

Project	Number of Comments	Comment
Intersection Reconstruction at Route 3 and Bedford Road and South Bedford Street (Burlington and Woburn)	Municipal: 1 Request	Requests inclusion of the Intersection Reconstruction at Route 3 and Bedford Road project in the FFYs 2021–25 TIP. The intersection was ranked as a high-crash location in a MassDOT roadway safety audit performed in 2014, and the proposed improvements would reduce vehicular crashes in addition to reducing traffic congestion associated with substandard traffic signal equipment and inadequate geometry.
Main Street Reconstruction (Wakefield)	Municipal: 1 Request	Requests consideration for programming the project in the FFYs 2022–26 TIP.
Intersection Improvements at Lowell Street (Route 129) and Woburn Street (Wilmington)	Municipal: 2 Support	Supports inclusion of the Intersection Improvements at Lowell Street and Woburn Street project in the FFYs 2021–25 TIP, and requests that the project move to an earlier TIP year. The intersection is currently overburdened and unsafe. Moving the project to an earlier year would better accommodate increased traffic resulting from the New Boston Street Bridge Replacement in Woburn (FFY 2021) and the Reconstruction on Main Street in Wilmington (FFY 2023) projects.
Bridge Replacement, New Boston Street over MBTA (Woburn)	Municipal: 1 Support Organization: 1 Support	Supports continued inclusion of the New Boston Street Bridge Replacement in the FFY 2021 TIP, stating that the project will bolster economic development in the area.

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)	MassDOT Pedestrian Crash Cluster	Truck Crash Cluster	Priority Congested Location
Interstate 95 at Route 3	Burlington	●	●				
Middlesex Turnpike at Interstate 95	Burlington	●	●			●	
Route 3A	Burlington	●					●
Route 1 at Route 129	Lynnfield	●	●	●			
Interstate 93 at Interstate 95	Reading Woburn	●	●			●	●
Interstate 93 (northbound) at ramp to Interstate 95	Stoneham	●					
Route 38/129	Wilmington	●					●
Interstate 93 at Montvale Avenue	Woburn Stoneham	●	●				
Interstate 95 (northbound) at ramp to Washington Street	Woburn	●					
Main Street, Downtown Woburn	Woburn				●		

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.

FINDINGS FROM BOSTON MPO REGIONWIDE 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 people who walk and bike. 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 REGIONWIDE 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 the Interstate 90 and Interstate 95 interchange in Weston and the Interstate 95 and 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, such as positive train control and rapid transit vehicle upgrades.
- Monitor advancements in autonomous vehicle (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. 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 through MPO-funded transportation projects and programs to help meet the requirements of the Global Warming Solutions Act, particularly by supporting 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 through MPO-funded transportation projects and programs (particularly those that help to reduce vehicle-miles traveled) to help adhere to 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 who 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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简体中文 (Simplified Chinese)

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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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