

North Suburban Planning Council (NSPC)

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



Fall 2019



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

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 current Long-Range Transportation Plan (LRTP), *Destination 2040*, adopted in August 2019. 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 their transportation needs and opportunities to improve transportation in their communities. The resulting LRTP Needs Assessment serves as a tool for planning the region’s future transportation network, and for prioritizing the MPO’s limited funding for transportation projects and studies.

The tables that follow highlight some of the transportation needs identified in the NSPC subregion based on MPO analysis, and the lists below highlight needs identified from past visits to NSPC communities for the Needs Assessment. For more information, please refer to the *Destination 2040* Needs Assessment report and interactive applications on our website: bostonmpo.org/lrtp.

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	MPO Staff-Identified Priority Congested Location
Middlesex Turnpike at Interstate 95	Burlington	●	●			●	
Route 3A	Burlington	●					●
Interstate 95 at Route 3	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	●					●

(cont.)

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	MPO Staff-Identified Priority Congested Location
Interstate 95 (northbound) at ramp to Washington Street	Woburn	●					
Interstate 93 at Montvale Avenue	Woburn, Stoneham	●	●				
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.

Projects Programmed in the 2020–24 TIP in the North Suburban Planning Council Subregion

TIP Identification Number	Project	Category	Municipality	Federal Fiscal Year Programmed
604996	Bridge replacement, New Boston Street over MBTA	Major Infrastructure	Woburn	2021
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	2023

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

Transportation Studies Conducted in NSPC Region through the Unified Planning Work Program

- Safety and Operations Analysis at Selected Intersections
 - Main Street (Route 38/129) and Church Street/Burlington Avenue (Route 62) in Wilmington (federal fiscal year [FFY] 2012)
 - Lowell Street (Route 129) and Woburn Street in Wilmington (FFY 2010)
 - Main Street (Route 28) and Franklin Street in Reading (FFY 2009)

Transportation Needs Identified through Outreach in the NSPC Region

Roadway

- 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—Massachusetts Department of Transportation (MassDOT) has started this process but 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 to downtown
- Reduce cut through traffic and by supporting more multimodal transportation

Transit

- Increase ridership for bus routes 99 and 131
- Redesign Burlington Mall as a regional transit hub
- Electrify commuter rail
- Build North-South rail link
- Connect Anderson Station 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

- Establish a multimodal path next to Massachusetts Bay Transportation Authority (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

- 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

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, Wilmington
 - Lowell Line: Wilmington, Winchester

Land Use and Technology

- Improve east to west connections in subregion

Study Ideas and Opportunities in the NSPC Subregion

Roadway

- Study Interstate (I)-93 and I-95 interchange
- Study I-95 and Route 3 interchange
- Study the potential increase in through traffic to I-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 housing as costs increase in the Inner Core
- Explore public and private partnerships to help increase transportation options

Parking

- Study parking opportunities at Wedgemere and Winchester Center Stations

SELECTED FINDINGS FROM BOSTON MPO'S 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 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 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. 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 facilitates 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 and 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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