



MEMORANDUM

DATE November 1, 2012
TO Boston Region Metropolitan Planning Organization
FROM Seth Asante
MPO Staff
RE Priority Corridors for Long-Range Transportation Plan (LRTP) Needs
Assessment: Selection of Study Locations

Background

The recently approved Long-Range Transportation Plan (LRTP) identified regional needs that exist for all modes of transportation in the MPO region.¹ These needs can guide decision making about which projects to fund in future Transportation Improvement Programs (TIPs). Among the current mobility needs of the region are maintaining and modernizing roadways with high levels of congestion and safety problems, increasing the quantity and quality of walking and bicycling in the region, and improving transit service schedule adherence, efficiency, and modernization. For roadways, the LRTP identified several priority arterial segments in need of maintenance, modernization, and safety and mobility improvements. These arterial segments were identified based on previous and ongoing transportation planning work, including the MPO's Congestion Management Process (CMP), the MBTA's Program for Mass Transportation (PMT), and MPO planning studies.

This study was included in the FFY 2013 Unified Planning Work Program (UPWP) to address mobility, safety, and preservation concerns for arterial segments.² By focusing on arterial segments rather than intersections, multimodal transportation needs can be evaluated comprehensively. Pedestrians, bicyclists, motorists, and public transportation users will be considered using a holistic approach to the analysis of the issues and associated recommendations. The result will be plans for improved roadway corridors where it is safe to cross the street and walk or cycle to shops or schools, and for recreation; where buses can run on time; and where it is safe for people to walk to and from train stations. Typically, the recommendations are within the roadway's right-of-way. They take into account the needs of the abutters and users and the interests and support of stakeholders.

¹ *Paths to a Sustainable Region: The Long-Range Transportation Plan of the Boston Region Metropolitan Planning Organization*, September 22, 2011.

² *Unified Planning Work Program*, Federal Fiscal Year 2013, endorsed by the Boston Region Metropolitan Planning Organization on June 28, 2012.

Selection Procedure

The selection procedure for the study locations comprises three steps. First, MPO staff assembled data on the arterial segments identified in the LRTP and provided it to MassDOT, which used it to screen the segments. There were 31 arterial segments in 51 communities in the MPO region. The data assembled were as follows:

- MassDOT's 2010 Road Inventory File and 2007-2010 crash database, to assemble the following information for each arterial segment in each community: roadway jurisdiction, National Highway System (NHS) status, average daily traffic (ADT), high-crash locations, and crashes per mile.
- MPO CMP arterial speed data, to determine average travel speeds and speed index (average travel speed divided by the speed limit) on each arterial segment.
- MBTA bus service performance and passenger load data, to determine the percentage of bus trips failing schedule adherence or passenger load standards (late bus service or crowding).
- Selected data from MassDOT's project information database, the MPO's 2013-2016 TIP projects, CTPS planning and other studies, and municipal websites for projects, studies, and TIP projects planned or programmed for each arterial segment.

After assembling these data, MPO staff submitted it to MassDOT Highway District offices and MassDOT's Office of Transportation Planning for comment. MassDOT responded with further information about problems, projects, and existing studies on some of the arterial segments. Each district office assigned to the arterial segment(s) in its jurisdiction a high, medium, or low priority; it did not assign a priority to city- or town-owned roads.

Second, MPO staff reviewed the information MassDOT provided, the letters received from MPO subregions and municipalities during the comment period for the UPWP, and notes made by staff during visits to the subregions. Segments that had not been given priority ratings by MassDOT owing to jurisdiction were given ratings by MPO staff. Table 1 summarizes the comments of MassDOT, municipalities, subregions, and MPO staff for each of the arterial segments and indicates for each the priority rating, municipality and jurisdiction, MassDOT district office, crashes per mile, number of top-200 high-crash locations, speed index, transit services and their performance, and any relevant studies or projects; it also presents the results of the application of selection criteria that was performed in the third step of this process (see below). Arterial segments that were rated medium or low priority, because of projects in construction, recently completed, in design, under study, or programmed in the TIP, were excluded from further consideration for this cycle of the Priority Corridors study. In addition, arterial segments that have been studied by CTPS or other agencies within the last 10 years were rated as low priority and were excluded from further consideration. Ten arterial segments had been given high priority by MassDOT, subregions, and/or MPO staff, due to safety,

mobility, and signal progression concerns, pedestrian and bicycle accommodation issues (including ADA compliance), and transit issues. These 10 arterial segments were selected for further review and consideration.

Third, MPO staff examined more closely the 10 high-priority arterial segments by applying five criteria and consulted further with MassDOT; the five criteria were:

- *Safety Conditions:* Location experiences high crash rate and/or has one or more top-200 high-crash locations
- *Congested Conditions:* Location experiences extensive delays during peak periods
- *Transit Significance:* Location carries bus route(s) or is adjacent to a transit stop or station
- *Regional Significance:* Location carries high proportion of regional traffic and/or is on the National Highway System
- *Implementation Potential:* Location either is under MassDOT jurisdiction or has a strong commitment from the community. Locations under Department of Conservation and Recreation (DCR) jurisdiction are considered to have lower potential for implementation.

Another criterion applied was regional equity: to not select locations in the same area as each other or in the same subregion as a location selected in the preceding cycle of this study.

Finally, three segments, described below, were short-listed based on all the factors considered. However, the UPWP budget for this study allows for only two corridors to be selected for study.

Arterial Segments Short-Listed for Study

The three arterial segments (highlighted in the table) staff is considering in selecting two locations for study are:

- Route 30 (Cochituate Road) in Framingham between Ring Road and Speen Street (MassDOT Highway Division District 3)
- Route 2 in Concord and Lincoln between the Concord Rotary and I-95, excluding Crosby's Corner, which already has improvements programmed in the TIP (MassDOT Highway Division District 4)
- Route 3/3A in Burlington and Woburn, and the portion in Winchester between Pond Street and the Woburn town line (MassDOT Highway Division District 4)

Staff feel confident in recommending that the segment of Route 30 in Framingham be chosen as one of the two final segments because (1) it had a mobility and safety issues; (2) the intersection of Route 30 and Speen Street is on the 2010 top-200 high-crash

locations; and (3) MassDOT District 3 and the Town of Framingham are willing to assist in the study and review of potential improvements for implementation in this roadway corridor.

However, MPO participation is requested in determining whether the Route 2 or Route 3/3A segment will be studied. The Route 2 segment has serious bottleneck locations and is a MassDOT District 4 priority for short-term improvements. Additionally, this segment has two of the top-200 high-crash locations: the intersections of Route 2 at Main Street and Walden Street.

At the same time, Route 3/3A is a priority for the North Suburban Planning Council (NSPC) subregion and Town of Woburn, but it lacks implementation backing by MassDOT because of recent attention MassDOT District 4 has given to that corridor at locations in Burlington and Woburn and because of right-of-way issues that need to be addressed before improvements are implemented at another location in that corridor.

Summary

In summary, the selection process began with 31 arterial segments in 51 communities in the MPO region with safety and operations problems and pedestrian/bicycle accommodation needs. MPO staff used numerous sets of screening data and selection criteria and had extensive interactions with MassDOT Highway District offices, the Office of Transportation Planning, MPO subregions, and municipalities. Through this careful effort, the project staff identified Route 30 (Cochituate Road) in Framingham between Ring Road and Speen Street (MassDOT Highway Division District 3) as one of the segments to study. However, MPO participation is requested in selecting the second corridor to study. The proposed choice is between the segments described above of Route 2 in Concord and Lincoln and Route 3/3A in Burlington, Woburn, and Winchester. When this decision has been made, the selection process will have identified the two arterial segments in the MPO region most suitable to have their safety concerns, congested conditions, and pedestrian and bicycle accommodation needs addressed by this study.

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Arterial Segment		Jurisdiction	MassDOT District	In NHS	Crashes per Mile	Top-200 High-Crash Locations	Speed Index	Transit Service	Crowded or Late MBTA Bus Service	Study, Project, or TIP Project	Selection Criteria*					Overall Priority Assessment	Comments from MassDOT, Subregions, Municipalities, and MPO Staff
Roadway	Community										Safety Conditions	Congested Conditions	Transit Significance	Regional Significance	Implementation Potential		
Route 9	Natick	MassDOT	3	Yes	286	2	0.62	MWRTA Route 1	NA	MassDOT and TIP Project #601586 MassDOT Project #604991 MAPC Land Use/Route 9 Corridor Study	√	√	√	√	√	Medium	Route 9 in Natick should be generally evaluated for safety and mobility improvements (there is not a need to evaluate maintenance of the roadway surface). It has two top-200 high-crash locations, located at Oak Street and Old North Main Street intersections. It would also be helpful to evaluate opportunities to better manage access in the corridor. Route 9 from the Framingham Town Line to Walnut Street was recently resurfaced under Project #604991. Project #601586 will resurface from Walnut Street to just east of Oak Street. This project will also reconstruct the Route 9/Oak Street intersection, and should address some of the congestion and safety issues at the intersection. In addition, MassDOT is currently at the 25% design stage with Project #605313, which will reconstruct the Route 9 / Route 27 interchange. This project is not currently included in the Boston Region MPO TIP. The segments to focus on would be from the Framingham town line to east of Speen Street.
Route 9	Framingham	MassDOT	3	Yes	215	5	0.87	MWRTA Routes 1, 2, 3, 9	NA	MassDOT Project #604991 MassDOT Project #603865 MAPC Land Use/Route 9 Corridor Study	√	√	√	√	√	High	Route 9 in Framingham has five top-200 high-crash locations, which are located at the Dinsmore Avenue, Caldor Road, Cochituate Road, Temple Street, and California Avenue intersections. MassDOT District 3 suggests that Route 9 in Framingham be generally evaluated for safety and mobility improvements (there is not a need to evaluate maintenance of the roadway surface). It would also be helpful to evaluate opportunities to better manage access in the corridor. MassDOT has no current plans to advance Project #603865 (the Route 9/Temple Street intersection). The intersections of Route 9/Temple Street and Route 9/Prospect Street/Main Street are non-conventional designs and both cause safety issues and congestion during peak periods. Also, the segment of Route 9 between the I-90 interchange and California Avenue is an area where congestion occurs during peak periods. The segments District 3 suggests focusing on are: 1) the section between the California Avenue intersection and the I-90 interchange, and 2) the section between the County Club Lane intersection and the Prospect Street/Main Street intersection.
Route 9	Southborough	MassDOT	3	Yes	67	1	0.72		NA	MAPC Land Use/Route 9 Corridor Study CTPS Intersections Study	√			√		Low	Route 9 in Southborough has one top-200 high-crash location, which is located at the Central St intersection. The CTPS intersections study will evaluate congestion and safety issues at the Route 9/Oak Hill Road/Central Street intersection. In addition, the western section of Route 9 in Southborough (between the I-495 interchange and Crystal Pond Road) is being evaluated for short- and long-term improvements as part of MassDOT's I-495/Route 9 Study. Mobility and access management should be studied on Route 9 in Southborough. In addition, this segment may be in need of pavement rehabilitation.
Route 30 (Cochituate Road) between I-90 and Route 9 (The study will examine the portion of this segment between Ring Road [Shoppers World] and Speen Street.)	Framingham	MassDOT and Town	3	Yes (part)	180	1	0.76	MWRTA Routes 10, 11	NA	MassDOT Project #86450 MassDOT Project #110952	√	√	√	√	√	High	This segment of Route 30 has one top-200 high-crash location, at the Speen Street intersection. TJX Companies has inquired with the Secretary of Transportation's office regarding improvements to the section of Route 30 near the I-90 interchange and the Speen Street intersection. The 495/MetroWest Partnership had expressed support for a Route 30 study in Framingham during the FFY 13 UPWP subregion outreach. Most of Route 30 is town jurisdiction; however, a short segment at the I-90 interchange ramps is owned by MassDOT. MassDOT District 3 suggests that the focus of the study should be on the segment between Ring Road (Shoppers World) and Speen Street and that the study should evaluate improvements to mobility and safety.
Route 109 from I-495 to Birch Street	Milford	Town	3	No	108	0	1.00		NA	MassDOT Project #601379			√	√		Low	Project #601379 - I-495 Ramps at Route 109 was completed in 2004. The ramp node intersections generally function well. If this arterial segment were included in the study, the focus would be on Route 109 between Beaver Street and Route 16 (west of Birch Street).

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Roadway	Community										Safety Conditions	Congested Conditions	Transit Significance	Regional Significance	Implementation Potential		
Route 140	Franklin	MassDOT and Town	3	No	148	0	0.47	GATRA Franklin Area Bus	NA	MassDOT and TIP Project #604988 MassDOT Project #92000	√	√	√	√	√	High	The 495/MetroWest Partnership had expressed support for a Route 140 study in Franklin during the FFY 13 UPWP subregion outreach. Project #92000 - Route 140 Relocation and I-495 / Route 140 Interchange was completed in 2007, and it included the segment of Route 140 between the Bellingham town line and the Franklin Village Shopping Center. On this segment, evaluating improvements to signal timing and coordination would be the extent of what District 3 recommends studying. There are two other segments of Route 140 in Franklin worthy of focus: 1) Route 140 between Franklin Village Shopping Center and Beaver Street - mostly MassDOT jurisdiction, and 2) Route 140 between King Street / Chestnut Street and the Wrentham town line - mixed town / MassDOT jurisdiction. In these segments, mobility, safety, maintenance, and access management should all be evaluated. Franklin is currently designing a MassDOT project (Project #604988) on the segment of Route 140 in the Town Center - Emmons Street to Summer Street. Given that this project is programmed in the FFY 2013 TIP and expected to be advertised in 2013, the District recommend not to include the segment in the study.
Route 1 North	Saugus	MassDOT	4	Yes	210	0	0.74	MBTA Route 429	Yes	MassDOT Project #601513 MassDOT Project #605012	√	√	√	√	√	Medium	The corridor from Route 99 south through Route 60 is under design for widening to three full lanes. This segment should not be included in this study.
Route 1 North	Lynnfield	MassDOT	4	Yes	335	0	0.66			None	√	√		√	√	Medium	The corridor from Route 99 south through Route 60 is under design for widening to three full lanes. This segment should not be included in this study.
Route 1A from Oak Island Road to Bell Circle	Revere	MassDOT	4	Yes (part)	169	0	0.36	MBTA Routes 441 and 442	Yes	Lower North Shore Transportation Improvement Study, CTPS Study	√	√	√	√		Low	Area is under construction by the MBTA in association with the Wonderland Station redevelopment.
Route 2 (The study would examine the portion of this segment between the Concord Rotary and I-95; it would not include Crosby's Corner, which already has improvements programmed in the Transportation Improvement Program.)	Concord and Lincoln	MassDOT	4	Yes	125	2	0.70	MBTA Commuter rail and Red Line at Alewife		MassDOT project #602894 MassDOT Project #602091 MassDOT Project #602626	√	√	√	√	√	High	The segment where MassDOT Highway District 4 suggests a study should be focused is the Route 2 corridor in Concord and Lincoln between the Concord Rotary and I-95 in Lincoln (excluding Crosby's Corner), where short-term multimodal improvements are needed to improve safety and operations. This segment of Route 2 has two top-200 high-crash locations, at Main St. and Walden St. in Concord.
Route 3/3A	Burlington, Woburn, and Winchester	MassDOT	4	Yes (part)	124	0	0.49	MBTA Routes 350 and 354	Yes	Route 3/3A (Cambridge Street) Corridor Study in Burlington, Woburn, and Winchester, CTPS Study	√	√	√	√	√	High	The North Suburban Planning Council (NSPC) and the City of Woburn have expressed interest in a Route 3/3A corridor study in Burlington, Woburn, and Winchester. This corridor is NSPC's top priority for a needs assessment and has the full support of the communities. These segments have outdated traffic signals, congestion, pedestrian and bicyclist safety issues, and access management issues. According to MassDOT Highway District 4, the traffic signals in the Burlington segment were recently studied and interconnected by a developer. In Woburn, the signal progression system at the intersections of Route 3 at Russell Street and Lexington Street was updated. District 4 is also concerned with right-of-way issues in the corridor.
Route 16 (Revere Beach Parkway) Safety and Operations Improvements	Everett	DCR	4	Yes	225	0	0.50	MBTA Routes 99, 106, 110	Yes	The Lower North Shore Transportation Improvement Study, CTPS Report	√	√	√	√		Medium	Priority corridor in need of operational and mobility improvements. The signals are not interconnected and there is traffic congestion. Revere Beach Parkway is a major connector to Revere and East Boston/Logan Airport. The District believes mobility could be improved. DCR interest in such a study is very important for implementation.
Route 28 from the Assembly Square Mall to Highland Ave in Somerville	Somerville	DCR	4	Yes	282	1	0.66	MBTA Routes 80 and 88	Yes	MassDOT Project #605680 Toward a Route 28 Corridor Transportation Plan, CTPS Study Mystic Avenue/Route 28/I-93 Interchange Improvement Study, CTPS Study	√	√	√	√		Low	There is one high-crash location in this segment, at the Route 38 intersection. This segment was recently studied by CTPS. Currently being studied under the Grounding McGrath Study. The corridor was rated low priority because of current and recent studies
Route 38	Woburn	City	4	No	319	1	0.70	MBTA Route 134	Yes	None	√	√	√	√		Medium	MassDOT jurisdiction north of I-95 reconstructed by developer. The North Suburban Task Force subregion and the Town of Woburn requested a study of the I-95 rotary interchange and the traffic signals at Route 38 and Elm Street.
Route 38	Wilmington	MassDOT	4	No	140	1	0.66	MBTA Route 134	Yes	None	√	√	√	√		Low	Reconstructed by the MBTA and a developer.
Route 60	Arlington	Town	4	No	169	1	0.54	MBTA Route 80	Yes	Community Transportation Technical Assistance Program, CTPS and MAPC Study	√	√	√	√		Medium	One high-crash location at the intersection at Massachusetts Avenue. The CTPS study addressed the problems at the high-crash location.
Route 60	Belmont	Town	4	No	267	0	0.70	MBTA commuter rail (Belmont, Lexington, Waltham Subarea and Waverley stations)		MassDOT Project #601790 Belmont, Lexington, Waltham Subarea Study, CTPS and MAPC Study		√	√	√		Low	Project #601790 recently reconstructed a section of Route 60, Pleasant Street, in Belmont. Recently studied by CTPS and MAPC in a subarea study.

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Roadway	Community										Safety Conditions	Congested Conditions	Transit Significance	Regional Significance	Implementation Potential		
Route 60	Waltham	City	4	No	59	0	1.07			Belmont, Lexington, Waltham Subarea Study, CTPS and MAPC Study				√		Low	
Routes 4 and 225	Bedford	MassDOT and Town	4	No	181	0	0.30	MBTA Routes 62 and 76	Yes	Great Road Project: Master Plan and Conceptual Design, Town of Bedford MassDOT Project #29500	√	√	√	√	√	High	Veterans Memorial Park was studied by VHB in 2011 for the Town of Bedford. The MAGIC subregion and the Towns of Bedford and Lexington requested that the FFY 2012 UPWP and FFY 2013 UPWP include a study of Route 4 and 225.
Routes 4 and 225	Lexington	Town	4	No	119	0	0.57	MBTA Routes 62 and 76	Yes	Hartwell Avenue Traffic Mitigation Plan (Bedford Street Concept Plan), by Town of Lexington MassDOT Road Safety Audit: Bedford St and Hartwell Avenue, November 2011 CTPS Intersections Study	√	√	√	√	√	High	MassDOT section from I-95 to Hartwell Ave is the subject of a Town study, a Road Safety Audit (RSA) and a potential TIP project. MAGIC subregion and the Towns of Lexington and Bedford requested that this corridor be included in the FFY 2012 UPWP for a study.
Route 35, from Downtown to Locust Street	Danvers	Town	4	No	227	0	0.60				√	√		√		Medium	The North Shore Task Force cited this roadway as one of the subregion's priority roadways for study in the FFY 2013 UPWP.
Route 62 from I-95 to Conant Street and Eliot Street	Danvers	Town	4	No	152	0	0.65				√	√		√		Medium	The North Shore Task Force cited this roadway as one of the subregion's priority roadways for study in the FFY 2013 UPWP.
Route 114 from Danvers TL to Forrest St and Essex St	Middleton	MassDOT	4	Yes	78	0	0.44			MassDOT and TIP Project #606126 MassDOT Project #600227		√		√		Low	Corridor recently studied by VHB.
Route 99	Everett	City	4	Yes	169	0	0.36	MBTA Routes 104, 105, and 109	Yes	MassDOT Project #602383 MassDOT Project #601580 MassDOT Project #602382	√	√	√	√	√	Low	The three projects listed completely reconstruct the corridor with the exception of Sweetzer Circle.
Route 107 (Broadway) south of Albert J. Brown Circle	Revere	MassDOT and City	4	No	137	0	0.63	MBTA Routes 116, 117, and 119	Yes	MassDOT Project #601088		√	√	√		Low	
Route 114	Peabody	MassDOT	4	Yes	146	0	0.53	MBTA Route 435	Yes	MassDOT Project #605383	√	√	√	√	√	Medium	Route 114 in Peabody was listed as a potential corridor in need of signal progression. There has been concern about pedestrians and bicycles.
Route 114	Salem	City	4	Yes (part)	287	0	0.30	MBTA Routes 426 and 459	Yes	Transportation Improvement Study for Route 1A, 114, and 107 and Other Roadways in Downtown Salem, CTPS Study	√	√	√	√		Low	Studied by CTPS in 2005.
Route 127	Rockport	MassDOT and Town	4	No	12	0		MBTA Commuter rail station		None		√	√	√		Low	
	Gloucester	MassDOT and Town	4	No	20	0				None				√		Low	
Route 129	Swampscott	Town	4	No	76	0	0.55	MBTA Routes 442 and 449	Yes	Community Transportation Technical Assistance Program, CTPS and MAPC Study		√	√	√		Medium	
Route 129	Marblehead	Town	4	No	40	0	0.76		NA	None				√		Medium	
Mystic Valley Parkway from Auburn Street to Main Street	Medford	DCR	4	Yes	143	1	0.57		NA	None	√	√		√		Medium	The signals are not interconnected and there is traffic congestion. Traffic on Mystic Valley Parkway routinely backs up beyond Main Street westbound and beyond Auburn Street eastbound. Also there are a number of high-crash locations in this corridor. The District believes that mobility and safety in this corridor can be improved. DCR interest is critical for implementation.
Route 1	Norwood	MassDOT	5	Yes	149	2	0.47			I-95: South Corridor Study, MassDOT Study Route 1 South Corridor Planning Study, CTPS Study	√	√		√	√	Low	The recent MassDOT study has identified short-term and long-term improvements for I-95 and Route 1.
Route 3A	Scituate	MassDOT	5	Yes	24	0		MBTA Commuter Rail		None	√	√	√	√	√	High	Corridor serves residents, commuters, and local businesses, and connects MBTA commuter rail stations. A Route 3A corridor study in the Towns of Cohasset and Scituate which focuses on safety and increasing transportation choices (bicycle, pedestrian, and transit) is strongly supported by the South Shore Coalition and the Towns of Cohasset and Scituate. A Route 3A study should focus on the segment
Route 3A	Cohasset	MassDOT	5	Yes	90	0		MBTA Commuter Rail		None	√	√	√	√	√	High	
Route 27 between Depot Street and Canton Street	Sharon	Town	5	Yes	48	0	0.52	MBTA Commuter rail P&R lot		None		√	√	√		Low	
Route 37	Holbrook	MassDOT	5	No	172	1	0.69	MBTA Route 230	Yes	None	√	√	√	√		High	The Town of Holbrook has been in contact with the District and is interested in improvements, particularly multimodal transportation improvements.
Route 138	Stoughton	MassDOT and Town	5	No	241	0	0.69	BAT Route 14	NA	2012 Major Bottleneck Analysis Study, OCPC Study Route 138 Corridor Study, CTPS Study	√	√	√	√		Medium	OCPC is studying Route 138 in Stoughton as part of their Major Bottleneck Analysis Study. Two public meetings have been held to date to solicit input from public officials and interested citizens. There are ongoing congestion, safety, and multimodal issues and needs in the corridor. Route 138 in Stoughton was also studied by CTPS in 2001.
Route 140	Wrentham	MassDOT and Town	5	No	112	0	0.71			MassDOT Project #605700	√	√		√		Medium	The 495/MetroWest Partnership expressed support for a Route 140 study in Wrentham during the FFY 13 UPWP subregion outreach.
	Boston	DCR	6	Yes	92	0	0.50	MBTA Route 429	Yes	Route 1 South Corridor Planning Study, CTPS Study		√	√	√		Low	

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Roadway	Community										Safety Conditions	Congested Conditions	Transit Significance	Regional Significance	Implementation Potential		
Route 1/VFW Parkway	Dedham	MassDOT	6	Yes	149	0	0.51	MBTA Route 52	Yes	I-95: South Corridor Study, MassDOT Study Route 1 South Corridor Planning Study, CTPS Study	√	√	√	√	√	Low	The recent MassDOT study has identified short-term and long-term improvements for I-95 and Route 1.
Route 3A	Quincy	City	6	Yes	209	2	0.47	MBTA Routes 210 and 212	Yes	CTPS Safety and Operations Study	√	√	√	√		Medium	This segment has two top-200 high-crash locations, which are located at Coddington St and Squantum St intersections. Other intersections with safety problems include Furnace Brook Pkwy, McGrath Hwy, and Washington St/Route 53. Segment with critical delay problems is from Quincy Circle to Coddington St. CTPS safety and operations study addressed problems at Route 3A and Coddington Street intersection.
Route 3A	Weymouth	MassDOT	6	Yes	179	0	0.62	MBTA 220, 221, and 222	Yes	None	√	√	√	√		Medium	The intersections with safety problems in this segment of Route 3A are located at Evans St, North St, Neck St/Green St, and Sea St. The segment with critical delay problems is from Sea St to Green St/Neck St.
Route 9	Boston	City	6	Yes	128	0	0.61	MBTA Route 39, 60, and 65 MBTA Green Line	Yes	MassDOT Project #604871 MassDOT Project #601046			√	√		Low	Intersections with safety problems in this segment of Route 9 are at Ruggles St and Tremont St.
Route 9	Brookline	MassDOT	6	Yes	136	0	0.50	MBTA Route 39, 60, and 65 MBTA Green Line	Yes	Route 9 in Brookline and Newton, CTPS Study MassDOT Project #605110 MassDOT Project #604211	√	√	√	√		Medium	The intersections with safety problems in this segment of Route 9 are located at Warren St/Summer Rd, Chestnut Hill Ave, and Hammond St. The segment with critical delay problems is from Chestnut Hill Ave to Hammond St. MassDOT Projects #605110 and #604211 address some of the concerns in this segment.
Route 9	Newton	MassDOT	6	Yes	134	0	0.33	MBTA Green Line	NA	Route 9 in Brookline and Newton, CTPS Study MassDOT Project #604327	√	√		√		Medium	The intersections with safety problems in this segment of Route 9 are at Hammond Pond Pkwy, Langley Rd, Parker St, Walnut St, Center St, Elliot St/Woodward St, and Chestnut St. The segments with critical delay problems are Hammond Pond Rd to Langley Rd and Centre St to Elliot St. CTPS studied this segment of Route in 2005. MassDOT Project #604327 addresses some of the concerns in this segment.
Route 9	Wellesley	MassDOT	6	Yes	178	1	0.42		NA	Route 9 Corridor in Wellesley, CTPS Study MAPC Land Use/Corridor Study	√	√	√	√		Medium	This segment has one top-200 high-crash location, which is located close to the Fire Station and the Route 16 interchange. The other intersections with safety problems are located at Cedar St, Cunningham Rd, Oak St, Weston Rd, and Overbrook Dr. The segment with critical delay problems is from Cliff Rd to Oakland St. This segment was studied by CTPS in 2003 and 1999.
Route 16 (Revere Beach Parkway)	Chelsea	DCR	6	Yes	216	2	0.50		NA	The Lower North Shore Transportation Improvement Study, CTPS Report	√	√		√		Medium	This segment has two top-200 high-crash locations, which are located at the Washington Ave and Garfield Ave intersections. The segment with critical delay problems is from Everett Ave to Garfield Ave. CTPS studied this segment as part of the Lower North Shore Transportation Improvement Study in 2000.
Route 16	Wellesley	Town	6	No	398	0	0.42		NA	MassDOT Project #600712	√	√		√		Medium	The locations with safety problems are at Cliff Rd, Route 9, and Oakland St. The segment with critical delay problems is between Weston Rd and Route 9.
	Newton	City	6	No	128	0	0.60	MWRTA Route 1 MBTA Green Line	NA	MassDOT Project #600894	√	√	√	√		Medium	The locations with safety problems are the intersections with Walsingham Rd, Route 30, Craft St, and Adam St. The segments with critical delay problems are from Concord St to Route 30 and from Albemarle Rd to Capital St.
Route 28	Randolph	MassDOT	6	No	798	2	0.66	MBTA Route 240 Brockton Area Transit (BAT)	NA	MassDOT Project #601716 MassDOT Project #603735 CTPS Intersections Study CTPS Arterial Coordination Study	√	√	√	√		Low	Investments in this area: 3 PWED projects as well as prior CTPS studies.
Route 37	Braintree	MassDOT	6	No	118	2	0.55	MBTA Routes 230 and 238	Yes	MassDOT Project #602027	√	√	√	√		Medium	This segment of Route 37 in Braintree has two top-200 high-crash locations, which are the Common St and Franklin St/West St intersections. The segment with critical delay problems is from Peach St to Forbes Rd.
Route 138	Canton	MassDOT	6	No	37	0	0.43		NA	MassDOT Project #605807 MassDOT Project #603883 MassDOT Project #602475 MassDOT Project #602475 Route 138 Corridor Study, CTPS Study		√		√		Low	This has previously been studied by CTPS and has projects which have been completed recently, are in construction, or are in design.
Route 145	Boston	City	6	No	47	0		MBTA Route 120 Blue Line	Yes	None		√	√	√		Medium	It does not appear that there have been prior studies conducted of this area.
Route 145	Winthrop	Town	6	No	29	0			NA	None				√		Medium	It does not appear that there have been prior studies conducted of this area.
Route 203/Jamaicaway from Willow Pond Road to Forest Hills Rotary	Boston	DCR	6	Yes	130	0	0.56		NA	None		√		√		Medium	The intersections with safety problems are at Willow Pond Rd, Perkins St, Washington St, and Forrest Hill Ave. The segment with critical delay problems is from Willow Pond Rd to Centre St rotary.
Alewife Brook Parkway/Fresh Pond Parkway from Soldiers Field Road to Route 2	Cambridge	DCR	6	Yes	214	0	0.47	MBTA Routes 72 and 75	Yes	Alewife Studies, Phase II, CTPS Study		√	√	√		Low/Medium	
Storrow Drive	Boston	DCR	6	Yes	188	0	0.50	MBTA Route 1, CT1,CT2, and	Yes	None	√	√	√	√		Low/Medium	The problem intersections on Storrow Drive are David Mugar Way, Arlington St, Berkeley St, and Mass Ave. The segments with critical delay problems are Memorial Drive to Soldiers Field Rd and Blossom St to Leverett Circle.

TABLE 1
ARTERIAL SEGMENTS CONSIDERED FOR STUDY, WITH SCREENING DATA (by Highway District)
Priority Corridors for Long-Range Transportation Plan Needs Assessment Study

Arterial Segment		Jurisdiction	MassDOT District	In NHS	Crashes per Mile	Top-200 High-Crash Locations	Speed Index	Transit Service	Crowded or Late MBTA Bus Service	Study, Project, or TIP Project	Selection Criteria*					Overall Priority Assessment	Comments from MassDOT, Subregions, Municipalities, and MPO Staff
Roadway	Community										Safety Conditions	Congested Conditions	Transit Significance	Regional Significance	Implementation Potential		
Memorial Drive	Cambridge	DCR	6	Yes	165	1		MBTA Routes 47, 64, and 70	Yes	None	√		√	√		Low/Medium	Memorial Drive has one top-200 high-crash location, which is located at River St/Cambridge St. The other intersections on Memorial Drive with safety problems are at Massachusetts Ave, BU Bridge, Western Ave, and JFK St. The segment with critical delay problems is River St to JFK St.

* Selection Criteria

Safety Conditions: Segment contains top-200 high-crash location or locations considered as high-crash areas.

Congested Conditions: Experiences extensive delays during peak periods.

Transit Significance: Carries bus route(s) or is adjacent to a transit route or station.

Regional Significance: Carries high proportion of regional traffic or is on the National Highway System.

Implementation Potential: Is under MassDOT jurisdiction, has a TIP "conceptual" status, or has a strong commitment from city/town. (Locations under DCR jurisdiction are considered to have lower implementation potential.)