

Executive Summary

The 2016 Merrimack Valley Regional Transportation Plan (RTP) is the long-range transportation plan that maps out how the Merrimack Valley Metropolitan Planning Organization (MVMPO) will achieve its vision:

The MVMPO envisions a multi-modal, safe, efficient and cost effective transportation system that supports our communities' livability goals of economic vitality, high quality of life, preservation of natural resources and healthy lifestyles.

To achieve this vision within a limited budget, the MVMPO chose not to support any major infrastructure projects, which would have required allocation of substantial amounts of funding. Instead, the MVMPO chose projects that addressed the goals and objectives (i.e. safety, state of good repair, mobility) on existing roadways or on new rights-of-way, such as multi-use trail projects.



Photo: Elm Park, Groveland

Goal 1: Maintain Existing Infrastructure in a State of Good Repair

- 80% of federal aid roads will be maintained in good to excellent condition
- Maintain and modernize capital assets such as transit buses in good to excellent condition.
- Improve conditions of existing pedestrian infrastructure.

Goal 2: Increase Safety for All Modes

- Reduce overall number of crashes for all modes.

Goal 3: Create a Multi-Modal Transportation System to Support Mode Shift

- Implement and expand multi-modal network.
- Improve/increase bicycle parking capacity.
- Increase efficiency and effectiveness of transit systems to support mode shift.

Goal 4: Promote Economic Vitality

- Direct transportation investment to Priority Development Areas
- Support freight movement within and through Merrimack Valley region.

- Improve/increase multi-modal transportation options for tourism to reduce congestion and enhance visitor experiences.
- Reduce congestion on region's NHS roadways that serve transit and/or existing populations and places of employment.

Goal 5: Promote Environmental Sustainability

- Improve regional air quality.
- Promote effective stormwater management.
- Implement adaptive planning for climate change.

Goal 6: Transportation Equity

- Prioritize transportation planning and investments that eliminate barriers for Title VI and Environmental Justice (EJ) communities.
- Break down barriers to participation in MPO process

Throughout the planning process, the MVMPO collected and evaluated data and spoke with many stakeholders to determine the transportation gaps and needs as well as develop strategies that will then be incorporated into future Unified Planning Work Programs (UPWPs) for the organization. The UPWP is the annual work program that includes studies, data collection, planning, technical assistance and any other programmatic work that the MVMPO staff undertakes.

What does the RTP do?

The RTP is the MVMPO region's 25-year plan for transportation projects that can be programmed for implementation with federal funds. Implementation typically involves design, permitting and construction, although capital equipment purchases are also programmed. Each year, the MVMPO programs projects from the RTP that are 'ready-to-go' into its four-year Transportation Improvement Program (TIP). Those regionally significant projects that are included in the RTP can be funded in the TIP.

Financial Constraint

A key component of the Regional Transportation Plan (RTP) is that the document must be financially constrained. This means that the key projects, programs and services identified can only be included if they can be implemented with the amount of local, state and federal transportation funding expected to be available to the region over the RTP period.

Working cooperatively with the Federal Transit Administration (FTA), Federal Highway Administration (FHWA), MVRTA and MassDOT, the MVMPO established the amount of funding that would be available to the region to implement roadway, bridge, and bicycle/pedestrian projects, transit capital projects (e.g. bus purchases, construction of transit centers, etc.), and operate transit services. These funding amounts are shown below along with the total amount of funding needed to implement the projects contained in the document. The table below shows that the MVMPO's FFY 2016 RTP is fiscally constrained.

Summary of Transportation Funding in FFY MVMPO Regional Transportation Plan

Available Funding	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
Highway/Bridge/Bicycle-Pedestrian*	\$83,086,221	\$86,519,663	\$100,059,479	\$109,657,962	\$116,676,276	\$495,999,600
Transit Capital	\$44,803,140	\$53,460,202	\$46,973,763	\$46,098,526	\$54,993,969	\$246,329,600
Transit Operating	\$86,691,542	\$97,592,269	\$109,956,443	\$123,990,414	\$139,930,653	\$558,161,322
TOTAL FUNDS AVAILABLE	\$214,580,903	\$237,572,133	\$256,989,686	\$279,746,902	\$311,600,898	\$1,300,490,522
Demand						
Total of Programmed Projects	\$201,546,255	\$234,731,711	\$254,924,331	\$268,072,976	\$266,839,873	\$1,284,097,780
Amount Available	\$13,034,648	\$2,840,422	\$2,065,355	\$11,673,926	\$44,761,025	\$16,392,742

* Discretionary Funding Programmed by MVMPO

Tables on the following pages show the roadway, bridge, bicycle/pedestrian and transit projects appearing in the RTP. The MVMPO has identified over \$436 million in roadway, bridge and bicycle/pedestrian projects. Many of these are roadway reconstruction projects such as the reconstruction of Route 114 in Lawrence and North Andover. There are also a number of bicycle/pedestrian trail projects included, such as those that will support the completion of the Border to Boston multi-use trail.

However, it should be noted that the MVMPO also identified over \$660 million in projects that could

not be included in the financially constrained section of the document. Foremost among these are the Lowell Junction/I-93 Widening project in Andover and Methuen and the project to Widen/Improve the I-495 Corridor. Both of these projects would significantly benefit the region by reducing congestion, fostering economic development, improving the movement of freight and improving safety. The large construction cost associated with both projects and limited funding availability prevented their inclusion in the document. A complete list of these projects may be found in Appendix F.

**Merrimack Valley MPO 2016 Regional Transportation Plan
Roadway, Trail and Selected Bridge Projects**

Project	Community	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040
Powwow Riverwalk and Bikeway (Revised Phase I)	Amesbury	\$786,675				
Elm Street Reconstruction	Amesbury	\$9,077,146				
MA-150/MA-110 Intersection Improvements	Amesbury	\$1,349,837				
MA-28 Improvements: I-495 to Harding St.	Andover	\$1,105,104				
MA-133 (Lowell St.) Reconstruction : Lovejoy Rd. to Shawsheen Square	Andover		\$16,518,860			
MA-133 (Washington St.) N. Andover T.L. to Main Street, 1.45 miles	Boxford			\$6,778,694		
Border to Boston Rail Trail	Boxford			\$4,065,755		
MA-97 from Moulton Street to Groveland T.L.	Georgetown			\$10,580,473		
MA-97, Parker St. to Gardner St.	Groveland	\$4,379,950				
MA-97 from Parker Street to Georgetown T.L.	Groveland	\$2,040,502				
Groveland Community Trail	Groveland		\$2,433,306			
MA-125 (Main St) @ Summer/Winter; Bailey/Ginty and Water/Merrimack	Haverhill	\$3,026,676				
Bradford Rail Trail (Phase II)	Haverhill		\$1,431,076			
MA-97, Silver Birch Lane to Research Drive	Haverhill	\$6,156,000				
Bradford Rail Trail (Phase III): Harbor Place to Former Paperboard site.	Haverhill			\$2,423,553		
Bradford Rail Trail (Phase IV): Former Paperboard Site to Groveland Line	Haverhill			\$5,897,959		

Roadway, Trail and Selected Bridge Projects (cont.)

Project	Community	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040
North Avenue from Marsh Avenue to MA/NH State Line	Haverhill			\$5,044,277	\$10,103,702	
Merrimack St. (Broadway to South Union St.)	Lawrence			\$5,564,493		
MA-114 Reconstruction: S.Union St. to Andover St. in North Andover	Law./N, Andover		\$20,528,536			
Replace Daisy St Bridge over Spicket River	Lawrence					\$10,872,484
M&L Branch Multi-use Trail: Methuen Line to Merrimack St.	Lawrence				\$10,784,116	
Resurface Bear Hill Rd. from NH Line to Old Bear Hill Rd. /Replace Culvert	Merrimac		\$2,390,264			
MA-28 (Broadway)/ Rosewood Rd. Intersection Improvements	Methuen		\$1,245,398			
MA-110 Reconstruction: Green St. to Woodland Rd.	Methuen		\$2,197,771			
Merrimack St. Reconstruction: Myona St. to Simone Farm	Methuen				\$4,702,809	\$14,108,426
Replace East Main St. Bridge over Parker River	Newbury		\$2,641,697			
Intersection Improvements: Merrimac St. at US-1 NB/SB ramps	Newburyport		\$3,284,566			
Phase III of Clipper City Rail Trail	Newburyport				\$5,431,820	
MA-125 / Massachusetts Avenue Intersection Improvements	North Andover	\$1,677,312				

Roadway, Trail and Selected Bridge Projects (cont.)

Project	Community	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040
MA-125 Reconstruction	North Andover				\$18,024,602	
Intersection Improvements: I-495 Ramps/Massachusetts Ave.	North Andover				\$7,280,218	
MA-133/MA-125 Intersection Improvements	North Andover			\$1,638,858		
Reconstruction of Central St. & Glen St.: Main St. (MA-1A) to the Mill River.	Rowley			\$16,643,531		
MA-133 @ US-1 Intersection Improvements	Rowley	\$1,026,427				
Border to Boston Rail Trail - Mudnock Road to NH State Line, 2.4 miles	Salisbury	\$6,657,508				
US-1 Reconstruction from Salisbury Square to NH State Line	Salisbury	\$8,010,502				
Resurfacing & Sidewalks on MA-1A: Salisbury Square to NH State Line	Salisbury	\$2,690,675				
Local Federal Aid Road Maintenance	Regionwide	\$25,456,716	\$30,971,987	\$37,682,158	\$45,846,107	\$55,778,800
Uncommitted Funding	Regionwide	\$9,644,843	\$3,160,042	\$2,464,720	\$9,073,739	\$35,318,583
Total Programmed		\$73,441,030	\$83,643,460	\$96,319,752	\$102,173,373	\$80,759,710
Funding Available		\$83,085,873	\$86,519,663	\$100,059,479	\$109,657,962	\$116,676,276

**Merrimack Valley Regional Transit Authority
Anticipated Capital Expenditures 2016 - 2040**

Category	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
Bus Replacement						
2015-10, 2016-7, 2017-3, 2019-3	\$9,909,385		\$6,385,500	\$2,074,210		\$18,369,095
2021-9, 2023-8, 2024-8		\$12,972,550		\$6,410,550	\$12,271,940	\$31,655,040
2027-5, 2028-5			\$6,054,731			\$6,054,731
Engine/Transmission Replacements	\$490,960	\$349,395	\$1,135,755	\$568,205	\$814,490	\$3,358,805
Intercity Coach Replacement			\$6,396,435		\$6,658,590	\$13,055,025
Van Replacement	\$1,112,000	\$3,152,560		\$1,657,880		\$5,922,440
Support Vehicles Replacement	\$233,100	\$329,540	\$383,885	\$447,255	\$338,835	\$1,732,615
Facility Construction						
Newburyport Intermodal Parking	\$2,500,000	\$5,000,000	\$1,000,000		\$1,000,000	\$9,500,000
Newburyport Intermodal Parking Design	\$150,000					
Facility Updates						
McGovern Transportation Center	\$32,000	\$1,000,000		\$1,000,000		\$2,032,000
Buckley Terminal	\$12,000	\$500,000		\$500,000		\$1,012,000
Haverhill Transit Center			\$500,000		\$500,000	\$1,000,000
Amesbury Transit Center		\$1,000,000		\$1,000,000		\$2,000,000
Haverhill Parking Center		\$1,000,000		\$1,000,000		\$2,000,000
MVRTA Office/ Maintenance Facility	\$58,800		\$1,000,000		\$1,000,000	\$2,058,800
Lawrence Gateway Surface Parking Area	\$10,000	\$50,000	\$55,000	\$60,000	\$65,000	\$240,000
Communications System		\$607,080		\$915,870		\$1,522,950
ITS & Security Cameras		\$1,109,395		\$1,490,930		\$2,600,325
Tools, Planning, Misc. Items	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$2,500,000
Total Capital Expense (incl match)	\$15,008,245	\$27,570,520	\$23,411,306	\$17,624,900	\$23,148,855	\$106,613,826

Anticipated Capital Expenditures 2016 – 2040 (con't)						
5307 - Preventive Maint.	\$15,659,911	\$15,659,910	\$15,659,910	\$15,659,910	\$15,659,910	\$78,299,551
5307 - ADA Operating	\$6,687,906	\$6,687,910	\$6,687,910	\$6,687,910	\$6,687,910	\$33,439,546
5307 - Operating	\$4,207,500	\$4,207,500	\$4,207,500	\$4,207,500	\$4,207,500	\$21,037,500
5307 TOTAL (Including Match)	\$41,563,562	\$54,125,840	\$49,966,626	\$44,180,220	\$49,704,175	\$239,540,423
Anticipated 5307 (Fed. Amnt)	\$29,530,085	\$31,812,289	\$34,270,870	\$36,919,459	\$39,772,744	\$172,305,447
MassDOT Match (RTA Cap; SCA)	\$8,920,205	\$13,308,335	\$13,268,532	\$12,071,930	\$13,202,919	\$26,653,457
Other Match	\$550,000	\$100,000	\$100,000	\$100,000	\$100,000	\$19,574,888
Other		\$5,000,000				
5307 Carryover (Fed Amnt)	\$5,802,850	\$3,239,578	\$(665,638)	\$(2,992,863)	\$1,918,306	\$7,302,233
Subtotal of available funds	\$44,803,140	\$53,460,202	\$46,973,763	\$46,098,526	\$54,993,969	\$246,329,600
Available 5307 Carryover (Fed Amnt)	\$3,239,578	\$(665,638)	\$(2,992,863)	\$ 1,918,306	\$5,289,794	\$6,789,177

Key transit projects include the purchase of new transit buses for the MVRTA and the construction of a new Intermodal Parking Facility in Downtown Newburyport.

Transportation Equity & Accessibility

The MVMPO 2016 RTP region-wide Environmental Justice Analysis indicates that it does not have a disparate impact on the identified EJ communities.

Regionally, the amount of benefit within low-income and minority populations was proportional to non-EJ Communities, if not higher, with better access to frequent transit service, and

fewer households within 500' of major transportation facilities in the Plan.

Furthermore, the projects included in the Plan are intended to reduce congestion and vehicle hours of delay for all users of the transportation system while increasing the amount of funding available for alternative modes of transportation including transit, bicycling and walking – which benefit low-income and minority populations to a greater degree.

A financial analysis of expenditures by mode share for low-income populations and transit expenditures by minority populations revealed

that while roadway expenditures slightly favor non-low-income populations, transit and bicycle/pedestrian expenditures generate an overall greater benefit for low-income and minority populations.

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