

**MONTACHUSETT
METROPOLITAN PLANNING ORGANIZATION**

Transportation Improvement Program
FFY2015 - 2018

DRAFT

Comment Period: May 19, 2014 to June 17, 2014



This document was prepared in accordance with 23 USC 450 by the Montachusett Regional Planning Commission with the assistance of the Federal Highway Administration in cooperation with the Massachusetts Department of Transportation, and with the assistance of the Federal Transit Administration.



MONTACHUSETT

REGIONAL PLANNING COMMISSION

Offices: 1427R Water St., Fitchburg, Massachusetts 01420
(978) 345-7376 Fax: (978) 345-2490

Montachusett Metropolitan Planning Organization Endorsement of the 2015 – 2018 Transportation Improvement Program

Whereas, the Montachusett Metropolitan Planning Organization (MMPO) has completed its review in accordance with 23 CFR Part 450 Section 322 (Development and content of the Metropolitan Transportation Plan) and 23 CFR Part 450 Section 324 (Transportation Improvement Program: General) and hereby certifies that the FFY 2015-2018 TIP is financially constrained and that it conforms to the Montachusett 2012-2035 Regional Transportation Plan. Based on the results of the review and analyses, the Montachusett 2012-2035 Regional Transportation Plan and FFY 2015-2018 TIP are consistent with the air quality goals of, and in conformity with, the Massachusetts State Implementation Plan;

Therefore, the Committee of Signatories representing the Montachusett Metropolitan Planning Organization (MMPO) by a majority vote hereby endorses the Montachusett Region FFY 2015-2018 Transportation Improvement Program (TIP).

*Richard A. Davey, Secretary and CEO
Massachusetts Department of Transportation*

*Victor Koivumaki, Chairman
Montachusett Regional Planning Commission*

*Mark Hawke, Chairman
Montachusett Regional Transit Authority*

*Dean Mazzarella, Mayor
City of Leominster*

*Lisa Wong, Mayor
City of Fitchburg*

*Stephen R. Raymond, Selectmen, Town of Athol
Representative, Sub Region 1*

*Sue Lisio, Selectmen, Town of Townsend
Representative, Sub Region 2*

*Paula Bertram, Selectmen, Town of Lunenburg
Representative, Sub Region 3*

*Jean M. Syria, Selectmen, Town of Lancaster
Representative, Sub Region 4*

Date



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MPO SELF CERTIFICATION COMPLIANCE STATEMENT

This will certify that the Comprehensive, Continuing, Cooperative Transportation Planning Process for Fiscal Years 2015 and 2016 in the Montachusett Metropolitan Planning Organization is addressing major issues facing the region and is being conducted in accordance with all applicable requirements including:

1. 23 USC Section 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 & 176 (c) & (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) & (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101 (b) of the Safe Accountable Flexible and Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU), (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
6. 23 CFR 230, regarding the implementation of an Equal Employment Opportunity Program on Federal and Federal-Aid construction contracts;
7. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR Parts 27, 37 and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.
11. Anti-lobbying restrictions found in 49 U.S.C. Part 20. No appropriated funds may be expended by a recipient to influence or attempt to influence an officer or employee of any agency, a Member of Congress, in connection with the awarding of any Federal contract.

The Committee of Signatories representing the Montachusett Metropolitan Planning Organization (MMPO) by a majority vote hereby endorses the Self Certification Compliance Statement for the Montachusett MPO.

*Richard A. Davey, Secretary and CEO
Massachusetts Department of Transportation*

*Victor Koivumaki, Chairman
Montachusett Regional Planning Commission*

*Mark Hawke, Chairman
Montachusett Regional Transit Authority*

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Representative, Sub Region 3*

*Jean M. Syria, Selectmen, Town of Lancaster
Representative, Sub Region 4*

Date

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MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION SIGNATORIES

Massachusetts Department of Transportation (MassDOT) Secretary	Richard A. Davey
MassDOT Highway Division Administrator	Frank DePaola
Montachusett Regional Planning Commission (MRPC) Chairman	Victor Koivumaki
Montachusett Regional Transit Authority (MART) Chairman	Mayor Lisa Wong
Mayor City of Leominster	Mayor Dean Mazzarella
Mayor City of Gardner	Mayor Mark Hawke
Athol Board of Selectmen <i>Subregion 1</i>	Stephen R. Raymond
Townsend Board of Selectmen <i>Subregion 2</i>	Robert Plamondon
Lunenburg Board of Selectmen <i>Subregion 3</i>	Paula Bertram
Lancaster Board of Selectmen <i>Subregion 4</i>	Jennifer Leone

MPO SUB-SIGNATORY COMMITTEE MEMBERS

David Mohler, Director OTP, MassDOT, for Secretary Davey
Arthur Frost, Project Development Engineer for Administrator Frank DePaola
Glenn Eaton, Executive Director, MRPC, for Chairman Koivumaki
Mohammed H. Khan, Administrator, MART, for Chairman Mayor Wong

EXOFFICIO MEMBERS

Pamela Stephenson, Administrator, Federal Highway Administration
Mary Beth Mello, Administrator, Federal Transit Administration

MONTACHUSETT REGIONAL PLANNING COMMISSION (MRPC) OFFICERS

Victor Koivumaki, Chairman	Lancaster
Paula Caron, Vice Chairman	Fitchburg
Christopher Jones, Secretary	Townsend
Alan Pease, Treasurer	Ashby
Joanna Bilotta-Simeone, Asst. Treasurer	Lunenburg

MONTACHUSETT JOINT TRANSPORTATION COMMITTEE (MJTC) OFFICERS

David Manugian, Chairman	Groton
Paula Caron, Vice Chairman	Fitchburg
Jon Wyman, Secretary	Westminster

MONTACHUSETT REGIONAL PLANNING COMMISSION STAFF

Glenn Eaton, Executive Director
Linda Parmenter, Administrative/Human Resources Director
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Brian Doherty, Transportation Planner
George Kahale, Transit Director
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Chantell Fleck, Regional Planner
Samuel Lawton, Principal Planner
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Tammy Haney, Programs Assistant
Jason Stanton, GIS/IT Director
Renee Marion, GIS Analyst
Thomas Roufos, Grants Writer/Regional Planner

MONTACHUSETT JOINT TRANSPORTATION COMMITTEE

<u>COMMUNITY</u>	<u>APPOINTED BY SELECTMEN/MAYOR</u>	<u>APPOINTED BY PLANNING BOARD</u>
Ashburnham		
Ashby	Mary Krapf	Alan Pease
Athol	Doug Walsh	
Ayer	Pauline Hamel	Peter Johnston
Clinton		
Fitchburg		Paula Caron
Gardner		
Groton	Anna Eliot	David Manugian
Harvard	Lucy Wallace	
Hubbardston	Lyn Gauthier	James Crystoff
Lancaster		Noreen Piazza
Leominster	David DiGiovanni	
Lunenburg		Robert Saiia
Petersham	Roy Nilson	
Phillipston	Ron Recos	
Royalston	John Morse	
Shirley		Robert Thurston
Sterling		Charles Hadju
Templeton	Bud Chase	
Townsend		
Westminster		Andrew Sears
Winchendon	Jim Kreidler	Fedor Berndt

EXOFFICIO MEMBERS

Heather Hannon	Office of Transportation Planning (OTP) and Massachusetts Department of Transportation (MassDOT)
Pamela Stephenson	Federal Highway Administration (FHWA), Administrator
Mary Beth Mello	Federal Transit Administration (FTA), Administrator
	Department of Environmental Protection (DEP)
Jeffery Hoynoski	MassDOT Highway Division - District 2
Arthur Frost	MassDOT Highway Division - District 3
	Montachusett Regional Planning Commission (MRPC)
Mohammed Khan	Montachusett Regional Transit Authority (MART)

ORGANIZATION MEMBERS

Al Futterman	Nashua River Watershed Association (NRWA)
Tony Salerno	Amalgamated Transit Union #690 (ATU 690)
Kit Walker	Fitchburg Airport Commission
	North Central MA Chamber of Commerce
	Fitchburg Council on Aging
	Mass Development
Peter Lowitt	Devens Enterprise Commission (DEC)
Ayn Yeagle	Montachusett Opportunity Council, Inc.

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PART A. INTRODUCTION

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DEVELOPMENT PROCESS

Requirement for Transportation Improvement Program (TIP)

This document is the product of a comprehensive, continuing and cooperative effort to improve the regional transportation system by local officials, the Montachusett Joint Transportation Committee (MJTC), the Montachusett Regional Transit Authority (MART), the Montachusett Regional Planning Commission (MRPC), the Massachusetts Department of Transportation (MassDOT), and the MassDOT Highway Division. It is required to be updated every four (4) years by Federal Regulations issued jointly by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). This TIP is a prioritized listing of transportation projects proposed for implementation during the future four federal fiscal years. This time period is broken down into the coming year (Year 1 Element) and the following three years (Year 2 thru Year 4). The fiscal years are project specific where possible. The TIP projects are also identified by funding category so that where necessary priorities may be established for projects within each funding program. Unless otherwise noted, the agency responsible for implementing highway projects is the Massachusetts Department of Transportation Highway Division and, for transit projects, the Montachusett Regional Transit Authority. The reader will note that some of the same projects may be found again in this year's Year 1 Element because they have been delayed by various problems in their design or environmental requirements, while other projects found in last year's TIP have been removed due to implementation.

Procedures for Development of TIP

The MRPC staff annually develops the TIP project listing. Sources used include the MassDOT's Project Information System, MassDOT Highway Division Districts 2 and 3, local officials, the Montachusett Joint Transportation Committee, the Long and Short Range Elements (LRE and SRE, respectively) of the Regional Transportation Plan (RTP), the Montachusett Metropolitan Planning Organization (MPO), the Congestion Management Process/Plan (CMP) and Transportation Control Measures (TCMs) identified in the Transportation Element of the State Implementation Plan (TESIP).

The local planning process conforms to the private enterprise requirements of the FTA Act, Section 5309, Section 5303 and Section 5307. Specifically this is demonstrated in the FTA Section 5307 Urban Area Formula Program. Funding from each of these grants is supplied to private transportation providers who provide, under contract, mass transportation services to the Montachusett Regional Transit Authority and to various communities to supply Council on Aging services. The private operators are Management of Transportation Services, Inc., Management of Transportation Services Gardner, Inc. and Dial-A-Mart Services, Inc. Input from all the providers is utilized in the planning process.

The MRPC has developed a Public Participation Program (PPP) that establishes the procedures utilized to ensure a "proactive public involvement process ... in developing plans and TIPs." The PPP was reviewed and updated to meet SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) requirements. After a 45 day public review and comment period, the PPP was endorsed by the MPO on June 13, 2007. The PPP was subsequently amended in order to provide the MPO with the option to reduce the comment period for required documents to a minimum of 10 days under extraordinary circumstances. This amendment was endorsed by the MPO on April 5, 2010. Further refinements and updates to the PPP continue on a yearly basis to ensure that it meets federal requirements related to public outreach and Title VI of the Civil Rights Act of 1964.

In conformance with the PPP, the draft TIP is distributed for a 30 day public review and comment period. Following completion of the 30 day review period, any comments or issues received are addressed and reflected in the final TIP. This document is then reviewed by the MJTC/MRPC and MPO and is recommended for endorsement by the Metropolitan Planning Organization (MPO) at a subsequent MPO meeting.

The fully endorsed TIP is then distributed to Federal, State and local agencies and groups, including FTA, FHWA, the Environmental Protection Agency (EPA) and the Department of Environmental Protection (DEP) again in conformance with the PPP.

Throughout this procedure, the Montachusett Transportation Improvement Program (TIP) is developed in accordance with 23 CFR 450.324.

On July 6, 2012, President Obama signed into law the new Federal Surface Transportation Authorization known as Moving Ahead for Progress in the 21st Century (MAP-21). The enactment of MAP-21 has not significantly changed the existing MPO planning goals as provided under the prior authorization known as the Safe Accountable Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). These eight planning factors for both metro and statewide planning are as follows:

- “Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- Increase the safety of the transportation system for all motorized and non-motorized users;
- Increase the ability of the transportation system to support homeland security and to safeguard the personal security of motorized and non-motorized users;
- Increase accessibility and mobility of people and freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.”

PUBLIC PARTICIPATION PROCEDURES

Title 23 CFR Section 450.324 and 310 CMR 60.03(6)h require that the development of the TIP provide an adequate opportunity for public review and comment.

Section 450.316(b) establishes the outline for MPO public participation programs. The Montachusett MPO's Public Participation Program (PPP) as previously mentioned was formally adopted on June 13, 2007 and amended on April 5, 2010. The development and adoption of this program conforms to the requirements of the section. It guarantees public access to the TIP and all supporting documentation, provides for public notification of the availability of the TIP and the public's right to review the document and comment thereon, and provides a 30-day public review and comment period prior to the adoption of the TIP by the MPO. The Amended PPP allows for an abbreviated public comment period for the Transportation Improvement Program (TIP), Unified Planning Work Program (UPWP) or Regional Transportation Plan (RTP) for a period of not less than ten (10) days under what the MPO considers to be extraordinary circumstances. The PPP will continue to be reviewed and updated as needed in response to requirements and/or changes due to the passage of MAP-21 and any future federal authorizing legislation.

The Montachusett Regional Transit Authority, a FTA Section 5307/5310/5337/5339 applicant, has consulted with the Montachusett Regional Planning Commission and concurs that the public involvement process adopted by the MPO for the development of the TIP satisfies the public hearing requirements that pertain to the development of the “Program of Projects” (POP) for regular Section 5307, Urbanized Area Formula Program, grant applications including the provision for public notice and the time established for public review and comment.

For FTA projects that are not routine, i.e. applications that require an environmental assessment or an environmental impact statement, the public involvement provided for herein for TIP review is not sufficient. Additional public involvement, as presented in the joint FHWA/FTA environmental regulations, 23 CFR part 771 will be required by FTA for grant approval.

PROJECT SELECTION/PRIORITIZATION – TRANSPORTATION EVALUATION CRITERIA

For the purposes of project selection and programming, any project listed in Year 1 of the endorsed TIP will be considered to have the concurrence of the MPO without further action required. Prioritization of projects will have taken place by virtue of placement of a project in Years 1 to 4 of the TIP. Out years may contain unallocated funding amounts based upon anticipated federal aid regional target funds. These yearly listing will be further defined as specific projects in subsequent year TIPs.

Prioritization of projects is based upon input from MassDOT regarding project design and implementation status, local prioritization from chief elected officials, scoring of the project based upon the Transportation Evaluation Criteria (TEC), fiscal constraints for the Montachusett Region, consensus vote by the MJTC and formal adoption by the MPO. Throughout this procedure, input from local citizens are reviewed and considered where appropriate in the prioritization process.

An initial project listing is obtained from MassDOT and the local communities. These projects are then reviewed one by one to ascertain their current status as to design and potential advertising dates. Projects are then scored and evaluated utilizing the Transportation Evaluation Criteria (TEC). In late 2012 early 2013, the Montachusett MPO revised and updated the original TEC developed by MassDOT. This revised TEC is a series of criteria to “be applied by the appropriate implementing agency during the project development stage to ensure that our limited budgetary and staff resources are committed to the best proposals; to assist the MPO process of programming federal funding through the regional Transportation Improvement Programs; and to examine existing projects in the pipeline to determine which should ultimately proceed to design and construction.” The criteria are used to cover all types of transportation projects from simple resurfacing to reconstruction and expansion. Benefits and impacts are examined for transportation as well as economic development, community effects, environmental justice issues, land use and environmental impacts. Final scores based upon the TEC then become part of the decision and prioritization process.

From this information, a project listing by fiscal year is developed. This fiscal listing is then compared to the Federal funding target allocation for the region. The listing is then reviewed by state and local officials, as well as the MJTC and the MPO, to determine fiscal constraint by funding year. Any problems are then identified. Through the MPO, projects are adjusted and prioritized in order to resolve the identified problems.

Additionally, a key feature of MAP-21 “is the establishment of a performance- and outcome-based program. The objective of this performance- and outcome-based program is for States to invest resources in projects that collectively will make progress toward the achievement of the national goals.” Within MAP-21, national performance goals have been established in seven areas:

- Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure condition - To maintain the highway infrastructure asset system in a state of good repair.
- Congestion reduction - To achieve a significant reduction in congestion on the National Highway System.
- System reliability - To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced project delivery delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.

Performance measures and targets are required to be established by FHWA, state DOTs, MPOs and other stakeholders in consultation with each other over the upcoming one to two years. The Montachusett MPO is committed to working with MassDOT, FHWA and other partners to develop and track the performance of elements of the regional transportation system and to utilize these performance measures as a tool or guide in the transportation planning process. MRPC staff has undertaken a review of available data, information and state and federal goals and requirements to begin the development of local performance measures that can be incorporated into the decision making process for the TIP. As these measures are more clearly defined and adopted it is expected that the TEC will be revised and/or updated to reflect them.

COORDINATION/CONSULTATION PROCESS

During the development process of the TIP, the MRPC coordinates with:

- MassDOT Highway Division Districts 2 and 3;
- MassDOT Office of Transportation Planning;
- Montachusett Regional Transit Authority;
- Montachusett Metropolitan Planning Organization;
- Montachusett Joint Transportation Committee.

In addition to specific meetings scheduled for TIP project and Transportation Evaluation Criteria (TEC) review, public meetings of the MJTC and MRPC provide opportunity for input from the general public and interested groups. Notices related to the TIP development and the public comment periods are disseminated to members of the MRPC Transportation Mailing Matrix in accordance with the Montachusett Public Participation Plan (MPO endorsed June 13, 2007 and Amended April 5, 2010).

As part of this outreach process, efforts to ensure meeting the requirements of Environmental Justice and Title VI of the 1964 Civil Rights Act are continually examined. This includes the development of a Limited English Proficiency (LEP) Access Plan (MPO Adopted September 2013), translation of memos and certain documents into other languages (based upon the LEP, this is currently done for Spanish), the availability of translation tools for the MRPC website and the inclusion of advocates for special groups in the MJTC membership.

Members of the matrix include but are not limited to:

Public/Private Groups - Montachusett Joint Transportation Committee (MJTC) Members; Montachusett Regional Planning Commission (MRPC) Members; Montachusett Metropolitan Planning Organization (MMPO) Members; Mayors; Boards of Selectmen; Planning Departments; Planning Boards; City and Town Clerks; Town Administrators; Police Departments; Fire Departments; Public Work Departments; Conservation Commissions; Congressmen; Senators; State Senators and Representatives ; Local Media; Libraries; Councils on Aging; Private Transportation Providers; Regional Transit Authority; Chambers of Commerce; City Councilors; Environmental Protection Agency; Department of Environmental Management; State and Federal Agencies; Housing Authorities; School Districts; Hospitals and Medical Centers; Shopping Malls and Large Commercial Centers; Trail Advocacy Groups and Organizations; Community Development Corporations; Emergency Management Agencies and Directors; Rail Companies.

Special Interest Groups - Montachusett Opportunity Council; Local Transit Union; Cleghorn Neighborhood Center; Spanish American Center; MA Rehab Commission; Fitchburg Spanish Council; Local Community Development Corporations; Airport Managers; Neighborhood Groups; Community Action Groups

The FFY 2015 – 2018 TIP has been or will be discussed at the following scheduled meetings:

- February 12, 2014 - Montachusett MPO Meeting
- February 19, 2014 - MJTC Meeting
- February 25, 2014 - MRPC Meeting
- February 26, 2014 - TIP Project TEC Discussions with MassDOT Highway Districts 2 and 3
- March 12, 2014 - Montachusett MPO Meeting
- March 19, 2014 - MJTC Meeting
- March 25, 2014 - MassDOT TIP Day Meeting
- March 25, 2014 - MRPC Meeting
- April 16, 2014 – Montachusett MPO Meeting
- April 16, 2014 - MJTC Meeting
- April 29, 2014 – MRPC Meeting
- May 14, 2014 - Montachusett MPO Meeting
- May 21, 2014 – MJTC Meeting
- May 27, 2014 – MRPC Meeting
- June 18, 2014 – Montachusett MPO Meeting
- June 18, 2014 - MJTC Meeting
- June 24, 2014 - MRPC Meeting

Through this extensive mailing and notification process, it is anticipated that local and state agencies and officials, as well as other groups/organizations, will be notified of the TIP development process and further coordination and/or consultation will occur as decisions and documents are prepared. As stated in 23 CFR 450.316 (3) (b) the MPO continues to seek to consult with “agencies and officials responsible for other planning activities within the Metropolitan Planning Area (MPA) that are affected by transportation or coordinate its planning process (to the maximum extent practicable) with such planning activities”.

In addition to regular notification of organizations and agencies through meeting mailings, a separate memo was distributed on January 10, 2014 to all members of the Transportation Mailing Matrix that specifically invited their input to the TIP development process. This mailing identified specific meetings of the MJTC, MRPC and Montachusett MPO at which the development of the TIP would be a major item of discussion and which any input would be appropriate, appreciated and important to the overall TIP process. The specific meetings identified included the:

- January 15, 2014 - MJTC Meeting
- January 28, 2014 - MRPC Meeting
- February 12, 2014 - Montachusett MPO Meeting
- February 19, 2014 - MJTC Meeting
- February 25, 2014 - MRPC Meeting
- March 12, 2014 - Montachusett MPO Meeting
- March 19, 2014 - MJTC Meeting
- March 25, 2014 - MRPC Meeting
- April 16, 2014 – Montachusett MPO Meeting
- April 16, 2014 - MJTC Meeting
- April 29, 2014 – MRPC Meeting
- May 14, 2014 - Montachusett MPO Meeting
- May 21, 2014 – MJTC Meeting
- May 27, 2014 – MRPC Meeting
- June 18, 2014 – Montachusett MPO Meeting
- June 18, 2014 - MJTC Meeting
- June 24, 2014 - MRPC Meeting
- July 9, 2014 – Montachusett MPO Meeting
- July 16, 2014 - MJTC Meeting
- July 29, 2014 - MRPC Meeting

The memo and mailing was targeted towards those agencies, organizations, local boards and citizens with an interest or responsibility for planning that might be affected by transportation. Contact information as to how interested individuals, agencies and/or organizations could provide input via email, regular mail, fax and phone was also provided in the memo.

In addition, notices and information encouraging input to the TIP development process have been placed on the MRPC website. This includes the memo announcing the development of the TIP with any and all appropriate meeting dates, memos announcing the start of the comment period and the availability of draft documents as well as the draft document itself. Upon endorsement of the TIP by the MPO, final versions of the TIP as well as a project summary are then made available via the MRPC website.

AMENDMENT/MODIFICATION PROCEDURES

In order to minimize constraints on programming projects, the endorsed TIP will have the provision, as adopted by the MPO, that will allow relatively minor modifications be made to the TIP without formal MPO action. Significant changes will continue to require MPO action through the amendment process.

Minor modifications include such actions as:

- moving a project in either direction between the Year 1 and 2 or Year 2 and 3 elements;
- changes in funding amounts (typically less than 10%) or categories within the same fiscal year.

Minor modifications will be accomplished through an agreed-upon administrative action with the approval of the MPO. That action will include approval of the modification by the MPO at a duly constituted meeting and written notification of the MPO members. Formal endorsement will not be required. A 30 day public review period is not required.

Significant changes to the TIP include major actions such as:

- the addition or deletion of a Federal Aid project;
- if the design, scope or budget of a project is found to have changed significantly as determined by the MJTC and MPO (typically cost changes of more than 10%);
- moving a project from Non-Federal Aid to one of the Federal Aid funding categories;
- moving a project in either direction between the Year 1 and 3 elements;
- advancing a project from the Appendix project list to either Year 1, 2 or 3.
- advancing a project from the out Year 4 to either Year 1, 2 or 3.

Significant changes to the TIP will require formal endorsement of an amendment. This amendment process will include a 30 day public comment period, or an abbreviated comment period of not less than ten (10) days under what the MPO considers to be extraordinary circumstances, as outlined in the federal planning regulations and the Montachusett Public Participation Program (as Amended April 5, 2010), approval of the amendment and signatory endorsement by MPO members at a subsequent MPO meeting.

TRANSPORTATION FUNDING PROGRAMS

Description of Highway Programs

Federal Aid is received by the State as reimbursement, and the State is required to contribute a matching share to most projects receiving Federal funds.

MAP-21 has restructured core highway programs by incorporating several activities previously carried out under existing formula programs, such as the National Highway System Program (NHS), the Interstate Maintenance Program (IM) and the Highway Bridge Program, into a new core formula program structure that includes the following:

- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Highway Safety Improvement Program (HSIP)
- Transportation Alternatives Program (TAP)

This TIP includes projects funded under these programs as well as potentially carried over programs from prior federal authorizations such as High Priority Program (HPP) funds.

Glossary of Terms

The terms used in the main part of this TIP are defined as follows:

- MassDOT Project ID: indicates Massachusetts Department of Transportation Highway Division Project Identification Number.
- MassDOT Project Description: indicates the city or town in which the project is to be implemented and gives details of the type of work to be performed and specific locations.
- MassDOT District: indicates in which MassDOT Highway Division District of the Montachusett Region the project occurs. The communities in the MRPC Region fall within District 2, with offices in Northampton, and District 3, with offices in Worcester.
- Funding Source: indicates funding program under which the project is eligible for dollar allocations, such as National Highway System or Surface Transportation Program.
- Total Programmed Funds, Federal Funds, Non-Federal Funds: presented for each project for each fiscal year are estimated total costs and the source/share of the funds, i.e. Federal or State. Projects where costs and activity are not available will be labeled NA. Note that FFY 15 estimated operation cost for transit

projects is included in the Year 1 Element due to Federal requirements. Also the source of the funds needed to implement the project is indicated as Federal and/or State.

- Additional Information: indicates any additional information pertinent to the project in order to provide the reader with a more detail look at the project. In addition, the current cost of the project (in Year 1 dollars) and the Year of Expenditure (YOE) cost as well as the inflation factor for that year (i.e. Year 2 – YOE increase of 4%; Year 3 – YOE increase of 8%; and Year 4 – YOE increase of 12%) are listed.

All of the programs listed are administered by the MassDOT. A project may be initiated by MassDOT or the local community. If approved, the project is submitted to Federal Highway Administration for funding. A description of each of these programs follows:

- National Highway Performance Program (NHPP): The enhanced National Highway Performance Program (NHPP) is composed of rural and urban roads serving major population centers, international border crossings, intermodal transportation facilities, and major travel destinations. It includes the Interstate System, all principal arterials (including some not previously designated as part of the NHS) and border crossings on those routes, highways that provide motor vehicle access between the NHS and major intermodal transportation facilities, and the network of highways important to U.S. strategic defense (STRAHNET) and its connectors to major military installations. The funding split for this program is generally 80% federal 20% state.
- Surface Transportation Program (STP): MAP-21 continues the STP by providing flexible funding that may be used by the States and localities for projects to preserve or improve conditions and performance on any federal-aid highway, bridge projects on any public road, facilities for nonmotorized transportation, transit capital projects and public bus terminals and facilities. A portion of the state's allocation is set aside for the state's Transportation Alternatives Program (TAP). The funding split for this program is generally 80% federal 20% state.
- Congestion Mitigation and Air Quality (CMAQ): The CMAQ program is continued in MAP-21 to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas). The funding split for this program is generally 80% federal 20% state.
- Highway Safety Improvement Program (HSIP): MAP-21 continues the Highway Safety Improvement Program (HSIP) to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The funding split is 90% federal and 10% state.
- Transportation Alternatives Program (TAP): MAP-21 establishes a new program to provide for a variety of alternative transportation projects, including many that were previously eligible activities under separately funded programs. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and several other discretionary programs, wrapping them into a single funding source. The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for the planning, design or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. The funding split for this program is generally 80% federal 20% state.
- High Priority Projects: This program provides designated funding for specific projects identified in SAFETEA-LU. Projects are identified with a specified amount of funding over the 5 years of SAFETEA-LU. The funds designated for a project are available only for that project until expended. HPP projects are fully funded and are included on the TIP when they are expected to be "ready to go." The funding split is 80% federal and 20% state.

MAP-21 funding information from "Moving Ahead for Progress in the 21st Century Act (MAP-21) A Summary of Highway Provisions" by the Federal Highway Administration (FHWA), Office of Policy and Governmental Affairs, July 17, 2012 and Fact and Guidance Sheets from the FHWA MAP-21 website (www.fhwa.dot.gov/map21/factsheets.cfm and www.fhwa.dot.gov/map21/guidance/index.cfm).

Description of Transit Funding Programs

The new Federal Surface Transportation Authorization known as Moving Ahead for Progress in the 21st Century (MAP-21) significantly changed the categories of transit funding available to grantees from what was under the prior authorization known as the Safe Accountable Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). However funds from SAFETEA-LU are still available as carryover funds for some projects programmed under previous TIP's.

The biggest change between MAP-21 and SAFETEA-LU is the reduction of discretionary funding. Most of the discretionary categories such as "State of Good Repair" and "Bus and Bus Facilities" which were formerly 5309 funds are now formula funds and have their own new 53 subsection categories (5337 and 5339 conversely). Other discretionary funding categories have been repealed under MAP-21 such as the "Clean Fuels" (5308) program. Formula grant programs are funded to States based on formulas of population. Each grant program is referred to by name and most also by a number that correlates to the section number of Chapter 53 of Title 49 of the United States Code, as Amended by MAP-21. Specific allocation of funding amounts into each category is laid out in Section 5338.

Formula Grants:

- Urbanized Area Formula Program (5307) Funds: This formula program makes funds available on the basis of a statutory formula to all urbanized areas in the country. Eligible activities are capital projects, planning and job access/reverse commute projects (JARC - formerly 5316 funds). Operating assistance is continued as an eligible expense under Section 5307. Operating assistance caps are now in place for urbanized areas over 200,000 but operating fewer than 100 buses (no rail), not just those under 200,000 (as determined by the U.S. Census Bureau), as is the case in previous law.
-
- Transportation for Elderly Persons and Persons with Disabilities (5310) Funds: This program provides capital funding for transportation services for elderly and disabled persons. Authorization under MAP-21 has moved the formula allocation from a single statewide allocation to an Urbanized Area allocation. The funds may go to private, non-profit organizations or to public bodies which coordinate service. Also funds available to our area are in a single allocation with two other "Small Urban" areas, therefore MassDOT has made all the apportioned funds a competitive application. No less than 55% of these funds must be used for capital projects. Up to 45% may be used for operating assistance projects that would formerly been eligible under New Freedom funds. No more than 10% may be used be a recipient for Administrative Expenses associated with a project. The Rail and Transit Division of the Massachusetts Department of Transportation through the State Transportation Bond authorization program, makes capital grants available through its Mobility Assistance Program to public agencies to purchase vehicles and related equipment for transporting elderly and disabled persons.
- Formula Grants for Other than Urbanized Areas (5311) Funds: This program provides funds on the basis of a statutory formula for rural areas using the latest available U.S. decennial census data. Its share is established at 7.07 percent of the total overall MAP-21 funding and 12% of Sections 5307 and 5311 fund combined, which is an increase over previous law. Eligible activities now included projects previously classified under JARC for rural areas.
- Job Access and Reverse Commute Program (5316) Funds: Repealed – integrated into 5307 and 5311 funds.
- New Freedom Program (5317) Funds: Repealed – integrated into 5310 funds.
- Bus and Bus Facilities (5339) Funds: This program provides capital assistance for new and replacement buses, related equipment, and facilities. It was formerly a discretionary program but is now formula based by urbanized area. As with the 5310 formula, 5339 is apportioned to our region via the state thru an allocation for "Small Urban," with a statewide allocation as well. Therefore a competitive process thru MassDOT has been established for the 3 small urban and 3 rural RTA's to obtain these funds. The Federal share of eligible capital costs is no more than 80 percent of the net capital project cost.
- State of Good Repair Formula Grants (5337): Eligible recipients are state and local government authorities in urbanized areas with fixed guideway public transportation facilities operating for at least 7 years. Although the Fitchburg-Leominster urbanized area does receive a formula allocation for these funds under MAP-21, the Montachusett Regional Transit Authority is not an eligible recipient since there is not currently any fixed guideway or high-speed motorbus operated under the authority. These funds can be transferred to the MBTA for use in rehabilitation projects related to the commuter rail which runs in our area.

Discretionary Grants:

The Federal Transit Administration and the U.S. Department of Transportation still have a few discretionary grant programs that MART is eligible to apply under. A Notice of Funding Availability (NOFA) is published in the Federal Register each year stating program amounts and instructions for applying for these Competitive grants. Please see FTA's website for more details at <http://www.fta.dot.gov/map21.html>.

- Fixed Guideway Capital Investment Grants ("New Starts") (5309): The Bus and Bus Related Equipment and Facilities program (Bus program) provides capital assistance for new and replacement buses, related equipment, and facilities. It is a discretionary program to supplement formula funding in both urbanized and rural areas. The Federal share of eligible capital costs is 80 percent of the net capital project cost, unless the grant recipient requests a lower percentage. The Federal share may exceed 80 percent for certain projects related to the ADA, the Clean Air Act (CAA), and certain bicycle projects.
- TIGER (USDOT): The Transportation Investment Generating Economic Recovery, or TIGER Discretionary Grant program, provides a unique opportunity for the U.S. Department of Transportation to invest in road, rail, transit and port projects that promise to achieve critical national objectives. The TIGER program enables DOT to use a rigorous process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make investments in our Nation's infrastructure that make communities more livable and sustainable.

COORDINATION WITH REGIONAL TRANSPORTATION PLANNING

The 2012 Montachusett Regional Transportation Plan (RTP) was completed for MPO endorsement on August 24, 2011. It provides the basic framework for implementing future short-range and long-range transportation and air quality improvements in the Montachusett Region. In addition, it sets the basic transportation goals and objectives for the region. These goals and objectives are consistent with the long-range land use plan and the social, economic, and environmental policies of the region.

The Transportation Plan consists of two major elements: a long-range element and a short-range element. The long-range element defines long-range goals and objectives, identifies new transportation facilities and major changes to existing facilities. The short-range element contains a broad range of infrastructure and operational projects that consider all modes of transportation and are designed to increase the efficiency of existing facilities. Examples of short range projects are: traffic flow improvements, intersection capacity and signalization improvements, bikeways and carpooling programs.

The Transportation Plan decisions reflect the federally certified 3C (comprehensive, cooperative and continuing) process, and are based upon Federal, State and local policies, detailed technical analysis, and citizen participation.

Projects in the Fiscal Year 2015-2018 TIP are consistent with the previous as well as the current Regional Transportation Plan for the Montachusett Region as completed in 2003, 2007 and 2012. The transit portion of the region's transportation system and its needs is broken down into several components. These include operations of the Regional Transit Authority, commuter rail services and capital funding needs.

Recommendations in the Regional Transportation Plan concerning the Transit Authority component of the region's transportation system are drawn directly from transit development studies and other work tasks. Recommendations made to improve the MART transit system include:

- * Continued monitoring of routes and schedules so that any beneficial changes can be identified and implemented.
- * The marketing effort should be a priority item by which the public is informed of transit availability and efficiency.
- * Driver safety and sensitivity courses should be maintained.
- * Transit services for the elderly and disabled should be expanded and upgraded as necessary to insure both availability and accessibility.

- * Services specifically for the disabled called ADA Para-transit service should continue to operate at hours comparable to fixed route service as identified in MART's 1992 ADA Complementary Plan and subsequent updates.

The short range recommendations for commuter rail service in the region insure maintenance of current operations by provision of adequate funding from federal and state sources. The completion of commuter parking garages at the Fitchburg Intermodal Transportation Center and in North Leominster has helped meet short term goals. Another short range goal is to construct a park and ride facility in Gardner near MART's Maintenance facility in order to shuttle commuters to the currently under construction Wachusett station and allow for a commuter carpool location. This project is still in the planning stages.

Long range recommendations for commuter rail service include but are not restricted to preservation of essential rail freight services, encouragement of businesses to continue to increase rail use, preservation of abandoned rail rights-of-way with potential future public use. MART in coordination with MBTA and Pan Am are working on two programs; the first is a small starts project to upgrade both tracks and stations between Fitchburg and Cambridge on the rail line. This will enhance the commuter experience and allow for a faster commute into Boston. The second project is to create a new station (Wachusett) with a park-and-ride lot a few miles west of the Downtown Fitchburg station in West Fitchburg, just off Route 2, and a layover facility in Westminster. These projects are well underway; the tracking project has begun its second construction season and Wachusett Station is expected to open in the spring of 2015.

Recommendations for funding of the Mobility Assistance Program including the Section 5310 program, formerly Section 16 (b)(2), are also noted in the Regional Transportation Plan. It states that in order to provide increased mobility for Montachusett residents that do not own automobiles or that choose to be less dependent on the automobile; MART will need to continue to develop and implement appropriate and innovative public transit programs. It also states that elderly and disabled services provided by MART and social service agencies should continue to be monitored for coordination of effort. The vehicles that MART is requesting under MAP would be used as replacements to the vehicles operated in the Dial-A-MART, COA, and ADA complementary Paratransit programs. The Dial-A-MART program coordinates transportation services for social service agencies, handicapped advocacy organizations, etc. located in the Montachusett Region.

Capital funding needs can be broken down into two categories: capital equipment purchases and construction projects. The Regional Transportation Plan states that in addition to increased and improved routing and scheduling, it will be necessary for MART to maintain and improve the operating condition of its vehicle fleet. The present vehicle fleet will be gradually replaced with new equipment as the need arises. The only major construction activity during the next year will be the construction of Wachusett Station.

MART procured management of operational services for our fixed route and Para-transit services in early 2013, with a new contract in effect as of July 1, 2013. Three Requests for Proposal were released: one for fixed route/ADA in Fitchburg/Leominster, one for fixed route/ADA in Gardner, and one for Dial-A-MART Services. Operators had the option to quote on all three as a package deal under one Management Company. MART completely revamped our efforts to procure these services so that a broader range of Private Enterprise Providers could be reached. MART even advertised in Mass Transit magazine to reach a national audience. MART considered the following major factors when contracting for provider(s) for MART's fixed route/ADA and Dial-A-MART services.

- 1) Technical Proposal showing the following areas of technical merit:
 - (a) Qualifications & experience,
 - (b) Operational & maintenance,
 - (c) Customer service & innovation,
 - (d) Organization & structure, and
 - (e) Safety & training.
- 2) Cost Proposal: Pricing offers will only be evaluated for those Proponents whose technical offers have been determined to be technically acceptable. Each proponent's cost will be evaluated for reasonableness, realism, and completeness, which are of equal importance. The award will be based on best value.

A list of private operators, developed as a part of the PPP document, now regularly receive minutes and notices of monthly Montachusett Joint Transportation Committee (MJTC) meetings. Also, they are notified of the draft TIP,

UPWP, and when applicable, the Regional Transportation Plan, in order to solicit their ideas on studies and projects addressing private sector requirements.

Financial Capacity: The Montachusett Regional Transit Authority has plans to conduct a financial capacity report in FY 2015. That report will review MART's capital and operating funding capability. A part of this planned report, the proposed program of TIP projects will be examined in order to determine that there are sufficient funds to cover the capital and operating costs of proposed activities over the life of the projects. Funding programs are discussed below.

FTA Section 5310 (MAP) - The State has made a commitment to funding Para-transit vehicle purchases for use in the provision of elderly/disabled transportation services. The bulk of Para-transit vehicles operating in the Montachusett Region are owned by the Montachusett Regional Transit Authority. We anticipate continued yearly receipt of MAP vehicles from the Rail and Transit Division of the Massachusetts Department of Transportation. FTA Section 5307 Urban Area Formula Program Assistance - the Montachusett Regional Transit Authority was authorized Section 5307 Urban Area Formula Program Assistance for FY15.

STATE POLICIES AND DIRECTIVES

GreenDOT

In July 2010, MassDOT launched GreenDOT “a comprehensive environmental responsibility and sustainability initiative that will make MassDOT a national leader in “greening” the state transportation system.” The three primary goals identified by GreenDOT are:

- Reduce greenhouse gas (GHG) emissions
- Promote the healthy transportation modes of walking, bicycling, and public transit
- Support smart growth development

The MassDOT policy directive for GreenDOT, states:

“Through the GreenDOT policy, MassDOT will promote sustainable economic development, protect the natural environment, and enhance the quality of life for all of the Commonwealth's residents and visitors through the full range of our activities, from strategic planning to construction and system operations.”

“GreenDOT calls for MassDOT to incorporate sustainability into all of its activities; from strategic planning to project design and construction to system operation. The initiative also includes greenhouse gas reduction targets mandated under the Global Warming Solutions Act, signed into law by Governor Deval Patrick in 2008.

The GreenDOT initiative will achieve the greenhouse gas reductions through a range of measures. In cooperation with regional planning agencies, MassDOT will set statewide greenhouse gas reduction targets, and meet these targets by balancing highway system expansion projects with other projects that support smart growth development and promote public transit, walking and bicycling. Example include transit and rail projects, complete streets planning that includes bicycle and pedestrian accommodations, and investments in greener, more efficient fleet vehicles and renewable power.

GreenDOT was designed in response to several existing state laws, Executive Orders, and MassDOT policies. These include the 2009 Transportation Reform Law that created MassDOT and established the *Healthy Transportation Compact* that promotes improved public health through active transportation; the Global Warming Solutions Act, which calls for measurable and enforceable economy-wide greenhouse gas reductions; and MassDOT's Complete Streets design approach that calls for appropriate accommodation of all transportation system users.” (www.massdot.state.ma.us/main/greendot.aspx)

Mode Shift Goals

As part of the implementation plan for GreenDOT,

“Secretary and CEO Richard Davey in October 2012 announced MassDOT’s mode shift goal to triple the distance traveled by our customers through bicycling, transit and walking. That goal now joins other goals incorporated into MassDOT’s GreenDOT Implementation Plan with tasks and indicators.

MassDOT established the goal to build a more efficient transportation system where fewer of our customers depend on driving alone to get where they are going. We want to reduce greenhouse gas emissions from the transportation system and support better public health outcomes by working to give our customers more healthy travel options.

MassDOT will measure our progress on this ambitious mode shift goal using Personal Miles Traveled (PMT) - distances traveled by all our customers for bicycling, driving, transit and walking in a one year period. It also measures all the trips taken by our customers, not just work trips which are often the focus in transportation planning. Measuring the distance traveled by each mode allows MassDOT to see strategic opportunities to improve the travel options for our customers, strengthen the relationship between land use and transportation planning, and draw a link to greenhouse gas emissions. Goal numbers are listed below.”

<u>Year</u>	<u>Bicycling PMT</u>	<u>Transit PMT</u>	<u>Walking PMT</u>	<u>Total</u>
2010 (baseline)	150.4m	1.83b	101.1m	2.08b
2020 (benchmark)	330.0m	3.99b	223.9m	4.55b
2030 (goal year)	516.m	5.93b	333.6m	6.78b

Source: <http://transportation.blog.state.ma.us/blog/2012/12/massdot-goal-triple-bicycling-transit-walking.html>

youMove Massachusetts

In addition, through the development of a statewide planning effort entitled *youMove Massachusetts* related to the “importance of public transportation to our overall economic and environmental well-being” that sought input on the state’s public transportation system, a series of ten core themes were developed.

As stated on the *youMove Massachusetts* website (youmovemassachusetts.org):

“Designed to be a bottom-up approach to transportation planning, *youMove Massachusetts* asked the public to participate in priority-setting from the outset. We received more than 700 individual comments on mobility gaps and challenges from which we could recognize themes and begin to identify potential solutions. From these comments, we developed ten core themes: statements of fundamental importance that articulate the expressed concerns, needs, and aspirations of Massachusetts residents for their transportation network. These themes will contribute to an overall vision of a transportation system that can both serve and promote a prosperous and sustainable future for the Commonwealth. “

The core themes are as follows:

- Theme 1: Improve Transportation System Reliability
- Theme 2: Focus More Attention on Maintaining our Transportation System
- Theme 3: Design Transportation Systems Better
- Theme 4: Encourage Shared Use of Infrastructure
- Theme 5: Increase Capacity by Expanding Existing Facilities and Services
- Theme 6: Create a More User-Friendly Transportation System
- Theme 7: Broaden the Transportation System to Serve More People
- Theme 8: Provide Adequate Transportation Funding and Collect Revenue Equitably
- Theme 9: Minimize Environmental Impacts
- Theme 10: Improve Access to our Transportation System

From the information gather through *youMove Massachusetts*, the state has moved onto its next initiative entitled *weMove Massachusetts*. As stated on the website weMoveMassachusetts.org, “...the strategic planning process of the Massachusetts Department of Transportation (MassDOT), is now underway. Since 2009, MassDOT has undertaken a wide-reaching reform effort, designed to improve how we do business, how we respond to our customers, and how we provide the transportation services that are a crucial foundation for the sustainable economic development of the Commonwealth. The *weMove Massachusetts* process is our first comprehensive effort

to prioritize our transportation investments in a way that reflects what everyone feels is important for our transportation system.”

MassDOT has identified seven major components that “contribute to building weMove Massachusetts:

1. Transportation Reform - emphasis on our customers, innovation, accountability, performance management, efficiency, stewardship and stronger collaboration across transportation divisions
2. Data and Analysis - critical to sound decision making
3. Transportation System Needs Identification– to know that we are choosing the right transportation investments
4. youMove Massachusetts Themes - ten value statements that capture the diverse values our customers
5. Customer and Stakeholder Engagement– incorporate the priorities of our customers and stakeholders
6. Statewide Transportation Plans– implement our modal plans
7. Statewide Priorities and Policies– ensure accountability”

MassDOT has indicated that “Between now and early 2013, weMove Massachusetts will:

- Clearly articulate MassDOT’s goals, priorities, and policies, which are based on public input
- Advance important statewide policy goals for improving mobility, protecting the environment, promoting economic growth, and improving public health and quality of life
- Better use available information to allocate funding and prioritize projects in a clear and transparent way
- Communicate with stakeholders about their ideas on improving transportation services
- Engage all of our staff at MassDOT in the weMove Massachusetts process”

“A safe and efficient transportation system, ... that provides users with a good range of options for getting around, is an important building block for a successful, prosperous, and equitable future.” Before this is obtained “...a series of ongoing challenges” must be faced:

- “Resources are limited and unequal to our needs. We will strive for the most cost-effective approach to transportation investments.
- Our infrastructure is aging. Because deferring maintenance worsens this problem over time, making the right investments today will lead to future savings for all of us.
- Good jobs are needed today. Making the right investments in infrastructure puts people to work, leverages private investment, and facilitates job growth.
- Our population is constantly changing. As we live longer and welcome new residents to the Commonwealth, our transportation system must respond to the needs of all users.
- Extreme weather events impact us all. Tornadoes, major storms, and out-of-season snowfall events require quick responses to keep people and goods moving.”

MassDOT states that “By implementing a robust decision-making framework, we will be able to spend our limited resources on investments into our transportation system that yield the greatest return in meeting our needs, to defend our investment decisions with data, and to meet these goals while understanding the aspirations and concerns of the traveling public.”

For more information, please refer to the website: weMoveMassachusetts.org.

The policies of the Commonwealth will be reviewed, considered and incorporated in the planning studies developed as part of the work tasks outlined in this UPWP. Recommendations derived from these studies will be consistent with state policies.

Healthy Transportation Policy Directive

On September 20, 2013, MassDOT announced “a forward-thinking shift in MassDOT’s approach to project development.” Secretary and CEO Richard A. Davey stated that the new Healthy Transportation Policy Directive

“will require all state transportation projects to increase bicycling, transit and walking options. This new Directive is intended to promote multimodal access for our transportation customers.”

The new Healthy Transportation Directive seeks to build upon the goals that were established under MassDOT’s GreenDOT Implementation Plan and the mode shift goal announced in October 2012 that calls for the tripling of bicycle, transit and walking travel shares by 2030. The Directive requires all MassDOT Districts to review all projects under design to “ensure they are consistent with ...goals.”

Other elements included in the Directive are as follows:

- All MassDOT facilities will consider adjacent land uses and be designed to include wider sidewalks, landscaping, crossing opportunities and other features to enhance healthy transportation options.
- Reviews will be conducted of cluster sites where incidents have occurred with healthy transportation users.
- MassDOT will develop a guide to assist communities proposing Shared Use Paths on or along rail beds in order to accelerate the path design process.

Additional information on the Healthy Transportation Policy Directive and MassDOT’s GreenDOT comprehensive environmental responsibility and sustainability initiative can be viewed at <http://www.massdot.state.ma.us/GreenDOT.aspx>.

RTA Comprehensive Service Analysis Plan

Section 63 of Chapter 46 of the Massachusetts Session Laws of 2013 states: Notwithstanding any general or special law to the contrary, each regional transit authority established under chapter 161B of the General Laws shall develop a comprehensive regional transit plan in consultation with the appropriate regional planning agency, the Massachusetts Department of Transportation, local employers and the business associations, labor organizations and transit authority riders. The plan shall include, but not be limited to:

1. a comprehensive assessment of transit services;
2. a thorough examination of the ridership trends for each line and service provided by the regional transit authority;
3. a performance analysis of existing services;
4. the development and evaluation of alternative service scenarios;
5. the development of a recommendation to better align service with local and regional demand;
6. the commonwealth’s environmental policies;
7. fare rates and collection methods;
8. the region’s job creation goals and employment needs; and
9. A determination of whether the regional transit authority’s service is deployed in the most effective way possible to accommodate the transit needs of the region’s workforce. The development of the plan shall include public hearings in different regions of the Commonwealth and the opportunity to comment on a draft report.

MART has joined with nine of the other RTA’s in a joint procurement and engaged a consultant to conduct this service analysis and write this regional plan for MART. A Steering Committee is being formed which includes the Montachusett Regional Planning Commission and several other community stakeholders. The plan/report is due to MassDOT no later than June 30, 2015.

701 CMR 7.00 USE OF ROAD FLAGGERS AND POLICE DETAILS ON PUBLIC WORKS PROJECTS

701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public Works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority.

For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines.

By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation.

This information and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website:

<http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

PART B. TRANSPORTATION AND TRANSIT PROJECT PRIORITIES: FEDERAL & STATE SECTIONS

Please note that the projects listed represent the best available information at the time of compilation. Actual implementation is subject to right of way, design, land taking, local action and/or other issues that could delay project time frames and subsequently advertising and award dates.

In addition, federal guidance requires that the TIP reflect Year of Expenditure (YOE) dollars for projects and programs. To accommodate this requirement, individual project cost estimates provided by MassDOT have been adjusted by a four percent per year inflation factor depending upon its year of placement in the TIP (for this TIP, Federal Years 2016, 2017 and 2018). Year 1 cost estimates remain as provided but projects in Year 2, 3 or 4 (i.e. FFY 2016, 2017 or 2018) have been increased by a YOE factor of 4%, 8% or 12%, respectively.

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2015 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	604928	Montachusett	Leominster	LEOMINSTER- RECONSTRUCTION OF MECHANIC STREET, FROM LAUREL STREET TO THE LEOMINSTER CONNECTOR	3	HSIP	\$ 495,506	\$ 445,955	\$ 49,551	STP/HSIP/CMAQ; Non Adjusted Total Cost = \$3,750,000 as of 4/9/14; 25% Design on 12/2011; Construction; TEC 28 of 100;
HSIP Subtotal ►							\$ 495,506	\$ 445,955	\$ 49,551	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	604928	Montachusett	Leominster	LEOMINSTER- RECONSTRUCTION OF MECHANIC STREET, FROM LAUREL STREET TO THE LEOMINSTER CONNECTOR	3	CMAQ	\$ 1,672,333	\$ 1,337,866	\$ 334,467	STP/HSIP/CMAQ; Non Adjusted Total Cost = \$3,750,000 as of 4/9/14; 25% Design on 12/2011; Construction; TEC 28 of 100;
CMAQ Subtotal ►							\$ 1,672,333	\$ 1,337,866	\$ 334,467	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	604960	Montachusett	Clinton	CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD (1.2 MILES)	3	TAP	\$ 74,990	\$ 59,992	\$ 14,998	STP/TAP; Non Adjusted Total Cost = \$5,551,000 as of 4/9/14; Construction; TEC 43 of 100; 75% Design returned on 10/11/13; CMAQ eligible; AC Yr 1 of 2
TAP Subtotal ►							\$ 74,990	\$ 59,992	\$ 14,998	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	604928	Montachusett	Leominster	LEOMINSTER- RECONSTRUCTION OF MECHANIC STREET, FROM LAUREL STREET TO THE LEOMINSTER CONNECTOR	3	STP	\$ 1,582,161	\$ 1,265,729	\$ 316,432	STP/HSIP/CMAQ; Non Adjusted Total Cost = \$3,750,000 as of 4/9/14; 25% Design on 12/2011; Construction; TEC 28 of 100;
	604960	Montachusett	Clinton	CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD (1.2 MILES)	3	STP	\$ 3,255,735	\$ 2,604,588	\$ 651,147	STP/TAP; Non Adjusted Total Cost = \$5,551,000 as of 4/9/14; Construction; TEC 43 of 100; 75% Design returned on 10/11/13; CMAQ eligible; AC Yr 1 of 2
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 4,837,896	\$ 3,870,317	\$ 967,579	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
Total Federal Aid Target Funds Programmed ►							\$ 7,080,725	\$ 7,080,725	◄ Total Target	\$ - Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 4,837,896	\$ 4,837,896	◄ Max. Non-CMAQ/HSIP/TAP	\$ - Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►							\$ 495,506	\$ 495,506	◄ Min. HSIP	\$ - HSIP Minimum Met
Total CMAQ Programmed ►							\$ 1,672,333	\$ 1,672,333	◄ Min. CMAQ	\$ - CMAQ Minimum Met
Total TAP Programmed ►							\$ 74,990	\$ 74,990	◄ Min. TAP	\$ - TAP Minimum Met
Remaining HSIP, CMAQ, and TAP Funds							\$ -			

2015 MONTACHUSETT MPO Transportation Improvement Program

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xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1B / Federal Aid Bridge Projects										
► Statewide Bridge Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				On System Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Off-System										
	607114	Montachusett	Lancaster	LANCASTER - FULL BRIDGE REPLACEMENT, L-02-018, JACKSON ROAD OVER ROUTE 2.	3	STP-BR-OFF	\$ 3,432,000	\$ 2,745,600	\$ 686,400	AC Yr 2 of 2; Cost Est as of 4/23/13; Construction; Total Cost = \$7,576,608; Bridge Off System; \$4,144,608 programmed in FFY 2014
	604838	Montachusett	Winchendon	WINCHENDON - BRIDGE REPLACEMENT, W-39-001, HARRIS ROAD OVER TARBELL BROOK	2	STP-BR-OFF	\$ 3,279,640	\$ 2,623,712	\$ 655,928	Cost Est as of 4/30/14; Non Adjusted Total Cost = \$3,279,640; Bridge Off System
				Off-System Subtotal ►			\$ 6,711,640	\$ 5,369,312	\$ 1,342,328	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Inspection Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
	607347	Montachusett	Gardner	GARDNER- BIKE PATH CONSTRUCTION, NORTH CENTRAL PATHWAY (PHASE VI)	3	HPP	\$ 1,000,000	\$ -	\$ 1,000,000	HPP #1798 MA 148 Earmark: Non Adjusted Total Cost = \$1,000,000 (as of 4/9/14); Total Design = \$112,000 included in FFY 2013 TIP Amendment No. 2 MPO Endorsed 6/12/13; Total Estimated Design & Construction = \$1,112,000 Non Adjusted.
				Other Federal Aid Subtotal ►			\$ 1,000,000	\$ -	\$ 1,000,000	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide HSIP Program Subtotal ►			\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

2015 MONTACHUSETT MPO Transportation Improvement Program

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Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	Funding Split Varies by Funding Source
				Statewide Safe Routes to Schools Program Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Statewide CMAQ										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide CMAQ ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Transportation Enhancements Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ITS										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ITS Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Interstate Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide NHS Preservation Program+										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide NHS Preservation Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide RR Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide RR Grade Crossings Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Stormwater Retrofits Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ADA Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ADA Implementation Plan Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
				Other Statewide Items Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

2015 MONTACHUSETT MPO Transportation Improvement Program

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Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -		\$ -	
						Non-Federal Aid Subtotal►	\$ -		\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -		\$ -	
						Section 2B / Non-Federal Bridge Projects Subtotal►	\$ -		\$ -	◄100% Non-Federal

2015 MONTACHUSETT MPO TIP Summary

TIP Section 1: ▼ TIP Section 2: ▼ Total of All Projects ▼

						Total ►	\$ 14,792,365	\$ -	\$ 14,792,365	◄ Total Spending in Region
						Federal Funds ►	\$ 11,083,443		\$ 11,083,443	◄ Total Federal Spending in Region
						Non-Federal Funds ►	\$ 3,708,922	\$ -	\$ 3,708,922	◄ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2016 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	605651	Montachusett	Leominster	LEOMINSTER-RECONSTRUCTION ON ROUTE 13, FROM HAWES STREET TO PROSPECT STREET	3	HSIP	\$ 445,955	\$ 401,360	\$ 44,596	STP/TAP; Total Cost = \$4,044,990 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$3,745,361 (as of 4/9/14); Cost est. reduced from \$6,331,111 as of 4/12/12; Construction; TEC 61 of 100; 25% Design; Cost includes utilities; AQ analysis shows positive impact
						HSIP Subtotal ►	\$ 445,955	\$ 401,360	\$ 44,596	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	605651	Montachusett	Leominster	LEOMINSTER-RECONSTRUCTION ON ROUTE 13, FROM HAWES STREET TO PROSPECT STREET	3	CMAQ	\$ 1,393,611	\$ 1,114,889	\$ 278,722	STP/TAP; Total Cost = \$4,044,990 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$3,745,361 (as of 4/9/14); Cost est. reduced from \$6,331,111 as of 4/12/12; Construction; TEC 61 of 100; 25% Design; Cost includes utilities; AQ analysis shows positive impact
						CMAQ Subtotal ►	\$ 1,393,611	\$ 1,114,889	\$ 278,722	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	604960	Montachusett	Clinton	CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD (1.2 MILES)	3	TAP	\$ 127,980	\$ 102,384	\$ 25,596	STP/TAP; Non Adjusted Total Cost = \$5,551,000 as of 4/9/14; Construction; TEC 43 of 100; 75% Design returned on 10/11/13; CMAQ eligible; AC Yr 2 of 2
						TAP Subtotal ►	\$ 127,980	\$ 102,384	\$ 25,596	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	605651	Montachusett	Leominster	LEOMINSTER-RECONSTRUCTION ON ROUTE 13, FROM HAWES STREET TO PROSPECT STREET	3	STP	\$ 2,055,609	\$ 1,644,487	\$ 411,122	STP/TAP; Total Cost = \$4,044,990 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$3,745,361 (as of 4/9/14); Cost est. reduced from \$6,331,111 as of 4/12/12; Construction; TEC 61 of 100; 25% Design; Cost includes utilities; AQ analysis shows positive impact
	604960	Montachusett	Clinton	CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD (1.2 MILES)	3	STP	\$ 2,092,295	\$ 1,673,836	\$ 418,459	STP/TAP; Non Adjusted Total Cost = \$5,551,000 as of 4/9/14; Construction; TEC 43 of 100; 75% Design returned on 10/11/13; CMAQ eligible; AC Yr 2 of 2
	606403	Montachusett	Fitchburg	FITCHBURG-RECONSTRUCTION OF RINDGE ROAD, FROM ROUTE 31 (ASHBY STATE ROAD) TO ASHBY T.L.	3	STP	\$ 1,248,000	\$ 998,400	\$ 249,600	Total Cost = \$1,248,000 Adjusted for YOY by 4%; Non Adjusted Total Cost = \$1,200,000 (as of 4/9/14); Construction; TEC 26 of 100; Prelim Design.
						Non-CMAQ/HSIP/TAP (Other) Subtotal ►	\$ 5,395,904	\$ 4,316,723	\$ 1,079,181	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
						Total Federal Aid Target Funds Programmed ►	\$ 7,363,450	\$ 7,785,266	◄ Total Target	\$ 421,816 Target Funds Available
						Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 5,395,904	\$ 5,817,721	◄ Max. Non-CMAQ/HSIP/TAP	\$ 421,817 Non-CMAQ/HSIP/TAP (Other) Available
						Total HSIP Programmed ►	\$ 445,955	\$ 445,955	◄ Min. HSIP	\$ - HSIP Minimum Met
						Total CMAQ Programmed ►	\$ 1,393,611	\$ 1,393,611	◄ Min. CMAQ	\$ - CMAQ Minimum Met
						Total TAP Programmed ►	\$ 127,980	\$ 127,980	◄ Min. TAP	\$ - TAP Minimum Met
						Remaining HSIP, CMAQ, and TAP Funds	\$ -			

2016 MONTACHUSETT MPO Transportation Improvement Program

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Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1B / Federal Aid Bridge Projects										
► Statewide Bridge Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				On System Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Off-System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Off-System Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Inspection Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Other Federal Aid Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
	607960	Montachusett	Ashburnham	ASHBURNHAM- ROUTE 101 AT WILLIAMS AND COREY HILL ROAD, INTERSECTION IMPROVEMENTS	3	HSIPR	\$ 624,000	\$ 561,600	\$ 62,400	Total Cost = \$1,248,000 Adjusted for YOY by 4%; Non Adjusted Est Cost = \$1,200,000 (as of 5/9/14); Design funded through Regional HSIP in FFY 2014; Construction to be funded under Statewide HSIP #607493 as a High Risk Rural Road Program project; AC Yr 1 of 2; Yr 2 FFY 2017 Cost = \$624,000;
				Statewide HSIP Program Subtotal ►			\$ 624,000	\$ 561,600	\$ 62,400	◄ 90% Federal + 10% Non-Federal
► Statewide Safe Routes to Schools Program										
	607242	Montachusett	Fitchburg	FITCHBURG - SOUTH STREET ELEMENTARY - SAFE ROUTES TO SCHOOL Recommended improvements: Installation of sidewalks, wheelchair ramps, crosswalk striping and warning signs.	3	SRTS	\$ 884,000	\$ 884,000	\$ -	100% Federal
				Statewide Safe Routes to Schools Program Subtotal ►			\$ 884,000	\$ 884,000	\$ -	◄ Funding Split Varies by Funding Source

2016 MONTACHUSETT MPO Transportation Improvement Program

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Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide CMAQ										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide CMAQ ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	-	-	
						Statewide Transportation Enhancements Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ITS										
				No Projects Programmed			\$ -	-	-	
						Statewide ITS Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	-	-	
						Statewide Interstate Maintenance Program Subtotal ►	\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide NHS Preservation Program+										
				No Projects Programmed			\$ -	-	-	
						Statewide NHS Preservation Program Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide RR Grade Crossings										
				No Projects Programmed			\$ -	-	-	
						Statewide RR Grade Crossings Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	-	-	
						Statewide Stormwater Retrofits Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ADA Implementation Plan										
				No Projects Programmed			\$ -	-	-	
						Statewide ADA Implementation Plan Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	-	-	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	-	-	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	-	-	
				Planning			\$ -	-	-	
				Statewide Design and Right of Way			\$ -	-	-	
				Statewide Recreational Trails			\$ -	-	-	
						Other Statewide Items Subtotal ►	\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

2016 MONTACHUSETT MPO Transportation Improvement Program

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Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -		\$ -	
						Non-Federal Aid Subtotal►	\$ -		\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -		\$ -	
						Section 2B / Non-Federal Bridge Projects Subtotal►	\$ -		\$ -	◄100% Non-Federal

2016 MONTACHUSETT MPO TIP Summary

TIP Section 1: ▼ TIP Section 2: ▼ Total of All Projects ▼

						Total ►	\$ 8,871,450	\$ -	\$ 8,871,450	◄ Total Spending in Region
						Federal Funds ►	\$ 7,380,956		\$ 7,380,956	◄ Total Federal Spending in Region
						Non-Federal Funds ►	\$ 1,490,495	\$ -	\$ 1,490,495	◄ Total Non-Federal Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

2017 MONTACHUSETT MPO Transportation Improvement Program

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xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	606124	Montachusett	Multiple	FITCHBURG- LUNENBURG-LEOMINSTER-RECONSTRUCTION OF SUMMER STREET AND NORTH STREET	3	HSIP	\$ 445,955	\$ 401,360	\$ 44,596	STP/CMAQ/HSIP/TAP; Total Cost = \$7,499,907 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$6,944,358 as of 4/9/14; 25% received (1/21/14); TEC 50 of 100;
						HSIP Subtotal ►	\$ 445,955	\$ 401,360	\$ 44,596	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	606124	Montachusett	Multiple	FITCHBURG- LUNENBURG-LEOMINSTER-RECONSTRUCTION OF SUMMER STREET AND NORTH STREET	3	CMAQ	\$ 1,393,611	\$ 1,114,889	\$ 278,722	STP/CMAQ/HSIP/TAP; Total Cost = \$7,499,907 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$6,944,358 as of 4/9/14; 25% received (1/21/14); TEC 50 of 100;
						CMAQ Subtotal ►	\$ 1,393,611	\$ 1,114,889	\$ 278,722	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	606124	Montachusett	Multiple	FITCHBURG- LUNENBURG-LEOMINSTER-RECONSTRUCTION OF SUMMER STREET AND NORTH STREET	3	TAP	\$ 83,156	\$ 66,525	\$ 16,631	STP/CMAQ/HSIP/TAP; Total Cost = \$7,499,907 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$6,944,358 as of 4/9/14; 25% received (1/21/14); TEC 50 of 100;
						TAP Subtotal ►	\$ 83,156	\$ 66,525	\$ 16,631	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	606124	Montachusett	Multiple	FITCHBURG- LUNENBURG-LEOMINSTER-RECONSTRUCTION OF SUMMER STREET AND NORTH STREET	3	STP	\$ 5,577,185	\$ 4,461,748	\$ 1,115,437	STP/CMAQ/HSIP/TAP; Total Cost = \$7,499,907 Adjusted for YOY by 8%; Non Adjusted Total Cost = \$6,944,358 as of 4/9/14; 25% received (1/21/14); TEC 50 of 100;
						Non-CMAQ/HSIP/TAP (Other) Subtotal ►	\$ 5,577,185	\$ 4,461,748	\$ 1,115,437	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
						Total Federal Aid Target Funds Programmed ►	\$ 7,499,907	\$ 7,785,266	◄ Total Target	\$ 285,359 Target Funds Available
						Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 5,577,185	\$ 5,862,545	◄ Max. Non-CMAQ/HSIP/TAP	\$ 285,360 Non-CMAQ/HSIP/TAP (Other) Available
						Total HSIP Programmed ►	\$ 445,955	\$ 445,955	◄ Min. HSIP	\$ - HSIP Minimum Met
						Total CMAQ Programmed ►	\$ 1,393,611	\$ 1,393,611	◄ Min. CMAQ	\$ - CMAQ Minimum Met
						Total TAP Programmed ►	\$ 83,156	\$ 83,156	◄ Min. TAP	\$ - TAP Minimum Met
						Remaining HSIP, CMAQ, and TAP Funds \$	-			

2017 MONTACHUSETT MPO Transportation Improvement Program

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xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1B / Federal Aid Bridge Projects										
► Statewide Bridge Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
	605094	Montachusett	Fitchburg	FITCHBURG - BRIDGE BETTERMENT, F-04-003, STATE ROUTE 31 OVER PHILLIPS BROOK	3	NHPP	\$ 5,439,420	\$ 4,351,536	\$ 1,087,884	Cost Est as of 4/30/14; Total Cost = \$5,439,420 Adjusted for YOY by 8%;
				On System Subtotal ►			\$ 5,439,420	\$ 4,351,536	\$ 1,087,884	◄ 80% Federal + 20% Non-Federal
► Off-System										
	607127	Montachusett	Hubbardston	HUBBARDSTON - BRIDGE REPLACEMENT, H-24-009, EVERGREEN ROAD OVER MASON BROOK	3	STP-BR-OFF	\$ 1,726,760	\$ 1,381,408	\$ 345,352	Cost Est as of 4/30/14; Total Cost = \$1,726,760 Adjusted for YOY by 8%; Bridge Off System
	607529	Montachusett	Winchendon	WINCHENDON - BRIDGE REPAIR, W-39-015, NORTH ROYALSTON ROAD OVER WEST BRANCH OF MILLERS RIVER	2	STP-BR-OFF	\$ 2,624,440	\$ 2,099,552	\$ 524,888	Cost Est as of 4/23/13; Total Cost = \$2,624,440 Adjusted for YOY by 8%; Bridge Off System
				Off-System Subtotal ►			\$ 4,351,200	\$ 3,480,960	\$ 870,240	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Inspection Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Other Federal Aid Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
	607960	Montachusett	Ashburnham	ASHBURNHAM- ROUTE 101 AT WILLIAMS AND COREY HILL ROAD, INTERSECTION IMPROVEMENTS	3	HSIPR	\$ 624,000	\$ 561,600	\$ 62,400	Total Cost = \$1,248,000 Adjusted for YOY by 4%; Non Adjusted Est Cost = \$1,200,000 (as of 5/9/14); Design funded through Regional HSIP in FFY 2014; Construction to be funded under Statewide HSIP #607493 as a High Risk Rural Road Program project; AC Yr 2 of 2; Yr 1 FFY 2016 Cost = \$624,000;
				Statewide HSIP Program Subtotal ►			\$ 624,000	\$ 561,600	\$ 62,400	◄ 90% Federal + 10% Non-Federal

2017 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	Funding Split Varies by Funding Source
				Statewide Safe Routes to Schools Program Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Statewide CMAQ										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide CMAQ ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Transportation Enhancements Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ITS										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ITS Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
	606575	Montachusett	Multiple	STERLING - LEOMINSTER - LANCASTER - INTERSTATE MAINTENANCE & RELATED WORK ON I-190	3	NHPP	\$ 17,097,350	15,387,615.0	1,709,735.0	Cost Est as of 4/30/14; Total Cost = \$17,097,350 Adjusted for YOY by 8%;
				Statewide Interstate Maintenance Program Subtotal ►			\$ 17,097,350	\$ 15,387,615	\$ 1,709,735	◄ 90% Federal + 10% Non-Federal
► Statewide NHS Preservation Program+										
	607475	Montachusett	Winchendon	WINCHENDON - RESURFACING & RELATED WORK ON ROUTE 12, FROM MILL STREET/BEGINNING OF STATE HIGHWAY TO NEW HAMPSHIRE STATE LINE (2.5 MILES)	2	NHPP	\$ 1,951,425	1,561,140.0	390,285.0	Cost Est as of 4/30/14; Total Cost = \$1,951,425 Adjusted for YOY by 8%;
				Statewide NHS Preservation Program Subtotal ►			\$ 1,951,425	\$ 1,561,140	\$ 390,285	◄ 80% Federal + 20% Non-Federal
► Statewide RR Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide RR Grade Crossings Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Stormwater Retrofits Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ADA Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide ADA Implementation Plan Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
				Other Statewide Items Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

2017 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -		\$ -	
						Non-Federal Aid Subtotal►	\$ -		\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -		\$ -	
						Section 2B / Non-Federal Bridge Projects Subtotal►	\$ -		\$ -	◄100% Non-Federal

2017 MONTACHUSETT MPO TIP Summary

TIP Section 1: ▼ TIP Section 2: ▼ Total of All Projects ▼

						Total ►	\$ 36,963,302	\$ -	\$ 36,963,302	◄ Total Spending in Region
						Federal Funds ►	\$ 31,387,372		\$ 31,387,372	◄ Total Federal Spending in Region
						Non-Federal Funds ►	\$ 5,575,930	\$ -	\$ 5,575,930	◄ Total Non-Federal Spending in Region
701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: http://www.massdot.state.ma.us/Highway/flaggers/main.aspx										

2018 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1A / Federal Aid Target Projects										
► HSIP - Highway Safety Improvement Program										
	604699	Montachusett	Sterling	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	3	HSIP	\$ 445,955	\$ 401,360	\$ 44,596	STP/HSIP/TAP/CMAQ; Total Cost = \$4,240,320 Adjusted for YOY by 12%; Non Adjusted Total Cost = \$3,786,000; Construction (as of 5/8/14); TEC 39 of 100; Preliminary Design at MassDOT Boston: Possible Municipality Design; possible HSIP; CMAQ Eligible;
HSIP Subtotal ►							\$ 445,955	\$ 401,360	\$ 44,596	◄ 90% Federal + 10% Non-Federal
► CMAQ - Congestion Mitigation and Air Quality Improvement Program										
	604699	Montachusett	Sterling	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	3	CMAQ	\$ 1,393,611	\$ 1,114,889	\$ 278,722	STP/HSIP/TAP/CMAQ; Total Cost = \$6,865,600 Adjusted for YOY by 12%; Non Adjusted Total Cost = \$6,130,000; Construction (as of 4/14/14); TEC 39 of 100; Preliminary Design at MassDOT Boston: Possible Municipality Design; possible HSIP; CMAQ Eligible;
CMAQ Subtotal ►							\$ 1,393,611	\$ 1,114,889	\$ 278,722	◄ 80% Federal + 20% Non-Federal
► TAP - Transportation Alternatives Program										
	604699	Montachusett	Sterling	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	3	TAP	\$ 83,156	\$ 66,525	\$ 16,631	STP/HSIP/TAP/CMAQ; Total Cost = \$6,865,600 Adjusted for YOY by 12%; Non Adjusted Total Cost = \$6,130,000; Construction (as of 4/14/14); TEC 39 of 100; Preliminary Design at MassDOT Boston: Possible Municipality Design; possible HSIP; CMAQ Eligible;
TAP Subtotal ►							\$ 83,156	\$ 66,525	\$ 16,631	◄ 80% Federal + 20% Non-Federal
► Non-CMAQ/HSIP/TAP (Other)										
	604699	Montachusett	Sterling	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	3	STP	\$ 2,317,598	\$ 1,854,078	\$ 463,520	STP/HSIP/TAP/CMAQ; Total Cost = \$6,865,600 Adjusted for YOY by 12%; Non Adjusted Total Cost = \$6,130,000; Construction (as of 4/14/14); TEC 39 of 100; Preliminary Design at MassDOT Boston: Possible Municipality Design; possible HSIP; CMAQ Eligible;
	607446	Montachusett	Westminster	WESTMINSTER- INTERSECTION IMPROVEMENTS, ROUTE 2A AT ROUTE 140	3	STP	\$ 2,284,800	\$ 1,827,840	\$ 456,960	Total Cost = \$2,284,800 Adjusted for YOY by 12%; Non Adjusted Total Cost = \$2,040,000 (as of 1/6/14); Prelim Design; Est Const - Summer 2019; Consultant Design; TEC 43 of 100;
	607252	Montachusett	Gardner	GARDNER - RESURFACING & RELATED WORK ON MATTHEW STREET	3	STP	\$ 1,120,000	\$ 896,000	\$ 224,000	75% design on 9/4/13; city to design; could be book job; Total Cost = \$1,120,000 Adjusted by YOY by 12%; Non Adjusted Total Est Cost = \$1,000,000 as of 4/9/14; TEC 11 of 100;
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 5,722,398	\$ 4,577,918	\$ 1,144,480	◄ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis										
Total Federal Aid Target Funds Programmed ►							\$ 7,645,120	\$ 7,785,266	◄ Total Target	\$ 140,146 Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►							\$ 5,722,398	\$ 5,862,545	◄ Max. Non-CMAQ/HSIP/TAP	\$ 140,147 Non-CMAQ/HSIP/TAP (Other) /
Total HSIP Programmed ►							\$ 445,955	\$ 445,955	◄ Min. HSIP	\$ - HSIP Minimum Met
Total CMAQ Programmed ►							\$ 1,393,611	\$ 1,393,611	◄ Min. CMAQ	\$ - CMAQ Minimum Met
Total TAP Programmed ►							\$ 83,156	\$ 83,156	◄ Min. TAP	\$ - TAP Minimum Met
Remaining HSIP, CMAQ, and TAP Funds \$							\$ -			

2018 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1B / Federal Aid Bridge Projects										
► Statewide Bridge Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Maintenance Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				On System Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Off-System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Off-System Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Bridge Inspection Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Section 1C / Federal Aid Non-Target Projects										
► Other Federal Aid										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Other Federal Aid Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide Infrastructure Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide Infrastructure Program Subtotal ►			\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				Statewide HSIP Program Subtotal ►			\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide Safe Routes to Schools Program										
				No Projects Programmed			\$ -	\$ -	\$ -	Funding Split Varies by Funding Source
				Statewide Safe Routes to Schools Program Subtotal ►			\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

2018 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 1D / Federal Aid Major & State Category Projects										
► Statewide CMAQ										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide CMAQ ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide Transportation Enhancements Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ITS										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide ITS Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide Interstate Maintenance Program Subtotal ►	\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal
► Statewide NHS Preservation Program+										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide NHS Preservation Program Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide RR Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide RR Grade Crossings Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Stormwater Retrofits										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide Stormwater Retrofits Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide ADA Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
						Statewide ADA Implementation Plan Subtotal ►	\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Other Statewide Items										
				ABP GANS Repayment			\$ -	\$ -	\$ -	
				Award Adjustments, Change Orders, Project Value Changes, Etc.			\$ -	\$ -	\$ -	
				DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs			\$ -	\$ -	\$ -	
				Planning			\$ -	\$ -	\$ -	
				Statewide Design and Right of Way			\$ -	\$ -	\$ -	
				Statewide Recreational Trails			\$ -	\$ -	\$ -	
						Other Statewide Items Subtotal ►	\$ -	\$ -	\$ -	◄ Funding Split Varies by Funding Source

2018 MONTACHUSETT MPO Transportation Improvement Program

5/19/2014 Draft Released
xx/xx/xxxx Endorsed

Amendment/Adjustment Type ▼	MassDOT Project ID ▼	MPO ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
► Section 2A / Non-Federal Projects										
► Non Federal Aid										
				No Projects Programmed		NFA	\$ -		\$ -	
						Non-Federal Aid Subtotal►	\$ -		\$ -	◄100% Non-Federal
► Section 2B / Non-Federal Bridge Projects										
► Section 2B / Non-Federal Bridge Projects										
				No Projects Programmed		NFA	\$ -		\$ -	
						Section 2B / Non-Federal Bridge Projects Subtotal►	\$ -		\$ -	◄100% Non-Federal

2018 MONTACHUSETT MPO TIP Summary

TIP Section 1: ▼ TIP Section 2: ▼ Total of All Projects ▼

						Total ►	\$ 7,645,120	\$ -	\$ 7,645,120	◄ Total Spending in Region
						Federal Funds ►	\$ 6,160,692		\$ 6,160,692	◄ Total Federal Spending in Region
						Non-Federal Funds ►	\$ 1,484,429	\$ -	\$ 1,484,429	◄ Total Non-Federal Spending in Region
701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: http://www.massdot.state.ma.us/Highway/flaggers/main.aspx										

Transportation Improvement Program (TIP)
Project List (FY2015)

FTA Program	Transit Agency	FTA Activity Line Item	Project Description	Carryover or Earmark Detail	Federal Funds	RTACAP	MAP	ITCCAP	TDC	SCA	Local Funds	Total Cost
5307												
	5307 Montachusett Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE		\$800,000	\$0	\$0	\$0	\$0	\$200,000	\$0	\$1,000,000
	5307 Montachusett Regional Transit Authority	111203	BUY REPLACEMENT 30-FT BUS (2)		\$600,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$750,000
	5307 Montachusett Regional Transit Authority	300901	UP TO 50% FEDERAL SHARE		\$1,617,200	\$0	\$0	\$0	\$0	\$1,617,200	\$0	\$3,234,400
				Subtotal	\$3,017,200	\$150,000	\$0	\$0	\$0	\$1,817,200	\$0	\$4,984,400
5309												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5310												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5311												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5337												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5339												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal												
Other Non-Federal	Montachusett Regional Transit Authority	114402	REHAB/RENOVATE - MAINTENANCE FACILITY		\$0	\$51,000	\$0	\$0	\$0	\$0	\$0	\$51,000
Other Non-Federal	Montachusett Regional Transit Authority	114403	REHAB/RENOVATE - ADMIN/MAINT FACILITY		\$0	\$42,647	\$0	\$0	\$0	\$0	\$0	\$42,647
Other Non-Federal	Montachusett Regional Transit Authority	111215	Purchase - Replacement: Vans (8)		\$0	\$88,000	\$0	\$0	\$0	\$0	\$0	\$88,000
Other Non-Federal	Montachusett Regional Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT		\$0	\$60,000	\$0	\$0	\$0	\$0	\$0	\$60,000
Other Non-Federal	Montachusett Regional Transit Authority	119206	PURCHASE BICYCLE ACCESS, FACIL & EQUIP ON BUSES		\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$10,000
				Subtotal	\$0	\$251,647	\$0	\$0	\$0	\$0	\$0	\$251,647
				Total	\$3,017,200	\$401,647	\$0	\$0	\$0	\$1,817,200	\$0	\$5,236,047

Transportation Improvement Program (TIP)
Project List (FY2016)

FTA Program	Transit Agency	FTA Activity Line Item	Project Description	Carryover or Earmark Detail	Federal Funds	RTACAP	MAP	ITCCAP	TDC	SCA	Local Funds	Total Cost
5307												
	5307 Montachusett Regional Transit Authority	113404	REHAB/RENOVATE - BUS PARK & RIDE LOT		\$200,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$250,000
	5307 Montachusett Regional Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT		\$120,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$150,000
	5307 Montachusett Regional Transit Authority	300901	UP TO 50% FEDERAL SHARE		\$1,455,500	\$0	\$0	\$0	\$0	\$1,455,500	\$0	\$2,911,000
			REHAB/RENOVATE BUS SUPPORT									
	5307 Montachusett Regional Transit Authority	114400	FACIL/EQUIP		\$80,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$100,000
			REHAB/RENOVATE - ADMIN/MAINT									
	5307 Montachusett Regional Transit Authority	114403	FACILITY		\$108,000	\$27,000	\$0	\$0	\$0	\$0	\$0	\$135,000
	5307 Montachusett Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE		\$800,000	\$0	\$0	\$0	\$0	\$200,000	\$0	\$1,000,000
	5307 Montachusett Regional Transit Authority	111204	BUY REPLACEMENT <30 FT BUS (2)		\$160,000	\$40,000	\$0	\$0	\$0	\$0	\$0	\$200,000
Subtotal					\$2,923,500	\$167,000	\$0	\$0	\$0	\$1,655,500	\$0	\$4,746,000
5309												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5310												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5311												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5337												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5339												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total					\$2,923,500	\$167,000	\$0	\$0	\$0	\$1,655,500	\$0	\$4,746,000

Transportation Improvement Program (TIP)
Project List (FY2017)

FTA Program	Transit Agency	FTA Activity Line Item	Project Description	Carryover or Earmark Detail	Federal Funds	RTACAP	MAP	ITCCAP	TDC	SCA	Local Funds	Total Cost
5307												
	5307 Montachusett Regional Transit Authority	300901	UP TO 50% FEDERAL SHARE		\$1,310,000	\$0	\$0	\$0	\$0	\$1,310,000	\$0	\$2,620,000
	5307 Montachusett Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE		\$800,000	\$0	\$0	\$0	\$0	\$200,000	\$0	\$1,000,000
	5307 Montachusett Regional Transit Authority	129405	REHAB/RENOV PED ACCESS / WALKWAYS		\$220,000	\$55,000	\$0	\$0	\$0	\$0	\$0	\$275,000
			REHAB/RENOVATE - ADMIN/MAINT									
	5307 Montachusett Regional Transit Authority	114403	FACILITY		\$96,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$120,000
	5307 Montachusett Regional Transit Authority	111215	BUY REPLACEMENT VAN (8)		\$400,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$500,000
	5307 Montachusett Regional Transit Authority	113220	ACQUIRE - MISC BUS STATION EQUIP		\$60,000	\$15,000	\$0	\$0	\$0	\$0	\$0	\$75,000
	5307 Montachusett Regional Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT		\$56,000	\$14,000	\$0	\$0	\$0	\$0	\$0	\$70,000
Subtotal					\$2,942,000	\$208,000	\$0	\$0	\$0	\$1,510,000	\$0	\$4,660,000
5309												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5310												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5311												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5337												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5339												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal												
Subtotal					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total					\$2,942,000	\$208,000	\$0	\$0	\$0	\$1,510,000	\$0	\$4,660,000

Transportation Improvement Program (TIP)
Project List (FY2018)

FTA Program	Transit Agency	FTA Activity Line Item	Project Description	Carryover or Earmark Detail	Federal Funds	RTACAP	MAP	ITCCAP	TDC	SCA	Local Funds	Total Cost
5307												
	5307 Montachusett Regional Transit Authority	300901	UP TO 50% FEDERAL SHARE REHAB/RENOVATE - ADMIN/MAINT		\$1,200,000	\$0	\$0	\$0	\$0	\$1,200,000	\$0	\$2,400,000
	5307 Montachusett Regional Transit Authority	114403	FACILITY		\$280,000	\$70,000	\$0	\$0	\$0	\$0	\$0	\$350,000
	5307 Montachusett Regional Transit Authority	119202	PURCHASE BUS SHELTERS		\$160,000	\$40,000	\$0	\$0	\$0	\$0	\$0	\$200,000
	5307 Montachusett Regional Transit Authority	113209	ACQUIRE - BUS ROUTE SIGNING		\$300,000	\$75,000	\$0	\$0	\$0	\$0	\$0	\$375,000
	5307 Montachusett Regional Transit Authority	111215	Purchase - Replacement Vans (8)		\$400,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$500,000
	5307 Montachusett Regional Transit Authority	117A00	PREVENTIVE MAINTENANCE		\$800,000	\$0	\$0	\$0	\$0	\$200,000	\$0	\$1,000,000
	5307 Montachusett Regional Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT		\$80,000	\$20,000	\$0	\$0	\$0	\$0	\$0	\$100,000
				Subtotal	\$3,220,000	\$305,000	\$0	\$0	\$0	\$1,400,000	\$0	\$4,925,000
5309												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5310												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5311												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5337												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5339												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Federal												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Non-Federal												
				Subtotal	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
				Total	\$3,220,000	\$305,000	\$0	\$0	\$0	\$1,400,000	\$0	\$4,925,000

FFY 2015 - 2018 MONTACHUSETT TIP PROJECT LIST						
ADVANCED CONSTRUCTION CONVERSION CHART						
Lancaster - Bridge Replacement, L-02-018, Jackson Road over Route 2						
TOTAL COST (NOT FEDERAL FUNDS)						
File #	FUNDING CATEGORY	FFY 14	FFY 15	FFY 16	FFY 17	TOTAL
607114	Bridge - Off	\$4,144,608	\$3,432,000			\$7,576,608
FISCAL YEAR FEDERAL AID TOTALS:		\$4,144,608	\$3,432,000			\$7,576,608
NON - FEDERAL AID (TO BE CONVERTED TO FED. AID BY A/C CONVERSIONS AS SHOWN ABOVE)		\$7,576,608				\$7,576,608
CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD						
TOTAL COST (NOT FEDERAL FUNDS)						
File #	FUNDING CATEGORY	FFY 15	FFY 16	FFY 17	FFY 18	TOTAL
604960	STP/TAP	\$3,330,725	\$2,220,275			\$5,551,000
FISCAL YEAR FEDERAL AID TOTALS:		\$3,330,725	\$2,220,275			\$5,551,000
NON - FEDERAL AID (TO BE CONVERTED TO FED. AID BY A/C CONVERSIONS AS SHOWN ABOVE)		\$5,551,000				\$5,551,000
ASHBURNHAM- ROUTE 101 AT WILLIAMS AND COREY HILL ROAD, INTERSECTION IMPROVEMENTS						
TOTAL COST (NOT FEDERAL FUNDS)						
File #	FUNDING CATEGORY	FFY 15	FFY 16	FFY 17	FFY 18	TOTAL
607960	HSIPR (Statewide)		\$624,000	\$624,000		\$1,248,000
FISCAL YEAR FEDERAL AID TOTALS:			\$624,000	\$624,000		\$1,248,000
NON - FEDERAL AID (TO BE CONVERTED TO FED. AID BY A/C CONVERSIONS AS SHOWN ABOVE)			\$1,248,000			\$1,248,000

MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION
FFY 2015-2018 TRANSPORTATION IMPROVEMENT PROGRAM
STATEWIDE HIGHWAY ELEMENT (FEDERAL FUNDS)

FFY 2015	Funding		Estimated Costs	
Project Description	Category	Total	Federal	State
Statewide Infrastructure Program	STP, NHPP	\$2,500,000	\$2,000,000	\$500,000
Statewide HSIP Program	HSIP	\$18,666,667	\$16,800,000	\$1,866,667
Statewide Safe Routes to School Program	STP, TAP	\$5,824,638	\$4,992,364	\$832,274
Statewide CMAQ	CMAQ	\$8,942,000	\$7,153,600	\$1,788,400
Statewide Transportation Enhancements	STP, TAP	\$8,385,706	\$6,708,565	\$1,677,141
Statewide Recreational Trails	STP, TAP	\$1,000,000	\$800,000	\$200,000
Statewide ITS	CMAQ, STP	\$12,800,000	\$10,240,000	\$2,560,000
Statewide Interstate Maintenance Program	NHPP	\$52,500,000	\$47,250,000	\$5,250,000
Statewide NHS Preservation Program	NHPP	\$24,595,468	\$19,676,374	\$4,919,094
Statewide Railroad Grade Crossing	STP	\$1,000,000	\$800,000	\$200,000
Statewide Stormwater Retrofits		\$7,250,000	\$5,800,000	\$1,450,000
Statewide ADA Implementation Plan		\$0	\$0	\$0
Statewide Bridge Maintenance Program	NHPP	\$10,000,000	\$8,000,000	\$2,000,000
Statewide Bridge Replac/Rehab Program	NHPP, STP Off	\$134,750,000	\$107,800,000	\$26,950,000
Statewide Bridge Inspection		\$6,250,000	\$5,000,000	\$1,250,000
		\$294,464,479	\$243,020,903	\$51,443,576

FFY 2016	Funding		Estimated Costs	
Project Description	Category	Total	Federal	State
Statewide Infrastructure Program	STP, NHPP	\$17,500,000	\$14,000,000	\$3,500,000
Statewide HSIP Program	HSIP	\$25,000,000	\$22,500,000	\$2,500,000
Statewide Safe Routes to School Program	STP, TAP	\$5,779,283	\$4,651,829	\$1,127,454
Statewide CMAQ	CMAQ	\$42,406,138	\$33,924,910	\$8,481,228
Statewide Transportation Enhancements	STP, TAP	\$5,444,942	\$4,355,954	\$1,088,988
Statewide Recreational Trails	STP, TAP	\$1,000,000	\$800,000	\$200,000
Statewide ITS	CMAQ, STP	\$13,100,000	\$10,480,000	\$2,620,000
Statewide Interstate Maintenance Program	NHPP	\$51,100,000	\$45,990,000	\$5,110,000
Statewide NHS Preservation Program	NHPP	\$26,700,000	\$21,360,000	\$5,340,000
Statewide Railroad Grade Crossing	STP	\$1,000,000	\$800,000	\$200,000
Statewide Stormwater Retrofits		\$5,000,000	\$4,000,000	\$1,000,000
Statewide ADA Implementation Plan		\$4,000,000	\$3,200,000	\$800,000
Statewide Bridge Maintenance Program	NHPP	\$10,000,000	\$8,000,000	\$2,000,000
Statewide Bridge Replac/Rehab Program	NHPP, STP Off	\$90,447,468	\$72,357,974	\$18,089,494
Statewide Bridge Inspection		\$6,250,000	\$5,000,000	\$1,250,000
		\$304,727,831	\$251,420,667	\$53,307,164

MONTACHUSETT METROPOLITAN PLANNING ORGANIZATION
FFY 2015-2018 TRANSPORTATION IMPROVEMENT PROGRAM
STATEWIDE HIGHWAY ELEMENT (FEDERAL FUNDS)
(cont.)

FFY 2017	Funding		Estimated Costs	
Project Description	Category	Total	Federal	State
Statewide Infrastructure Program	STP, NHPP	\$7,000,000	\$5,600,000	\$1,400,000
Statewide HSIP Program	HSIP	\$20,000,000	\$18,000,000	\$2,000,000
Statewide Safe Routes to School Program	STP, TAP	\$6,250,000	\$5,000,000	\$1,250,000
Statewide CMAQ	CMAQ	\$35,625,000	\$28,500,000	\$7,125,000
Statewide Recreational Trails	STP, TAP	\$1,000,000	\$800,000	\$200,000
Statewide ITS	CMAQ, STP	\$18,000,000	\$14,400,000	\$3,600,000
Statewide Interstate Maintenance Program	NHPP	\$53,020,000	\$47,718,000	\$5,302,000
Statewide NHS Preservation Program	NHPP	\$24,915,000	\$19,932,000	\$4,983,000
Statewide Railroad Grade Crossing	STP	\$5,000,000	\$4,000,000	\$1,000,000
Statewide Stormwater Retrofits		\$5,000,000	\$4,000,000	\$1,000,000
Statewide ADA Implementation Plan		\$4,000,000	\$3,200,000	\$800,000
Statewide Bridge Maintenance Program	NHPP	\$10,000,000	\$8,000,000	\$2,000,000
Statewide Bridge Replac/Rehab Program	NHPP, STP Off	\$124,172,983	\$99,338,386	\$24,834,597
Statewide Bridge Inspection		\$6,250,000	\$5,000,000	\$1,250,000
		\$320,232,983	\$263,488,386	\$56,744,597

FFY 2018	Funding		Estimated Costs	
Project Description	Category	Total	Federal	State
Statewide Infrastructure Program	STP, NHPP	\$7,000,000	\$5,600,000	\$1,400,000
Statewide HSIP Program	HSIP	\$20,000,000	\$18,000,000	\$2,000,000
Statewide Safe Routes to School Program	STP, TAP	\$6,250,000	\$5,000,000	\$1,250,000
Statewide CMAQ	CMAQ	\$37,500,000	\$30,000,000	\$7,500,000
Statewide Recreational Trails	STP, TAP	\$1,000,000	\$800,000	\$200,000
Statewide ITS	CMAQ, STP	\$14,900,000	\$11,920,000	\$2,980,000
Statewide Interstate Maintenance Program	NHPP	\$58,911,111	\$53,020,000	\$5,891,111
Statewide NHS Preservation Program	NHPP	\$31,250,000	\$25,000,000	\$6,250,000
Statewide Railroad Grade Crossing	STP	\$1,000,000	\$800,000	\$200,000
Statewide Stormwater Retrofits		\$5,000,000	\$4,000,000	\$1,000,000
Statewide ADA Implementation Plan		\$4,000,000	\$3,200,000	\$800,000
Statewide Bridge Maintenance Program	NHPP	\$10,000,000	\$8,000,000	\$2,000,000
Statewide Bridge Replac/Rehab Program	NHPP, STP Off	\$116,829,233	\$93,463,386	\$23,365,847
Statewide Bridge Inspection		\$6,250,000	\$5,000,000	\$1,250,000
		\$319,890,344	\$263,803,386	\$56,086,958

PART C. FEDERAL REQUIREMENTS

Financial Plan for the FFY 2015-2018 Transportation Improvement Program
Montachusett Metropolitan Planning Organization

The financial plan contained herein is financially constrained and indicates that the Montachusett Metropolitan Planning Organization Transportation Improvement Program (TIP) reflects the highway program emphasis on the maintenance and operation of the current roadway and bridge system with the ability to provide for additional capital improvements. Only projects for which funds can be expected have been included.

The following table compares anticipated federal target funds (Federal \$ (M) Target/Availability) to the federal funds for those projects programmed in each Fiscal Year (Federal \$ (M) Programmed). For each fiscal year programmed funds do not exceed anticipated target funds.

Federal Agency	Funding Category	2015		2016	
		Federal \$ (M) Target/Availability	Federal \$ (M) Programmed	Federal \$ (M) Target/Availability	Federal \$ (M) Programmed
FHWA	HSIP	0.446	0.446	0.401	0.401
	CMAQ	1.338	1.338	1.115	1.115
	TAP	0.060	0.060	0.102	0.102
	Non-CMAQ/HSIP/TAP	3.870	3.870	4.317	4.654
	Bridge Maintenance (Statewide)	0.000	0.000	0.000	0.000
	Bridge On System	0.000	0.000	0.000	0.000
	Bridge Off System	5.369	5.369	0.000	0.000
	Bridge Inspection (Statewide)	0.000	0.000	0.000	0.000
	Other Federal Aid	0.000	0.000	0.000	0.000
	Infrastructure (Statewide)	0.000	0.000	0.000	0.000
	HSIP (Statewide)	0.000	0.000	0.562	0.562
	SRTS (Statewide)	0.000	0.000	0.884	0.884
	CMAQ (Statewide)	0.000	0.000	0.000	0.000
	TE (Statewide)	0.000	0.000	0.000	0.000
	ITS (Statewide)	0.000	0.000	0.000	0.000
	IM (Statewide)	0.000	0.000	0.000	0.000
	NHSPP (Statewide)	0.000	0.000	0.000	0.000
	RR Grade Crossing (Statewide)	0.000	0.000	0.000	0.000
	Stormwater Retrofit (Statewide)	0.000	0.000	0.000	0.000
	ADA Implementation (Statewide)	0.000	0.000	0.000	0.000
	Other (Statewide)	0.000	0.000	0.000	0.000
		11.083	11.083	7.381	7.718
FTA	5307 Operating/Capital	3.017	3.017	2.924	2.924
	5309 Operating/Capital	0.000	0.000	0.000	0.000
	5310 Capital	0.000	0.000	0.000	0.000
	5311 Operating	0.000	0.000	0.000	0.000
	5337 Capital	0.000	0.000	0.000	0.000
	5339 Capital	0.000	0.000	0.000	0.000
	Other Federal	0.000	0.000	0.000	0.000
	Other Non-Federal	3.017	3.017	0.000	0.000
		6.034	6.034	2.924	2.924

Financial Plan for the FFY 2015-2018 Transportation Improvement Program
Montachusett Metropolitan Planning Organization (cont.)

Federal Agency	Funding Category	2017		2018	
		Federal \$ (M) Target/Availability	Federal \$ (M) Programmed	Federal \$ (M) Target/Availability	Federal \$ (M) Programmed
FHWA	HSIP	0.401	0.401	0.401	5.236
	CMAQ	1.115	1.115	1.115	0.357
	TAP	0.067	0.067	0.067	1.115
	Non-CMAQ/HSIP/TAP	4.462	4.690	4.578	6.228
	Bridge Maintenance (Statewide)	0.000	0.000	0.000	0.000
	Bridge On System	4.352	4.352	0.000	0.000
	Bridge Off System	3.481	3.481	0.000	0.000
	Bridge Inspection (Statewide)	0.000	0.000	0.000	0.000
	Other Federal Aid	0.000	0.000	0.000	0.000
	Infrastructure (Statewide)	0.000	0.000	0.000	0.000
	HSIP (Statewide)	0.562	0.562	0.000	0.000
	SRTS (Statewide)	0.000	0.000	0.000	0.000
	CMAQ (Statewide)	0.000	0.000	0.000	0.000
	TE (Statewide)	0.000	0.000	0.000	0.000
	ITS (Statewide)	0.000	0.000	0.000	0.000
	IM (Statewide)	15.388	15.388	0.000	0.000
	NHSPP (Statewide)	1.561	1.561	0.000	0.000
	RR Grade Crossing (Statewide)	0.000	0.000	0.000	0.000
	Stormwater Retrofit (Statewide)	0.000	0.000	0.000	0.000
	ADA Implementation (Statewide)	0.000	0.000	0.000	0.000
	Other (Statewide)	0.000	0.000	0.000	0.000
		31.387	31.616	6.161	12.936
FTA	5307 Operating/Capital	2.942	2.942	3.220	3.220
	5309 Operating/Capital	0.000	0.000	0.000	0.000
	5310 Capital	0.000	0.000	0.000	0.000
	5311 Operating	0.000	0.000	0.000	0.000
	5337 Capital	0.000	0.000	0.000	0.000
	5339 Capital	0.000	0.000	0.000	0.000
	Other Federal	0.000	0.000	0.000	0.000
	Other Non-Federal	0.000	0.000	0.000	0.000
		2.942	2.942	3.220	3.220

1. Moneys do not include statewide federal aid or Regional "Mega" projects which are programmed but are excluded from the regional targets provided to MRPC.
2. FTA Programmed amounts are Federal dollars only and do not include state or local shares.

Montachusett Regional Transit Authority (MART) Operating and Fiscal Data

This 4 year program for the 2015-2018 timeframe further demonstrates the financial capacity of the Montachusett Regional Transit Authority to meet both current and future operating and capital costs.

MONTACHUSETT RTA STIP INFORMATION

FTA FUNDING PROGRAMS	Estimated Authorized FFY 2015	Regional TIP FFY 2015	Balance FFY2014
Section 5307 Capital	\$1,400,000	\$1,400,000	\$856,000
Section 5307 Operating (under 200,000)	\$1,617,200	\$1,617,200	\$2,134,000
Section 5307 Transit Enhancements			
Subtotals	\$3,017,200	\$3,017,200	\$2,990,000
Section 5307 Carryover			\$668,518
Section 5307 Transit Enhancements Carryover			
Subtotals	\$0	\$0	
Section 5307 TOTALS	\$3,017,200	\$3,017,200	\$3,658,518
Section 5337 Fixed Guideway Mod.Capital			
Section 5309 Fixed Guideway Mod. Carryover			
Section 5339 Bus/Bus Facilities			\$150,000
Section 5339 Bus/Bus Facilities Carryover			\$332,476
Section 5309 Bus Carryover			\$1,341,669
Section 5309 New Starts			
Section 5309 New Starts Carryover			
Section 5337/5309 TOTALS			\$1,824,145
Section 5310 Capital Elderly & Disabled	\$240,000	-	\$772,345
Section 5311 Capital & Oper. for non urban			
Other Totals	\$240,000		\$772,345
FTA Totals	\$3,257,200	\$3,017,200	\$6,255,088
<u>OTHER TRANSIT FUNDING</u>			
Sect 113 FHWA to FTA			
STP FHWA to FTA			

* Competitive grant applications pending approval by FTA.

MONTACHUSETT MPO

Operations and Maintenance Summary Table

For the Montachusett Regional Transit Authority

State Fiscal Year 2014

The numbers below represent actual numbers for the previous year, the current year budget/forecast approved by the RTA Advisory Board, and projections for the out-years as used in the Program Preview meetings with the State. These numbers indicate that there are sufficient revenues projected to meet the operating needs of the area transit authority.

Operating Revenue	Previous	Current	Year Two	Year Three	Year Four
	2013	2014	2015	2016	2017
Farebox	\$2,592,111	\$3,922,253	\$4,224,179	\$4,329,783	\$4,438,028
Section 5307	\$2,134,000	\$2,134,000	\$2,417,200	\$2,255,500	\$2,110,000
Section 5311	\$36,202	-	-	-	-
ARRA/Other Federal	\$261,348	\$203,310	\$60,340	-	-
Fully Funded *	\$92,516,783	\$100,186,848	\$106,340,288	\$111,657,302	\$117,240,167
Job Access/Reverse Commute	\$152,500	-	-	-	-
Advertising	\$13,486	\$21,210	\$12,100	\$25,000	\$30,000
Interest Income	\$4,182	\$10,685	\$11,220	\$12,000	\$12,500
Rental Income	\$279,978	\$285,740	\$294,312	\$301,670	\$309,212
State Contract Assistance **	\$4,394,935	\$4,679,775	\$5,432,809	\$5,605,055	\$5,733,825
Local Assessment	\$1,789,211	\$1,868,272	\$1,933,799	\$1,982,214	\$2,031,769
Other: Parking, Ticket Agency, Misc. **	\$955,859	\$1,545,609	\$876,281	\$898,188	\$920,643
TOTAL	\$105,130,595	\$114,857,702	\$116,169,719	\$127,066,712	\$132,826.144

Operating Expenses ***	Previous	Current	Yr Two	Yr. Three	Yr Four
	2013	2014	2015	2016	2017
TOTAL (See Description Below)	\$106,764,389	\$115,204,889	\$116,169,719	\$127,066,712	\$132,826.144

Footnotes:

* Fully funded refers to contracted transportation work with Human Service Transportation Agencies (revenue) and Service Providers (expense).

** Operating assistance provided by the State

++ 2014 Other Income includes a one-time State Earmark for CTS Services in Athol.

*** Description of Operating Expenses: Salaries, Wages & Fringe Benefits; Legal; Audit and Professional Consultant Services; Marketing; Insurance; Property Rental; Non-capital Maintenance/Repair/Small Equipment; Fuel; Tires; Office Supplies; Interest; Utilities; Management Fees; Travel/Training/Meetings; Ticket Agency & miscellaneous items.

Major Expansion or Other Capital Projects

MART is involved in one major and other minor capital building projects:

- 1) Fitchburg commuter rail line extension to a new Wachusett Station with Parking & Layover facility
- 2) Solar production installation at its Gardner Maintenance Facility
- 3) Infrastructure improvements to the facilities at 1427R Water Street and 100 Main Street in Fitchburg

Summary of Funding Categories

Funding Category	FFY 2015	FFY 2016	FFY 2017	FFY 2018	Total FFY 2015-2018
HSIP	\$4,837,896	\$445,955	\$445,955	\$445,955	\$6,175,761
CMAQ	\$74,990	\$1,393,611	\$1,393,611	\$1,393,611	\$4,255,823
TAP	\$495,506	\$127,980	\$83,156	\$83,156	\$789,798
Non-CMAQ/HSIP/TAP	\$1,672,333	\$5,395,904	\$5,577,185	\$5,722,398	\$18,367,820
Bridge Maintenance	\$0	\$0	\$0	\$0	\$0
Bridge On System	\$0	\$0	\$5,439,420	\$0	\$5,439,420
Bridge Off System	\$6,711,640	\$0	\$4,351,200	\$0	\$11,062,840
Bridge Inspection (Statewide)	\$0	\$0	\$0	\$0	\$0
Other Federal Aid	\$1,000,000	\$0	\$0	\$0	\$1,000,000
Infrastructure (Statewide)	\$0	\$0	\$0	\$0	\$0
HSIP (Statewide)	\$0	\$624,000	\$624,000	\$0	\$1,248,000
SRTS (Statewide)	\$0	\$884,000	\$0	\$0	\$884,000
CMAQ (Statewide)	\$0	\$0	\$0	\$0	\$0
TE (Statewide)	\$0	\$0	\$0	\$0	\$0
ITS (Statewide)	\$0	\$0	\$0	\$0	\$0
IM (Statewide)	\$0	\$0	\$17,097,350	\$0	\$17,097,350
NHSP (Statewide)	\$0	\$0	\$1,951,425	\$0	\$1,951,425
RR Grade Crossing	\$0	\$0	\$0	\$0	\$0
Stormwater Retrofit	\$0	\$0	\$0	\$0	\$0
ADA Implementation	\$0	\$0	\$0	\$0	\$0
Other (Statewide)	\$0	\$0	\$0	\$0	\$0
Subtotal FHWA	#####	\$8,871,450	\$36,963,302	\$7,645,120	\$68,272,237
5307 Operating/Capital	\$4,984,400	\$4,746,000	\$4,660,000	\$4,925,000	\$19,315,400
5309 Operating/Capital	\$0	\$0	\$0	\$0	\$0
5310 Capital	\$0	\$0	\$0	\$0	\$0
5311 Operating	\$0	\$0	\$0	\$0	\$0
5337 Capital	\$0	\$0	\$0	\$0	\$0
5339 Capital	\$0	\$0	\$0	\$0	\$0
Other Federal	\$0	\$0	\$0	\$0	\$0
Other Non-Federal	\$251,647	\$0	\$0	\$0	\$251,647
Subtotal FTA	\$5,236,047	\$4,746,000	\$4,660,000	\$4,925,000	\$19,567,047
GRAND TOTAL	#####	\$13,617,450	\$41,623,302	\$12,570,120	\$87,839,284

Operating vs Capital Expenditures

The following table provides a comparison of expenditures between Capital Projects and Operating (or Maintenance) Projects for FFY 2015 to 2018. The figures include state match as well as Non-Federal Aid projects.

For the purposes of this table, operating projects under the Highway section are considered those projects that maintain the operation of existing facilities or infrastructure, i.e. resurfacing/rehabilitation of road surfaces, rehabilitation/replacement of a bridge, intersection geometrics, etc. Capital projects are assumed to be those projects that involve the construction of a new facility to the transportation network. In the case of the Highway Element of this TIP, two projects were considered to be capital expenditures. One project occurs in FFY 2015, project #607347 Gardner North Central Pathway Design and Construction Phase VI and the second one in FFY 2016, project #607242 Fitchburg South Street Elementary Safe Routes to School. On the Transit side, capital projects were assumed to include rehabilitation/renovation projects on existing transit facilities.

Operating vs Capital Expenditures

FFY		Highway (Fed & NFA)	Transit (Fed & NFA)	Total	Percent of Total
2015	Operating	\$13,792,365	\$5,142,400	\$18,934,765	94.54%
	Capital	\$1,000,000	\$93,647	\$1,093,647	5.46%
	<i>Total</i>	<i>\$14,792,365</i>	<i>\$5,236,047</i>	<i>\$20,028,412</i>	
2016	Operating	\$7,987,450	\$4,261,000	\$12,248,450	89.95%
	Capital	\$884,000	\$485,000	\$1,369,000	10.05%
	<i>Total</i>	<i>\$8,871,450</i>	<i>\$4,746,000</i>	<i>\$13,617,450</i>	
2017	Operating	\$36,963,302	\$4,265,000	\$41,228,302	99.05%
	Capital	\$0	\$395,000	\$395,000	0.95%
	<i>Total</i>	<i>\$36,963,302</i>	<i>\$4,660,000</i>	<i>\$41,623,302</i>	
2018	Operating	\$7,645,120	\$4,375,000	\$12,020,120	95.62%
	Capital	\$0	\$550,000	\$550,000	4.38%
	<i>Total</i>	<i>\$7,645,120</i>	<i>\$4,925,000</i>	<i>\$12,570,120</i>	

Massachusetts Department of Transportation - Highway Division
Summary of Operating and Maintenance Expenditures
Montachusett Region - Part 1: Non-Federal Aid

Section I - Non Federal Aid Maintenance Projects - State Bondfunds

Program Group/Sub Group	Estimated SFY 2012 Expenditures	Estimated SFY 2013 Expenditures	Current SFY 2014 Expenditures to Date
01 - Bridge Repair & Replacement			
New Bridge (Excluded)	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$0	\$0	\$0
Drawbridge Maintenance	\$0	\$0	\$0
Structures Maintenance	\$2,060,094	\$693,780	\$40,349
02 - Bridge Painting			
Painting - Structural	\$0	\$0	\$730,869
03 - Roadway Reconstruction			
Hwy Relocation (Excluded)	n/a	n/a	n/a
Hwy Recon. - Added Capacity (Excluded)	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$0	\$1,010,616	\$0
Hwy Reconstr - No Added Capacity	\$0	\$0	\$0
Hwy Reconstr - Minor Widening	\$0	\$0	\$0
Hwy Reconstr - Major Widening	\$0	\$0	\$0
04 - Roadway Resurfacing			
Resurfacing	\$0	\$502,750	\$315,890
05 - Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$0	\$0	\$0
06 - Signs & Lighting			
Lighting and Electrical	\$0	\$0	\$0
Sign Installation / Upgrading	\$0	\$0	\$0
Structural Signing	\$0	\$0	\$0
07 - Guardrail			
Guard Rail and Fencing	\$0	\$0	\$0
08 - Maintenance			
Catch Basin Cleaning	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0
Landscape and Roadside Develop	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0
Process/Recycle/Trnsprt Soils	\$0	\$0	\$0
Contract Hwy Maint.	\$0	\$0	\$0
09 - Facilities			
Chemical Storage Sheds	\$0	\$0	\$0
Vertical Construction	\$67,502	\$15,837	\$0
10 - Bikeways (Excluded)	n/a	n/a	n/a
11 - Other			
Demolition	\$0	\$0	\$0
Drilling & Boring	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation System	\$0	\$0	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No prequal	\$0	\$0	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0

Section I Total:	\$2,127,596	\$2,222,983	\$1,087,108
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Section II - Non Federal Aid Highway Operations - State Operating Budget Funding

12 - Snow and Ice Operations & Materials	n/a	n/a	n/a
13 - District Maintenance Payroll (Mowing, Litter Management, Sight Distance Clearing, Etc.)	n/a	n/a	n/a
Section II Total:	\$0	\$0	\$0

Massachusetts Department of Transportation - Highway Division
Summary of Operating and Maintenance Expenditures
Montachusett Region - Part 2: Federal Aid

Section I - Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2012 Expenditures	Estimated SFY 2013 Expenditures	Current SFY 2014 Expenditures to Date
01 - Bridge Repair & Replacement			
New Bridge (Excluded)	n/a	n/a	n/a
Bridge Replacement (Excluded)	n/a	n/a	n/a
Bridge Reconstruction/Rehab	\$220,087	\$1,412,766	\$3,291,906
Drawbridge Maintenance	\$0	\$0	\$0
Structures Maintenance	\$2,450,392	\$2,114,610	\$1,140,218
02 - Bridge Painting			
Painting - Structural	\$0	\$0	\$0
03 - Roadway Reconstruction			
Hwy Relocation (Excluded)	n/a	n/a	n/a
Hwy Recon. - Added Capacity (Excluded)	n/a	n/a	n/a
New Construction (Excluded)	n/a	n/a	n/a
Hwy Reconstr - Restr and Rehab	\$25,622	\$943,669	\$539,428
Hwy Reconstr - No Added Capacity	\$112,444	\$1,538,448	\$555,054
Hwy Reconstr - Minor Widening	\$82,690	\$994,816	\$1,992,781
Hwy Reconstr - Major Widening	\$30,483	\$0	\$0
04 - Roadway Resurfacing			
Resurfacing	\$6,215,424	\$517,808	\$2,997,036
05 - Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$7,296	\$303,161	\$307,040
06 - Signs & Lighting			
Lighting and Electrical	\$0	\$0	\$0
Sign Installation / Upgrading	\$9,542	\$40,474	\$0
Structural Signing	\$0	\$0	\$0
07 - Guardrail			
Guard Rail and Fencing	\$0	\$0	\$0
08 - Maintenance			
Catch Basin Cleaning	\$0	\$0	\$0
Contract Highway Maintenance	\$0	\$0	\$0
Crack Sealing	\$0	\$0	\$0
Landscape and Roadside Develop	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0
Process/Recycle/Transport Soils	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0
09 - Facilities			
Chemical Storage Sheds	\$0	\$0	\$0
Vertical Construction	\$0	\$0	\$0
10 - Bikeways (Excluded)	n/a	n/a	n/a
11 - Other			
Demolition	\$0	\$0	\$0
Drilling & Boring	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation System	\$0	\$0	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No prequal	\$0	\$0	\$0
Reclamation	\$1,141,321	\$126,644	\$15,713
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0
Section I Total:	\$10,295,302	\$7,992,397	\$10,839,176

Section II - Federal Aid Highway Operations

ITS Operations - I-93 HOV Lane Operation and Towing	n/a	n/a	n/a
ITS Operations - Traffic Operations Center (South Boston)	n/a	n/a	n/a
Section II Total	\$0	\$0	\$0

Grand Total Federal Aid:	\$10,295,302	\$7,992,397	\$10,839,176
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STATUS OF PREVIOUS ANNUAL ELEMENT PROJECTS

ID Number	Community - Project Description	Award/Advert. Date/Notice To Proceed Date	Estimated Cost	Funding Category
603700	Westminster - Route 12 Bridge #A-28-007 over Phillips Brook	4/28/09	\$2,617,552	BR
601960	Hubbardston - Route 62 Reconstruction from Barre Town Line to Princeton Town Line	5/18/09	\$3,311,300	STP
604162	Gardner - Route 2 Bridge #G-01-035 & G-01-036 over Route 68	5/6/09	\$8,906,708	BR
604463	Ashburnham - Lake Road Bridge #A-11-016 over Watatic Lake Outlet	6/2/09	\$791,238	ARRA
601992	Leominster - Route 12/Willard Street - Signal & intersection improvements	6/23/09	\$851,716	STP
603492	Clinton - Water Street Bridge #C-16-002 over Nashua River	7/25/09	\$3,212,923	ARRA
604364	Fitchburg/Westminster - Route 2 - Resurfacing & related work from Exit 26 to Exit 28	8/7/09	\$6,364,805	ARRA
604220	Royalston - Route 32 - Resurfacing & rehabilitation from Elm Ave to N.H. State Line	11/27/09	\$3,473,902	STP & ARRA
604736	Fitchburg - Route 31/John Fitch Highway - Intersection Improvements	2/23/10	\$1,224,365	Sect 117 & TCSP
603495	Phillipston - Route 2 - Bridge Replacement, Br# P-09-004 Over Route 2A (State Road)	4/29/10	\$3,883,447	NFA – GANS
603645	Townsend - Wheeler Road - Replacement of Br# T-07-008 over Willard Brook	6/30/10	\$1,198,605	BR
605076	Phillipston - Highland Avenue - Bridge Betterment, Br# P-09-005 Over Route 202/ Route 2	6/7/10	\$1,563,697	STP
605579	Gardner - Route 140 - Resurfacing & Related Work from 1000 ft north of Rt 101 continuing 1.6 miles north to Stone St	2/11/10	\$1,794,959	ARRA
604634	Fitchburg - Ashby West Road - Bridge Replacement, Br# F-04-053 Over the Scott Reservoir Outlet	6/19/10	\$1,083,812	NFA – GANS
605841	Petersham - Route 32/122 - Resurfacing from Barre Town Line to 1 mile north of Route 101	6/26/10	\$2,431,478	STP
605391	Leominster – Intersection & Signal Improvements at Merriam Avenue and Lindell Avenue	11/19/11	\$693,627	STP
605773	Leominster – Superstructure Replacement, L-08-028, Hamilton Street over Route 2	3/24/12	\$6,040,337	BR-On
605216	Lancaster – Reconstruction on Route 70 (Lunenburg Road) at Old Union Turnpike	11/9/12	\$1,807,345	STP/HSIP
605104	Leominster – Bridge Reconstruction & Ramp Improvements, L-08-024, Route 12 over Route 2	3/11/13	\$8,203,110	BR-On
604175	Royalston – Bridge Replacement, R-12-004, Northeast Fitzwilliam Road over Lawrence Brook	3/19/13	\$1,176,401	BR-Off
604917	Templeton – Reconstruction of Baldwinville Road from Route 202/68 to Patriots Road	1/4/13	\$4,310,977	STP/TE
606008	Athol- Petersham- Resurfacing & Related Work On Route 32, From 1 Mile North Of Route 101 To Route 2	3/1/13	\$2,464,033	STP
607219	Winchendon - Resurfacing & Improvements on Route 140, from Gardner Town Line to Teel Road	3/16/13	\$1,252,800	HSIP
605392	Lancaster- Intersection Improvements @ Five Corners: Route 110 (Bolton Road, High Street Extension), Center Bridge Road, Old Common Road	6/29/13	\$1,116,392	CMAQ
603514	Leominster- Bridge Replacement, L-08-014, Whitney Street over the Monoosnoc Brook	9/14/13	\$3,889,979	BR-On
604515	Royalston- Bridge Replacement, R-12-006, North Fitzwilliam Road over Lawrence Brook	9/7/13	\$1,448,923	BR-Off
604492	Royalston- Bridge Replacement, R-12-006, North Fitzwilliam Road over Lawrence Brook	8/10/13	\$562,106	BR-Off
605696	Hubbardston – Bridge Replacement, H-24-004, Burnshirt Road over Burnshirt River	3 rd /4 th Quarter FFY 2014	\$1,346,624	STP
607296	Athol-Phillipston – Median Delineator Replacement on Route 2	10/19/13	\$690,952	STP
606408	Athol – Reconstruction of West Royalston Road from Silver Lake St to Royalston T.L.	12/21/13	\$2,228,891	STP
606636	Athol – Scenic Byway Access & Overlook Construction	3/15/14	\$160,434	TAP/TE
604439	Winchendon – Multi-Use Trail Construction, North Central Pathway Phase VI, includes W-39-023, W-39-024 & W-39-028	3 rd /4 th Quarter FFY 2014	\$1,962,426	CMAQ

Status of 2013-2014 Transit Projects

Federal Funds

RTA	Section	Description	Federal Funds	Approval Status	Grant #	Comments
Montachusett	5307	Operating Assistance	\$2,134,000	Unobligated	TBD	
Montachusett	5307	Purchase Bicycle Access Equip	\$40,000	Unobligated	TBD	
Montachusett	5307	Rehab Maintenance Fac.	\$204,000	Unobligated	TBD	
Montachusett	5307	Short Range Transit Planning	\$20,000	Unobligated	TBD	
Montachusett	5307	Buy Replacement Vans	\$352,000	Unobligated	TBD	
Montachusett	5307	Acquire Misc Support Equip	\$240,000	Unobligated	TBD	
Montachusett	5307	Rehab Admin/Maintenance Fac.	\$80,151	Obligated	MA-90-X647	\$1,017 Fed Outlay thru 2013. All other projects for this grant fully expended
Montachusett	5307	Acquire Support Vehicles	\$94,444	Obligated	MA-90-X668	Done – all funds expended
Montachusett	5307	Acquire Stationary Fare Collect Equip	\$90,400	Obligated	MA-90-X668	Under contract. \$5,421 Fed outlay thru Apr
Montachusett	5307	Acquire Security Equip	\$12,000	Obligated	MA-90-X668	Not expended
Montachusett	5307	Transit Enhance – Rehab Bus Shelters	\$20,000	Obligated	MA-90-X668	Not expended
Montachusett	5307	Rehab Admin/Maint. Fac.	\$170,588	Obligated	MA-90-X668	Not expended
Montachusett	5307	N. Leominster Garage Construction	\$985,000	Obligated	MA-90-X668	\$519,070 Fed Outlay thru Apr
Montachusett	5309	N. Leominster Garage Construction	\$5,135,000	Obligated	MA-04-0040	Done – all funds expended
Montachusett	5309 SGR	Maintenance & ITC Bldg Improvements	\$980,000	Obligated	MA-04-0061	\$724,482 Fed Outlay
Montachusett	5309 VTCLI	MOVET One-Call/One-Click	\$2,000,000	Obligated	MA-04-0073	\$913,489 Fed Outlay thru Apr
Montachusett	5309 TIGGER	Solar PV & Energy Conservation	\$1,678,500	Obligated	MA-88-0001	\$874,902 Fed Outlay thru March
Montachusett	5308-CF	Purchase Hybrid Buses	\$1,180,000	Obligated	MA-58-0001	\$1,177,799 Fed Outlay thru October
Montachusett	5310	MAP Vehicle Purchases	\$440,356	Obligated		Awarded but not expended

**Air Quality Conformity Information
Montachusett Metropolitan Planning Organization
FFY 2015-2018 Transportation Improvement Program**

Since most all of Massachusetts (with limited exceptions) was designated on 5/21/12 by the United States Environmental Protection Agency as “unclassifiable/attainment” for the latest ozone standard, a conformity determination for the Montachusett 2015-18 TIP is not required. Further details and background information are provided below:

Introduction

The 1990 Clean Air Act Amendments (CAAA) require metropolitan planning organizations within nonattainment and maintenance areas to perform air quality conformity determinations prior to the approval of Long-Range Transportation Plans (LRTPs) and Transportation Improvement Programs (TIPs), and at such other times as required by regulation. A nonattainment area is one that the U.S. Environmental Protection Agency (EPA) has designated as not meeting certain air quality standards. A maintenance area is a nonattainment area that now meets the standards and has been re-designated as maintaining the standard. A conformity determination is a demonstration that plans, programs, and projects are consistent with the State Implementation Plan (SIP) for attaining the air quality standards. The CAAA requirement to perform a conformity determination ensures that federal approval and funding go to transportation activities that are consistent with air quality goals.

The entire Commonwealth of Massachusetts was previously classified as nonattainment for ozone, and was divided into two nonattainment areas. The Eastern Massachusetts ozone nonattainment area included Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties. Berkshire, Franklin, Hampden, and Hampshire counties comprised the Western Massachusetts ozone nonattainment area. With these classifications, the 1990 Clean Air Act Amendments (CAAA) required the Commonwealth to reduce its emissions of volatile organic compounds (VOCs) and nitrogen oxides (NOx), the two major precursors to ozone formation to achieve attainment of the ozone standard.

Legislative and Regulatory Background

The 1970 Clean Air Act defined a one-hour national ambient air quality standard (NAAQS) for ground-level ozone. The 1990 CAAA further classified degrees of nonattainment of the one-hour standard based on the severity of the monitored levels of the pollutant. The entire commonwealth of Massachusetts was classified as being in serious nonattainment for the one-hour ozone standard, with a required attainment date of 1999. The attainment date was later extended, first to 2003 and a second time to 2007.

In 1997, the EPA proposed a new, eight-hour ozone standard that replaced the one-hour standard, effective June 15, 2005. Scientific information had shown that ozone could affect human health at lower levels, and over longer exposure times than one hour. The new standard was challenged in court, and after a lengthy legal battle, the courts upheld it. It was finalized in June 2004. The eight-hour standard is 0.08 parts per million, averaged over eight hours and not to be exceeded more than once per year. Nonattainment areas were again further classified based on the severity of the eight-hour values. Massachusetts as a whole was classified as being in moderate nonattainment for the eight-hour standard, and was separated into two nonattainment areas—Eastern Massachusetts and Western Massachusetts.

In March 2008, EPA published revisions to the eight-hour ozone NAAQS establishing a level of 0.075 ppm, (March 27, 2008; 73 FR 16483). In 2009, EPA announced it would reconsider this standard because it fell outside of the range recommended by the Clean Air Scientific Advisory Committee. However, EPA did not take final action on the reconsideration so the standard would remain at 0.075 ppm.

After reviewing data from Massachusetts monitoring stations, EPA sent a letter on December 16, 2011 proposing that only Dukes County would be designated as nonattainment for the new proposed 0.075 ozone standard. Massachusetts concurred with these findings.

On May 21, 2012, (77 FR 30088), the final rule was published in the Federal Register, defining the 2008 NAAQS at 0.075 ppm, the standard that was promulgated in March 2008. A second rule published on May 21, 2012 (77 FR 30160), revoked the 1997 ozone NAAQS to occur one year after the July 20, 2012 effective date of the 2008 NAAQS.

Also on May 21, 2012, the air quality designations areas for the 2008 NAAQS were published in the Federal Register. In this Federal Register, the only area in Massachusetts that was designated as nonattainment is Dukes County. All other Massachusetts counties were classified as unclassifiable/attainment.

Therefore, conformity for ozone in the Montachusett MPO is required until July 20, 2013 for only the 1997 ozone standard. Since this 2015-18 TIP will not complete its collective development, review, and approval by the Federal Highway Administration until after July 20, 2013 – when this standard will be revoked, and since the latest area designations do not require conformity under the current 2008 standard, the MPO does not need to perform a conformity determination for ozone on the program.

SPECIAL EFFORTS FOR ELDERLY AND DISABLED

The U.S. Department of Transportation's regulations regarding Nondiscrimination on the Basis of Handicap requires that transit operators certify that "special efforts are being made in its service to provide transportation that handicapped persons, including wheelchair users and semi-ambulatory persons can use." The Montachusett Regional Transit Authority (MART) has been so certified by FTA. The Montachusett Regional Planning Commission annually monitors and updates MART's compliance with the Americans with Disabilities Act Regulations. In compliance with a DOT rule to implement the transportation provisions of the ADA, MART has submitted an ADA compliance Para-transit plan and at this time has met all six criteria established by the Regulations; therefore the ADA plan is complete.

The following policies regarding special efforts are currently in effect.

- half fare on fixed route transit for eligible elderly and disabled individuals;
- fixed route service designed to serve elderly housing, shopping centers, medical facilities, and elderly social centers;
- curb-to-curb service with lift equipped vans provided by local Councils on Aging/private operators;
- half fare on commuter rail service for elderly and disabled individuals;
- continuation of next day ADA eligible van service which operates the same hours as fixed route service;
- operation of Dial-A-MART program which is a coordination of transportation needs of clients of social service agencies;
- no restriction on trip purpose for ADA Para-transit services;
- a twenty percent discount on monthly bus passes for eligible elderly and disabled individuals;
- a twenty percent discount on monthly bus passes for veterans

FY15 Projects

Projects in the FY15 TIP in Section 5307 and Section 5310 categories contain program elements for the elderly and disabled. The estimated costs in the Year 1 Element in the Section 5307 and 5310 categories include the costs of operating the special services described above.

APPENDIX A – REGIONAL PRIORITIES FOR WHICH FUNDING HAS NOT BEEN IDENTIFIED

(For Informational Purposes)

Please note that the projects listed represent the best available information at the time of compilation. Actual implementation is subject to right of way, design, land taking, local action and/or other issues that could delay project time frames and subsequently advertising and award date

Appendix

Montachusett MPO Transportation Improvement Program

5/19/2014 Draft Released
MPO Endorsed

MassDOT Project ID ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
<i>The following are a list of projects within the Montachusett Region with unspecified Fiscal Years. They are listed for informational tracking purposes at this time.</i>							
► Federal Aid Target Projects							
606420	FITCHBURG- INTERSECTION & SIGNAL IMPROVEMENTS @ ROUTE 2A (LUNENBURG STREET) & JOHN FITCH HIGHWAY	3		\$ 1,800,000	\$ 1,440,000	\$ 360,000	Total Cost = \$1,800,000 (as of 4/10/13); Highway Reconstruction/Restoration & Rehab; Prelim Design; TEC 44 of 100; Possible CMAQ/TAP
607704	GROTON- LITTLETON- RESURFACING & RELATED WORK ON ROUTE 119 <small>Work consists of resurfacing a section of Route 119.</small>	3		\$ 9,775,000	\$ 7,820,000	\$ 1,955,000	Project Info Est Cost = \$9,775,000 (as of 1/6/14); Prelim Design; Est Const - Winter 2016/2017; MassDOT Design; TEC 40 of 100;
606640	AYER- RESURFACING & RELATED WORK ON ROUTE 2A (FITCHBURG ROAD & PARK STREET)	3		\$ 2,400,000	\$ 1,920,000	\$ 480,000	Project Info Est Cost = \$2,400,000 (as of 4/10/13); Resurfacing; Prelim Design; TEC 35 of 100;
604499	LEOMINSTER- RESURFACING AND RELATED WORK ON ROUTE 12 (CENTRAL STREET)	3		\$ 1,440,000	\$ 1,152,000	\$ 288,000	Project Info Est Cost = \$1,440,000; Resurfacing; Prelim Design; MassDOT to design; TEC 37 of 100;
604961	CLINTON- RESURFACING & RELATED WORK ON ROUTE 110 (HIGH STREET)	3		\$ 1,500,000	\$ 1,200,000	\$ 300,000	Non Adjusted Total Cost = \$1,500,000 as of 1/6/14; Preliminary Design; Construction; TEC 36 of 100.
605393	HARVARD- LANCASTER- RECONSTRUCTON & WIDENING ON ROUTE 2 RAMP @ 35, 36 & 38	3		\$ 2,246,400	\$ 1,797,120	\$ 449,280	MassDOT designer on board; possible HSIP; estimate \$2,246,400 (as of 4/10/13); Construction; TEC 36 of 100; Prelim Design.
607641	ATHOL- PHILLIPSTON- RESURFACING & RELATED WORK ON ROUTE 2A, FROM ROUTE 32 TO ROUTES 2/202 (MM 36.7 - MM 40.7: 4 MILES) <small>Work for the Route 2A resurfacing project in Athol-Phillipston will consist of milling the existing paved surface and resurfacing with hot mix asphalt pavement. Work will also include replacing signs and guardrail as needed, repairing hot mix asphalt berm, and new pavement markings. The project limits are as follows: Route 2A from Route 32 (Petersham Road) in Athol, MM 36.7, to Route 2 at Interchange 19 in Phillipston, MM 40.7 for a project length of 4.0 miles.</small>	2		\$ 2,842,950	\$ 2,274,360	\$ 568,590	Project Info Est Cost = \$2,283,109 (as of 3/24/14); 75% Design rec'd 11/21/2013; Est Const - Spring 2014; MassDOT Design; TEC 35 of 100;
601965	GROTON- PEPPERELL- TOWNSEND- RESURFACING & RELATED WORK ON ROUTE 119	3		\$ 5,000,000	\$ 4,000,000	\$ 1,000,000	Construction; State needs a designer; NHS eligible; Need to break out by town due to cost; TEC 34 of 100; Prelim Design.
601957	ASHBURNHAM- RESURFACING & RELATED WORK ON ROUTE 101	3		\$ 1,500,000	\$ 1,200,000	\$ 300,000	Construction; Preliminary design; Town needs to hold public meetings to determine width impacts; drainage not included w/new sidewalk; better estimate \$4,500,000 (as of 4/10/13); TEC 30 of 100; Prelim Design.
606348	AYER- RESURFACING AND RELATED WORK ON ROUTE 2A, FROM SANDY POND ROAD TO THE LITTLETON TOWN LINE <small>The project involves resurfacing Route 2A, from Sandy Pond Road to the Littleton</small>	3		\$ 1,200,000	\$ 960,000	\$ 240,000	Project Info Est Cost = \$1,200,000 (as of 1/6/14); Prelim Design; Est Const - Winter 2018/2019; MassDOT Design; TEC 33 of 100;
601220	TOWNSEND - RESURFACING & RELATED WORK ON ROUTE 13 - FROM JUST NORTH OF THE INTERSECTION OF ROUTE 119 TO THE NH STATE LINE, A DISTANCE OF 3.2 MILES.	3		\$ 2,353,780	\$ 1,883,024	\$ 470,756	Non Adjusted Total Cost = \$2,353,780 as of 1/6/14; Preliminary Design; Town to do design; possible book job; TEC = 32 of 100;
607432	WESTMINSTER- REHABILITATION & BOX WIDENING ON ROUTE 140, FROM PATRICIA ROAD TO THE PRINCETON T.L. <small>The project involves roadway rehabilitation and minor widening on Route 140 from south of Patricia Road to the Princeton/Town line, a distance of 1.5 miles. Additional work involves minor geometric changes to vertical and horizontal alignment for improved sight distance. Drainage improvements include repairs to existing culverts that are in poor condition, as well as upgrades to guardrail and signs.</small>	3		\$ 4,200,000	\$ 3,360,000	\$ 840,000	Project Info Est Cost = \$4,200,000 (as of 1/6/14); Prelim Design; Est Const - Summer 2019; Municipality Design; TEC 32 of 100;
607604	STERLING- WEST BOYLSTON- IMPROVEMENTS ON ROUTE 140 AT I-190 <small>The proposed improvements include reducing the Route 140 travel lanes in an effort to reduce speeds and improve safety. Additional improvements include reconstruction of median islands, resetting of curb and edging, pavement markings and installation of traffic signs. The design will involve analysis of the ramp intersections and consideration of separate bicycle facilities.</small>	3		\$ 750,000	\$ 600,000	\$ 150,000	Project Info Est Cost = \$750,000 (as of 1/6/14); Prelim Design; Est Const - Winter 2018/2019; Consultant Design; TEC 29 of 100;
606435	HUBBARDSTON- RESURFACING AND RELATED WORK ON ROUTE 68, FROM WILLIAMSVILLE ROAD TO THE RUTLAND T.L.	3		\$ 3,300,000	\$ 2,640,000	\$ 660,000	Preliminary design; Could be book job if exclude town center; Construction; TEC 24 of 100; Prelim Design.
607431	WESTMINSTER- RESURFACING & RELATED WORK ON ROUTE 140, FROM ROUTE 2A TO PATRICIA ROAD <small>The project involves roadway resurfacing along Route 140 from Route 2A to just south of Patricia Road, a distance of 1.4 miles. The project also includes adjusting drainage structures and replacing signs, guardrail and pavement markings, as needed.</small>	3		\$ 1,800,000	\$ 1,440,000	\$ 360,000	Project Info Est Cost = \$1,800,000 (as of 1/6/14); Prelim Design; Est Const - Summer 2019; Municipality Design; TEC 25 of 100;
102710	WINCHENDON- RECONSTRUCTION OF GLENALLEN STREET (ROUTE 202) FROM MAPLE STREET INTERSECTION TO RINDGE, N.H. STATE LINE	2		Deactivated			Total Est Cost = \$5,871,004 as of 4/10/13; Construction; 75 to 100% Design on 1/6/09 - Revisions Needed as of 4/12/12; TEC 17 of 100;
601366	HARVARD- RESURFACING & RELATED WORK ON ROUTE 110 (STILL RIVER ROAD) FROM BOLTON T.L. TO ROUTE 110/11 INTERSECTION (3.4 MILES)	3		\$ 3,000,000	\$ 2,400,000	\$ 600,000	Construction; TEC 21 of 100; Prelim Design.
607321	TEMPLETON - RESURFACING & RELATED WORK ON A SECTION OF ROUTE 68 FROM THE GARDNER CITY LINE TO THE END OF STATE HIGHWAY (2.0 MILES)	3		\$ 2,007,560	\$ 1,606,048	\$ 401,512	Preliminary design; MassDOT in house design; TEC ## of 100;
604636	HUBBARDSTON- BRIDGE REPLACEMENT, H-24-021, STATE ROUTE 62 OVER WEST BRANCH OF THE WARE RIVER	3		\$ 1,050,000	\$ 840,000	\$ 210,000	Project Info Est Cost = \$1,716,480; Bridge Replacement; Prelim Design.
607260	PETERSHAM - RESURFACING & RELATED WORK ON ROUTE 122, FROM S. MAIN STREET TO THE NEW SALEM T.L.	2		\$ 4,680,000	\$ 3,744,000	\$ 936,000	MassDOT in house design; estimate \$4,680,000 (as of 4/10/13); TEC 11 of 100;
607770	LUNENBURG- RESURFACING & RELATED WORK ON ROUTE 13 (CHASE ROAD), FROM NORTHFIELD ROAD TO THE TOWNSEND T.L.	3		\$ 2,400,000	\$ 1,920,000	\$ 480,000	Preliminary Design; PRC Approved 4/7/2014

Appendix Montachusett MPO Transportation Improvement Program

5/19/2014 Draft Released
 ###/###/#### MPO Endorsed

MassDOT Project ID ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼
<i>The following are a list of projects within the Montachusett Region with unspecified Fiscal Years. They are listed for informational tracking purposes at this time.</i>							
► Federal Aid Target Projects							
607324	LANCASTER - INSTALLATION OF SEWER LINE & BATHROOM RETROFIT ON ROURE 2 (WB) REST AREA	3		\$ -	\$ -	\$ -	ProjectInfo Cost Est = \$0.00
603513	GARDNER - BRIDGE REPLACEMENT, G-01-008, PLEASANT STREET OVER THE B&M RAILROAD	3		\$ 1,729,200	\$ 1,383,360	\$ 345,840	100% Design (as of 5/1/13 ProjectInfo)
602587	WESTMINSTER- BRIDGE REPLACEMENT, W-28-017, ROUTE 12 (ASHBURNHAM ROAD) OVER PHILLIPS BROOK	3		\$ 1,440,000	\$ 1,152,000	\$ 288,000	25% Design (as of 3/15/13 ProjectInfo)
606301	ASHBY - BRIDGE REPLACEMENT, A-12-006, TURNPIKE ROAD OVER TRAPFALL BROOK	3		\$ 1,800,000	\$ 1,440,000	\$ 360,000	Preliminary Design (as of 5/1/13 ProjectInfo)
605094	FITCHBURG - BRIDGE BETTERMENT, F-04-003, STATE ROUTE 31 OVER PHILLIPS BROOK	3		\$ 3,065,040	\$ 2,452,032	\$ 613,008	Preliminary Design (as of 5/1/13 ProjectInfo)
400102	ATHOL- BRIDGE REPLACEMENTS, BR# A-15-009 CHESTNUT HILL AVENUE (ROUTE 32) OVER THE MILLER'S RIVER & A-15-012 OVER THE B&M RR	2		\$ 1,500,000	\$ 1,200,000	\$ 300,000	Preliminary Design (as of 5/1/13 ProjectInfo)
603727	ATHOL- ORANGE- BRIDGE REPLACEMENT, A-15-017=O-03-001, LOGAN ROAD OVER THE EAST BRANCH OF THE TULLY RIVER	2		\$ 1,248,000	\$ 998,400	\$ 249,600	Project Info Est Cost = \$1,248,000; Prelim Design.
605296	FITCHBURG- BRIDGE PRESERVATION, F-04-011, CIRCLE STREET OVER NORTH NASHUA RIVER	3		\$ 2,586,600	\$ 2,069,280	\$ 517,320	Project Info Est Cost = \$2,586,600; Prelim Design.

Appendix Montachusett MPO TIP Summary

				TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►				\$ 68,614,530	\$ 54,891,624	\$ 13,722,906	◄ Total Spending in Region

701 CMR 7.00 Use of Road Flaggers and Police Details on Public Works Projects / 701 CMR 7.00 (the Regulation) was promulgated and became law on October 3, 2008. Under this Regulation, the CMR is applicable to any Public works Project that is performed within the limits of, or that impact traffic on, any Public Road. The Municipal Limitation referenced in this Regulation is applicable only to projects where the Municipality is the Awarding Authority. For all projects contained in the TIP, the Commonwealth is the Awarding Authority. Therefore, all projects must be considered and implemented in accordance with 701 CMR 7.00, and the Road Flagger and Police Detail Guidelines. By placing a project on the TIP, the Municipality acknowledges that 701 CMR 7.00 is applicable to its project and design and construction will be fully compliant with this Regulation. This information, and additional information relative to guidance and implementation of the Regulation can be found at the following link on the MassDOT Highway Division website: <http://www.massdot.state.ma.us/Highway/flaggers/main.aspx>

APPENDIX B – 2015 – 2018 TIP GREENHOUSE GAS MONITORING AND EVALUATION

INTRODUCTION

This section summarizes the greenhouse gas (GHG) impacts that are anticipated to result from the projects that are included in this FFY 2015 – 2018 Transportation Improvement Program (TIP). It includes a summary of the state laws and policies that call for reducing greenhouse gas in order to mitigate global climate change, actions that are being to respond to these state laws and policies, the role of regional planning and TIP development in reducing GHG emission and tracking these reductions, and the projected GHG emission impacts from the projects programmed in the TIP.

STATE POLICY CONTEXT

The Global Warming Solutions Act (GWSA), which Governor Deval Patrick signed into law in August 2008, makes Massachusetts a leader in setting aggressive and enforceable GHG reduction targets, and implementing policies and initiatives to achieve these targets. In keeping with the law, on December 29, 2010 the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), in consultation with other state agencies and the public, released the Massachusetts *Clean Energy and Climate Plan for 2020*. This implementation plan establishes targets for overall, statewide GHG emissions:

- By 2020: 25 percent reduction below statewide 1990 GHG emission levels
- By 2050: 80 percent reduction below statewide 1990 GHG emission levels

GREENDOT POLICY

The transportation sector is the single largest emitter of greenhouse gases, accounting for over a third of GHG emissions, and therefore the transportation sector is a key focus of the *Clean Energy and Climate Plan*. MassDOT's approach to supporting the implementation of the plan is set forth in its GreenDOT Policy Directive, a comprehensive sustainability initiative that sets three principal objectives:

- **Reduce greenhouse gas (GHG) emissions.** MassDOT will achieve this by taking GHG emissions into account in all of its responsibilities, from strategic planning to project design and construction and system operations.
- **Promote the healthy transportation modes of walking, bicycling, and public transit.** MassDOT will achieve this by pursuing multi-modal, "complete streets" design standards; providing choice in transportation services; and by working with MPOs and other partners to prioritize and program a balance of projects that serve drivers, pedestrians, bicyclists, and public transit riders. MassDOT announced in October 2012, a policy that will seek to triple the distanced traveled by users of MassDOT systems through bicycling, transit and walking. This "Mode Shift" goal was established to reduce dependence on driving alone, reduce GHG emissions and promote and support better public health.
- **To support smart growth development.** MassDOT will achieve this by working with MPOs and other partners to make transportation investments that enable denser, smart growth development patterns that support reduced GHG emissions.

GREENDOT POLICY AND METROPOLITAN PLANNING ORGANIZATIONS

The Commonwealth's thirteen metropolitan planning organizations (MPOs) are integrally involved in helping to achieve the GreenDOT goals and supporting the GHG reductions mandated under the GWSA. The MPOs are most directly involved in helping to achieve the GHG emissions reductions under the second goal – to promote healthy transportation modes through prioritizing and programming an appropriate balance of roadway, transit, bicycle and pedestrian investments – and assist in the third goal by supporting smart growth development patterns through the creation of a balanced multi-modal transportation system. This will be realized through the transportation goals and policies espoused in the Regional Transportation Plans (RTPs), the major projects planned in the RTPs, and the mix of new transportation projects that are programmed and implemented through the TIPs. The GHG tracking and evaluation processes enable the MPOs to identify the anticipated GHG impacts of the planned and programmed projects, and also to use GHG impacts as a criterion in prioritizing transportation projects.

REGIONAL GHG TRACKING AND EVALUATION IN RTPS

MassDOT coordinated with MPOs and regional planning agency (RPA) staffs on the implementation of GHG tracking and evaluation in development of each MPO's 2035 RTPs, which were adopted in September 2011.

Working together, MassDOT and the MPOs have attained the following milestones:

- Modeling and long-range statewide projections for GHG emissions resulting from the transportation sector. Using the Boston MPO's regional model and the statewide travel demand model for the remainder of the state, GHG emissions were projected for 2020 no-build and build conditions, and for 2035 no-build and build conditions.
- All of the MPOs included these GHG emission projections in their RTPs, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

PROJECT-LEVEL GHG TRACKING AND EVALUATION IN THE TRANSPORTATION IMPROVEMENT PROGRAM

It is also important to monitor and evaluate the GHG impacts of the transportation projects that are programmed in the MPO Transportation Improvement Programs (TIP). The TIP includes both the larger, regionally-significant projects from the RTPs, which have already had their aggregate GHG impacts calculated and reported in the RTP, as well as smaller projects that are not included in the RTP but that may nevertheless have impacts on GHG emissions. The principal objective of this tracking is to enable the MPOs to evaluate expected GHG impacts of different projects and to use this information as a criterion for prioritizing and programming projects in future TIPs.

In order to monitor and evaluate the GHG impacts of TIP projects, MassDOT and the MPOs have developed the following approach for identifying anticipated GHG impacts and quantifying GHG impacts of projects, when appropriate, through the TIP. Different types of projects will have different anticipated GHG emissions impacts. The different project categories are outlined on the next two pages with this region's project tracking sheet on the third page.

- **Projects with Quantified Impacts**
 - **RTP Projects** - Major capacity expansion projects (e.g. Green Line Extension, I-95 Whittier Bridge Replacement) would be expected to have a significant impact on GHG emissions. However, these projects are included in the RTPs and analyzed using the statewide model or Boston regional model, which would reflect their GHG impacts. Therefore, no independent TIP calculations are required.
 - **Quantified Decrease in Emissions** - Projects that would be expected to produce a measurable decrease in emissions. The approach for calculating these impacts is described below. These projects should be categorized in the following manner:
 - **Quantified Decrease in Emissions from Traffic Operational Improvement** - An intersection reconstruction or signalization project that is projected to reduce delay and congestion.
 - **Quantified Decrease in Emissions from Pedestrian and Bicycle Infrastructure** - A shared-use path that would enable increased walking and biking and decreased vehicle-miles traveled (VMT).
 - **Quantified Decrease in Emissions from New/Additional Transit Service** - A bus or shuttle service that would enable increased transit ridership and decreased VMT
 - **Quantified Decrease in Emissions from a Park and Ride Lot** A park-and-ride lot that would enable increased transit ridership/ increased ridesharing and decreased VMT
 - **Quantified Decrease in Emissions from Bus Replacement**
A bus replacement that would directly reduce GHG emissions generated by that bus service.
 - **Quantified Decrease in Emissions from Other Improvement**
 - **Quantified Increase in Emissions** – Projects that would be expected to produce a measurable increase in emissions.

- **Calculation of GHG Impacts for TIP Projects** - The Office of Transportation Planning at MassDOT provided the spreadsheets that are used for determining Congestion Management and Air Quality Improvement (CMAQ) eligibility. These spreadsheets require the same inputs as the CMAQ calculations, and have been adapted to provide CO₂ impacts. The data and analysis required for these calculations is available from functional design reports that should be submitted for projects that would produce a measurable GHG impact.
- **Projects with Assumed Impacts**
 - **No Assumed Impact/Negligible Impact on Emission** - Projects that do not change the capacity or use of a facility (e.g. a resurfacing project that restores a roadway to its previous condition, or a bridge rehabilitation/replacement that restores the bridge to its previous condition) would be assumed to have no GHG impact.
 - **Assumed Nominal Decrease in Emissions** - Projects that would be expected to produce a minor decrease in emissions that cannot be calculated with any precision. Examples of such projects include roadway repaving or reconstruction projects that add a new sidewalk or new bike lanes. Such a project would enable increased travel by walking or bicycling, but there may be not data or analysis to support any projections of GHG impacts. These projects should be categorized in the following manner:
 - **Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure**
 - **Assumed Nominal Decrease in Emissions from Bicycle Infrastructure**
 - **Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure**
 - **Assumed Nominal Decrease in Emissions from Intelligent Transportation Systems (ITS) and/or Traffic Operational Improvements**
 - **Assumed Nominal Decrease in Emissions from Other Improvements**
 - **Assumed Nominal Increase in Emissions** - Projects that would be expected to produce a minor increase in emissions that cannot be calculated with any precision.

REGIONAL GREENHOUSE GAS IMPACT SUMMARY TABLES FOR FFY 2015 – 2018 TIP

The following tables summarize the calculated quantitative and assumed qualitative impacts of the projects included in the regional FFY 2015 – 2018 TIP.

2015 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
604928	LEOMINSTER- RECONSTRUCTION OF MECHANIC STREET, FROM LAUREL STREET TO THE LEOMINSTER CONNECTOR	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	-5,080.064
604960	CLINTON- RESURFACING & RELATED WORK ON WATER STREET AND BOLTON ROAD (1.2 MILES)	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	-12,730.300
607114	LANCASTER - SUPERSTRUCTURE REPLACEMENT, L-02-018, JACKSON ROAD OVER ROUTE 2.	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
604838	WINCHENDON - BRIDGE REPLACEMENT, W-39-001, HARRIS ROAD OVER TARBELL BROOK	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607347	GARDNER- BIKE PATH CONSTRUCTION, NORTH CENTRAL PATHWAY (PHASE VI)	Qualitative	Assumed Nominal Decrease in Emissions from Bicycle Infrastructure	N/A
Total Impact (in kilograms/year)				-17,810.364

2016 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
605651	LEOMINSTER- RECONSTRUCTION ON ROUTE 13, FROM HAWES STREET TO PROSPECT STREET	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	-138,447.898
606403	FITCHBURG- RECONSTRUCTION OF RINDGE ROAD, FROM ROUTE 31 (ASHBY STATE ROAD) TO ASHBY T.L.	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607960	ASHBURNHAM- ROUTE 101 AT WILLIAMS AND COREY HILL ROAD, INTERSECTION IMPROVEMENTS	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607242	FITCHBURG - SOUTH STREET ELEMENTARY - SAFE ROUTES TO SCHOOL	Qualitative	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	N/A
Total Impact (in kilograms/year)				-138,447.898

2017 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO₂ Emissions (kilograms/year)
606124	FITCHBURG- LUNENBURG- LEOMINSTER- RECONSTRUCTION OF SUMMER STREET AND NORTH STREET	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	-8,826.900
605094	FITCHBURG - BRIDGE BETTERMENT, F-04-003, STATE ROUTE 31 OVER PHILLIPS BROOK	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607127	HUBBARDSTON - BRIDGE REPLACEMENT, H-24-009, EVERGREEN ROAD OVER MASON BROOK	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607529	WINCHENDON - BRIDGE REPAIR, W-39-015, N. ROYALSTON ROAD OVER WEST BRANCH OF MILLERS RIVER	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
606575	STERLING - LEOMINSTER - LANCASTER I-190	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
607475	WINCHENDON - RESURFACING & RELATED WORK ON ROUTE 12	Qualitative	No Assumed Impact/Negligible Impact on Emissions	N/A
Total Impact (in kilograms/year)				-8,826.900

2018 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO₂ Emissions (kilograms/year)
604699	STERLING- INTERSECTION IMPROVEMENTS AT ROUTE 12 AND CHOCKSETT ROAD	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	-130,027.475
607446	WESTMINSTER- INTERSECTION IMPROVEMENTS, ROUTE 2A AT ROUTE 140	Qualitative	Assumed Nominal Decrease in Emissions from Other Improvements	N/A
607252	GARDNER – RESURFACING & RELATED WORK ON MATTHEW STREET	Qualitative	Assumed Nominal Decrease in Emissions from Traffic Operations Improvements	N/A
Total Impact (in kilograms/year)				-130,027.475

Transit Projects with GHG Emissions Analysis

2015 Regional Project Tracking

FTA Program	Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
5307	Buy Replacement 30-Ft Bus (2)	Qualitative	Qualitative Assumed Nominal Decrease in Emissions from fleet upgrade	N/A
Other Non-Federal Aid	Purchase – Replacement Vans (8)	Qualitative	Qualitative Assumed Nominal Decrease in Emissions from fleet upgrade	N/A
Other Non-Federal Aid	Purchase Bicycle Access, Facil & Equip on Buses	Qualitative	Assumed Nominal Decrease in Emissions from Bicycle Infrastructure	N/A
Total Impact (in kilograms/year)				N/A

*NOTE: Park & Ride Lot Analysis is for North Leominster Facility. Project cost is spread over FFY 2014, 2015 & 2016. Emission information calculated for FFY 2014 only.

2016 Regional Project Tracking

FTA Program	Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
5307	Rehab/Renovate – Bus Park & Ride Lot	Qualitative	Assumed Nominal Decrease in Emissions from Other Improvements	N/A
5307	Buy Replacement <30 FT Bus (2)	Qualitative	Qualitative Assumed Nominal Decrease in Emissions from fleet upgrade	N/A
Total Impact (in kilograms/year)				N/A

2017 Regional Project Tracking

FTA Program	Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
5307	Buy Replacement Van (8)	Qualitative	Qualitative Assumed Nominal Decrease in Emissions from fleet upgrade	N/A
5307	Rehab/Renovate Ped Access/Walkways	Qualitative	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	N/A
Total Impact (in kilograms/year)				N/A

2018 Regional Project Tracking

FTA Program	Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers Change in Summer CO ₂ Emissions (kilograms/year)
5307	Purchase – Replacement Vans (8)	Qualitative	Qualitative Assumed Nominal Decrease in Emissions from fleet upgrade	N/A
Total Impact (in kilograms/year)				N/A

Emissions Analysis

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project

FILL IN SHADED BOXES ONLY

TIP YEAR: 2015

MPO: Montachusett

Municipality:

Clinton

Project: 604960: Reconstruction of Water Street/Bolton Road

Step 1: Calculate Estimated Reduction in Vehicle Miles Traveled (VMT):

If VMT reduction per year is known then go to Step 2B, if not proceed with Step 1 :

- A. Facility Length (L):** 1.3 Miles
- B. Service Area Radius (R):** 1.0 Miles (Default = 1 Mile)
- C. Service Area of Community(ies) (SA):** $L * 2R = SA$ 2.5 Sq. Miles
- D. Total Land Area of Community(ies) (T):** 5.7 Sq. Miles
- E. Service Area % of Community(ies) Land Area (LA):** $SA / T = LA$ 43.9%
- F. Total Population of Community(ies) (TP):** 13,606 Persons
- G. Population Served by Facility (P):** $LA * TP = P$ 5,968 Persons
- H. Total Number of Households in Community(ies) (HH):** 5,831 HH
- I. Number of Households Served by Facility (HS):** $LA * HH = HS$ 2,557 HH
- J. Total Number of Workers Residing in Community(ies) (W):** 7,301 Persons
- K. Workers Per household (WPHH):** $W / HH = WPHH$ 1.25 Persons
- L. Workers in Service Area (WSA):** $HS * WPHH = WSA$ 3,202 Persons
- M. Population Density of the Service area (PD):** $P / SA = PD$ 2,387 Persons Per Sq. Mile
- N. If the bicycle and pedestrian commuter mode share is known, enter the percentage at the right. (BMS)** 1.6%
- If not, use the 2000 US Census Journey to Work data to determine the mode share and enter the percentage to the right.

O. Bike and Ped. Work Utilitarian Trips (BWT): $WSA * BMS = BWT$ 51 One-Way Trips

P. Bike and Ped. Non-Work Utilitarian Trips (BNWT): $BWT * 1.7 = BNWT$ 87 One-Way Trips

(Latest planning assumptions estimate non-work utilitarian trips to be 1.7 times the work utilitarian.)

Step 2: Calculate the VMT Reduction Per Day:

A. $((2 * BWT) + (2 * BNWT)) * (0.5 * L) = VMTR$ 172.9 VMTR Per Day

B. $VMTR * \text{Operating Days Per Year}$ $172.9 * 200 =$ 34,584 VMTR Per Year

If the Vehicle Miles Traveled Reduction is known enter in the box to the right.

Note: A manual entry of the VMTR will override the calculated cell.

Step 3: MOBILE 6 Emission Factors for Average Commuter Travel Speed:

Note: Use 35 MPH as a default if average speed is not known.

Speed Used: 35 MPH

2016 Auto Summer VOC Factor grams/mile	2016 Auto Summer NOx Factor grams/mile	2016 Auto Summer CO Factor grams/mile	2016 Auto Summer CO2 Factor grams/mile
0.232	0.178	3.540	368.100

Step 4: Calculate emissions reductions in kilograms per year (Seasonally Adjusted):

Summer VOC	Summer NOx	Summer CO	Summer CO2
8.2	6.3	124.7	12,730.3

Step 5: Calculate cost effectiveness (first year cost per kg of emissions reduced)

Emission	Project Cost	Emission Reduction in kg per year	First year cost per kilogram
Summer VOC	\$1,672,333	8.2 =	\$204,585
Summer NOx	\$1,672,333	6.3 =	\$266,651
Summer CO	\$1,672,333	124.7 =	\$13,408
Summer CO2	\$1,672,333	12,730.3 =	\$131

Spreadsheet Template Prepared by the Office of Transportation Planning

CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements

FILL IN SHADED BOXES ONLY

TIP YEAR: 2016

MPO: Montachusett

Municipality: Leominster

Project: 604928: Reconstruction of Mechanic Street - Mechanic Street and Johnson Street intersection

Step 1: Calculate Existing AM Peak Hour Total Intersection Delay in Seconds:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Johnson St.	NB	3 0.75	20.5	=	82	+	0.95		=	0	+	273 0.89	20.5	=	6,288	=	6,370
	SB		0.95	=	0	+	0.95		=	0	+		0.95	=	0	=	0
Mechanic St	EB		0.95	=	0	+	385 0.74		=	0	+	2 0.50		=	0	=	0
Mechanic St	WB	203 0.94	9.4	=	2,030	+	235 0.89	9.4	=	2,482	+		0.95	=	0	=	4,512
Total Intersection Delay/Seconds =																	10,882

Step 2: Calculate Existing PM Peak Hour Total Intersection Delay in Seconds:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Johnson St.	NB	3 0.38	18.6	=	149	+	0.95		=	0	+	259 0.89	18.6	=	5,413	=	5,562
	SB		0.95	=	0	+	0.95		=	0	+		0.95	=	0	=	0
Mechanic St	EB		0.95	=	0	+	355 0.94		=	0	+	9 0.56		=	0	=	0
Mechanic St	WB	315 0.93	9.4	=	3,184	+	495 0.90	9.4	=	5,170	+		0.95	=	0	=	8,354
Total Intersection Delay/Seconds =																	13,915

Step 3: The spreadsheet automatically chooses the peak hour with the longer total intersection delay for the next step in the analysis.

Peak Hour (AM/PM) PM Total Intersection Delay: 13,915

Step 4: Calculate the existing PM Peak Hour Total Intersection Delay with Improvements:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Johnson St.	NB	3 0.38	18.6	=	149	+	0.95		=	0	+	259 0.89	18.6	=	5,413	=	5,562
	SB		0.95	=	0	+	0.95		=	0	+		0.95	=	0	=	0
Mechanic St	EB		0.95	=	0	+	355 0.94		=	0	+	9 0.56		=	0	=	0
Mechanic St	WB	315 0.93	9.4	=	3,184	+	495 0.90	9.4	=	0	+		0.95	=	0	=	3,184
Total Intersection Delay/Seconds =																	8,745

Step 5: Calculate vehicle delay in hours per day:

	(Delay in seconds X Hours per day)	/	Seconds per hour	=	Delay in hours / day
Existing peak hour intersection delay	(13,915 X 10)	/	3600	=	38.7
improvements	(8,745 X 10)	/	3600	=	24.3

Step 6: MOBILE 6 emission factors for arterial idling speed:

2016	2016	2016	2016
Summer VOC Factor	Summer NOx Factor	Winter CO Factor	Summer CO2 Factor
grams/hour	grams/hour	grams/hour	grams/hour
4.053	1.805	49.735	1414.950

Step 7: Calculate net emissions change in kilograms per day:

	Delay in Hours per Day	Summer VOC Emissions kilograms/day	Summer NOx Emissions kilograms/day	Winter CO Emissions kilograms/day	Summer CO2 Emissions kilograms/day
Existing Conditions	38.7	0.157	0.070	1.922	54.694
With Improvements	24.3	0.098	0.044	1.208	34.373
Net Change		-0.058	-0.026	-0.714	-20.320

Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)

	Net change per day (kg) X	Avg. weekdays per year	Seasonal adj. X factor	=	Adj. net change in kg per year
Summer VOC Emissions	-0.058 X	250	X 1.0188	=	-14.825
Summer NOx Emissions	-0.026 X	250	X 1.0188	=	-6.602
Winter CO Emissions	-0.714 X	250	X 0.9812	=	-175.205
Summer CO2 Emissions	-20.320 X	250	X 1.0000	=	-5,080.064

Calculate cost effectiveness (first year cost per kg of emissions reduced)

Emission	Project Cost	/	Adj. net change in kg per year	=	First year cost per kilogram
Summer VOC	\$1,393,611	/	-14.825	=	\$94,004
Summer NOx	\$1,393,611	/	-6.602	=	\$211,080
Winter CO	\$1,393,611	/	-175.205	=	\$7,954
Summer CO2	\$1,393,611	/	-5,080.064	=	\$274

Spreadsheet Template Prepared by the Office of Transportation Planning

CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements

FILL IN SHADED BOXES ONLY

TIP YEAR:	2014	
MPO:	MMPO	Municipality: Leominster
Project:	Route 13	

Haws St at Main Street (Route 13) Intersection					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	0.574	X	250	X	1.0188 = 146.151
Summer NOx Emissions	0.256	X	250	X	1.0188 = 65.088
Winter CO Emissions	7.041	X	250	X	0.9812 = 1,727.258
Summer CO2 Emissions	200.327	X	250	X	0.9812 = 49,140.104
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	146.151	=	\$46,783	
Summer NOx	\$6,837,466 /	65.088	=	\$105,049	
Winter CO	\$6,837,466 /	1,727.258	=	\$3,959	
Summer CO2	\$6,837,466 /	49,140.104	=	\$139	

Mead St at Main Street (Route 13) Intersection					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	-0.298	X	250	X	1.0188 = -75.871
Summer NOx Emissions	-0.133	X	250	X	1.0188 = -33.789
Winter CO Emissions	-3.655	X	250	X	0.9812 = -896.664
Summer CO2 Emissions	-103.995	X	250	X	0.9812 = -25,509.886
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	-75.871	=	\$90,120	
Summer NOx	\$6,837,466 /	-33.789	=	\$202,357	
Winter CO	\$6,837,466 /	-896.664	=	\$7,625	
Summer CO2	\$6,837,466 /	-25,509.886	=	\$268	

River St at Main Street (Route 13) Intersection					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	0.241	X	250	X	1.0188 = 61.450
Summer NOx Emissions	0.107	X	250	X	1.0188 = 27.367
Winter CO Emissions	2.961	X	250	X	0.9812 = 726.231
Summer CO2 Emissions	84.228	X	250	X	0.9812 = 20,661.121
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	61.450	=	\$111,269	
Summer NOx	\$6,837,466 /	27.367	=	\$249,847	
Winter CO	\$6,837,466 /	726.231	=	\$9,415	
Summer CO2	\$6,837,466 /	20,661.121	=	\$331	

Hamilton St at Main Street (Route 13) Intersection					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	-1.795	X	250	X	1.0188 = -457.221
Summer NOx Emissions	-0.799	X	250	X	1.0188 = -203.623
Winter CO Emissions	-22.028	X	250	X	0.9812 = -5,403.563
Summer CO2 Emissions	-626.703	X	250	X	0.9812 = -153,730.205
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	-457.221	=	\$14,954	
Summer NOx	\$6,837,466 /	-203.623	=	\$33,579	
Winter CO	\$6,837,466 /	-5,403.563	=	\$1,265	
Summer CO2	\$6,837,466 /	-153,730.205	=	\$44	

Prospect St at Main Street (Route 13) Intersection					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	-0.339	X	250	X	1.0188 = -86.278
Summer NOx Emissions	-0.151	X	250	X	1.0188 = -38.424
Winter CO Emissions	-4.157	X	250	X	0.9812 = -1,019.657
Summer CO2 Emissions	-118.259	X	250	X	0.9812 = -29,009.031
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	-86.278	=	\$79,249	
Summer NOx	\$6,837,466 /	-38.424	=	\$177,949	
Winter CO	\$6,837,466 /	-1,019.657	=	\$6,706	
Summer CO2	\$6,837,466 /	-29,009.031	=	\$236	

PROJECT TOTALS					
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)					
	Net change per day (kg)	Avg. weekdays X per year	X	Seasonal adj. factor	Adj. net change in kg per year
Summer VOC Emissions	-1.617	X	250	X	1.0188 = -411.769
Summer NOx Emissions	-0.720	X	250	X	1.0188 = -183.381
Winter CO Emissions	-19.839	X	250	X	0.9812 = -4,866.395
Summer CO2 Emissions	-564.402	X	250	X	0.9812 = -138,447.898
Calculate cost effectiveness (first year cost per kg of emissions reduced)					
Emission	Project Cost	Adj. net change in kg per year	=	First year cost per kilogram	
Summer VOC	\$6,837,466 /	-411.769	=	\$16,605	
Summer NOx	\$6,837,466 /	-183.381	=	\$37,286	
Winter CO	\$6,837,466 /	-4,866.395	=	\$1,405	
Summer CO2	\$6,837,466 /	-138,447.898	=	\$49	

CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements

FILL IN SHADED BOXES ONLY

TIP YEAR: 2016

MPO: Montachusett

Municipality: Sterling

Project: 604699 Sterling - Route 12 Reconstruction

Step 1: Calculate Existing AM Peak Hour Total Intersection Delay in Seconds:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Route 12 NB	NB	155 0.92	1.1	=	185	+	343 0.92	0.2	=	75	+	0 0.92	0.0	=	0	=	260
Route 12 SB	SB	0 0.92	0.0	=	0	+	302 0.92	0.0	=	0	+	296 0.92	0.0	=	0	=	0
190 SB On Ran	EB	0 0.92	0.0	=	0	+	0 0.92	0.0	=	0	+	0 0.92	0.0	=	0	=	0
190 SB Off Ran	WB	327 0.92	283.8	=	100,872	+	0 0.92	283.8	=	0	+	89 0.92	3.3	=	319	=	101,192
Total Intersection Delay/Seconds =																	101,452

Step 2: Calculate Existing PM Peak Hour Total Intersection Delay in Seconds:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Route 12 NB	NB	106 0.92	1.2	=	138	+	480 0.92	0.4	=	209	+	0 0.92	0.0	=	0	=	347
Route 12 SB	SB	0 0.92	0.0	=	0	+	310 0.92	0.0	=	0	+	168 0.92	0.0	=	0	=	0
190 SB On Ran	EB	0 0.92	0.0	=	0	+	0 0.92	0.0	=	0	+	0 0.92	0.0	=	0	=	0
190 SB Off Ran	WB	335 0.92	435.0	=	158,397	+	0 0.92	0.0	=	0	+	106 0.92	4.1	=	472	=	158,869
Total Intersection Delay/Seconds =																	159,216

Step 3: The spreadsheet automatically chooses the peak hour with the longer total intersection delay for the next step in the analysis.

Peak Hour (AM/PM): PM

Total Intersection Delay: 159,216

Step 4: Calculate the existing PM Peak Hour Total Intersection Delay with Improvements:

Street Name	Dir	Left-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	+	Thru (Vol / PHF)	X delay per veh	=	Total move. delay	+	Right-Turns (Vol / PHF)	X delay per veh	=	Total move. delay	=	Total approach delay
Route 12 NB	NB	106 0.92	10.2	=	1,175	+	480 0.92	10.2	=	5,322	+	0 0.92	0.0	=	0	=	6,497
Route 12 SB	SB	0 0.92	0.0	=	0	+	310 0.92	12.5	=	4,212	+	168 0.92	5.3	=	968	=	5,180
190 SB On Ran	EB	0 0.92	13.6	=	0	+	0 0.92	13.6	=	0	+	0 0.92	13.6	=	0	=	0
190 SB Off Ran	WB	335 0.92	31.7	=	11,558	+	0 0.92	0.0	=	0	+	106 0.92	31.7	=	3,652	=	15,210
Total Intersection Delay/Seconds =																	26,887

Step 5: Calculate vehicle delay in hours per day:

	(Delay in seconds X Hours per day)	/	Seconds per hour	=	Delay in hours / day
Existing peak hour intersection delay	(159,216 X 10)	/	3600	=	442.3
Peak hour intersection delay w/ improvements	(26,887 X 10)	/	3600	=	74.7

Step 6: MOBILE 6 emission factors for arterial idling speed:

2016	2016	2016	2016
Summer VOC Factor	Summer NOx Factor	Winter CO Factor	Summer CO2 Factor
grams/hour	grams/hour	grams/hour	grams/hour
4.053	1.805	49.735	1414.950

Step 7: Calculate net emissions change in kilograms per day:

	Delay in Hours per Day	Summer VOC Emissions kilograms/day	Summer NOx Emissions kilograms/day	Winter CO Emissions kilograms/day	Summer CO2 Emissions kilograms/day
Existing Conditions	442.3	1.793	0.798	21.996	625.786
With Improvements	74.7	0.303	0.135	3.714	105.676
Net Change		-1.490	-0.663	-18.282	-520.110

Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)

	Net change per day (kg) X	Avg. weekdays per year	Seasonal adj. X factor	=	Adj. net change in kg per year
Summer VOC Emissions	-1.490 X	250	X 1.0188	=	-379.454
Summer NOx Emissions	-0.663 X	250	X 1.0188	=	-168.990
Winter CO Emissions	-18.282 X	250	X 0.9812	=	-4,484.497
Summer CO2 Emissions	-520.110 X	250	X 1.0000	=	-130,027.475

Calculate cost effectiveness (first year cost per kg of emissions reduced)

Emission	Project Cost	/	Adj. net change in kg per year	=	First year cost per kilogram
Summer VOC	\$1,393,611	/	-379.454	=	\$3,673
Summer NOx	\$1,393,611	/	-168.990	=	\$8,247
Winter CO	\$1,393,611	/	-4,484.497	=	\$311
Summer CO2	\$1,393,611	/	-130,027.475	=	\$11

Spreadsheet Template Prepared by the Office of Transportation Planning

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project

FILL IN SHADED BOXES ONLY

TIP YEAR: 2017

Municipality:

Lunenburg,
Fitchburg,
Leominster

MPO: Montachusett

Project: 606124: Reconstruction of Summer Street and North Street

Step 1: Calculate Estimated Reduction in Vehicle Miles Traveled (VMT):

If VMT reduction per year is known then go to Step 2B, if not proceed with Step 1 :

- A. Facility Length (L): 1.6 Miles
- B. Service Area Radius (R): 1.0 Miles (Default = 1 Mile)
- C. Service Area of Community(ies) (SA): $L * 2R = SA$ 3.2 Sq. Miles
- D. Total Land Area of Community(ies) (T): 83 Sq. Miles
- E. Service Area % of Community(ies) Land Area (LA): $SA / T = LA$ 3.9%
- F. Total Population of Community(ies) (TP): 91,163 Persons
- G. Population Served by Facility (P): $LA * TP = P$ 3,515 Persons
- H. Total Number of Households in Community(ies) (HH): 35,544 HH
- I. Number of Households Served by Facility (HS): $LA * HH = HS$ 1,370 HH
- J. Total Number of Workers Residing in Community(ies) (W): 44,992 Persons
- K. Workers Per household (WPHH): $W / HH = WPHH$ 1.27 Persons
- L. Workers in Service Area (WSA): $HS * WPHH = WSA$ 1,735 Persons
- M. Population Density of the Service area (PD): $P / SA = PD$ 1,098 Persons Per Sq. Mile
- N. If the bicycle and pedestrian commuter mode share is known, enter the percentage at the right. (BMS) 1.6%
If not, use the 2000 US Census Journey to Work data to determine the mode share and enter the percentage to the right.

O. Bike and Ped. Work Utilitarian Trips (BWT): $WSA * BMS = BWT$ 28 One-Way Trips

P. Bike and Ped. Non-Work Utilitarian Trips (BNWT): $BWT * 1.7 = BNWT$ 47 One-Way Trips

(Latest planning assumptions estimate non-work utilitarian trips to be 1.7 times the work utilitarian.)

Step 2: Calculate the VMT Reduction Per Day:

A. $((2 * BWT) + (2 * BNWT)) * (0.5 * L) = VMTR$ 119.9 VMTR Per Day

B. $VMTR * \text{Operating Days Per Year} = 119.9 * 200 = 23,980$ VMTR Per Year

If the Vehicle Miles Traveled Reduction is known enter in the box to the right. VMTR Per Year

Note: A manual entry of the VMTR will override the calculated cell.

Step 3: MOBILE 6 Emission Factors for Average Commuter Travel Speed:

Note: Use 35 MPH as a default if average speed is not known.

Speed Used: 35 MPH

2016 Auto Summer VOC Factor grams/mile	2016 Auto Summer NOx Factor grams/mile	2016 Auto Summer CO Factor grams/mile	2016 Auto Summer CO2 Factor grams/mile
0.232	0.178	3.540	368.100

Step 4: Calculate emissions reductions in kilograms per year (Seasonally Adjusted):

Summer VOC	Summer NOx	Summer CO	Summer CO2
5.7	4.3	86.5	8,826.9

Step 5: Calculate cost effectiveness (first year cost per kg of emissions reduced)

Emission	Project Cost	Emission Reduction in kg per year	First year cost per kilogram
Summer VOC	\$1,393,611	5.7 =	\$245,880
Summer NOx	\$1,393,611	4.3 =	\$320,473
Summer CO	\$1,393,611	86.5 =	\$16,114
Summer CO2	\$1,393,611	8,826.9 =	\$158

Spreadsheet Template Prepared by the Office of Transportation Planning

2015 Regional Project Tracking

CMAQ Analysis – Buy Replacement 30-Ft Bus (2)

CMAQ Analysis – Purchase – Replacement Vans (8)

CMAQ Analysis – Purchase – Bicycle Access, Facility & Equipment on Buses

2016 Regional Project Tracking

CMAQ Analysis –Rehab/Renovate – Bus Park & Ride Lot

**NOTE: Park & Ride Lot Analysis is for North Leominster Facility. Project cost is spread over FFY 2014, 2016 & 2017. Emission information was calculated for FFY 2014 only.*

CMAQ Analysis – Buy Replacement <30 FT Bus (2)

2017 Regional Project Tracking

CMAQ Analysis – Purchase – Replacement Van (8)

CMAQ Analysis –Rehab/Renovate Ped Access/Walkways

2018 Regional Project Tracking

CMAQ Analysis – Purchase - Replacement Vans (8)

ATTACHMENT 1 - COMMENTS RECEIVED ON DRAFT TIP

COMMENTS AND RESPONSES

COMMENT	RESPONSE