

**Merrimack Valley Metropolitan
Planning Organization
Final FFYs 2016-2019
Transportation Improvement Program**

**Prepared by the
Merrimack Valley Planning Commission**

July 30, 2015

This document was prepared by the Merrimack Valley Planning Commission under Contracts #75074, # MA-80-008 and # MA-80-009 with MassDOT and with the assistance of the Merrimack Valley Regional Transit Authority, MassDOT, the Federal Highway Administration and the Federal Transit Administration.

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Endorsement Page for Federal TIP



Merrimack Valley Metropolitan Planning Organization Endorsement of the FFY 2016-2019 Transportation Improvement Program

Whereas, the Merrimack Valley MPO has completed its review in accordance with Section 176(c) (4) of the Clean Air Act as amended in 1990 [42 U.S.C. 7251 (a)], and hereby certifies that the FFY 2016-2019 TIP is financially constrained and that the implementation of the Merrimack Valley Metropolitan Planning Organization 2012 Regional Transportation Plan satisfies the conformity criteria specified in both 40 CFR Part 51 and 93 (8/15/1997) and 310 CMR 60.03 (12/30/1994).

Therefore, in accordance with 23 CFR Part 450 Section 322 (Development and content of the Metropolitan Transportation Plan) of the March 16, 2007 Final Rules for Statewide and Metropolitan Planning, the MPO hereby endorses the FFY 2016-2019 Transportation Improvement Program.

Signatory Certification:

Stephanie Pollack
Secretary/CEO Mass DOT

Joseph Costanzo, Administrator
MVRTA Advisory Board

James Fiorentini
Mayor of Haverhill

Thomas Tinlin
MassDOT Acting Highway
Division Administrator

William Buckley
City of Methuen

Daniel Rivera
Mayor of Lawrence

Philip Trapani
Town of Georgetown

Neil Harrington
Town of Salisbury

Robert Snow
Town of Rowley

Dennis DiZoglio
MVPC Director

Date: July 29, 2015



Self Certification Compliance Statement

Merrimack Valley Metropolitan Planning Organization

Concurrent with the submittal of the proposed TIP to the FHWA and the FTA, the MPO Policy Board shall certify that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part21;
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 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 Highway construction contracts;
7. The provisions of the American 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;
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 USC 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.

Signatory Certification:

Stephanie Pollack Secretary/CEO MassDOT	Joseph Costanzo, Administrator MVRTA Advisory Board	James Fiorentini Mayor of Haverhill
Thomas Tinlin MassDOT Acting Highway Division Administrator	William Buckley City of Methuen	Daniel Rivera Mayor of Lawrence
Philip Trapani Town of Georgetown	Neil Harrington Town of Salisbury	Robert Snow Town of Rowley
Dennis DiZoglio MVPC Director Date: July 29, 2015		

**Merrimack Valley Metropolitan Planning Organization
FY 2016-2019 Transportation Improvement Program
Final Report prepared July 30, 2015**

Part A. Introduction

Part A. 1. TIP Development Process

Federal transportation authorization legislation establishes funding categories for transportation projects that may be eligible for Federal funding and sets maximum funding levels per category for each year of the legislation. Projects in this TIP are planned to be primarily funded through the federal transportation act titled “Moving Ahead for Progress in the 21st Century (MAP-21)” that was signed into law July 6, 2012.

Known as the “MAP-21 eight planning factors”, MAP-21 stipulates that

“...the metropolitan planning process provide for consideration of projects and strategies that will-

- 1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- 2) Increase the safety of the transportation system for motorized and nonmotorized users;
- 3) Increase the security of the transportation system for motorized and nonmotorized users;
- 4) Increase the accessibility and mobility options available to people and for freight;
- 5) Protect and enhance the environment, promote energy conservation, and improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- 6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 7) Promote efficient system management and operation; and
- 8) Emphasize the preservation of the existing transportation system.”

It is the responsibility of the Federally mandated, State designated, regional Metropolitan Planning Organizations (MPOs) to carry out the Federal transportation planning process in their respective urbanized areas and prepare many federal transportation documents, including the Transportation Improvement Program (TIP). This process, and the MPOs themselves, were established with the intention to include local and regional input into the Federal transportation planning process.

Based on regulations promulgated by the U.S. Department of Transportation (DOT), any transportation project funded through the Federal Highway Administration (FHWA), or the Federal Transit Administration (FTA) must be listed in the appropriate region's Transportation Improvement Program (TIP). MassDOT combines the 13 regional MPO TIPs with statewide projects to produce the Statewide TIP from which Federal-aid highway and transit projects are chosen. Without such a listing, Federal Highway funds cannot be expended by the Massachusetts Department of Transportation (MassDOT) on local or State projects. Similarly, the Merrimack Valley Regional Transit Authority (MVRTA) can only receive federal funds for projects listed in the TIP and STIP.

Merrimack Valley Metropolitan Planning Organization (MVMPO)

The MVMPO was first created by the Governor of Massachusetts in 1972. The MVMPO covers the same 15-community geographic area that defines the MVPC region and the MVRTA service area. The current MVMPO membership is as follows:

- Secretary of Massachusetts Department of Transportation (MassDOT) – Stephanie Pollack
- MassDOT Acting Highway Division Administrator – Thomas Tinlin
- Director of the Merrimack Valley Planning Commission (MVPC) – Dennis DiZoglio
- Administrator of the Merrimack Valley Regional Transit Authority – Joseph Costanzo
- Advisory Board
- Mayor of Haverhill – James Fiorentini
- Mayor of Lawrence – Daniel Rivera
- Representing Region 1 (Amesbury, Newburyport, Salisbury) – Neil Harrington
- Representing Region 2 (Newbury, Rowley, West Newbury) – Robert Snow
- Representing Region 3 (Boxford, Georgetown, Groveland, Merrimac) – Philip Trapani
- Representing Region 4 (Andover, Methuen, North Andover) – William Buckley
-
- Ex officio, non-voting members of the MVMPO include:
-
- Federal Highway Administration – Region I – Pamela S. Stephenson
- Federal Transit Administration – Region I – Mary Beth Mello

- Rockingham Planning Commission MPO (NH) – Glen Coppleman
- Boston MPO – Lynn Duncan
- Northern Middlesex MPO – Matt Hanson
- Nashua Planning Commission – Karin Elmer

The TIP has been prepared in accordance with 23 CFR 450.324.

The development of the TIP starts with the Regional Transportation Plan (RTP). The MVMPO's RTP is a twenty-five year plan for transportation projects that can be programmed for implementation with federal funds. The RTP is fiscally constrained and lists potential future projects in five year blocks. Projects are chosen for the RTP based on MAP-21 transportation planning factors, existing roadway conditions, problems identified through ongoing pavement, congestion, and safety analyses conducted by the MVMPO, local and state project priorities and fiscal factors. Each year, the MVMPO programs projects from the RTP that are 'ready-to-go' into its four-year Transportation Improvement Program (TIP). Only those projects that are specifically identified in the RTP or are consistent with its recommendations can be programmed in the TIP.

Only projects from the first block of years (2016 to 2020) in the RTP are programmed in the TIP. Projects that appear in the TIP were initiated and selected from a number of sources. Bridge projects have been selected and developed by the MassDOT's Bridge section largely based upon the results of their ongoing bridge maintenance program. The Department has made it a priority to develop projects that would correct problems in "Structurally Deficient" (SD) bridges. The region's Congestion Management Process is used to identify intersections and roadways where significant congestion exists, and measures the levels of congestion at these locations. This information has been used by local communities to develop roadway projects that are programmed in the TIP. Similarly, locations identified as having safety problems in the region's Safety Monitoring System or identified as a "crash cluster" by MassDOT are used by the Department and local communities to develop TIP projects.

Part A. 2. Prioritization

The FFY 2016-2019 Merrimack Valley Metropolitan Planning Organization's Transportation Improvement Program (TIP) contains federal-aid project programming information for four years. For each year, gross estimates of project costs are listed in the federal fiscal year of the proposed advertise date. Federal fiscal years begin on October 1 and run through September 30. For example, FFY 2016 begins on October 1, 2015 and

ends on September 30, 2016. The advertising dates shown for roadway projects were determined based on information provided by the Capital Expenditure and Program Office within MassDOT, the MassDOT District 4 Office, and MVMPO member communities. The MVRTA and MassDOT's Rail and Transit Division determined programming dates for transit projects.

Projects are programmed in the region's TIP based on a number of factors. These include the project's score based upon the MPO's Transportation Evaluation Criteria, project cost and the availability of STP, CMAQ, and HSIP and TAP funding in the years covered in the document. Road and bridge project selection is also largely dependent upon the current and expected design status for each project, which can be affected by such factors as environmental permitting and Right-of-Way (ROW) status. For bridge projects, information from MassDOT's Bridge section is also given primary consideration when scheduling projects.

Transportation Evaluation Criteria

In 2003, the MPOs worked with the then Massachusetts Executive Office of Transportation and Public Works (EOTPW) to develop objective evaluation criteria that could be applied to transportation projects in the Commonwealth. Early in 2004, EOTPW asked planning staff from the then MassHighway Planning, the MassHighway district offices and the regional planning agencies to apply these criteria to projects within their respective Metropolitan Planning Organizations (MPOs). Application of these criteria include not only an evaluation of the magnitude of improvement in the condition, mobility, and safety of transportation projects, but also an evaluation of their community effects and support, the land use and economic development impact, and the environmental effects. A score valued from -3 to 3 is assigned to each of the criteria. In fact, there is at least one score associated with each of the MAP-21 eight planning factors.

The evaluation criteria are listed in Appendix C. The resulting Transportation Evaluation Criteria (TEC) scores for selected projects in the Merrimack Valley region that were derived by applying these criteria are shown in the table in Appendix C of this document and also in the 'Additional Information' column in the project listings. It is the goal of the MVMPO that these criteria ratings, along with information related to the readiness of projects, will make the planning process, and more specifically, the selection and prioritization of projects, more transparent to the general public.

The use of these TEC scores also allows the Merrimack Valley MPO to meet MAP-21's requirements for programming TAP funding through a competitive process and, in

general helps to manage performance by focusing available funding on the highest regional priorities. It also helps to draw attention to the reader that MAP-21 is a very Performance Measure-oriented piece of legislation.

In June 2000, the Task Force of State and Regional Officials to Define, Develop and Monitor a Balanced Statewide Road and Bridge Program was created to develop a Memorandum of Understanding that defined the content of and the Commonwealth's commitment to maintaining a significant statewide bridge and road program. Included in this MOU was a provision calling for the development of a cooperative process for state and regional officials to identify a priority listing of non-federal aid construction projects that will be considered by the state in selecting state-aid projects. The non-federal aid road and bridge project lists included in the TIP are to be developed by the regions based on the amount of state roadway and bridge money that can reasonably be expected to be available in the coming fiscal year. It should be noted that these reasonably expected non-federal aid funding figures are not "targets", but guides that assist the state and the regions in identifying priority projects and establishing a realistic project programming and implementation schedule.

To implement this provision of the MOU, this year's TIP includes sections that identify the MPO's priority road and bridge projects using a format prescribed by MassDOT's Office of Transportation Planning. For federally funded projects, the Merrimack Valley MPO has established the following programming categories:

Section 1A

- Federal-Aid STP Projects Using MVMPO Target Authority (STP, STP-TE)
- Federal-Aid CMAQ Projects Using MVMPO Target
- Federal-Aid HSIP Projects Using MVMPO Target
- Federal-Aid TAP Projects Using MVMPO Target

Section 1B

- Federal-Aid State Category Bridge Projects (provided by MassDOT)

Section 1C

- Federal-Aid Non-target Projects (federally-funded non-target regional projects such as HPP, federal discretionary, Omnibus 330, Section 115, etc.)

Section 1D

- Federal-Aid major infrastructure and other state category projects, i.e., Major Infrastructure, Interstate Maintenance, statewide CMAQ, National Highway System, etc.)

Non-federally funded projects have been assigned to one of the following categories:

Section 2A

- Non-Federal-Aid Other Projects (only projects for which NFA funds have been specifically made available)

Section 2B

- Non-Federal-Aid Bridge Projects (provided by Mass Highway)
- Appendices A and B, Other Regional Priorities (projects for which funding has not been identified)

Part A. 3. Public Participation

The principal objective of this document is the provision of an additional point for public access to and review of the transportation planning process. This 2016-2019 Transportation Improvement Program was developed in accordance with the Public Participation Process established for the Merrimack Valley Metropolitan Planning Organization (MVMPO). The MVMPO adopted its current Public Involvement Process in December 2009 and amended in 2010. The Process applies to the development of the Transportation Improvement Program (TIP) and the Regional Transportation Plan (RTP). The Public Involvement Process endorsed by the MVMPO is also used by the MVRTA as its public involvement process. The notice of public involvement and time established for review and comment for the development of this TIP satisfies the Program of Project requirements established by the Federal Transit Administration (FTA).

The Merrimack Valley MPO's 2009 Public Participation Plan, as amended, reflects the consultation requirements of SAFETEA-LU (23 CFR 450.316(3)(b) for the development of Regional Transportation Plans and Transportation Improvement Programs. This document identifies a number of new stakeholders to be consulted in developing these documents. In developing the draft FY 2016-2019 Transportation Improvement Program, all MVMPO stakeholders were given notice that the process of developing the FY 2016-2019 TIP was beginning and were provided with a preliminary listing of TIP projects before the release of the draft. Stakeholders were also notified of the availability of the document for public review and comment.

Public Participation Plan Stakeholder List

Listed below are categories of interested individuals, organizations and other stakeholders (Interested Parties) identified by the MVMPO for inclusion in the PPP. They are defined based on the individual groups identified in MAP-21 and the existing transportation planning regulations developed by the U.S. Department of Transportation. The MVMPO continues to add individuals, organizations or other stakeholders to this list and their addition is not considered an act requiring the formal amendment of the PPP. Similarly, any of the individuals or organizations identified below may request to be removed from the mailing list and such action does not necessitate a formal PPP amendment.

The MVMPO conducts outreach to agencies and individuals including, but not limited to, those identified below:

Citizens, including:

- Interested Citizens
- Merrimack Valley Transportation Committee (MVTC) members
- Libraries
- City/Town Clerks
- MVMPO Region Congressional Delegation
- MVMPO Region Legislative Delegation

Affected public agencies, including:

- Boards of Selectmen / City Councils
- Chief Elected Officials
- City and Town Engineers
- Federal Emergency Management Agency
- Federal Highway Administration
- Federal Transit Administration
- Greater Derry-Salem Cooperative Alliance for Regional Transportation (**CART**)
- Local Departments of Public Works
- Local Police Departments
- Local Traffic and Safety Committees
- MassRIDES

- Massachusetts Department of Environmental Protection
- MBTA Commuter Rail Officials
- Massachusetts Executive Office of Housing and Economic Development
- Massachusetts Executive Office of Public Safety and Security
- MassDOT
- Merrimack Valley Regional Transit Authority
- Metropolitan Area Planning Council
- Nashua Regional Planning Commission
- Rockingham Planning Commission
- U.S. Environmental Protection Agency

Representatives of public transportation employees, including:

- Truck Driver's Union Local #170

Freight shippers, including:

- P.J. Murphy Transportation
- JB Hunt
- Estes Express
- Shaheen Brothers
- ABF Freight
- PanAm Railways
- Bonney's Express

Providers of freight transportation services, including:

- United Parcel Service
- Federal Express

Private profit and non-profit providers of transportation in the region, including:

- Assist Incorporated
- C&J Transportation
- Cape Ann Transit Authority (CATA)
- Central Wheelchair and Van Transportation
- EMT Corporation

- Local Taxi Companies
- Northern Essex Elder Transportation (NEET)
- Other Transportation Providers Identified in the Regional Transportation Plan
- The Coach Company
- TransCare

The notices were sent directly to more than 1,000 addressees representing these groups, 750 via e-mail and 325 via traditional mail.

In addition to these direct mailings, and in accordance with this process, public notice of the Draft 2016-2019 Transportation Improvement Program was published in the *Lawrence Eagle Tribune*, the *Newburyport Daily News*, *Haverhill Gazette* (Published Weekly) and *Rumbo News* informing the public of its right to comment on the document which would be available at the MVPC office, the MVPC website and local libraries from June 29, 2015 through July 28, 2015. It said that comments would be received through July 28, 2015 and that two separate public hearings on the document would take place on July 15, 2015 at 1:00 PM and at 6:00 PM at the MVPC office at 160 Main Street in Haverhill, MA. The MVMPO will summarize comments that are received during the 30-day review and comment period and will include this summary in the Final 2016-2019 TIP.

Public input in developing the TIP was sought at the following meetings in 2015:

- April 9, May 20 and June 24 MVMPO Meetings;
- April 2, May 7 and June 4 MVRTA Advisory Board Meetings;
- April 16 and May 21 Merrimack Valley Planning Commission Meetings;
- January 14 Merrimack Valley Transportation Committee Meeting;
- July 3 DPW Directors Meeting;
- And July 15 Public Hearings (2).

The above meetings were held at the Merrimack Valley Planning Commission with the exception of the MVRTA Advisory Board meetings, which were held at the MVRTA Offices.

Part A. 4. Amendment/Adjustment Procedures

The following amendment/adjustment procedures are hereby adopted to consist of the following:

Minor adjustments to the TIP do not require formal MPO action and can be made via the administrative action of the Merrimack Valley MPO. These minor adjustments are limited to:

- Moving a project from Fiscal Year 2 to Fiscal Year 1 (Annual Element);
- Moving a project from Fiscal Year 2 or later to a later Fiscal Year;
- Changing the scope and description of a project as long as they are minor changes;
- Changing funding amounts that are less than a ten percent increase in project cost;
- Changing funding sources.

Major changes continue to require MPO action through the formal amendment process. Major changes would require a thirty day public review and comment period that includes a public hearing. These changes include, but are not limited to:

- Advancement of other than a Fiscal Year 2 project;
- Ten percent or more increases in the construction cost estimate for a Fiscal Year 1 project;
- Adding a new project.

Part A. 5. High Priority Projects

SAFETEA-LU, contained a number of earmarked transportation projects that were to receive federal funding. Specific funding amounts were obligated to each of these projects, but no additional funding was included in SAFETEA-LU to complete them. Consequently, states with these projects must implement them within the annual federal authorization limits established in the legislation. The Merrimack Valley region contains eleven such projects which are shown below along with their status:

<u>Highway High Priority Projects</u>	<u>Status</u>
Amesbury/Newburyport – Rehabilitation of I-95 Whittier Bridge	Under Construction
Andover – Design, Engineering and Construction at I-93 The Junction Interchange, (Andover, Tewksbury, and Wilmington)	Draft EIR/EIS Being Developed
Haverhill – Construct Haverhill intermodal center access and vehicle capacity improvements.	Project Complete
Lawrence – Design and construct Canal and Union Street Corridor improvements.	Project Complete
Lawrence – Construct access improvements to the Lawrence Gateway Project.	Project Complete
Methuen – Design, engineering and construction of Methuen Rotary alternative at I-93 and Routes 110 and 113.	Under Construction
Newbury – Rehabilitation and paving of Parker River Road	Project Complete
North Andover – Improvements to Mass. Ave., Andover St., Osgood St., Salem St and Johnson St. in the Old Town Center of North Andover	Project Complete
Parker River National Wildlife Refuge – Preliminary engineering for Rehabilitation and paving of Sunset Drive in National Wildlife Refuge	Project Complete
Salisbury to Boxford – Design, Engineer, Permit and Construct “Border to Boston Bikeway” rail trail project	Project Under Design
<u>Transit Projects for Bus and Bus-Related Facilities and Clean Fuels Grant Program</u>	<u>Status</u>
Haverhill – Design and Construct Intermodal Transit Parking Improvements.	Project Complete (see above)
Lawrence – Gateway Intermodal and Quadrant Area Reuse Project.	Project Complete (see above)
Newburyport – Design and Construct Intermodal Facility	Project Under Design

Part A. 6. Advance Construction

Advance Construction is a Federal-aid fund management tool, which as described by the Federal Highway Administration website:

“...allows states to begin a project even in the absence of sufficient Federal-aid obligation authority to cover the Federal share of project costs. It is codified in Title 23, Section 115. Advance construction eliminates the need to set aside full obligational authority before starting projects...At some future date when the state does have sufficient obligational authority, it may convert an advance-constructed project to a Federal-aid project by obligating the permissible share of its Federal-aid funds and receiving subsequent reimbursements.”

In other words, the state pays for the project with non-Federal-aid funds to begin with and can later seek reimbursement of the Federal share of the funding category's project cost by obligating Federal-aid funding in future years.

Projects must meet the following criteria before they can be designated to use the Advanced Construction (AC) funding mechanism:

1. The project's estimated Federal participating cost exceeds the **total** regional annual target (i.e. sum of HSIP, CMAQ, TAP and Non HSIP/CMAQ/TAP), and
2. Construction, based on an engineering review of the project, will take place during all the years for which federal funding is programmed.

The following projects are programmed in the FFY 2016-2019 TIP using this Advance Construction (AC) method:

Amesbury – Reconstruction of Elm Street

Groveland – Rehabilitation of Route 97 (School Street & Salem Street)

Haverhill – Substructure Replacement, H-12-039, I-495 (NB & SB) over Merrimack River

Part A. 7. Transportation Funding Programs

Highway Projects

Projects from the following Federal-aid (from programs identified in the MAP-21 federal transportation funding authorization and non-Federal-aid funding categories are shown in the FFY 2016-2019 TIP. In some cases Federal-aid funding is from older funding programs established in earlier legislation such as SAFETEA-LU.

Bridge Replacement and Rehabilitation ((BR) (SAFETEA-LU / continued in MAP-21)) - funds replacement and repair of Structurally Deficient or unsafe bridges in urban and rural areas on any public road. Bridges can be on the federal aid system (BR ON) or off system (BR OFF).

Funding: Federal - 80%, State - 20%

Congestion Mitigation and Air Quality Improvement Program ((CMAQ) (SAFETEA-LU /continued in MAP-21)) – funds projects that reduce congestion and improve air quality.

Funding: Federal - 80%, State - 20%

High Priority Projects (HPP) (Carryover from SAFETEA-LU) – funds up to 80% of the costs of specific transportation projects identified in SAFETEA-LU. These projects have a separate allocation, but do not receive additional funds and are therefore subject to the state's federal authorization limit.

Funding: Federal- 80%, State – 20%

Highway Safety Improvement Program ((HSIP) (SAFETEA-LU / continued in MAP-21)) - funds safety improvement projects at high crash locations.

Funding: Federal - 90%, State – 10%

Interstate Maintenance (IM) (SAFETEA-LU) - funds projects to restore, resurface, and rehabilitate the Interstate System.

Funding: Federal - 90%, State - 10%

Interstate Maintenance Discretionary ((IMD) (Carryover from SAFETEA-LU)) – earmarked funds for projects to restore, resurface, and rehabilitate the Interstate System.

Funding: Federal - 90%, State - 10%

National Highway Program ((NHS) (from SAFTEA-LU, MAP-21) enhances NHS to include additional roadways and is renamed National Highway Performance Program (NHPP) - funds projects on all National Highway System Roadways.

Funding: Varies, generally Federal - 80%, State – 20%, but for the Interstate System, Federal - 90%, State – 10%

Non-Federal Aid (NFA) - funds construction, reconstruction, and improvement projects on roads and bridges in urban and rural areas.

Funding: State - 100% (Transportation Bond Bill), or Private - 100%

Surface Transportation Program ((STP) (TEA-21 continued in MAP-21)) - funds projects chosen by states and localities for any roads that are not functionally classified as local or rural minor collectors.

Funding: Federal - 80%, State - 20%

STP Enhancements ((STP E) ((SAFETEA-LU ; not continued in MAP-21)) - a portion of Surface Transportation Program funding for enhancement projects chosen by states and localities.

Funding: Federal -80%, State - 20%

Transportation Alternatives Program (TAP) – (New program established in MAP-21) - authorizes a new category which provides funding for projects which can be defined as transportation alternatives including bicycle and pedestrian facilities, enhanced mobility, community improvements, environmental mitigations, and various other types of transportation alternatives as defined in MAP 21.

Funding: Federal - 80%, State - 20%

Transportation, Community, and System Preservation (TCSP) Program (SAFETEA-LU) / continued in MAP-21) – according to the Federal Highway Administration website

“...provides funding for a comprehensive initiative including planning grants, implementation grants, and research to investigate and address the relationships between transportation, community, and system preservation and to identify private sector-based initiatives.”

Funding: Federal - 80%, Other - 20%

Transit Projects

Projects from the following Federal-aid (SAFETEA-LU and/or MAP-21 as noted) and non-Federal-aid funding categories are shown in the FFY 2016-2019 TIP.

Section 5307 (SECT-07) (Capital and Planning) (SAFETEA-LU continued in MAP-21) - funds routine capital projects and planning assistance in urban areas. This is an urban formula grant program for MVRTA Preventative Maintenance and ADA costs.

Funding: Federal - 80%, State - 20% (Bond Issue Funds) (capital and planning expenses)

State funding for the MVRTA's operating budget is provided through an agreement with the Transit Division of MassDOT. Local funds are derived from community assessments based on the number of route miles and special services operated within each community.

The Merrimack Valley Planning Commission will provide the 20% match for the planning activities it will conduct for the Merrimack Valley Regional Transit Authority under its Section 5307 transit planning contract with the Authority.

Section 5309 ((SECT-9) (SAFETEA-LU replaced in MAP-21 with Section 5339)) - funds capital projects in urban areas which can be characterized as major capital investments in public transportation equipment and facilities. This is a discretionary grant program.

Funding: Federal - 80%, State - 20% (Transportation Bond Issue)

Section 5310 ((SECT-10) (SAFETEA-LU continued in MAP-21))- provides capital funds, through the State, to private non-profit corporations and organizations to assist them in providing transportation services to meet the special needs of elderly and disabled persons.

Funding: Federal - 80%, Funding Applicant - 20%

Organization of Project Listings

Each highway project in the TIP contains the following information:

Amendment/Adjustment Type – used to identify the type of amendment when changes are made to the document.

MassDOT Project ID - project identification numbers given by MassDOT for each highway and bridge project.

MPO – identifies the Metropolitan Planning Organization within which the project is located.

Municipality Name – identifies the community where the project is located.

MassDOT Project Description – includes the community, or communities, in which the project is located and a brief description of work to be funded under the project. This description is exactly the same as MassDOT has input to its project information pages.

MassDOT District - MassDOT highway district number (Merrimack Valley MPO is part of District 4);

Funding Source - abbreviation for the funding category from which funding is expected. (Funding categories and abbreviations are explained starting on page 15.);

Total Programmed Funds- estimated cost of project in Fiscal Year in which advertising is expected; *

Federal Funds – portion of Total Programmed Funds provided by Federal Funding;

Non-Federal Funds– portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds;

* Inflation increases project costs and therefore **the project costs** have been increased by **4% each** future year of the TIP.

Organization of Project Listings (Cont.)

Additional Information– such as:

- Total Project Cost if project is being Advance Constructed (AC), and the number of years the AC funding is to be reimbursed and which year of AC the listing refers to;
- For years beyond the first year of the TIP, the total project cost in the Year of Expenditure which includes an inflation rate of 4% per year from 2016 dollars;
- The TEC Score – Transportation Evaluation Criteria (TEC) score as described in Part A.2. above;
- Whether the funding is for Construction or Design of the project;
- Whether Federal funding is from more than one funding category;
- Category of project for determining “Operating and Maintenance” versus “Capital and Other” cost.

The notation is O, M, C, or N representing: (O) operating costs, (M) maintenance costs, (C) capital costs, or (N) other costs, such as planning.

Transit Projects Organization of Project Listings

Each transit project in the TIP contains the following information:

FTA Program – abbreviation for the Federal Funding program from which funding is expected. (Transit Funding categories and abbreviations are explained on page 17.);

Regional Transit Authority – MVRTA (Merrimack Valley Regional Transit Authority) is the regional transit authority;

Project Description – a brief description of work to be funded under the project;

Carryover or Earmark Details – indicates whether Carryover or a specific year’s Earmark funding is being used;

Federal Funds – Portion of Total Programmed Funds provided by Federal Funding;

Organization of project listings Transit Projects (Cont.)

State Match Sources – portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds, coming from State Sources subdivided into the following categories of State Funding:

RTACAP –Regional Transit Authority State Capital Assistance;
MAP – Mobility Assistance Program;
ITCCAP – Intermodal Transportation Center Capital;
TDC –Transportation Development Credits, and
SCA – State Contract Assistance.

RTA Funds – portion of Total Programmed Funds not provided by Federal Funding, but required as matching funds in order to receive Federal Funds, coming from MVRTA funding sources other than State funding sources.

Total Cost - estimated total cost of project.

Part B. Project Listings

Highway Projects

2016 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	606161	Merrimack Valley	Haverhill	Haverhill - IMPROVEMENTS ON MAIN STREET (ROUTE 125)	4	CMAQ	\$ 1,384,237	\$ 1,107,390	\$ 276,847	Total Project Cost = \$3,026,676 FY 2016 STP + FY 2016 CMAQ (Construction) TEC = 9.32 out of 18 (C)
CMAQ Subtotal ►							\$ 1,384,237	\$ 1,107,390	\$ 276,847	◀ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

	606669	Merrimack Valley	Amesbury	AMESBURY - POWWOW RIVERWALK CONSTRUCTION	4	TAP	\$ 610,846	\$ 488,677	\$ 122,169	Total Project Cost = \$786,875 FY 2016 STP + FY 2016 TAP (Construction) TEC = 3.85 out of 18 (C) Project Proponent = City of Amesbury
TAP Subtotal ►							\$ 610,846	\$ 488,677	\$ 122,169	◀ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

	606669	Merrimack Valley	Amesbury	AMESBURY - POWWOW RIVERWALK CONSTRUCTION	4	STP	\$ 176,029	\$ 140,823	\$ 35,206	Total Project Cost = \$786,875 FY 2016 STP + FY 2016 TAP (Construction) TEC = 3.85 out of 18 (C) Project Proponent = City of Amesbury
	605114	Merrimack Valley	Groveland	GROVELAND - REHABILITATION OF ROUTE 97 (SCHOOL STREET & SALEM STREET)	4	STP	\$ 2,040,502	\$ 1,632,402	\$ 408,100	AC Year 2 of 2. Total Project Cost = \$6,341,761 to be converted to FA FY 2015 + FY 2016 (Construction) TEC = 6.72 out of 18. (M)
	606161	Merrimack Valley	Haverhill	Haverhill - IMPROVEMENTS ON MAIN STREET (ROUTE 125)	4	STP	\$ 1,642,439	\$ 1,313,951	\$ 328,488	Total Project Cost = \$3,026,676 FY 2016 STP + FY 2016 CMAQ (Construction) TEC = 9.32 out of 18 (C)
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 3,858,970	\$ 3,087,176	\$ 771,794	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 5,854,053	\$ 7,732,899	◀ Total Target	\$ 1,878,846	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 3,858,970	\$ 5,294,861	◀ Max. Non-CMAQ/HSIP/TAP	\$ 1,435,891	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ -	\$ 442,956	◀ Min. HSIP	\$ 442,956	HSIP Minimum Not Met
Total CMAQ Programmed ►	\$ 1,384,237	\$ 1,384,237	◀ Min. CMAQ	\$ -	CMAQ Minimum Met
Total TAP Programmed ►	\$ 610,846	\$ 610,846	◀ Min. TAP	\$ -	TAP Minimum Met

Remaining HSIP, CMAQ, and TAP Funds \$ 442,956

2016 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
On System Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Off-System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ -	\$ -	\$ -	◄ 90% Federal + 10% Non-Federal

2016 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► Statewide Safe Routes to Schools Program

	608002	Merrimack Valley	Lawrence	LAWRENCE - SAFE ROUTES TO SCHOOL (BRUCE ELEMENTARY)	4	TAP	\$ 812,500	\$ 650,000	\$ 162,500	Total Project Cost = \$ 812,500 TAP is 80% Federal + 20% Non-Federal (Construction) (C)
				No Projects Programmed			\$ -	\$ -	\$ -	Funding Split Varies by Funding Source
Statewide Safe Routes to Schools Program Subtotal ►							\$ 812,500	\$ 650,000	\$ 162,500	◄ Funding Split Varies by Funding Source

► Statewide CMAQ

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide CMAQ ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Transportation Enhancements

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide ITS

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Interstate Maintenance Program

	606574	Merrimack Valley	Multiple	ANDOVER-LAWRENCE - INTERSTATE MAINTENANCE AND RELATED WORK ON I-495	4	NHPP	\$ 14,396,000	\$ 12,956,400	\$ 1,439,600	Total Project Cost = \$14,396,000 (Construction) (M)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ 14,396,000	\$ 12,956,400	\$ 1,439,600	◄ 90% Federal + 10% Non-Federal

► Statewide NHS Preservation Program+

	607476	Merrimack Valley	Methuen	METHUEN- RESURFACING & RELATED WORK ON ROUTE 213	4	NHPP	\$ 6,937,161	\$ 5,549,729	\$ 1,387,432	Total Project Cost = \$8,101,161 = \$6,937,161 NHS + \$1,164,000 Stormwater (Construction) TEC = 3.93 out of 18. (M)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ 6,937,161	\$ 5,549,729	\$ 1,387,432	◄ 80% Federal + 20% Non-Federal

► Statewide RR Grade Crossings

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Stormwater Retrofits

	607476	Merrimack Valley	Methuen	METHUEN - RESURFACING AND RELATED WORK ON ROUTE 213	4	STP-TE	\$ 1,164,000	\$ 931,200	\$ 232,800	\$8,101,161 Total Cost = \$6,937,161 NHS + \$1,164,000 Stormwater (Construction) TEC = 3.93 out of 18. (M)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ►							\$ 1,164,000	\$ 931,200	\$ 232,800	◄ 80% Federal + 20% Non-Federal

► Statewide ADA Implementation Plan

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

2016 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► 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

► Section 2A / Non-Federal Projects

► Non Federal Aid

				No Projects Programmed		NFA	\$ -	\$ -	
				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	\$ -	\$ -	
				No Projects Programmed		NFA	\$ -	\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -	\$ -	◀ 100% Non-Federal

2016 Merrimack Valley TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 29,163,714	\$ -	\$ 29,163,714	◀ Total Spending in Region
Federal Funds ►	\$ 24,770,571	\$ -	\$ 24,770,571	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 4,393,143	\$ -	\$ 4,393,143	◀ 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 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects							
► HSIP - Highway Safety Improvement Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► CMAQ - Congestion Mitigation and Air Quality Improvement							
606161	HAVERHILL - IMPROVEMENTS ON MAIN STREET (ROUTE 125)	CMAQ	\$ 1,384,237	Quantified	6,421	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	6,421 = Emission Reduction in CO ₂ kg per year
0		0	\$ -	N/A	0	N/A	
Quantified Impact ►					6,421		
► TAP - Transportation Alternatives Program							
606669	AMESBURY - POWWOW RIVERWALK CONSTRUCTION	TAP	\$ 610,846	Qualitative	0	Assumed Nominal Decrease in Emissions from Bicycle and Sidewalk Improvements	
0		0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Non-CMAQ/HSIP/TAP (Other)							
606669	AMESBURY - POWWOW RIVERWALK CONSTRUCTION	STP	\$ 176,029	Qualitative	0	Assumed Nominal Decrease in Emissions from Bicycle and Sidewalk Improvements	
605114	GROVELAND - REHABILITATION OF ROUTE 97 (SCHOOL STREET & SALEM STREET)	STP	\$ 2,040,502	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
606161	HAVERHILL - IMPROVEMENTS ON MAIN STREET (ROUTE 125)	STP	\$ 1,642,439	Quantified		Quantified Decrease in Emissions (See Emissions Analysis Appendix)	Quantity of Emissions Reduction shown above in CMAQ funding section.
Quantified Impact ►					0		

2016 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1B / Federal Aid Bridge Projects							
► Statewide Bridge Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► On System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Off-System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide Bridge Inspection Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 1C / Federal Aid Non-Target Projects							
► Other Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 1D / Federal Aid Major & State Category Projects							
► Statewide Infrastructure Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide HSIP Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		

2016 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Statewide Safe Routes to Schools Program							
608002	LAWRENCE - SAFE ROUTES TO SCHOOL (BRUCE ELEMENTARY)	TAP	\$ 812,500	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide CMAQ							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Transportation Enhancements							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ITS							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Interstate Maintenance Program							
606574	ANDOVER-LAWRENCE - INTERSTATE MAINTENANCE AND RELATED WORK ON I-495	NHPP	\$ 14,396,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide NHS Preservation Program+							
607476	METHUEN- RESURFACING & RELATED WORK ON ROUTE 213	NHPP	\$ 6,937,161	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0			\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide RR Grade Crossings							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Stormwater Retrofits							
607476	METHUEN - RESURFACING AND RELATED WORK ON ROUTE 213	STP-TE	\$ 1,164,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0			\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ADA Implementation Plan							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2016 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
0	ABP GANS Repayment		\$ -	N/A	0	N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.		\$ -	N/A	0	N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs		\$ -	N/A	0	N/A	
0	Planning		\$ -	N/A	0	N/A	
0	Statewide Design and Right of Way		\$ -	N/A	0	N/A	
0	Statewide Recreational Trails		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2A / Non-Federal Projects							
► Non Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2B / Non-Federal Bridge Projects							
► Section 2B / Non-Federal Bridge Projects							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
2016 MERRIMACK VALLEY TIP GHG Tracking Summary					Total Quantified Impact ▼		
Quantified Impact ►					6,421	6,421 = Emission Reduction in CO ₂ kg per year	

2017 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

	606159	Merrimack Valley	North Andover	NORTH ANDOVER - INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	4	HSIP	\$ 442,956	\$ 398,660	\$ 44,296	Total Project Cost = \$1,677,312 cost inflated 4% from 2016 cost. FY 2017 STP + FY 2017 HSIP (Construction) TEC = 7.7 out of 18. (C)
				No Projects Programmed			\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ 442,956	\$ 398,660	\$ 44,296	◄ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	607573	Merrimack Valley	Haverhill	HAVERRHILL - RECONSTRUCTION ON ROUTE 97 (BROADWAY), FROM SILVER BIRCH LANE TO RESEARCH DRIVE	4	CMAQ	\$ 588,746	\$ 470,997	\$ 117,749	Total Project Cost = \$6,156,000 cost inflated 4% from 2016 cost. FY 2017 STP & CMAQ (Construction) TEC = 6.75 out of 18. (C)
				No Projects Programmed			\$ -	\$ -	\$ -	
CMAQ Subtotal ►							\$ 588,746	\$ 470,997	\$ 117,749	◄ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
TAP Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

	607573	Merrimack Valley	Haverhill	HAVERRHILL - RECONSTRUCTION ON ROUTE 97 (BROADWAY), FROM SILVER BIRCH LANE TO RESEARCH DRIVE	4	STP	\$ 5,567,254	\$ 4,453,803	\$ 1,113,451	Total Project Cost = \$6,156,000 cost inflated 4% from 2016 cost. FY 2017 STP & CMAQ (Construction) TEC = 6.75 out of 18. (C)
	606159	Merrimack Valley	North Andover	NORTH ANDOVER - INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	4	STP	\$ 1,234,356	\$ 987,485	\$ 246,871	Total Project Cost = \$1,677,312 cost inflated 4% from 2016 cost. FY 2017 STP + FY 2017 HSIP (Construction) TEC = 7.7 out of 18. (C)
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 6,801,610	\$ 5,441,288	\$ 1,360,322	◄ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 7,833,312	\$ 9,150,359	◄ Total Target	\$ 1,317,047	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 6,801,610	\$ 6,926,265	◄ Max. Non-CMAQ/HSIP/TAP	\$ 124,655	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ 442,956	\$ 442,956	◄ Min. HSIP	\$ -	HSIP Minimum Met
Total CMAQ Programmed ►	\$ 588,746	\$ 1,384,237	◄ Min. CMAQ	\$ 795,491	CMAQ Minimum Not Met
Total TAP Programmed ►	\$ -	\$ 396,901	◄ Min. TAP	\$ 396,901	TAP Minimum Not Met

Remaining HSIP, CMAQ, and TAP Funds \$ 1,192,392

2017 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► On System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
On System Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Off-System										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide Bridge Inspection Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal
► Statewide HSIP Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				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

2017 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► Statewide CMAQ

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide CMAQ ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Transportation Enhancements

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide ITS

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Interstate Maintenance Program

	607561	Merrimack Valley	Multiple	ANDOVER- METHUEN- INTERSTATE MAINTENANCE & RELATED WORK ON I-93	4	NHPP	\$ 10,387,021	\$ 9,348,319	\$ 1,038,702	\$11,011,021 Total Cost = \$11,011,021 (inflated 4% from 2016) = \$10,387,019 IM + \$624k Stormwater. Cost inflated 4% from 2016 cost. (Construction) (M)
				No Projects Programmed			\$ -	-	-	
Statewide Interstate Maintenance Program Subtotal ►							\$ 10,387,021	\$ 9,348,319	\$ 1,038,702	◄ 90% Federal + 10% Non-Federal

► Statewide NHS Preservation Program+

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide NHS Preservation Program Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide RR Grade Crossings

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

► Statewide Stormwater Retrofits

	607561	Merrimack Valley	Multiple	ANDOVER - METUEN - INTERSTATE MAINTENANCE AND RELATED WORK ON I-93	4	STP-TE	\$ 624,000	\$ 499,200	\$ 124,800	\$11,011,021 Total Cost = \$11,011,021 (inflated 4% from 2016) = \$10,387,019 IM + \$624k Stormwater. Cost inflated 4% from 2016 cost. (Construction) (M)
				No Projects Programmed			\$ -	-	-	
Statewide Stormwater Retrofits Subtotal ►							\$ 624,000	\$ 499,200	\$ 124,800	◄ 80% Federal + 20% Non-Federal

► Statewide ADA Implementation Plan

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◄ 80% Federal + 20% Non-Federal

2017 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released

07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► 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

► Section 2A / Non-Federal Projects

► Non Federal Aid

				No Projects Programmed		NFA	\$ -		\$ -	
				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	\$ -		\$ -	
				No Projects Programmed		NFA	\$ -		\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -	◀ 100% Non-Federal

2017 Merrimack Valley TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 18,844,333	\$ -	\$ 18,844,333	◀ Total Spending in Region
Federal Funds ►	\$ 16,158,464		\$ 16,158,464	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 2,685,869	\$ -	\$ 2,685,869	◀ 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 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects							
► HSIP - Highway Safety Improvement Program							
606159	NORTH ANDOVER - INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	HSIP	\$ 442,956	Qualitative	0	Assumed Nominal Decrease in Emissions from Other Improvements	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► CMAQ - Congestion Mitigation and Air Quality Improvement							
607573	HAVERTHILL - RECONSTRUCTION ON ROUTE 97 (BROADWAY), FROM SILVER BIRCH LANE TO RESEARCH DRIVE	CMAQ	\$ 588,746	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► TAP - Transportation Alternatives Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Non-CMAQ/HSIP/TAP (Other)							
607573	HAVERTHILL - RECONSTRUCTION ON ROUTE 97 (BROADWAY), FROM SILVER BIRCH LANE TO RESEARCH DRIVE	STP	\$ 5,567,254	Qualitative	0	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	
606159	NORTH ANDOVER - INTERSECTION & SIGNAL IMPROVEMENTS AT ROUTE 125 & MASSACHUSETTS AVENUE	STP	\$ 1,234,356	Qualitative	0	Assumed Nominal Decrease in Emissions from Other Improvements	
					Quantified Impact ►	0	

2017 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1B / Federal Aid Bridge Projects							
► Statewide Bridge Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► On System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Off-System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Bridge Inspection Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects							
► Other Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects							
► Statewide Infrastructure Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide HSIP Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Safe Routes to Schools Program							
0		0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2017 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Statewide CMAQ							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Transportation Enhancements							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ITS							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Interstate Maintenance Program							
607561	ANDOVER- METHUEN- INTERSTATE MAINTENANCE & RELATED WORK ON I-93	NHPP	\$ 10,387,021	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide NHS Preservation Program+							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide RR Grade Crossings							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Stormwater Retrofits							
607561	ANDOVER - METUEN - INTERSTATE MAINTENANCE AND RELATED WORK ON I-93	STP-TE	\$ 624,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ADA Implementation Plan							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2017 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Other Statewide Items							
0	ABP GANS Repayment		\$ -	N/A	0	N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.		\$ -	N/A	0	N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs		\$ -	N/A	0	N/A	
0	Planning		\$ -	N/A	0	N/A	
0	Statewide Design and Right of Way		\$ -	N/A	0	N/A	
0	Statewide Recreational Trails		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2A / Non-Federal Projects							
► Non Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2B / Non-Federal Bridge Projects							
► Section 2B / Non-Federal Bridge Projects							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
2017 MERRIMACK VALLEY TIP GHG Tracking Summary					Total Quantified Impact ▼		
Quantified Impact ►					0		

2018 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

	605020	Merrimack Valley	Salisbury	SALISBURY - MULTI-USE TRAIL EXTENSION (BORDERS TO BOSTON TRAIL)	4	CMAQ	\$ 6,260,607	\$ 5,008,486	\$ 1,252,121	Total Project Cost = \$6,657,508 cost inflated 8% from 2016 cost. FY 2018 CMAQ + TAP (Construction) TEC = 6.08 out of 18. (C) Project Proponent is the Town of Salisbury
				No Projects Programmed			\$ -	\$ -	\$ -	
CMAQ Subtotal ►							\$ 6,260,607	\$ 5,008,486	\$ 1,252,121	◀ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

	605020	Merrimack Valley	Salisbury	SALISBURY - MULTI-USE TRAIL EXTENSION (BORDERS TO BOSTON TRAIL)	4	TAP	\$ 396,901	\$ 317,521	\$ 79,380	Total Project Cost = \$6,657,508 cost inflated 8% from 2016 cost. FY 2018 CMAQ + TAP (Construction) TEC = 6.08 out of 18. (C) Project Proponent is the Town of Salisbury
				No Projects Programmed			\$ -	\$ -	\$ -	
TAP Subtotal ►							\$ 396,901	\$ 317,521	\$ 79,380	◀ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

	602418	Merrimack Valley	Amesbury	AMESBURY - RECONSTRUCTION OF ELM STREET	4	STP	\$ 2,390,107	\$ 1,912,086	\$ 478,021	AC Year 1 of 2. Total Project Cost = \$9,077,146 cost inflated 8% from 2016 cost. FY 2018 STP + 2019 STP (Construction) TEC = 5.98 out of 18. (C)
				No Projects Programmed			\$ -	\$ -	\$ -	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 2,390,107	\$ 1,912,086	\$ 478,021	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 9,047,615	\$ 9,549,019	◀ Total Target	\$ 501,404	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 2,390,107	\$ 7,324,925	◀ Max. Non-CMAQ/HSIP/TAP	\$ 58,448	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ -	\$ 442,956	◀ Min. HSIP	\$ 442,956	HSIP Minimum Not Met
Total CMAQ Programmed ►	\$ 6,260,607	\$ 1,384,237	◀ Min. CMAQ	\$ (4,876,370)	CMAQ Minimum Met
Total TAP Programmed ►	\$ 396,901	\$ 396,901	◀ Min. TAP	\$ -	TAP Minimum Met

2018 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1B / Federal Aid Bridge Projects

► Statewide Bridge Maintenance Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► On System

	605306	Merrimack Valley	Haverhill	HAVERHILL- SUBSTRUCTURE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP	\$ 27,250,000	\$ 21,800,000	\$ 5,450,000	AC Yr 1 of 3; Total Cost = \$56,428,400 inflated 8% from 2016. (Construction) (M)
							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ 27,250,000	\$ 21,800,000	\$ 5,450,000	◀ 80% Federal + 20% Non-Federal

► Off-System

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Bridge Inspection Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide HSIP Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal

2018 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► 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

	607737	Merrimack Valley	Multiple	AMESBURY- SALISBURY- TRAIL CONNECTOR @ I-95	4	CMAQ	\$ 2,595,840	\$ 2,076,672	\$ 519,168	Total Project Cost = \$2,595,840 inflated 8% from 2016 cost. (Construction) TEC = 6.25 out of 18. (C)
	607541	Merrimack Valley	Georgetown	GEORGETOWN- BORDER TO BOSTON TRAIL (SOUTHERN GEORGETOWN SECTION)	4	CMAQ	\$ 2,000,960	\$ 1,600,768	\$ 400,192	Total Project Cost = \$2,000,960 inflated 8% from 2016 cost. (Construction) TEC = 4.47 out of 18. (C)
Statewide CMAQ ►							\$ 4,596,800	\$ 3,677,440	\$ 919,360	◀ 80% Federal + 20% Non-Federal

► Statewide Transportation Enhancements

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide ITS

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Interstate Maintenance Program

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide Interstate Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal

► Statewide NHS Preservation Program+

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide NHS Preservation Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide RR Grade Crossings

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Stormwater Retrofits

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	-	-	
Statewide Stormwater Retrofits Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide ADA Implementation Plan

				No Projects Programmed			\$ -	-	-	
				No Projects Programmed			\$ -	-	-	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

2018 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► 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

► Section 2A / Non-Federal Projects

► Non Federal Aid

				No Projects Programmed		NFA	\$ -		\$ -	
				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	\$ -		\$ -	
				No Projects Programmed		NFA	\$ -		\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -	◀100% Non-Federal

2018 Merrimack Valley TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 40,894,415	\$ -	\$ 40,894,415	◀ Total Spending in Region
Federal Funds ►	\$ 32,715,532		\$ 32,715,532	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 8,178,883	\$ -	\$ 8,178,883	◀ 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 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects							
► HSIP - Highway Safety Improvement Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► CMAQ - Congestion Mitigation and Air Quality Improvement							
605020	SALISBURY - MULTI-USE TRAIL EXTENSION (BORDERS TO BOSTON TRAIL)	CMAQ	\$ 6,260,607	Quantified	6,837	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	6,837 = Emission Reduction in CO ₂ kg per year
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					6,837		
► TAP - Transportation Alternatives Program							
605020	SALISBURY - MULTI-USE TRAIL EXTENSION (BORDERS TO BOSTON TRAIL)	TAP	\$ 396,901	Quantified		Quantified Decrease in Emissions (See Emissions Analysis Appendix)	6,837 = Emission Reduction in CO ₂ kg per year. Quantity shown above in CMAQ section.
0			\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Non-CMAQ/HSIP/TAP (Other)							
602418	AMESBURY - RECONSTRUCTION OF ELM STREET	STP	\$ 2,390,107	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		

2018 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1B / Federal Aid Bridge Projects							
► Statewide Bridge Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► On System							
605306	HAVERTHILL- SUBSTRUCTURE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	NHPP	\$ 27,250,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	Construction (M)
0		0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Off-System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide Bridge Inspection Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 1C / Federal Aid Non-Target Projects							
► Other Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 1D / Federal Aid Major & State Category Projects							
► Statewide Infrastructure Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide HSIP Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		

2018 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Statewide Safe Routes to Schools Program							
0		0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide CMAQ							
607737	AMESBURY- SALISBURY- TRAIL CONNECTOR @ I-95	CMAQ	\$ 2,595,840	Qualitative	0	Assumed Nominal Decrease in Emissions from Bicycle and Sidewalk Improvements	
607541	GEORGETOWN- BORDER TO BOSTON TRAIL (SOUTHERN GEORGETOWN SECTION)	CMAQ	\$ 2,000,960	Quantified	1,520	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	1,520 = Emission Reduction in CO ₂ kg per year
					Quantified Impact ►	1,520	
► Statewide Transportation Enhancements							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ITS							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Interstate Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide NHS Preservation Program+							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide RR Grade Crossings							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Stormwater Retrofits							
0		0	\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide ADA Implementation Plan							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2018 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Other Statewide Items							
0	ABP GANS Repayment		\$ -	N/A	0	N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.		\$ -	N/A	0	N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs		\$ -	N/A	0	N/A	
0	Planning		\$ -	N/A	0	N/A	
0	Statewide Design and Right of Way		\$ -	N/A	0	N/A	
0	Statewide Recreational Trails		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2A / Non-Federal Projects							
► Non Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2B / Non-Federal Bridge Projects							
► Section 2B / Non-Federal Bridge Projects							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
2018 MERRIMACK VALLEY TIP GHG Tracking Summary					Total Quantified Impact ▼		
Quantified Impact ►					8,357	8,357 = Emission Reduction in CO ₂ kg per year	

2019 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1A / Federal Aid Target Projects

► HSIP - Highway Safety Improvement Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
HSIP Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal

► CMAQ - Congestion Mitigation and Air Quality Improvement Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
CMAQ Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► TAP - Transportation Alternatives Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
TAP Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Non-CMAQ/HSIP/TAP (Other)

	602418	Merrimack Valley	Amesbury	AMESBURY - RECONSTRUCTION OF ELM STREET	4	STP	\$ 6,687,039	\$ 5,349,631	\$ 1,337,408	AC Year 2 of 2. Total Project Cost = \$9,077,146 cost inflated 8% from 2016 cost. FY 2018 STP + 2019 STP (Construction) TEC = 5.98 out of 18.
				No Projects Programmed			\$ -	\$ -	\$ -	
Non-CMAQ/HSIP/TAP (Other) Subtotal ►							\$ 6,687,039	\$ 5,349,631	\$ 1,337,408	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Federal Aid Target Funds Programmed ►	\$ 6,687,039	\$ 9,549,018	◀ Total Target	\$ 2,861,979	Target Funds Available
Total Non-CMAQ/HSIP/TAP (Other) Programmed ►	\$ 6,687,039	\$ 7,416,402	◀ Max. Non-CMAQ/HSIP/TAP	\$ 729,363	Non-CMAQ/HSIP/TAP (Other) Available
Total HSIP Programmed ►	\$ -	\$ 442,956	◀ Min. HSIP	\$ 442,956	HSIP Minimum Not Met
Total CMAQ Programmed ►	\$ -	\$ 1,384,237	◀ Min. CMAQ	\$ 1,384,237	CMAQ Minimum Not Met
Total TAP Programmed ►	\$ -	\$ 305,423	◀ Min. TAP	\$ 305,423	TAP Minimum Not Met

Remaining HSIP, CMAQ, and TAP Funds \$ 2,132,616

2019 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1B / Federal Aid Bridge Projects

► Statewide Bridge Maintenance Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Bridge Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► On System

	605306	Merrimack Valley	Haverhill	Haverhill- SUBSTRUCTURE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	4	NHPP	\$ 15,470,000	\$ 12,376,000	\$ 3,094,000	AC Yr 2 of 3; Total Cost = \$56,428,400 inflated 8% from 2016. (Construction) (M)
							\$ -	\$ -	\$ -	
On System Subtotal ►							\$ 15,470,000	\$ 12,376,000	\$ 3,094,000	◀ 80% Federal + 20% Non-Federal

► Off-System

				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Off-System Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide Bridge Inspection Program

				No Projects Programmed			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				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			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Infrastructure Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

► Statewide HSIP Program

	608187	Merrimack Valley	Statewide	Haverhill- Merrimack- Amesbury- Traffic & Guide Sign Replacement on a section of I-495	4	HSIP	\$ 2,100,000	\$ 1,890,000	\$ 210,000	Total Project Cost = \$2,100,000 inflated 12% from 2016 cost. (Construction) (M)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide HSIP Program Subtotal ►							\$ 2,100,000	\$ 1,890,000	\$ 210,000	◀ 90% Federal + 10% Non-Federal

2019 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 (Cont.)										
► 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										
	607542	Merrimack Valley	Multiple	GEORGETOWN - NEWBURY - BORDER TO BOSTON TRAIL (NORTHERN GEORGETOWN TO BYFIELD SECTION)	4	CMAQ	\$ 4,359,973	\$ 3,487,978	\$ 871,995	Total Project Cost = \$4,359,973 cost inflated 12% from 2016 cost. (Construction) TEC = 5.22 out of 18. (C)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide CMAQ ►							\$ 4,359,973	\$ 3,487,978	\$ 871,995	◀ 80% Federal + 20% Non-Federal
► Statewide Transportation Enhancements										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Transportation Enhancements Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide ITS										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ITS Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Interstate Maintenance Program										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Interstate Maintenance Program Subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Statewide NHS Preservation Program+										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide NHS Preservation Program Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide RR Grade Crossings										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide RR Grade Crossings Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Statewide Stormwater Retrofits										
	608216	Merrimack Valley	Boxford	BOXFORD - STORMWATER IMPROVEMENTS ALONG I-95	4	STP-TE	\$ 448,000	\$ 358,400	\$ 89,600	Total Project Cost = \$448,000 inflated 12% from 2016 cost. (Construction) (M)
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide Stormwater Retrofits Subtotal ►							\$ 448,000	\$ 358,400	\$ 89,600	◀ 80% Federal + 20% Non-Federal
► Statewide ADA Implementation Plan										
				No Projects Programmed			\$ -	\$ -	\$ -	
				No Projects Programmed			\$ -	\$ -	\$ -	
Statewide ADA Implementation Plan Subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

2019 Merrimack Valley Transportation Improvement Program

06/29/2015 Draft Released
07/29/2015 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 ▼
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► Section 1D / Federal Aid Major & State Category Projects (Cont.)

► 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

► Section 2A / Non-Federal Projects

► Non Federal Aid

				No Projects Programmed		NFA	\$ -		\$ -	
				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	\$ -		\$ -	
				No Projects Programmed		NFA	\$ -		\$ -	
Section 2B / Non-Federal Bridge Projects Subtotal ►							\$ -		\$ -	◀ 100% Non-Federal

2019 Merrimack Valley TIP Summary

	TIP Section 1: ▼	TIP Section 2: ▼	Total of All Projects ▼	
Total ►	\$ 29,065,012	\$ -	\$ 29,065,012	◀ Total Spending in Region
Federal Funds ►	\$ 23,462,010		\$ 23,462,010	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 5,603,002	\$ -	\$ 5,603,002	◀ 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>

2019 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Federal Aid Target Projects							
► HSIP - Highway Safety Improvement Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► CMAQ - Congestion Mitigation and Air Quality Improvement							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► TAP - Transportation Alternatives Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Non-CMAQ/HSIP/TAP (Other)							
602418	AMESBURY - RECONSTRUCTION OF ELM STREET	STP	\$ 6,687,039	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2019 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1B / Federal Aid Bridge Projects							
► Statewide Bridge Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► On System							
605306	HAVERHILL- SUBSTRUCTURE REPLACEMENT, H-12-039, I-495 (NB & SB) OVER MERRIMACK RIVER	NHPP	\$ 15,470,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0		0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Off-System							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide Bridge Inspection Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Section 1C / Federal Aid Non-Target Projects							
► Other Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Section 1D / Federal Aid Major & State Category Projects							
► Statewide Infrastructure Program							
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	
► Statewide HSIP Program							
608187	HAVERHILL- MERRIMAC- AMESBURY- TRAFFIC & GUIDE SIGN REPLACEMENT ON A SECTION OF I-495	HSIP	\$ 2,100,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
					Quantified Impact ►	0	

2019 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Statewide Safe Routes to Schools Program							
0		0	\$ -	N/A	0	N/A	
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide CMAQ							
607542	GEORGETOWN - NEWBURY - BORDER TO BOSTON TRAIL (NORTHERN GEORGETOWN TO BYFIELD SECTION)	CMAQ	\$ 4,359,973	Quantified	17,460	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	17,460 = Emission Reduction in CO ₂ kg per year
0	No Projects Programmed	0	\$ -	N/A	0	N/A	
Quantified Impact ►					17,460		
► Statewide Transportation Enhancements							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide ITS							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide Interstate Maintenance Program							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide NHS Preservation Program+							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide RR Grade Crossings							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide Stormwater Retrofits							
608216	BOXFORD - STORMWATER IMPROVEMENTS ALONG I-95	STP-TE	\$ 448,000	Qualitative	0	No Assumed Impact/Negligible Impact on Emissions	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Statewide ADA Implementation Plan							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		

2019 MERRIMACK VALLEY TIP GHG Tracking

MassDOT Project ID ▼	MassDOT Project Description ▼	Funding Source ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG Impact by the Numbers (kg/year) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1D / Federal Aid Major & State Category Projects (Cont.)							
► Other Statewide Items							
0	ABP GANS Repayment		\$ -	N/A	0	N/A	
0	Award Adjustments, Change Orders, Project Value Changes, Etc.		\$ -	N/A	0	N/A	
0	DBEs, FAPO, Pavement Lab Retrofits, and Misc. Programs		\$ -	N/A	0	N/A	
0	Planning		\$ -	N/A	0	N/A	
0	Statewide Design and Right of Way		\$ -	N/A	0	N/A	
0	Statewide Recreational Trails		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2A / Non-Federal Projects							
► Non Federal Aid							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
► Section 2B / Non-Federal Bridge Projects							
► Section 2B / Non-Federal Bridge Projects							
0	No Projects Programmed		\$ -	N/A	0	N/A	
0	No Projects Programmed		\$ -	N/A	0	N/A	
Quantified Impact ►					0		
2019 MERRIMACK VALLEY TIP GHG Tracking Summary					Total Quantified Impact ▼		
Quantified Impact ►					17,460	17,460 = Emission Reduction in CO ₂ kg per year	

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Part B. Project Listings (Cont.)

Transit Projects

FTA Program ▼	Regional Transit Authority ▼	Project Description ▼	Carryover or Earmark Details ▼	Federal Funds ▼	State Match Sources				RTA Funds ▼	Total Cost ▼
					RTACAP ▼	MAP ▼	TDC ▼	SCA ▼		
5307 ▶	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2017	Carryover Used	\$ 2,505,065	\$ -	\$ -	\$ -	\$ 626,265	\$ -	\$ 3,131,330
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2017	Carryover Used	\$ 1,048,955	\$ -	\$ -	\$ -	\$ 262,240	\$ -	\$ 1,311,195
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2017 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2017 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	Replace 7 Model Year 2004 Transit Buses with new (Delivery 2017) 7 of 17	Carryover Used	\$ 2,391,200	\$ 597,800	\$ -	\$ -	\$ -	\$ -	\$ 2,989,000
	MVRTA	Newburyport Intermodal Transit Parking Facility - Construction	Carryover Used	\$ 2,000,000		\$ -	\$ -	\$ -	\$ 500,000	\$ 2,500,000
	MVRTA	Replace 5 Model Year 2011 Paratransit Vehicles (Delivery 2016)	Carryover Used	\$ 256,000	\$ 64,000					\$ 320,000
	MVRTA	Acquire - Support Vehicles	Carryover Used	\$ 72,000	\$ 18,000					\$ 90,000
	MVRTA	FY 2017 Operating Assistance	Carryover Used	\$ 342,175				\$ 342,175		\$ 684,350
	MVRTA	State of Good Repair - MVRTA Facility	Carryover Used	\$ 58,800			\$ 14,200			\$ 58,800
	MVRTA	State of Good Repair - McGovern Center	Carryover Used	\$ 32,000			\$ 8,000			\$ 32,000
	MVRTA	State of Good Repair - Buckley Center	Carryover Used	\$ 12,000			\$ 3,000			\$ 12,000
	MVRTA	Newburyport Intermodal Parking Facility - Final Design/Construction Phase Services	Carryover Used	\$ 120,000					\$ 30,000	\$ 150,000
	MVRTA	Replace 10 Model 2004 Buses	Carryover Used	\$ 3,360,000	\$ 840,000					\$ 4,200,000
		5307 Subtotal ▶		\$ 12,278,195	\$ 1,519,800	\$ -	\$ 25,200	\$ 1,230,680	\$ 550,000	\$ 15,578,675
5309 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5309 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5310 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5310 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5311 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5311 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5316 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5316 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5317 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5317 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SoGR ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Livability ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TIGER ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Grants Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Operating Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Total ▶		\$ 12,278,195	\$ 1,519,800	\$ -	\$ 25,200	\$ 1,230,680	\$ 550,000	\$ 15,578,675
Fiscal Constraint Analysis										
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼		State Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼		
FFY 16 /5307	\$ 3,113,345	\$ 5,590,860	\$ 2,477,515	Available	RTACAP	\$ 1,519,800	\$ 1,519,800			
Carryover/5307	\$ 9,164,850	\$ 9,164,850	\$ -	Available						
Total 5307	\$ 12,278,195	\$ 14,755,710	\$ 2,477,515	Available						
FFY 15 / 5309	\$ -				MAP					
FFY 15 / 5310					SCA	\$ 1,230,680	\$ 1,230,680			
FFY 15 / 5311					TDC	\$ 25,200	\$ 25,200			

Transportation Improvement Program

FTA Program ▼	Regional Transit Authority ▼	Project Description ▼	Carryover or Earmark Details ▼	Federal Funds ▼	State Match Sources				RTA Funds ▼	Total Cost ▼
					RTACAP ▼	MAP ▼	TDC ▼	SCA ▼		
5307 ▶	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2018	Carryover Used	\$ 2,593,745	\$ -	\$ -	\$ -	\$ 648,435	\$ -	\$ 3,242,180
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2018	Carryover Used	\$ 1,080,420	\$ -	\$ -	\$ -	\$ 270,105	\$ -	\$ 1,350,525
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2018 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2018 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	Refurbish Engines on 8 Model Year 2011 Transit Buses	Carryover Used	\$ 185,600	\$ 46,400	\$ -	\$ -	\$ -	\$ -	\$ 232,000
	MVRTA	Purchase Three New Model Year 2017 35' Transit Buses (Delivery 2018)	Carryover Used	\$ 1,056,000	\$ 264,000					\$ 1,320,000
	MVRTA	Acquire - Support vehicles (M)	Carryover Used	\$ 37,080	\$ 9,270					\$ 46,350
	MVRTA	Operating Assistance FY 2018	Carryover Used	\$ 398,920				\$ 398,920		\$ 797,840
		5307 Subtotal ▶		\$ 5,431,765	\$ 319,670	\$ -	\$ -	\$ 1,317,460	\$ 20,000	\$ 7,088,895
5309 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5309 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5310 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5310 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5311 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5311 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5316 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5316 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5317 ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5317 Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SoGR ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Livability ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TIGER ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Grants Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other ▶		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Operating Subtotal ▶		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Total ▶		\$ 5,431,765	\$ 319,670	\$ -	\$ -	\$ 1,317,460	\$ 20,000	\$ 7,088,895
Fiscal Constraint Analysis										
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	State Funding Source ▼				Programmed ▼	Available ▼	(+/-) ▼
FFY 17 / 5307	\$ 2,954,250	\$ 5,590,860	\$ 2,636,610 Available	RTACAP	\$ 319,670	\$ 319,670				
Carryover/5307	\$ 2,477,515	\$ 2,477,515	\$ - Available							
Total 5307	\$ 5,431,765	\$ 8,068,375	\$ 2,636,610 Available							
FFY 15 / 5309	\$ -			MAP						
FFY 15 / 5310	\$ -			SCA	\$ 1,317,460	\$ 1,317,460				
FFY 15 / 5311	\$ -			TDC	\$ -					

Transportation Improvement Program

7/29/2015 Endorsed

FTA Program	Regional Transit Authority	Project Description	Carryover or Earmark Details	Federal Funds	State Match Sources				RTA Funds	Total Cost
					RTACAP	MAP	TDC	SCA		
5307	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2019	Carryover Used	\$ 2,661,255	\$ -	\$ -	\$ -	\$ 665,315	\$ -	\$ 3,326,570
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2019	Carryover Used	\$ 1,112,835	\$ -	\$ -	\$ -	\$ 278,210	\$ -	\$ 1,391,045
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2019 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2019 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	Refurbish Engine/ Transmissions on 8 Model Year 2012 Transit Buses	Carryover Used	\$ 191,170	\$ 47,790	\$ -	\$ -	\$ -	\$ -	\$ 238,960
	MVRTA	Acquire - Support Vehicles	Carryover Used	\$ 38,200	\$ 9,550					\$ 47,750
	MVRTA	Operating Assistance FY 2019	Carryover Used	\$ 440,860				\$ 440,860		\$ 881,720
			5307 Subtotal	\$ 4,524,320	\$ 57,340	\$ -	\$ -	\$ 1,384,385	\$ 20,000	\$ 5,986,045
5309		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			5309 Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5310		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			5310 Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5311		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			5311 Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5316		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			5316 Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5317		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			5317 Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SoGR		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Livability		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TIGER		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			Grants Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			Operating Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
			Total	\$ 4,524,320	\$ 57,340	\$ -	\$ -	\$ 1,384,385	\$ 20,000	\$ 5,986,045
Fiscal Constraint Analysis										
Federal Funding Source	Programmed	Available	(+/-)		State Funding Source	Programmed	Available	(+/-)		
FFY 18 / 5307	\$ 1,887,710	\$ 5,590,860	\$ 3,703,150	Available	RTACAP	\$ 57,340	\$ 57,340			
Carryover/5307	\$ 2,636,610	\$ 2,636,610	\$ -	Available						
Total 5307	\$ 4,524,320	\$ 8,227,470	\$ 3,703,150	Available						
FFY 15 / 5309	\$ -				MAP					
FFY 15 / 5310	\$ -				SCA	\$ 1,384,385	\$ 1,384,385			
FFY 15 / 5311	\$ -				TDC	\$ -				

FTA Program	Regional Transit Authority	Project Description	Carryover or Earmark Details	Federal Funds	State Match Sources				RTA Funds	Total Cost
					RTACAP	MAP	TDC	SCA		
5307	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2020	Carryover Used	\$ 2,348,800	\$ -	\$ -	\$ -	\$ 587,200	\$ -	\$ 2,936,000
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2020	Carryover Used	\$ 1,038,480	\$ -	\$ -	\$ -	\$ 259,620	\$ -	\$ 1,298,100
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2020 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2020 (20% match from MVPC)	Carryover Used	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 50,000
	MVRTA	Replace 3 of 3 Model Year 2007 Transit Buses with new buses (delivery in 2020)	Carryover Used	\$ 1,120,305	\$ 280,080	\$ -	\$ -	\$ -	\$ -	\$ 1,400,385
	MVRTA	Acquire - Support Vehicles	Carryover Used	\$ 39,200	\$ 9,800	\$ -	\$ -	\$ -	\$ -	\$ 49,000
	MVRTA	Operating Assistance FY 2020	Carryover Used	\$ 454,085		\$ -	\$ -	\$ 454,085	\$ -	\$ 908,170
		5307 Subtotal		\$ 5,080,870	\$ 289,880	\$ -	\$ -	\$ 1,300,905	\$ 20,000	\$ 6,691,655
5309		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5309 Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5310		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5310 Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5311		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5311 Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5316		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5316 Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5317		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		5317 Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SoGR		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Livability		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TIGER		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Grants Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other		No Projects Programmed	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Operating Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Total		\$ 5,080,870	\$ 289,880	\$ -	\$ -	\$ 1,300,905	\$ 20,000	\$ 6,691,655

Fiscal Constraint Analysis				State Funding Source			
Federal Funding Source	Programmed	Available	(+/-)	Source	Programmed	Available	(+/-)
FFY 19 / 5307	\$ 1,377,720	\$ 5,590,860	\$ 4,213,140 Available	RTACAP	\$ 289,880	\$ 289,880	
Carryover/5307	\$ 3,703,150	\$ 3,703,150	- Available	SCA	\$ 1,300,905	\$ 1,300,905	
Total 5307	\$ 5,080,870	\$ 9,294,010	\$ 4,213,140 Available	MAP	\$ -		
FFY 14 / 5309	\$ -						

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Part C. Federal Requirements

Part C. 1. Financial Summary - Targets

Highway Projects Financial Plan

Funding levels for Fiscal Years 2016-2019 have been developed cooperatively between the State and the MPOs as part of the TIP development process. The following four tables depict the resulting financial plan for each of the four fiscal years. The expected Title 23 Apportionment is listed first followed by the projected needs of the State. A formula developed by the Regional Planning Agencies (RPAs) and approved by MassDOT is applied to the "Statewide Infrastructure Program Plus State Match" to come up with target budgets for each MPO. In FFY 2017 MassDOT will end funding for the regional major infrastructure program after the I-91 Viaduct in Springfield project has been completed. These funds will be reallocated to the Regional Target program for prioritization by MPOs across the state.

Inflation increases project costs and therefore project costs have been increased 4% per year.

Title 23 – Transportation Funding
Federal Fiscal Year 2016
Federal Regional Targets
 May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching State Funds	Total Funding Based On Obl. Auth.
Base Obligation Authority	\$550,000,000		
Redistribution, as estimated by FHWA	\$50,000,000		
Total Estimated Obligation Authority Available	\$600,000,000		
ABP GANS Repayment	\$44,440,000		
Total Non-Earmarked Available Statewide – (Including State Match)	\$555,560,000	\$124,678,739	\$680,238,739
Statewide Infrastructure Items:			
Statewide Infrastructure Program	\$14,000,000	\$3,500,000	\$17,500,000
Statewide HSIP Program	\$22,500,000	\$3,055,556	\$30,555,556
Statewide Safe Routes to Schools	\$6,052,578	\$1,513,145	\$7,565,723
Statewide CMAQ	\$29,844,908	\$7,461,227	\$37,306,135
Statewide Transportation Enhancements	\$4,647,954	\$1,161,988	\$5,809,942
Statewide ITS	\$10,480,000	\$2,620,000	\$13,100,000
Statewide Interstate Maintenance	\$68,340,860	\$7,593,429	\$75,934,289
Statewide NHS Preservation Program	\$21,360,000	\$5,340,000	\$26,700,000
Statewide RR Grade Crossings	\$6,800,000	\$1,700,000	\$8,500,000
Statewide Stormwater Retrofits	\$6,075,000	\$1,518,750	\$7,593,750
Statewide ADA Implementation Plan	\$3,200,000	\$800,000	\$4,000,000
Subtotal Statewide Infrastructure Items	\$198,301,300	\$36,464,094	\$235,565,394

Title 23 – Transportation Funding Federal Fiscal Year 2016 (Continued)

Federal Regional Targets

May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Other Statewide Items:			
Award Adjustments, Change Orders, Project Value Changes, Etc.	\$12,219,721	\$3,054,930	\$15,274,651
Planning	\$16,800,000	\$4,200,000	\$21,000,000
Statewide Recreational Trails	\$800,000	\$200,000	\$1,000,000
DBEs,FAPO, Misc. Programs	\$800,000	\$200,000	\$1,000,000
Design and Right of Way	\$0	\$0	\$0
Subtotal Other Statewide Items:	\$30,619,721	\$7,654,930	\$38,274,651
Regional Major Infrastructure Projects:	\$67,595,000	\$16,898,750	\$84,493,750
Bridge Program:			
Statewide Bridge Maintenance Program	\$8,000,000	\$2,000,000	\$10,000,000
Statewide Bridge Repl. / Rehab Program	\$105,983,859	\$26,495,965	\$132,479,824
Statewide Bridge Inspection Program	\$5,000,000	\$1,250,000	\$6,250,000
Subtotal Federal Aid Bridge Program:	\$118,983,859	\$29,745,965	\$148,729,824
Total Regional Targets:			
CMAQ – Congestion Management and Air Quality Improvement Program	\$25,000,000	\$6,250,000	\$31,250,000
HSIP – Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP – Transportation Alternatives Program	\$7,970,006	\$1,992,501	\$9,962,507
Regional Maximum Non-CMAQ / HSIP Component:	\$98,689,994	\$24,672,498	\$123,362,492
Total Regional Target:	\$140,660,000	\$33,915,000	\$174,575,000

Title 23 – Transportation Funding Federal Fiscal Year 2016 (Continued)

Federal Regional Targets

May 15, 2015 Final

Region	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional Minimum TAP Component With State Match	Total Regional Target With State Match	Non CMAQ/ HSIP/ TAP with State Match
Berkshire Region	\$355,964	\$1,112,389	\$0	\$6,214,248	\$4,745,895
Boston Region	\$4,296,710	\$13,427,220	\$5,097,438	\$75,009,821	\$52,188,452
Cape Cod	\$458,514	\$1,432,857	\$357,528	\$8,004,511	\$5,755,612
Central Mass	\$869,013	\$2,715,666	\$852,078	\$15,170,796	\$10,734,039
Franklin Region	\$253,975	\$793,671	\$0	\$4,433,762	\$3,386,116
Martha's Vineyard	\$30,997	\$96,865	\$0	\$541,128	\$413,266
Merrimack Valley	\$442,956	\$1,384,237	\$610,846	\$7,732,899	\$5,294,861
Montachusett	\$445,955	\$1,393,611	\$149,980	\$7,785,266	\$5,795,721
Nantucket	\$21,998	\$68,743	\$0	\$384,027	\$293,286
Northern Middlesex	\$390,961	\$1,221,753	\$490,607	\$6,825,200	\$4,721,879
Old Colony	\$455,954	\$1,424,858	\$600,019	\$7,959,824	\$5,478,993
Pioneer Valley	\$1,080,992	\$3,378,100	\$947,878	\$18,871,416	\$13,464,447
South-eastern Mass	\$896,010	\$2,800,033	\$856,134	\$15,642,102	\$11,089,952
Total:	\$10,000,000	\$31,250,000	\$9,962,507	\$174,575,000	\$123,362,492

Title 23 – Transportation Funding
Federal Fiscal Year 2017
Federal Regional Targets
May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Base Obligation Authority	\$550,000,000		
Redistribution, as estimated by FHWA	\$50,000,000		
Total Estimated Obligation Authority Available	\$600,000,000		
ABP GANS Repayment	\$59,150,000		
Total Non-Earmarked Available Statewide – (Including State Match)	\$540,850,000	\$122,288,943	\$663,138,943
Statewide Infrastructure Items:			
Statewide Infrastructure Program	\$5,600,000	\$1,400,000	\$7,000,000
Statewide HSIP Program	\$22,000,000	\$2,444,444	\$24,444,444
Statewide Safe Routes to Schools	\$5,000,000	\$1,250,000	\$6,250,000
Statewide CMAQ	\$35,030,000	\$8,757,500	\$43,787,500
Statewide Transportation Enhancements	\$0	\$0	\$0
Statewide ITS	\$14,400,000	\$3,600,000	\$18,000,000
Statewide Interstate Maintenance	\$63,489,614	\$7,054,402	\$70,544,016
Statewide NHS Preservation Program	\$34,932,000	\$8,733,000	\$43,665,000
Statewide RR Grade Crossings	\$8,000,000	\$2,000,000	\$10,000,000
Statewide Stormwater Retrofits	\$4,500,000	\$1,125,000	\$5,625,000
Statewide ADA Implementation Plan	\$2,700,000	\$675,000	\$3,375,000
Subtotal Statewide Infrastructure Items	\$195,651,614	\$37,239,346	\$233,690,960

Title 23 – Transportation Funding Federal Fiscal Year 2017 (Continued)

Federal Regional Targets

May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Other Statewide Items:			
Award Adjustments, Change Orders, Project Value Changes, Etc.	\$25,000,000	\$6,250,000	\$31,250,000
Planning	\$25,800,000	\$6,450,000	\$32,250,000
Recreational Trails	\$800,000	\$200,000	\$1,000,000
DBEs, FAPO, Misc. Programs	\$800,000	\$200,000	\$1,000,000
Design and Right of Way	\$0	\$0	\$0
Subtotal Other Statewide Items:	\$52,400,000	\$13,100,000	\$65,500,000
Regional Major Infrastructure Projects:	\$7,200,000	\$1,800,000	\$9,000,000
Bridge Program:			
Statewide Bridge Maintenance Program	\$8,000,000	\$2,000,000	\$10,000,000
Statewide Bridge Repl. / Rehab Program	\$106,338,386	\$26,584,597	\$132,922,983
Statewide Bridge Inspection Program	\$5,000,000	\$1,250,000	\$6,250,000
Subtotal Federal Aid Bridge Program:	\$119,338,386	\$29,834,597	\$149,172,983
Total Regional Targets:			
CMAQ – Congestion Management and Air Quality Improvement Program	\$25,000,000	\$6,250,000	\$31,250,000
HSIP – Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP – Transportation Alternatives Program	\$7,970,006	\$1,992,501	\$9,962,507
Regional Maximum Non-CMAQ / HSIP Component:	\$124,289,994	\$31,072,499	\$155,362,493
Total Regional Target:	\$166,260,000	\$40,315,000	\$206,575,000

Title 23 – Transportation Funding Federal Fiscal Year 2017 (Continued)

Federal Regional Targets

May 15, 2015 Final

Region	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional Minimum TAP Component With State Match	Total Regional Target With State Match	Non CMAQ/ HSIP/ TAP with State Match
Berkshire Region	\$355,964	\$1,112,389	\$0	\$7,353,335	\$5,884,981
Boston Region	\$4,296,710	\$13,427,220	\$3,312,089	\$88,759,294	\$67,723,275
Cape Cod	\$458,514	\$1,432,857	\$232,306	\$9,471,756	\$7,348,079
Central Mass	\$869,013	\$2,715,666	\$553,642	\$17,951,638	\$13,813,317
Franklin Region	\$253,975	\$793,671	\$0	\$5,246,480	\$4,198,835
Martha's Vineyard	\$30,997	\$96,865	\$0	\$640,318	\$512,456
Merrimack Valley	\$442,956	\$1,384,237	\$396,901	\$9,150,357	\$6,926,265
Montachusett	\$445,955	\$1,393,611	\$97,450	\$9,212,324	\$7,275,308
Nantucket	\$21,998	\$68,743	\$0	\$454,420	\$363,679
Northern Middlesex	\$390,961	\$1,221,753	\$318,775	\$8,076,275	\$6,144,787
Old Colony	\$455,954	\$1,424,858	\$389,865	\$9,418,878	\$7,148,201
Pioneer Valley	\$1,080,992	\$3,378,100	\$615,889	\$22,330,590	\$17,255,610
South-eastern Mass	\$896,010	\$2,800,033	\$556,278	\$18,509,335	\$14,257,014
Total:	\$10,000,000	\$31,250,000	\$9,962,507	\$206,575,000	\$158,851,806

Title 23 – Transportation Funding
Federal Fiscal Year 2018
Federal Regional Targets
 May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Base Obligation Authority	\$550,000,000		
Redistribution, as estimated by FHWA	\$50,000,000		
Total Estimated Obligation Authority Available	\$600,000,000		
ABP GANS Repayment	\$68,463,700		
Total Non-Earmarked Available Statewide – (Including State Match)	\$531,536,300	\$120,126,726	\$651,663,026
Statewide Infrastructure Items:			
Statewide Infrastructure Program	\$5,600,000	\$1,400,000	\$7,000,000
Statewide HSIP Program	\$24,000,000	\$2,666,667	\$26,666,667
Statewide Safe Routes to Schools	\$5,000,000	\$1,250,000	\$6,250,000
Statewide CMAQ	\$38,400,000	\$9,600,000	\$48,000,000
Statewide Transportation Enhancements	\$0	\$0	\$0
Statewide ITS	\$11,920,000	\$2,980,000	\$14,900,000
Statewide Interstate Maintenance	\$60,292,914	\$6,699,213	\$66,992,127
Statewide NHS Preservation Program	\$31,000,000	\$7,750,000	\$38,750,000
Statewide RR Grade Crossings	\$4,800,000	\$1,200,000	\$6,000,000
Statewide Stormwater Retrofits	\$5,650,000	\$1,412,500	\$7,062,500
Statewide ADA Implementation Plan	\$1,550,000	\$387,500	\$1,937,500
Subtotal Statewide Infrastructure Items	\$188,212,914	\$35,545,879	\$224,558,793

Title 23 – Transportation Funding Federal Fiscal Year 2018 (Continued)

Federal Regional Targets

May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Other Statewide Items:			
Award Adjustments, Change Orders, Project Value Changes, Etc.	\$25,000,000	\$6,250,000	\$38,625,000
Planning	\$24,800,000	\$6,200,000	\$31,000,000
Recreational Trails	\$800,000	\$200,000	\$1,000,000
DBEs, FAPO, Retrofits, and Misc. Programs	\$800,000	\$200,000	\$1,000,000
Design and Right of Way	\$0	\$0	\$0
Subtotal Other Statewide Items:	\$51,400,000	\$12,850,000	\$64,250,000
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Bridge Program:			
Statewide Bridge Maintenance Program	\$8,000,000	\$2,000,000	\$10,000,000
Statewide Bridge Repl. / Rehab Program	\$105,463,386	\$23,365,847	\$131,829,233
Statewide Bridge Inspection Program	\$5,000,000	\$1,250,000	\$6,250,000
Subtotal Federal Aid Bridge Program:	\$118,463,386	\$26,615,847	\$148,079,233
Total Regional Targets:			
CMAQ – Congestion Management and Air Quality Improvement Program	\$25,000,000	\$6,250,000	\$31,250,000
HSIP – Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP – Transportation Alternatives Program	\$7,970,006	\$1,294,639	\$9,962,507
Regional Maximum Non-CMAQ / HSIP Component:	\$131,489,994	\$25,370,361	\$164,362,493
Total Regional Target:	\$173,460,000	\$33,915,000	\$215,575,000

Title 23 – Transportation Funding Federal Fiscal Year 2018 (Continued)

Federal Regional Targets

May 15, 2015 Final

Region	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional Minimum TAP Component With State Match	Total Regional Target With State Match	Non CMAQ/ HSIP/ TAP with State Match
Berkshire Region	\$355,964	\$1,112,389	\$0	\$7,673,703	\$6,205,349
Boston Region	\$4,296,710	\$13,427,220	\$3,312,089	\$92,626,333	\$71,590,315
Cape Cod	\$458,514	\$1,432,857	\$232,306	\$9,884,419	\$7,760,742
Central Mass	\$869,013	\$2,715,666	\$553,642	\$18,733,750	\$14,595,428
Franklin Region	\$253,975	\$793,671	\$0	\$5,475,057	\$4,427,412
Martha's Vineyard	\$30,997	\$96,865	\$0	\$668,216	\$540,353
Merrimack Valley	\$442,956	\$1,384,237	\$396,901	\$9,549,017	\$7,324,925
Montachusett	\$445,955	\$1,393,611	\$97,450	\$9,613,684	\$7,676,667
Nantucket	\$21,998	\$68,743	\$0	\$474,218	\$383,477
Northern Middlesex	\$390,961	\$1,221,753	\$318,775	\$8,428,140	\$6,496,651
Old Colony	\$455,954	\$1,424,858	\$389,865	\$9,829,237	\$7,558,560
Pioneer Valley	\$1,080,992	\$3,378,100	\$615,889	\$23,303,483	\$18,228,502
South-eastern Mass	\$896,010	\$2,800,033	\$556,278	\$19,315,744	\$15,063,424
Total:	\$10,000,000	\$31,250,000	\$9,962,507	\$215,575,000	\$167,851,806

Title 23 – Transportation Funding
Federal Fiscal Year 2019
Federal Regional Targets
 May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Base Obligation Authority	\$550,000,000		
Redistribution, as estimated by FHWA	\$50,000,000		
Total Estimated Obligation Authority Available	\$600,000,000		
ABP GANS Repayment	\$73,525,150		
Total Non-Earmarked Available Statewide – (Including State Match)	\$526,474,850	\$130,368,713	\$656,843,563
Statewide Infrastructure Items:			
Statewide Infrastructure Program	\$2,960,000	\$740,000	\$3,700,000
Statewide HSIP Program	\$24,000,000	\$2,666,667	\$26,666,667
Statewide Safe Routes to Schools	\$5,000,000	\$1,250,000	\$6,250,000
Statewide CMAQ	\$44,363,162	\$11,090,791	\$55,453,953
Statewide Transportation Enhancements	\$0	\$0	\$0
Statewide ITS	\$20,000,000	\$5,000,000	\$25,000,000
Statewide Interstate Maintenance	\$57,646,464	\$14,411,616	\$72,058,080
Statewide NHS Preservation Program	\$28,000,000	\$7,000,000	\$35,000,000
Statewide RR Grade Crossings	\$3,800,000	\$950,000	\$4,750,000
Statewide Stormwater Retrofits	\$1,800,000	\$450,000	\$2,250,000
Statewide ADA Implementation Plan	\$1,200,000	\$300,000	\$1,500,000
Subtotal Statewide Infrastructure Items	\$188,769,626	\$47,192,407	\$235,962,033

Title 23 – Transportation Funding Federal Fiscal Year 2019 (Continued)

Federal Regional Targets

May 15, 2015 Final

	Obligation Authority	Obl. Auth. Matching	Total Funding Based On
Other Statewide Items:			
Award Adjustments, Change Orders, Project Value Changes, Etc.	\$22,040,000	\$5,510,000	\$27,550,000
Planning	\$23,800,000	\$5,950,000	\$29,750,000
Recreational Trails	\$800,000	\$200,000	\$1,000,000
DBEs, FAPO, Retrofits, and Misc. Programs	\$800,000	\$200,000	\$1,000,000
Design and Right of Way	\$0	\$0	\$0
Subtotal Other Statewide Items:	\$47,440,000	\$11,860,000	\$59,300,000
Regional Major Infrastructure Projects:	\$0	\$0	\$0
Bridge Program:			
Statewide Bridge Maintenance Program	\$8,000,000	\$2,000,000	\$10,000,000
Statewide Bridge Repl. / Rehab Program	\$103,805,224	\$25,951,306	\$129,756,530
Statewide Bridge Inspection Program	\$5,000,000	\$1,250,000	\$6,250,000
Subtotal Federal Aid Bridge Program:	\$116,805,224	\$29,201,306	\$146,006,530
Total Regional Targets:			
CMAQ – Congestion Management and Air Quality Improvement Program	\$25,000,000	\$6,250,000	\$31,250,000
HSIP – Highway Safety Improvement Program	\$9,000,000	\$1,000,000	\$10,000,000
TAP – Transportation Alternatives Program	\$5,278,555	\$1,319,639	\$6,598,194
Regional Maximum Non-CMAQ / HSIP Component:	\$134,181,445	\$33,545,361	\$167,726,806
Total Regional Target:	\$173,460,000	\$42,115,000	\$215,575,000

Title 23 – Transportation Funding Federal Fiscal Year 2019 (Continued)

Federal Regional Targets

May 15, 2015 Final

Region	Regional Minimum HSIP Component With State Match	Regional Minimum CMAQ Component With State Match	Regional Minimum TAP Component With State Match	Total Regional Target With State Match	Non CMAQ/ HSIP/ TAP with State Match
Berkshire Region	\$355,964	\$1,112,389	\$0	\$7,673,703	\$6,205,349
Boston Region	\$4,296,710	\$13,427,220	\$2,548,719	\$92,626,333	\$72,353,684
Cape Cod	\$458,514	\$1,432,857	\$178,764	\$9,884,419	\$7,814,284
Central Mass	\$869,013	\$2,715,666	\$426,039	\$18,733,750	\$14,723,032
Franklin Region	\$253,975	\$793,671	\$0	\$5,475,057	\$4,427,412
Martha's Vineyard	\$30,997	\$96,865	\$0	\$668,216	\$540,353
Merrimack Valley	\$442,956	\$1,384,237	\$305,423	\$9,549,018	\$7,416,402
Montachusett	\$445,955	\$1,393,611	\$74,990	\$9,613,684	\$7,699,128
Nantucket	\$21,998	\$68,743	\$0	\$474,218	\$383,477
Northern Middlesex	\$390,961	\$1,221,753	\$245,303	\$8,428,140	\$6,570,122
Old Colony	\$455,954	\$1,424,858	\$300,009	\$9,829,237	\$7,648,416
Pioneer Valley	\$1,080,992	\$3,378,100	\$473,939	\$23,303,483	\$18,370,452
South-eastern Mass	\$896,010	\$2,800,033	\$428,067	\$19,315,744	\$15,191,634
Total:	\$10,000,000	\$31,250,000	\$6,598,194	\$215,575,000	\$169,343,747

The following table shows the total federal programmed amounts in this TIP for each of the four years covered in this document. The funding summaries below show the total Operating and Maintenance costs versus Capital and Other costs, for each year of the TIP. A fiscal constraint finding for the State Transportation Improvement Program will include the cost of operating and maintaining the existing MVMPO transportation system.

**Merrimack Valley Metropolitan Planning Organization
FY 2016-2019 Transportation Improvement Program**

**Highway Program Financial Plan
(FHWA - related funding categories only)**

Total Costs including Federal and State Match*

Figures include Federal Aid “target” program & statewide funding

Fiscal Year	Federal Programmed Operating/ Maintenance Costs* (inc. Match)	Federal Programmed Capital and Other Costs* (inc. Match)	Total Federal + Match Programmed*	Total Federal + Match Estimated Available Funds*
2016	\$24.54	\$4.62	\$29.16	\$31.04
2017	\$11.01	\$7.83	\$18.84	\$20.16
2018	\$27.25	\$13.64	\$40.89	\$41.39
2019	\$18.02	\$11.05	\$29.07	\$31.93

* Millions of dollars

The financial plan contained herein is financially constrained and indicates that the Merrimack Valley Metropolitan Planning Organization's 2016-2019 TIP reflects an emphasis on the maintenance and operation of the current roadway and bridge system with the ability to provide additional capital improvements. Only projects for which funds can be expected have been included.

Part B of this document includes a list of Non-federal-aid transportation projects in the region. The projects listed in Part B are an integral part of the planning, programming, and priority setting process of the MVMPO.

Following the Transit Projects Financial Plan, the eight tables in Part C.4. contain a breakdown of the project cost totals and federal aid cost portions by federal aid funding categories for each fiscal year and the expected available resources to cover the cost.

The tables on the following pages show actual MassDOT Highway Operating and Maintenance Expenditures for FFY 2013, 2014 and 2015.

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 1: Non-Federal Aid
 as of May 31, 2015

Section I – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 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	\$9,534,929	\$2,842,666	\$80,010
Drawbridge Maintenance	\$0	\$0	\$0
Structure Maintenance	\$106,953	\$0	\$68,858
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	\$0	\$0	\$0
Hwy Reconstr – No Added Capacity	\$34,642	\$1,000,000	\$9,275
Hwy Reconstr – Minor Widening	\$0	\$0	\$0
Hwy Reconstr – Major Widening	\$0	\$0	\$0
04 – Roadway Resurfacing			
Resurfacing	\$0	\$0	\$1,841

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 1: Non-Federal Aid (Continued)
 as of May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$0	\$0	\$0
06 – Signs & Lighting			
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
Landscaping	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0
Pavement Marking	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0
Process/Recycle/Tnsprt Soils	\$0	\$0	\$0
Contract Hwy Maint.	\$0	\$0	\$0

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2012 Expenditures	Estimated SFY 2013 Expenditures	Current SFY 2014 Expenditures to Date
09 – Facilities			
Chemical Storage Sheds	\$0	\$0	\$0
Vertical Construction	\$527,607	\$4,299,249	\$0
10 – Bikeways (Excluded)	n/a	n/a	n/a
11 – Other			
Demolition	\$0	\$0	\$0
Drilling and Boring	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation Sys	\$0	\$0	\$0
Marine Construction			
Miscellaneous / No Prequal	\$0	\$0	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0
Section I Total:	\$10,204,130	\$8,141,915	\$159,984

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section II – Non-Federal Aid Highway Operations - State Operating Budget Funding

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
12 – Snow and Ice Operations & Materials	n/a	n/a	n/a
13 – District Maintenance Payroll	n/a	n/a	n/a
(Mowing, Litter Management, Sight Distance Clearing, Etc.)			
Section II Total:	\$0	\$0	\$0
Grand Total NFA:	\$10,204,130	\$8,141,915	\$159,984

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 2: Federal Aid
 as of May 31, 2015

Section I – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 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	\$2,395,314	\$12,025	\$5,586
Drawbridge Maintenance	\$0	\$0	\$0
Structure Maintenance	\$125,748	\$459	\$1,327,413
02 – Bridge Painting			
Painting - Structural	\$74,931	\$3,779,698	\$376,731
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	\$110,864	\$13,833	\$0
Hwy Reconstr – No Added Cap.	\$0	\$799,144	\$13,922,969
Hwy Reconstr – Minor Widening	\$786,302	\$59,456	\$0
Hwy Reconstr – Major Widening	\$0	\$0	\$0
04 – Roadway Resurfacing			
Resurfacing	\$5,482,314	\$10,984,708	\$2,588,999

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$336,441	\$900,184	\$0
06 – Signs & Lighting			
Electrical	\$0	\$0	\$0
Sign Installation / Upgrading	\$0	\$0	\$0
Structural Signing	\$327,898	\$5,075	\$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
Landscaping	\$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

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
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 and Boring	\$0	\$0	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation Sys	\$21,008	\$3,175	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No Prequal	\$4,370,285	\$364,239	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0
Section I Total:	\$14,031,105	\$16,921,997	\$18,221,698

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Merrimack Valley Region – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section II – Federal Aid Highway Operations

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
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:	\$14,031,105	\$16,921,997	\$18,221,698

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 1: Non-Federal Aid
 as of May 31, 2015

Section I – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
01- Bridge Repair & Replacement			
New Bridge (Excluded)	n/a	n/a	
Bridge Replacement (Excluded)	n/a	n/a	
Bridge Reconstruction/Rehab	\$0	\$347,455	\$1,265,662
Drawbridge Maintenance	\$2,605,807	\$6,067,658	\$4,640,459
Structure Maintenance	\$35,499,934	\$35,863,695	\$21,479,568
02 – Bridge Painting			
Painting - Structural	\$0	\$986,521	\$1,025,289
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	\$2,162,734	\$1,014,867	\$68,651
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	\$11,448,033	\$28,199,309	\$10,099,127

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 1: Non-Federal Aid (Continued)
 as of May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$343,745	\$249,117	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$2,673,645	\$3,387,510	\$0
06 – Signs & Lighting			
Electrical	\$1,276,874	\$1,696,432	\$0
Sign Installation / Upgrading	\$609,383	\$802,766	\$0
Structural Signing	\$301,908	\$613,184	\$0
07 – Guardrail			
Guard Rail and Fencing	\$2,388,637	\$3,228,154	\$0
08 – Maintenance			
Catch Basin Cleaning	\$5,020,329	\$5,248,686	\$0
Crack Sealing	\$5,015,414	\$4,174,687	\$0
Landscaping	\$526,601	\$8,638,052	\$0
Mowing and Spraying	\$4,063,711	\$3,461,254	\$0
Pavement Marking	\$4,063,711	\$5,033,678	\$0
Sewer and Water	\$73,726	\$415,993	\$0
Process/Recycle/Trnsprt Soils	\$3,942,801	\$4,318,298	\$0
Contract Hwy Maint.	\$13,349	\$183,428	\$0

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
09 – Facilities			
Chemical Storage Sheds	\$551,735	\$849,029	\$0
Vertical Construction	\$5,224,912	\$4,290,212	\$0
10 – Bikeways (Excluded)	n/a	n/a	n/a
11 – Other			
Demolition	\$0	\$0	\$0
Drilling and Boring	\$25,313	\$0	\$0
Highway Sweeping	\$570,558	\$698,618	\$0
Intelligent Transportation Sys	\$823,727	\$86,025	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No Prequal	\$1,898,989	\$1,928,892	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$32,754	\$0	\$0
Hazardous Waste Remediation	\$1,860,342	\$53,415	\$0
Unknown	\$481,028	\$517,930	\$0
Section I Total:	\$89,435,989	\$118,911,609	\$38,578,757

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section II – Non-Federal Aid Highway Operations - State Operating Budget Funding

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
12 – Snow and Ice Operations & Materials	\$92,067,574	\$119,915,309	\$131,541,859
13 – District Maintenance Payroll	\$22,943,817	\$24,367,401	\$20,960,541
(Mowing, Litter Management, Sight Distance Clearing, Etc.)			
Section II Total:	\$115,011,391	\$144,282,710	\$152,502,400
Grand Total NFA:	\$204,447,380	\$263,194,319	\$191,081,156

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 2: Federal Aid
 as of May 31, 2015

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	
Bridge Replacement (Excluded)	n/a	n/a	
Bridge Reconstruction/Rehab	\$0	\$0	\$0
Drawbridge Maintenance	\$0	\$0	\$0
Structure Maintenance	\$788,063	\$2,363,766	\$4,775,569
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	\$0	\$1,198,567	\$182,417
Hwy Reconstr – No Added Cap.	\$0	\$148,014	\$488,054
Hwy Reconstr – Minor Widening	\$0	\$0	\$0
Hwy Reconstr – Major Widening	\$0	\$0	\$0
04 – Roadway Resurfacing			
Resurfacing	\$1,160,946	\$0	\$52,172

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$0	\$0	\$0
Traffic Signals	\$0	\$0	\$0
06 – Signs & Lighting			
Electrical	\$366,192	\$1,847,736	\$0
Sign Installation / Upgrading	\$172,664	\$4,885	\$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	\$4,151,018	\$3,293,626	\$0
Crack Sealing	\$0	\$0	\$0
Landscaping	\$0	\$0	\$0
Mowing and Spraying	\$0	\$0	\$0
Pavement Marking	\$318,169	\$133,236	\$0
Process/Recycle/Transport Soils	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
09 – Facilities			
Chemical Storage Sheds	\$0	\$0	\$0
Vertical Construction	\$14,336	\$871	\$0
10 – Bikeways (Excluded)	n/a	n/a	n/a
11 – Other			
Demolition	\$0	\$0	\$0
Drilling and Boring	\$7,887	\$916	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation Sys	\$3,298,036	\$3,714,508	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No Prequal	\$0	\$9,706	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0
Section I Total:	\$10,277,311	\$12,715,830	\$7,053,721

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
Statewide Contracts – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section II – Federal Aid Highway Operations

Program Group/Sub Group	Estimated SFY 2012 Expenditures	Estimated SFY 2013 Expenditures	Current SFY 2014 Expenditures to Date
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:	\$10,277,311	\$12,715,830	\$7,053,721

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
State Total – Part 1: Non-Federal Aid
 as of May 31, 2015

Section I – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 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	\$56,265,484	\$32,866,246	\$24,647,320
Drawbridge Maintenance	\$9,762,345	\$6,610,436	\$4,780,533
Structure Maintenance	\$65,376,829	\$57,494,929	\$43,054,188
02 – Bridge Painting			
Painting - Structural	\$1,988,410	\$1,802,124	\$2,150,134
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	\$3,262,714	\$1,062,108	\$101,475
Hwy Reconstr – No Added Capacity	\$35,442	\$1,068,476	\$11,192
Hwy Reconstr – Minor Widening	\$6,947	\$55,822	\$40,858
Hwy Reconstr – Major Widening	\$47,992	\$2,307,528	\$2,382,899
04 – Roadway Resurfacing			
Resurfacing	\$12,311,850	\$28,625,065	\$18,522,945

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
State Total – Part 1: Non-Federal Aid (Continued)
 May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$343,745	\$249,117	\$0
Safety Improvements	\$4,896	\$0	\$0
Traffic Signals	\$2,673,645	\$3,387,510	\$0
06 – Signs & Lighting			
Electrical	\$1,277,590	\$1,739,487	\$0
Sign Installation / Upgrading	\$632,242	\$820,766	\$0
Structural Signing	\$301,908	\$613,184	\$0
07 – Guardrail			
Guard Rail and Fencing	\$2,740,920	\$3,228,154	\$0
08 – Maintenance			
Catch Basin Cleaning	\$5,020,329	\$5,248,686	\$0
Contract Highway Maintenance	\$5,035,407	\$4,174,687	\$0
Crack Sealing	\$526,601	\$8,638,052	\$0
Landscaping	\$4,064,397	\$5,033,678	\$0
Mowing and Spraying	\$73,726	\$415,993	\$0
Pavement Marking	\$4,044,288	\$4,322,118	\$0
Process/Recycle/Trnsprt Soils	\$1,148	\$384,871	\$0
Sewer and Water	\$13,349	\$183,428	\$0

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
State Total – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section I (Cont.) – Non-Federal Aid Maintenance Projects – State Bond funds

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
09 – Facilities			
Chemical Storage Sheds	\$578,900	\$849,029	\$0
Vertical Construction	\$7,124,346	\$16,197,682	\$0
10 – Bikeways (Excluded)	n/a	n/a	n/a
11 – Other			
Demolition	\$2,282,970	\$254,325	\$0
Drilling and Boring	\$25,313	\$0	\$0
Highway Sweeping	\$570,558	\$698,618	\$0
Intelligent Transportation Sys	\$961,221	\$91,118	\$0
Marine Construction	\$0	\$0	\$0
Miscellaneous / No Prequal	\$3,593,025	\$2,289,765	\$0
Reclamation	\$0	\$0	\$0
Underground Tank Removal Replace	\$32,754	\$0	\$0
Hazardous Waste Remediation	\$1,860,342	\$53,415	\$0
Unknown	\$481,028	\$517,930	\$0
Section I Total:	\$193,322,660	\$191,284,345	\$95,691,543

Massachusetts Highway Department
 Summary of Operating and Maintenance Expenditures
State Total – Part 1: Non-Federal Aid (Cont.)
 as of May 31, 2015

Section II – Non-Federal Aid Highway Operations - State Operating Budget Funding

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
12 – Snow and Ice Operations & Materials	\$92,067,574	\$119,915,309	\$131,541,859
13 – District Maintenance Payroll	\$22,943,817	\$24,367,401	\$20,960,541
(Mowing, Litter Management, Sight Distance Clearing, Etc.)			
Section II Total:	\$115,011,391	\$144,282,710	\$152,502,400
Grand Total NFA:	\$308,334,052	\$335,567,055	\$248,193,943

Massachusetts Department of Transportation
 Summary of Operating and Maintenance Expenditures
State Total – Part 2: Federal Aid
 June 3, 2014

Section I – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 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	\$117,251,049	\$217,388,219	\$167,605,633
Drawbridge Maintenance	\$0	\$0	\$0
Structure Maintenance	\$12,109,125	\$11,550,508	\$18,517,775
02 – Bridge Painting			
Painting - Structural	\$74,931	\$3,779,698	\$376,731
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	\$32,114,608	\$24,934,492	\$29,051,113
Hwy Reconstr – No Added Cap.	\$38,999,446	\$29,246,785	\$35,679,113
Hwy Reconstr – Minor Widening	\$15,246,722	\$13,920,824	\$18,695,086
Hwy Reconstr – Major Widening	\$26,413	\$1,077,381	\$1,883,063
04 – Roadway Resurfacing			
Resurfacing	\$88,343,165	\$114,689,489	\$79,257,192

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
State Total – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
05 – Intersection & Safety			
Impact Attenuators	\$0	\$0	\$0
Safety Improvements	\$171,570	\$5,399	\$0
Traffic Signals	\$12,512,085	\$5,882,616	\$0
06 – Signs & Lighting			\$0
Electrical	\$1,232,314	\$2,196,210	\$0
Sign Installation / Upgrading	\$1,212,793	\$2,847,640	\$0
Structural Signing	\$3,098,537	\$6,417,217	\$0
07 – Guardrail			\$0
Guard Rail and Fencing	\$1,644,324	\$1,885,934	\$0
08 – Maintenance			\$0
Catch Basin Cleaning	\$0	\$0	\$0
Contract Highway Maintenance	\$4,151,018	\$3,293,626	\$0
Crack Sealing	\$0	\$0	\$0
Landscaping	\$809,120	\$58,400	\$0
Mowing and Spraying	\$0	\$0	\$0
Pavement Marking	\$318,169	\$133,236	\$0
Process/Recycle/Transport Soils	\$0	\$0	\$0
Sewer and Water	\$0	\$0	\$0

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
State Total – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section I (Continued) – Federal Aid Maintenance Projects

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
09 – Facilities			
Chemical Storage Sheds	\$0	\$0	\$0
Vertical Construction	\$315,540	\$12,062	\$12,062
10 – Bikeways (Excluded)	n/a	n/a	n/a
11 – Other			
Demolition	\$0	\$0	\$0
Drilling and Boring	\$7,887	\$916	\$0
Highway Sweeping	\$0	\$0	\$0
Intelligent Transportation Sys	\$6,210,680	\$5,997,614	\$0
Marine Construction	\$2,565,340	\$2,655,746	\$0
Miscellaneous / No Prequal	\$5,072,465	\$437,469	\$0
Reclamation	\$146,028	\$15,713	\$0
Underground Tank Removal Replace	\$0	\$0	\$0
Unknown	\$0	\$0	\$0
Section I Total:	\$343,633,327	\$448,427,194	\$351,066,362

Massachusetts Department of Transportation – Highway Division
 Summary of Operating and Maintenance Expenditures
State Total – Part 2: Federal Aid (Continued)
 as of May 31, 2015

Section II – Federal Aid Highway Operations

Program Group/Sub Group	Estimated SFY 2013 Expenditures	Estimated SFY 2014 Expenditures	Current SFY 2015 Expenditures to Date
ITS Operations – I-93 HOV Lane Operation and Towing	\$550,000	\$550,000	\$0
ITS Operations – Traffic Operations Center (South Boston)	\$600,000	\$600,000	\$0
Section II Total:	\$1,150,000	\$1,150,000	\$0
Grand Total Federal Aid:	\$344,783,327	\$449,577,194	\$351,066,362

Transit Projects Financial Plan

Planning Justification for Transit Projects

The Merrimack Valley region's FY 2016-2019 TIP federal aid transit projects are to be carried out using Section 5307 received by the MVRTA from the FTA. The Authority will design and oversee construction of the Newburyport Intermodal Center. With the exception of the provision of operating assistance, the planning justification for the Section 5307 projects are contained in the Merrimack Valley Regional Transit Authority's Five Year Capital Program for 2016-2020.

MVRTA Financial Status

The MAP-21 requires that projects appearing in the TIP must have an identified source of funding that will allow them to be completed within the time period contemplated. Transit projects appearing in the FY 2016-2019 TIP meet this criterion.

However, while the program of transit projects shown in this TIP is a fiscally constrained plan for the MPO, it does not meet all of the MVRTA's capital funding needs as identified in the Authority's 2016-2020 Capital Program. A copy of this report can be found in Appendix E. Should additional state funding for transit capital spending become available, projects that appear in the MVRTA's FFY 2016 to FFY 2020 Capital Program can be added to the 2016-2019 MVMPO TIP program by amending the document.

**Merrimack Valley Metropolitan Planning Organization
FY 2016-2019 Transportation Improvement Program**

**Transit Program Financial Plan
(FTA related funding categories only)
Total Costs including Federal, State and Local***

Fiscal Year	Federal Programmed Operating/ Maintenance Costs* (inc. Match)	Federal Programmed Capital and Other Costs* (inc. Match)	Total Federal + Match Programmed*	Total Federal + Match Estimated Available Funds*
2016	\$12.83	\$2.75	\$15.58	\$15.58
2017	\$5.67	\$1.42	\$7.09	\$7.09
2018	\$5.89	\$0.10	\$5.99	\$5.99
2019	\$6.59	\$0.10	\$6.69	\$6.69

* Millions of dollars

**Merrimack Valley MPO Operations and Maintenance Summary Table for the
Merrimack Valley Regional Transit Authority State Fiscal Year 2015**

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. These numbers indicate that there are sufficient revenues projected to meet the operating needs of the area transit authority.

	Audit	Adopted Budget	Adopted Budget	Projected	Projected
Operating Revenue	Previous	Current	Yr Two	Yr Three	Yr Four
	2014	2015	2016	2017	2018
Farebox	\$1,838,270	\$1,942,340	\$2,014,510	\$2,071,855	\$2,133,225
Section 5307	\$3,194,000	\$3,659,405	\$3,703,350	\$3,990,980	\$4,169,840
Section 5311	-	-	-		
CMAQ/TDM	-	-	-		
Fully Funded*	-	-	-		
Job Access/ Reverse Commute	\$301,595	-	-		
New Freedom	\$885	-	-		
Advertising	\$26,000	\$25,000	\$25,000	\$25,000	\$25,000
Interest Income	\$10,000	\$1,000	\$1,000	\$1,000	\$1,000
Rental Income	-	-			
State Contract Assistance**	\$5,902,540	\$6,669,430	\$6,669,450	\$6,836,165	\$7,007,070
Local Assessment	\$3,040,355	\$3,119,870	\$3,200,640	\$3,280,525	\$3,362,370
Other: (Define)	\$873,980	\$823,155	\$916,320	\$909,955	4925,430
Total Revenue	\$15,187,625	\$16,240,200	\$16,530,270	\$17,115,480	\$17,623,935
Operating Expenses	Previous	Current	Yr Two	Yr Three	Yr Four
	2014	2015	2016	2017	2018
Total (See Below)	\$15,138,080	\$16,240,200	\$16,530,270	\$17,115,480	\$17,623,935

Footnotes:

* Fully funded refers to contract work often to Human Service Agencies

** Operating assistance provided by the State

*** Description of Operating Expenses: Salaries and Wages; Fringe Benefits: Legal, Accounting and Professional Services; Promotion/Marketing; Insurance; Equipment Leases and Rentals; Real Property Leases and Rentals; Non-capitalized Maintenance/Repair; Fuel costs; Tire costs; Office Supplies and Equipment; Interest expense; Utilities; Management Fees; Travel and Training; and Other miscellaneous expense items.

Part C.2. Summary of Funding Categories

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2016
Final Prepared July 30, 2015**

HIGHWAY FFY 2016	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) From Region Target
Congestion Mitigation/AQ	\$1,107.39	\$1,384.24	\$1,384.24
Highway Safety (HSIP)			\$442.96
Surface Transportation Program	\$3,087.17	\$3,858.97	\$5,294.86
Transportation Alternatives Program (TAP)	\$488.68	\$610.85	\$610.85
Statewide CMAQ			
Statewide Interstate Maintenance (NHPP)	\$12,956.40	\$14,396.00	\$14,396.00
Statewide NHS Preservation Program (NHPP)	\$5,549.73	\$6,937.16	\$6,937.16
Statewide Stormwater Program (STP-TE)	\$931.20	\$1,164.00	\$1,164.00
Statewide TAP	\$650.00	\$812.50	\$812.50
Total FFY 2016	\$24,770.57	\$29,163.71	\$31,042.56

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2017
Final Prepared July 30, 2015**

HIGHWAY FFY 2017	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) From Region Target
Congestion Mitigation/AQ	\$471.00	\$588.75	\$1,384.24
Highway Safety (HSIP)	\$398.66	\$442.96	\$442.96
Surface Transportation Program	\$5,441.29	\$6,801.61	\$6,926.26
Transportation Alternatives Program (TAP)			396.90
Statewide Interstate Maintenance (NHPP)	\$9,348.32	\$10,387.02	\$10,387.02
Statewide National Highway Preservation Program (NHPP)			
Statewide Stormwater Program (STP-TE)	\$499.20	\$624.00	\$624.00
Statewide (TAP)			
Total FFY 2017	\$16,158.47	\$18,844.33	\$20,161.38

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2018
Final Prepared July 30, 2015**

HIGHWAY FFY 2018	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) From Region Target
Congestion Mitigation/AQ	\$5,008.49	\$6,260.61	\$6,260.61
Highway Safety (HSIP)			\$442.96
Surface Transportation Program	\$1,912.09	\$2,390.11	\$2,448.55
Transportation Alternatives Program (TAP)	\$317.52	\$396.90	4396.90
Statewide National Highway Preservation Program (NHPP)			
Statewide On System Bridges (NHPP)	\$21,800.00	\$27,250.00	\$27,250.00
Statewide CMAQ	\$3,677.44	\$4,596.80	\$4,596.80
Statewide TE			
Total FFY 2018	\$32,715.54	\$40,894.42	\$41,395.82

**Cost Estimates and Available Resources
Summary By Funding Category
Highway Projects Federal Fiscal Year 2019
Final Prepared July 30, 2015**

HIGHWAY FFY 2019	Estimated Needs MVMPO (in 1000s) Federal Portion of Cost	Estimated Needs MVMPO (in 1000s) Total Project Cost	Available Resources MVMPO Projects (in 1000s) From Region Target
Congestion Mitigation/AQ			\$1,384.24
Highway Safety (HSIP)			\$442.96
Surface Transportation Program	\$5,349.63	\$6,687.04	\$7,416.40
Transportation Alternatives Program (TAP)			\$305.42
Statewide CMAQ	\$3,487.98	\$4,359.97	\$4,359.97
Statewide Highway Safety Improvement Program (HSIP)	\$1,890.00	\$2,100.00	\$2,100.00
Statewide National Highway Preservation Program (NHPP)			
Statewide On System Bridges (NHPP)	\$12,376.00	\$15,470.00	\$15,470.00
Statewide TE	\$358.40	\$448.00	\$448.00
Total FFY 2019	\$23,462.01	\$29,065.01	\$31,926.99

**Cost Estimates and Available Resources
Summary by Funding Category
2016 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2016	Regional TIP FFY 2016	Balance FFY 2016
Section 5307 Capital and Planning Formula	\$5,590,860	\$3,113,345	\$2,477,515
Section 5307 Transit Enhancements			
Subtotal	\$5,590,860	\$3,113,345	\$2,477,515
Section 5307 Capital and Planning Formula Carrover	\$9,164,850	\$9,164,850	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$9,164,850	\$9,164,850	\$0
Section 5307 Total	\$14,755,710	\$12,278,195	\$2,477,515
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$14,755,710	\$12,278,195	\$2,477,515
Other Transit Funding			

**Cost Estimates and Available Resources
Summary by Funding Category
2017 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2017	Regional TIP FFY 2017	Balance FFY 2017
Section 5307 Capital and Planning Formula	\$5,590,860	\$2,954,250	\$2,636,610
Section 5307 Transit Enhancements			
Subtotal	\$5,590,860	\$2,954,250	\$2,636,610
Section 5307 Capital and Planning Formula Carrover	\$2,477,515	\$2,477,515	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$2,477,515	\$2,477,515	\$0
Section 5307 Total	\$8,068,375	\$5,431,765	\$2,636,610
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$8,068,375	\$5,431,765	\$2,636,610
Other Transit Funding			

**Cost Estimates and Available Resources
Summary by Funding Category
2018 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2018	Regional TIP FFY 2018	Balance FFY 2018
Section 5307 Capital and Planning Formula	\$5,590,860	\$1,887,710	\$3,703,150
Section 5307 Transit Enhancements			
Subtotal	\$5,590,860	\$1,887,710	\$3,703,150
Section 5307 Capital and Planning Formula Carrover	\$2,636,610	\$2,636,610	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$2,636,610	\$2,636,610	\$0
Section 5307 Total	\$8,227,470	\$4,524,320	\$3,703,150
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$8,227,470	\$4,524,320	\$3,703,150
Other Transit Funding			

**Cost Estimates and Available Resources
Summary by Funding Category
2019 Transit Projects**

FTA Funding Program Summaries (Federal dollars only)

Merrimack Valley Regional Transit Authority FTA Funding Programs	Estimated Authorization FFY 2019	Regional TIP FFY 2019	Balance FFY 2019
Section 5307 Capital and Planning Formula	\$5,590,860	\$1,377,720	\$4,213,140
Section 5307 Transit Enhancements			
Subtotal	\$5,590,860	\$1,377,720	\$4,213,140
Section 5307 Capital and Planning Formula Carrover	\$3,703,150	\$3,703,150	\$0
Section 5307 Operating Carryover			
Section 5307 Transit Enhancements Carryover			
Subtotal	\$3,703,150	\$3,703,150	\$0
Section 5307 Total	\$9,294,010	\$5,080,870	\$4,213,140
Section 5309 Bus			
Section 5309 Fixed Guideway			
Section 5309 Total			
Section 5310 Elderly and Disabled			
Section 5310 Elderly and Disabled Carryover			
Federal Aid Total	\$9,294,010	\$5,080,870	\$4,213,140
Other Transit Funding			

Part C. 1. Status on Implementation of FFY 2015 TIP Projects

FFY 2015 Highway Project List

Project ID	Location	Project Description	MassDOT District	Funding Category	Total Programmed Funds	Project Status as of June 4, 2015
603682	Amesbury	Amesbury – Bridge Replacement, A-07-026, Route I-495 (NB & SB) over the bikeway (Abandoned B&M RR line)	4	NHPP	\$11,288,692	FY 2015
606669	Amesbury	Amesbury – Powwow Riverwalk Construction from Main Street to Water St Includes Pedestrian bridge A-07-034 (Phase I)	4	CMAQ and TAP	\$1,931,026	Changed Design and moved to FY 2016 by Feb. 2015 Amendment
606549	Georgetown- Newbury- West Newbury- Newburyport- Amesbury- Salisbury-	Georgetown- Newbury- West Newbury- Newburyport- Amesbury- Salisbury- Interstate Maintenance and related work I - 95	4	NHPP	\$21,240,000	Advertised 12/27/2014
605114	Groveland	Groveland – Rehabilitation of Route 97 (School Street & Salem Street)	4	STP	\$6,341,761	Design in Final Review FY 2015, AC Year 1 of 2

Part C. 1. Status on Implementation of FFY 2015 TIP Projects

FFY 2015 Highway Project List (Continued)

Project ID	Location	Project Description	MassDOT District	Funding Category	Total Programmed Funds	Project Status as of December 2014
607471	Lawrence	Lawrence – Union Crossing Pedestrian Improvements	4	TCSP	\$579,375	Advertised 9/20/2014
607985	Lawrence-North Andover	Lawrence-North Andover Interstate Maintenance and related work on I-495	4	NHPP	\$7,788,000	Advertised
605720	Haverhill	Haverhill – Riverwalk Construction (Bradford Section) from Route 125 to County Road	4	SW-STP-TE	\$2,410,718	Advertised 9/20/2014
605181	Methuen	Methuen – Interchange reconstruction on I-93 at Route 110/113 Rotary	4	Various	\$77,236,601	Advertised
604585	MVRTA	Flex to FTA for MVRTA new bus upgrade to cleaner fuel buses	4	CMAQ to FTA	\$450,000	Removed from programming by Feb. 2015 Amendment
606503	Newburyport	Newburyport – Clipper City Rail Trail along the City Branch (Phase II)	4	STP-TE	\$3,120,000	75% plans returned as of 2/24/2015 FY 2015
607776	North Andover	North Andover – Safe Routes to School (North Andover Middle)	4	TAP	\$1,086,000	100% plans have been received as of 3/30/2015 FY 2015

Part C. 1. Status on Implementation of FFY 2015 TIP Projects
FFY 2015 Transit Project List

FTA Program	RTA	Project Description	Federal Funds	State Match Sources				Local Funds	Total Cost	Project Status as of May 2015
				RTACAP	MAP	TDC	SCA			
5307	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2016 (O)	\$2,427,775				\$606,945	\$3,034,720	Grant to be filed 7/1/2015	
5307	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2016 (O)	\$1,069,635				\$267,410	\$1,337,045	Grant to be filed 7/1/2015	
5307	MVRTA	Operating Assistance (O)	\$1,064,460				\$1,064,460	\$2,128,920	Grant to be filed 7/1/2015	

Part C. 1. Status on Implementation of FFY 2015 TIP Projects

FFY 2015 Transit Project List (Continued)

FTA Program	RTA	Project Description	Federal Funds	State Match Sources				Local Funds	Total Cost	Project Status as of May 2015
				RTACAP	MAP	TDC	SCA			
5307	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2016 (20% match from MVPC) (N)	\$40,000					\$10,000	\$50,000	Grant to be filed 7/1/2015
5307	MVRTA	MVPC Technical Support to MVRTA FY 2016 (20% match from MVPC) (N)	\$40,000					\$10,000	\$50,000	Grant to be filed 7/1/2015
5307	MVRTA	Purchase- Replacement: Vans 11 Model Year 2009 Delivery FY 2015 (M)	\$501,600	\$125,400					\$627,000	Delivery June 2015

Part C. 1. Status on Implementation of FFY 2015 TIP Projects

FFY 2015 Transit Project List (Continued)

FTA Program	RTA	Project Description	Federal Funds	State Match Sources				Local Funds	Total Cost	Project Status as of May 2015
				RTACAP	MAP	TDC	SCA			
5307	MVRTA	Replace 10 of 17 Model Year 2004 Transit buses with new buses (delivery FY 2016) (M)	\$3,360,000	\$840,000				\$4,200,000	5: Delivery Sept. 2015. 5: Delivery June 2016.	
5307	MVRTA	Rehab/ Renovation: Refurbish Engine/transmission 9 Model year 2009 buses (M)	\$216,000	\$54,000				\$270,000	Engines delivered. Installation ongoing.	
5307	MVRTA	McGovern Intermodal Center State of Good Repair (M)	\$60,000	\$15,000				\$75,000	Complete	
5307	MVRTA	Maintenance Facility State of Good Repair (M)	\$92,000	\$23,000				\$115,000	Complete	
5307	MVRTA	Purchase of Replacement Bus Wash System (M)	\$192,000	\$48,000				\$240,000	Ongoing	

Part C. 2. Air Quality Conformity

Air Quality Conformity Information Merrimack Valley MPO FFY 2016-2019 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 Merrimack Valley 2016-19 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 Merrimack Valley MPO was revoked July 20, 2013 for only the 1997 ozone standard. 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.

Part C. 3. Special Efforts - ADA

Projects Required for Implementation of ADA

Another requirement of 23 CFR 450.324 is that projects required for the implementation of the Americans with Disabilities Act (ADA) should be so marked. There are no projects in this TIP listing that are required for the implementation of the Americans with Disabilities Act and therefore no projects are marked as such. There are projects to replace existing accessible transit vehicles with new accessible transit vehicles, but these are replacements not implementations.

Part C. 4. Title VI Notice of Public Protection

The Merrimack Valley Planning Commission (MVPC) operates its programs, services and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of **race, color or national origin** (including **limited English proficiency**) be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, the Federal Transit Administration, or both prohibit discrimination on the basis of **age, sex and disability**. These protected categories are contemplated within MVPC's Title VI Program consistent with federal interpretation and administration. Additionally, MVPC provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

MVPC also complies with the Massachusetts Public Accommodation Law, M.G.L. Chapter 272, Sections 92a, 98, and 98a prohibiting making any distinction, discrimination, or restriction in admission to or treatment in a place of public accommodation based upon **race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry**. Likewise, MVPC complies with the Governor's Executive Order 526, Section 4 requiring that all of its programs, activities, and services provided, performed, licensed, chartered, funded,

regulated, or contracted for shall be conducted without unlawful discrimination based upon **race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status** (including Vietnam-era veterans), or **background**.

Additional Information

To request additional information regarding Title VI and related federal and state nondiscrimination obligations, please contact:

Title VI Program Coordinator
Merrimack Valley Metropolitan Planning Organization
c/o Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830-5061
(978) 374-0519, extension 29
tfontanella@mvpc.org

Complaint Filing

To file a complaint alleging a violation of Title VI or related federal nondiscrimination law, contact the Title VI Program Coordinator (above) within one hundred and eighty (180) days of the alleged discriminatory conduct.

To file a complaint alleging a violation of the Commonwealth's Public Accommodation Law, contact the Massachusetts Commission Against Discrimination within three hundred (300) days of the alleged discriminatory conduct at:

Massachusetts Commission Against Discrimination (MCAD)
One Ashburton Place, 6th Floor
Boston, MA 02109
(617) 994-6000
TTY: (617) 994-6196

Translation

English

If this information is needed in another language, please contact the MVMPO Title VI/Nondiscrimination Coordinator at 978-374-0519 ext. 29.

Spanish

Si necesita esta información en otro idioma, por favor contacte al coordinador de MVMPO del Título VI/Contra la Discriminación al 978-374-0519 ext. 29.

Portuguese

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Coordenador de Título VI e de Não Discriminação da MVMPO pelo telefone 978-374-0519, Ramal 29.

Chinese Simple

如果需要使用其它语言了解信息, 请联系 Merrimack Valley 大都会规划组织 (MVMPO) 《民权法案》第六章协调员, 电话 978-374-0519, 转 29。

Chinese Traditional

如果需要使用其他语言瞭解資訊, 請聯繫 Merrimack Valley 大都會規劃組織 (MVMPO) 《民權法案》第六章協調員, 電話 978-374-0519, 轉 29。

Vietnamese

Nếu quý vị cần thông tin này bằng tiếng khác, vui lòng liên hệ Điều phối viên Luật VI/Chống phân biệt đối xử của MVMPO theo số điện thoại 978-374-0519, số máy nhánh 29.

French Creole

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Kowòdinatè kont Diskriminasyon/MVMPO Title VI la nan nimewo 978-374-0519, ekstansyon 29.

Russian

Если Вам необходима данная информация на любом другом языке, пожалуйста, свяжитесь с Координатором Титула VI/Защита от дискриминации в MVMPO по тел: 978-374-0519, добавочный 29.

French

Si vous avez besoin d'obtenir une copie de la présente dans une autre langue, veuillez contacter le coordinateur du Titre VI/anti-discrimination de MVMPO en composant le 978-374-0519, poste 29.

Italian

Se ha bisogno di ricevere queste informazioni in un'altra lingua si prega di contattare il coordinatore del MVMPO del Titolo VI e dell'ufficio contro la discriminazione al 978-374-0519 interno 29.

Mon-Khmer, Cambodian

ប្រសិនបើលោកអ្នកត្រូវការបកប្រែព័ត៌មាននេះ សូមទាក់ទងអ្នកសម្របសម្រួលជំពូកទី6/ គ្មានការជំរើសរបស់ MVMPO តាមរយៈលេខទូរស័ព្ទ **978-374-0519**

រួចភ្ជាប់ទៅលេខ **29**។

Arabic

إذا كنت بحاجة إلى هذه المعلومات بلغة أخرى، يُرجى الاتصال بمنسق الفقرة السادسة لمنع التمييز التابع لمنظمة التخطيط الحضري في ميريماك فالي على الهاتف: 978-374-0519 و ثم اضغط الأرقام 29.

Part C. 5. Environmental Justice

Environmental Justice from a transportation perspective is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of transportation laws, regulations, and policies.

"Each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

MVMPO Merrimack Valley Transportation Committee (MVTC) and Nondiscrimination Working Group Bylaws

Article 1: Purpose

The MVMPO MVTC's purpose is to advise the MVMPO and participate in the MVMPO region's federally certified transportation planning process. Its membership provides for the involvement of local government officials, transportation professionals, transportation providers, and individuals experienced in economic development, freight, commuter rail, smart growth, environmental issues, regional planning, and other interest groups, ensuring broad representation and a geographical balance of its participants.

The MVTC, at the direction of the MVMPO, is tasked with:

- a) solicitation and consideration of input from all groups and citizens interested in and/or affected by the MVMPO's transportation program, plans and projects;
- b) identification and incorporation of the needs of persons and groups traditionally underserved by the transportation planning process;
- c) provision of information on the MVMPO's program, plans and projects to the public;
- d) provision of specialized knowledge and recommendations to the MVMPO during the development of its programs and plans, including its:

Regional Transportation Plan (RTP)
Transportation Improvement Program (TIP), including projects
Public Participation Plan (PPP)
Unified Planning Work Program (UPWP)

- e) engaging other organizations interested in transportation issues
- f) ensuring that the public is involved throughout the MVMPO transportation planning process;
- g) acting as an advisor to the MVMPO in its deliberations and actions.

The MVMPO must approve any MVTC activities. The MVMPO staff will be responsible for preparing all MVTC notices, agendas, minutes, and other materials. Any written and verbal communication from the MVTC is to be addressed to the MVMPO Chair.

Article 2: Membership

At a minimum, the MVTC shall be comprised of members representing the following agencies and organizations:

- a) MassDOT: Office of Transportation Planning; Highway Division District 4, MBTA Planning
- b) MVMPO staff (MVPC Comprehensive Development and Transportation Programs)
- c) MVMPO sub-region representatives
- d) MVMPO communities' planners
- e) Bicycling Advocate (i.e. ENHA)
- f) Colleges (NECC, UM-Lowell, Merrimack College)
- g) Community Development (DHCD, LCW, GWL)
- h) Economic Development (Chambers of Commerce, MassDevelopment, MOBD)
- i) Environmental (NPS, DCR, 8T&TB)
- j) Freight (Eastern MA Freight Coalition, MA Motor Transportation Ass'n; PanAm Railways, regional truck owner/operator)
- k) Pedestrian Advocate (i.e. WalkBoston)
- l) Passenger Transit: MassRIDES, MVRTA, Merrimack Valley TMAs (Junction TMO & MVTMA), NNEPRA
- m) USDOT: FHWA, FTA

The MVMPO shall appoint the MVTC members. The MVMPO staff shall keep record of the MVTC's membership and periodically report to the MVMPO on MVTC activities. In doing so, the MVMPO staff shall make every effort to identify and engage its constituents who are traditionally underserved by its existing transportation systems.

Article 3: Recruitment and Tenure

The MVMPO staff is responsible for administering the MVTC recruitment process. Vacancies shall be publicly advertised in accordance with the MVMPO's Public Participation Plan. Applicants shall submit an application form that the MVMPO staff provides. Selection shall be made by the MVMPO based upon its goal that a wide range of interests relevant to transportation are represented, which should include but is not limited to:

- a) Community/Economic Development (including housing)
- b) Disabilities
- c) Education
- d) Elders
- e) Environment
- f) Human Services

MVTC members' term of office shall begin on October 1 of a given federal fiscal year following appointment and will expire in three (3) years except under conditions of termination and for appointment of the initial MVTC members.

Article 4: Meetings

MVTC meetings will be scheduled and advertised in accordance with the MVMPO's Public Participation Plan. All such meetings are open to the public.

Article 5: MVTC Nondiscrimination Working Group

The MVMPO is responsible for promoting, securing and evaluating public involvement in its transportation planning process. In particular, it is responsible for identifying and seeking meaningful participation of the region's minority and low-income (Environmental Justice) populations – and in working to reduce participation barriers for such populations.

The MVMPO's established EJ process includes identification of Census-based statistical areas within its region where:

- a) the percentage of minority populations exceeds the average percentage of minority population for the region as a whole;
- b) household incomes are 80% or less of area median income (AMI), and
- c) there are concentrations of households with limited English proficiency (LEP).

The MVMPO MVTC Nondiscrimination Working Group's purpose is to provide the MVMPO members, its MVTC and the public with the perspectives of individuals and organizations

representing low-income, minority populations. It is also an opportunity for MVMPO staff and EJ stakeholders to exchange information, evaluate policies, plans and projects, and generate ideas for future projects.

Membership is comprised of at least five (5) and no more than ten (10) members with individual and/or collective knowledge and expertise in working with EJ populations on

- a) Disabilities
- b) Education
- c) English proficiency
- d) Elder Affairs
- e) Faith-based community service
- f) Minority advocacy
- g) Neighborhood organization
- h) Non-profit community development
- i) Public Health
- j) Veterans Affairs
- k) Workforce training and development

Working Group members would serve two-year terms.

The MVMPO staff administers the Nondiscrimination Working Group's membership, activities and reporting tasks according to the same process as the full MVTC. The MVMPO must approve any Nondiscrimination Working Group activities. The MVMPO staff will be responsible for preparing all Nondiscrimination Working Group notices, agendas, minutes and other materials. Any written and verbal communication from the Nondiscrimination Working Group is addressed to the MVMPO Chair.

Article 6: Amendments

These Bylaws may be amended by a simple majority vote of the MVMPO at an MVMPO meeting. Specific notice of the proposed amendment shall be distributed to Working Group members as part of any MVMPO meeting notification, in accordance with the MVMPO's Public Participation Plan.

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Appendices

Appendix A and B: Other Regional Priorities

Appendix A Other Regional Priority Bridge Projects

**Merrimack Valley Metropolitan Planning Organization
FY 2016-2019 Transportation Improvement Program
Implementing Agency: MassDOT**

**Bridges That Do Not Fit into Fiscally Constrained Targets
and therefore have No Funding Available in Any Year:**

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>High- way District</u>	<u>Estimated Total Project Cost</u>
602322	Ames.	Amesbury - Bridge Replacement, A-07-008, Oak Street Over The B&M Railroad (Abandoned Line)	4	\$1,000,000
	And.	Andover - Rehab. Bridge (A-09-001) Route 28 (North Main Street) Over The Shawsheen River	4	
605418	And.	Andover - Bridge Preservation, A-09-028, Chandler Road over I-93	4	\$4,708,700
601986	And.	Andover -Bridge Replacement, A-09-011, State Route 28 (North Main Street) over MBTA RR	4	\$4,986,948
605304	Hav.	Haverhill- Bridge Replacement, H-12-007 & H-12-025, Bridge Street (SR 125) over the Merrimack River and the Abandoned B&M RR (Proposed Bikeway)	4	\$63,437,220
604839	Law.	Lawrence – Bridge Replacement, L-04-027, Lowell Street over B&M Railroad	4	\$4,473,000

Appendix A Other Regional Priority Bridge Projects (Continued)

Merrimack Valley Metropolitan Planning Organization
 FY 2016-2019 Transportation Improvement Program
 Implementing Agency: MassDOT

**Bridges That Do Not Fit into Fiscally Constrained Targets
 and therefore have No Funding Available in Any Year:**

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>High- way District</u>	<u>Estimated Total Project Cost</u>
	Law.	Lawrence - Bridge Rehabilitation, L-04-042, South Union Connector over South Street	4	
	Nbypt.	Newburyport - Bridge (N-11-002) State Route 113 (High Street) Over Railroad	4	
	Nbypt.	Newburyport - Bridge (N-11-014) State Route 1A (High Street) over US 1	4	
607115	Nbypt.	Newburyport - Bridge Repairs, N-11-015, Washington St. over US 1	4	\$1,400,000

Appendix B Other Regional Priority Roadway Projects

Merrimack Valley Metropolitan Planning Organization FY 2016 - 2019 Transportation Improvement Program By Town

Roadway Projects That Do Not Fit into Fiscally Constrained Targets and therefore have No Funding Available in Any Year:

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>District</u>	<u>Estimated Total Project Cost</u>
608028	Amesbury	Amesbury – Intersection improvements Route 110 & Route 150 TEC = 8.47	4	\$1,200,000
	Andover	Andover - Route 133 Reconstruction and intersection improvements (Lovejoy Road to Shawsheen Square) TEC = 9.60	4	\$3,600,000
607708	Andover/ Lawrence	Andover - Lawrence - Resurfacing and related work on Route 28 TEC = 4.22	4	\$1,062,600
605199	Andover Tewks. Wil.	Andover – Tewksbury – Wilmington – New Interchange Construction on I-93 Between Interchanges 41&42 TEC = 9.48	4	\$147,584,864
606721	Boxford	Boxford - Reconstruction of Route 133 (Washington Street) from North Andover town line to Main Street TEC = 5.65	4	\$3,480,000
	Boxford	Boxford Reconstruction of Route 97 from Georgetown to Topsfield (2 miles) TEC = 2.03	4	\$3,785,000
607540	Boxford	Boxford - Border to Boston Trail TEC = 3.32	4	\$4,174,500
602843	George.	Georgetown - Reconstruction on Route 97 (W. Main Street) from Moulton Street to Groveland towline TEC = 4.27	4	\$2,400,000
604950	George.	Georgetown – Park & Ride lot construction at I-95 and Route 133 Interchange TEC = 3.78	4	\$3,276,000

Appendix B Other Regional Priority Roadway Projects (Continued)

Roadway Projects That Do Not Fit into Fiscally Constrained Targets
and therefore have No Funding Available in Any Year:

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>District</u>	<u>Estimated Total Project Cost</u>
605753	Groveland	Groveland - Rehabilitation of Route 97 (School Street) from Parker Street to Gardner Street TEC = 4.85	4	\$3,600,000
605690	Haverhill	Haverhill - Resurfacing and related work at various locations (14 locations) TEC = 4.33	4	\$3,110,000
605690	Haverhill	Haverhill -Intersection Improvements Route 110 and Elliot Way	4	
	Haverhill	Haverhill -Signalize Route 97 (Broadway) and Forrest Street	4	
	Haverhill	Haverhill - Signalize Route 97 (Broadway) and Lake Street	4	
	Haverhill	Haverhill – Widen Route 97 (Broadway) from Computer Drive to Forrest Street	4	

Appendix B Other Regional Priority Roadway Projects (Continued)

Roadway Projects That Do Not Fit into Fiscally Constrained Targets
and therefore have No Funding Available in Any Year:

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>District</u>	<u>Estimated Total Project Cost</u>
607711	Haverhill	Haverhill - Resurfacing and related work on Route 125 (from N. And. TL to Boston Rd) TEC = 4.97		\$1,062,600
	Haverhill	Haverhill – Buttonwoods Trail	4	\$2,000,000
	Haverhill	Haverhill – Bradford Rail Trail Extension	4	\$750,000
602339	Haverhill	Haverhill-Historic Waterfront Walkway Phase II (Construction) TEC = 5.83	4	\$3,110,184
	Lawrence/ North Andover	Lawrence - North Andover - Reconstruction of Route 114 from South Union St. in Lawrence to Rt. 125 (Andover St.) in North Andover TEC = 12.8	4	\$16,300,000
607712	Lawrence/ North Andover	Lawrence - North Andover –Resurfacing and related work on Route 114 from I-495 to Waverly Road TEC = 3.97	4	\$885,500
	Lawrence	Lawrence - Reconstruct Merrimack Street from Parker Street to South Union Street TEC = 9.05	4	
607709	Methuen	Methuen - Resurfacing and related work on Route 28 TEC = 3.97	4	\$442,000
	Newbury- port	Newburyport -Route 1 Rotary Reconfiguration	4	
608029	Newbury- port	Newburyport - Intersection Improvements Route 1 at Merrimac Street TEC = 6.88	4	\$2,400,000

Appendix B Other Regional Priority Roadway Projects (Continued)

**Roadway Projects That Do Not Fit into Fiscally Constrained Targets
and therefore have No Funding Available in Any Year:**

<u>ID</u>	<u>Location</u>	<u>Project Description</u>	<u>District</u>	<u>Estimated Total Project Cost</u>
608095	North Andover	North Andover – Corridor Improvements Route 114 from Route 125 (Andover Street) to the Stop & Shop Driveway TEC = 11.17	4	\$14,950,000
	North Andover	North Andover - Machine Shop Village improvements	4	
	North Andover	North Andover – Reconstruction of Mass. Ave. and Sidewalks (from Osgood St. to I-495)	4	
605694	North Andover	North Andover - Resurfacing and related work Route 125 TEC = 6.95	4	\$7,910,592
	North Andover	North Andover - Signals and turn lanes at Mass Ave. and I-495 NB and SB Ramps	4	
602202	Salisbury	Salisbury - Reconstruction of Route 1 (Lafayette Road) TEC = 7.3	4	\$5,728,000
607710	Salisbury	Salisbury - Resurfacing and related work Route 1A TEC = 6.05	4	\$2,300,000

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Appendix C Transportation Evaluation Criteria Summary

APPENDIX C Transportation Evaluation Criteria Summary

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation			Other			Total TEC Score (2016-2019)	
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.		Environmental Effects
	ID#	Project Description	Project Cost	AADT								
OPP		Lawrence - North Andover Reconstruction of Rt. 114 from I-495 to Rt. 125 (Andover St.)		30,000	5.2	3.00	3.00	3.00	1.80	1.50	0.50	12.80
OPP	608095	North Andover Reconstruction of Rt. 114 from Rt 125 (Andover St) to Stop & Shop	\$14,950	30,000	4.8	2.50	2.75	2.67	1.00	1.50	0.75	11.17
TIP	608075	Lawrence Intersection Improvements Lawrence St. at Park St.	\$1,266	NA	NA	2.50	1.50	2.33	2.20	1.25	0.75	10.53
OPP		Andover - Rt. 133 from west of Lovejoy Rd./Greenwood Rd. to Shawsheen Square	\$3,600	12,773	2.4	2.00	2.50	2.00	0.60	1.50	1.00	9.60

Transportation Evaluation Criteria Summary April 2015 (Continued)

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation				Other			Total TEC Score (2016-2019)
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.	Environmental Effects	
	ID#	Project Description	Project Cost	AADT								
OPP	605199	Andover- Tewksbury- Wilmington- New interchange construction on I-93 between interchanges 41 &	\$147,588	NA	NA	2.00	1.75	1.33	1.40	3.00	0.00	9.48
TIP	606161	Haverhill Route 125, three intersections	\$2,702	NA	NA	2.50	2.00	1.67	1.40	1.00	0.75	9.32
OPP		Lawrence - Merrimack St. (Broadway to South Union St.)		9,654	0.6	2.50	1.25	1.00	1.80	1.75	0.75	9.05
OPP	608028	Amesbury Intersection Improvements Rt. 110 at Rt. 150	\$1,200	21,000	NA	1.50	2.00	2.67	0.80	1.25	0.25	8.47
TIP	606159	North Andover- Intersection Improvements Route 125 at Mass. Ave.	\$1,440	30,284	NA	1.50	1.75	2.00	1.20	0.75	0.50	7.70
OPP	602202	Salisbury - Reconstruction of Route 1 (Lafayette Road)	\$6,331	12,147	4.8	1.50	2.00	2.00	0.80	0.75	0.25	7.30

Transportation Evaluation Criteria Summary April 2015 (Continued)

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation				Other			Total TEC Score (2016-2019)
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.	Environmental Effects	
	ID#	Project Description	Project Cost	AADT								
TIP	606503	Newburyport - Clipper City Rail - Trail, Phase 2	\$4,061	NA	NA	1.00	1.25	1.00	1.20	1.75	0.75	6.95
OPP	605694	North Andover - Route 125, Resurfacing and related work	7,911	20,400	9.4	2.50	1.00	1.00	1.20	0.75	0.50	6.95
OPP	608029	Newburyport Intersection Improvements Rt. 1 at Merrimac St.	\$2,400	24,850	NA	2.00	0.50	2.33	0.80	1.00	0.25	6.88
TIP	607573	Haverhill - Reconstruction of Route 97 (Broadway) from Silver Birch Lane to Research Drive)	\$4,158	14,352	1.8	2.00	1.25	1.00	1.00	0.75	0.75	6.75
TIP	605114	Groveland - Route 97 (Salem St. & School St.)	\$6,342	15,486	2.0	2.50	0.50	1.67	0.80	1.00	0.25	6.72
TIP	607737	Ames/Salis Whittier Bridge and GhostTrail connectors	\$2,400	NA	NA	0.50	1.75	1.00	1.00	1.50	0.50	6.25

Transportation Evaluation Criteria Summary April 2015 (Continued)

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation				Other			Total TEC Score (2016-2019)
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.	Environmental Effects	
	ID#	Project Description	Project Cost	AADT								
TIP	605020	Salisbury - section of Border to Boston Trail	\$5,919	NA	NA	1.00	1.25	1.33	1.00	0.75	0.75	6.08
OPP	607710	Salisbury - Resurfacing and related work Route 1A	\$2,300	11,411	8.0	2.00	0.75	1.00	0.80	0.75	0.75	6.05
TIP	602418	Amesbury - Reconstruction of Elm St.	\$8,070	12,436	3.4	1.50	0.50	1.33	0.40	1.50	0.75	5.98
OPP	606721	Boxford - Reconstruction of Route 133 (North Andover TL to Main St)	\$3,480	6149	2.9	1.50	1.25	1.00	0.40	0.50	1.00	5.65
TIP	607542	Georgetown - Square to Byfield section of Border to Boston Trail	\$3,876	NA	NA	0.50	1.25	0.67	0.80	1.50	0.50	5.22
OPP	607711	Haverhill - Resurfacing and related work Rt 125	\$1,063	19,224	4.1	2.00	0.50	0.67	0.80	0.75	0.25	4.97

Transportation Evaluation Criteria Summary April 2015 (Continued)

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation				Other			Total TEC Score (2016-2019)
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.	Environmental Effects	
	ID#	Project Description	Project Cost	AADT								
OPP	605753	Groveland - Route 97 (Parker Rd. to Gardner St.)	\$3,600	13,500	1.8	1.50	0.50	1.00	0.60	0.75	0.50	4.85
TIP	607541	Georgetown - south of Square section of Border to Boston Trail	\$1,702	NA	NA	0.50	1.00	0.67	0.80	0.75	0.75	4.47
OPP	602843	Georgetown - Route 97 from Moulton St. to Groveland TL	\$2,400	15,486	2.2	1.50	0.50	0.67	0.60	0.50	0.50	4.27
OPP	607708	Andover / Lawrence - Route 28 Resurfacing and related work	1,063	19,728	4	1.50	0.25	0.67	0.80	0.50	0.50	4.22
OPP	607712	Lawrence - North Andover resurfacing of Route 114	\$885	32,900	2.8	1.50	0.25	0.67	0.80	0.50	0.25	3.97
TIP	607476	Methuen - Resurfacing and related work Route 213	\$5,796	53,000	16.0	2.00	0.25	0.33	0.60	0.50	0.25	3.93

Transportation Evaluation Criteria Summary April 2015 (Continued)

For Selected Projects (FY 16-19) in the Merrimack Valley Region Prepared by Merrimack Valley Planning Commission and MassDOT					Transportation			Other			Total TEC Score (2016-2019)	
					Linear Lane Miles	Condition	Mobility	Safety & Security	Community Effects and Support	Land Use and Economic Develop.		Environmental Effects
	ID#	Project Description	Project Cost	AADT								
TIP	606669	Amesbury - Powwow Riverwalk Construct. New Design.	\$787	NA	NA	0.50	0.25	0.00	0.60	1.75	0.75	3.85
OPP	604950	Georgetown - Park & Ride Construction at I-95 and Route 133 Interchange	\$3,277	NA	NA	0.00	1.75	0.33	0.20	0.75	0.75	3.78
OPP	607540	Boxford - section of Border to Boston Trail	\$4,175	NA	NA	0.50	1.00	0.67	0.40	0.50	0.25	3.32
OPP		Boxford - Reconstruction of Route 97	\$3,786	11,190	4.3	1.00	0.25	0.33	0.20	0.00	0.25	2.03

*NR = Not Rated = the project was not rated because it is still being designed, or is being re-designed, and there is currently not enough design detail available to rate.

NA = Not Applicable

TIP means project is programmed in the TIP

OPP means project is listed as Other Priority Project

Sample Project Evaluation Worksheet

Evaluation Criteria			
Merrimack Valley Planning Commission and MassDOT			
Project: Amesbury	Intersection Improvements Rt 110 @ Rt 150 (Construction)		Projis #: 608028
Threshold Transportation Criteria			
Condition			
A. Magnitude of pavement condition improvement.			Pavement is in (Existing is in Fair Condition).
1			
B. Magnitude of improvement of other infrastructure elements.	Average		on 110 and 150, discontinuous. New turning lane
2	1.50		
Mobility			
A. Effect on magnitude and duration of congestion.			
2			
B. Effect on travel time and connectivity/access.			
2			
C. Effect on other modes using the facility.			
2			
D. Effect on regional and local traffic.	Average		
2	2.00		
Safety and Security			
A. Effect on crash rate compared to state average.			Crash Cluster EPDO = 72. (15th worst in region)
3			
B. Effect on bicycle and pedestrian safety.			Middle School nearby.
3			
C. Effect on transportation security and evacuation routes.	Average		Is an evacuation route in 10 mile radius of nuclear power plant. Not NHS.
2	2.67		
Sub-total			
Project Cost:	\$1,800,000		6.17
Linear Lane Mil	NA		
AADT:	21,000	Distance =	NA

Sample Project Evaluation Worksheet (Cont.)

Project:	Amesbury Intersection Improvements Rt 110 @ Rt 150 (Construction)	Projis #: 608028
<u>Cost Effectiveness</u>		
A. Cost / unit change in condition:	\$1,200,000	
B. Cost per linear lane mile:	NA	
C. Cost per AADT:	\$86	
<u>Other Impact Criteria</u>		
<u>Community Effects and Support</u>		
A. Residential effects; ROW, noise, aesthetics, cut-through traffic, 2 other.		
B. Public, local government, legislative, and regional support. 2		
C. Effect on service to minority or low-income neighborhoods. 0 (Title VI and EJ)		Not Title VI or EJ
D. Other impact/benefits to minority or low-income neighborhoods. 0 (Title VI and EJ)		Not Title VI or EJ
E. Effect on development and redevelopment of housing 0 stock.	Average 0.80	
<u>Land Use and Economic Development</u>		
A. Business effects; ROW, noise, traffic, parking, freight access, 1 other.		
B. Sustainable development effects. Consistent with MVPGS. 2		Adjacent to Rt 150 Gateway Village Regional PDA
C. Consistent with regional land-use and economic development 2 plans and PGS.		Adjacent to Rt 150 Gateway Village Regional PDA
D. Effect on job creation. 0	Average 1.25	

Sample Project Evaluation Worksheet (Cont.)

Project:	Amesbury Intersection Improvements Rt 110 @ Rt 150 (Construction)	Projis #: 608028
<u>Environmental Effects</u>		
A. Air Quality/Climate effects.		
	GHG Impact Description	Assumed Nominal Decrease in Emissions from Other Improvements
	Qualified Emissions Reduction	
	<input style="width: 40px; height: 20px;" type="text" value="1"/>	
		Route to School ? Need more data on turning movement volumes
B. Water quality/supply effects; wetlands effects.		
	<input style="width: 40px; height: 20px;" type="text" value="0"/>	None
C. Historic and cultural resource effects.		
	<input style="width: 40px; height: 20px;" type="text" value="0"/>	Not expected to have an effect
D. Effect on wildlife habitat and endangered species.		
	<input style="width: 40px; height: 20px;" type="text" value="0"/>	None
		Average
		0.25
		Sub-total
		2.30
		Total
		8.47

Appendix D Green House Gas (GHG) Monitoring and Evaluation

2016-2019 Transportation Improvement Program 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 2016 – 2019 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 taken 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 was 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*. In December 2014 the Department of Environmental Protection issued new regulations that require Metropolitan Planning Organizations to quantify impacts from project investments, track progress towards reductions, and consider impacts in the prioritization of GHG impacts from project investments. The targets for overall statewide GHG emissions are:

- By 2020: 25 percent reduction below statewide 1990 GHG emission levels, and
- 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, and
- **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. This collaboration has continued for the MPO’s 2040 RTPs and 2016-19 TIPs.

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 sheets on the third page.

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 (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 Quantified Impacts**
 - **RTP Projects** - Major capacity expansion projects 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 Complete Streets Improvements** - Improvements to roadway networks that include the addition of bicycle and pedestrian accommodations where none were present before.
 - **Quantified Decrease in Emissions from Other Improvement**
- **Quantified Increase in Emissions** – Projects that would be expected to produce a measurable increase in emissions.

- **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 no 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 2016 – 2019 TIP

The following tables summarize the calculated quantitative and assumed qualitative impacts of the projects included in the regional FFY 2016 – 2019 TIP by year.

2016 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers
606669	Amesbury – Powwow Riverwalk Construction, new design	Qualitative	Assumed Nominal Decrease in Emissions from Bicycle and Sidewalk Improvements	
606574	Andover – Lawrence Interstate Maintenance and related work on Route I – 495	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
605114	Groveland –Rehabilitation of Route 97 (School Street & Salem Street)	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
606161	Haverhill –Improvements on Main Street (Route 125)	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	6,421
608002	Lawrence – Safe Routes to School (Bruce Elementary)	Qualitative	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	
607476	Methuen – Resurfacing and related work on Route 213	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
			Total Impact (in kilograms)	6,421

2017 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers
607561	Andover – Methuen – Interstate Maintenance and related work on Route I-93	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
607573	Haverhill – Reconstruction on Route 97 (Broadway), from Silver Birch Lane to Research Drive	Qualitative	Assumed Nominal Decrease in Emissions from Sidewalk Infrastructure	
606159	North Andover –Intersection and Signal Improvements at Route 125 & Massachusetts Avenue	Qualitative	Assumed Nominal Decrease in Emissions from Other Improvements	
			Total Impact (in kilograms)	0

2018 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers
602418	Amesbury – Reconstruction of Elm Street (AC Yr 1 of 2)	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
607737	Amesbury – Salisbury – Trail Connector at I-95	Qualitative	Assumed Nominal Decrease in Emissions from Sidewalk and Bicycle Infrastructure	
607541	Georgetown - Border to Boston Trail (Southern Georgetown Section)	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	1,520
605306	Haverhill – Substructure Replacement, A-12-039, I-495 (NB & SB) over Merrimack River (AC Year 1 of 3)	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
605020	Salisbury - Multi-use Trail Extension (Borders to Boston Trail)	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	6,837
			Total Impact (in kilograms)	8,357

2019 Regional Project Tracking

MassDOT Project ID	MassDOT Project Description	GHG Analysis Type	GHG Impact Description	GHG Impact by the Numbers
602418	Amesbury – Reconstruction of Elm Street (AC Year 2 of 2)	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
605306	Haverhill – Substructure Replacement, A-12-039, I-495 (NB & SB) over Merrimack River (AC Year 2 of 3)	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
607542	Georgetown – Newbury - Border to Boston Trail (Northern Georgetown to Byfield Section)	Quantified	Quantified Decrease in Emissions (See Emissions Analysis Appendix)	17,460
608187	Haverhill - Merrimac – Amesbury – Traffic & Guide Sign Replacement on a section of I-495	Qualitative	No Assumed Impact/Negligible Impact on Emissions	
			Total Impact (in kilograms)	17,460

CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements							Apr-12				
Fill in shaded boxes only			This sheet represents the Overall Air Quality Analysis for the Haverhill Improvements								
TIP YEAR:			on Main Street (Route 125) Project. The combined delays have been input in Step 7 below.								
MPO: Merrimack Valley Planning Commission			Municipality: Haverhill								
Project: #606161 Haverhill Improvements on MainStreet (Route 125)											
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			Summer VOC Emissions			Summer NOx Emissions		Winter CO Emissions	Summer CO2 Emissions		
Hours per Day			kilograms/day			kilograms/day		kg/day	kilograms/day		
Existing Conditions			992.0			4.021		1.791	49.337	1,403.630	
With Improvements			973.5			3.946			1.757	48.417	1,377.454
Net Change						-0.075			-0.033	-0.920	-26.177

CMAQ Air Quality Analysis Worksheet for Traffic Flow and Intersection Improvements									
Project: #606161 Haverhill Improvements on MainStreet (Route 125) (Continued)									
Step 8: Calculate net emissions change in kilograms per year (seasonally adjusted)									
			Net change		Avg. weekdays		Seasonal adj.		Adj. net change
			per day (kg)	X	per year	X	factor	=	in kg per year
Summer VOC Emissions			-0.075	X	250	X	1.019	=	-19.098
Summer NOx Emissions			-0.033	X	250	X	1.019	=	-8.505
Winter CO Emissions			-0.920	X	250	X	0.981	=	-225.700
Summer CO2 Emissions			-26.177	X	250	X	0.981	=	-6,421.114
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	\$3,000,000	/	-19.098	=	\$157,088				
Summer NOx	\$3,000,000	/	-8.505	=	\$352,731				
Winter CO	\$3,000,000	/	-225.700	=	\$13,292				
Summer CO2	\$3,000,000	/	-6,421.114	=	\$467				

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project						
Fill in shaded boxes only						
TIP YEAR:	2013					
MPO:	Merrimack Valley Planning Commission			Municipality:	Salisbury	
Project:	Salisbury Rail Trail Mudnock Road to NHSL along Abandoned RR					
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):					2.3	Miles
B. Service Area Radius (R):					1.0	Miles (Default = 1 Mile)
C. Service Area of Community(ies) (SA):	$L * 2R = SA$				4.5	Sq. Miles
D. Total Land Area of Community(ies) (T):					15.4	Sq. Miles
E. Service Area % of Community(ies) Land Area (LA):	$SA / T = LA$				29.2%	
F. Total Population of Community(ies) (TP):					8,283	Persons
G. Population Served by Facility (P):	$LA * TP = P$				2,420	Persons
H. Total Number of Households in Community(ies) (HH):					3,441	HH
I. Number of Households Served by Facility (HS):	$LA * HH = HS$				1,005	HH
J. Total Number of Workers Residing in Community(ies) (W):					3,950	Persons
K. Workers Per household (WPHH):	$W / HH = WPHH$				1.15	Persons
L. Workers in Service Area (WSA):	$HS * WPHH = WSA$				1,154	Persons
M. Population Density of the Service area (PD):	$P / SA = PD$				538	Persons Per Sq. Mile
N. If the bicycle and pedestrian commuter mode share is known, enter the percentage at the right.					(BMS)	1.3%
If not, use the 2000 US Census Journey to Work data to determine the mode share and enter the percentage to the right.						

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project				
Project: Salisbury Rail Trail Mudnock Road to NHSL along Abandoned RR (Continued)				
O.	Bike and Ped. Work Utilitarian Trips (BWT): WSA * BMS = BWT			15 One-Way Trips
P.	Bike and Ped. Non-Work Utilitarian Trips (BNWT): BWT * 1.7 = BNWT (Latest planning assumptions estimate non-work utilitarian trips to be 1.7 times the work utilitarian.)			26 One-Way Trips
Step 2: Calculate the VMT Reduction Per Day:				
A.	((2 * BWT) + (2 * BNWT)) * (0.5 * L) = VMTR			91.2 VMTR Per Day
B.	VMTR * Operating Days Per Year			91.2 * 200 = 18,231 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	Summer NOx Factor	Summer CO Factor	Summer CO2 Factor	
grams/mile	grams/mile	grams/mile	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	
4.3	3.3	65.8	6,837.0	
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	\$3,687,500	4.3 =	\$855,749	
Summer NOx	\$3,687,500	3.3 =	\$1,115,359	
Summer CO	\$3,687,500	65.8 =	\$56,083	
Summer CO2	\$3,687,500	6,837.0 =	\$539	

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project						
Fill in shaded boxes only						
TIP YEAR:	2013					
MPO:	Merrimack Valley			Municipality:	Georgetown	
Project:	Georgetown - Southern Section of B to B Trail from Georgetown Square to Boxford TL					
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):				12.9	Sq. Miles	
E. Service Area % of Community(ies) Land Area (LA):	$SA / T = LA$			24.8%		
F. Total Population of Community(ies) (TP):				8,183	Persons	
G. Population Served by Facility (P):	$LA * TP = P$			2,030	Persons	
H. Total Number of Households in Community(ies) (HH):				2,937	HH	
I. Number of Households Served by Facility (HS):	$LA * HH = HS$			729	HH	
J. Total Number of Workers Residing in Community(ies) (W):				3,783	Persons	
K. Workers Per household (WPHH):	$W / HH = WPHH$			1.29	Persons	
L. Workers in Service Area (WSA):	$HS * WPHH = WSA$			938	Persons	
M. Population Density of the Service area (PD):	$P / SA = PD$			634	Persons Per Sq. Mile	
N. If the bicycle and pedestrian commuter mode share is known, enter the percentage				(BMS)	0.5%	
If not, use the 2000 US Census Journey to Work data to determine the mode share and enter the percentage to the right.						

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project				
Project:		Georgetown - Southern Section of B to B Trail (Continued)		
O.	Bike and Ped. Work Utilitarian Trips (BWT):	$WSA * BMS = BWT$	5	One-Way Trips
P.	Bike and Ped. Non-Work Utilitarian Trips (BNWT):	$BWT * 1.7 = BNWT$	8	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.	$((2 * BWT) + (2 * BNWT)) * (0.5 * L) = VMTR$		20.3	VMTR Per Day
B.	VMTR * Operating Days Per Year	$20.3 * 200 =$	4,054	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	2016 Auto	2016 Auto	2016 Auto	
Summer VOC Factor	Summer NOx Factor	Summer CO Factor	Summer CO2 Factor	
grams/mile	grams/mile	grams/mile	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	
1.0	0.7	14.6	1,520.3	
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	\$1,480,000	/	1.0 =	\$1,544,559
Summer NOx	\$1,480,000	/	0.7 =	\$2,013,133
Summer CO	\$1,480,000	/	14.6 =	\$101,225
Summer CO2	\$1,480,000	/	1,520.3 =	\$973

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project				
Fill in shaded boxes only				
TIP YEAR:	2013			
MPO:	Merrimack Valley	Municipality:	Georgetown/ Newbury	
Project:	Georgetown - North Section of B to B Trail from Georgetown Square to Byfield Center			
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):			3.6	Miles
B. Service Area Radius (R):			1.0	Miles (Default = 1 Mile)
C. Service Area of Community(ies) (SA):	$L * 2R = SA$		7.2	Sq. Miles
D. Total Land Area of Community(ies) (T):			37.1	Sq. Miles
E. Service Area % of Community(ies) Land Area (LA):	$SA / T = LA$		19.4%	
F. Total Population of Community(ies) (TP):			14,849	Persons
G. Population Served by Facility (P):	$LA * TP = P$		2,882	Persons
H. Total Number of Households in Community(ies) (HH):			5,531	HH
I. Number of Households Served by Facility (HS):	$LA * HH = HS$		1,073	HH
J. Total Number of Workers Residing in Community(ies) (W):			7,259	Persons
K. Workers Per household (WPHH):	$W / HH = WPHH$		1.31	Persons
L. Workers in Service Area (WSA):	$HS * WPHH = WSA$		1,409	Persons
M. Population Density of the Service area (PD):	$P / SA = PD$		400	Persons Per Sq. Mile
N. If the bicycle and pedestrian commuter mode share is known, enter the percentage			(BMS)	1.7%
If not, use the 2000 US Census Journey to Work data to determine the mode share and enter the percentage to the right.				

CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Project				
Project: Georgetown - North Section of B to B from Georgetown Square to Byfield Center (Continued)				
O.	Bike and Ped. Work Utilitarian Trips (BWT): WSA * BMS = BWT		24	One-Way Trips
P.	Bike and Ped. Non-Work Utilitarian Trips (BNWT): BWT * 1.7 = BNWT (Latest planning assumptions estimate non-work utilitarian trips to be 1.7 times the work utilitarian.)		41	One-Way Trips
Step 2: Calculate the VMT Reduction Per Day:				
A.	$((2 * BWT) + (2 * BNWT)) * (0.5 * L) = VMTR$		232.8	VMTR Per Day
B.	VMTR * Operating Days Per Year	$232.8 * 200 =$	46,557	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	2016 Auto	2016 Auto	2016 Auto
	Summer VOC Factor	Summer NOx Factor	Summer CO Factor	Summer CO2 Factor
	grams/mile	grams/mile	grams/mile	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
	11.0	8.4	167.9	17,459.6
Step 5: Calculate cost effectiveness (first year cost per kg of emissions reduced)				
	Project		Emission Reduction	First year cost
	Cost		in kg per year	per kilogram
Summer VOC	\$3,600,000	/	11.0 =	\$327,149
Summer NOx	\$3,600,000	/	8.4 =	\$426,396
Summer CO	\$3,600,000	/	167.9 =	\$21,440
Summer CO2	\$3,600,000	/	17,459.6 =	\$206



310 CMR 60.05: Global Warming Solutions Act

310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation

Self – Certification Compliance Statement for Metropolitan Planning Organizations

This will certify that the FFYs 2016-2019 Transportation Improvement Program for the Merrimack Valley Metropolitan Planning Organization is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation. The regulation requires the Metropolitan Planning Organizations (MPOs) to:

1. 310 CMR 60.05, 3(b)(1)(a): Evaluate and track the GHG emissions and impacts of RTPs and TIPs;
2. 310 CMR 60.05, 3(b)(1)(b): In consultation with MassDOT, develop and utilize procedures to prioritize and select projects in RTPs, TIPs, and STIPs based on factors that include GHG emissions and impacts;
3. 310 CMR 60.05, 3(b)(1)(c): Quantify net GHG emissions and impacts resulting from projects in RTPs and TIPs and have made efforts to minimize GHG emissions and impacts;
4. 310 CMR 60.05, 3(b)(1)(d): Determine in consultation with the RPA that the appropriate planning assumptions used for GHG emissions modeling are consistent with local land use policies, or that local authorities have made documented and credible commitments to establishing such consistency;
5. 310 CMR 60.05, 4(a)(2)(a): Develop RTPs and TIPs;
6. 310 CMR 60.05, 4(a)(2)(b): Ensure that RPAs are using appropriate planning assumptions;
7. 310 CMR 60.05, 4(a)(2)(c): Perform regional GHG emissions analysis of RTPs and TIPs;
8. 310 CMR 60.05, 4(a)(2)(d): Calculate GHG emissions for RTPs and TIPs;
9. 310 CMR 60.05, 4(a)(2)(e): Develop public consultation procedures for GHG reporting and related GWSA requirements consistent with current and approved regional public participation plans;
10. 310 CMR 60.05, 4(c): Prior to making final endorsements on the RTPs, TIPs, STIPs, and projects included in these plans, MassDOT and the MPOs shall include the GHG Assessment and information on related GWSA activities in RTPs, TIPs, and STIPs and provide an opportunity for public review and comment on the RTPs, TIPs and STIPs;

310 CMR 60.05, 6(a): After a final GHG assessment has been made by MassDOT and the MPOs, MassDOT and the MPOs shall submit MPO-endorsed RTPs, TIPs or projects within 30 days of endorsement to the Department for review of the GHG assessment.



310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation (Cont.)

Self – Certification Compliance Statement for metropolitan Planning Organizations

This will certify that the FFYs 2016-2019 Transportation Improvement Program for the Merrimack Valley Metropolitan Planning Organization is in compliance with all applicable requirements in the State Regulation 310 CMR 60.05: Global Warming Solutions Act Requirements for the Transportation Sector and the Massachusetts Department of Transportation. The regulation requires the Metropolitan Planning Organizations (MPOs) to follow steps 1 through 11 from the previous page.

Signatory Certification:

Stephanie Pollack
Secretary/CEO Mass DOT

Joseph Costanzo, Administrator
MVRTA Advisory Board

James Fiorentini
Mayor of Haverhill

Thomas Tinlin
MassDOT Acting Highway
Division Administrator

William Buckley
City of Methuen

Daniel Rivera
Mayor of Lawrence

Philip Trapani
Town of Georgetown

Neil Harrington
Town of Salisbury

Robert Snow
Town of Rowley

Dennis DiZoglio
MVPC Director

**Appendix E Projects from MVRTA Capital Program FFY 2016- FFY 2020
Adopted May 7,2015**

Transit Projects

2016 Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source TDC ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2017 (O)	Carry-over Used	\$2,505,065			\$626,265		\$3,131,330
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2017 (O)	Carry-over Used	\$1,048,955			\$262,240		\$1,311,195
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2017 (20% match from MVPC) (N)	Carry-over Used	\$40,000			\$0	\$10,000	\$50,000

**2016 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source TDC ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	MVPC Technical Support to MVRTA FY 2017 (20% match from MVPC) (N)	Carry-over Used	\$40,000				\$10,000	\$50,000
	MVRTA	Replace 7 Model Year 2004 Transit Buses with new (delivery FY 2017) 7 of 17 (M)	Carry-over Used	\$2,476,455	\$629,115				\$3,105,570
RTA-1	MVRTA	Newburyport Intermodal Transit Parking Facility – Construction (C)	Carry-over Used	\$2,000,000				\$500,000	\$2,500,000
	MVRTA	Replace 5 Model Year 2011 Paratransit vehicles (delivery FY 2016) (M)	Carry-over Used	\$256,000	\$64,000				\$320,000

**2016 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source TDC ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ►	MVRTA	Replace 1 Model Year 2009 and 1 Model Year 2010 Supervisory Vehicles (Delivery 2016) (M)	Carry--over Used	\$72,000	\$18,000		\$0	\$0	\$90,000
	MVRTA	FY 2017 Operating Assistance (O)	Carry--over Used	\$342,175	\$0		\$342,175	\$0	\$684,350
	MVRTA	State of Good Repair – MVRTA Facility (M)	Carry--over Used	\$56,800		\$14,200	\$0	\$0	\$71,000
	MVRTA	State of Good Repair – McGovern Center (M)	Carry--over Used	\$32,000		\$8,000	\$0	\$0	\$40,000

2016 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source TDC ** ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	State of Good Repair – Buckley Center (M)	Carry--over Used	\$12,000		\$3,000			\$15,000
	MVRTA	Newburyport Intermodal Transit Parking Facility – Final Design/ Construction Phase Services (N)	Carry-over Used	\$120,000				\$30,000	\$150,000
	5307 Subtotal ▶			\$9,001,450	\$711,115	\$25,200**	\$1,230,680	\$550,000	\$11,493,245

** State Match Source TDC are toll credits, not actual cash and therefore are not included in Overall Totals.

2016 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Detail ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source TDC ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5309 ▶		No Projects Programmed	N/A						
5309 Subtotal ▶									
5310 ▶		No Projects Programmed	N/A						
5310 Subtotal ▶									
5311 ▶		No Projects Programmed	N/A						
5311 Subtotal ▶									
5316 ▶		No Projects Programmed	N/A						
5316 Subtotal ▶									
5317 ▶		No Projects Programmed	N/A						
5317 Subtotal ▶									
SoGR ▶		No Projects Programmed	N/A						
Livability ▶		No Projects Programmed	N/A						
TIGER ▶		No Projects Programmed	N/A						
Grants Subtotal ▶				\$0	\$0	\$0	\$0	\$0	\$0
Other ▶		No Projects Programmed	N/A						
Operating Subtotal ▶				\$0	\$0	\$0	\$0	\$0	\$0
Total ▶				\$9,001,450	\$711,115	\$25,200	\$1,230,680	\$550,000	\$11,493,245

**2016 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

Fiscal Constraint Analysis					
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼		
FFY 16 / 5307	\$3,198,600	\$5,590,860	\$2,392,260		Available
Carryover / 5307	\$5,802,850	\$5,802,850	-		Available
Total 5307	\$9,001,450	\$11,393,710	\$2,392,260		Available
State Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼		
RTACAP	\$711,115	\$711,115			
SCA	\$1,230,680	\$1,230,680			
TDC	\$25,200	\$25,200			

**2017 Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2018 (O)	Carry-over Used	\$2,593,745		\$648,435		\$3,242,180
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2018 (O)	Carry-over Used	\$1,080,420		\$270,105		\$1,350,525
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2018 (20% match from MVPC) (N)	Carry-over Used	\$40,000			\$10,000	\$50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2018 (20% match from MVPC) (N)	Carry-over Used	\$40,000			\$10,000	\$50,000

**2017 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	Refurbish Engines on 8 Model year 2011 Transit Buses (M)	Carryover Used	\$185,600	\$46,400			\$232,000
	MVRTA	Purchase Three New Model 2017 35' Transit Buses (Delivery 2018) (C)	Carryover Used	\$1,065,300	\$266,325			\$1,331,625
	MVRTA	Operating Assistance (O)	Carryover Used	\$398,920		\$398,920		\$797,840
	MVRTA	Acquire - Support vehicles (M)	Carryover Used	\$37,080	\$9,270			\$46,350
	5307 Subtotal ▶			\$5,441,065	\$321,995	\$1,317,460	\$20,000	\$7,100,520

2017 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5309 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	5309 Subtotal ▶			\$0	\$0	\$0	\$0	\$0
5310 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	5310 Subtotal ▶			\$0	\$0	\$0	\$0	\$0
5311 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	5311 Subtotal ▶			\$0	\$0	\$0	\$0	\$0
5316 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	5316 Subtotal ▶			\$0	\$0	\$0	\$0	\$0
5317 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	5317 Subtotal ▶			\$0	\$0	\$0	\$0	\$0
SoGR ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Livability ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
TIGER ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	Grants Subtotal ▶			\$0	\$0	\$0	\$0	\$0
Other ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
	Operating Subtotal ▶			\$0	\$0	\$0	\$0	\$0
	Total ▶			\$5,441,065	\$321,995	\$1,317,460	\$20,000	\$7,100,520

2017 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

Fiscal Constraint Analysis				
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
FFY 17 / 5307	\$3,048,805	\$5,590,860	\$2,542,055	Available
Carryover / 5307	\$2,392,260	\$2,392,260	-	Available
Total 5307	\$5,441,065	\$7,983,120	\$2,542,055	Available
State Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
RTACAP	\$321,995	\$321,995		
SCA	\$1,317,460	\$1,317,460		

2018 Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ▶	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2019 (O)	Carryover Used	\$2,661,255		\$665,315		\$3,326,570
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2019 (O)	Carryover Used	\$1,112,835		\$278,210		\$1,391,045
	MVRTA	Acquire – Support Vehicles (M)	Carryover Used	\$38,200	\$9,550			\$47,750
	MVRTA	Operating Assistance (O)	Carryover Used	\$440,860		\$440,860		\$881,720

**2018 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
	MVRTA	Refurbish Engine/ Transmissions on 8 model year 2012 transit buses (M)	Carryover Used	\$191,170	\$47,790			\$238,960
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2019 (20% match from MVPC) (N)	Carryover Used	\$40,000			\$10,000	\$50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2019 (20% match from MVPC) (N)	Carryover Used	\$40,000			\$10,000	\$50,000
	MVRTA	State of Good Repair – Lawrence Gateway Parking, Phase I (M)	Carryover Used	\$16,000	\$4,000			\$20,000
	5307 Subtotal ►			\$4,540,320	\$61,340	\$1,384,385	\$20,000	\$6,006,045

2018 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5309 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5309 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5310 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5310 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5311 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5311 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5316 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5316 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5317 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5317 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
SoGR ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Livability ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
TIGER ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Grants Subtotal ▶				\$0	\$0	\$0	\$0	\$0
Other ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Operating Subtotal ▶				\$0	\$0	\$0	\$0	\$0
Total ▶				\$4,540,320	\$61,340	\$1,384,385	\$20,000	\$6,006,045

2018 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

Fiscal Constraint Analysis				
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
FFY 18 / 5307	\$1,998,265	\$5,590,860	\$3,592,595	Available
Carryover / 5307	\$2,542,055	\$2,542,055	-	Available
Total 5307	\$4,540,320	\$8,132,915	\$3,592,595	Available
State Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
RTACAP	\$61,340	\$61,340		
SCA	\$1,384,385	\$1,384,385		

2019 Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5307 ►	MVRTA	Capital funding used for Preventive Maintenance and considered as an operating expense for FY 2019 (O)	Carryover, FY 2018 Funds Used	\$2,348,800	\$0	\$587,200	\$0	\$2,936,000
	MVRTA	Capital funding used for operating ADA service and considered as an operating expense for FY 2019 (O)	Carryover Used	\$1,038,480	\$0	\$259,620	\$0	\$1,298,100
	MVRTA	Operating Assistance (O)	Carryover Used	\$454,085	\$0	\$454,085	\$0	\$908,170
	MVRTA	Replace 3 Model Year 2007 with new (delivery FY 2020) (M)	Carryover Used	\$1,130,160	\$282,540			\$1,412,700

**2019 (Cont.) Merrimack Valley MPO 2016 – 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015**

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
	MVRTA	Support vehicles (M)	Carryover Used	\$39,200	\$9,800			\$49,000
	MVRTA	State of Good Repair – Lawrence Gateway Parking, Phase II (M)	Carryover Used	\$8,000	\$2,000			\$10,000
	MVRTA	Continue Short Range Transit Planning MVPC UPWP FY 2019 (20% match from MVPC) (N)	Carryover Used	\$40,000			\$10,000	\$50,000
	MVRTA	MVPC Technical Support to MVRTA FY 2019 (20% match from MVPC) (N)	Carryover Used	\$40,000			\$10,000	\$50,000
	5307 Subtotal ►			\$5,098,725	\$294,340	\$1,300,905	\$20,000	\$6,713,970

2019 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program
5/7/2015

FTA Program ▼	RTA ▼	Project Description ▼	Carry-over or Earmark Details ▼	Federal Funds ▼	State Match Source RTACAP ▼	State Match Source SCA ▼	Local Funds ▼	Total Cost ▼
5309 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5309 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5310 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5310 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5311 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5311 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5316 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5316 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
5317 ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
5317 Subtotal ▶				\$0	\$0	\$0	\$0	\$0
SoGR ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Livability ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
TIGER ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Grants Subtotal ▶				\$0	\$0	\$0	\$0	\$0
Other ▶		No Projects Programmed	N/A	\$0	\$0	\$0	\$0	\$0
Operating Subtotal ▶				\$0	\$0	\$0	\$0	\$0
Total ▶				\$5,098,725	\$294,340	\$1,300,905	\$20,000	\$6,713,970

2019 (Cont.) Merrimack Valley MPO 2016 - 2019 Transportation Improvement Program from MVRTA Capital Program 5/7/2015

Fiscal Constraint Analysis				
Federal Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
FFY 18 / 5307	\$1,506,130	\$5,590,860	\$4,084,730	Available
Carryover / 5307	\$3,592,595	\$3,592,595	-	
Total 5307	\$5,098,725	\$9,183,455	\$4,084,730	Available
State Funding Source ▼	Programmed ▼	Available ▼	(+/-) ▼	
RTACAP	\$294,340	\$294,340	-	
SCA	\$1,300,905	\$1,300,905	-	

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Appendix F Key to Maps Showing Locations of Transportation Projects

Appendix F Key to Maps Showing Locations of Transportation Projects

Map Number	Project Number	City/Town	Project Description
<u>1</u>	606669	Amesbury	Amesbury - Powwow Riverwalk Construction – New Design
<u>1</u>	602418	Amesbury	Amesbury – Reconstruction of Elm Street
<u>1</u>	607737	Amesbury - Salisbury	Amesbury – Salisbury Trail Connector at I-95
<u>2</u>	606574	Andover – Lawrence	Andover – Lawrence - Interstate Maintenance and related work on I – 495
<u>2</u>	607561	Andover/ Methuen	Andover/ Methuen Interstate Maintenance and related work on I – 93
<u>3</u>	RTA – 1	MVRTA	Newburyport – Intermodal Transit Parking Facility Construction
<u>4</u>	605114	Groveland	Groveland – Rehabilitation of Route 97 (School Street & Salem Street)
<u>5</u>	606161	Haverhill	Haverhill – Improvements on Main Street (Route 125)
<u>5</u>	607573	Haverhill	Haverhill – Reconstruction of Route 97 (Broadway) from Silver Birch Lane to Research Drive)
<u>5</u>	605306	Haverhill	Haverhill – Substructure replacement, H-12-039, I-495 (NB & SB) over Merrimack River

Appendix F Key to Maps Showing Locations of Transportation Projects (Continued)

Map Number	Project Number	City/Town	Project Description
<u>6</u>	607476	Methuen	Methuen –resurfacing and related work on Route 213
<u>7</u>	606159	North Andover	North Andover – Intersection & Signal Improvements at Route 125 & Massachusetts Avenue
<u>8</u>	605020	Salisbury	Boxford – Georgetown – Newbury – Salisbury - Multi-use Trail Extension (Borders to Boston Trail) * Salisbury Section
<u>9</u>	608187	Haverhill – Merrimac - Salisbury	Haverhill – Merrimac – Salisbury Traffic Guide Sign Replacement
<u>10</u>	608002	Lawrence	Lawrence – Safe Routes to School (Bruce Elementary)
<u>11</u>	607541	Georgetown	Georgetown – Border to Boston Trail (Southern Georgetown Section)
<u>11</u>	607542	Georgetown	Georgetown – Border to Boston Trail (Northern Georgetown to Byfield Section)

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Appendix G Comments Received on Draft 2016-2019 TIP

Appendix G Comments Received on Draft 2016-2019 TIP

FHWA Comments:

Comment 1: TIP Development Process. Please provide an explicit demonstration of how TIP is consistent with RTP- Are projects consistent with the first band of the RTP; how did RTP direct selection of TIP projects? Etc.

Response: This information has been added to page 7.

Comment 2: Please ensure that the statewide project list is included in the TIP.

Response: MassDOT provided us with the statewide projects they wanted us to include in the Merrimack Valley MPO TIP these are included in the MVMPO TIP.

Comment 3: Transportation Funding Programs – Highway Projects. Please ensure that Interstate Maintenance funds are available to programming as this program has been discontinued.

Response: There are no projects listed in the MVMPO TIP which are slated to use Interstate Maintenance Funds.

MassDOT Office of Transportation Planning Comments:

General Comments:

Comment: Please ensure that the document is in an accessible format.

Response: The document is in 12 point Helvetica Neue font with 1.25 line spacing and where there used to be headings and project names in all capital letters, these have been changed.

Comment: The document in its entirety has a substantial amount of grammatical and punctuation errors. It needs to be thoroughly proof read and edited before endorsement.

Response: Staff has reviewed the document in its entirety and addressed any grammatical, spelling and punctuation errors found. However, this review resulted in only minor changes to the document.

Comment: In the first page of the document, MassDOT is referenced more times than required. Please address.

Response: Change made.

MassDOT Office of Transportation Planning Comments (Cont.):

(Please note that page numbers in the comment paragraphs refer to the page numbers in the Draft document. Where needed, the response paragraphs list the Final document page numbers.)

Comment: The Title VI compliance notice, endorsement, and Self- Certification Compliance statement pages are missing from the beginning of the document. Pages 82 and 83 should be placed at the beginning of the document.

Response: Change made. These are now on pages 3 and 4.

Comment: Pages 82 and 83 – Please replace “Highway Administrator” with “Acting Highway Administrator”.

Response: Change made on the now pages 3 and 4.

Comment: There is no mention of Title VI and EJ requirements in the document.

Response: The Title VI Notice of Public Protection has been added beginning on page 121. EJ requirements have been added beginning on page 124.

Comment: Please list the MAP-21 planning factors as defined by the Federal Highway Administration (FHWA) and make proper linkages throughout the document.

Response: Change made. The planning factors are listed on page 5 and referenced on page 7 and 8 that they are part of the project selection process and the evaluation TEC score.

Comment: There is no mention of the State Transportation Improvement Program (STIP) in the document. Please consider adding an Executive Summary to the document which includes the FY 2016-2019 TIP Overview, TIP investments for highway and transit programs, TIP development process, and endorsement of the document.

Response: The fact that the regional TIPs are combined with State projects to produce the STIP, and that in order to receive federal funding transportation projects must be listed in the STIP has been added to page 6.

Comment: There is no mention of the fact that in FFY 2017 MassDOT will end funding for the regional major infrastructure program after the I-91 Viaduct in Springfield project has been completed. These funds will be reallocated to the Regional Target program for prioritization by MPOs across the state.

Response: Change made. This statement has been added to page 64.

MassDOT Office of Transportation Planning Comments (Cont.):

Comment: Part A. 3. Public Participation: Please list the stakeholders that were consulted in developing the 3C documents.

Response: A list of the groups of stakeholders that received notices has been added beginning on page 11. Notice of Availability for review and comment and the Public Hearing Notice for the Draft FFYs 2016 to 2019 TIP were emailed to 750 and traditional mailed to 325 stakeholders from the groups listed, that is a total of more than 1,000 addressees who received direct contact regarding the Draft 2016 to 2019 TIP, 2016 RTP as well as the 2016 UPWP.

Comment: Please provide details on dates and locations of the public input sessions.

Response: Meeting dates have been added on page 13.

Comment: Page 6- Please check the thresholds for projects amendment/adjustments in the Transportation Improvement Program (TIP). Please consider using the following narrative: "Consistent with federal guidelines, if a project is valued at \$5 million or less, the threshold for defining an amendment is a change of \$500,000 or more. The threshold for projects valued at greater than \$5 million is 10 percent or more of the project value. Changes that are less than these thresholds may be considered administrative modifications, and although a public review period is not required, one may be provided at the MPO's discretion."

Response: The percentage threshold for requiring an amendment has been changed to 10% for first year projects. (Page 14 in the final document)

Comment: Page 7- Please check the description for the Andover project.

Response: This description refers to the project as listed in SAFETEA-LU designated "High Priority Projects" listing therefore no change is needed. (Page 15 in the final document)

Comment: Page 7- "Transit Projects for Bus and Bus-Related Facilities and Clean Fuels Grant Program:" Is this the project name? The same description appears as the header for transit projects.

Response: There is an error. This is the header for transit projects. It is not a project itself. Correction made. (Page 15 in the final document)

MassDOT Office of Transportation Planning Comments (Cont.):

Comment: Page 8- Please remove the unneeded periods in the “Advanced Construction” paragraph.

Response: The paragraph is quoted from the Federal Highway Administration website and the periods are needed to indicate that there are additional words in the original statement that are not included in this quoted statement. (Page 16 in the final document)

Comment: Page 12- “D – (MassDOT District) – MassDOT highway district number (Merrimack Valley MPO is part of District 4)”. Please fix.

Response: The “D” is correct, as it is the column heading, which is footnoted on each page to mean “MassDOT district number”. This notation was necessary in order to reduce the column width of this column in an effort to increase the font size of the project listings to make the document accessible when printed. (This notation has since been removed because MassDOT required the original templates replace the listings that contained the new “D” notation.)

Comment: Part B- FFY 2016-2019 Highway Project listings-FFY 2016 Projects# 606669(Amesbury) - Please add the full project description.

Response: No change made. The full project description in the MassDOT online projects list is the old description of the project before the design changed. The MassDOT project listing description is incorrect and therefore not repeated here. MassDOT needs to update their description, or create a new project number for the new design.

Comment: Part B- FFY 2016-2019 Highway Project listings FFY 2016 Projects# 606574 (Andover-Lawrence) - Please add the missing district number in the appropriate column.

Response: Change made.

Comment: Part B- FFY 2016-2019 Highway Project listings-FFY 2017 Projects# 607561 (Andover-Methuen) - Please add the missing district number in the appropriate column.

Response: Change made.

MassDOT Office of Transportation Planning Comments (Cont.):

Comment: The templates for the highway project listings are not consistent with the template used by other MPO's in the State. Please use the standard MassDOT TIP template to show the project listings.

Response: The highway project listings in the document reflect an accessible format, while the current MassDOT template does not. We do prepare the MassDOT template to reflect the correct projects and send that to MassDOT so it can be easily integrated into the STIP, but for the document to meet accessibility requirements the font size needs to be increased to 12 point for printing. This increase in font size necessitates fewer and narrower columns. This was achieved by 1) removing the "MPO" designation column, because "Merrimack Valley" (which would populate every entry in that column) is stated at the top of every page of the project listings, and by 2) changing the title of the "MassDOT District" column to "D¹" with the footnote on every page indicating this column is the MassDOT District number. The MassDOT District column entry possibilities are merely single digits and therefore the column only has to be one digit wide, and so the column heading title was changed to "D" so that the column could be 1 digit wide. Neither of these changes significantly impacts the information in the project listing in the document as compared to the MassDOT template; all of the other columns are the same as the template, and contain all of the information as the template. However, we will attempt to do this for a final version of the document.

Comment: There are small squares in some empty cells of the template. The template should be checked and corrected.

Response: The squares do not appear in the Word document, or the hard copies printed from the Word document. This appears to have occurred when the document was saved to .pdf format for the website. We will look into it, but cannot guarantee we will find the problem.

Comment: Please work with MassDOT District 4 to add projects to utilize the additional Surface Transportation Program (STP)/Highway Safety Improvement Program (HSIP)/Congestion Mitigation and Air Quality (CMAQ)/Transportation Alternatives Program (TAP) funds.

Response: We have been and will continue to work with District 4 staff to accomplish this.

MassDOT Office of Transportation Planning Comments (Cont.):

Comment: Please consider using available Congestion Mitigation and Air Quality (CMAQ) or Transportation Alternatives Program (TAP) funding in the future TIP development to address gaps in sidewalk networks.

Response: Staff has added a task to the FFY 2016 UPWP to look into how this could be accomplished.

Comment: Include the project proponent in the “Additional Information” column for TAP projects.

Response: Change made.

Comment: Federal Requirements- The “Certification of the 3C Planning Process”, “Certification of Private Enterprise Participation in the Transportation Planning Process”, and “Certification of Compliance with the Regional Public Participation Plan” is missing in the federal requirements chapter.

Response: The “Certification of the 3C Planning Process” was in the Federal requirements section and is now, because of a previous comment, moved to the front of the document. We are developing language for the other two certifications.

Comment: Pages 130-133- the tables should be updated to conform to the graphical format of the other data tables in the document for consistency.

Response: Change made.

Conservation Law Foundation Comments

Comment: CLF strongly supports the inclusion of three segments of the Border to Boston trail (Salisbury, Southern Georgetown Section, and Northern Georgetown to Byfield Section) in fiscal years 2018 and 2019 of the TIP. It also encourages the MPO to continue its support of completing the Border to Boston trail by adding additional segments to the TIP, now or in the near future.

In addition, CLF requests that the MPO reinstate the programming of flexed highway funds to the TIP for FY17 and FY19 to allow the Merrimack Valley Regional Transit Authority (MVRTA) to purchase a total of six hybrid replacement buses, three respectively in FY17 and FY19. Such funding was included (for three buses) in the TIP

Conservation Law Foundation Comments (Cont.):

previously for FY2015, but was removed temporarily because the agency was not ready to procure the vehicles.

Response: The MVMPO will continue to work with member communities to implement the Border to Boston Trail.

The MVMPO will also assess a recently completed analysis of the air quality and operating cost benefits that can be gained from the purchase of such vehicles in making further decisions on the programming of MPO CMAQ Target funds.

MVRTA Comments

Comment: A recently completed analysis shows that there will be benefits both from the bus operating side (fuel savings) and environmental side (emission improvement) to warrant support by the MPO to allocate CMAQ funding which will provide the additional funding needed for the purchase of diesel/hybrid buses, 3 in FY 2017 and 3 in FY 2019-the benefits accrue due to the number of buses to be purchased within this 2 year period particularly with the replacement of 3 Model 2007 diesel powered buses with 3 diesel/hybrid buses in FY 2019.

Response: The MVMPO will assess a recently completed analysis of the air quality and operating cost benefits that can be gained from the purchase of such vehicles in making further decisions on the programming of MPO CMAQ Target funds.

Additional Comments (Letters of Support)

The following pages contain letters of support for various projects in the 2016 to 2019 MVMPO TIP.



July 17, 2015

Anthony Komornick, Transportation Program Manager
Merrimack Valley Planning Commission
160 Main St.
Haverhill, MA 01830

Re: Draft FFY 2016-2019 Transportation Improvement Program

Dear Mr. Komornick,

I am writing to you on behalf of Coastal Trails Coalition, Inc. (CTC) to express the organization's strong support for the funding that is included in the Merrimack Valley Metropolitan Planning Organization's (MVMPO) Draft FFY 2016-2019 Transportation Improvement Program (TIP) for Border to Boston Trail and Coastal Trails Network multi-use trail construction projects.

Construction funding for the following multi-use trail projects is included in the draft TIP:

- \$786,000 of STP and TAP funding for completion of Amesbury's Powow Riverwalk in 2016
- \$6.6 million of CMAQ and TAP funding for the Salisbury Border to Boston trail project in 2018
- \$2.6 million of Statewide CMAQ funding for the Amesbury-Salisbury Trail Connector in 2018
- \$2.0 million of Statewide CMAQ funding for the Georgetown South Border to Boston Trail project in 2018
- \$4.36 million of Statewide CMAQ funding for the Georgetown-Newbury Border to Boston Trail project in 2019

These projects are all either key components of the Border to Boston Trail or vital elements of the Coastal Trails Network or both. The Border to Boston Trail projects have been in design for years. MassDOT is leading the design projects with advice and cost-sharing support from the local municipalities. The 25% preliminary design public hearing for the Salisbury Border to Boston project was held a few months ago and demonstrated great public interest and support for the project. 25% preliminary design plans for the Georgetown and Newbury Border to Boston projects have been prepared and submitted for internal MassDOT review.

Amesbury's Riverwalk, the Salisbury Border to Boston trail project and the Amesbury-Salisbury Trail Connector are all vital elements of the Coastal Trails Network and will provide direct connections to New Hampshire as well as to the Whittier Trail that is now under construction.

Taken together the projects will greatly enhance the multi-use trail connections between the communities in the Lower Merrimack Valley as well as providing multi-use trail links to New Hampshire in the north and to communities along the Border to Boston Trail to the south.

We would like to say that CTC sincerely appreciates MassDOT's commitment of Statewide CMAQ funds to the construction of a number of the multi-use trails in our region and request that the MVMPO approve including the proposed construction funding for all of the foregoing trail projects in its FFY 2016-2019 TIP.

CTC is a 501(c)(3) non-profit charitable organization formed by citizens and communities in the Lower Merrimack Valley. Its mission is to advocate for the Coastal Trails Network, a public system of interconnected bicycle and pedestrian trails that will link the unique coastal features, town centers, neighborhoods and transportation hubs in the communities of Amesbury, Newbury, Newburyport and Salisbury and will enhance recreation, conservation, health, education and tourism opportunities throughout the area.

Sincerely,

A handwritten signature in black ink, appearing to read "David Hall". The signature is fluid and cursive, with a large initial "D" and "H".

David Hall, President



July 24, 2015

Anthony Komornick
Transportation Program Manager
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830

Re: Draft FFY 2016-2019 Transportation Improvement Program

Dear Mr. Komornick:

On behalf of the congressionally designated Essex National Heritage Commission, I write to offer our strong support for the CMAQ and TAP funded projects included in the Draft FFY 2016-2019 Transportation Improvement Program (TIP) of the Merrimack Valley Metropolitan Planning Organization (MVMPO).

The FFY 2016-2019 TIP presents an important opportunity to significantly increase regional trail usage while meeting air quality and transportation objectives through the provision of funds for the construction of safe, attractive and functional community assets on which residents and visitors alike can commute, recreate, and commune.

As a partnership organization long involved in trail development, Essex Heritage views the Border to Boston Trail and Coastal Trails Network as an essential elements of the region's emerging system of on- and off-road trails. In recent years trails linking a broad array of recreational, civic, commercial, and transportation destinations have been roundly embraced by numerous local, state and federal officials, civic organizations and, most importantly, residents in communities from Newburyport to Peabody and Lawrence to Salisbury.

In closing, we commend the MVMPO for its leadership and support of the multi-use trails and encourage its approval of funding for the trails included in the draft FFY 2016-2019 TIP.

Sincerely,

A handwritten signature in black ink that reads "Bill Steelman". The signature is written in a cursive, slightly slanted style.

Bill Steelman
Chief Operating Officer



For a thriving New England

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July 23, 2015

Anthony Komornick
Merrimack Valley Planning Commission
160 Main Street
Haverhill, MA 01830

Dear Mr. Komornick:

The Conservation Law Foundation (CLF) is pleased to provide the following comments on the Merrimack Valley Metropolitan Planning Organization's (MPO) draft Merrimack Valley 2016 Regional Transportation Plan (RTP) and draft Transportation Improvement Program for fiscal years 2016-2019 (TIP). CLF appreciates the opportunity to comment and has focused on three areas: Border to Boston trail projects and MVRTA hybrid buses in the TIP, and ozone conformity analysis in the RTP and the TIP.

Introduction

CLF is New England's leading regional environmental advocacy organization. Since 1966, CLF has worked to protect New England's people, natural resources and communities. CLF is a nonprofit, member-supported regional environmental organization working to conserve natural resources, protect public health, and promote thriving communities for all in the New England region. CLF has long advocated for a better transportation system in New England.

We provide these comments to strongly support the inclusion of three segments of the Border to Boston trail (Salisbury, Southern Georgetown Section, and Northern Georgetown to Byfield Section) in fiscal years 2018 and 2019 of the TIP. We also encourage the MPO to continue its support of completing the Border to Boston trail by adding additional segments to the TIP, now or in the near future.

In addition, we request that the MPO reinstate the programming of flexed highway funds to the TIP for FY17 and FY19 to allow the Merrimack Valley Regional Transit Authority (MVRTA) to purchase a total of six hybrid replacement buses, three in respectively in FY17 and FY19. Such funding was included (for three buses) in the TIP previously for FY2015, but was removed temporarily because the agency was not ready to procure the vehicles.

Finally, we request that the MPO return to its previous practice of conducting a conformity analysis for ozone as required by the federal Clean Air Act (CAA).

Border to Boston Trail

The Border to Boston trail—an emerging twenty-eight mile shared use trail, which will link eight communities from the New Hampshire border to Boston's North Shore—is an



important regional project that will help to promote active transportation and thereby reduce GHG emissions and improve local and regional air quality. The Border to Boston trail is included in the Bay State Greenway Priority 100, a list of shared-use path segments that are MassDOT's top trail priorities.

We therefore appreciate that the draft TIP now includes three segments of the Border to Boston trail: Salisbury, Southern Georgetown Section (with statewide CMAQ funding), and Northern Georgetown to Byfield Section, with the last segment added back in after it was replaced last year. All three of these segments of the Border to Boston trail will have a significant positive impact on the region's environment and economy. We encourage the MPO to add additional segments of the Boston to Border Trail, such as the Boxford segment to the TIP, to complete this important project.

MVRTA Hybrid Replacement Buses

CLF was very pleased when the MPO in 2012 programmed in the TIP funding for hybrid replacement buses for the MVRTA for FY15. This funding was removed temporarily last year, with the intention to program it again in the future, because the agency was not ready to procure the buses in FY15. The MVRTA now will be purchasing new buses in FY17 and FY19 and CLF urges the MPO to add \$621,000 each to the FY17 and FY19 TIP years in CMAQ funding. Sufficient funding remains in both years.

The FY17 funding would make it possible for the MVRTA to replace three aging buses in with hybrid buses rather than diesel buses. The fuel savings these hybrid buses will provide are very important to the transit authority given the already high price of fuel and anticipated fuel price spikes in the near future. The hybrid buses will also help emit fewer greenhouse gases and improve local and regional air quality. CLF has conducted a thorough analysis on this subject matter and has shared it with the MVRTA and the Merrimack Valley Planning Commission. Considering the great benefits of the hybrid buses, we urge the MPO also to add three additional hybrid bus upgrades to FY19 prior to finalizing the TIP. A little over \$795,000 and \$1.38 million in CMAQ funds remain available for programming in FY17 and FY19 respectively.

Conformity Analysis

The draft RTP states that this year the MVMPO again does not intend to conduct any conformity analysis for ozone as is required by the CAA. CLF appreciates that after we raised this issue MassDOT indicated that it will perform an ozone conformity analysis after all and will release it during the STIP public comment period. This is a great development and we look forward to this change being reflected in the final version of the RTP.

For the record, and since CLF raised this issue with MassDOT and at other MPOs, following is a description of why such an analysis is important. A recent United States Court of



Appeals for the District of Columbia Circuit decision has affirmed the requirement for the MPO to conduct an ozone conformity analysis. See *NRDC v. EPA*, No. 12-1321 (D.C. Cir.). The transportation conformity requirement, which can be found at 42 U.S.C. s. 7506(c), integrates the CAA with the transportation planning process by conditioning federal approval and funding of transportation activities, such as the RTP and the TIP, on their demonstrated compliance with applicable state implementation plans (SIPs). The statute requires MPOs to estimate emissions from covered projects to assure that new emissions will not thwart the attainment of federal national ambient air quality standards (NAAQS).

The drafters of the 1990 Clean Air Act Amendments recognized and stressed the importance of transportation conformity planning:

“The lesson of the past is clear: If we continue to fail to achieve effective integration between air quality goals and the transportation systems, American cities fail to attain clear air. If carefully administered by EPA and DOT these amendments offer the potential for achieving the healthy air quality that has eluded American cities for 20 years.”

CLF understands that the MVMPO did not to continue to abandon this crucial diagnostic tool on its own accord but rather at the advice of the United States Environmental Protection Agency (EPA). The EPA’s counsel, however, was based on a faulty legal analysis. Considering the importance of conformity planning to the region’s air quality, CLF respectfully requested that the MVMPO return to its tried-and-true practice of conducting the conformity analysis for ozone for the TIP and RTP.

Normally, when a region achieves attainment-level monitoring data for a NAAQS, as the Boston-Lawrence-Worcester region (Eastern Massachusetts Region) did on May 29, 2012, see 77 FR 31496, the CAA requires it to undergo a redesignation and maintenance process, which lasts 20 or more years. During the redesignation and maintenance process, MPOs are required to continue to perform transportation conformity analyses. See 40 C.F.R. § 93.102(b). The purpose of a maintenance plan is to ensure that the region remains in attainment.

The CAA requires the EPA to set and periodically revise air quality standards for pollutants like ozone to protect public health and welfare. The EPA promulgated ozone NAAQS in 1979 and 1997 and strengthened the ozone standard again in 2008, leaving the previous standard in effect. It took the EPA until May 2012 to promulgate designations (i.e., nonattainment or attainment) for the 2008 ozone standard for areas throughout the country. At the time of the initial designations for the 2008 ozone NAAQS, which occurred in 2012, Eastern Massachusetts Region in which the MVMPO resides had monitoring data that met the prescribed monitoring level over a three-year average and was determined in attainment for the first time. Simultaneously with the designations rule, EPA revoked the 1997 NAAQS for transportation conformity purposes only, effective July 20, 2013. As a result, the Eastern Massachusetts



Region became one of more than 70 “orphan areas” in the country, where no conformity analysis is required anymore, based on the pure happenstance that the region met the prescribed monitoring level at the same time initial designations went into effect. Without that revocation, all the MPOs in the Eastern Massachusetts Region would have had to continue conformity analyses to ensure that proposed transportation projects square with plans for maintaining safe ozone levels for at least 20 years. For that reason, as mentioned above, the United States Court of Appeals for the District of Columbia Circuit in December of 2014 decided that this revocation of the 1997 NAAQS for transportation conformity purposes alone violates the CAA and vacated the portion of the EPA’s rule which eliminated this requirement.

Pursuant to this ruling, the MVMPO would be required to conduct conformity analyses for the TIP and RTP. Since then, however, the EPA has issued a new rule revoking the entire 1997 NAAQS, which presumably was the agency’s basis for advising the MassDOT and the MVMPO that no conformity analysis is required. Not surprisingly, this revocation is being challenged in court again. See *Sierra Club v. EPA*, No. 15-1123, (D.C. Cir., pending). Because the EPA cannot lawfully sweep aside the CAA’s statutory conformity analysis requirement without violating the anti-backsliding provisions of the CAA, which are designed to ensure that air quality does not get worse after a NAAQS is revoked, it can reasonably be expected that the elimination of the conformity analysis requirement for maintenance areas will again not be permitted.

Since the MVMPO intends to already conduct a GHG analysis for the TIP and RTP, adding the conformity analysis for ozone, which is similar, will not be an arduous additional step. This will allow the MVMPO to assure its members and the public that the proposed plans remain consistent with the goal of protecting the region from the serious public health threats associated with ozone. CLF therefore appreciates that despite the EPA’s position, which is not sustained in the law, the MVMPO will conduct a conformity analysis for the TIP and RTP this year rather than to wait until a court orders it yet again.

Thank you for your consideration of these comments. If you have any questions, I can be reached by phone at (617) 850-1739 or by email at rmares@clf.org.

Sincerely,

Rafael Mares
Staff Attorney

cc Steve Woelfel, MassDOT

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