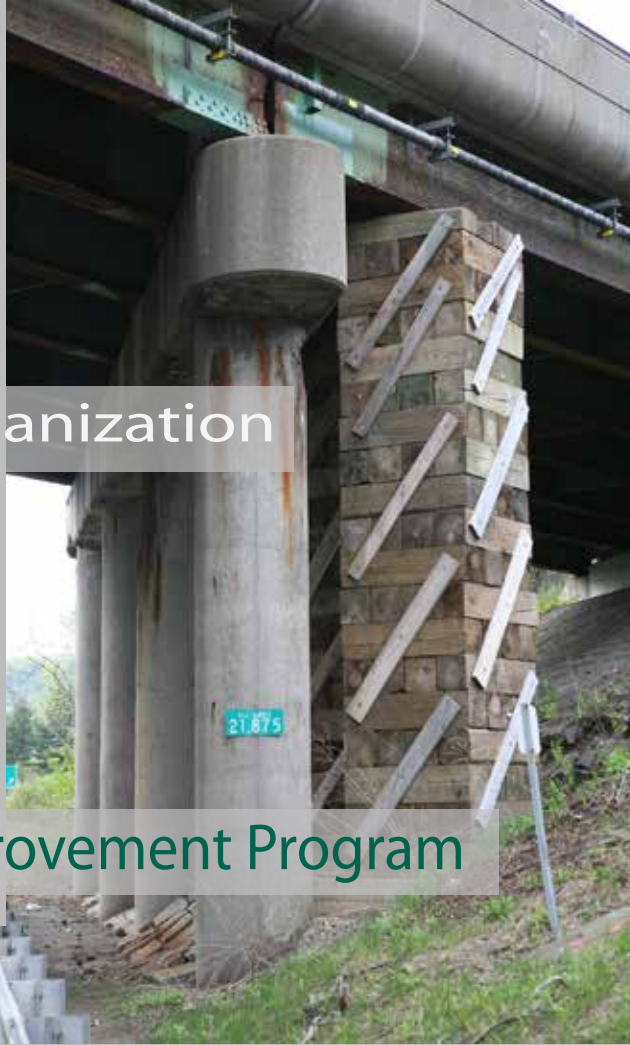


Metropolitan Planning Organization

TIP

Transportation Improvement Program



FY 2019-2023 METROPOLITAN PLANNING ORGANIZATION
PIONEER VALLEY REGION, MASSACHUSETTS

Amended May 28, 2019

This document was prepared under contract with the Massachusetts Department of Transportation. This report was funded in part through grant(s) from the Federal Highway Administration (and Federal Transit Administration), U.S. Department of Transportation. The views and opinions of the authors (or agency) expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

2019 - 2023

FOR THE
METROPOLITAN PLANNING ORGANIZATION
PIONEER VALLEY REGION,
MASSACHUSETTS

Endorsed: **May 22, 2018**
Amendment **May 28, 2019**



This document was prepared under contract with the Massachusetts Department of Transportation. This report was funded in part through grant[s] from the Federal Highway Administration [and Federal Transit Administration], U.S. Department of Transportation. The views and opinions of the authors [or agency] expressed herein do not necessarily state or reflect those of the U. S. Department of Transportation

Table of Contents

- PREFACE5**
- I. GENERAL SUPPORT INFORMATION.....7**
 - FEDERAL AUTHORIZATION.....7
 - CONFORMITY WITH THE REGIONAL TRANSPORTATION PLAN15
 - METROPOLITAN PLANNING ORGANIZATION15
 - DEVELOPMENT OF THE TIP.....16
 - PROJECT SELECTION AND PROGRAMMING.....23
 - AMENDMENT/ADJUSTMENT OF THE TIP.....23
 - DESCRIPTION OF FUNDING SOURCES23
 - TRANSPORTATION SYSTEM OPERATING AND MAINTENANCE COSTS25
- II. PUBLIC PARTICIPATION SUMMARY AND CHANGES27**
- III. FEDERAL COMPONENT49**
 - PIONEER VALLEY MPO ENDORSEMENT.....50
 - CERTIFICATION OF THE 3-C PLANNING PROCESS53
 - FUNDING INFORMATION60
- THE GEOGRAPHIC DISTRIBUTION OF FEDERAL TARGET FUNDS IN THE PIONEER VALLEY METROPOLITAN PLANNING REGION – 2019 TO 2023.....61**
- IV. FEDERAL AID REGIONAL PROJECT LISTINGS67**
 - ORGANIZATION OF PROJECT LISTINGS.....67
- V. TRANSIT PROJECT LISTING FOR FFY 2019 - 2023.....97**
- VII. PROJECT IMPLEMENTATION107**
- VIII. AIR QUALITY CONFORMITY INFORMATION.....111**
- IX. GREENHOUSE GAS MONITORING AND EVALUATION113**
 - Regional Greenhouse Gas Impact Summary Tables for FFY 2019 – 2022 TIP.....115
- APPENDICES133**
 - APPENDIX A: MassDOT Targets135

APPENDIX B: Metropolitan Planning Area (MPA) State and Local Consulted Agencies.....	141
APPENDIX C: FAST Act Performance Management Information.....	143
APPENDIX D: Planning Acronyms.....	145

List of Tables

FIGURE 1 TOTAL FATALITIES	ERROR! BOOKMARK NOT DEFINED.
FIGURE 2 TOTAL FATALITIES PER 100 MILLION VMT.....	ERROR! BOOKMARK NOT DEFINED.
FIGURE 3 TOTAL SERIOUS INJURIES.....	ERROR! BOOKMARK NOT DEFINED.
FIGURE 4 NON-MOTORIZED FATALITIES.....	ERROR! BOOKMARK NOT DEFINED.
TEC SCORING SUMMARY.....	19
TABLE 1 INTEGRATION OF GREENDOT GOALS INTO TIP	21
TABLE 2 TRANSPORTATION OPERATING AND MAINTENANCE EXPENDITURES.....	26
TABLE 3 TRANSIT OPERATING AND MAINTENANCE EXPENDITURES.....	26
TABLE 4 COMMENTS RECEIVED DURING PUBLIC REVIEW	28
TABLE 5 FEDERAL HIGHWAY FINANCIAL PLAN.....	60
TABLE 6 FEDERAL TRANSIT FINANCIAL PLAN.....	61
TABLE 7 PROJECTS PROPOSED TO BE COMPLETED IN THE 2019-2023 TIP BY SUB-REGION.....	62
TABLE 8 PROJECTS PROPOSED TO BE COMPLETED IN THE 2019-2023 TIP BY MUNICIPALITY.....	63
FIGURE 5 PROJECT PROGRAMMED IN THE TIP	65
TABLE 9 SUMMARY OF PROGRAMMED PROJECTS SECTION 1 A FEDERAL AID TARGET PROJECTS.....	69
TABLE 10 FEDERALLY FUNDED PROJECTS YEAR 2019.....	72
TABLE 11: FEDERALLY FUNDED PROJECTS 2020	76
TABLE 12: FEDERALLY FUNDED PROJECTS 2021	80
TABLE 13: FEDERALLY FUNDED PROJECTS YEAR 2022.....	84
TABLE 14: FEDERALLY FUNDED PROJECTS YEAR 2023.....	87
TABLE 15: UNIVERSE OF PROJECTS AND TEC SCORES	91
TABLE 16 HIGH PRIORITY PROJECTS (HPP) FUNDING.....	95
TABLE 16: FFY 2019 TRANSIT PROJECT INFORMATION.....	99
TABLE 17: FFY 2020 TRANSIT PROJECT INFORMATION.....	101
TABLE 17: FFY 2020 TRANSIT PROJECT INFORMATION (CONTINUED)	102
TABLE 18: FFY 2021 TRANSIT PROJECT INFORMATION.....	103
TABLE 18: FFY 2022 TRANSIT PROJECT INFORMATION.....	104
TABLE 19: FFY 2023 TRANSIT PROJECT INFORMATION.....	105
TABLE 22 PROJECT IMPLEMENTATION	108
TABLE 23 GREENHOUSE GAS SUMMARY TABLES FFY 2019	117
FIGURE 6 COMPLETED HIGHWAY AND TRANSIT PROJECT GHG ANALYSIS.....	132
TABLE 25: AGENCIES CONTACTED	141
TABLE 26: AGENCIES PROVIDING CONSULTATION)	142

List of Figures

FIGURE 1 TOTAL FATALITIES	ERROR! BOOKMARK NOT DEFINED.
FIGURE 2 TOTAL FATALITIES PER 100 MILLION VMT.....	ERROR! BOOKMARK NOT DEFINED.
FIGURE 3 TOTAL SERIOUS INJURIES.....	ERROR! BOOKMARK NOT DEFINED.
FIGURE 4 NON-MOTORIZED FATALITIES.....	ERROR! BOOKMARK NOT DEFINED.
FIGURE 5 PROJECT PROGRAMMED IN THE TIP	65
FIGURE 6 COMPLETED HIGHWAY AND TRANSIT PROJECT GHG ANALYSIS.....	132

PREFACE

The Pioneer Valley Region

The Pioneer Valley Region is comprised of 43 cities and towns covering approximately 1,180 square miles. Home to over 626,000 residents, the Pioneer Valley is the fourth largest metropolitan area in New England. The map on the following page references the Pioneer Valley Region.

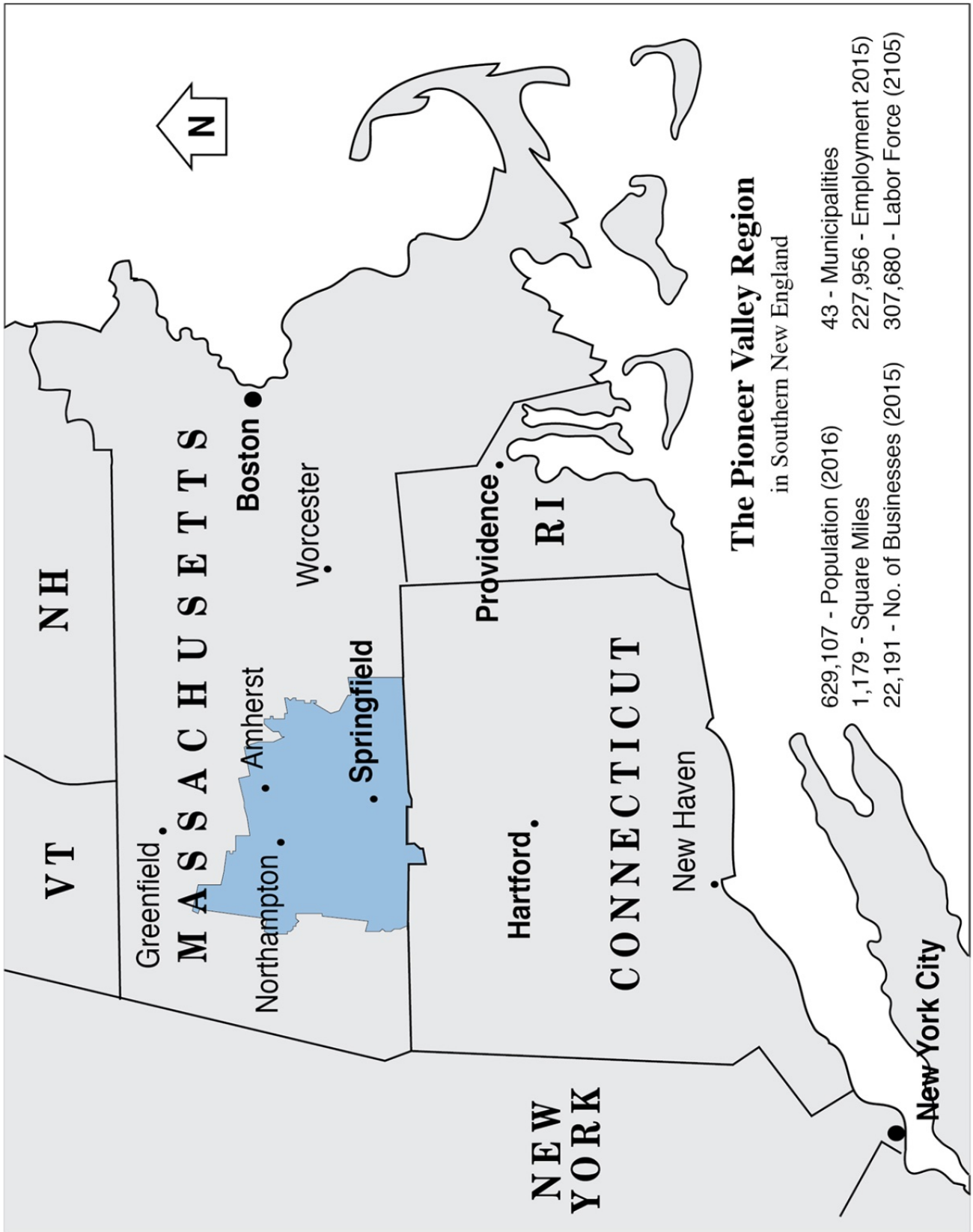
TIP Format and MPO Endorsement

The FFY 2019 - 2023 TIP has been prepared with completely separate components of the document that are subject to federal review and approval and components that are not. This distinction of a “federal component” was the firm position of the Massachusetts Department of Transportation (MassDOT) as a means to avoid potential problems with adequately satisfying federal financial constraint requirements with the non-federal aid component of the TIP. Although a non-federal component of the TIP is represented, it is understood that this component is not subject to Metropolitan Planning Final Rule 23 CMR 450 section 324, therefore federal review and approval is not required.

The non-federal component is provided for the benefit of the MPO and the constituent communities as a representation of an agreed upon listing of improvement projects to be undertaken entirely with state provided resources. All projects included in the Non Federal Aid (NFA) section of the TIP must be eligible to receive federal funds and be located on a functionally classified road. The separation of federal aid projects from non-federal aid projects by no means represents a lack of commitment by the state to fund all projects specifically programmed in the document. Assuming that adequate funds are available from federal and/or state sources, it can be fully expected that the following project listings can and will be implemented over the FFY 2019 - 2023 time frame. Pending federal guidance approving the inclusion of non-federal aid projects without secured bonded resources in each year, the TIP will be amended to reinstate all non-federal aid projects into the document endorsed for federal review and approval.

MassDOT Commitment to Funding all Designed and Permitted Projects

The MassDOT has committed to funding all transportation improvement projects that will be ready for advertisement in FFY 2019 and beyond. In response to this commitment, Pioneer Valley local officials in cooperation with regional and state officials from the MassDOT have made a concerted effort to develop a TIP project listing that is truly representative of the projects that will realistically be ready for advertisement in FFY 2019. Funding targets for the Pioneer Valley Region have been issued by MassDOT identifying potential resources for each year of the TIP.



I. GENERAL SUPPORT INFORMATION

INTRODUCTION

The Transportation Improvement Program (TIP) is a requirement of the Metropolitan Transportation Planning Process as described in the Metropolitan Planning Final Rule 23 CFR 450 section 324. This regulation developed by the Federal Department of Transportation defines the Transportation Improvement Program as:

“A staged, multiyear, intermodal program of transportation projects which is consistent with the metropolitan transportation plan.”

The Pioneer Valley TIP is a Five-year schedule of priority highway, bridge, transit, and multimodal projects identified by year and location complete with funding source and cost. The TIP is developed annually and is available for amendment and adjustment at any time. Each program year of the TIP coincides with the Federal Fiscal Year calendar, October 1 through September 30. All TIPs and amendments are consistent with the goals and objectives of the Regional Transportation Plan for the Pioneer Valley region. This TIP is financially constrained.

FEDERAL AUTHORIZATION

FAST Act, Fixing America’s Surface Transportation (Pub. L. No. 114-94), was signed into law on December 4, 2015. Funding surface transportation programs at over \$305 billion for fiscal years (FY) 2016 through 2020, FAST act replaced MAP-21 which was enacted in 2012. Under the FAST Act all Metropolitan Planning Organizations are required to incorporate ten planning factors. The ten planning factors are as follows:

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 non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility of people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhancing travel and tourism

The Moving Ahead for Progress in the 21st Century Act (MAP-21), enacted in 2012, included provisions to make the Federal surface transportation more streamlined, performance-based, and multimodal, and to address challenges facing the U.S. transportation system, including improving safety, maintaining infrastructure condition, reducing traffic congestion, improving efficiency of the

system and freight movement, protecting the environment, and reducing delays in project delivery. The FAST Act builds on the changes made by MAP-21.¹

The FAST Act specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation.

National goal areas continue to be a priority under the FAST Act and address the following areas:

Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.

Congestion reduction—To achieve a significant reduction in congestion on the NHS.

System reliability—To improve the efficiency of the surface transportation system.

Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.

Reduced project delivery delays—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

PERFORMANCE MEASURES

The FAST Act requires MPOs, in collaboration with the state DOT and transit agencies, to formally establish targets for performance measures aligned with the national goals. Performance Based Planning and Programming (PBPP) refer to the application of performance management within the parameters of the FAST Act to achieve desired outcomes for the multimodal transportation system. It is intended advance transportation investments based on their ability to meet established goals. This includes setting targets for the performance measures identified in the FAST Act.

Performance measures are intended to monitor and track performance over time and assess the effectiveness of projects and strategies in meeting the national goal areas. In the Pioneer Valley region, performance based planning methods have been used in the development of the Transportation Evaluation Criteria to program projects as part of the Regional Transportation Improvement Program for many years.

USDOT implemented the federal PBPP requirements through a series of phased rulemakings. At the conclusion of this rulemaking process, the Commonwealth of Massachusetts has twelve months to establish statewide performance targets for each required federal performance measure. The Pioneer Valley MPO has 180 days from the date of Commonwealth's adoption of

¹ <https://www.fhwa.dot.gov/fastact/summary.cfm>

the statewide performance targets to either adopt the statewide targets or establish their own regional performance targets.

The Federal Transit Administration has finalized a rule to define requirements for transit asset management. This rule requires public transportation providers to develop and implement transit asset management (TAM) plans. TAM plans must include an asset inventory, condition assessments of inventoried assets, and a prioritized list of investments to improve the state of good repair of capital assets. This rule also establishes state of good repair standards and four state of good repair performance measures.

Table 1 Regional Performance Measure Status

Final Rule	Effective Date	Status	Updated
Safety Performance Measures (PM1)	April 14, 2016	MPO adopted state targets on February 26, 2019	Annually
Pavement/Bridge Performance Measures (PM2)	May 20, 2017	MPO adopted state targets on October 23, 2018	Every Two Years
System Performance Measures (PM3)	May 20, 2017	MPO adopted state targets on September 25, 2018	Every Two Years
Transit Asset Management Plan (TAM)	July 26, 2016	MPO adopted TAM Plan on March 26, 2019	Every Four Years

As can be seen from the above table, the Pioneer Valley MPO has elected to adopt the State performance targets for PM1, PM2 and PM3. The MPO will continue to work in close collaboration with the PVTA to incorporate their TAM performance targets in to the regional transportation planning process. The UPWP includes specific tasks to support the performance based planning and programming for the Pioneer Valley MPO. The latest performance targets for each adopted performance measure is presented in the following section.

Safety Performance Measures (PM1)

Pioneer Valley has chosen to adopt the statewide safety performance measure targets set by MassDOT for Calendar Year (CY) 2019. In setting these targets, MassDOT has followed FHWA guidelines by using statewide crash data and Highway Performance Monitoring System (HPMS) data for vehicle miles traveled (VMT) in order to calculate 5 year, rolling average trend lines for all FHWA-defined safety measures. For CY 2019 targets, four of the five safety measures—total number of fatalities, rate of fatalities per 100 million vehicle miles traveled, total number of incapacitating injuries, and rate of incapacitating injuries per 100 million VMT—were established by extending their trend lines into the 2015-2019 period. All four of these measures reflect a modest decrease in statewide trends. The fifth safety measure, the total number of combined incapacitating injuries and fatalities for non-motorized modes, is the only safety measure for which the statewide trend line depicts an increase. MassDOT’s effort to increase non-motorized mode share throughout the Commonwealth has posed a challenge to simultaneously reducing non-

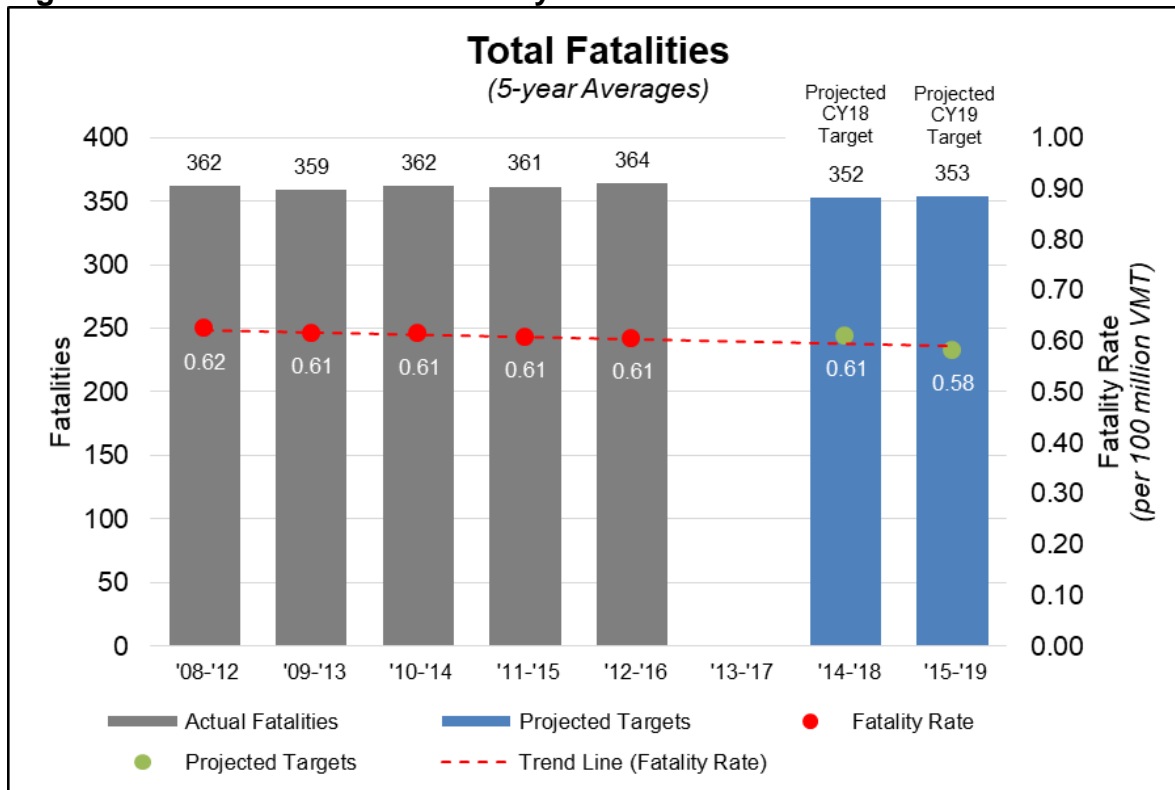
motorized injuries and fatalities. Rather than adopt a target that depicts an increase in the trend line, MassDOT has elected to establish a target of non-motorized fatalities and injuries and for CY 2019 that remains constant from the rolling average for 2012–2016. In recent years, MassDOT and the Pioneer Valley have invested in “complete streets,” bicycle and pedestrian infrastructure, intersection and safety improvements in both the Capital Investment Plan (CIP) and Statewide Transportation Improvement Program (STIP) to address increasing mode share and to incorporate safety mitigation elements into projects. Moving forward, Pioneer Valley, alongside MassDOT, is actively seeking to improve data collection and methodology for bicycle and pedestrian VMT counts and to continue analyzing crash clusters and crash counts that include both motorized and non-motorized modes in order to address safety issues at these locations.

In all safety categories, MassDOT has established a long-term target of “Toward Zero Deaths” through MassDOT’s Performance Measures Tracker² and will be establishing safety targets for the MPO to consider for adoption each calendar year. While the MPO is not required by FHWA to report on annual safety performance targets, FHWA guidelines require MPOs to adopt MassDOT’s annual targets or to establish their own each year.

The safety measures MassDOT has established for CY 2019, and that Pioneer Valley has adopted, are as follows:

- 1) **Fatalities:** The target number of fatalities for years CY 2019 is 353, down from an average of 364 fatalities for the years 2012–2016. [See Figure 1 for Our MPO vs. statewide comparison of the trend for this performance measure]

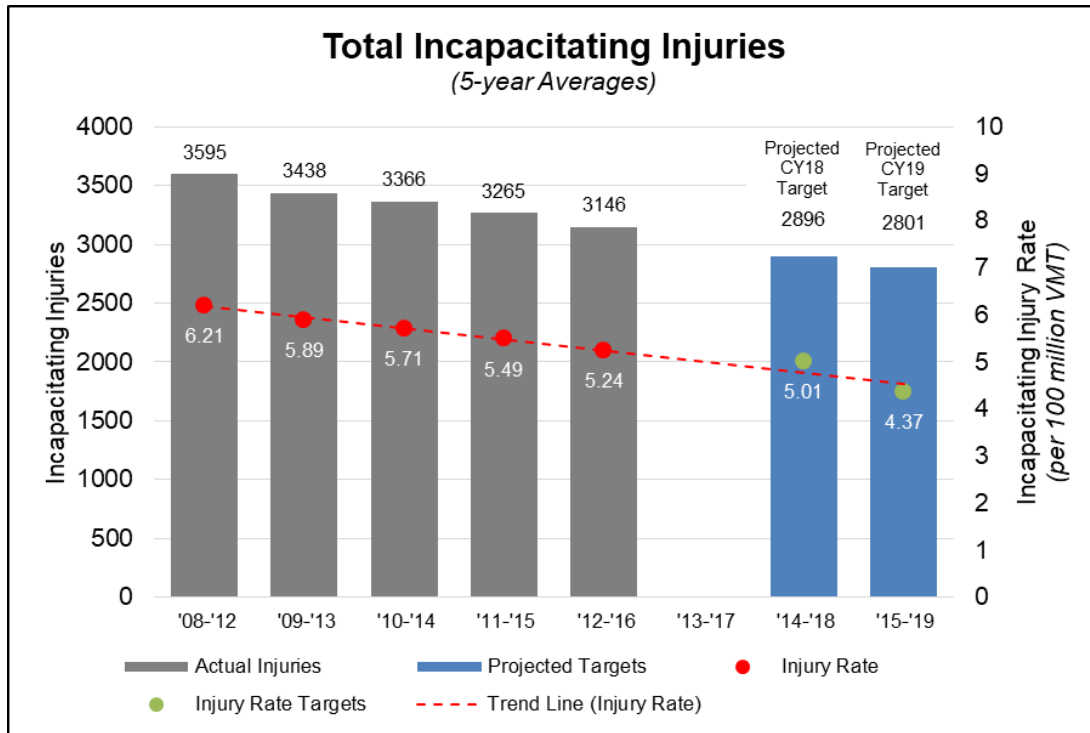
Figure 1 Total Fatalities and Fatality Rate



² <https://www.mass.gov/lists/tracker-annual-performance-management-reports>

- 2) Rate of Fatalities per 100 million VMT: The target fatality rate for years CY 2019 is 0.58, down from a 0.61 average for years 2012–2016. [See Figure 1 for Our MPO vs. statewide comparison of the trend for this performance measure]
- 3) Serious Injuries: The target number of incapacitating injuries for CY2019 is 2801, down from the average of 3146 for years 2012–2016. [See Figure 2 for Our MPO vs. statewide comparison of the trend for this performance measure]

Figure 2 Total Incapacitating Injuries and Injury Rate



- 4) Rate of Incapacitating Injuries per 100 million VMT: The incapacitating injury rate target for CY2019 is 4.37 per year, down from the 5.24 average rate for years 2012–2016. [See Figure 2 for Our MPO vs. statewide comparison of the trend for this performance measure]

Bridge & Pavement Performance Measures (PM2)

Pioneer Valley has chosen to adopt the 2-year (2020) and 4-year (2022) statewide bridge and pavement performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018. In setting these targets, MassDOT has followed FHWA guidelines by measuring bridges and pavement condition using the 9-point National Bridge Inventory Standards (NBIS); the International Roughness Index (IRI); the presence of pavement rutting; and the presence of pavement cracking. 2-year and 4-year targets were set for six individual performance measures: percent of bridges in good condition; percent of bridges in poor condition; percent of Interstate pavement in good condition; percent of Interstate pavement in poor condition; percent of non-Interstate pavement in good condition; and percent of non-Interstate pavement in poor condition. All of the above performance measures are tracked in greater detail in MassDOT’s Transportation Asset Management Plan (TAMP), which is due to be finalized in July 2019.

Targets for bridge-related performance measures were determined by identifying which bridge projects are programmed and projecting at what rate bridge conditions deteriorate. The bridge-related performance measures measure the percentage of deck area, rather than the total number of bridges.

Performance targets for pavement-related performance measures were based on a single year of data collection, and thus were set to remain steady under the guidance of FHWA. These measures are to be revisited at the 2-year mark (2020), once three years of data are available, for more informed target setting. MassDOT continues to measure pavement quality and to set statewide short-term and long-term targets in the MassDOT Performance Management Tracker using the Pavement Serviceability Index (PSI), which differs from IRI. These measures and targets are used in conjunction with federal measures to inform program sizing and project selection.

Performance Measure	Current (2017)	2-year target (2020)	4-year target (2022)
Bridges in good condition	15.22%	15%	16%
Bridges in poor condition	12.37%	13%	12%
Interstate Pavement in good condition	74.2%	70%	70%
Interstate Pavement in poor condition	0.1%	4%	4%
Non-Interstate Pavement in good condition	32.9%	30%	30%
Non-Interstate Pavement in poor condition	31.4%	30%	30%

Reliability, Congestion, & Emissions Performance Measures (PM3)

Pioneer Valley has chosen to adopt the 2-year (2020) and 4-year (2022) statewide reliability, congestion, and emissions performance measure targets set by MassDOT. MassDOT was required to adopt a statewide target by May 20th, 2018, with MPOs either adopting the statewide target or establishing their own by November 2018.

MassDOT followed FHWA regulation in measuring Level of Travel Time Reliability (LOTTR) on both the Interstate and non-Interstate NHS as well as Truck Travel Time Reliability (TTTR) on the Interstate system using the National Performance Management Research Dataset (NPMRDS) provided by FHWA. These performance measures aim to identify the predictability of travel times on the roadway network by comparing the average travel time along a given segment against longer travel times. For LOTTR, the performance of all segments of the Interstate and of the non-Interstate NHS are defined as either reliable or unreliable based on a comparison between the 50th percentile travel time and the 80th percentile travel time, and the proportion of reliable segments is reported. For TTTR, the ratio between the 50th percentile travel time and the 90th percentile travel time for trucks only along the Interstate system is reported as a statewide measure. As this data set has but one year of consistent data, FHWA guidance has been to set conservative targets and to adjust future targets once more data becomes available. To that end, MassDOT’s reliability performance targets are set to remain the same.

Emissions reduction targets are measured as the sum total of all emissions reductions anticipated through CMAQ-funded projects in non-attainment or air quality maintenance areas (currently the cities of Lowell, Springfield, Waltham, and Worcester, and the town of Oak Bluffs) identified in the Statewide Transportation Improvement Program (STIP). This anticipated emissions reduction is calculated using the existing CMAQ processes.

Measure	Current (2017)	2-year (2020)	4-year (2022)
Non-Interstate LOTTR	80%	80%	80%
Interstate LOTTR	68%	68%	68%
TTTR	1.85	1.85	1.85
PHED (Boston UZA)	18.31	18.31	18.31
% non-SOV (Boston UZA)	33.6% (2016)	34.82%	35.46%
Emissions Reductions	Baseline (FFY 14–17)	1,622 CO 497.9 Ozone	TBD CO (Springfield) 1.1 Ozone

Table 2 Performance Measure Linked Investments 2015-2019

TIP Year	SID	Municipality	Project Description	Total Programmed Funds	PM Rule
2017	608023	Multiple	AMHERST- HADLEY- SIDEWALK & WHEELCHAIR RAMP CONSTRUCTION ON ROUTE 9	\$ 1,204,050	PM1
2015	604035	Hadley	HADLEY- SIGNAL & INTERSECTION IMPROVEMENTS AT ROUTE 9 (RUSSELL STREET) & ROUTE 47 (MIDDLE STREET)	\$ 1,000,000	PM1
2015	604035	Hadley	HADLEY- SIGNAL & INTERSECTION IMPROVEMENTS AT ROUTE 9 (RUSSELL STREET) & ROUTE 47 (MIDDLE STREET)	\$ 1,201,102	PM1
PM 1 Total (3 Projects)				\$ 3,405,152	14%
2019	600513	Agawam	AGAWAM- RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	\$ 2,622,622	PM2
2015	606417	Cummington	CUMMINGTON- RETAINING WALL REPLACEMENT ON ROUTE 9 ADJACENT TO C-21-023 OVER WESTFIELD BROOK	\$ 1,500,000	PM2
PM 2 Total (2 Projects)				\$ 4,122,622	17%
2019	PV0001	multiple	P21 Express - Year 2 Operating	\$ 500,000	PM3
2018	PV0005	Multiple	PVTA P21 Express Service Between Union Station in Springfield and the Holyoke Transportation Center	\$ 500,000	PM3
2018	608786	Multiple	AMHERST- HADLEY- NORTHAMPTON- TRANSIT SIGNAL PRIORITY UPGRADES AT VARIOUS LOCATIONS	\$ 1,200,000	PM3
2019	607987	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	\$ 2,475,087	PM3
2018	604203	Agawam	AGAWAM- INTERSECTION IMPROVEMENTS AT ROUTE 187 & ROUTE 57	\$ 3,288,000	PM3
2018	604597	Northampton	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	\$ 7,438,490	PM3
2015	604035	Hadley	HADLEY- SIGNAL & INTERSECTION IMPROVEMENTS AT ROUTE 9 (RUSSELL STREET) & ROUTE 47 (MIDDLE STREET)	\$ 1,836,958	PM3
PM 3 Total (7 Projects)				\$ 17,238,535	70%
Total (12 Projects)				\$ 24,766,309	100%

As can be seen in table 2 PVMPO has invested \$25 million on projects which will help meet the Performance Measure rules. Of these investments 14% will help achieve PM1, 17% will help achieve PM2, and 70% will help achieve PM3. As more data becomes available it is anticipated that corresponding PM trends should be seen showing that our region is meeting or exceeding our PM Rules.

Transit Asset Management Plan (TAM)

The Federal Transit Administration (FTA) defines transit asset management as a strategic and systematic process through which an organization procures, operates, maintains, rehabilitates, and replaces transit assets to manage their performance, risks, and costs over their lifecycle to provide cost-effective, reliable, and safe service to current and future customers.

As part of the Moving Ahead for Progress in the 21st Century (MAP-21) Act and the subsequent Fixing America's Surface Transportation (FAST) ACT, the FTA enacted regulations for transit asset management that require transit service providers to establish asset management performance measures and targets and to develop a TAM Plan. The final TAM rule was published on July 26, 2016 and went into effect on October 1, 2016.

The Pioneer Valley Transit Authority (PVTA) manages a range of assets that include a fleet of heavy duty transit buses, paratransit vehicles, support vehicles, and nine facilities, plus other capital assets required to support operations across a service territory encompassing 24 communities. PVTA recognizes that an effective approach to asset management incorporates the people, processes, technology, data and information and continual improvement needed to support better management of assets over their entire lifecycle. PVTA has developed the following TAM Plan as a roadmap to systematically identify and address assets and asset management practices in need of improvement; establish a benchmark for where their inventory and policies stand; identify gaps in their practice; establish new, measurable key performance indicators and use a data-driven approach to achieve its goals.

PVTA has developed this TAM plan, not as an end, but instead as the beginning of an on-going effort to develop and integrate asset management practices throughout the entire organization. Over the coming years PVTA plans to continue to build upon this foundation and will work to implement successful and effective policies, practices and processes that reinforce and complement the goals and objectives outlined in the TAM plan. PVTA therefore expects that this TAM plan will be a living document that is updated annually.

Rule	Performance Measure	State Target
TAM	Percent of revenue vehicles by asset class that have met or exceeded their Useful Life Benchmark (ULB)	Articulated Bus = 0%, Bus = 20%, Minibus = 100%, Cutaway Bus = 25%, Minivan = 30%, Trolleybus = 100%
TAM	Percent of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	Automobiles = 25% Trucks and other Rubber Tire Vehicles = 25%
TAM	Percent of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	Administrative and Maintenance = 25% Passenger and Parking = 0%

Table 3 TAM Investments 2015-2019

TIP Year	RTA	Capital Project	Total Programmed	PM Rule
2019	PVTA	Buy Replacement 40' Diesel Bus (4)	\$ 2,226,480.00	TAM
2019	PVTA	Buy Replacement 35" Bus (4)	\$ 2,203,970.00	TAM
2019	PVTA	Purchase Replacement Vans (27)	\$ 1,836,620.00	TAM
2018	PVTA	Replacement Vans (4)	\$ 283,795.00	TAM
2018	PVTA	Replace Mini Buses for Shuttles (3)	\$ 270,000.00	TAM
2018	PVTA	Replacement 40' Buses (4)	\$ 2,161,631.00	TAM
2017	PVTA	Purchase - Replacement: Vans (12)	\$ 781,298.00	TAM
2017	PVTA	BUY REPLACEMENT VAN (7)	\$ 436,948.00	TAM
2016	PVTA	BUY 40-FT BUS FOR EXPANSION (4) - Match for FY 15	\$ 395,640.00	TAM
2016	PVTA	BUY REPLACEMENT 40-FT BUS (6) Match for FY 15	\$ 593,460.00	TAM
2016	PVTA	BUY REPLACEMENT 35-FT BUS (5) - Match for FY15	\$ 489,549.00	TAM
2016	PVTA	BUY 40-FT BUS FOR EXPANSION (2) (Match for FY15)	\$ 203,195.00	TAM
2016	PVTA	BUY 40-FT BUS FOR EXPANSION (2) (Match for FY15)	\$ 196,805.00	TAM
2015	PVTA	PVTA Bus Replacement	\$ 887,221.00	TAM
2015	PVTA	Buy replacements 35ft) bus (5)	\$ 2,017,556.00	TAM
2015	PVTA	Buy <30ft bus for expansion (4)	\$ 380,000.00	TAM
2015	PVTA	ADA operating projects	\$ 1,479,468.00	TAM
2015	PVTA	Purchase - Buses for expanded service, 40'	\$ 1,528,810.00	TAM
2015	PVTA	Buy , 30' mini bus, replacement (4)	\$ 280,000.00	TAM
2015	PVTA	BUY REPLACEMENT 40-FT BUS (6) - Match in FY 16	\$ 2,373,838.00	TAM
2015	PVTA	BUY REPLACEMENT 35-FT BUS (5) - Match in FY16	\$ 1,958,199.00	TAM
2015	PVTA	BUY 40-FT BUS FOR EXPANSION (4) Match in FY16	\$ 1,582,559.00	TAM
2015	PVTA	BUY 40-FT BUS FOR EXPANSION (2) - Match in FY 16	\$ 635,220.00	TAM
2015	PVTA	BUY 40-FT BUS FOR EXPANSION (2) - Match in FY 16	\$ 757,970.00	TAM
2015	PVTA	Purchase - Replacement: Vans (6)	\$ 391,988.00	TAM
			\$ 26,352,220.00	

Table 2 shows PVTA capital investment in which will help our region meet the TAM rule. Over the past 5 years PVTA has \$26 million on buses, vans, and mini buses. PVTA spends roughly 30% of their yearly capital budget on fleet replace in order to meet the TAM rule.

CONFORMITY WITH THE REGIONAL TRANSPORTATION PLAN

All projects in the TIP come from the 2016 Regional Transportation Plan (RTP). All regionally significant projects included in the TIP were previously included in the air quality analysis completed for the conforming RTP. Because projects in the TIP come from the conforming RTP and all regionally significant RTP projects for 2019 through 20223 (both Federal and Non-Federal Aid) are programmed in the TIP, the same air quality analysis utilized for the RTP can be used for the TIP. 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 Pioneer Valley 2019 - 2023 TIP is only required for Carbon monoxide. Further details and background information are provided in Chapter 8.

METROPOLITAN PLANNING ORGANIZATION

The Pioneer Valley Metropolitan Planning Organization (MPO) is responsible for developing the TIP. The MPO is comprised of ten members including four independently operating agencies and six locally elected officials:

Name	Title
Stephanie Pollack	Secretary and CEO of the Massachusetts Department of Transportation
Jonathan L. Gulliver	Administrator of the Massachusetts Department of Transportation Highway Division
Walter Gunn	Chairman of the Pioneer Valley Executive Committee
Mayor David Narkewicz	Chairman of the Pioneer Valley Transit Authority Advisory Board
Mayor Richard Kos	Mayor of Chicopee (Center Tier)
Mayor Alexander Morse	City of Holyoke (Central Tier)
Mayor Brian P. Sullivan	City of Westfield (Southern Tier)
Douglas Slaughter	Amherst Board of Selectmen (Northern Tier)
George Archible	Belchertown Board of Selectmen (Eastern Tier)
Charles Kaniecki	Southampton Board of Selectmen Western Tier
Rick Sullivan	Economic Development Council of Western Massachusetts
Alternates	
Mayor Domenic Sarno	Mayor of Springfield (Center Tier)
Mayor William C. Reichelt	City of West Springfield (Southern Tier)
Vacant	Northern Tier
Carmina Fernandes	Ludlow Board of Selectmen (Eastern Tier)
Roger Fuller	Chesterfield Board of Selectmen (Western Tier)
Ex-Officio (Non-Voting)	
Jeff McEwen	Federal Highway Administration
Mary Beth Mello	Federal Transit Administration
Sandra Sheehan	Pioneer Valley Transit Authority Administrator
James Czach	Chairman – Pioneer Valley Joint Transportation Committee

DEVELOPMENT OF THE TIP

As the lead planning agency for the MPO, the PVPC accepts the responsibility for developing the TIP in a cooperative process with members of the MPO and the general public. The final TIP is voted on for endorsement at a formal meeting of the MPO. The endorsed TIP project listing is included in the State Transportation Improvement Program (STIP) verbatim and requires endorsement by the Governor.

The MPO relies on a transportation advisory committee, the Joint Transportation Committee (JTC) to carry out the cooperative process during TIP development. The JTC is a group of community appointed officials, MPO member representatives, public and private transportation providers, citizens, and special interest groups and agencies. The JTC establishes and recommends to the MPO procedures for submitting, prioritizing and selecting projects for the TIP. PVPC staff provides the technical support to conduct the TIP development activities for the JTC.

Below is a general outline of steps taken during the TIP development process.

- Project proponents (communities, MPO members, agencies) submit projects through the process outlined in Chapter 2 of the Massachusetts Project Development & Design Guidebook (2006)
- Projects are prioritized based on evaluation criteria by MPO staff, JTC representatives, and MassDOT Highway Division staff, and MassDOT staff at a posted meeting open to all.

- The State (thru MassDOT) provides funding targets for all 13 Regional Planning Agencies in Massachusetts.
- JTC reviews and recommends projects by Transportation Evaluation Score (TEC) and readiness to the MPO.
- Draft TIP project listings are prepared by the MPO staff and distributed for review and comment to MPO members.
- MPO meets to make final decisions on the composition of the TIP and to recommend the Draft TIP for general public release as required by the MPO Public Participation Plan for the Pioneer Valley Region.
- Final Draft TIP is distributed for review, consultation and comment in accordance with the adopted MPO Public Participation Plan.
- Public meetings and news releases are conducted to promote public involvement and consultation.
- Comments are compiled and addressed where appropriate.
- Final TIP developed for the JTC's consideration and their recommendation to MPO.
- MPO meets to vote on final adjustments and endorsement of the TIP.
- Endorsed Regional TIPs are compiled by MassDOT to create the STIP.
- Secretary and CEO of MassDOT endorse the STIP (on behalf of the Governor) and submits the STIP to federal agencies for review and approval.
- Federally approved STIP is ready for state implementation (project advertisement).

Amendments and adjustments to the TIP are made on an as needed basis with the additional public review and input for formal amendments only.

CONGESTION MANAGEMENT PROCESS (CMP)

Congestion Management Process means a systematic approach required in transportation management areas (TMAs) that provides for effective management and operation, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under title 23 U.S.C., and title 49 U.S.C., through the use of travel demand reduction and operational management strategies.

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>

23 CFR 450.314(H) COOPERATIVELY SHARE PERFORMANCE DATA

The MPO(s), State(s), and the providers of public transportation shall jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO (see § 450.306(d)), and the collection of data for the State asset management plan for the NHS for each of the following circumstances:

(i) When one MPO serves an urbanized area,

(ii) When more than one MPO serves an urbanized area, and

(iii) When an urbanized area that has been designated as a TMA overlaps into an adjacent MPA serving an urbanized area that is not a TMA.

(2) These provisions shall be documented either:

(i) As part of the metropolitan planning agreements required under (a), (e), and (g) of this section, or

(ii) Documented in some other means outside of the metropolitan planning agreements as determined cooperatively by the MPO(s), State(s), and providers of public transportation.

PROJECT PRIORITY CRITERIA AND SELECTION

MassDOT developed a process and set of criteria to prioritize the region's TIP projects which was modified and endorsed by the MPO. In 2014 PVPC with the assistance of the JTC completed and comprehensive update to the TEC for the PVMPO. The purpose of the update was to bring the TEC up to the current set forth by MAP -21. All projects included in the TIP have been evaluated and assigned a priority value or rating. This process is used as a management tool to identify projects of regional priority and program them accordingly in the TIP.

TEC SCORING SUMMARY

System Preservation, Modernization and Efficiency	Livability	Mobility	Smart Growth and Economic Development	Safety and Security	Environment and Climate Change	Quality of Life	Environmental Justice and Title VI
8	Improves Substandard Pavement Design is consistent with Complete Streets policies	Improves efficiency, reliability and attractiveness of public transit 4	Encourages development around existing infrastructure 2	Reduces number and severity of collisions 7	Preserves floodplains and wetlands 1	Enhances or preserves greenways and blueways 1	Reduces and limits disproportionate impacts on an EJ community 0.5
Improves Intersection Operations	Provides multi-modal access to a downtown, village center, or employment center 2	Improves existing peak hour LOS 6	Prioritizes transportation investments that support land use and economic development goals 1	Promotes safe and accessible pedestrian and bike environment 5	Promotes green infrastructure and low impact development to reduce stormwater impacts 2	Improves access to parks, open lands and open space 1	Reduces and limits disproportionate impacts on Title VI community 0.5
6	Reduces auto-dependency 2	Reduces traffic congestion 7	Provides services to a TOD, TND or cluster development district 0.5	Improves emergency response 4	Reduced impervious surfaces 0.5	Improves access to jobs 2	Improves transit for EJ populations 1
5	Project serves a targeted development site 2		Supports mixed-use downtowns and village centers 0.5		Protects or enhances environmental assets 0.5	Preserves historical and cultural resources 0.5	Improves transit for Title VI populations 1
	Completes off-road bike and ped network 3		Improves Intermodal Connections 4		Supports Brownfield redevelopment 0.5	Preserves prime agricultural land 0.5	Creates an EJ Burden -5
			Reduces congestion on freight routes 2		Improves air quality 1	Provides safe and reliable access to education 0.5	Creates an Title VI Burden -5
					Reduces CO2 emissions 1	Supports designated scenic byways 0.5	
					Promotes mode shift 1	Implements ITS Strategies 2	
					Improves fish and wildlife passage 1	Improves Network Wayfinding 1	
					Supports Green Communities 0.5	Health Impact Assessment 1	
					Improves storm resilience 3	Length of Time Project has been in queue for TIP funding 1	
Maximum Score	12	17	10	16	12	11	3

PROJECT INITIATION

In the fall of 2017 MassDOT rolled out their new project intake tool MaPIT, this tool has integrated the entire project initiation process into an online portal which both streamlines and modernizes the project development process. The steps listed below are the same for the project development process; however these steps are now completed online instead of on paper.

The Project Needs Form (PNF) is the first document completed at the start of the project development process. The PNF provides sufficient material to understand the transportation need(s), and results in one of the following three outcomes:

- Verification of the problem, need, or opportunity to enable it to move forward into design;
- Determination of the level of further project planning warranted; or,
- Dismissal of a project from further consideration.

The next step in the project development process involves summarizing the findings and direction defined in a Project Initiation Form (PIF) used by the Project Review Committee (PRC) and the MPO for project review and evaluation. The PIF will include the following information to be documented by the proponent:

- Project Type and Description, including locus map
- Summary of Project Planning Process
- Preliminary identification of the Project Category for review and programming purposes
- Definition of the proposed project management responsibility
- Definition of an interagency (including local boards) coordination plan
- Definition of a public outreach plan for the design process
- Project Need Form or Project Planning Report as an attachment
- Transportation Evaluation Criteria as an attachment

The project intake tool (MaPIT) can be found at <http://massdot.maps.arcgis.com/home/index.html>

MASSDOT GREENDOT POLICY

MassDOT launched its GreenDOT initiative on June 2, 2010. GreenDOT was developed to assure a coordinated approach to sustainability and to integrate sustainability into the responsibilities and decision-making of all MassDOT employees. The following three mutually-reinforcing goals form the foundation of GreenDOT:

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

The initiative is a comprehensive response to a range of state and MassDOT laws, policies and initiatives including: the Global Warming Solutions Act, the Green Communities Act, the Healthy Transportation Compact, Leading by Example, YouMoveMassachusetts, and Complete Streets. The Global Warming Solutions Act requires Massachusetts to reduce economy wide GHG emissions: 10% -25% below 1990 levels by 2020 and an 80% reduction below 1990 levels by

2050. The transportation sector is the largest GHG emitter, producing 31% of 1990 emissions and projected to produce 38% of 2020 emissions. GreenDOT also incorporates a statewide mode shift goal to triple the percentage of trips made by bicycling, transit and walking.

GreenDOT is also comprised on an additional by seven goals that can be tied to regional planning efforts. In the Pioneer Valley region, these goals and their recommended strategies have been incorporated into the new Transportation Evaluation Criteria (TEC) used to prioritize transportation improvement projects included as part of the TIP. The Tec is described in greater detail in Chapter 10 of the RTP. Table 1 summarizes the seven GreenDOT goals, their associated strategies and how they are addressed in the TEC for the Pioneer Valley.

Table 4 Integration of GreenDOT Goals into TIP

Policy/Planning - Design a Multi-Modal Transportation System, Triple Mode Share of Bicycling, Transit, and Walking, & Promote Healthy Transportation and Livable Communities	
Associated Strategy	RTP/TEC Integration
Providing secure and/or covered bicycle parking and shared used paths	Projects are eligible to receive up to 12 points for bicycle and pedestrian improvements in the "Livability" category. Projects receive 1 point for providing bicycle amenities such as bicycle parking.
Improving access to transit and other vital community services	Projects are eligible to receive up to 4 points by improving access to transit.
Designing complete street projects with municipalities	Complete Streets consistency is worth up to 3 points.
Encouraging Safe Routes to Schools projects	Projects that provide safe and reliable access to education receive 0.5 point.
Incorporating public health impacts in the transportation planning process	Projects that complete a Health Impact Assessment will receive 1 point.
Coordinating on regional and statewide bicycle and pedestrian planning efforts.	Many "Livability" subcategories in the TEC support regional and statewide bicycle and pedestrian planning efforts.
Supporting Bike Share programs locally and regionally.	Projects can receive 2 points for being part of a locally adopted Bike Share Program.
Prioritizing critical pedestrian and bicycle network gaps, i.e. Bay State Greenway	Critical Gaps are identified as part of PVPC's Regional Bicycle Linkages Map. Projects that provide connections to regional bikeways/walkways receive 1 point.
Improving bicycle and pedestrian counts	PVPC collects bicycle and pedestrian movements as part of all intersection turning movement counts.
Air - Reduce Greenhouse Gas Emissions & Improve Air Quality	
Associated Strategy	RTP/TEC Integration
Developing projects to improve air quality	Projects that demonstrate improvements to air quality can receive up to 1 point.
Analyzing GHG reduction strategies in transportation improvement projects and tracking progress	PVPC performs GHG analysis for all proposed RTP and TIP projects.
Setting regional goals for reducing VMT (travel demand)	Projects that demonstrate a significant reduction in single occupant vehicle use will receive 1 point.
Analyzing fleet fuel usage and supporting retrofits and procurement of alternative fuel vehicles	The RTP supports the use of alternatively fueled vehicles. PVTA has hybrid transit vehicles and is in the process of purchasing electric buses.

Supporting alternative fuels vehicle infrastructure	PVTA is in the process of purchasing an electric vehicle charging station.
Increasing bus and transit route efficiency	The PVPC has an ongoing task in its UPWP to study transit route efficiency.
Promoting anti-idling policies and educational outreach	Not specifically addressed in the TEC but included as a Need in the RTP
Energy - Consume Less Energy & Increase Reliance on Renewable Energy	
Associated Strategy	RTP/TEC Integration
Evaluating outdoor lighting and traffic signal systems, and retrofitting where feasible	Upgrades to traffic signal equipment can be worth up to 6 points.
Planning for the implementation of energy efficient measures and renewable energy projects	The RTP incorporates strategies from the Pioneer Valley Clean Energy Plan.
Land - Minimize Energy and Chemicals Used in Maintenance & Enhance Ecological Performance	
Associated Strategy	RTP/TEC Integration
Implementing sustainable stormwater management	Up to 2.5 points can be received through the use of green infrastructure and the reduction of impervious surfaces to manage stormwater.
Protecting and restoring native landscaping, woodland, and urban tree coverage	Projects that protect or enhance environmental assets receive 0.5 point.
Implementing sustainable road salt and sanding practices	Included as a strategy in the RTP.
Designing landscapes for wildlife habitat restoration, safe migration, and accommodation	Improvements to stream crossings and culverts that improve fish and wildlife passage receive 1 point.
Reducing outdoor light pollution	Not specifically addressed.
Advocating for urban trees into Complete Streets designs/studies	Complete Streets consistency is worth up to 3 points.
Materials - Improve Lifecycle Impacts of Investments & Purchase Environmentally Preferred Products	
Associated Strategy	RTP/TEC Integration
Planning for climate resiliency in the development of projects	Projects that preserve floodplains receive 0.5 point. Projects that improve storm resiliency in areas prone to flooding receive up to 3 points.
Supporting the use and identify appropriate applications for warm mix and recycled content paving materials	Not specifically addressed.
Waste - Achieve Zero Solid Waste Disposal	
Associated Strategy	RTP/TEC Integration
Identifying projects with zero construction waste diversion goals	Not specifically addressed.
Implementing regional litter prevention programs with their respective municipalities	Not specifically addressed.
Water - Use Less Water & Improve Ecological Function of Water Systems	
Associated Strategy	RTP/TEC Integration
Planning projects that minimize impacts on surface water and enhance wetlands flood storage capacity	Projects that preserve wetlands receive 0.5 point.
Considering sea level rise and storm surge projections in project planning	Projects that improve storm resiliency in areas prone to flooding receive up to 3 points.

PROJECT SELECTION AND PROGRAMMING

The project priority ratings were applied in conjunction with a project's anticipated advertisement schedule. The funding targets provided by the MassDOT to develop the five-year program of the TIP were applied for each year in order to develop this fiscally constrained document. A project was not considered for scheduling in a year earlier than its anticipated schedule regardless of the priority rating. For projects that are expected to be ready to go in the first year of the TIP the top priority projects for that year were funded under the federal aid categories, since these funds are most secure. Once the federal aid funds were completely programmed, non-federal aid funds were programmed to priority projects. This initial assignment procedure was applied to each year of the TIP and is subject to change as the TIP is developed and refined by members of the MPO and the JTC.

AMENDMENT/ADJUSTMENT OF THE TIP

Amendment means a revision to a long-range statewide or metropolitan transportation plan, TIP, or STIP that involves a major change to a project included in a metropolitan transportation plan, TIP, or STIP, including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects). Changes to projects that are included only for illustrative purposes do not require an amendment. An amendment is a revision that requires public review and comment and a redemonstration of fiscal constraint. If an amendment involves "non-exempt" projects in nonattainment and maintenance areas, a conformity determination is required.

Amendments requires formal MPO action, and must follow the requirements outlined in the Pioneer Valley Public Participation Plan (PPP). Additional information regarding the PPP can be found at <http://www.pvpc.org/content/pioneer-valley-public-participation-plan>

Program adjustments can be conducted without formal MPO action in order to minimize constraints on programming projects. Minor adjustments could include such actions as moving projects between Year 1 and Year 2, and minor fluctuations in project description, costs and funding source. This action can be accomplished through an agreed upon administrative action.

DESCRIPTION OF FUNDING SOURCES

Interstate Maintenance (IM) - Resurfacing, restoration and rehabilitation are eligible activities for maintaining Interstate facilities. Reconstruction is also eligible if it does not add capacity. However, high-occupancy-vehicle (HOV) and auxiliary lanes can be added. Funding: federal - 90 %, state - 10 %.

Surface Transportation Block Grant Program (STBGP) - This program formerly the Surface Transportation Program (STP) is a flexible funding program that can be used for projects that preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Funding: federal - 80%, state - 20%.

Transportation Alternatives Program (TAP) - The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle

facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways. Funding: federal - 80%, state - 20%

Congestion Mitigation and Air Quality Improvement Program (CMAQ) - These funds are directed towards transportation projects and programs which reduce transportation-related emissions. These funds are to assist areas designated as nonattainment and maintenance under the Clean Air Act Amendments of 1990. These projects will contribute to meeting the attainment of National Ambient Air Quality Standards (NAAQS). Funding: federal - 80%, state - 20%.

Highway Safety Improvement Program (HSIP) – The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads that focuses on performance. The goal of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. Funding: federal - 80%, state - 20%. HSIP can be funded 90/10 and even 100% federal in certain circumstances.

Bridges (BR) - Funds the replacement or repair of structurally deficient or unsafe bridges in urban and rural areas. All bridges, both on and off the federal aid roadway system are eligible for funding. Funding: federal - 80%, state - 20%.

National Highway Performance Program (NHPP) - The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS. NHPP projects must be on an eligible facility and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Funding: federal - 80%, state - 20%.

National Highway Freight Program (NHFP) - The purpose, among other goals, of the National Highway Freight Program (NHFP) is to improve efficient movement of freight on the National Highway Freight Network (NHFN) . Funding: federal - 80%, state - 20%.

High Priority Projects (HPP) High Priority Projects are congressionally earmarked projects that have been deemed as a high priority for the state where the project is located. Funding: federal - 80%, state – 20%

Section 115 Funds Included in the Transportation bill as congressional earmarks, each year the earmarks are given a designated funding category. In FFY2005 the funding designation for these projects was Section 115 Funds. Funding: federal – 100%, state – 0%

Section 117 Funds Included in the Transportation bill as congressional earmarks, each year the earmarks are given a designated funding category. In FFY2006 the funding designation for these projects was Section 117 Funds. Funding: federal – 100%, state – 0%

Section 129 Funds Congressional Earmarks for FFY 2008. Funding: federal – 100%, state – 0%

Section 125 Funds Congressional Earmarks for FFY 2009. Funding: federal – 100%, state – 0%

In compliance with FHWA guidelines projects with federal earmarks are only programmed in the FY 2014 to FY 2017 TIP if the total funding is adequate for project implementation. The remaining earmarked projects will be included in appendix Z for informational and tracking purposes.

Non-Federal Aid (NFA) - This funding category contains all those projects not receiving federal funds. Various categories of state funding are included in this group including bikeways, State Aid (Chapter 90), and highway construction and maintenance (Chapter 497). This category is included in the TIP for informational purposes only. Funding: federal - 0 %, state - 100 %.

Section 5339 Bus and Bus Facilities – (5309 SAFETEA-LU) Program provides capital funding to replace, rehabilitate, and purchases buses and related equipment and to construct bus related facilities. Funding: Federal - 80%, State - 20%

Section 5307 Capital - This program provides grants to Urbanized Areas¹ (UZA) for public transportation capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances. These funds constitute a core investment in the enhancement and revitalization of public transportation systems in the nation's urbanized areas, which depend on public transportation to improve mobility and reduce congestion. Federal Share is 80% for Capital Assistance, 50% for Operating Assistance, and 80% for Americans with Disabilities Act (ADA) no-fixed-route paratransit service, using up to 10% of a recipient's apportionment.

Section 5310 - Section 10 pertains to transportation facilities meeting special needs of the elderly and disabled. Funds allocated under Section 16(b) (2) provide private non-profit corporations and associations with grants and loans to improve the mobility of the elderly and disabled. In Massachusetts, 16(b) (2) funds are administered at the state level by the MASSDOT. These funds typically are used for the purchase of capital items, including lift-equipped vans. Mobility Assistance Program (MAP) funds are intended for use by public agencies, such as municipal councils on aging and the Pioneer Valley Transit Authority (PVTA) to provide van service to elderly and/or disabled persons.

Section 5311 - These funds are made available exclusively for public transportation projects outside the urbanized areas. Both capital and operating expenses are eligible.

TRANSPORTATION SYSTEM OPERATING AND MAINTENANCE COSTS

The FFY 2019 - 2023 TIP is consistent with the Regional Transportation Plan (RTP) for the Pioneer Valley Region. Tables 2 and 3 presents the estimates outlined in the RTP of annual expenditures associated with operating and maintaining the transportation system. These estimates represent past expenditures and do not reflect costs associated with maintaining a constant level of system performance.

Table 5 Transportation Operating and Maintenance Expenditures

Total Available for Programming in the Pioneer Valley RTP	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	GRAND TOTAL
	Total	Total	Total	Total	Total	Total
	\$ 420,177,748	\$ 426,618,217	\$ 520,221,270	\$ 582,504,200	\$ 623,968,064	\$ 2,573,489,499
<i>Statewide Interstate Maintenance</i>	\$ 29,750,182	\$ 28,157,124	\$ 35,185,257	\$ 39,841,190	\$ 42,920,276	\$ 175,854,029
<i>Statewide NHS</i>	\$ 19,572,131	\$ 18,955,373	\$ 23,686,712	\$ 26,821,085	\$ 28,893,926	\$ 117,929,227
<i>Statewide Bridge</i>	\$ 105,433,448	\$ 102,111,025	\$ 127,598,354	\$ 144,482,963	\$ 155,649,185	\$ 635,274,975
<i>Statewide Infrastructure</i>	\$ 4,219,341	\$ 4,086,381	\$ 5,106,359	\$ 5,782,064	\$ 6,228,925	\$ 25,423,070
<i>Remaining Statewide Programs</i>	\$ 96,040,886	\$ 101,493,887	\$ 126,827,176	\$ 143,609,738	\$ 154,708,473	\$ 622,680,160
<i>NFA Bridge Preservation</i>	\$ 54,049,500	\$ 54,860,243	\$ 55,670,985	\$ 56,481,728	\$ 57,292,470	\$ 278,354,926
<i>Regional Discretionary Funding</i>	\$ 111,112,260	\$ 116,954,184	\$ 146,146,427	\$ 165,485,432	\$ 178,274,809	\$ 717,973,112

Source: Regional Transportation Plan, updated 2016

Table 6 Transit Operating and Maintenance Expenditures

Estimated Transit Operating Revenues 2016 - 2040						
	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Grand Total
State Contract Assistance	\$ 125,723,298	\$ 145,747,760	\$ 168,961,600	\$ 195,872,803	\$ 227,070,262	\$ 863,375,723
Local Assessments	\$ 43,637,997	\$ 49,372,389	\$ 55,860,326	\$ 63,200,831	\$ 71,505,940	\$ 283,577,483
5307 Federal Urbanized Area Formula	\$ 53,120,529	\$ 57,917,522	\$ 62,393,619	\$ 67,215,646	\$ 72,410,341	\$ 313,057,657
5339 Federal **	\$ 3,614,988	\$ 3,937,914	\$ 4,242,253	\$ 4,570,110	\$ 4,923,307	\$ 21,288,572
5310 Federal Elderly & Disabled	\$ 2,704,105	\$ 2,913,090	\$ 3,138,225	\$ 3,380,759	\$ 3,642,038	\$ 15,778,217
Farebox	\$ 41,119,964	\$ 45,399,763	\$ 50,125,006	\$ 55,342,057	\$ 61,102,103	\$ 253,088,893
Advertising, other revenue	\$ 2,948,172	\$ 3,255,020	\$ 3,593,805	\$ 3,967,851	\$ 4,380,829	\$ 18,145,677
Available for Programming in Pioneer Valley RTP	\$ 272,869,053	\$ 308,543,458	\$ 348,314,834	\$ 393,550,057	\$ 445,034,820	\$ 1,768,312,222
Estimated Capital Revenues						
	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	Grand Total
RTACAP	\$ 20,285,825	\$ 22,314,408	\$ 24,545,848	\$ 27,000,433	\$ 29,700,476	\$ 123,846,990
ITC Cap Program	\$ 1,145,277	\$ 1,259,805	\$ 1,385,785	\$ 1,524,364	\$ 1,676,800	\$ 6,992,031
Federal Matching grants	\$ 63,410,806	\$ 69,751,887	\$ 76,727,075	\$ 84,399,783	\$ 92,839,761	\$ 387,129,311
Total Transit Capital Funds for Programming in PV RTP	\$ 84,841,908	\$ 93,326,099	\$ 102,658,709	\$ 112,924,579	\$ 124,217,037	\$ 517,968,332
Grand Total of Revenue	\$ 357,710,961	\$ 401,869,557	\$ 450,973,543	\$ 506,474,636	\$ 569,251,857	\$ 2,286,280,554

Source: Regional Transportation Plan, updated 2016

II. PUBLIC PARTICIPATION SUMMARY AND CHANGES

In accordance with 23 CFR 450.316(a) The MPO shall develop and use a documented participation plan that defines a process for providing individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cash-out program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.

And 23 CFR 450.316(b) In developing metropolitan transportation plans and TIPs, the MPO should consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including State and local planned growth, economic development, tourism, natural disaster risk reduction, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities. In addition, the MPO shall develop the metropolitan transportation plans and TIPs with due consideration of other related planning activities within the metropolitan area, and the process shall provide for the design and delivery of transportation services within the area that are provided by:

The DRAFT FFY 2019 - 2023 TIP underwent a public review and comment period consistent with the Pioneer Valley Metropolitan Planning Organizations Public Participation Process. This began April 27, 2018 and continued until May 18, 2018. During this time, comments were received from communities, JTC, PVTA, PVPC, MassDOT, and FHWA. A public hearing was held on May 9, 2018 as part of the JTC meeting. Below is a summary of the comments received during the public review and comment period.

Table 7 Comments Recieved During Public Review

In addition to the above changes, the Pioneer Valley Transit Authority requested that the following be included: The Pioneer Valley Transit Authority, the FTA Section 5307(c) applicant, has consulted with the Pioneer Valley Planning Commission and concurs that the TIP satisfies the public hearing requirements that pertain to the development of the Program of Projects for regular Section 5307, Urbanized Area Formula Program, grant application including the provision for public notice and the time established for public review and comment.

For FTA projects that are not routine; i.e. Section 5307 applications that required environmental assessment or an environmental impact statement, the public involvement provided herein for TIP review is not sufficient. Additional public involvement will be required by FTA prior to grant approval, as presented in the joint FHWA/FTR environmental regulations, 23 CFR-Part 771.

The Federal Aid (FA) and Non-Federal Aid (NFA) elements were separated into two components. The FA component of the TIP was endorsed by the MPO and the NFA component is included in the main body of the TIP, however, is not subject to federal planning rules.

Comment By	Project ID	Comment	Date	Action	
Elizabeth Johnson 31 Mattoon Street Springfield, MA 01105	608717	The Draft 2019-2023 TIP fails to include the project with the second highest TEC score among all the projects listed in the “Universe of Projects”: the reconstruction of Sumner Ave at Dickson and Belmont (the “X”). The City of Springfield has notified the PVPC that the project is just about at 25% design, so this project with an estimated cost of about \$8 million should definitely be included in the years 2022 or 2023, or even 2021.	5/1/18	Comment Recorded	1
George Kingston PVPC Commissioner – East Longmeadow	MPO Composition	Please update the MPO description to reflect that East Longmeadow has a Town Council	4/12/18	Updated	2
Andrew Carey Cimex Corp. 30 Front Street, Suite 2 Belchertown, MA 01007	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don’t exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident and or business owner since the late 70's and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>	5/4/18	Comment Recorded	3

<p>Tasha Majerowski 24 S Main Street Belchertown, MA 01007</p>	<p>608412</p>	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a (Belchertown resident for over 30 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>	<p>5/4/18</p>	<p>Comment Recorded</p>	<p>4</p>
<p>Robert L. Bolduc</p>	<p>608412</p>	<p>I am writing to request that the State Street/Maple Street Roadway Improvement project (NO. 6084 12) in Belchertown be included in the Federal Fiscal Year (FFY) 20 19 Transportation Improvement Program (TIP). The improvement project will provide essential updates to an essential corridor of travel. Currently, the 1.17 mile passageway is in poor condition. Adequate bicycle and pedestrian facilities do not exist. The lack of these in this area is particularly important as this is the primary travel route to the Eastern Hampshire District Courthouse. Traffic congestion is severely affecting the vitality of current businesses as well as the potential for new development.</p>	<p>5/4/18</p>	<p>Comment Recorded</p>	<p>5</p>

		<p>The proposed project will provide improvements to both infrastructure (minor widening, pavement rehabilitation, drainage) and overall travel (signal systems, safety improvements). The signal system improvements are at the intersections of State Street at Turkey Hill Road and State Street at Stadler Street. In my opinion, as a business owner and developer, there is no question these measures will greatly benefit the community and the region. The benefits will extend to existing residences and businesses, but also foster future development in the area, including approximately 150 acres of commercial property currently under planning by Mass Development and the town. This traffic improvement program is designed to reduce congestion and improve safety for all who travel along the road (whether by vehicle, bicycle or foot). Pride has been the owner of over 28 acres of land in Belchertown for over a dozen years and has witnessed the negative impacts of the current roadways, especially State Street and Maple Street. The current situation has limited the potential for development and has impacted current residences and businesses. Pride is very excited for the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP. There are enormous benefits of this project to the town and region.</p>			
<p>Douglas Albertson Town Planner Town of Belchertown P.O. Box 670 Belchertown, Mass. 01007</p>	608412	<p>The Belchertown planning department adds its support for including the State Street/Maple Street Roadway Improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP). The town and its partners, the Belchertown Economic Development and Industrial Commission and MassDevelopment, have been working over the past several years to bring the community into the project so it will reflect community priorities. This is a congested area with inadequate roadways that lack pedestrian, bicycle, and transit amenities. With the former Belchertown State School campus developing, this corridor stands to see much greater demand in the coming</p>	5/4/18	Comment Recorded	6

		<p>decade.</p> <p>The proposed project will address the many deficiencies along this route. Congestion will be mitigated by installing signals and widening. Further, pedestrian crossings will be made safer. On the south side of this corridor are the town's schools and a retail area; while on the north side are municipal buildings, a playground, and the state school redevelopment. We anticipate there being much demand for non-- motorized access in the area for people to move between sites. This improvement project is crucial to the functioning of this corridor as a community asset as well as an efficient route for through-traffic. The reduced congestion and the improved safety for motorist, bicyclist and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by Mass Development and the town.</p> <p>The Belchertown Planning Department has been working with all involved parties in the planning of this corridor. We are sure the town's residents will benefit greatly from its completion. We urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
<p>Beth Maroney Sr Vice President Loan Administration</p> <p>229 Exchange St Chicopee MA 01013</p>	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at Turkey Hill Road and State Street at Stadler Street. I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for</p>	5/7/18	Comment Recorded	7

		<p>motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for over 18 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
<p>Jennifer Whitehead Head of Youth Services Clapp Memorial Library Belchertown, MA 01007</p>	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for over 18 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. As a runner, I find the sidewalks dangerous but there are few areas in town that are lit for early morning or evening runs. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project</p>	5/8/18	Comment Recorded	8

		funded in the FFY 2019 TIP.			
Audrey Anderson 43 Rural Rd Belchertown, MA 01007	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project {NO. 608412) in the Federal Fiscal Year {FFY) 2019 Transportation Improvement Program {TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at Turkey Hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by MassDev and the town.</p> <p>I have been a Belchertown resident for over eleven years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>	5/8/18	Comment Recorded	9
Nick O'Connor 13 Maplecrest Drive Belchertown, Ma 01007	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p>	5/9/18	Comment Recorded	10

		<p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for over 17 years, as well as on the Board of Selectmen for the last three, and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
Hope Guardenier	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. At our recent town-wide Art Walk it was very noticeable how poor the pedestrian access is in this area. I was nervous walking with my children from the police station side of State Street over to the Stadler street area. The narrow sidewalks and poorly marked crosswalks were inadequate, in my opinion. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The improved safety for motorist, bicyclist, and pedestrians will support the existing development of the former state school property where my children's former day care provider anticipates building their new facility. I know those families would appreciate the ability to walk safely along the corridor.</p>	5/9/18	Comment Recorded	11

		I have been a Belchertown resident for over 15 years and in that time the town has grown and changed. There are far more families with young children than in the recent past and all of us are eager to access our town by foot or bike something that is currently quite dangerous. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.			
Dan Call Friends of the Westfield Columbia Greenway Rail Trail	603783	Review project # 603783 and specifically project description box. Currently shows six bridges and should only show five bridges remaining for the downtown central section. Please remove bridge # W-25-019 (bridge in mention was installed as part of construction from East Silver Street to East Main Street where it now terminates. The current remaining section for this project is referenced as the (Central Downtown Section) and encompasses five streets for new bridge work. Main Street abutments will be raised and a new gateway bridge installed, abutments raised and replacement bridges on the following streets, Thomas St, Chapel St , Orange St and the last one on Elm Street that will be a complete renovation (historical bridge) as well as abutments raised. See copy of spread sheet attached for correction from six bridges to actual five bridges required. See letter from Mayor Sullivan dated 5/9/2017 Appreciate your consideration in this matter. If I can be any further help regarding this input please do not hesitate in contacting me.	5/9/18	Comment Recorded	12
Claire M O'Neill Vice President, Planning & Development MassDevelopment 89 Shrewsbury Street, Suite 300 Worcester, MA 01604	608412	I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP). MassDevelopment is the agent for the redevelopment of the former Belchertown State School through a Memorandum of Agreement with the Town of Belchertown and the Belchertown Economic Development Industrial Corporation (BEDIC). The new development, known as Carriage Grove, is	5/10/18	Comment Recorded	13

		<p>a mixed-use neighborhood that will include senior living and services; commercial, retail, and industrial uses; cultural amenities; and multifamily residences. The State Street / Maple Street Roadway Improvement Project will contribute to better connectivity between the Carriage Grove neighborhood and the State Street corridor, the Public Schools complex and the historic Belchertown Common. The Carriage Grove project includes substantial infrastructure improvements, such as the Town's \$1.25 million extension of Front Street under construction, and the Executive Office of Housing and Economic Development's \$3 million MassWorks award to develop Carriage Drive, the main road through the site that will also connect with State Street. Carriage Drive construction starts this month. These infrastructure improvements will facilitate development of up to 268 permitted units of multifamily housing and an 83-unit assisted living facility, which is under construction and scheduled to open later this spring. This \$15 million project will result in 40 full-time jobs and provide much-needed affordable, community living opportunities for seniors in the Belchertown area.</p> <p>The current condition of the 1.17 mile State Street / Maple Street corridor is poor. Adequate bicycle and pedestrian facilities do not exist, and traffic congestion severely limits potential for businesses and development. The proposed roadway reconstruction project will greatly benefit the community and the region. The reduced congestion and improved safety for motorists, bicyclists, and pedestrians will support the existing residential and business development along the corridor as well as the future development. Attached, please find CEO Lauren Liss's letter to Ms. Patricia Leavenworth of MassDOT Highway Division of January 22, 2018, expressing support for this Roadway Reconstruction Project.</p> <p>MassDevelopment would like to thank MassDOT and members of the Metropolitan Planning Commission for their support for this project and would encourage that this project</p>			
--	--	--	--	--	--

		be funded in the FFY 2019 TIP.			
William A. Terry 385 Turkey Hill Road Belchertown, MA 01007	608412	<p>I am writing to provide my support for the inclusion of the State Street/Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP)</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at Turkey Hill Road and State at Stadler Street.</p> <p>I believe that these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclists, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for over 75 years and have witnessed the negative impacts of the growth on our town and our roadways, especially State Street and Maple Street. I am pro-growth and I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>	5/10/18	Comment Recorded	14
James D. Hodgen Hodgen Landscape Co., Inc. P.O. Box 873 40 Sargent St. Belchertown, MA 01007	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at Turkey</p>	5/11/18	Comment Recorded	15

		<p>Hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident my entire life and our family has been a business owner since 1956. We have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. While constantly moving on our roadways the urgency of this project is paramount for the success of our town. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
<p>Nicole Bennis 20 Stadler Street Belchertown, Ma 01007</p>	608412	<p>I am writing to provide my support for the inclusion-of the State Street /Maple Street roadway Improvement project (NO.608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for 44 years and a</p>	5/15/18	Comment Recorded	16

		<p>proud business owner for 16 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
MassDOT -OTP	TIP Document	<p>The Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning (OTP) has reviewed the draft 2019 - 2023 Transportation Improvement Program (TIP) released by the Pioneer Valley Metropolitan Planning Organization (MPO) on April 24, 2018. The following MassDOT comments include both general guidance and specific comments on the MPO's 3C planning process related to the content of this document as released for public review.</p> <p>Please note the following comments specific to the information contained in the MPO's draft 2019-2023 TIP .Narrative</p> <ul style="list-style-type: none"> • Page ii Two entries in the List of Tables are highlighted and a page number is missing for Table 20. • Page 8c The Performance Measures heading is highlighted. • Page 9 Please include the safety performance measures narrative provided by OTP, or_ ensure that the same information is provided. Specifically, the narrative should mention the transportation asset management plan targets. Please also provide text and figures comparing statewide trends to the Pioneer Valley region. 	5/9/18	Comments Recorded and document updated	17

		<ul style="list-style-type: none"> • Page 11 Please adjust the font size of the first paragraph to be consistent. • Page 15 Please rewrite and check the spelling of the Project Initiation section as there are numerous grammatical and spelling errors. • Page 18 Please update the Project Selection and Programming section to reflect that the TIP is a five-year program. • Please clarify the following statement in the Amendment/Adjustment of the TIP section: "Changes to projects that are included only for illustrative purposes do not require an amendment." • Please include the National Highway Freight Program in the Description of Funding Sources section. Page 34 • Please revise the Federal and Financial Constraint section to reflect that Table 4 shows projected transit funds for federal fiscal year (FFY) 2019- 2023. • Page 39 Please include a title and legend with the map. • Page 73 Please add the table number to this page. • Page 77 Projects Awaiting Design and Funds (Appendix Z) (Cont.) High Priority Project Listing (HPP): Please consider making this a separate table or renaming it, and removing reference to Appendix Z which does not appear in the Appendix section. • Page 134 Table 26 is completely blank. Please populate this table or remove it. • Page 135 Please rewrite the final paragraph for clarity. • Please ensure that the certification for 			
--	--	---	--	--	--

		<p>greenhouse gas (GHG) regulation is included.</p> <ul style="list-style-type: none"> • Please ensure that the appropriate TIP signatory sheet is included. • Please include a table of TIP projects by scoring rank and relative TIP programming information. • Please include a table with the Pioneer Valley TIP evaluation criteria. • Please include a geographic equity analysis of the projects in the FFY 2019-2023 TIP. • Please ensure that the list of completed highway and transit projects includes the associated GHG emissions analysis. • Please ensure that summaries of programmed projects have been provided. Highway Project Listing • Pages 89-111 - Per OTP's guidance, please do not include these separate statewide project templates. • Please consider hiding empty lines in the TIP templates to improved readability of the document. <p>FFY 2019</p> <ul style="list-style-type: none"> • 600513- Please update the Total Federal Participating Construction Cost (TFPC) to \$2,622,622. • 604962 -Please remove the cost increase information from the Additional Information column. • 607560 -This project is listed twice. The first instance shows the correct funding amounts, so please remove the second entry. • 608412 -Please update the TFPC to \$5,143,503. 			
--	--	---	--	--	--

		<ul style="list-style-type: none"> • 608429 -The federals funds should be programmed at \$776,645 to match the • Statewide list exactly. 608600 - Please correct the programmed funding to show an 80/20 split <ul style="list-style-type: none"> ○ Between federal and non-federal funds. <p>FFY 2020</p> <ul style="list-style-type: none"> • 606552 – Please add this Project ID to NORTHAMPTON- BRIDGE REPLACEMENT, N-19-059, 1-91 OVER US ROUTE 5 AND B&MRR, BRIDGE REPLACEMENT, N-19-060, 1-91 OVER HOCKANUM ROAD AND IMPROVEMENTS TO 1-91/INTERCHANGE 19. <p>FFY 2021</p> <ul style="list-style-type: none"> • 605032 – Please change the Additional Information column to the following with standard advance construction (AC) nomenclature: Construction / (YOE \$25,805,364) AC Year 1 of 2 FFY 2021 \$12,652,410, FFY 2022 \$13,152,954 STP /50 TEC /25%. • 608782 – Please reconcile the difference between the Funding Source column and the Additional Information column. <p>FFY 2022</p> <ul style="list-style-type: none"> • 605032 - Please change the Additional Information column to the following with standard AC nomenclature: Construction / (YOE \$25,805,364) AC Year 2 of 2 FFY 2021 \$12,652,410, FFY 2022 \$13,152,954 STP / 50 TEC / 25% STP, CMAQ, TAP. • 608374 - Please change the Additional 			
--	--	---	--	--	--

		<p>Information column to the following with standard AC nomenclature: Construction / (YOE \$19,797,253 AC Year 1 of 2 FFY 2022 \$7,390,199, FFY2023 \$12,407,054 / 66.5 TEC 25% STP.</p> <ul style="list-style-type: none"> • 608847 - Please add this project to the TIP template based on the programming information provided in the statewide list. • 608869 – Please add this project to the TIP template based on the programming information provided in the statewide list. <p>FFY 2023</p> <ul style="list-style-type: none"> • 607823 – Please make sure the Project ID is "607823" not "607283." • 608374 - Please change the Additional Information column to the following with standard AC nomenclature: Construction / (YOE \$19,797,253 AC Year 2 of 2 FFY 2022 \$7,390,199, FFY2023 \$12,407,054 / 66.5 TEC 25% STP, CMAQ, TAP, HSIP. • 608881 - Please use Project Description from PINFO, including municipality names. • 609120 - Please add this MassDOT Project ID to this project (LUDLOW-BRIDGE REPLACEMENT, L-16-026, and PIINEY LANE OVER BROAD BROOK). <p>Greenhouse Gas (GHG) Assessment</p> <ul style="list-style-type: none"> • Please include the GHG TIP templates in the TIP document. • In all FFY Highway tabs, Section 2C is not 			
--	--	--	--	--	--

		<p>pulling the impact number into the summary lines. Please fix this so it is included in the summary line for the entire spreadsheet at the bottom.</p> <p>In all FFY Transit tabs, projects labeled as quantified are missing the impact numbers. Please include these.</p> <p>FFY 2019 Highway</p> <ul style="list-style-type: none"> • 606555 - This project should reflect a qualitative no impact." • 608790 - This project should reflect a qualitative decrease. <p>FFY 2020 Highway</p> <ul style="list-style-type: none"> • No GHG information is needed in lines that do not have funded projects. <p>FFY 2021 Highway</p> <ul style="list-style-type: none"> • Non-interstate pavement projects should reflect a qualitative decrease. <p>FFY 2022 Highway</p> <ul style="list-style-type: none"> • 608466 – The impact is not pulling into the summary. Please fix this so it is included in the summary line for the entire spreadsheet at the bottom. 			
Bob Rivard 11 Town Beach Rd.	608412	<p>I am writing to provide my support for the inclusion of the State Street /Maple Street roadway improvement project (NO. 608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey</p>	5/17/18	Comment Recorded	18

		<p>hill Road and State Street at Stadler Street.</p> <p>I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town EDIC.</p> <p>I have been a member of the BEDIC for over seven years and we are on the cusp of bringing new uses and higher traffic densities to this area of Town. I eagerly anticipate improving this most visible Gateway into the Town of Belchertown from the South.</p> <p>I urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP and to help with our re-use and re-habilitation of the adjacent properties under our control.</p>			
William C. Reichelt Mayor West Springfield	608374	<p>Thank you for providing the Town of West Springfield an opportunity to comment on the Draft 2019-2023 Transportation Improvement Program (TIP). I am pleased to see that the Town's Memorial Avenue Project (#608374) is included in the document under Federal Fiscal Years (FFY) 2022 and 2023. Please note this project is also included in the Commonwealth's Draft 2019-2023 Capital Investment Plan Update.</p> <p>The 25% design was submitted and reviewed by the Massachusetts Department of Transportation (MassDOT). The design consultant is currently reviewing and addressing the comments. As you are aware this project is included in the 2016 Regional Transportation Plan Update as a high priority project for the region. This project has and continues to be a high priority for West Springfield. The Town is committed to advancing and funding the entire design of this project so that it can be constructed as part of the TIP.</p>	5/18/18	Comment Recorded	19

		This Complete Streets Project will tie together the improvements completed at the Memorial Avenue / Route 5 Rotary (Project # 605353) and the Route 147 Bridge Replacement over the Westfield River between Agawam and West Springfield (Project # 605384) that is scheduled to begin construction this year.			
David Ruderman 20 Springfield Rd Belchertown	608412	<p>I am writing to provide my support for the inclusion-of the State Street /Maple Street roadway Improvement project (NO.608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street. I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for 2 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP. I'm a resident, a driver, a biker, and a walker</p>	5/14/18	Comment Recorded	20
Holly Osborne 20 Springfield Rd Belchertown	608412	<p>I am writing to provide my support for the inclusion-of the State Street /Maple Street roadway Improvement project (NO.608412) in the Federal Fiscal Year (FFY) 2019 Transportation Improvement Program (TIP).</p> <p>The current condition of the corridor is poor; adequate bicycle</p>	5/14/18	Comment Recorded	21

		<p>and pedestrian facilities don't exist; and traffic congestion is severe affecting the vitality of our businesses and our standards of living. The proposed project will provide minor widening, new sidewalks, pavement rehabilitation, drainage improvements, and signal systems at the intersections of State Street at turkey hill Road and State Street at Stadler Street. I believe these measures will greatly benefit the community and the region. The reduced congestion and the improved safety for motorist, bicyclist, and pedestrians will support the existing residential and business development along the corridor as well as the future development of approximately 150 acres of commercial property currently under planning by mass development and the town.</p> <p>I have been a Belchertown resident for 22 years and have witnessed the negative impacts of growth on our town and our roadways, especially State Street and Maple Street. I eagerly anticipate the completion of this project and urge the members of the Metropolitan Planning Commission to work to keep this project funded in the FFY 2019 TIP.</p>			
--	--	---	--	--	--

III. FEDERAL COMPONENT

PIONEER VALLEY MPO ENDORSEMENT

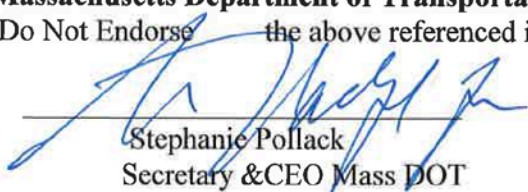
PIONEER VALLEY MPO ENDORSEMENT SHEET

The signatures below signify that all members of the Pioneer Valley Region’s Metropolitan Planning Organization, or their designees, have met on May 28, 2019 and discussed the following item for endorsement: Amendments to The Pioneer Valley Region’s 2019-2023 Transportation Improvement Program (TIP)

Massachusetts Department of Transportation (Mass DOT)

I, **Secretary of the Massachusetts Department of Transportation**, hereby


Endorse Do Not Endorse the above referenced item.


Stephanie Pollack 5/28/19
Secretary & CEO Mass DOT Date

Massachusetts Department of Transportation Highway Division

I, Administrator of the Highway Division of MassDOT, hereby

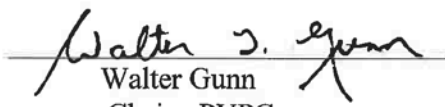
Endorse Do Not Endorse the above referenced item.


Jonathan Gulliver 5/28/19
Highway Administrator, Mass DOT Date

Pioneer Valley Planning Commission (PVPC)

I, Chair of the Pioneer Valley Planning Commission, hereby

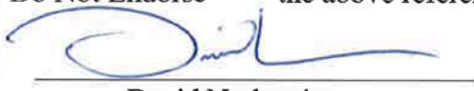
Endorse Do Not Endorse the above referenced item.


Walter Gunn 5/28/19
Chair - PVPC Date

Pioneer Valley Transit Authority (PVTA)

I, Chair of the Pioneer Valley Transit Authority Advisory Board, hereby

Endorse Do Not Endorse the above referenced item.


David Narkewicz 5/28/19
Chair- PVTA Advisory Board Date

City of Holyoke

I, Mayor of the City of Holyoke, hereby

Endorse Do Not Endorse the above referenced item.

Alex Morse _____
Mayor-Holyoke Date

City of West Springfield

I, Mayor of the City of West Springfield, hereby
 Endorse Do Not Endorse the above referenced item.



William Reichelt
Mayor-West Springfield



Date

City of Easthampton

I, Mayor of the City of Easthampton, hereby
 Endorse Do Not Endorse the above referenced item.



Nicole LaChapelle
Mayor-Easthampton



Date

Town of Ludlow

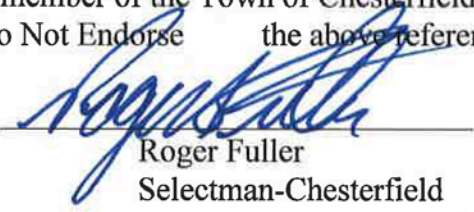
I, Board of Selectmen member of the Town of Ludlow, hereby
 Endorse Do Not Endorse the above referenced item.

Carmina Fernandes
Selectman-Ludlow

Date

Town of Chesterfield

I, Board of Selectmen member of the Town of Chesterfield, hereby
 Endorse Do Not Endorse the above referenced item.



Roger Fuller
Selectman-Chesterfield



Date

CERTIFICATION OF THE 3-C PLANNING PROCESS

In accordance with the Metropolitan Planning Final Rule, the Pioneer Valley MPO has completed its review and hereby certifies that the conduct of the 3-C Transportation Planning Process complies with the requirements of CFR 450.334 and includes activities to support the development and implementation of this TIP, the Regional Transportation Plan, and subsequent project development activities, as necessary and to the degree appropriate.

To reinforce this self certification, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) conducted a certification review of the Pioneer Valley MPO planning process in 2015. The two day on-site review was preceded by a desk audit of the major planning documents completed as part of the planning process. Based on the certification review, the transportation planning process for the Pioneer Valley region was found to substantially meet the requirements of 23 CFR 450 Subpart C and 49 CFR 613.

PIONEER VALLEY MPO ENDORSEMENT SHEET

The signatures below signify that all members of the Pioneer Valley Region's Metropolitan Planning Organization, or their designees, have met on May 23, 2017 and discussed the following item for endorsement:

CERTIFICATION OF THE 3C PLANNING PROCESS

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

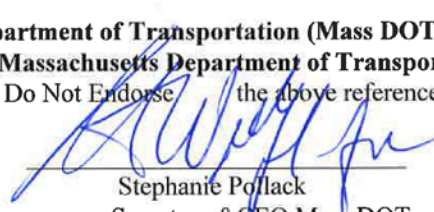
1. 23 U.S.C. 134, 49 U.S.C. 5303, and this subpart;
2. In non-attainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506 (c) and (d)) and 40 CFR part 93;
3. Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
4. 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
5. Section 1101(b) of the 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 Part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts
7. The provisions of US DOT and of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
8. The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
9. Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
10. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.
11. Anti-lobbying restrictions found in 49 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.

May 23, 2017 endorsement
PVMPO 3C Self Certification

Massachusetts Department of Transportation (Mass DOT)

I, Secretary of the Massachusetts Department of Transportation, hereby

Endorse Do Not Endorse the above referenced item.

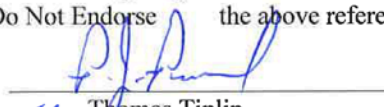

Stephanie Pollack
Secretary & CEO Mass DOT

5/23/17
Date

Massachusetts Department of Transportation Highway Division

I, Acting Administrator of the Highway Division of MassDOT, hereby

Endorse Do Not Endorse the above referenced item.

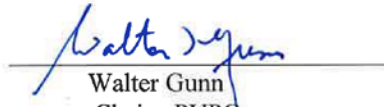

Thomas Tinlin
Highway Administrator, Mass DOT

5/23/2017
Date

Pioneer Valley Planning Commission (PVPC)

I, Chair of the Pioneer Valley Planning Commission, hereby

Endorse Do Not Endorse the above referenced item.



Walter Gunn
Chair - PVPC

5/23/17
Date

Pioneer Valley Transit Authority (PVTA)

I, Chair of the Pioneer Valley Transit Authority Advisory Board, hereby

Endorse Do Not Endorse the above referenced item.

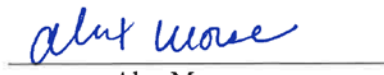

David Narkewicz
Chair- PVTA

5/23/17
Date

City of Holyoke

I, Mayor of the City of Holyoke, hereby

Endorse Do Not Endorse the above referenced item.


Alex Morse
Mayor-Holyoke


5/23/17
Date

May 23, 2017 endorsement
PVMPO 3C Self Certification

City of Chicopee

I, Mayor of the City of Chicopee, hereby

Endorse Do Not Endorse the above referenced item.




Richard Kos
Mayor-Chicopee

5-23-17
Date

Town of Agawam

I, Mayor of the Town of Agawam, hereby

Endorse Do Not Endorse the above referenced item.



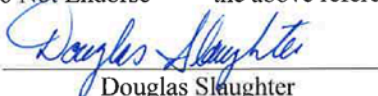
Richard Cohen
Mayor-Agawam

23 May 2017
Date

Town of Amherst

I, Board of Selectmen member of the Town of Amherst, hereby

Endorse Do Not Endorse the above referenced item.




Douglas Slaughter
Selectman-Amherst

5/23/2017
Date

Town of Belchertown

I, Board of Selectmen member of the Town of Belchertown, hereby

Endorse Do Not Endorse the above referenced item.



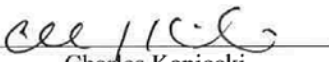
George Archible
Selectman-Belchertown

5/23/17
Date

Town of Southampton

I, Board of Selectmen member of the Town of Southampton, hereby

Endorse Do Not Endorse the above referenced item.



Charles Kaniecki
Selectman-Southampton

MAY 23, 2017
Date

310 CMR 60.05: GLOBAL WARMING SOLUTIONS ACT REQUIREMENTS - ENDORSEMENT

The signatures below signify that all members of the Pioneer Valley Region's Metropolitan Planning Organization, or their designees, have met on May 23, 2017 and discussed the following item for endorsement:

This will certify that the 2018 – 2022 TIP for The Pioneer Valley Region's MPO 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 the 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.
11. 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.

May 23, 2017 endorsement
PVMPO 2018 GHG

Massachusetts Department of Transportation (Mass DOT)

I, Secretary of the Massachusetts Department of Transportation, hereby

Endorse Do Not Endorse the above referenced item.

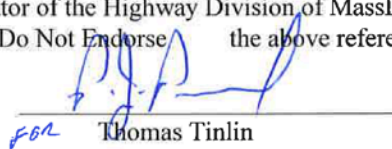

Stephanie Pollack
Secretary & CEO Mass DOT

5/23/17
Date

Massachusetts Department of Transportation Highway Division

I, Acting Administrator of the Highway Division of MassDOT, hereby

Endorse Do Not Endorse the above referenced item.

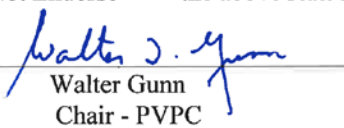

FOR Thomas Tinlin
Highway Administrator, Mass DOT

5/23/2017
Date

Pioneer Valley Planning Commission (PVPC)

I, Chair of the Pioneer Valley Planning Commission, hereby

Endorse Do Not Endorse the above referenced item.



Walter Gunn
Chair - PVPC

5/23/17
Date

Pioneer Valley Transit Authority (PVTA)

I, Chair of the Pioneer Valley Transit Authority Advisory Board, hereby

Endorse Do Not Endorse the above referenced item.

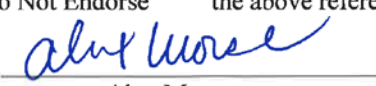

David Narkewicz
Chair- PVTA

5/23/17
Date

City of Holyoke

I, Mayor of the City of Holyoke, hereby

Endorse Do Not Endorse the above referenced item.


Alex Morse
Mayor-Holyoke

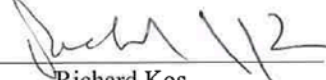
5-23-17
Date

May 23, 2017 endorsement
PVMPO 2018 GHG

City of Chicopee

I, Mayor of the City of Chicopee, hereby

Endorse Do Not Endorse the above referenced item.



Richard Kos
Mayor-Chicopee

5-23-17
Date

Town of Agawam

I, Mayor of the Town of Agawam, hereby

Endorse Do Not Endorse the above referenced item.



Richard Cohen
Mayor-Agawam

23 MAY 2017
Date

Town of Amherst

I, Board of Selectmen member of the Town of Amherst, hereby

Endorse Do Not Endorse the above referenced item.

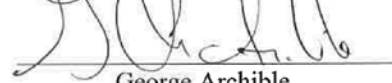

Douglas Slaughter
Selectman-Amherst

5/23/2017
Date

Town of Belchertown

I, Board of Selectmen member of the Town of Belchertown, hereby

Endorse Do Not Endorse the above referenced item.


George Archible
Selectman-Belchertown

5/23/17
Date

Town of Southampton

I, Board of Selectmen member of the Town of Southampton, hereby

Endorse Do Not Endorse the above referenced item.


Charles Kaniecki
Selectman-Southampton

MAY 23, 2017
Date

FUNDING INFORMATION

FEDERAL AID TARGETS

The MassDOT provided the revised PVPC federal aid highway funding targets for the region on February 21, 2018. The targets are provided for FFYs 2019 through 2023 and represent both the federal aid portion and respective state match. (See Appendix A for additional information).

During the development of the TIP PVPC staff worked with MassDOT, PVTA, Municipalities with active projects, and project designers to develop current year project cost estimates and design status. Once the draft TIP was programmed, Highway projects funded with regional target funds are inflated four percent per year starting in FFY2019 in order to reflect year of expenditure (YOE).

Federal financial resources for transit are projected using appropriated amounts provided by the FTA for the funding categories of Sections 5307 and 5311. Section 5309 funds are based on estimates of what will be reasonably available. Due to the discretionary nature of these categories, project line items are maintained in the fourth year of the TIP until an actual grant award is tendered. Section 5310 is programmed through the state and is awarded on a discretionary basis. Projections are based on past experience and the funding level provided by the State.

FEDERAL AID FINANCIAL CONSTRAINT

The federal aid element of the TIP is financially constrained according to the definition in Federal Register 23 CFR Part 450.324. The federal aid projects programmed for this region reasonably meet the federal aid funding targets provided for the region. Only projects for which funds can reasonably be expected have been included. Table 5 (highway) and Table 6 (transit) shows both these target amounts and the amounts programmed for highway projects during fiscal years 2019 - 2023. Projects that are not charged against the funding targets are not presented in the table. These projects include: Statewide items; and special funding projects. Table 6 shows the projected transit funds for FFY 2019 – 2023.

Table 8 Federal Highway Financial Plan

	2019	2020	2021	2022	2023	GRAND TOTAL
Total Target Funds	\$24,855,247	\$25,782,146	\$26,303,990	\$26,839,603	\$27,425,802	\$131,206,788
Total of Programmed	\$24,447,538	\$25,756,683	\$26,303,991	\$26,839,602	\$27,055,729	\$130,403,543
Programmed STP	\$20,585,571	\$21,656,807	\$21,859,991	\$23,339,602	\$23,555,729	\$110,997,700
Programmed HSIP	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$5,000,000
Programmed CMAQ	\$2,386,880	\$2,599,876	\$2,944,000	\$2,000,000	\$2,000,000	\$11,930,756
Programmed TAP	\$475,087	\$500,000	\$500,000	\$500,000	\$500,000	\$2,475,087
Difference	\$407,709	\$25,463	-\$1	\$1	\$370,073	\$803,245

The funding targets were programmed to projects according to project priority rating. Projects were programmed slightly beyond the program target with the understanding that the targets are not earmarks and program levels are expected to fluctuate.

The TIP reflects an emphasis on the maintenance and operation of the current transportation system with the ability to provide capital improvements. The federal aid program for each year consists of almost entirely of maintenance projects for the present transportation system.

The transit program outlined in Table 6 represents both apportioned items as well as discretionary items. The total programmed amount represents both the federal, state and local contributions.

Table 9 Federal Transit Financial Plan

	2019	2020	2021	2022	2023	GRAND TOTAL
Transit Capitol Investment	\$32,282,731	\$27,353,435	\$31,285,699	\$29,265,958	\$29,195,129	\$149,382,952
5307	\$13,072,249	\$17,625,646	\$21,011,891	\$27,234,025	\$27,181,085	\$106,124,896
5309						\$0
5310						\$0
5311						\$0
5337						\$0
5339	\$1,836,620	\$7,377,789	\$10,038,808			\$19,253,217
5320						\$0
Other Federal						\$0
Other Non Federal	\$17,373,862	\$2,350,000	\$235,000	\$2,031,933	\$2,014,044	\$24,004,839

The transit projects programmed focus on maintaining and operating the present system while implementing the recommendations of the Comprehensive Service Analysis (CSA) completed in the spring of 2014. For more information regarding the CSA please go to PVTA website.

www.pvta.com .

THE GEOGRAPHIC DISTRIBUTION OF FEDERAL TARGET FUNDS IN THE PIONEER VALLEY METROPOLITAN PLANNING REGION – 2019 TO 2023

PVPC staff reviewed historical project programming for the Transportation Improvement Program (TIP) in order to show the geographic distribution of Federal Target funds in the Pioneer Valley Metropolitan Planning Organization (MPO) region. PVPC staff reviewed year 1 section 1A (Federal Aid Target Projects) for the past 5 years (2014 through 2018) TIP. Table 7 provides the results of this analysis broken out by MPO sub-region while Table 2 provides the results broken out by municipality. Please see page 3 for MPO region map and additional information regarding the composition of the MPO.

As can be seen in Tables 7 and 8 the PVMPO has successfully programmed 35 projects in 20 communities over the past 5 years. The total funding commitment for these projects was just over \$90 million. During this time the PVMPO averaged \$18 million per year in funding. The average cost per project was \$2.6 million (increase from \$2.4 million last year) or 6.8 projects per year on average. Over the past five years, the PVMPO has committed federal funds for transportation projects in almost half (44%) of the communities in the region.

Table 10 Projects Proposed to be Completed in the 2019-2023 TIP by Sub-Region

	2019	2020	2021	2022	2023	Total	Total Funds	% Funds	% Population	Average Median Income	Average Median Below Poverty
Sub Region 1	6	6	4	7	2	25	\$74,453,775	25%	40%	\$39,186	24.37%
Sub Region 2	3	3	1	1	0	8	\$61,088,451	20%	17%	\$64,795	8.53%
Sub Region 3	1	3	4	5	1	13	\$106,993,625	35%	17%	\$61,037	14.68%
Sub Region 4	4	0	2	4	2	12	\$37,992,507	13%	21%	\$73,499	6.84%
Sub Region 5	2	1	0	0	1	4	\$21,526,807	7%	4%	\$68,342	6.52%
	16	13	11	17	6	62	\$302,055,166				

Source: PVPC TIP

As can be seen in Table 7, the distribution of funds across the region is similar to the distribution of population across the region. Sub-region 3 received 18% more funding than population over the past 5 years. This was due to the MPO commitment to fund two large projects, one in Westfield (Bridge Replacement Route 10/202 over the Little River \$13 million) and one in project in West Springfield (Memorial Ave Reconstruction \$20 million). The PVMPO is committed to funding transportation improvement projects across the entire region. The community data provided in Table 8 shows the extent to which this has been proposed over the next 5 years. With the implementation of the new Transportation Evaluation Criteria (TEC) as well as other regional and state initiatives, the PVMPO is positioned to be able to continue to make decisions that will be equitable for the entire region.

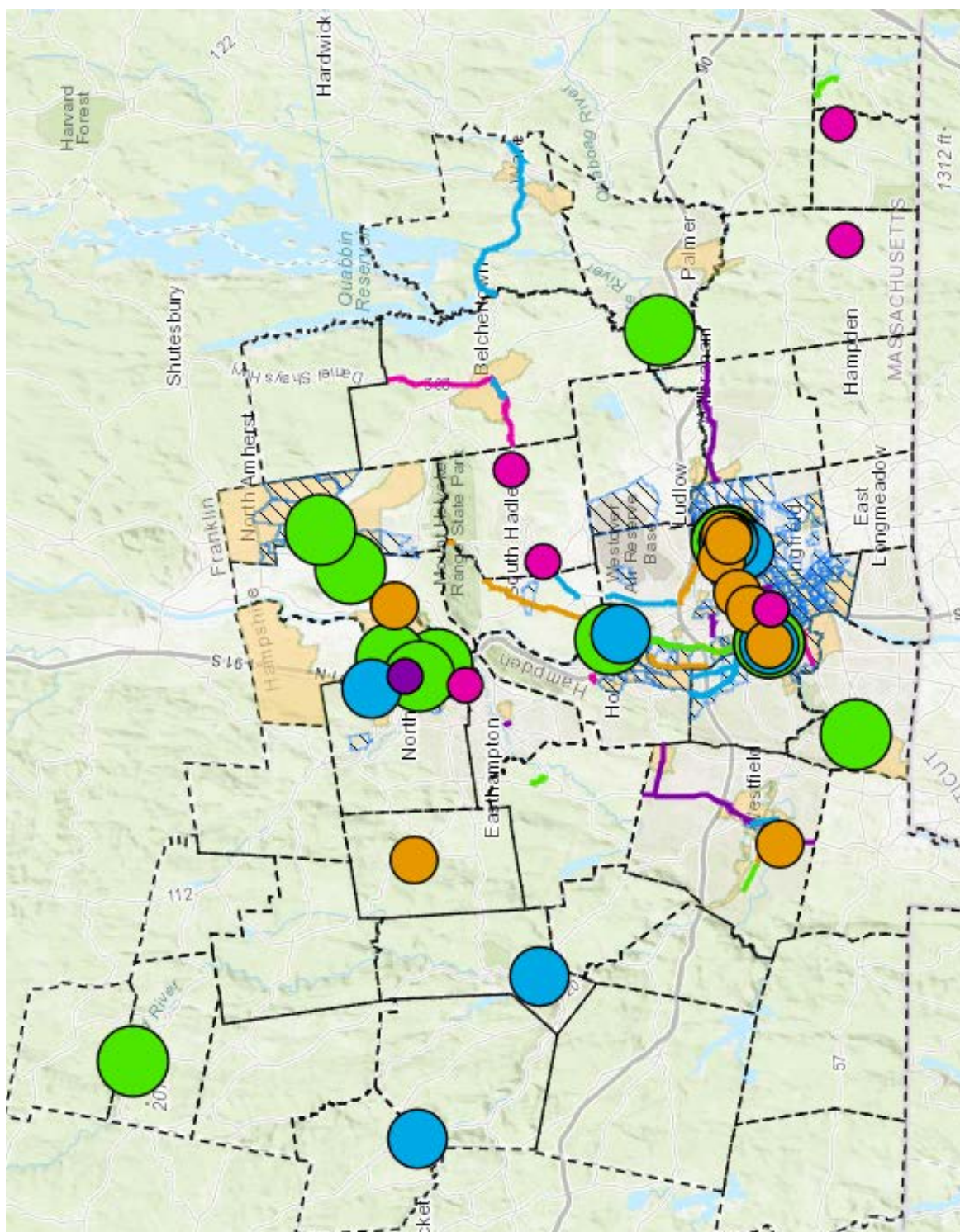
Table 11 Projects Proposed to be Completed in the 2019-2023 TIP by Municipality

	2019	2020	2021	2022	2023	Total	Total Funds	% Funds	% Population	Median Household Income	Below Poverty Level
Agawam	1	0	0	0	0	1	\$ 2,622,622	0.87%	4.58%	\$63,561	9.30%
Amherst	0	0	0	2	0	2	\$ 3,621,863	1.20%	6.21%	\$52,537	33.80%
Belchertown	1			1		2	\$ 7,225,023	2.39%	2.35%	\$74,221	7.80%
Blandford	0	0	0	0	0	0	\$ -	0.00%	0.20%	\$72,361	5.60%
Brimfield	0	0	0	0	0	0	\$ -	0.00%	0.59%	\$82,365	3.00%
Chester	0	0	0	0	0	0	\$ -	0.00%	0.22%	\$65,648	9.20%
Chesterfield	0	0	0	0	0	0	\$ -	0.00%	0.20%	\$63,594	7.30%
Chicopee	3	4	0	4	0	11	\$ 27,507,647	9.11%	8.89%	\$47,276	12.90%
Cummington	0	0	0	0	0	0		0.00%	0.14%	\$50,521	6.40%
East Longmeadow	0	0	0	0	0	0		0.00%	2.56%	\$84,173	5.10%
Easthampton	0	0	1	0	0	1	\$ 2,201,643	0.73%	2.55%	\$56,927	8.30%
Goshen	0	0	0	0	0	0		0.00%	0.17%	\$69,219	2.80%
Granby	1	0	1	1	0	3	\$ 7,824,636	2.59%	1.00%	\$78,261	5.80%
Granville	0	0	0	0	0	0	\$ -	0.00%	0.26%	\$75,208	7.10%
Hadley	0	0	1	1	0	2	\$ 31,453,359	10.41%	0.84%	\$74,737	7.50%
Hampden	0	0	0	0	0	0	\$ -	0.00%	0.83%	\$78,722	4.20%
Hatfield	0	0	0	0	0	0	\$ -	0.00%	0.52%	\$60,033	11.10%
Holland	1	0	0	0	0	1	\$ 2,919,446	0.97%	0.40%	\$64,868	9.40%
Holyoke	2	2	1	1	0	6	\$ 22,047,524	7.30%	6.42%	\$35,550	30.10%
Huntington	0	0	0	0	0	0	\$ -	0.00%	0.35%	\$52,275	9.80%
Longmeadow	0	0	0	0	1	1	\$ 6,064,675	2.01%	2.53%	\$108,835	5.30%
Ludlow	0	0	0	0	1	1	\$ 598,560	0.20%	3.42%	\$61,410	5.90%
Middlefield	1	0	0	0	0	1	\$ 970,807	0.32%	0.08%	\$78,214	5.30%
Monson	0	0	0	1	0	1	\$ 1,742,784	0.58%	1.39%	\$66,389	8.20%
Montgomery	0	0	0	0	0	0	\$ -	0.00%	0.14%	\$78,333	2.00%
Northampton	1	2	2	2	1	8	\$ 67,507,800	22.35%	4.55%	\$58,179	14.60%
Palmer	0	0	0	0	0	0	\$ -	0.00%	1.94%	\$51,846	10.30%
Pelham	0	0	0	0	0	0	\$ -	0.00%	0.21%	\$88,462	5.70%

Plainfield	0	0	0	0	0	0	\$ -	0.00%	0.10%	\$57,188	9.30%
Russell	0	0	0	0	0	0	\$ -	0.00%	0.29%	\$68,750	2.10%
South Hadley	0	1	0	0	0	0	\$ 2,208,960	0.73%	2.83%	\$62,803	9.20%
Southampton	0	0	0	0	0	0	\$ -	0.00%	0.95%	\$68,693	4.90%
Southwick	0	0	0	0	0	0	\$ -	0.00%	1.54%	\$81,967	2.90%
Springfield	1	0	3	2	2	8	\$ 24,898,605	8.24%	24.52%	\$34,731	30.10%
Tolland	0	0	0	0	0	0	\$ -	0.00%	0.08%	\$85,750	7.90%
Wales	0	0	0	1	0	1	\$ 540,096	0.18%	0.30%	\$52,500	5.30%
Ware	1	0	0	0	0	1	\$ 2,475,087	0.82%	1.57%	\$49,630	14.90%
West Springfield	1	1	0	1	0	3	\$ 28,924,265	9.58%	4.58%	\$52,806	11.00%
Westfield	1	2	1	0	0	4	\$ 29,541,565	9.78%	6.59%	\$60,845	10.90%
Westhampton	0	1	0	0	0	1	\$ 3,072,000	1.02%	0.26%	\$79,583	5.20%
Wilbraham	0	0	1	0	0	1	\$ 8,602,200	2.85%	2.31%	\$87,303	4.80%
Williamsburg	0	0	0	0	0	0	\$ -	0.00%	0.39%	\$65,147	10.20%
Worthington	1	0	0	0	1	2	\$ 17,484,000	5.79%	0.19%	\$71,300	4.60%
Hampden County	10	9	6	10	4	39	156,009,988	51.65%	74.54%	\$50,036	17.70%
Hampshire County	6	4	5	7	2	23	146,045,178	48.35%	25.46%	\$61,460	13.90%
Pioneer Valley Region	16	13	11	17	6	62	302,055,166			\$ 52,108	16.60%

Source: PVPC TIP

Figure 3 Project Programmed in the TIP



A higher resolution version of this figure can be found here:
<http://pvpc.maps.arcgis.com/apps/StorytellingTextLegend/index.html?appid=f54bf3b6dfd04033980dcd9a898b85a3>

IV. FEDERAL AID REGIONAL PROJECT LISTINGS

The following is a complete listing of the Pioneer Valley Federally Funded Transportation Improvement Projects for Fiscal Years 2019 - 2023.

ORGANIZATION OF PROJECT LISTINGS

Each project in the TIP contains the following information:

MassDOT Project ID - Project identification numbers given by the Massachusetts Highway Department.

MassDOT Project Description – Includes Town or city in which a project is located, and a description of work to be funded under the project.

MassDOT District – The MassDOT sub-Region where the project is located, for PVMPO projects will be in either District 1 or District 2.

Funding Source - The funding category from which funding is expected.

Total Programmed Funds - The total funding for the project under the specified funding source.

Federal Funds - The amount of federal dollars allocated for project construction.

Non-Federal Funds - The amount of non-federal dollars allocated to the project.

Additional Information – Provides additional project information including design status, Transportation Evaluation Criteria (TEC) Score, and YOE Cost.

Regional Target - The total combined Federal and State dollar amount provided for project funding.

TEC Score – This score is based on criteria developed rank the regional significant of each eligible TIP project

Table 12 Summary of Programmed Projects Section 1 A Federal Aid Target Projects

SID	Municipality	FFY	Project Description	District	Funding Sources	Total	Funds	Federal Funds	Non-Federal Funds	Additional Information
2019	Springfield	608411	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	2	HSIP, CMAQ	\$ 1,886,880	\$ 682,406	\$ 170,602	Construction / (YOE \$1,886,880 STP) / 49.5 TEC / 25%	
2019	Agawam	600513	AGAWAM- RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	2	STP	\$ 2,622,622	\$1,567,980	\$ 391,995	Construction / (YOE \$2,622,622 STP) / 27 TEC / 25%	
2019	Belchertown	608412	BELCHERTOWN- IMPROVEMENTS & RELATED WORK ON ROUTES 202 & 21, FROM TURKEY HILL ROAD TO SOUTH MAIN STREET (1.2 MILES)	2	STP	\$ 5,143,503	\$3,827,200	\$ 956,800	Constructiton / (YOE \$5,1434,503 STP) / 59 TEC / 25%	
2019	Ware	607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	STP, CMAQ.TAP	\$ 2,475,087	\$ 505,532	\$ 126,383	Construction / (YOE \$2,475,087) STP) / 55 TEC / 75%	
2019	PVTA		P21 Express - Year 2 Operating		CMAQ	\$ 500,000	\$ 400,000	\$ 100,000	Operating year 2	
2019	Holland	604962	HOLLAND- RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM THE BRIMFIELD/HOLLAND T.L. TO WALES ROAD (1.4 MILES - PHASE I)	2	STP	\$ 2,919,446	\$2,335,557	\$ 583,889	Construction / (YOE \$2,919,446) STP) / 26.5 TEC / 25% - 25% Comment Received, cost increased from \$1,409,592	
2019	Worthington	606912	Route 143 Reconstruction and Related Work - Phase I	1	STP	\$ 8,900,000	\$7,120,000	\$1,780,000	Construction / (YOE \$8,900,000) STP / 41.5 TEC / 75% Project Phased Total project cost was \$16,300,000	
Programmed						\$ 24,447,538				
Target						\$ 24,855,247				

SID	Municipality	FFY	Project Description	District	Funding Sources	Total Funds	Federal Funds	Non-Federal Funds	Additional Information
2020	Westfield	607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	HSIP/STP/CMAQ/TAP	\$ 7,599,876	\$ 972,893	\$ 108,099	Construction / (YOE \$7,599,876 STP) / 48.5 TEC / 25%
2020	Chicopee	604434	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	2	STP	\$ 7,907,953	\$6,480,934	\$1,620,233	Construction / (YOE \$7,907,953 STP) / 48.5 TEC / 25%
2020	Northampton	608236	NORTHAMPTON- RECONSTRUCTION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, INCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL	2	STP	\$ 10,248,854	\$4,359,945	\$1,089,986	Construction / (YOE \$10,248,854 STP) / 66.5 TEC / 75%
						\$ 25,756,683			
						Target \$ 25,782,146			
2021						Difference \$ 25,463			
2021	Springfield	608718	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	2	STP	\$ 2,229,021	\$1,783,217	\$ 445,804	Construction / (YOE \$2,229,021 STP) / 41.5 TEC Score / Pre 25%
2021	Springfield	608782	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT COTTAGE STREET, INDUSTRY AVENUE AND ROBBINS ROAD	2	STP	\$ 1,944,000	\$1,555,200	\$ 388,800	Construction / (YOE \$1,944,000 STP) / 46.5 TEC Score / Pre 25%
2021	Amherst	608084	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	2	STP	\$ 3,621,863	\$1,044,709	\$ 261,177	Construction / (YOE \$3,621,863 STP) / 53.5 TEC / 25%
2021	Northampton	607502	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	2	STP	\$ 3,655,054	\$ 992,000	\$ 248,000	Construction / (YOE \$3,655,054 STP, CMAQ) / 65 TEC / 25%
2021	Easthampton	608577	EASTHAMPTON- IMPROVEMENTS AND RELATED WORK ON UNION STREET (ROUTE 141) FROM PAYSON AVENUE TO HIGH STREET (0.36 MILES)	2	STP	\$ 2,201,643	\$1,169,984	\$ 292,496	Construction / (YOE \$2,201,643 STP) / 62 TEC / Pre 25%
2021	Hadley	605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	A/C STP	\$ 12,652,410	\$1,761,984	\$ 440,496	Construction / (YOE \$25,805,364) Year 1 FFY 2021 A/C \$12,652,410, Year 2 FFY 2022 A/C \$13,152,954 STP / 50 TEC / 25%
						\$ 26,303,990			
						Target \$ 26,303,990			
2022						Difference \$ (0)			

SID	Municipality	FFY	Project Description	District	Funding Sources	Total Funds	Federal Funds	Non-Federal Funds	Additional Information
2022	West Springfield	608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	A/C STP	\$ 7,390,199	\$ 972,893	\$ 108,099	Construction / (YOE \$19,797,253 Year 1 FFY 2022 A/C \$7,390,199 Year 2 A/C FFY2023 \$12,407,054 STP / 66.5 TEC 25%
2022	Granby	606895	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	2	STP	\$ 2,866,866	\$1,287,046	\$ 321,762	Construction / (YOE \$1,959,470) STP) / 42 TEC / 25%
2022	Holyoke	606156	HOLYOKE- RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	2	STP	\$ 3,429,583	\$2,786,880	\$ 696,720	Construction / (YOE \$3,349,615 STP) / 47 TEC / Pre 25%
2022	Hadley	605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	A/C STP	\$ 13,152,954	\$1,761,984	\$ 440,496	Construction / (YOE \$25,805,364) Year 1 FFY 2021 A/C \$12,652,410, Year 2 FFY 2022 A/C \$13,152,954 STP / 50 TEC / 25%
						\$ 26,839,603			
						Target \$ 26,839,603			
						Difference \$ 0			
2023	West Springfield	608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	A/C STP	\$ 12,407,054	\$ 972,893	\$ 108,099	Construction / (YOE \$19,797,253 Year 1 FFY 2022 A/C \$7,390,199 Year 2 A/C FFY2023 \$12,407,054 STP / 66.5 TEC 25%
2023	Worthington	PV0001	Route 143 Reconstruction and Related Work - Phase II	1	STP	\$ 8,584,000	\$6,867,200	\$1,716,800	Construction / (YOE \$8,584,000) STP / 41.5 TEC / 75% Project Phase I funded in FFY 2019 Total project cost was \$16,300,000
2023	Lonmeadow	608881	RESURFACING AND INTERSECTION IMPROVEMENTS ON LONGMEADOW STREET (ROUTE 5) AND CONVERSE STREET (0.84 MILES)	2	STP	\$ 6,064,675	\$4,851,740	\$1,212,935	Construction (YOE \$6,064,675 / 54.5 TEC / Pre 25%
						\$ 27,055,729			
						Target \$ 27,425,802			
						Difference \$ 370,073			

Table 13 Federally Funded Projects Year 2019

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction</i>
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
Intersection Improvements		608411	Pioneer Valley	Springfield	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	2	HSIP	\$ 1,000,000	\$ 900,000	\$ 100,000	Construction / (YOE \$1,886,880 STP) / 49.5 TEC / 25% HSIP, CMAQ
Intersection Improvements		608411	Pioneer Valley	Springfield	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	2	CMAQ	\$ 886,880	\$ 709,504	\$ 177,376	Construction / (YOE \$1,886,880 STP) / 49.5 TEC / 25% HSIP, CMAQ
Roadway Reconstruction		600513	Pioneer Valley	Agawam	AGAWAM- RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	2	STP	\$ 2,622,622	\$ 2,098,098	\$ 524,524	Construction / (YOE \$2,622,622 STP) / 27 TEC / 25% STP
Intersection Improvements		608412	Pioneer Valley	Belchertown	BELCHERTOWN- IMPROVEMENTS & RELATED WORK ON ROUTES 202 & 21, FROM TURKEY HILL ROAD TO SOUTH MAIN STREET (1.2 MILES)	2	STP	\$ 5,143,503	\$ 4,114,802	\$ 1,028,701	Construction / (YOE \$5,143,503 STP) / 59 TEC / 25% STP - 75% Due May 27, 2018
Intersection Improvements		607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	STP	\$ 1,000,000	\$ 800,000	\$ 200,000	Construction / (YOE \$2,475,087) STP) / 55 TEC / 75% STP, CMAQ, TAP
Intersection Improvements		607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	CMAQ	\$ 1,000,000	\$ 800,000	\$ 200,000	Construction / (YOE \$2,475,087) STP) / 55 TEC / 75% STP, CMAQ, TAP
Intersection Improvements		607987	Pioneer Valley	Ware	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	2	TAP	\$ 475,087	\$ 380,070	\$ 95,017	Construction / (YOE \$2,475,087) STP) / 55 TEC / 75% STP, CMAQ, TAP
Roadway Reconstruction		604962	Pioneer Valley	Holland	HOLLAND- RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM THE BRIMFIELD/HOLLAND T.L. TO WALES ROAD (1.4 MILES - PHASE I)	2	STP	\$ 2,919,446	\$ 2,335,557	\$ 583,889	Construction / (YOE \$2,919,446) STP) / 26.5 TEC / 25% - 25% Comment Received
Roadway Reconstruction		606912	Pioneer Valley	Worthington	WORTHINGTON- RECONSTRUCTION & RELATED WORK ON ROUTE 143 (PHASE I)	1	STP	\$ 8,900,000	\$ 7,120,000	\$ 1,780,000	Construction / (YOE \$8,900,000) STP) / 41.5 TEC / 75% Project Phased Total project cost was
Planning / Adjustments / Pass-throughs		PV0001	Pioneer Valley	multiple	P21 Express - Year 2 Operating	2	CMAQ	\$ 500,000	\$ 400,000	\$ 100,000	P21 Express - Year 2 Operating CMAQ
Regionally Prioritized Projects subtotal ►								\$ 24,447,538	\$ 19,658,030	\$ 4,789,508	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis													
								Total Regional Federal Aid Funds Programmed ►	\$ 24,447,538	\$ 24,855,247	◀ Total Budget	\$ 407,709	Target Funds Available
								STP programmed ►	\$ 20,585,571	\$ 16,468,457	◀ STP		
								HSIP programmed ►	\$ 1,000,000	\$ 900,000	◀ HSIP		
								CMAQ programmed ►	\$ 2,386,880	\$ 1,909,504	◀ CMAQ		
								TAP programmed ►	\$ 475,087	\$ 380,070	◀ TAP		

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; **Column C**) Enter ID from ProjectInfo; **Column E**) Choose Municipality Name from dropdown list; **Column H**) Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; **Column I**) Enter the total amount of funds being programmed in this fiscal year and for each funding source; **Column J**) Federal funds autocalculates. Please verify the amount and only change if needed for flex. **Column K**) Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex.

Table 10: Federally Funded Projects Year 2019 (Continued)

▶ Section 1B / Earmark or Discretionary Grant Funded Projects														
▶ Other Federal Aid														
			Pioneer Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -				
								Other Federal Aid subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2A / State Prioritized Reliability Projects														
▶ Bridge Program / Inspections														
	Bridge Program		Pioneer Valley		Bridge Inspection			\$ -	\$ -	\$ -				
								Bridge Program / Inspections subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Bridge Program / Off-System														
	Bridge Program	608429	Pioneer Valley		MIDDLEFIELD- BRIDGE SUPERSTRUCTURE REPLACEMENT, M-19-010, CHESTER ROAD OVER SMART BROOK	1	STP-BR-OFF	\$ 970,807	\$ 776,645	\$ 194,162				
								Bridge Program / Off-System subtotal ▶			\$ 970,807	\$ 776,645	\$ 194,162	◀ 80% Federal + 20% Non-Federal
▶ Bridge Program / On-System (NHS)														
	Bridge Program		Pioneer Valley		Bridge Program / On-System (NHS)			\$ -	\$ -	\$ -				
								Bridge Program / On-System (NHS) subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Bridge Program / On-System (Non-NHS)														
	Bridge Program		Pioneer Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -				
								Bridge Program / On-System (Non-NHS) subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Bridge Program / Systematic Maintenance														
	Bridge Program		Pioneer Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -				
								Bridge Program / Systematic Maintenance subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Interstate Pavement														
	Interstate Pavement	607560	Pioneer Valley	Multiple	CHICOPEE- HOLYOKE- INTERSTATE MAINTENANCE AND RELATED WORK ON I-391	2	NHPP	\$ 11,309,875	\$ 10,178,888	\$ 1,130,988				
								Interstate Pavement subtotal ▶			\$ 11,309,875	\$ 10,178,888	\$ 1,130,988	◀ 90% Federal + 10% Non-Federal
▶ Non-Interstate Pavement														
	Non-Interstate Pavement	607474	Pioneer Valley	Multiple	GRANBY- SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROTUE 202	2	NHPP	\$ 5,752,500	\$ 4,602,000	\$ 1,150,500				
								Non-Interstate Pavement subtotal ▶			\$ 5,752,500	\$ 4,602,000	\$ 1,150,500	◀ 80% Federal + 20% Non-Federal
▶ Roadway Improvements														
	Roadway Improvements		Pioneer Valley		Roadway Improvements			\$ -	\$ -	\$ -				
								Roadway Improvements subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Safety Improvements														
	Safety Improvements	607736	Pioneer Valley	Chicopee	CHICOPEE- SIGNAL & INTERSECTION IMPROVEMENTS AT 13 INTERSECTIONS ALONG ROUTE 33 (MEMORIAL DRIVE), FROM FULLER ROAD TO ABBEY STREET	2	HSIP	\$ 6,001,387	\$ 5,401,248	\$ 600,139				
	Safety Improvements	608600	Pioneer Valley	Multiple	CHICOPEE- WEST SPRINGFIELD- HIGHWAY LIGHTING UPGRADE ON I-91	2	NHPP	\$ 4,300,759	\$ 3,440,607	\$ 860,152				
								Safety Improvements subtotal ▶			\$ 10,302,146	\$ 8,841,855	\$ 1,460,291	◀ Funding Split Varies by Funding Source

Table 10: Federally Funded Projects Year 2019 (Continued)

▶ Section 2B / State Prioritized Modernization Projects											
▶ ADA Retrofits											
	ADA Retrofits		Pioneer Valley		ADA Retrofits			\$ -	\$ -	\$ -	
								ADA Retrofits subtotal ▶		\$ -	◀ 80% Federal + 20% Non-Federal
▶ Intersection Improvements											
	Intersection Improvements		Pioneer Valley		Intersection Improvements			\$ -	\$ -	\$ -	
								Intersection Improvements subtotal ▶		\$ -	◀ Funding Split Varies by Funding Source
▶ Intelligent Transportation Systems											
	Intelligent Transportation Systems		Pioneer Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
								Intelligent Transportation System subtotal ▶		\$ -	◀ 80% Federal + 20% Non-Federal
▶ Roadway Reconstruction											
	Roadway Reconstruction	608790	Pioneer Valley	Holyoke	HOLYOKE- IMPROVEMENTS AT KELLY COMMUNITY SCHOOL (SRTS)	2	TAP	\$ 1,264,935	\$ 1,011,948	\$ 252,987	
	Roadway Reconstruction	606555	Pioneer Valley	Northampton	NORTHAMPTON- ROUNDABOUT CONSTRUCTION AT INTERSECTION ROUTES 5/10 (NORTH KING STREET) & HATFIELD STREET	2	CMAQ	\$ 4,109,480	\$ 3,287,584	\$ 821,896	
								Roadway Reconstruction subtotal ▶		\$ 5,374,415	◀ Funding Split Varies by Funding Source
▶ Section 2C / State Prioritized Expansion Projects											
▶ Bicycles and Pedestrians											
	Bicycles and Pedestrians	603783	Pioneer Valley	Westfield	WESTFIELD- COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION (CENTER DOWNTOWN SECTION), FROM EAST SILVER STREET TO COWLES COURT, INCLUDES W-25,014, W-25-015, W-25-016, W-25-017, W-25-018 & W-25-019	2	CMAQ	\$ 6,532,895	\$ 5,226,316	\$ 1,306,579	Construction / PSAC score 39.5
								Bicycles and Pedestrians subtotal ▶		\$ 6,532,895	◀ 80% Federal + 20% Non-Federal
▶ Capacity											
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -	
								Capacity subtotal ▶		\$ -	◀ Funding Split Varies by Funding Source
▶ Section 3 / Planning / Adjustments / Pass-throughs											
▶ Planning / Adjustments / Pass-throughs											
			Pioneer Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
								Other Statewide Items subtotal ▶		\$ -	◀ Funding Split Varies by Funding Source

Table 10: Federally Funded Projects Year 2019 (Continued)

► Section 4 / Non-Federally Aided Projects

► Non-Federally Aided Projects

Non Federal Aid		Pioneer Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federally Aided Projects		Pioneer Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ►							\$ -		\$ -	◀ 100% Non-Federal

2019 Summary

	TIP Section 1 - 3: ▼	TIP Section 4: ▼	Total of All Projects ▼	
Total ►	\$ 64,690,176	\$ -	\$ 64,690,176	◀ Total Spending in Region
Federal Funds ►	\$ 53,583,266		\$ 53,583,266	◀ Total Federal Spending in Region
Non-Federal Funds ►	\$ 11,106,910	\$ -	\$ 11,106,910	◀ 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.

Table 14: Federally Funded Projects 2020

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction</i>
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
	Roadway Reconstruction	607773	Pioneer Valley	Westfield	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	STP	\$ 5,500,000	\$ 4,400,000	\$ 1,100,000	Construction / (YOE \$7,599,876 STP) / 48.5 TEC / 25% HSIP, TAP, STP, CMAQ
	Roadway Reconstruction	607773	Pioneer Valley	Westfield	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	CMAQ	\$ 599,876	\$ 479,901	\$ 119,975	Construction / (YOE \$7,599,876 STP) / 48.5 TEC / 25% HSIP, TAP, STP, CMAQ
	Roadway Reconstruction	607773	Pioneer Valley	Westfield	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	HSIP	\$ 1,000,000	\$ 900,000	\$ 100,000	Construction / (YOE \$7,599,876 STP) / 48.5 TEC / 25% HSIP, TAP, STP, CMAQ
	Roadway Reconstruction	607773	Pioneer Valley	Westfield	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	2	TAP	\$ 500,000	\$ 400,000	\$ 100,000	Construction / (YOE \$7,599,876 STP) / 48.5 TEC / 25% HSIP, TAP, STP, CMAQ
	Roadway Reconstruction	604434	Pioneer Valley	Chicopee	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	2	STP	\$ 5,907,953	\$ 4,726,362	\$ 1,181,591	Construction / (YOE \$7,907,953 STP) / 48.5 TEC / 25% STP, CMAQ
	Roadway Reconstruction	604434	Pioneer Valley	Chicopee	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	2	CMAQ	\$ 2,000,000	\$ 1,600,000	\$ 400,000	Construction / (YOE \$7,907,953 STP) / 48.5 TEC / 25% STP, CMAQ
	Roadway Reconstruction	608236	Pioneer Valley	Northampton	NORTHAMPTON- RECONSTRUCTION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, INCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL	2	STP	\$ 10,248,854	\$ 8,199,083	\$ 2,049,771	Construction / (YOE \$10,248,854 STP) / 66.5 TEC / 75% STP
			Pioneer Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ►								\$ 25,756,683	\$ 20,705,346	\$ 5,051,337	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis											
Total Regional Federal Aid Funds Programmed ►								\$ 25,756,683	\$ 25,782,146	◀ Total Budget	\$ 25,463 Target Funds Available
								STP programmed ►	\$ 21,656,807	\$ 17,325,446	◀ STP
								HSIP programmed ►	\$ 1,000,000	\$ 900,000	◀ HSIP
								CMAQ programmed ►	\$ 2,599,876	\$ 2,079,901	◀ CMAQ
								TAP programmed ►	\$ 500,000	\$ 400,000	◀ TAP

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; **Column C)** Enter ID from ProjectInfo; **Column E)** Choose Municipality Name from dropdown list; **Column H)** Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; **Column I)** Enter the total amount of funds being programmed in this fiscal year and for each funding source; **Column J)** Federal funds autocalculates. Please verify the amount and only change if needed for flex. **Column K)** Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex.

Table 11: Federally Funded Projects Year 2020 (Continued)

► Section 2A / State Prioritized Reliability Projects											
► Bridge Program / Inspections											
	Bridge Program		Pioneer Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System											
	Bridge Program	608631	Pioneer Valley		WESTHAMPTON- BRIDGE REPLACEMENT, W-27-005, KINGS HIGHWAY OVER N BRANCH MANHAN RIVER	2	STP-BR-OFF	\$ 3,072,000	\$ 2,457,600	\$ 614,400	
Bridge Program / Off-System subtotal ►								\$ 3,072,000	\$ 2,457,600	\$ 614,400	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
	Bridge Program	400103	Pioneer Valley		WESTFIELD- BRIDGE REPLACEMENT, W-25-006, ROUTE 10/202 (SOUTHWICK ROAD) OVER THE LITTLE RIVER	2	NHPP-On	\$ 12,732,554	\$ 10,186,043	\$ 2,546,511	
	Bridge Program	606552	Pioneer Valley		NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	2	NHPP-On	\$ 11,378,353	\$ 9,102,682	\$ 2,275,671	AC Year 1 of 5, Total Cost \$56,891,767
Bridge Program / On-System (NHS) subtotal ►								\$ 24,110,907	\$ 19,288,726	\$ 4,822,181	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
	Bridge Program		Pioneer Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
	Bridge Program		Pioneer Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
	Interstate Pavement		Pioneer Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											
	Non-Interstate Pavement	608473	Pioneer Valley	South Hadley	SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROUTE 116	2	NHPP	\$ 2,208,960	\$ 1,767,168	\$ 441,792	
	Non-Interstate Pavement	604209	Pioneer Valley	Multiple	HOLYOKE- WEST SPRINGFIELD- REHABILITATION OF ROUTE 5	2	NHPP	\$ 13,953,264	\$ 11,162,611	\$ 2,790,653	
Non-Interstate Pavement subtotal ►								\$ 16,162,224	\$ 12,929,779	\$ 3,232,445	◀ 80% Federal + 20% Non-Federal
► Roadway Improvements											
	Roadway Improvements		Pioneer Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal

Table 11: Federally Funded Projects Year 2020 (Continued)

► Safety Improvements											
	Safety Improvements	608575	Pioneer Valley	Multiple	CHICOPEE TO HOLYOKE- GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-391	2	HSIP	\$ 542,872	\$ 488,585	\$ 54,287	
Safety Improvements subtotal ►								\$ 542,872	\$ 488,585	\$ 54,287	◀ Funding Split Varies by Funding Source
► Section 2B / State Prioritized Modernization Projects											
► ADA Retrofits											
	ADA Retrofits		Pioneer Valley		ADA Retrofits			\$ -	\$ -	\$ -	
ADA Retrofits subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements		Pioneer Valley		Intersection Improvements			\$ -	\$ -	\$ -	
Intersection Improvements subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Intelligent Transportation Systems											
	Intelligent Transportation Systems		Pioneer Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
Intelligent Transportation System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Reconstruction											
	Roadway Reconstruction		Pioneer Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
Roadway Reconstruction subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2C / State Prioritized Expansion Projects											
► Bicycles and Pedestrians											
	Bicycles and Pedestrians	602911	Pioneer Valley	Chicopee	CHICOPEE- CONNECTICUT RIVERWALK & BIKEWAY CONSTRUCTION, FROM BOAT RAMP NEAR I-90 TO NASH FIELD (2.5 MILES), INCLUDES NEW BRIDGE C-13-060 OVER OVERFLOW CHANNEL	2	CMAQ	\$ 3,247,643	\$ 2,598,114	\$ 649,529	
Bicycles and Pedestrians subtotal ►								\$ 3,247,643	\$ 2,598,114	\$ 649,529	◀ 80% Federal + 20% Non-Federal
► Capacity											
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -	
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -	
Capacity subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 3 / Planning / Adjustments / Pass-throughs											
► Planning / Adjustments / Pass-throughs											
			Pioneer Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
Other Statewide Items subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 11: Federally Funded Projects Year 2020 (Continued)

▶ Section 4 / Non-Federally Aided Projects											
▶ Non-Federally Aided Projects											
	Non Federal Aid		Pioneer Valley		Non-Federal Aid			\$ -		\$ -	
	Non-Federally Aided Projects		Pioneer Valley		Non-Federal Aid			\$ -		\$ -	
Non-Federal Aid subtotal ▶								\$ -		\$ -	◀ 100% Non-Federal

2020 Summary		TIP Section 1 - TIP Section 4: Total of All		
		3: ▼	▼	Projects ▼
Total ▶	\$ 72,892,329	\$ -	\$ 72,892,329	◀ Total Spending in Region
Federal Funds ▶	\$ 58,468,150		\$ 58,468,150	◀ Total Federal Spending in Region
Non-Federal Funds ▶	\$ 14,424,179	\$ -	\$ 14,424,179	◀ 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.

Table 15: Federally Funded Projects 2021

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction</i>
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
	Intersection Improvements	608718	Pioneer Valley	Springfield	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	2	STP	\$ 1,229,021	\$ 983,217	\$ 245,804	Construction / (YOE \$2,229,021 STP) / 41.5 TEC Score / Pre 25% HSIP, STP
	Intersection Improvements	608718	Pioneer Valley	Springfield	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	2	HSIP	\$ 1,000,000	\$ 900,000	\$ 100,000	Construction / (YOE \$2,229,021 STP) / 41.5 TEC Score / Pre 25% HSIP, STP
	Intersection Improvements	608782	Pioneer Valley	Springfield	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT COTTAGE STREET, INDUSTRY AVENUE AND ROBBINS ROAD	2	CMAQ	\$ 1,944,000	\$ 1,555,200	\$ 388,800	Construction / (YOE \$1,944,000) STP) / 46.5 TEC Score / Pre 25% CMAQ
	Roadway Improvements	608084	Pioneer Valley	Amherst	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	2	STP	\$ 3,121,863	\$ 2,497,490	\$ 624,373	Construction / (YOE \$3,621,863 STP) / 53.5 TEC / 25% STP, TAP
	Roadway Improvements	608084	Pioneer Valley	Amherst	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	2	TAP	\$ 500,000	\$ 400,000	\$ 100,000	Construction / (YOE \$3,621,863 STP) / 53.5 TEC / 25% STP, TAP
	Intersection Improvements	607502	Pioneer Valley	Northampton	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	2	STP	\$ 2,655,054	\$ 2,124,043	\$ 531,011	Construction / (YOE \$3,655,054 STP, CMAQ) / 65 TEC / 25% STP, CMAQ
	Intersection Improvements	607502	Pioneer Valley	Northampton	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	2	CMAQ	\$ 1,000,000	\$ 800,000	\$ 200,000	Construction / (YOE \$3,655,054 STP, CMAQ) / 65 TEC / 25% STP, CMAQ
	Roadway Reconstruction	608577	Pioneer Valley	Easthampton	EASTHAMPTON- IMPROVEMENTS AND RELATED WORK ON UNION STREET (ROUTE 141) FROM PAYSON AVENUE TO HIGH STREET (0.36 MILES)	2	STP	\$ 2,201,643	\$ 1,761,314	\$ 440,329	Construction / (YOE \$2,201,643 STP) / 62 TEC / Pre 25% STP
	Roadway Reconstruction	605032	Pioneer Valley	Hadley	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	STP	\$ 12,652,410	\$ 10,121,928	\$ 2,530,482	Construction / (YOE \$25,805,364) A/C Year 1 of 2 FFY 2021 \$12,652,410, FFY 2022 \$13,152,954 STP / 50 TEC / 25%
Regionally Prioritized Projects subtotal ►								\$ 26,303,991	\$ 21,143,193	\$ 5,160,798	◀ 80% Federal + 20% Non-Federal

► Section 1A / Fiscal Constraint Analysis

Total Regional Federal Aid Funds Programmed ►		\$ 26,303,991	\$ 26,303,990	◀ Total Budget	\$ (1) Funds Over Programmed
STP programmed ►		\$ 21,859,991	\$ 17,487,993	◀ STP	
HSIP programmed ►		\$ 1,000,000	\$ 900,000	◀ HSIP	
CMAQ programmed ►		\$ 2,944,000	\$ 2,355,200	◀ CMAQ	
TAP programmed ►		\$ 500,000	\$ 400,000	◀ TAP	

Section 1A Instructions: MPO Template Name) Choose Regional Name from dropdown list to populate header and MPO column; **Column C)** Enter ID from ProjectInfo; **Column E)** Choose Municipality Name from dropdown list; **Column H)** Choose the Funding Source being used for the project - if multiple funding sources are being used enter multiple lines; **Column I)** Enter the total amount of funds being programmed in this fiscal year and for each funding source; **Column J)** Federal funds autocalculates. Please verify the amount and only change if needed for flex. **Column K)** Non-federal funds autocalculates. Please verify the split/match - if matching an FTA flex.

Table 12: Federally Funded Projects Year 2021 (Continued)

► Section 1B / Earmark or Discretionary Grant Funded Projects											
► Other Federal Aid											
			Pioneer Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
			Pioneer Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Section 2A / State Prioritized Reliability Projects											
► Bridge Program / Inspections											
	Bridge Program		Pioneer Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System											
	Bridge Program		Pioneer Valley		Bridge Program / Off-System			\$ -	\$ -	\$ -	
Bridge Program / Off-System subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
	Bridge Program	608460	Pioneer Valley		HADLEY- BRIDGE REPLACEMENT, H-01-005, BAY ROAD (ROUTE 47) OVER THE FORT RIVER	2	NHPP-On	\$ 5,647,995	\$ 4,518,396	\$ 1,129,599	
	Bridge Program	606552	Pioneer Valley		NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	2	NHPP-On	\$ 11,378,353	\$ 9,102,682	\$ 2,275,671	AC Year 2 of 5, Total Cost \$56,891,767
Bridge Program / On-System (NHS) subtotal ►								\$ 17,026,348	\$ 13,621,078	\$ 3,405,270	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
	Bridge Program		Pioneer Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
	Bridge Program		Pioneer Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
	Interstate Pavement		Pioneer Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											
	Non-Interstate Pavement	608487	Pioneer Valley	Westfield	WESTFIELD- RESURFACING AND RELATED WORK ON RTE 10 AND 202	2	NHPP	\$ 2,676,240	\$ 2,140,992	\$ 535,248	
	Non-Interstate Pavement	608489	Pioneer Valley	Wilbraham	WILBRAHAM- RESURFACING AND RELATED WORK ON ROUTE 20	2	NHPP	\$ 8,602,200	\$ 6,881,760	\$ 1,720,440	
Non-Interstate Pavement subtotal ►								\$ 11,278,440	\$ 9,022,752	\$ 2,255,688	◀ 80% Federal + 20% Non-Federal

Table 12: Federally Funded Projects Year 2021 (Continued)

► Roadway Improvements											
	Roadway Improvements		Pioneer Valley		Roadway Improvements			\$ -	\$ -	\$ -	
								Roadway Improvements subtotal ►		\$ -	◀ 80% Federal + 20% Non-Federal
► Safety Improvements											
	Safety Improvements		Pioneer Valley		Safety Improvements			\$ -	\$ -	\$ -	
								Safety Improvements subtotal ►		\$ -	◀ Funding Split Varies by Funding Source
► Section 2B / State Prioritized Modernization Projects											
► ADA Retrofits											
	ADA Retrofits		Pioneer Valley		ADA Retrofits			\$ -	\$ -	\$ -	
								ADA Retrofits subtotal ►		\$ -	◀ 80% Federal + 20% Non-Federal
► Intersection Improvements											
	Intersection Improvements	606450	Pioneer Valley	Holyoke	HOLYOKE- TRAFFIC SIGNAL UPGRADES AT 15 INTERSECTIONS ALONG HIGH & MAPLE STREETS	2	CMAQ	\$ 4,450,000	\$ 3,560,000	\$ 890,000	
								Intersection Improvements subtotal ►		\$ 4,450,000	◀ Funding Split Varies by Funding Source
► Intelligent Transportation Systems											
	Intelligent Transportation Systems		Pioneer Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
								Intelligent Transportation System subtotal ►		\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Reconstruction											
	Roadway Reconstruction		Pioneer Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
								Roadway Reconstruction subtotal ►		\$ -	◀ Funding Split Varies by Funding Source
► Section 2C / State Prioritized Expansion Projects											
► Bicycles and Pedestrians											
	Bicycles and Pedestrians	608157	Pioneer Valley	Springfield	SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)	2	CMAQ	\$ 3,694,624	\$ 2,955,699	\$ 738,925	
								Bicycles and Pedestrians subtotal ►		\$ 3,694,624	◀ 80% Federal + 20% Non-Federal
► Capacity											
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -	
								Capacity subtotal ►		\$ -	◀ Funding Split Varies by Funding Source

Table 12: Federally Funded Projects Year 2021 (Continued)

▶ Section 3 / Planning / Adjustments / Pass-throughs									
▶ Planning / Adjustments / Pass-throughs									
		Pioneer Valley		ABP GANS Repayment	Multiple	\$ -	\$ -	\$ -	
					Other Statewide Items subtotal ▶	\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 4 / Non-Federally Aided Projects									
▶ Non-Federally Aided Projects									
	Non Federal Aid	Pioneer Valley		Non-Federal Aid		\$ -		\$ -	
					Non-Federal Aid subtotal ▶	\$ -		\$ -	◀ 100% Non-Federal
2021 Summary						TIP Section 1 - TIP Section 4: Total of All Projects ▼			
					Total ▶	\$ 62,753,403	\$ -	\$ 62,753,403	◀ Total Spending in Region
					Federal Funds ▶	\$ 50,302,722		\$ 50,302,722	◀ Total Federal Spending in Region
					Non-Federal Funds ▶	\$ 12,450,681	\$ -	\$ 12,450,681	◀ 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.

Table 16: Federally Funded Projects Year 2022

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction</i>
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
	Roadway Reconstruction	608374	Pioneer Valley	West Springfield	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	STP	\$ 7,390,199	\$ 5,912,159	\$ 1,478,040	Construction / (YOE \$19,797,253) AC Year 1 of 2 FFY2022 \$7,390,199 FFY2023 \$12,407,054 / 66.5 TEC / 25% / STP
	Intersection Improvements	606895	Pioneer Valley	Granby	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	2	STP	\$ 1,866,866	\$ 1,493,493	\$ 373,373	Construction / (YOE \$2,866,866) STP) / 42 TEC / 25% STP, HSIP
	Intersection Improvements	606895	Pioneer Valley	Granby	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	2	HSIP	\$ 1,000,000	\$ 900,000	\$ 100,000	Construction / (YOE \$2,866,866) STP) / 42 TEC / 25% STP, HSIP
	Intersection Improvements	606156	Pioneer Valley	Holyoke	HOLYOKE- RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	2	STP	\$ 3,429,583	\$ 2,743,666	\$ 685,917	Construction / (YOE \$3,429,583 STP) / 47 TEC / Pre 25%
	Roadway Reconstruction	605032	Pioneer Valley	Hadley	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	STP	\$ 10,652,954	\$ 8,522,363	\$ 2,130,591	Construction / (YOE \$25,805,364) AC Year 2 of 2 FFY2021 \$12,652,410, FFY 2022 \$13,152,954 / 50 TEC / 25% STP, CMAQ, TAP
	Roadway Reconstruction	605032	Pioneer Valley	Hadley	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	TAP	\$ 500,000	\$ 400,000	\$ 100,000	Construction / (YOE \$25,805,364) AC Year 2 of 2 FFY2021 \$12,652,410, FFY 2022 \$13,152,954 / 50 TEC / 25% STP, CMAQ, TAP
	Roadway Reconstruction	605032	Pioneer Valley	Hadley	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	2	CMAQ	\$ 2,000,000	\$ 1,600,000	\$ 400,000	Construction / (YOE \$25,805,364) AC Year 2 of 2 FFY2021 \$12,652,410, FFY 2022 \$13,152,954 / 50 TEC / 25% STP, CMAQ, TAP
			Pioneer Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ►								\$ 26,839,602	\$ 21,571,682	\$ 5,267,920	◀ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis											
Total Regional Federal Aid Funds Programmed ►								\$ 26,839,602	\$ 26,839,603	◀ Total Budget	\$ 1 Target Funds Available
STP programmed ►								\$ 23,339,602	\$ 18,671,682	◀ STP	
HSIP programmed ►								\$ 1,000,000	\$ 900,000	◀ HSIP	
CMAQ programmed ►								\$ 2,000,000	\$ 1,600,000	◀ CMAQ	
TAP programmed ►								\$ 500,000	\$ 400,000	◀ TAP	
► Section 1B / Earmark or Discretionary Grant Funded Projects											
► Other Federal Aid											
			Pioneer Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 13: Federally Funded Projects Year 2022 (Continued)

► Section 2A / State Prioritized Reliability Projects										
► Bridge Program / Inspections										
Bridge Program		Pioneer Valley		Bridge Inspection			\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System										
Bridge Program	608846	Pioneer Valley		MONSON- BRIDGE REPLACEMENT, M-27-015, OLD WALES ROAD OVER CONANT BROOK	2	STP-BR-OFF	\$ 1,742,784	\$ 1,394,227	\$ 348,557	
Bridge Program	608869	Pioneer Valley		NORTHAMPTON- BRIDGE REPLACEMENT, N-19-068, OLD SPRINGFIELD ROAD OVER THE MILL RIVER	2	STP-BR-OFF	\$ 3,981,000	\$ 3,184,800	\$ 796,200	
Bridge Program	608847	Pioneer Valley		WALES- BRIDGE REPLACEMENT, W-02-002, HOLLAND ROAD OVER WALES BROOK	2	STP-BR-OFF	\$ 540,096	\$ 432,077	\$ 108,019	
Bridge Program / Off-System subtotal ►							\$ 540,096	\$ 432,077	\$ 108,019	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)										
Bridge Program	606552	Pioneer Valley		NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	1	NHPP-On	\$ 11,378,353	\$ 9,102,682	\$ 2,275,671	AC Year 3 of 5, Total Cost \$56,891,767
Bridge Program / On-System (NHS) subtotal ►							\$ 11,378,353	\$ 9,102,682	\$ 2,275,671	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)										
Bridge Program		Pioneer Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -	
Bridge Program / On-System (Non-NHS) subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance										
Bridge Program		Pioneer Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -	
Bridge Program / Systematic Maintenance subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement										
Interstate Pavement		Pioneer Valley		Interstate Pavement			\$ -	\$ -	\$ -	
Interstate Pavement subtotal ►							\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement										
Non-Interstate Pavement	608466	Pioneer Valley	Multiple	BELCHERTOWN- GRANBY- RESURFACING AND RELATED WORK ON ROUTE 202	2	NHPP	\$ 4,163,040	\$ 3,330,432	\$ 832,608	
Non-Interstate Pavement subtotal ►							\$ 4,163,040	\$ 3,330,432	\$ 832,608	◀ 80% Federal + 20% Non-Federal
► Roadway Improvements										
Roadway Improvements		Pioneer Valley		Roadway Improvements			\$ -	\$ -	\$ -	
Roadway Improvements subtotal ►							\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Safety Improvements										
Safety Improvements		Pioneer Valley		Safety Improvements			\$ -	\$ -	\$ -	
Safety Improvements subtotal ►							\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 13: Federally Funded Projects Year 2022 (Continued)

▶ Section 2B / State Prioritized Modernization Projects														
▶ ADA Retrofits														
	ADA Retrofits		Pioneer Valley		ADA Retrofits			\$ -	\$ -	\$ -				
								ADA Retrofits subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Intersection Improvements														
	Intersection Improvements	608560	Pioneer Valley	Springfield	SPRINGFIELD- IMPROVEMENTS ON ST JAMES AVENUE AT TAPLEY STREET	2	HSIP	\$ 2,688,000	\$ 2,419,200	\$ 268,800				
	Intersection Improvements	608565	Pioneer Valley	Springfield	SPRINGFIELD- IMPROVEMENTS ON ST JAMES AVENUE AT ST JAMES BOULEVARD AND CAREW STREET AT TAPLEY STREET	2	HSIP	\$ 2,784,000	\$ 2,505,600	\$ 278,400				
								Intersection Improvements subtotal ▶			\$ 5,472,000	\$ 4,924,800	\$ 547,200	◀ Funding Split Varies by Funding Source
▶ Intelligent Transportation Systems														
	Intelligent Transportation Systems		Pioneer Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -				
								Intelligent Transportation System subtotal ▶			\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
▶ Roadway Reconstruction														
	Roadway Reconstruction		Pioneer Valley		Roadway Reconstruction			\$ -	\$ -	\$ -				
								Roadway Reconstruction subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 2C / State Prioritized Expansion Projects														
▶ Bicycles and Pedestrians														
	Bicycles and Pedestrians	602912	Pioneer Valley	Chicopee	CHICOPEE- CHICOPEE RIVER RIVERWALK MULTI-USE PATH CONSTRUCTION, FROM GRAPE STREET TO FRONT STREET (NEAR ELLERTON STREET) (1 MILE)	2	CMAQ	\$ 2,273,911	\$ 1,819,129	\$ 454,782				
								Bicycles and Pedestrians subtotal ▶			\$ 2,273,911	\$ 1,819,129	\$ 454,782	◀ 80% Federal + 20% Non-Federal
▶ Capacity														
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -				
								Capacity subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 3 / Planning / Adjustments / Pass-throughs														
▶ Planning / Adjustments / Pass-throughs														
			Pioneer Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -				
								Other Statewide Items subtotal ▶			\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
▶ Section 4 / Non-Federally Aided Projects														
▶ Non-Federally Aided Projects														
	Non Federal Aid		Pioneer Valley		Non-Federal Aid			\$ -	\$ -	\$ -				
								Non-Federal Aid subtotal ▶			\$ -	\$ -	\$ -	◀ 100% Non-Federal
2022 Summary														
								TIP Section 1 - TIP Section 4: Total of All Projects ▼						
								3: ▼						
								Total ▶			\$ 50,667,002	\$ -	\$ 50,667,002	◀ Total Spending in Region
								Federal Funds ▶			\$ 41,180,802	\$ -	\$ 41,180,802	◀ Total Federal Spending in Region
								Non-Federal Funds ▶			\$ 9,486,200	\$ -	\$ 9,486,200	◀ 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.

Table 17: Federally Funded Projects Year 2023

Amendment / Adjustment Type ▼	STIP Program ▼	MassDOT Project ID ▼	Metropolitan Planning Organization ▼	Municipality Name ▼	MassDOT Project Description ▼	MassDOT District ▼	Funding Source ▼	Total Programmed Funds ▼	Federal Funds ▼	Non-Federal Funds ▼	Additional Information ▼ <i>Present information as follows, if applicable: a) Planning / Design / or Construction; b) total project cost and funding sources used; c) advance construction</i>
► Section 1A / Regionally Prioritized Projects											
► Regionally Prioritized Projects											
	Roadway Reconstruction	608374	Pioneer Valley	West Springfield	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	STP	\$ 8,907,054	\$ 7,125,643	\$ 1,781,411	Construction / (YOE \$19,797,253) AC Year 2 of 2 FFY 2022 \$7,390,199 FFY2023 \$12,407,054 / 66.5 TEC / 25% / STP
	Roadway Reconstruction	608374	Pioneer Valley	West Springfield	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	CMAQ	\$ 2,000,000	\$ 1,600,000	\$ 400,000	Construction / (YOE \$19,797,253) AC Year 2 of 2 FFY 2022 \$7,390,199 FFY2023 \$12,407,054 / 66.5 TEC / 25% / STP
	Roadway Reconstruction	608374	Pioneer Valley	West Springfield	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	TAP	\$ 500,000	\$ 400,000	\$ 100,000	Construction / (YOE \$19,797,253) AC Year 2 of 2 FFY 2022 \$7,390,199 FFY2023 \$12,407,054 / 66.5 TEC / 25% / STP
	Roadway Reconstruction	608374	Pioneer Valley	West Springfield	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	2	HSIP	\$ 1,000,000	\$ 900,000	\$ 100,000	Construction / (YOE \$19,797,253) AC Year 2 of 2 FFY 2022 \$7,390,199 FFY2023 \$12,407,054 / 66.5 TEC / 25% / STP
	Roadway Reconstruction	PV0002	Pioneer Valley	Worthington	WORTHINGTON- RECONSTRUCTION & RELATED WORK ON ROUTE 143 (PHASE II)	1	STP	\$ 8,584,000	\$ 6,867,200	\$ 1,716,800	Construction / (YOE \$8,584,000) STP / 41.5 TEC / 75% Project Phase I funded in FFY 2019 Total
	Roadway Reconstruction	608881	Pioneer Valley	Longmeadow	LONGMEADOW- SPRINGFIELD- RESURFACING AND INTERSECTION IMPROVEMENTS ON LONGMEADOW STREET (ROUTE 5) AND CONVERSE STREET (0.84 MILES)	2	STP	\$ 6,064,675	\$ 4,851,740	\$ 1,212,935	Construction (YOE \$6,064,675 / 54.5 TEC / Pre 25%
			Pioneer Valley					\$ -	\$ -	\$ -	
Regionally Prioritized Projects subtotal ►								\$ 27,055,729	\$ 21,744,583	\$ 5,311,146	◀ 80% Federal + 20% Non-Federal
► Section 1A / Fiscal Constraint Analysis											
Total Regional Federal Aid Funds Programmed ►								\$ 27,055,729	\$ 27,425,802	◀ Total Budget	\$ 370,073 Target Funds Available
STP programmed ►								\$ 23,555,729	\$ 18,844,583	◀ STP	
HSIP programmed ►								\$ 1,000,000	\$ 900,000	◀ HSIP	
CMAQ programmed ►								\$ 2,000,000	\$ 1,600,000	◀ CMAQ	
TAP programmed ►								\$ 500,000	\$ 400,000	◀ TAP	
► Section 1B / Earmark or Discretionary Grant Funded Projects											
► Other Federal Aid											
			Pioneer Valley		Other Federal Aid		HPP	\$ -	\$ -	\$ -	
Other Federal Aid subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 14: Federally Funded Projects Year 2023 (Continued)

► Section 2A / State Prioritized Reliability Projects											
► Bridge Program / Inspections											
Bridge Program		Pioneer Valley		Bridge Inspection				\$ -	\$ -	\$ -	
Bridge Program / Inspections subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Bridge Program / Off-System											
Bridge Program	609120	Pioneer Valley	Ludlow	LUDLOW- BRIDGE REPLACEMENT, L-16-026, PINEY LANE OVER BROAD BROOK	2	STP-BR-OFF	\$ 598,560	\$ 478,848	\$ 119,712		
Bridge Program / Off-System subtotal ►								\$ 598,560	\$ 478,848	\$ 119,712	◀ 80% Federal + 20% Non-Federal
► Bridge Program / On-System (NHS)											
Bridge Program	608848	Pioneer Valley	Springfield	SPRINGFIELD- BRIDGE REPLACEMENT, S-24-016, ARMORY STREET OVER CSX MAINLINE	2	NHPP-On	\$ 5,723,440	\$ 4,578,752	\$ 1,144,688		
Bridge Program	608853	Pioneer Valley	Springfield	SPRINGFIELD- BRIDGE REPLACEMENT, S-24-026, ARMORY STREET OVER CSX	2	NHPP-On	\$ 3,948,640	\$ 3,158,912	\$ 789,728		
Bridge Program	606552	Pioneer Valley	Northampton	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	2	NHPP-On	\$ 11,378,353	\$ 9,102,682	\$ 2,275,671	AC Year 4 of 5, Total Cost \$56,891,767	
Bridge Program / On-System (NHS) subtotal ►								\$ 21,050,433	\$ 16,840,346	\$ 4,210,087	◀ Funding Split Varies by Funding Source
► Bridge Program / On-System (Non-NHS)											
Bridge Program		Pioneer Valley		Bridge Program / On-System (Non-NHS)			\$ -	\$ -	\$ -		
Bridge Program / On-System (Non-NHS) subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Bridge Program / Systematic Maintenance											
Bridge Program		Pioneer Valley		Bridge Program / Systematic Maintenance			\$ -	\$ -	\$ -		
Bridge Program / Systematic Maintenance subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source
► Interstate Pavement											
Interstate Pavement		Pioneer Valley		Interstate Pavement			\$ -	\$ -	\$ -		
Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◀ 90% Federal + 10% Non-Federal
► Non-Interstate Pavement											
Non-Interstate Pavement		Pioneer Valley		Non-Interstate Pavement			\$ -	\$ -	\$ -		
Non-Interstate Pavement subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Roadway Improvements											
Roadway Improvements		Pioneer Valley		Roadway Improvements			\$ -	\$ -	\$ -		
Roadway Improvements subtotal ►								\$ -	\$ -	\$ -	◀ 80% Federal + 20% Non-Federal
► Safety Improvements											
Safety Improvements		Pioneer Valley		Safety Improvements			\$ -	\$ -	\$ -		
Safety Improvements subtotal ►								\$ -	\$ -	\$ -	◀ Funding Split Varies by Funding Source

Table 14: Federally Funded Projects Year 2023 (Continued)

▶ Section 2B / State Prioritized Modernization Projects											
▶ ADA Retrofits											
	ADA Retrofits		Pioneer Valley		ADA Retrofits			\$ -	\$ -	\$ -	
								ADA Retrofits subtotal ▶		◀ 80% Federal + 20% Non-Federal	
▶ Intersection Improvements											
	Intersection Improvements		Pioneer Valley		Intersection Improvements			\$ -	\$ -	\$ -	
								Intersection Improvements subtotal ▶		◀ Funding Split Varies by Funding Source	
▶ Intelligent Transportation Systems											
	Intelligent Transportation Systems		Pioneer Valley		Intelligent Transportation Systems			\$ -	\$ -	\$ -	
								Intelligent Transportation System subtotal ▶		◀ 80% Federal + 20% Non-Federal	
▶ Roadway Reconstruction											
	Roadway Reconstruction		Pioneer Valley		Roadway Reconstruction			\$ -	\$ -	\$ -	
								Roadway Reconstruction subtotal ▶		◀ Funding Split Varies by Funding Source	
▶ Section 2C / State Prioritized Expansion Projects											
▶ Bicycles and Pedestrians											
	Bicycles and Pedestrians	607823	Pioneer Valley	Southampton	SOUTHAMPTON- GREENWAY RAIL TRAIL CONSTRUCTION, FROM COLEMAN ROAD TO ROUTE 10 (3.5 MILES)	2	CMAQ	\$ 7,053,638	\$ 5,642,910	\$ 1,410,728	
								Bicycles and Pedestrians subtotal ▶		◀ 80% Federal + 20% Non-Federal	
▶ Capacity											
	Capacity		Pioneer Valley		Capacity			\$ -	\$ -	\$ -	
								Capacity subtotal ▶		◀ Funding Split Varies by Funding Source	
▶ Section 3 / Planning / Adjustments / Pass-throughs											
▶ Planning / Adjustments / Pass-throughs											
			Pioneer Valley		ABP GANS Repayment	Multiple		\$ -	\$ -	\$ -	
								Other Statewide Items subtotal ▶		◀ Funding Split Varies by Funding Source	
▶ Section 4 / Non-Federally Aided Projects											
▶ Non-Federally Aided Projects											
	Non Federal Aid		Pioneer Valley		Non-Federal Aid			\$ -	\$ -	\$ -	
								Non-Federal Aid subtotal ▶		◀ 100% Non-Federal	
2023 Summary								TIP Section 1 - TIP Section 4: Total of All Projects ▼			
Total ▶								\$ 55,758,360	\$ -	\$ 55,758,360	◀ Total Spending in Region
Federal Funds ▶								\$ 44,706,688	\$ -	\$ 44,706,688	◀ Total Federal Spending in Region
Non-Federal Funds ▶								\$ 11,051,672	\$ -	\$ 11,051,672	◀ 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.

Table 18: Universe of Projects and TEC Scores

Community	SID	Project Name and Description	Design	TEC Score	Estimated Cost
Agawam	600513	RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	25	27.0	\$2,239,065
Agawam	603372	RECONSTRUCTION ON ROUTE 5 CONNECTOR TO ROUTE 57, INCLUDES A-05-013 & A-05-014	0	53.0	\$11,670,939
Agawam	607316	RECONSTRUCTION OF ROUTE 187, FROM SOUTHWICK/SPRINGFIELD STREET TO ALLISON LANE (1.29 MILES - PHASE II)	0	33.8	\$5,562,610
Agawam	607317	AGAWAM- RECONSTRUCTION OF ROUTE 187, FROM ALLISON LANE TO THE WESTFIELD CITY LINE (1.69 MILES - PHASE III)	0	33.8	\$7,589,668
Amherst	608084	AMHERST - IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	25	53.5	\$3,353,577
Amherst / Belchertown	608719	AMHERST- BELCHERTOWN- NORWOTTUCK RAIL TRAIL RESURFACING, FROM STATION ROAD IN AMHERST TO WARREN WRIGHT ROAD IN BELCHERTOWN (1.5 MILES)	0	12.0	\$1,083,220.00
Belchertown	608412	BELCHERTOWN- IMPROVEMENTS & RELATED WORK ON ROUTES 202 & 21, FROM TURKEY HILL ROAD TO SOUTH MAIN STREET (1.2 MILES)	25	59.0	\$4,738,044
Belchertown / Granby	608466	BELCHERTOWN- GRANBY- RESURFACING AND RELATED WORK ON ROUTE 202	0	17	\$4,491,288.00
Chesterfield	608886	RECONSTRUCTION OF NORTH ROAD AND DAMON POND ROAD	0	10	\$4,441,000.00
Chicopee	602911	CONNECTICUT RIVERWALK & BIKEWAY CONSTRUCTION, FROM BOAT RAMP NEAR I-90 TO NASH FIELD (2.5 MILES) INCL NEW BRIDGE OVER OVERFLOW CHANNEL	75	27 (4.85)	\$3,122,734
Chicopee	602912	CHICOPEE RIVER RIVERWALK MULTI-USE PATH CONSTRUCTION, FROM GRAPE STREET TO FRONT STREET (NEAR ELLERTON STREET) (1 MILE)	25	21.5	\$4,000,000
Chicopee	604434	RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	25	48.5	\$7,603,801
Chicopee	606892	SLOPE PROTECTION IMPROVEMENTS AT I-391 BRIDGE OVER THE CONNECTICUT RIVER	0	7.0	\$282,622.00
Chicopee	607736	CHICOPEE- SIGNAL & INTERSECTION IMPROVEMENTS AT 13 INTERSECTIONS ALONG ROUTE 33 (MEMORIAL DRIVE), FROM FULLER ROAD TO ABBEY STREET	25	41.5	\$5,800,000
Chicopee		CHICOPEE - INTERSECTION RECONSTRUCTION, MONTGOVERY ROAD AT GRANBY ROAD AND MCKINSTRY AVENUE, AND MONTGOMERY ROAD AT TURNPIKE ACCESS ROAD	NA		\$6,000,000
Cumington	606797	Route 9 Retaining Wall	0	8.0	\$1,660,000
Easthampton	608577	EASTHAMPTON- IMPROVEMENTS AND RELATED WORK ON UNION STREET (ROUTE 141) FROM PAYSON AVENUE TO HIGH STREET (0.36 MILES)	0	62.0	\$2,037,200.00
Easthampton/ Southampton	608423	IMPROVEMENTS AND RELATED WORK ON TWO SECTIONS OF ROUTE 10 IN EASTHAMPTON AND SOUTHAMPTON	0	28.5	\$2,799,540
Goshen	602888	Route 9 reconstruction	0	25.0	\$7,500,000
Granby	606895	Route 202 Intersection Improvements 2 Locations @ 5 Corners and @ School Street	25	42.0	\$1,749,527
Granby / South Hadley	607474	GRANBY- SOUTH HADLEY- RESURFACING & RELATED WORK ON ROUTE 202, FROM LYMAN STREET SOUTH HADLEY TO PLEASANT STREET GRANBY (2 MILES)	25	22.0	\$5,751,651
Granville	608736	GRANVILLE- RECONSTRUCTION OF ROUTE 57	0	29.0	\$7,000,000

Table 15: Universe of Projects

Hadley	605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	25	50.0	\$20,006,920
Hadley	606547	PEDESTRIAN SIGNAL INSTALLATION AT 2 LOCATIONS ALONG ROUTE 9 NEAR WEST ST	0	14.5	\$134,600
Hadley	607886	RESURFACING AND RELATED WORK ON ROUTE 47 FROM COMINS DRIVE TO OLD RIVER DRIVE, INCLUDES CULVERT REPLACEMENT AT RUSSELVILLE BROOK	0	16 (2.88)	\$2,100,000
Hadley	608089	INTERSECTION, BICYCLE AND PEDESTRIAN IMPROVEMENTS @ ROUTES 9, 116 & WESTGATE CENTER DRIVE	0	25.5	\$1,544,720
Hatfield	608553	HATFIELD- RESURFACING AND RELATED WORK ON ROUTES 5 & 10, FROM 350 FEET NORTH OF CHURCH AVE TO THE WHATELY TOWN LINE (3.2 MILES)	0	6.5	\$3,124,760.40
Holland	608727	HOLLAND- RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM WALES ROAD TO STURBRIDGE STREET (0.9 MILES - PHASE II)	0	27.5	\$1,051,476
Holyoke	606156	RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	0	47.0	\$2,990,728
Holyoke	606450	TRAFFIC SIGNAL UPGRADES AT 15 INTERSECTIONS ALONG HIGH & MAPLE STREETS	25	45.5	\$4,234,543
Holyoke /West Springfield	604209	REHABILITATION OF ROUTE 5 (RIVERDALE ROAD), FROM I-91 (INTERCHANGE 13) TO MAIN STREET IN HOLYOKE & FROM ELM STREET TO NORTH ELM STREET IN WEST SPRINGFIELD (3.2 MILES)	25	49.0	\$9,619,997
Longmeadow	607430	RESURFACING & RELATED WORK ON LONGMEADOW STREET (ROUTE 5), FROM THE CT S.L. TO CONVERSE STREET (2.88 MILES)	25	44.5	\$2,394,860
Longmeadow / Springfield	606469	RETAINING WALL REPLACEMENT/REHABILITATION ON I-91 (SB)	0		\$6,143,750
Longmeadow / Springfield	608881	RESURFACING AND INTERSECTION IMPROVEMENTS ON LONGMEADOW STREET (ROUTE 5) AND CONVERSE STREET (0.84 MILES)	0	54.5	\$5,228,167.90
Northampton	605048	IMPROVEMENTS ON ROUTE 5 (MOUNT TOM ROAD) - FROM BRIDGE E-5-4 OVER THE MANHAN RIVER TO 850' SOUTH OF I-91 NB EXIT 18 RAMP (0.85 MILES)	0	40.0	\$1,200,112
Northampton	606555	NORTHAMPTON- ROUNDABOUT CONSTRUCTION AT INTERSECTION ROUTES 5/10 (NORTH KING STREET) & HATFIELD STREET	25	55.0	\$4,612,652
Northampton	607502	INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	25	65.0	\$3,305,959
Northampton	607893	NORTHAMPTON- INTERSECTION IMPROVEMENTS @ ELM STREET, MAIN STREET, WEST STREET, STATE STREET & NEW SOUTH STREET	0	68.0	\$2,000,000
Northampton	608236	NORTHAMPTON- RECONSTRUCTION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, IONSTRUNCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL (old#180525)	75	66.5	\$9,854,667
Northampton	608413	NORTHAMPTON- ROCKY HILL GREENWAY MULTI-USE TRAIL, FROM THE MANHAN RAIL TRAIL TO ROCKY HILL ROAD (0.4 MILES)	25	32.0	\$621,050
Northampton	608729	NORTHAMPTON- IMPROVEMENTS AND RELATED WORK ON MAIN STREET (ROUTE 9) FROM MASONIC STREET TO MARKET/HAWLET STREET (0.33 MILES)	0	74.0	\$5,354,523.20

Table 15: Universe of Projects

Palmer	601504	RECONSTRUCTION OF ROUTE 32, FROM 765 FT. SOUTH OF STIMSON STREET TO 1/2 MILES SOUTH OF RIVER STREET (PHASE I) (1.63 MILES) (TFPC \$6,134,080) HPP Eamark \$2,500,000	0	18.0	\$3,570,304
Palmer	607372	PALMER- RECONSTRUCTION OF ROUTE 32, FROM 1/2 MILE SOUTH OF RIVER STREET TO THE WARE T.L. (PHASE II) (2.1 MILES)	0	14.0	\$8,476,770
Russell	608945	RUSSELL- RESURFACING & RELATED WORK ON ROUTE 20	0	14.0	\$6,500,000
South Hadley	608473	SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROUTE 116	0	26.0	\$2,338,560.00
South Hadley	608785	MAIN STREET ROAD IMPROVEMENT PROJECT	0	38.5	\$3,089,720
Southampton	604653	REHABILITATION OF EAST STREET - FROM COLLEGE HIGHWAY EASTERLY TO COUNTY ROAD (2.6 MILES)	25	31.5	\$5,022,200
Southampton	607823	GREENWAY RAIL TRAIL CONSTRUCTION, FROM COLEMAN RD TO ROUTE 10 (3.5 MILES)	0	19.5	\$6,080,722
Southwick	604155	RESURFACING & RELATED WORK ON ROUTE 10/202, COLLEGE HIGHWAY (NORTHERLY SECTION) FROM THE WESTFIELD/SOUTHWICK T.L. TO TANNERY ROAD (1.4 MILES)	0	18.5	\$3,600,000
Southwick	606141	RECONSTRUCTION OF FEEDING HILLS ROAD (ROUTE 57), FROM COLLEGE HIGHWAY TO THE AGAWAM T.L.	0	42.5	\$4,080,000
Springfield	608157	SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)	0	36.5	\$4,300,000
Springfield	608411	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	25	49.5	\$1,886,880
Springfield	608717	SPRINGFIELD- RECONSTRUCTION OF SUMNER AVENUE AT DICKINSON STREET AND BELMONT AVENUE (THE "X")	0	70.5	\$8,055,000.00
Springfield	608718	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	0	41.5	\$2,063,908.40
Springfield	608782	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT COTTAGE STREET, ROBBINS ROAD AND INDUSTRY AVE	0	46.5	\$1,800,000
Wales	605669	PEDESTRIAN ACCESS IMPROVEMENTS & RELATED WORK ON ROUTE 19	0	9.0	\$312,500
Wales	608163	WALES- RECONSTRUCTION & IMPROVEMENTS ON MONSON ROAD, FROM THE MONSON T.L. TO REED HILL ROAD (1.5 MILES)	25	39.5	\$4,118,974
Ware	607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	75	55.0	\$2,475,087
West Springfield	604746	BRIDGE REPLACEMENT, W-21-006, CSX RAILROAD OVER UNION STREET	0	21.0	\$12,403,054
West Springfield	608374	RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	25	69.5	\$19,573,000
Westfield	603783	WESTFIELD- COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION (CENTER DOWNTOWN SECTION)	75	36.5 (6.58)	\$6,250,000
Westfield	604445	RECONSTRUCTION ON ROUTE 187, INCLUDES REPLACEMENT OF W-25-002, SHERMAN'S MILL BRIDGE OVER GREAT BROOK AT PONTOOSIC ROAD			\$6,250,000
Westfield	607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II) Eastern Section	25	48.5	\$6,047,573

Westfield	608073	WESTFIELD RIVER LEVEE MULTI-USE PATH CONSTRUCTION, FROM CONGRESS ST TO WILLIAMS RIDING WAY (NEAR MEADOW ST) (2MILES)	0	36	\$4,801,730
Westfield	608487	WESTFIELD- RESURFACING AND RELATED WORK ON ROUTE 10 AND 202	0	29	\$2,760,000
Wilbraham	608489	WILBRAHAM- RESURFACING AND RELATED WORK ON ROUTE 20	0	36.0	\$9,441,500
Williamsburg	607231	Reconstruction of High Street and Mountain Street	0	18.0	\$3,600,000
Williamsburg	608787	CONSTRUCTION OF THE "MILL RIVER GREENWAY" SHARED USE PATH	0	29.0	\$14,400,000
Worthington	606912	Route 143 Reconstruction and Related Work	75	41.5	\$16,300,000
Total Estimated project Cost (69 Projects)					\$355,597,454

Projects listed in appendix Z are shown for informational purposes and are not programmed in the TIP. If additional funds become available projects from this list could be added if the selected project would be ready for advertisement in that program year

Table 16: High Priority Project (HPP) Funding

Project Description	City/Town	Project ID	Funding	Fed. Funds	State Funds	Total	Notes
Route 20 Access Improvements on Court Street & Western Avenue This reconstruction project on city-owned streets begins at Court Street at the intersection of Mill and High Street, and runs 0.2 miles westerly to Western Avenue, then westerly 2.25 miles to the intersection of Bates Road. The project will include traffic signal installation at Lloyd's Hill and an upgrade at Mill and High Streets	Westfield	603449	HPP-4287	\$2,002,950	\$500,738	\$2,503,688	
	Palmer	601504	HPP-4287	\$2,303,744	\$575,936	\$2,879,680	#602844 was advertised on 9/30/06; #604443 was advertised on 8/8/09
Route 32 Ware Road Reconstruction (\$22,854,850)		602844;					#604451 was advertised on 9/1/2007
		604443;					#604447 was advertised on 9/22/07
Design and construction of Southwick and Westfield Rail Trail	Southwick/Westfield	603783	HPP-1656	\$1,857,506	\$464,377	\$46,779	
	Northampton	604451	HPP-158	\$302,865	\$75,716	\$378,581	
*Construct Access roads to Hospital Hill (\$1,652,818)	Springfield	604447	HPP-217	\$899,056	\$224,764	\$1,123,820	
*State St. Corridor Redevelopment Project (\$18,052,897)	East Longmeadow	602338	HPP-578	\$224,764	\$56,191	\$280,955	#602338 was advertised on 12/6/2008
*Design and construct 1.5 mile Red Stone Rail Trail(\$1,112,074)	Springfield	604822	HPP-836	\$149,843	\$37,461	\$187,304	#604822 was advertised on 9/8/2007
*Intersection improvements Memorial Park II - Roosevelt Ave. (\$2,310,853)	Northampton	604597	HPP-847	\$224,764	\$56,191	\$280,955	
Design north and southbound ramps on I-91 at Exit 19 (\$15,000,000)	Hadley	124913	HPP - 862	\$83,828	\$20,957	\$104,785	#124913 was advertised on 9/30/2000
Upgrade Route 9 - Calvin Coolidge bridge (1998) (\$31,840,515)							
Total Project Cost							
Earmarks located in Appendix Z will remain un-programmed until full project funding is available				\$8,049,320	\$2,012,330	\$10,061,650	

V. Transit Project Listing for FFY 2019 - 2023

The following is a complete listing of programmed transit projects for FFY 2019 - 2023

Table 16: FFY 2019 Transit Project Information

FTA Program	Project Number	Transit Agency	FTA Activity		Carryover					
			Line Item	Project Description	(unobliga	Federal Funds	State Funds	TDC	Local Funds	Total Cost
5307										
	5307 RTD0006918	Pioneer Valley Transit Authority	119302	Purchase Bus Shelters, benches, trash receptacles,etc.		\$80,000	\$20,000	\$0	\$0	\$100,000
	5307 RTD0006919	Pioneer Valley Transit Authority	119308	Purchase & Replace signage and lighting		\$12,000	\$3,000	\$0	\$0	\$15,000
	5307 RTD0006920	Pioneer Valley Transit Authority	114220	ACQUIRE - MISC SUPPORT EQUIPMENT		\$8,000	\$2,000	\$0	\$0	\$10,000
	5307 RTD0006921	Pioneer Valley Transit Authority	442400	Transportation Planning		\$188,000	\$47,000	\$0	\$0	\$235,000
	5307 RTD0006922	Pioneer Valley Transit Authority	117C00	ADA Service subsidy		\$1,250,014	\$312,504	\$0	\$0	\$1,562,518
	5307 RTD0006923	Pioneer Valley Transit Authority	117A00	Preventive Maintenance		\$5,261,986	\$1,315,496	\$0	\$0	\$6,577,482
	5307 RTD0006933	Pioneer Valley Transit Authority	116220	Information Technology Systems		\$1,417,799	\$354,450	\$0	\$0	\$1,772,249
	5307 RTD0006956	Pioneer Valley Transit Authority	114302	Cottage Street Design and Construction Administration, Year 3		\$2,000,000	\$0	\$500,000	\$0	\$2,000,000
	5307 RTD0006917	Pioneer Valley Transit Authority	114402	REHAB/RENOVATE - Environmental Compliance		\$60,000	\$90,000	\$0	\$0	\$150,000
	5307 RTD0006952	Pioneer Valley Transit Authority	114302	Retrofit SATCO facility to paratransit		\$251,912	\$398,088	\$0	\$0	\$650,000
					Subtotal	\$10,529,711	\$2,542,538	\$500,000	\$0	\$13,072,249
5309										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5310										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5311										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5337										
					Subtotal	\$0	\$0	\$0	\$0	\$0
5339										
	5339 RTD0006949	Pioneer Valley Transit Authority	111215	Purchase Replacement Vans (27)		\$326,510	\$1,510,110	\$0	\$0	\$1,836,620
					Subtotal	\$326,510	\$1,510,110	\$0	\$0	\$1,836,620
5320										
					Subtotal	\$0	\$0	\$0	\$0	\$0
Other Federal										
					Subtotal	\$0	\$0	\$0	\$0	\$0

Table 16: FFY 2019 Transit Project Information (Continued)

Other Non-Federal								
Other Non-Federal	RTD0006916	Pioneer Valley Transit Authority	114406 Purchase & Replace Shop Equipment	\$0	\$300,000	\$0	\$0	\$300,000
Other Non-Federal	RTD0006931	Pioneer Valley Transit Authority	114211 Purchase & Replace support vehicles (2)	\$0	\$75,000	\$0	\$0	\$75,000
Other Non-Federal	RTD0006932	Pioneer Valley Transit Authority	114211 ACQUIRE - SUPPORT VEHICLES (4)	\$0	\$120,000	\$0	\$0	\$120,000
Other Non-Federal	RTD0006955	Pioneer Valley Transit Authority	114302 Cottage Street Construction, Year 3 UMTS rehab - Reinstall exhaust fans over	\$0	\$9,824,862	\$0	\$0	\$9,824,862
Other Non-Federal	RTD0007287	Pioneer Valley Transit Authority	114306 maintenance bays	\$0	\$15,000	\$0	\$0	\$15,000
Other Non-Federal	RTD0007407	Pioneer Valley Transit Authority	114220 ACQUIRE - MISC SUPPORT EQUIPMENT	\$0	\$0	\$0	\$0	\$1,247,000
Other Non-Federal	RTD0007282	Pioneer Valley Transit Authority	111202 Buy Replacement 35" Electric Bus (4)	\$0	\$0	\$0	\$0	\$2,956,000
Other Non-Federal	RTD0007283	Pioneer Valley Transit Authority	111201 Buy Replacement 40' Electric Bus (4)	\$0	\$0	\$0	\$0	\$2,836,000
Subtotal				\$0	\$10,334,862	\$0	\$0	\$17,373,862
Total				\$10,856,221	\$14,387,510	\$500,000	\$0	\$32,282,731

Table 17: FFY 2020 Transit Project Information

5307

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006924	PVTA	119202	Purchase Bus Shelters, benches, trash receptacles, etc.	2019 - \$77,424	\$77,424	\$19,356	\$0	\$0	\$96,780
RTD0006925	PVTA	119208	Purchases signage and lighting	2019 - \$20,000	\$20,000	\$5,000	\$0	\$0	\$25,000
RTD0006926	PVTA	119206	Purchase bicycle Equipment for shelters and buses	2019 - \$5,600	\$5,600	\$1,400	\$0	\$0	\$7,000
RTD0006927	PVTA	114402	Environmental Compliance	2019 - \$60,000	\$60,000	\$15,000	\$0	\$0	\$75,000
RTD0006928	PVTA	442301	Planning Services - Long Term System	2019 - \$192,000	\$192,000	\$48,000	\$0	\$0	\$240,000
RTD0006929	PVTA	117C00	ADA Service subsidy	2019 - \$1,287,796	\$1,287,796	\$321,949	\$0	\$0	\$1,609,745
RTD0006930	PVTA	117A00	Preventive Maintenance	2019 - \$5,224,204	\$5,224,204	\$1,306,051	\$0	\$0	\$6,530,255
RTD0006934	PVTA	111201	Buy Replacement 40' Diesel Bus (12)	2019 - \$1,918,610	\$1,918,610	\$2,063,947	\$0	\$0	\$6,879,823
RTD0006953	PVTA	114220	Information Technology Systems	2019 - \$1,729,634	\$1,729,634	\$432,409	\$0	\$0	\$2,162,043
					\$10,515,268	\$4,213,112	\$0	\$0	\$17,625,646

5339

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006101	PVTA	111202	Buy Replacement 35" Bus (13)	2019 - \$2,615,863; 2019 - \$885,729	\$885,729	\$1,327,608	\$0	\$0	\$7,377,789
					\$885,729	\$1,327,608	\$0	\$0	\$7,377,789

Other NonFederal

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006935	PVTA	114411	Replace support vehicle (2)		\$0	\$150,000	\$0	\$0	\$150,000
RTD0006936	PVTA	114406	Purchase & Replace Shop Equipment		\$0	\$110,000	\$0	\$0	\$110,000
RTD0006954	PVTA	114402	Convert SATCO Maintenance Facility to Paratransit Operations, Year 2		\$0	\$1,900,000	\$0	\$0	\$1,900,000
RTD0007289	PVTA	114211	Replacement supervisory vehicles (2)		\$0	\$50,000	\$0	\$0	\$50,000

Table 17: FFY 2020 Transit Project Information (Continued)

RTD0005869	PVTA	114403	Rehab Northampton Maint Facility, Year 1	\$0	\$50,000	\$0	\$0	\$50,000
RTD0006097	PVTA	114402	Bus Wash System Replacement -Northampton Maintenance Facility	\$0	\$90,000	\$0	\$0	\$90,000
				\$0	\$2,350,000	\$0	\$0	\$2,350,000
				11,400,997	7,890,720	0	0	27,353,435

Table 18: FFY 2021 Transit Project Information

5307

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006942	PVTA	119402	Bus Shelters, Benches, Trash Receptacles	2020 - \$82,969	\$82,969	\$20,742	\$0	\$0	\$103,711
RTD0006943	PVTA	119408	Bus Stop Signage and Lighting	2020 - \$16,000	\$16,000	\$4,000	\$0	\$0	\$20,000
RTD0006944	PVTA	119406	Bicycle access equipment for buses and shelters	2020 - \$5,600	\$5,600	\$1,400	\$0	\$0	\$7,000
RTD0006945	PVTA	116202	Information Technology Systems	2020 - \$2,338,688	\$2,338,688	\$584,672	\$0	\$0	\$2,923,360
RTD0006946	PVTA	440000	PLANNING	2020 - \$196,000	\$196,000	\$49,000	\$0	\$0	\$245,000
RTD0006947	PVTA	300900	ADA OPERATING ASSISTANCE	2020 - \$1,307,113	\$1,307,113	\$326,778	\$0	\$0	\$1,633,891
RTD0006948	PVTA	117A00	PREVENTIVE MAINTENANCE	2020 - \$5,380,930	\$5,380,930	\$1,345,233	\$0	\$0	\$6,726,163
RTD0007291	PVTA	111201	Buy Replacement 35-FT Buses (16)	2020 - \$2,285,222	\$2,285,222	\$4,676,383	\$0	\$0	\$9,352,766
					\$11,612,522	\$7,008,208	\$0	\$0	\$21,011,891

5339

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006080	PVTA	111202	Buy Replacement 40-FT Buses (17)	2020 - \$1,458,609; 2020 - \$885,729	\$885,729	\$5,019,404	\$0	\$0	\$10,038,808
					\$885,729	\$5,019,404	\$0	\$0	\$10,038,808

Other NonFederal

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006939	PVTA	114411	Replace Supervisory Vehicles (2)		\$0	\$50,000	\$0	\$0	\$50,000
RTD0006940	PVTA	114406	Purchase/Replace Shop Equipment		\$0	\$110,000	\$0	\$0	\$110,000
RTD0006941	PVTA	114402	Environmental Compliance		\$0	\$75,000	\$0	\$0	\$75,000
					\$0	\$235,000	\$0	\$0	\$235,000

12,498,251 12,262,612 0 0 31,285,699

Table 18: FFY 2022 Transit Project Information

5307

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006958	PVTA	111202	Replace 35' Buses (10)	2021 - \$989,313	\$989,313	\$1,204,169	\$0	\$0	\$6,020,843
RTD0006964	PVTA	119402	Purchase Shelters and shelter accessories	2021 - \$82,969	\$82,969	\$20,742	\$0	\$0	\$103,711
RTD0006965	PVTA	119408	Signage & Lighting	2021 - \$16,000	\$16,000	\$4,000	\$0	\$0	\$20,000
RTD0006966	PVTA	119406	Bike Access for shelters and Buses	2021 - \$5,600	\$5,600	\$1,400	\$0	\$0	\$7,000
RTD0006967	PVTA	116202	Information Technology Systems	2021 - \$2,521,702	\$2,521,702	\$630,425	\$0	\$0	\$3,152,127
RTD0006968	PVTA	117A00	Preventive Maintenance	2021 - \$5,542,358	\$5,542,358	\$1,385,590	\$0	\$0	\$6,927,948
RTD0006969	PVTA	117C00	NON FIXED ROUTE ADA PARA SERV	2021 - \$1,307,113	\$1,307,113	\$326,778	\$0	\$0	\$1,633,891
RTD0006970	PVTA	442301	LONGTERM TRANS PLAN - SYSTEM LEVEL	2021 - \$196,000	\$196,000	\$49,000	\$0	\$0	\$245,000
RTD0006957	PVTA	111201	Purchase 40' Replacement Buses (15)	2021 - \$2,410,075; 2021 - \$888,729	\$2,410,075	\$1,824,701	\$0	\$0	\$9,123,505
					\$13,071,130	\$5,446,805	\$0	\$0	\$27,234,025
Other NonFederal									
Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0006960	PVTA	114211	Purchase replacement support vehicles (3)		\$0	\$148,000	\$0	\$0	\$148,000
RTD0006961	PVTA	114411	Replace Supervisory Vehicles (4)		\$0	\$25,000	\$0	\$0	\$25,000
RTD0006963	PVTA	114402	Environmental Compliance		\$0	\$75,000	\$0	\$0	\$75,000
RTD0006971	PVTA	111215	Purchase Replacement Vans (24)		\$0	\$1,783,933	\$0	\$0	\$1,783,933
					\$0	\$2,031,933	\$0	\$0	\$2,031,933
					13,071,130	7,478,738	0	0	29,265,958

Table 19: FFY 2023 Transit Project Information

5307

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0007293	PVTA	111201	Purchase 40' Replacement Buses (17)	2022 - \$1,530,820; 2022 - \$902,060	\$1,530,820	\$5,325,086	\$0	\$0	\$10,650,172
RTD0007297	PVTA	119302	Purchase Bus Shelters, benches, trash receptacles, etc.	2022 - \$84,538	\$84,538	\$21,134	\$0	\$0	\$105,672
RTD0007299	PVTA	119306	Purchase and replace bicycle equipment for shelters and buses	2022 - \$5,600	\$5,600	\$1,400	\$0	\$0	\$7,000
RTD0007298	PVTA	119308	Purchase & Replace signage and lighting	2022 - \$16,000	\$16,000	\$4,000	\$0	\$0	\$20,000
RTD0007300	PVTA	116220	Information Technology Systems	2022 - \$1,914,305	\$1,914,305	\$478,576	\$0	\$0	\$2,392,881
RTD0007305	PVTA	442400	Transporation planning	2022 - \$200,000	\$200,000	\$50,000	\$0	\$0	\$250,000
RTD0007306	PVTA	117C00	ADA service subsidy	2022 - \$1,326,720	\$1,326,720	\$331,680	\$0	\$0	\$1,658,400
RTD0007307	PVTA	117A00	Preventive Maintenance	2022 - \$5,708,629	\$5,708,629	\$1,427,157	\$0	\$0	\$7,135,786
RTD0007295	PVTA	111202	Purchase 35' Replacement Buses (8)	2022 - \$2,480,587	\$2,480,587	\$2,480,587	\$0	\$0	\$4,961,174
					\$13,267,199	\$10,119,620	\$0	\$0	\$27,181,085

Other NonFederal

Project Number	Agency	Line Item	Project Description	Carry Over	Federal Funds	State Funds	TDC	Local Funds	Total
RTD0007296	PVTA	111402	REHAB/RENOVATE - Environmental Compliance		\$0	\$75,000	\$0	\$0	\$75,000
RTD0007301	PVTA	114402	Northampton Hydraulic Lift Project		\$0	\$750,000	\$0	\$0	\$750,000
RTD0007302	PVTA	114400	Renovate Holyoke ITC Canopy & Pavement		\$0	\$500,000	\$0	\$0	\$500,000
RTD0007342	PVTA	111215	Purchase Replacement Vans (9)		\$0	\$689,044	\$0	\$0	\$689,044
					\$0	\$2,014,044	\$0	\$0	\$2,014,044
					13,267,199	12,133,664	0	0	29,195,129

VII. PROJECT IMPLEMENTATION

The TIP is also used as a management tool for monitoring the progress and implementation of the RTP and previous TIP's. The award status of FFY 2017-2018 TIP projects are identified in table 22.

Table 22 Project Implementation

Year	Highway Project Description	SID	Funding	Programmed	Status
2017	PIONEER VALLEY REGIONAL BICYCLE SHARE (PHASE 1)	PV001	CMAQ	\$ 1,343,971	Construction
2017	HOLYOKE- IMPROVEMENTS TO LOWER WESTFIELD ROAD ON I-91 (INTERCHANGE 15)	606903	STP	\$ 1,700,004	Construction
2017	AMHERST- HADLEY- SIDEWALK & WHEELCHAIR RAMP CONSTRUCTION ON ROUTE 9	608023	STP, TAP	\$ 1,204,050	Construction
2017	SOUTHWICK- RECONSTRUCTION CONGAMOND ROAD (ROUTE 168), FROM COLLEGE HIGHWAY & ENDS 250 FEET SHORT OF STATE LINE (1.2 MILES)	604033	STP, CMAQ	\$ 7,172,979	Advertised
2017	LUDLOW- RECONSTRUCTION OF CENTER STREET (ROUTE 21), FROM 35' WEST OF BEACHSIDE DRIVE WESTERLY TO GAS LINE BESIDE MTA OVERPASS (3,500 FEET)	605011	STP, HSIP, TAP	\$ 5,845,350	Advertised
2017	GOSHEN- RESURFACING & RELATED WORK ON WEST STREET	605150	STP	\$ 3,800,000	Advertised
2017	AGAWAM- WEST SPRINGFIELD- BRIDGE REPLACEMENT, A-05-002=W-21-014, ROUTE 147 OVER THE WESTFIELD RIVER & INTERSECTION & SIGNAL IMPROVEMENTS @ 3 LOCATIONS	605384	NHPP	\$ 23,173,893	Advertised
2017	AMHERST- BRIDGE REPLACEMENT, A-08-008, MILL STREET OVER MILL RIVER	607528	NHPP	\$ 2,075,400	Construction
2017	CHESTERFIELD- BRIDGE REPLACEMENT, C-12-009, IRELAND STREET OVER WEST BRANCH BRONSON BROOK	607549	NHPP	\$ 3,341,040	Construction
2017	CHICOPEE- SPRINGFIELD- INTERSTATE MAINTENANCE & RELATED WORK ON I-291	608211	IM	\$ 4,118,400	Construction
2017	AGAWAM- CHICOPEE- HOLYOKE- WEST SPRINGFIELD- STORMWATER IMPROVEMENTS ALONG I-91, I-391, ROUTE 57 AND ROUTE 5	608192	IM	\$ 1,276,062	Construction

Year	Highway Project Description	SID	Status	Programmed	Status
2018	AGAWAM- INTERSECTION IMPROVEMENTS AT ROUTE 187 & ROUTE 57	604203	STP	\$ 3,288,000	Not Advertised
2018	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	604597	NFP	\$ 7,438,490	Not Advertised
2018	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	603449	STP	\$ 3,630,245	Not Advertised
2018	SOUTHAMPTON- RECONSTRUCTION OF GLENDALE ROAD (PHASE II) FROM COLLEGE HIGHWAY (RT 10) NORTHWESTERLY TO POMEROY MEADOW RD (3,801 FEET)	604738	STP	\$ 2,710,700	Not Advertised
2018	HOLYOKE- RESURFACING & RELATED WORK ON HERITAGE STREET, FRONT STREET & DWIGHT STREET FROM MAPLE ST TO THE 1ST LEVEL CANAL (.54 MILES)	607256	STP	\$ 2,283,489	Not Advertised
2018	HOLLAND- RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM THE BRIMFIELD/HOLLAND T.L. TO WALES ROAD (1.4 MILES - PHASE I)	604962	STP	\$ 1,409,592	Not Advertised
2018	AMHERST- HADLEY- NORTHAMPTON- TRANSIT SIGNAL PRIORITY UPGRADES AT VARIOUS LOCATIONS	608786	TAP	\$ 792,630	Not Advertised
2018	AMHERST- HADLEY- NORTHAMPTON- TRANSIT SIGNAL PRIORITY UPGRADES AT VARIOUS LOCATIONS	608786	STP	\$ 407,369	Not Advertised
2018	PVTA P21 Express Service Between Union Station in Springfield and the Holyoke Transportation Center	PV0005	CMAQ	\$ 500,000	Not Advertised
2018	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	603449	HPP	\$ 2,503,688	Not Advertised
2018	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	606552	NHPP-On	\$ 10,000,000	Not Advertised
2018	HOLYOKE- BRIDGE REPLACEMENT, H-21-018, LYMAN STREET OVER FIRST LEVEL CANAL	600936	NHPP-On	\$ 11,762,603	Not Advertised

2018	PALMER - BRIDGE REHABILITATION, P-01-005, MAIN STREET OVER QUABOAG RIVER	608870	NHPP-Off	\$ 3,000,000	Not Advertised
2018	CUMMINGTON- BRIDGE MAINTENANCE, C-21-025, ROUTE 9 OVER THE WESTFIELD RIVER	607939	NHPP-On	\$ 312,000	Not Advertised
2018	HOLYOKE- STRUCTURAL STEEL BEAM CLEANING AND PAINTING, H-21-048, I-91 NB & SB OVER WESTFIELD ROAD	607959	NHPP-On	\$ 1,564,622	Not Advertised
2018	SPRINGFIELD- NORTH END PEDESTRIAN PATH CONSTRUCTION (UNDER THE CONNECTICUT RIVER RAILROAD), BETWEEN PLAINFIELD STREET AND BIRNIE AVENUE, INCLUDES CONSTRUCTION OF NEW UNDERPASS S-24-044	607589	TAP	\$ 6,640,845	Not Advertised
2018	SPRINGFIELD- NORTH END PEDESTRIAN PATH CONSTRUCTION (UNDER THE CONNECTICUT RIVER RAILROAD), BETWEEN PLAINFIELD STREET AND BIRNIE AVENUE, INCLUDES CONSTRUCTION OF NEW UNDERPASS S-24-044	607589	CMAQ	\$ 421,266	Not Advertised

VIII. Air Quality Conformity Information

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 Pioneer Valley 2019 - 2023 TIP is not required for ozone. Conformity determination is however required for carbon monoxide. Further details and background information are provided below:

Carbon Monoxide

A new transportation conformity determinations for carbon monoxide is required for the 2019 - 2023 TIP in Central Massachusetts MPO (Worcester); Pioneer Valley MPO (Springfield); Boston MPO (Waltham and Boston Area); Northern Middlesex MPO (Lowell).

The Boston Carbon Monoxide Area (nine communities - Boston, Cambridge, Chelsea, Everett, Malden, Medford, Quincy, Revere, and Somerville) has a maintenance plan in place with a SIP-Approved 2010 motor vehicle carbon monoxide emission budget in place requiring a regional emission analysis for any carbon monoxide conformity determination of the Boston CO Area.

Limited Maintenance Plans are in place for Worcester; Springfield; Waltham and Lowell, hence regional emissions analyses are assumed to satisfy the budget test in these areas.

Ozone

As of July 20, 2013, Dukes County, Massachusetts [Dukes County Wampanoag Tribe of Gay Head (Aquinnah) of Massachusetts] is nonattainment, classification marginal, for the 2008 8-Hour Ozone National Ambient Air Quality Standard (NAAQS), also known as the 2008 ozone standard. However, Interagency Transportation Conformity Consultation has determined Dukes County, Massachusetts to be an isolated rural nonattainment area for the 2008 8-hour ozone standard. An ozone conformity determination is required when the isolated rural area (Dukes County) includes non-exempt projects in its STIP/TIP and TP. See 40 CFR Section 109(g) for conformity in isolated rural nonattainment and maintenance areas.

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.

As of April 22, 2002, the city of Springfield was re-designated as being in attainment for carbon monoxide (CO) with an EPA-approved limited maintenance plan. In areas with approved limited maintenance plans, federal actions requiring conformity determinations under the transportation conformity rule are considered to satisfy the "budget test" (as budgets are treated as not constraining in these areas for the length of the initial maintenance period). Any future required "project level" conformity determinations for projects located within this community will continue to use a "hot-spot" analysis to assure that any new transportation projects in this CO attainment area do not cause or contribute to carbon monoxide non-attainment.

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 Pioneer Valley MPO does not require conformity under the current 2008 standard and the MPO does not need to perform a conformity determination for ozone on the program.

IX. 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 2019 – 2022 Transportation Improvement Program (TIP). It includes a summary of the state laws and policies that call for reducing greenhouse gas in order to mitigate global climate change, actions that are being to respond to these state laws and policies, the role of regional planning and TIP development in reducing GHG emission and tracking these reductions, and the projected GHG emission impacts from the projects programmed in the TIP.

State Policy Context

The Global Warming Solutions Act (GWSA), which 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:



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.
- **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 2017 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 2019-22 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 2040 no-build and build conditions.

All of the MPOs included these GHG emission projections in their RTPs, along with a discussion of climate change and a statement of MPO support for reducing GHG emissions as a regional goal.

Project-Level GHG Tracking and Evaluation in the Transportation Improvement Program

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

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

Calculation of GHG Impacts for TIP Projects

The Office of Transportation Planning at MassDOT provided the spreadsheets that are used for determining Congestion Management and Air Quality Improvement (CMAQ) eligibility. These spreadsheets require the same inputs as the CMAQ calculations, and have been adapted to provide CO₂ impacts. The data and analysis required for these calculations is available from functional design reports that should be submitted for projects that would produce a measurable GHG impact.

Projects with 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 Impact

No Assumed Impact/Negligible Impact on Emission - Projects that do not change the capacity or use of a facility (e.g. a resurfacing project that restores a roadway to its previous condition, or a bridge rehabilitation/replacement that restores the bridge to its previous condition) would be assumed to have no GHG impact.

Assumed Nominal Decrease in Emissions - Projects that would be expected to produce a minor decrease in emissions that cannot be calculated with any precision. Examples of such projects include roadway repaving or reconstruction projects that add a new sidewalk or new bike lanes. Such a project would enable increased travel by walking or bicycling, but there may be not data or analysis to support any projections of GHG impacts. These projects should be categorized as a Qualitative Decrease in Emissions.

Assumed Nominal Increase in Emissions - Projects that would be expected to produce a minor increase in emissions that cannot be calculated with any precision. The projects should be categorized as a Qualitative Increase in Emissions.

Regional Greenhouse Gas Impact Summary Tables for FFY 2019 – 2022 TIP

The following table (table 23) summarize the calculated quantitative and assumed qualitative impacts of the projects included in the regional FFY 2019 – 2022 TIP.

Table 23 Greenhouse Gas Summary Tables FFY 2019

Section 1A / Regionally Prioritized Projects						
Regionally Prioritized Projects						
608411	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	\$ 1,000,000	Quantified	222,751	Quantified Decrease in Emissions from Traffic Operational Improvement	
608411	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BAY STREET AND BERKSHIRE AVENUE	\$ 886,880				
600513	AGAWAM- RECONSTRUCTION OF ROUTE 187 FROM 425 FT. SOUTH OF S. WESTFIELD STREET TO ROUTE 57 (0.3 MILES - PHASE I)	\$ 2,622,622	Quantified	414	Quantified Decrease in Emissions from Complete Streets Project	
608412	BELCHERTOWN- IMPROVEMENTS & RELATED WORK ON ROUTES 202 & 21, FROM TURKEY HILL ROAD TO SOUTH MAIN STREET (1.2 MILES)	\$ 5,143,503	Quantified	1,107	Quantified Decrease in Emissions from Complete Streets Project	
607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	\$ 1,000,000	Quantified	995	Quantified Decrease in Emissions from Complete Streets Project	To be quantified for traffic operation improvements
607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	\$ 1,000,000				
607987	WARE- INTERSECTION IMPROVEMENTS @ MAIN STREET, WEST STREET, NORTH STREET, SOUTH STREET & CHURCH STREET	\$ 475,087				
604962	HOLLAND- RESURFACING & RELATED WORK ON BRIMFIELD ROAD, FROM THE BRIMFIELD/HOLLAND T.L. TO WALES ROAD (1.4 MILES - PHASE I)	\$ 2,919,446	Quantified	317	Quantified Decrease in Emissions from Complete Streets Project	
606912	WORTHINGTON- RECONSTRUCTION & RELATED WORK ON ROUTE 143 (PHASE I)	\$ 8,900,000	Quantified	345	Quantified Decrease in Emissions from Complete Streets Project	
PV0001	P21 Express - Year 2 Operating	\$ 500,000	Quantified	24,671	Quantified Decrease in Emissions from New/Additional Transit Service	
Quantified Impact ▶				250,600		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2019(Continued)

▶ Section 2A / State Prioritized Reliability Projects						
▶ Bridge Program / Inspections						
0	Bridge Inspection	\$ -	Qualitative		No assumed impact/negligible impact on emissions	
			Quantified Impact ▶	0		
▶ Bridge Program / Off-System						
608429	MIDDLEFIELD- BRIDGE SUPERSTRUCTURE REPLACEMENT, M-19-010, CHESTER ROAD OVER SMART BROOK	\$ 970,807	Qualitative		No assumed impact/negligible impact on emissions	
			Quantified Impact ▶	0		
▶ Bridge Program / On-System (NHS)						
0	Bridge Program / On-System (NHS)	\$ -				
			Quantified Impact ▶	0		
▶ Bridge Program / On-System (Non-NHS)						
0	Bridge Program / On-System (Non-NHS)	\$ -				
			Quantified Impact ▶	0		
▶ Bridge Program / Systematic Maintenance						
0	Bridge Program / Systematic Maintenance	\$ -	Qualitative			
			Quantified Impact ▶	0		
▶ Interstate Pavement						
607560	CHICOPEE- HOLYOKE- INTERSTATE MAINTENANCE AND RELATED WORK ON I-391	\$ 11,309,875	Qualitative		No assumed impact/negligible impact on emissions	
			Quantified Impact ▶	0		
▶ Non-Interstate Pavement						
607474	GRANBY- SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROTUE 202	\$ 5,752,500	Qualitative		Qualitative Decrease in Emissions	
			Quantified Impact ▶	0		
▶ Roadway Improvements						
0	Roadway Improvements	\$ -				
			Quantified Impact ▶	0		
▶ Safety Improvements						
607736	CHICOPEE- SIGNAL & INTERSECTION IMPROVEMENTS AT 13 INTERSECTIONS ALONG ROUTE 33 (MEMORIAL DRIVE), FROM FULLER ROAD TO ABBEY STREET	\$ 6,001,387	Qualitative		Qualitative Decrease in Emissions	To be quantified
608600	CHICOPEE- WEST SPRINGFIELD- HIGHWAY LIGHTING UPGRADE ON I-91	\$ 4,300,759	Qualitative		No assumed impact/negligible impact on emissions	
			Quantified Impact ▶	0		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2019 (Continued)

Section 2B / State Prioritized Modernization Projects						
ADA Retrofits						
0	ADA Retrofits	\$	-			
				Quantified Impact ▶	0	
Intersection Improvements						
0	Intersection Improvements	\$	-			
				Quantified Impact ▶	0	
Intelligent Transportation Systems						
0	Intelligent Transportation Systems	\$	-	Qualitative		
				Quantified Impact ▶	0	
Roadway Reconstruction						
608790	HOLYOKE- IMPROVEMENTS AT KELLY COMMUNITY SCHOOL (SRTS)	\$	1,264,935	Qualitative		Qualitative Decrease in Emissions
606555	NORTHAMPTON- ROUNDABOUT CONSTRUCTION AT INTERSECTION ROUTES 5/10 (NORTH KING STREET) & HATFIELD STREET	\$	4,109,480	Qualitative		No assumed impact/negligible impact on emissions
				Quantified Impact ▶	0	
Section 2C / State Prioritized Expansion Projects						
Bicycles and Pedestrians						
603783	WESTFIELD- COLUMBIA GREENWAY RAIL TRAIL CONSTRUCTION (CENTER DOWNTOWN SECTION), FROM EAST SILVER STREET TO COWLES COURT, INCLUDES W-25.014, W-25-015, W-25-016, W-25-017, W-25-018 & W-25-019	\$	6,532,895	Quantified	4,458	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
				Quantified Impact ▶	4,458	
Capacity						
0	Capacity	\$	-			
				Quantified Impact ▶	0	
Section 3 / Planning / Adjustments / Pass-throughs						
Planning / Adjustments / Pass-throughs						
0	ABP GANS Repayment	\$	-			
				Quantified Impact ▶	0	
Section 2A / Non-Federal Projects						
Non-Federally Aided Projects						
0	Non-Federal Aid	\$	-			
0	Non-Federal Aid	\$	-			
				Quantified Impact ▶	0	
2019 X Region MPO GHG Tracking Summary				Total Quantified Impact ▼		
				Quantified Impact ▶	255,058	

Table 23 Transit Greenhouse Gas Summary Tables FFY 2020

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Regionally Prioritized Projects						
► Regionally Prioritized Projects						
607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	\$ 5,500,000	Quantified	1,290	Quantified Decrease in Emissions from Complete Streets Project	
607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	\$ 599,876				
607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	\$ 1,000,000				
607773	WESTFIELD- IMPROVEMENTS & RELATED WORK ON ROUTE 20, COURT STEET & WESTERN AVENUE, LLOYDS HILL ROAD TO HIGH STREET/MILL STREET INTERSECTION (PHASE II)	\$ 500,000				
604434	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	\$ 5,907,953	Quantified	205,229	Quantified Decrease in Emissions from Traffic Operational Improvement	
604434	CHICOPEE- RECONSTRUCTION & RELATED WORK ON FULLER ROAD, FROM MEMORIAL DR (RTE 33) TO SHAWINIGAN DR (2.0 MILES)	\$ 2,000,000				
608236	NORTHAMPTON- RECONSTRUCTION OF DAMON ROAD, FROM ROUTE 9 TO ROUTE 5, INCLUDES DRAINAGE SYSTEM REPAIRS & SLOPE STABILIZATION AT THE NORWOTTUCK RAIL TRAIL	\$ 10,248,854	Quantified	1,983	Quantified Decrease in Emissions from Complete Streets Project	
0		\$ -				
				Quantified Impact ►	208,502	

Table 23 Transit Greenhouse Gas Summary Tables FFY 2020 (Continued)

▶ Section 1B / Earmark or Discretionary Grant Funded Projects						
▶ Other Federal Aid						
0	Other Federal Aid	\$ -				
Quantified Impact ▶				0		
▶ Section 2A / State Prioritized Reliability Projects						
▶ Bridge Program / Inspections						
0	Bridge Inspection	\$ -	Qualitative		No assumed impact/negligible impact on emissions	
Quantified Impact ▶				0		
▶ Bridge Program / Off-System						
608631	WESTHAMPTON- BRIDGE REPLACEMENT, W-27-005, KINGS HIGHWAY OVER N BRANCH MANHAN RIVER	\$ 3,072,000	Qualitative		No assumed impact/negligible impact on emissions	
Quantified Impact ▶				0		
▶ Bridge Program / On-System (NHS)						
400103	WESTFIELD- BRIDGE REPLACEMENT, W-25-006, ROUTE 10/202 (SOUTHWICK ROAD) OVER THE LITTLE RIVER	\$ 12,732,554	Qualitative		Qualitative Decrease in Emissions	
606552	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	\$ 11,378,353	Qualitative		Qualitative Decrease in Emissions	
Quantified Impact ▶				0		
▶ Bridge Program / On-System (Non-NHS)						
0	Bridge Program / On-System (Non-NHS)	\$ -				
Quantified Impact ▶				0		
▶ Bridge Program / Systematic Maintenance						
0	Bridge Program / Systematic Maintenance	\$ -	Qualitative		No assumed impact/negligible impact on emissions	
Quantified Impact ▶				0		
▶ Interstate Pavement						
0	Interstate Pavement	\$ -	Qualitative		No assumed impact/negligible impact on emissions	
Quantified Impact ▶				0		
▶ Non-Interstate Pavement						
608473	SOUTH HADLEY- RESURFACING AND RELATED WORK ON ROUTE 116	\$ 2,208,960	Qualitative		Qualitative Decrease in Emissions	
604209	HOLYOKE- WEST SPRINGFIELD- REHABILITATION OF ROUTE 5	\$ 13,953,264	Qualitative		Qualitative Decrease in Emissions	
Quantified Impact ▶				0		
▶ Roadway Improvements						
0	Roadway Improvements	\$ -				
Quantified Impact ▶				0		
▶ Safety Improvements						
608575	CHICOPEE TO HOLYOKE- GUIDE AND TRAFFIC SIGN REPLACEMENT ON I-391	\$ 542,872	Qualitative		No assumed impact/negligible impact on emissions	
Quantified Impact ▶				0		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2020 (Continued)

▶ Section 2B / State Prioritized Modernization Projects						
▶ ADA Retrofits						
0	ADA Retrofits	\$	-		0	
				Quantified Impact ▶		
▶ Intersection Improvements						
0	Intersection Improvements	\$	-		0	
				Quantified Impact ▶		
▶ Intelligent Transportation Systems						
0	Intelligent Transportation Systems	\$	-		0	
				Quantified Impact ▶		
▶ Roadway Reconstruction						
0	Roadway Reconstruction	\$	-		0	
				Quantified Impact ▶		
▶ Section 2C / State Prioritized Expansion Projects						
▶ Bicycles and Pedestrians						
602911	CHICOPEE- CONNECTICUT RIVERWALK & BIKEWAY CONSTRUCTION, FROM BOAT RAMP NEAR I-90 TO NASH FIELD (2.5 MILES), INCLUDES NEW BRIDGE C-13-060 OVER OVERFLOW CHANNEL	\$	3,247,643	Quantified	73,253	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
				Quantified Impact ▶	73,253	
▶ Capacity						
0	Capacity	\$	-			
0	Capacity	\$	-			
				Quantified Impact ▶	0	
▶ Section 3 / Planning / Adjustments / Pass-throughs						
▶ Planning / Adjustments / Pass-throughs						
0	ABP GANS Repayment	\$	-		0	
				Quantified Impact ▶		
▶ Section 2A / Non-Federal Projects						
▶ Non-Federally Aided Projects						
0	Non-Federal Aid	\$	-			
0	Non-Federal Aid	\$	-			
				Quantified Impact ▶	0	
2020 X Region MPO GHG Tracking Summary					Total Quantified Impact ▼	
				Quantified Impact ▶	281,755	

Table 23 Transit Greenhouse Gas Summary Tables FFY 2021

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Regionally Prioritized Projects						
► Regionally Prioritized Projects						
608718	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	\$ 1,229,021	Qualitative		Qualitative Decrease in Emissions	To be quantified
608718	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT BERKSHIRE AVENUE, COTTAGE AND HARVEY STREETS	\$ 1,000,000				
608782	SPRINGFIELD- INTERSECTION IMPROVEMENTS AT COTTAGE STREET, INDUSTRY AVENUE AND ROBBINS ROAD	\$ 1,944,000	Qualitative		Qualitative Decrease in Emissions	To be quantified
608084	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	\$ 3,121,863	Quantified	3,109	Quantified Decrease in Emissions from Complete Streets Project	
608084	AMHERST- IMPROVEMENTS & RELATED WORK ON ROUTES 9 & 116, FROM UNIVERSITY DRIVE TO SOUTH PLEASANT STREET (0.8 MILES)	\$ 500,000				
607502	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	\$ 2,655,054	Qualitative		Qualitative Decrease in Emissions	
607502	NORTHAMPTON- INTERSECTION IMPROVEMENTS AT KING STREET, NORTH STREET & SUMMER STREET AND AT KING STREET & FINN STREET	\$ 1,000,000				To be quantified
608577	EASTHAMPTON- IMPROVEMENTS AND RELATED WORK ON UNION STREET (ROUTE 141) FROM PAYSON AVENUE TO HIGH STREET (0.36 MILES)	\$ 2,201,643	Quantified	3,170	Quantified Decrease in Emissions from Complete Streets Project	
605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	\$ 12,652,410	Quantified	354	Quantified Decrease in Emissions from Complete Streets Project	
Quantified Impact ►				6,633		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2021 (Continued)

▶ Section 2A / State Prioritized Reliability Projects						
▶ Bridge Program / Inspections						
0	Bridge Inspection	\$	-			
Quantified Impact ▶					0	
▶ Bridge Program / Off-System						
0	Bridge Program / Off-System	\$	-			
Quantified Impact ▶					0	
▶ Bridge Program / On-System (NHS)						
608460	HADLEY- BRIDGE REPLACEMENT, H-01-005, BAY ROAD (ROUTE 47) OVER THE FORT RIVER	\$	5,647,995	Qualitative		No assumed impact/negligible impact on emissions
606552	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	\$	11,378,353	Qualitative		No assumed impact/negligible impact on emissions
Quantified Impact ▶					0	
▶ Bridge Program / On-System (Non-NHS)						
0	Bridge Program / On-System (Non-NHS)	\$	-			
Quantified Impact ▶					0	
▶ Bridge Program / Systematic Maintenance						
0	Bridge Program / Systematic Maintenance	\$	-	Qualitative		
Quantified Impact ▶					0	
▶ Interstate Pavement						
0	Interstate Pavement	\$	-	Qualitative		
Quantified Impact ▶					0	
▶ Non-Interstate Pavement						
608487	WESTFIELD- RESURFACING AND RELATED WORK ON RTE 10 AND 202	\$	2,676,240	Qualitative		Qualitative Decrease in Emissions
608489	WILBRAHAM- RESURFACING AND RELATED WORK ON ROUTE 20	\$	8,602,200	Qualitative		Qualitative Decrease in Emissions
Quantified Impact ▶					0	
▶ Roadway Improvements						
0	Roadway Improvements	\$	-	Qualitative		
Quantified Impact ▶					0	
▶ Safety Improvements						
0	Safety Improvements	\$	-			
Quantified Impact ▶					0	

Table 23 Transit Greenhouse Gas Summary Tables FFY 2021 (Continued)

▶ Section 2B / State Prioritized Modernization Projects						
▶ ADA Retrofits						
0	ADA Retrofits	\$ -				
			Quantified Impact ▶	0		
▶ Intersection Improvements						
606450	HOLYOKE- TRAFFIC SIGNAL UPGRADES AT 15 INTERSECTIONS ALONG HIGH & MAPLE STREETS	\$ 4,450,000	Qualitative		Qualitative Decrease in Emissions	To be quantified
			Quantified Impact ▶	0		
▶ Intelligent Transportation Systems						
0	Intelligent Transportation Systems	\$ -				
			Quantified Impact ▶	0		
▶ Roadway Reconstruction						
0	Roadway Reconstruction	\$ -				
			Quantified Impact ▶	0		
▶ Section 2C / State Prioritized Expansion Projects						
▶ Bicycles and Pedestrians						
608157	SPRINGFIELD- MCKNIGHT COMMUNITY TRAIL CONSTRUCTION, FROM ARMORY STREET TO HAYDEN AVENUE (1.5 MILES)	\$ 3,694,624	Quantified	45,830	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	
			Quantified Impact ▶	45,830		
▶ Capacity						
0	Capacity	\$ -				
			Quantified Impact ▶	0		
▶ Section 3 / Planning / Adjustments / Pass-throughs						
▶ Planning / Adjustments / Pass-throughs						
0	ABP GANS Repayment	\$ -				
			Quantified Impact ▶	0		
▶ Section 2A / Non-Federal Projects						
▶ Non-Federally Aided Projects						
0	Non-Federal Aid	\$ -				
			Quantified Impact ▶	0		
2021 X Region MPO GHG Tracking Summary				Total Quantified Impact ▼		
			Quantified Impact ▶	52,463		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2022

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Regionally Prioritized Projects						
► Regionally Prioritized Projects						
608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	\$ 7,390,199	Qualitative		Qualitative Decrease in Emissions	To be quantified
606895	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	\$ 1,866,866	Quantified	273	Quantified Decrease in Emissions from Complete Streets Project	
606895	GRANBY- IMPROVEMENTS @ 2 LOCATIONS ON ROUTE 202: SCHOOL STREET & FIVE CORNERS	\$ 1,000,000				
606156	HOLYOKE- RECONSTRUCTION OF I-91 INTERCHANGE 17 & ROUTE 141	\$ 3,429,583	Qualitative		Qualitative Decrease in Emissions	To be quantified
605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	\$ 10,652,954				
605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	\$ 500,000				
605032	HADLEY- RECONSTRUCTION ON ROUTE 9, FROM MIDDLE STREET TO MAPLE/SOUTH MAPLE STREET	\$ 2,000,000				
0		0 \$ -				
			Quantified Impact ►	273		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2022 (Continued)

▶ Section 2A / State Prioritized Reliability Projects						
▶ Bridge Program / Inspections						
0	Bridge Inspection	\$ -				
Quantified Impact ▶				0		
▶ Bridge Program / Off-System						
608846	MONSON- BRIDGE REPLACEMENT, M-27-015, OLD WALES ROAD OVER CONANT BROOK	\$ 1,742,784	Qualitative			No assumed impact/negligible impact on emissions
608869	NORTHAMPTON- BRIDGE REPLACEMENT, N-19-068, OLD SPRINGFIELD ROAD OVER THE MILL RIVER	\$ 3,981,000	Qualitative			No assumed impact/negligible impact on emissions
608847	WALES- BRIDGE REPLACEMENT, W-02-002, HOLLAND ROAD OVER WALES BROOK	\$ 540,096	Qualitative			No assumed impact/negligible impact on emissions
Quantified Impact ▶				0		
▶ Bridge Program / On-System (NHS)						
606552	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	\$ 11,378,353	Qualitative			No assumed impact/negligible impact on emissions
Quantified Impact ▶				0		
▶ Bridge Program / On-System (Non-NHS)						
0	Bridge Program / On-System (Non-NHS)	\$ -				
Quantified Impact ▶				0		
▶ Bridge Program / Systematic Maintenance						
0	Bridge Program / Systematic Maintenance	\$ -				
Quantified Impact ▶				0		
▶ Interstate Pavement						
0	Interstate Pavement	\$ -				
Quantified Impact ▶				0		
▶ Non-Interstate Pavement						
608466	BELCHERTOWN- GRANBY- RESURFACING AND RELATED WORK ON ROUTE 202	\$ 4,163,040	Quantified	3,812		Quantified Decrease in Emissions from Complete Streets Project
Quantified Impact ▶				3,812		
▶ Roadway Improvements						
0	Roadway Improvements	\$ -				
Quantified Impact ▶				0		
▶ Safety Improvements						
0	Safety Improvements	\$ -				
Quantified Impact ▶				0		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2022 (Continued)

▶ Section 2B / State Prioritized Modernization Projects						
▶ ADA Retrofits						
0	ADA Retrofits	\$ -				
Quantified Impact ▶				0		
▶ Intersection Improvements						
608560	SPRINGFIELD- IMPROVEMENTS ON ST JAMES AVENUE AT TAPLEY STREET	\$ 2,688,000	Qualitative		Qualitative Decrease in Emissions	To be quantified
608565	SPRINGFIELD- IMPROVEMENTS ON ST JAMES AVENUE AT ST JAMES BOULEVARD AND CAREW STREET AT TAPLEY STREET	\$ 2,784,000	Qualitative		Qualitative Decrease in Emissions	To be quantified
Quantified Impact ▶				0		
▶ Intelligent Transportation Systems						
0	Intelligent Transportation Systems	\$ -				
Quantified Impact ▶				0		
▶ Roadway Reconstruction						
0	Roadway Reconstruction	\$ -				
Quantified Impact ▶				0		
▶ Section 2C / State Prioritized Expansion Projects						
▶ Bicycles and Pedestrians						
602912	CHICOPEE- CHICOPEE RIVER RIVERWALK MULTI-USE PATH CONSTRUCTION, FROM GRAPE STREET TO FRONT STREET (NEAR ELLERTON STREET) (1 MILE)	\$ 2,273,911	Quantified	3,248	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure	
Quantified Impact ▶				3,248		
▶ Capacity						
0	Capacity	\$ -				
Quantified Impact ▶				0		
▶ Section 3 / Planning / Adjustments / Pass-throughs						
▶ Planning / Adjustments / Pass-throughs						
0	ABP GANS Repayment	\$ -				
Quantified Impact ▶				0		
▶ Section 2A / Non-Federal Projects						
▶ Non-Federally Aided Projects						
0	Non-Federal Aid	\$ -				
Quantified Impact ▶				0		
2022 X Region MPO GHG Tracking Summary				Total Quantified Impact ▼		
Quantified Impact ▶				7,333		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2023

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼
► Section 1A / Regionally Prioritized Projects						
► Regionally Prioritized Projects						
608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	\$ 8,907,054	Qualitative		Qualitative Decrease in Emissions	To be quantified
608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	\$ 2,000,000				
608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	\$ 500,000				
608374	WEST SPRINGFIELD- RECONSTRUCTION OF MEMORIAL AVENUE (ROUTE 147), FROM COLONY ROAD TO THE MEMORIAL AVENUE ROTARY (1.4 MILES)	\$ 1,000,000				
PV0002	WORTHINGTON- RECONSTRUCTION & RELATED WORK ON ROUTE 143 (PHASE II)	\$ 8,584,000	Qualitative		Qualitative Decrease in Emissions	To be quantified
608881	LONGMEADOW- SPRINGFIELD- RESURFACING AND INTERSECTION IMPROVEMENTS ON LONGMEADOW STREET (ROUTE 5) AND CONVERSE STREET (0.84 MILES)	\$ 6,064,675	Qualitative		Qualitative Decrease in Emissions	To be quantified
0		\$ -				
Quantified Impact ►				0		

Table 23 Transit Greenhouse Gas Summary Tables FFY 2023 (Continued)

▶ Section 2A / State Prioritized Reliability Projects						
▶ Bridge Program / Inspections						
0	Bridge Inspection	\$	-			
Quantified Impact ▶					0	
▶ Bridge Program / Off-System						
609120	LUDLOW- BRIDGE REPLACEMENT, L-16-026, PINEY LANE OVER BROAD BROOK	\$	598,560	Qualitative		No assumed impact/negligible impact on emissions
Quantified Impact ▶					0	
▶ Bridge Program / On-System (NHS)						
608848	SPRINGFIELD- BRIDGE REPLACEMENT, S-24-016, ARMORY STREET OVER CSX MAINLINE	\$	5,723,440	Qualitative		No assumed impact/negligible impact on emissions
608853	SPRINGFIELD- BRIDGE REPLACEMENT, S-24-026, ARMORY STREET OVER CSX	\$	3,948,640	Qualitative		No assumed impact/negligible impact on emissions
606552	NORTHAMPTON- BRIDGE RECONSTRUCTION, N-19-059, I-91 OVER US 5/BMRR & N-19-060, I-91 OVER HOCKANUM ROAD	\$	11,378,353	Qualitative		No assumed impact/negligible impact on emissions
Quantified Impact ▶					0	
▶ Bridge Program / On-System (Non-NHS)						
0	Bridge Program / On-System (Non-NHS)	\$	-			
Quantified Impact ▶					0	
▶ Bridge Program / Systematic Maintenance						
0	Bridge Program / Systematic Maintenance	\$	-			
Quantified Impact ▶					0	
▶ Interstate Pavement						
0	Interstate Pavement	\$	-			
Quantified Impact ▶					0	
▶ Non-Interstate Pavement						
0	Non-Interstate Pavement	\$	-			
Quantified Impact ▶					0	
▶ Roadway Improvements						
0	Roadway Improvements	\$	-			
Quantified Impact ▶					0	
▶ Safety Improvements						
0	Safety Improvements	\$	-			
Quantified Impact ▶					0	

Table 23 Transit Greenhouse Gas Summary Tables FFY 2023 (Continued)

▶ Section 2B / State Prioritized Modernization Projects						
▶ ADA Retrofits						
0	ADA Retrofits	\$	-		0	
				Quantified Impact ▶	0	
▶ Intersection Improvements						
0	Intersection Improvements	\$	-		0	
				Quantified Impact ▶	0	
▶ Intelligent Transportation Systems						
0	Intelligent Transportation Systems	\$	-		0	
				Quantified Impact ▶	0	
▶ Roadway Reconstruction						
0	Roadway Reconstruction	\$	-		0	
				Quantified Impact ▶	0	
▶ Section 2C / State Prioritized Expansion Projects						
▶ Bicycles and Pedestrians						
607823	SOUTHAMPTON- GREENWAY RAIL TRAIL CONSTRUCTION, FROM COLEMAN ROAD TO ROUTE 10 (3.5 MILES)	\$	7,053,638	Qualitative		Qualitative Decrease in Emissions To be Quantified
				Quantified Impact ▶	0	
▶ Capacity						
0	Capacity	\$	-		0	
				Quantified Impact ▶	0	
▶ Section 3 / Planning / Adjustments / Pass-throughs						
▶ Planning / Adjustments / Pass-throughs						
0	ABP GANS Repayment	\$	-		0	
				Quantified Impact ▶	0	
▶ Section 2A / Non-Federal Projects						
▶ Non-Federally Aided Projects						
0	Non-Federal Aid	\$	-		0	
				Quantified Impact ▶	0	
2023 X Region MPO GHG Tracking Summary					Total Quantified Impact ▼	
				Quantified Impact ▶	0	

Figure 4 Completed Highway and Transit Project GHG Analysis

MassDOT Project ID ▼	MassDOT Project Description ▼	Total Programmed Funds ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼
604203	AGAWAM- INTERSECTION IMPROVEMENTS AT ROUTE 187 & ROUTE 57	\$ 3,288,000	Quantified	3,406	Quantified Decrease in Emissions from Traffic Operational Improvement
604597	NORTHAMPTON- IMPROVEMENTS ON I-91 INTERCHANGE 19 AT ROUTE 9 AND DAMON ROAD	\$ 7,438,490	Quantified	17,566	Quantified Decrease in Emissions from Traffic Operational Improvement
603449	WESTFIELD- ROUTE 20 ACCESS IMPROVEMENTS ON COURT STREET & WESTERN AVENUE, FROM LLEWELLYN DRIVE EASTERLY TO LLOYDS HILL ROAD (PHASE I)	\$ 6,133,933	Quantified	3224.4	Quantified Decrease in Emissions from Complete Streets Project
604738	SOUTHAMPTON- RECONSTRUCTION OF GLENDALE ROAD (PHASE II) FROM COLLEGE HIGHWAY (RT 10) NORTHWESTERLY TO POMEROY MEADOW RD (3,801 FEET)	\$ 2,710,700	Quantified	1462.1	Quantified Decrease in Emissions from Complete Streets Project
607256	HOLYOKE- RESURFACING & RELATED WORK ON HERITAGE STREET, FRONT STREET & DWIGHT STREET FROM MAPLE ST TO THE 1ST LEVEL CANAL (.54 MILES)	\$ 3,758,081	Quantified	3226.5	Quantified Decrease in Emissions from Complete Streets Project
607589	SPRINGFIELD- NORTH END PEDESTRIAN PATH CONSTRUCTION (UNDER THE CONNECTICUT RIVER RAILROAD), BETWEEN PLAINFIELD STREET AND BIRNIE AVENUE, INCLUDES CONSTRUCTION OF NEW UNDERPASS S-24-044	\$ 7,062,111	Quantified	405	Quantified Decrease in Emissions from Bicycle and Pedestrian Infrastructure
602911	PVTA P21 Express Service Between Union Station in Springfield and the Holyoke Transportation Center	\$ 500,000	Quantified	7,049	Quantified Decrease in Emissions from New/Additional Transit Service

Project Description ▼	Total Cost ▼	GHG Analysis Type ▼	GHG CO ₂ Impact (kg/yr) ▼	GHG Impact Description ▼	Additional Description ▼	Fiscal Year Programmed (2015 and forward) ▼
Replacement Vans (4)	\$283,795	Quantified	244982.231	Quantified Decrease in Emissions from Bus Replacement		61245.55775675 per
Replace Mini Buses for Shuttles (3)	\$270,000	Quantified	201096.704	Quantified Decrease in Emissions from Bus Replacement		67032.234517 per
Replacement 40' Buses (4)	\$2,161,631	Quantified	51432.885	Quantified Decrease in Emissions from Bus Replacement		12858.2213575 Per Bus

APPENDICES

APPENDIX A: MassDOT Targets

**FFY 2019-2023 STIP
2019 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2019 (Proposed) <i>(federal aid + match)</i>
Base obligation authority	\$ 611,680,644		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 661,680,644		
ABP GANS Repayment	\$ (66,015,000)		
Total non-earmarked funding available	\$ 595,665,644	\$ 138,437,429	\$ 734,103,074
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 21,645,935	\$ 5,411,484	\$ 27,057,419
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Freight Plan flex to Rail and Transit	\$ 2,021,285	\$ 505,321	\$ 2,526,606
Recreational trails	\$ 2,519,509	\$ 629,877	\$ 3,149,386
Railroad grade crossings	\$ 3,800,000	\$ 422,222	\$ 4,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 55,343,689	\$ 13,308,145	\$ 68,651,834
Funding for regional priorities	regional share %	MPO	Total federal aid
			Matching funds
			Total funding (proposed)
	3.5596%	Berkshire	\$ 6,583,267
	42.9671%	Boston	\$ 79,465,073
	4.5851%	Cape Cod	\$ 8,479,867
	8.6901%	Central Mass	\$ 16,071,819
	2.5397%	Franklin	\$ 4,697,023
	0.3100%	Martha's Vineyard	\$ 573,326
	4.4296%	Merrimack Valley	\$ 8,192,279
	4.4596%	Montachusett	\$ 8,247,763
	0.2200%	Nantucket	\$ 406,877
	3.9096%	Northern Middlesex	\$ 7,230,571
	4.5595%	Old Colony	\$ 8,432,522
	10.8099%	Pioneer Valley	\$ 19,992,261
	8.9601%	Southeastern Mass	\$ 16,571,167
		<i>Total funding of regional priorities</i>	\$ 184,944,000
Highway Division programs			\$ 44,986,185
Reliability programs			\$ 80,143,100
Bridge program			\$ 340,037,722
			\$ 147,807,955
		<i>Inspections</i>	\$ -
		<i>Systematic maintenance</i>	\$ 8,000,000
		<i>On-system NHS (minimum)</i>	\$ 96,000,000
		<i>On-System Non-NHS</i>	\$ 15,307,955
		<i>Off-system</i>	\$ 28,500,000
Interstate pavement program			\$ 27,650,000
Non-interstate DOT pavement program			\$ 3,072,222
Roadway improvements program			\$ 69,200,000
Safety improvements program			\$ 17,300,000
Modernization programs			\$ 2,000,000
ADA retrofits program			\$ 31,000,000
Intersection improvements program			\$ 4,555,556
Intelligent Transportation Systems program			\$ 41,400,000
Roadway reconstruction program			\$ 8,683,333
Expansion programs			\$ 600,000
Bicycles and pedestrians program			\$ 2,400,000
Capacity program			\$ 19,000,000
			\$ 3,083,333
			\$ 11,000,000
			\$ 2,750,000
			\$ 9,000,000
			\$ 2,250,000
			\$ 36,320,000
			\$ 9,080,000
			\$ 45,400,000
			\$ 36,320,000
			\$ 9,080,000
			\$ 45,400,000
			\$ -
			\$ -
			\$ -

**FFY 2019-2023 STIP
2020 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2020 (Proposed) <i>(federal aid + match)</i>
Base obligation authority	\$ 626,330,019		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 676,330,019		
ABP GANS Repayment	\$ (81,570,000)		
Total non-earmarked funding available	\$ 594,760,019	\$ 139,025,281	\$ 733,785,300
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 38,175,176	\$ 9,543,794	\$ 47,718,969
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 68,964,737	\$ 16,963,406	\$ 85,928,143
Funding for regional priorities	regional share % MPO	Total federal aid	Matching funds Total funding (proposed)
	3.5596% Berkshire	\$ 6,791,857	\$ 1,697,964 \$ 8,489,822
	42.9671% Boston	\$ 81,982,925	\$ 20,495,731 \$ 102,478,656
	4.5851% Cape Cod	\$ 8,748,552	\$ 2,187,138 \$ 10,935,690
	8.6901% Central Mass	\$ 16,581,054	\$ 4,145,264 \$ 20,726,318
	2.5397% Franklin	\$ 4,845,848	\$ 1,211,462 \$ 6,057,310
	0.3100% Martha's Vineyard	\$ 591,492	\$ 147,873 \$ 739,365
	4.4296% Merrimack Valley	\$ 8,451,852	\$ 2,112,963 \$ 10,564,815
	4.4596% Montachusett	\$ 8,509,093	\$ 2,127,273 \$ 10,636,366
	0.2200% Nantucket	\$ 419,769	\$ 104,942 \$ 524,711
	3.9096% Northern Middlesex	\$ 7,459,671	\$ 1,864,918 \$ 9,324,589
	4.5595% Old Colony	\$ 8,699,706	\$ 2,174,927 \$ 10,874,633
	10.8099% Pioneer Valley	\$ 20,625,716	\$ 5,156,429 \$ 25,782,146
	8.9601% Southeastern Mass	\$ 17,096,225	\$ 4,274,056 \$ 21,370,281
	<i>Total funding of regional priorities</i>	\$ 190,803,952	\$ 47,700,940 \$ 238,504,702
Highway Division programs	\$ 334,991,330	\$ 74,360,935	\$ 409,352,265
Reliability programs	\$ 280,591,330	\$ 62,844,268	\$ 343,435,598
Bridge program	\$ 154,820,000	\$ 38,705,000	\$ 193,525,000
	<i>Inspections</i>	\$ 14,320,000	\$ 3,580,000 \$ 17,900,000
	<i>Systematic maintenance</i>	\$ 8,000,000	\$ 2,000,000 \$ 10,000,000
	<i>On-system NHS (minimum)</i>	\$ 94,900,000	\$ 23,725,000 \$ 118,625,000
	<i>On-System Non-NHS</i>	\$ 9,100,000	\$ 2,275,000 \$ 11,375,000
	<i>Off-system</i>	\$ 28,500,000	\$ 7,125,000 \$ 35,625,000
Interstate pavement program	\$ 37,585,665	\$ 4,176,185	\$ 41,761,850
Non-interstate DOT pavement program	\$ 65,185,665	\$ 16,296,416	\$ 81,482,081
Roadway improvements program	\$ 3,000,000	\$ 750,000	\$ 3,750,000
Safety improvements program	\$ 20,000,000	\$ 2,916,667	\$ 22,916,667
Modernization programs	\$ 34,400,000	\$ 6,516,667	\$ 40,916,667
ADA retrofits program	\$ -	\$ -	\$ -
Intersection improvements program	\$ 17,000,000	\$ 2,166,667	\$ 19,166,667
Intelligent Transportation Systems program	\$ 10,000,000	\$ 2,500,000	\$ 12,500,000
Roadway reconstruction program	\$ 7,400,000	\$ 1,850,000	\$ 9,250,000
Expansion programs	\$ 20,000,000	\$ 5,000,000	\$ 25,000,000
Bicycles and pedestrians program	\$ 20,000,000	\$ 5,000,000	\$ 25,000,000
Capacity program	\$ -	\$ -	\$ -

**FFY 2019-2023 STIP
2021 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2021 (Proposed) <i>(federal aid + match)</i>
Base obligation authority	\$ 641,988,270		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 691,988,270		
ABP GANS Repayment	\$ (85,190,000)		
Total non-earmarked funding available	\$ 606,798,270	\$ 144,651,660	\$ 751,449,930
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 33,342,205	\$ 8,335,551	\$ 41,677,756
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 64,131,766	\$ 15,755,164	\$ 79,886,929
Funding for regional priorities	regional share % MPO	Total federal aid	Matching funds Total funding (proposed)
	3.5596% Berkshire	\$ 6,929,328	\$ 1,732,332 \$ 8,661,660
	42.9671% Boston	\$ 83,642,302	\$ 20,910,575 \$ 104,552,877
	4.5851% Cape Cod	\$ 8,925,627	\$ 2,231,407 \$ 11,157,034
	8.6901% Central Mass	\$ 16,916,663	\$ 4,229,166 \$ 21,145,829
	2.5397% Franklin	\$ 4,943,930	\$ 1,235,983 \$ 6,179,913
	0.3100% Martha's Vineyard	\$ 603,464	\$ 150,866 \$ 754,330
	4.4296% Merrimack Valley	\$ 8,622,922	\$ 2,155,730 \$ 10,778,652
	4.4596% Montachusett	\$ 8,681,322	\$ 2,170,330 \$ 10,851,652
	0.2200% Nantucket	\$ 428,265	\$ 107,066 \$ 535,331
	3.9096% Northern Middlesex	\$ 7,610,659	\$ 1,902,665 \$ 9,513,324
	4.5595% Old Colony	\$ 8,875,793	\$ 2,218,948 \$ 11,094,741
	10.8099% Pioneer Valley	\$ 21,043,192	\$ 5,260,798 \$ 26,303,990
	8.9601% Southeastern Mass	\$ 17,442,261	\$ 4,360,565 \$ 21,802,827
	<i>Total funding of regional priorities</i>	\$ 194,665,923	\$ 48,666,432 \$ 243,332,161
Highway Division programs	\$ 348,000,581	\$ 80,230,065	\$ 428,230,646
Reliability programs	\$ 239,280,581	\$ 54,577,842	\$ 293,858,423
Bridge program	\$ 140,500,000	\$ 35,125,000	\$ 175,625,000
	<i>Inspections</i>	\$ -	\$ - \$ -
	<i>Systematic maintenance</i>	\$ 8,000,000	\$ 2,000,000 \$ 10,000,000
	<i>On-system NHS (minimum)</i>	\$ 94,900,000	\$ 23,725,000 \$ 118,625,000
	<i>On-System Non-NHS</i>	\$ 9,100,000	\$ 2,275,000 \$ 11,375,000
	<i>Off-system</i>	\$ 28,500,000	\$ 7,125,000 \$ 35,625,000
Interstate pavement program	\$ 24,744,581	\$ 2,749,398	\$ 27,493,979
Non-interstate DOT pavement program	\$ 54,036,000	\$ 13,509,000	\$ 67,545,000
Roadway improvements program	\$ 3,000,000	\$ 750,000	\$ 3,750,000
Safety improvements program	\$ 17,000,000	\$ 2,444,444	\$ 19,444,444
Modernization programs	\$ 80,720,000	\$ 18,652,222	\$ 99,372,222
ADA retrofits program	\$ 1,400,000	\$ 350,000	\$ 1,750,000
Intersection improvements program	\$ 16,000,000	\$ 2,472,222	\$ 18,472,222
Intelligent Transportation Systems program	\$ 8,000,000	\$ 2,000,000	\$ 10,000,000
Roadway reconstruction program	\$ 55,320,000	\$ 13,830,000	\$ 69,150,000
Expansion programs	\$ 28,000,000	\$ 7,000,000	\$ 35,000,000
Bicycles and pedestrians program	\$ 28,000,000	\$ 7,000,000	\$ 35,000,000
Capacity program	\$ -	\$ -	\$ -

**FFY 2019-2023 STIP
2022 BUDGET**

	Obligation authority <i>(federal aid only)</i>	Matching funds	FFY 2022 (Proposed) <i>(federal aid + match)</i>
Base obligation authority	\$ 658,744,163		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 708,744,163		
ABP GANS Repayment	\$ (89,590,000)		
Total non-earmarked funding available	\$ 619,154,163	\$ 147,301,057	\$ 766,455,220
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 36,361,281	\$ 9,090,320	\$ 45,451,601
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Freight Plan flex to Rail and Transit	\$ 2,245,872	\$ 561,468	\$ 2,807,340
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 67,150,842	\$ 16,509,933	\$ 83,660,774
Funding for regional priorities	regional share % MPO	Total federal aid	Matching funds Total funding (proposed)
	3.5596% Berkshire	\$ 7,070,426	\$ 1,767,607 \$ 8,838,033
	42.9671% Boston	\$ 85,345,463	\$ 21,336,366 \$ 106,681,829
	4.5851% Cape Cod	\$ 9,107,375	\$ 2,276,844 \$ 11,384,218
	8.6901% Central Mass	\$ 17,261,128	\$ 4,315,282 \$ 21,576,410
	2.5397% Franklin	\$ 5,044,601	\$ 1,261,150 \$ 6,305,751
	0.3100% Martha's Vineyard	\$ 615,752	\$ 153,938 \$ 769,690
	4.4296% Merrimack Valley	\$ 8,798,505	\$ 2,199,626 \$ 10,998,132
	4.4596% Montachusett	\$ 8,858,094	\$ 2,214,524 \$ 11,072,618
	0.2200% Nantucket	\$ 436,986	\$ 109,246 \$ 546,232
	3.9096% Northern Middlesex	\$ 7,765,631	\$ 1,941,408 \$ 9,707,038
	4.5595% Old Colony	\$ 9,056,526	\$ 2,264,131 \$ 11,320,657
	10.8099% Pioneer Valley	\$ 21,471,682	\$ 5,367,921 \$ 26,839,603
	8.9601% Southeastern Mass	\$ 17,797,428	\$ 4,449,357 \$ 22,246,785
	<i>Total funding of regional priorities</i>	\$ 198,629,796	\$ 49,657,399 \$ 248,286,997
Highway Division programs		\$ 353,373,525	\$ 81,133,725 \$ 434,507,250
Reliability programs		\$ 246,873,525	\$ 56,592,058 \$ 303,465,583
Bridge program		\$ 154,820,000	\$ 38,705,000 \$ 193,525,000
	<i>Inspections</i>	\$ 14,320,000	\$ 3,580,000 \$ 17,900,000
	<i>Systematic maintenance</i>	\$ 8,000,000	\$ 2,000,000 \$ 10,000,000
	<i>On-system NHS (minimum)</i>	\$ 94,900,000	\$ 23,725,000 \$ 118,625,000
	<i>On-System Non-NHS</i>	\$ 9,100,000	\$ 2,275,000 \$ 11,375,000
	<i>Off-system</i>	\$ 28,500,000	\$ 7,125,000 \$ 35,625,000
Interstate pavement program		\$ 22,909,525	\$ 2,545,503 \$ 25,455,028
Non-interstate DOT pavement program		\$ 51,144,000	\$ 12,786,000 \$ 63,930,000
Roadway improvements program		\$ 1,000,000	\$ 250,000 \$ 1,250,000
Safety improvements program		\$ 17,000,000	\$ 2,305,556 \$ 19,305,556
Modernization programs		\$ 78,500,000	\$ 17,541,667 \$ 96,041,667
ADA retrofits program		\$ -	\$ - \$ -
Intersection improvements program		\$ 15,000,000	\$ 1,666,667 \$ 16,666,667
Intelligent Transportation Systems program		\$ 8,000,000	\$ 2,000,000 \$ 10,000,000
Roadway reconstruction program		\$ 55,500,000	\$ 13,875,000 \$ 69,375,000
Expansion programs		\$ 28,000,000	\$ 7,000,000 \$ 35,000,000
Bicycles and pedestrians program		\$ 28,000,000	\$ 7,000,000 \$ 35,000,000
Capacity program		\$ -	\$ - \$ -

**FFY 2019-2023 STIP
2023 BUDGET**

	Obligation authority (federal aid only)	Matching funds	FFY 2023 (Proposed) (federal aid + match)
Base obligation authority	\$ 676,662,005		
Planned redistribution request	\$ 50,000,000		
Total Estimated Funding Available	\$ 726,662,005		
ABP GANS Repayment	\$ (93,985,000)		
Total non-earmarked funding available	\$ 632,677,005	\$ 150,023,500	\$ 782,700,504
Planning / Adjustments / Pass-throughs			
Award adjustments, change orders, etc.	\$ 20,000,000	\$ 5,000,000	\$ 25,000,000
Metropolitan planning	\$ 8,670,263	\$ 2,167,566	\$ 10,837,829
State planning and research	\$ 14,026,697	\$ 3,506,674	\$ 17,533,371
Recreational trails	\$ 1,186,729	\$ 296,682	\$ 1,483,411
Railroad grade crossings	\$ 2,000,000	\$ 222,222	\$ 2,222,222
MassRides program	\$ 2,660,000	\$ 665,000	\$ 3,325,000
<i>subtotal of planning / adjustments / pass-throughs</i>	\$ 48,543,689	\$ 11,858,144	\$ 60,401,833
Funding for regional priorities	regional share %	MPO	Total federal aid
			Matching funds
			Total funding (proposed)
	3.5596%	Berkshire	\$ 7,224,850
	42.9671%	Boston	\$ 87,209,479
	4.5851%	Cape Cod	\$ 9,306,287
	8.6901%	Central Mass	\$ 17,638,125
	2.5397%	Franklin	\$ 5,154,779
	0.3100%	Martha's Vineyard	\$ 629,201
	4.4296%	Merrimack Valley	\$ 8,990,672
	4.4596%	Montachusett	\$ 9,051,563
	0.2200%	Nantucket	\$ 446,530
	3.9096%	Northern Middlesex	\$ 7,935,238
	4.5595%	Old Colony	\$ 9,254,328
	10.8099%	Pioneer Valley	\$ 21,940,642
	8.9601%	Southeastern Mass	\$ 18,186,139
		<i>Total funding of regional priorities</i>	\$ 202,968,036
Highway Division programs			\$ 381,165,279
Reliability programs			\$ 61,384,440
Bridge program			\$ 166,996,123
		<i>Inspections</i>	\$ -
		<i>Systematic maintenance</i>	\$ 8,629,176
		<i>On-system NHS</i>	\$ 94,900,000
		<i>On-System Non-NHS</i>	\$ 9,815,687
		<i>Off-system</i>	\$ 28,500,000
Interstate pavement program			\$ 24,711,290
Non-interstate DOT pavement program			\$ 56,414,722
Roadway improvements program			\$ 1,142,119
Safety improvements program			\$ 18,336,998
Modernization programs			\$ 84,673,787
ADA retrofits program			\$ 1,400,000
Intersection improvements program			\$ 16,934,757
Intelligent Transportation Systems program			\$ 8,000,000
Roadway reconstruction program			\$ 58,339,029
Expansion programs			\$ 28,890,241
Bicycles and pedestrians program			\$ 28,890,241
Capacity program			\$ -

APPENDIX B: Metropolitan Planning Area (MPA) State and Local Consulted Agencies

As required in MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141) consulted with agencies and officials responsible for other planning activities within the MPA (metropolitan planning area) that are affected by transportation (including State and local planned growth, economic development, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities

PVMPO fulfilled these requirements through the processes tied to the Joint Transportation Committee (JTC). Listed below are two tables, table 25 list agencies with transportation interest in the Metropolitan Planning Area (MPA) that were contacted for the purpose of consultation while developing the TIP. Table 26 lists the agencies from table 26 which responded and coordinated meetings were held during TIP development.

Table 25: Agencies Contacted

Agency	Agency Location
Westfield River Wild and Scenic Advisory Committee	Haydenville
MassDOT - Office of Transportation Planning	Boston
FEDERAL HIGHWAY ADMIN	Cambridge
US EPA	Boston
MassDOT	Boston
COUNCIL ON AGING	Granby
AIR QUALITY CONTROL (DEP)	Boston
FEDERAL TRANSIT ADMIN	Cambridge
MassDOT Highway Division District 1& 2	Northampton/Lenox
OFFICE OF SOCIAL CONCERN	Springfield
Economic Development Council of Western Mass	Springfield
PETER PAN BUS LINES, INC.	Springfield
Pioneer Valley Transit Authority (PVTA)	Springfield
BARNES AIRPORT	Westfield
Pioneer Valley RR	Westfield
Bike/Ped Community (MassBike)	Williamsburg
UMASS Transit	Amherst
Columbia Greenway Rail Trail Committee	Westfield

These agencies are solicited to comment and provide relevant information during TIP development and are invited to attend all meetings and workshop involving project evaluation. Agendas and information in regards the TIP and its development are distributed by mail prior to meetings as outlined in the Public Participation Plan for the Pioneer Valley.

Table 26: Agencies Providing Consultation)

Agency	Agency Location
MassDOT - Office of Transportation Planning	Boston
Columbia Greenway Rail Trail Committee	Westfield

APPENDIX C: FAST Act Performance Management Information

The FHWA and FTA are jointly issuing this final rule to update the regulations governing the development of metropolitan transportation plans (MTP) and programs for urbanized areas, long-range statewide transportation plans and programs, and the congestion management process as well as revisions related to the use of and reliance on planning products developed during the planning process for project development and the environmental review process. The changes reflect the passage of the Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act. The MAP-21 continues many provisions related to transportation planning from prior laws; however, it introduces transformational changes and adds some new provisions. The FAST Act makes minor edits to existing provisions. The changes make the regulations consistent with current statutory requirements and implement the following: A new mandate for State departments of transportation (hereafter referred to simply as "States") and metropolitan planning organizations (MPO) to take a performance-based approach to planning and programming; a new emphasis on the nonmetropolitan transportation planning process, by requiring States to have a higher level of involvement with nonmetropolitan local officials and providing a process for the creation of regional transportation planning organizations (RTPO); a structural change to the membership of the larger MPOs; a new framework for voluntary scenario planning; new authority for the integration of the planning and environmental review processes; and a process for programmatic mitigation plans.³

PVPC accomplished the MTP requirements of FAST Act through the recent update to the Transportation Evaluation Criteria (TEC) for the Pioneer Valley MPO. The table below shows the relationship between FAST act planning factors and our TEC.

Fast Act Planning Factors Relationship to the Transportation Evaluation Criteria (TEC)

Factor	Fast Act 10 Planning Factors Description	TEC Scoring Criteria
1	Support the economic vitality of the metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.	Smart Growth and Economic Development, System Preservation, Modernization and Efficiency
2	Increase the safety of the transportation system for motorized and non-motorized users.	Safety and Security, Quality of Life
3	Increase the security of the transportation system for motorized and non-motorized users.	Safety and Security, Quality of Life
4	Increase the accessibility and mobility of people and for freight.	Mobility, Smart Growth and Economic Development
5	Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.	Environment and Climate Change, Quality of Life, Livability, Smart Growth and Economic Development
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	Smart Growth and Economic Development, Mobility
7	Promote efficient system management and operation.	System Preservation, Modernization and Efficiency, Mobility

³ <https://www.federalregister.gov/articles/2016/05/27/2016-11964/statewide-and-nonmetropolitan-transportation-planning-metropolitan-transportation-planning#h-9>

8	Emphasize the preservation of the existing transportation system.	System Preservation, Modernization and Efficiency
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	Environment and Climate Change
10	Enhancing travel and tourism.	Mobility, Quality of Life

APPENDIX D: Planning Acronyms

3C - Continuing, Comprehensive, and Cooperative Planning Process

AADT - Average Annual Daily Traffic

AASHTO - American Association of State Highway and Transportation Officials

ADA - Americans with Disabilities Act (1990)

ADT - Average Daily Traffic

AFV - Alternative Fuel Vehicles

ATR - Automatic Traffic Recorder

AVR - Average Vehicle Ridership

BAPAC - Barnes Aquifer Protection Advisory Committee

BID - Business Improvement District

BLOS - Bicycle Level of Service

BMP - Best Management Practice

BMS - Bridge Management System

CAAA - Clean Air Act Amendments of 1990

CBD - Central Business District

CDBG - Community Development Block Grant

CDC - Centers for Disease Control

CEDS - Comprehensive Economic Development Strategy

CIP - Capital Improvements Plan (or Program)

CMAQ - Congestion Mitigation and Air Quality Improvement Program

CMP - Congestion Management Process

CNG - Compressed Natural Gas

CO - Carbon Monoxide

COG - Council of Governments

Comm-PASS - Commonwealth Procurement Access and Solicitation System

CPA - Community Preservation Act

CPTC - Citizen Planner Training Collaborative

CRCOG - Capitol Region Council of Governments

CSO - Combined Sewer Overflow

DCR - Department of Conservation and Recreation

DEP - Department of Environmental Protection

DHCD - Department of Housing and Community Development

DLTA - Direct Local Technical Assistance

DOT - Department of Transportation

DPW - Department of Public Works

E.O. - Executive Order

EDC - Economic Development Council

EIR - Environmental Impact Report

EIS - Environmental Impact Statement

EJ - Environmental Justice

ENF - Environmental Notification Form

EOA - Economic Opportunity Area

EOEEA - Executive Office of Energy and Environmental Affairs

EPA - Environmental Protection Agency

FA - Federal Aid

FAST - Fixing America's Surface Transportation Act

FC - Functional Classification (of roadways)

FHA - Federal Housing Administration

FHWA - Federal Highway Administration

FRCOG - Franklin Regional Council of Governments

FRTA - Franklin Regional Transit Authority

FTA - Federal Transit Administration

GHG - Greenhouse Gas

GIS - Geographic Information System

GPS - Global Positioning System

HOV - High Occupancy Vehicle

HUD - U.S. Department of Housing and Urban Development

ISTEA - Intermodal Surface Transportation Efficiency Act of 1991

ITS - Intelligent Transportation Systems

JARC - Job Access and Reverse Commute

JLSB - Jacob's Ladder Scenic Byway

JLT - Jacob's Ladder Trail

JTC - Joint Transportation Committee

LEP - Limited English Proficiency

LOS - Level of Service

LPMS - Local Pavement Management System

LRV - Light Rail Vehicle

LTA - Local Technical Assistance

M.G.L. - Massachusetts General Laws

MAP 21 - Moving Ahead for Progress in the 21st Century

MARPA - Massachusetts Association of Regional Planning Agencies

MassDOT - Massachusetts Department of Transportation

MassGIS - Massachusetts Geographic Information System

MEPA - Massachusetts Environmental Policy Act

MMA - Massachusetts Municipal Association

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MPO - Metropolitan Planning Organization

MUTCD - Manual of Uniform Traffic Control Devices

NFA - Non-Federal Aid

NHS - National Highway System

NHTSA - National Highway Traffic Safety Administration

NOx - Nitrogen Oxide

NTSB - National Transportation Safety Board

OCI - Overall Condition Index (Pavement)

PCI - Pavement Condition Index

PL - [Metropolitan] Planning Funds

PMS - Pavement Management System

PMUG - Pavement Management Users Group

PPP - Public Participation Process

PVTA - Pioneer Valley Transit Authority

QVCD - Quabog Valley Community Development Corp.

REB - Regional Employment Board
RIF - Roadway Inventory Files
RPA - Regional Planning Agency
RTA - Regional Transit Authority
RTP - Regional Transportation Plan
SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SBA - Small Business Administration
SIP - State Implementation Plan (for air quality)
SKC - Sustainable Knowledge Corridor
SOV - Single Occupancy Vehicle
SPR - Statewide Planning and Research Funds
STIP - Statewide Transportation Improvement Program
STP - Surface Transportation Program
TCSP - Transportation and Community System Preservation [Pilot Program]
TDM - Transportation Demand Management
TEA-21 - Transportation Equity Act for the 21st Century
TIP - Transportation Improvement Program
TMC - Turning Movement Count
TND - Traditional Neighborhood District
TOD - Transit Oriented Design (or Development)
TRB - Transportation Research Board
TRO - Trip Reduction Ordinance
TSM - Transportation Systems Management
UMass - University of Massachusetts
UPWP - Unified Planning Work Program
VMT - Vehicle Miles Traveled
VOC - Volatile Organic Compound
VOR - Vehicle Occupancy Rate
WBE - Women-owned Business Enterprises
WRWA - Westfield River Watershed Association
WRWSAC - Westfield River Wild & Scenic Advisory Committee
ZBA - Zoning Board of Adjustment (or Appeals)