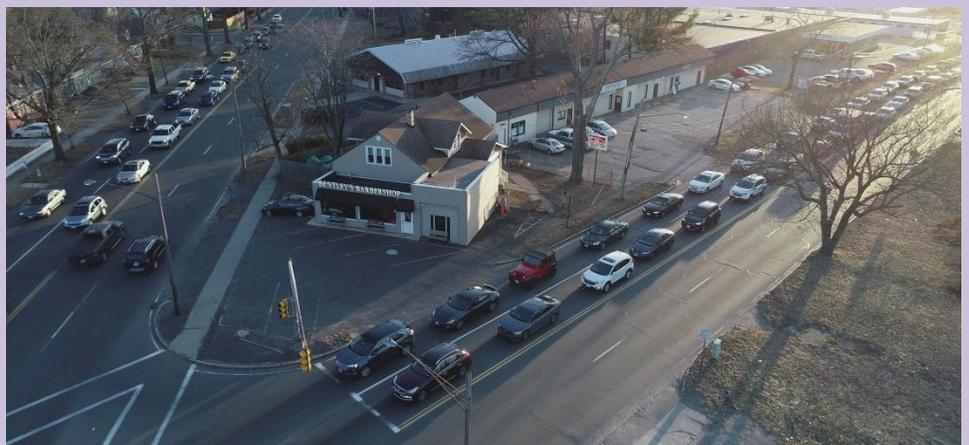


Pioneer Valley Metropolitan Planning Organization

Unified Planning Work Program

October 1, 2020 to September 30, 2021



Catalyst for Regional Progress

PVPC

Prepared by:

Pioneer Valley Planning
Commission
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Pioneer Valley
Unified Planning Work Program

Fiscal Year 2021
October 1, 2020 to September 30, 2021

Draft Document
April 2020

Prepared by the
Pioneer Valley Planning Commission

For the Pioneer Valley
Metropolitan Planning Organization

Pioneer Valley MPO Members

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Mayor Alexander Morse	City of Holyoke
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Mayor Nicole LaChapelle	City of Easthampton
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Prepared in cooperation with the Massachusetts Department of Transportation, and the Federal Highway Administration and the Federal Transit Administration - U.S. Department of Transportation. The views and opinions of the Pioneer Valley Planning Commission expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

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EXECUTIVE SUMMARY

Each year, Metropolitan Planning Organizations (MPOs) are required to prepare a Unified Planning Work Program (UPWP), in cooperation with member agencies, to describe all anticipated transportation planning activities over the course of the upcoming federal fiscal year. The UPWP is an essential step in the development of a continuing, cooperative, and comprehensive (3C) transportation planning process in the Pioneer Valley Region. As the lead planning agency for the Pioneer Valley Metropolitan Planning Organization (MPO), the Pioneer Valley Planning Commission (PVPC) is responsible for developing the UPWP in cooperation with the Pioneer Valley Transit Authority, Franklin Regional Transit Authority, the Massachusetts Department of Transportation (MassDOT), and the 43 communities that comprise the region.

The UPWP also identifies the federal, state, and local funding sources used to carry out the proposed tasks. Tasks included in the UPWP were developed to advance key emphasis areas as identified by the Federal Highway Administration, the Federal Transit Administration and MassDOT. This document was prepared in compliance with the Fixing America's Surface Transportation (FAST) Act and addresses its national goals and planning factors. The FAST Act specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation. Additional information on the FAST Act can be found here: <http://www.fhwa.dot.gov/fastact/>.

The UPWP is divided into the following sections:

Work Element 1 - Work Element 1 encompasses the administration and support of the 3-C transportation process. Major products under this task include the development of the TIP, the UPWP, regional public participation process, and Environmental Justice and Title VI planning.

Work Element 2 – Data collection and other planning services required to support the UPWP are included as part of Work Element 2. This work is traditionally used to assist in transportation analysis and the development of figures and tables included in technical reports. This data is also used to assist in tracking regional transportation performance measures.

Work Element 3 - This work element is comprised of transportation planning that directly supports the development of projects included in the Regional Transportation Plan (RTP) or the development of RTPs. Key studies included in Work Element 3 for FFY 2021 include:

- Task 3.1 – Regional Bicycle and Pedestrian Planning supports local and regional Complete Streets planning to accommodate all modes of transportation. As part of this task, PVPC will develop a user survey of the Westfield Columbia River Greenway and Southwick Rail Trail.
- Task 3.2 – Transit System Surveys and Route Implementation works in cooperation with PVTA to survey, monitor, and assess the quality of their fixed route and paratransit services. A northern service area fixed route onboard customer survey started in the spring of 2020 will be finalized to assist in improving the quality of transit service in this area.
- Task 3.3 – Regional Freight Planning assists in the planning of the efficient movement of all forms of freight. This task will utilize safety and traffic count data to expand on the analysis started as part of the regional freight plan.
- Task 3.4 – Regional Congestion Management Process Project Development analyzes regional travel time data along major transportation corridors to confirm areas of congestions. Staff will utilize data available through FHWA's National Performance Management Research Data Set (NPMRDS) to update the regional congested corridor ranking. The MPO will work with the JTC to identify a planning study to reduce congestion at a local bottleneck. This task also incorporates Intelligent Transportation System (ITS) related planning. A study of Main and Park Streets in the Town of Belchertown, MA is also included as part of this task
- Task 3.5 – Regional Pavement Management will analyze the data collected under Task 2.6 in the communities of Chester, Chesterfield, Cummington, Easthampton, Goshen, Hatfield, Huntington, Northampton, Plainfield, Westhampton, Williamsburg and Worthington.
- Task 3.6 – Regional Performance Measures Assessment is intended to focus on the federal planning emphasis area of “transitioning to performance-based planning and programming.” Staff will continue to

review and assess adopted regional performance targets and score projects for the TIP using the regional Transportation Evaluation Criteria. PM2 and PM3 targets will be updated in the fall of 2020 as part of this task.

- Task 3.7 – Regional Safety and Planning Studies will finalize the update of the Safety Compass report started as part of the FFY2020 UPWP. Staff will also work in cooperation with MassDOT and the Town of West Springfield to develop an implementation study to advance the recommendations of the 2019 Route 20 Road Safety Audit.
- Task 3.8 – Climate Change Implementation will update regional Climate Action Strategies and develop corresponding tools that can be implemented in the coming years to assist in reducing the impacts of climate change. This task also serves to advance Municipal Vulnerability Preparedness as related to infrastructure through culvert assessments.
- Task 3.9 – Green Streets and Infrastructure planning reduces the environmental impacts of streets, roads, and municipal infrastructure. This task will review and update strategies within the regional Green Infrastructure Plan conduct green infrastructure retrofit mapping in select communities.

Work Element 4 – Work Element 4 consists of transportation planning activities that support the day to day operations of the regional transportation system. Key tasks included as part of Work Element 4 include regional fixed route and paratransit planning, bicycle and pedestrian planning, and local technical assistance. Federal and state funded transportation planning studies such as Scenic Byway Studies that are funded outside of the region’s allotted Planning (PL) and Section 5303 budgets are also included as part of Work Element 4.

Additional Planning Projects - This section outlines activities for which funding has not yet been secured. These proposed tasks are provided for information purposes only. To date no additional planning projects have been identified for the region for the FFY2021 UPWP.

INTRODUCTION

The UPWP provides an indication of regional long and short-range transportation planning objectives, the manner in which these objectives will be achieved, the budget necessary to sustain the overall planning effort, and the sources of funding for each specific program element. All tasks will be performed by the PVPC in cooperation with appropriate agencies, unless otherwise stated.

The work tasks within this UPWP are reflective of issues and concerns originating from transportation agencies at the federal, state and local levels and emphasize the development of tangible products. Several tasks are specifically targeted to implement provisions of several pieces of federal legislation, particularly the Fixing America's Surface Transportation (FAST) Act, the Clean Air Act Amendments of 1990 (CAAA) and the Americans with Disabilities Act (ADA).

The time periods, or "program years", for the various funding sources are outlined in the following chart:

Funding Source	Fiscal Period:
FHWA/FTA/MassDOT	October 1, 2020 through September 30, 2021
PVTA	October 1, 2020 through September 30, 2021

The Pioneer Valley Metropolitan Planning Organization anticipates endorsement of the Unified Planning Work Program for the Pioneer Valley MPO on May 25, 2020.

UPWP AMENDMENT

The descriptions of the tasks to be accomplished and the budgets for these tasks are based on the best estimate of what can be accomplished within the confines of available resources. If, in the performance of this work program, it becomes apparent that certain tasks cannot be accomplished due to changing or unforeseen circumstances, the UPWP will be amended/adjusted by redefining the scope of the tasks and/or reallocating funds among tasks. These changes will be developed in cooperation with MassDOT, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Pioneer Valley Transit Authority (PVTA), and other concerned agencies as appropriate.

Upon endorsement by the MPO, the UPWP may be amended or adjusted as follows:

- Amendment with 21 day public comment period:
 - Any revision which would result in the need for additional funding.
 - Unless waived by the awarding agency, cumulative transfers among direct cost categories, or, if applicable, among separately budgeted programs, projects, functions, or activities which exceed or are expected to exceed ten percent of the current total approved budget, whenever the awarding agency's share exceeds \$100,000.
 - Any revision of the scope or objectives of the project or program, regardless of whether there is an associated budget revision requiring prior approval.
 - An extension of the period of availability of funds.
 - Changes in key persons in cases where specified in an application or a grant award. In research projects, a change in the project director or principal investigator shall always require approval unless waived by the awarding agency.
 - Contracting out, sub-granting (if authorized by law) or otherwise obtaining the services of a third party to perform activities which are central to the purposes of the award. Unless described in the application and funded in the approved awards, the sub-award, transfer or contracting out of any work under an award. This approval requirement does not apply to the procurement of equipment, supplies, and general support services, these purchases are handled through procurement procedure guidance and do not require UPWP amendment.
 - The absence for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.
 - The need for additional Federal funding.

- The transfer of funds allotted for training allowances (direct payment to trainees) to other categories of expense.
- Adjustment with an approval vote from the MPO and sign-off from the Office of Transportation Planning (OTP):
 - Modification of budget to an already programmed task less than 10 percent of the current total approved budget.

TRANSPORTATION PLANNING FUNDING SOURCES

Highway Funding - MassDOT receives two types of funds from FHWA that are passed through to planning agencies to conduct 3C transportation planning activities. These funds include Metropolitan Planning funds (PL) and Statewide Planning and Research funds (SPR) and are apportioned to states on the basis of population in urbanized areas and relative to the amount of highway construction funds the state receives. MassDOT maintains annual contracts with planning agencies to conduct transportation related planning activities within each region. These contracts utilize the PL and SPR funds received by FHWA.

Within the Pioneer Valley region the predominant source of funding from MassDOT is PL funds. In the past, unexpended funds from contract to contract were reserved in a “PL Balance” account for the region. Currently, funds not used during a program year are deobligated and may not be available for future use.

A total of \$1,080,793 in PL funds has been programmed for the FY2021 Transportation Work Program. Direct Costs are expected to vary among tasks in the UPWP and are subject to change. A total of \$20,000 has been allocated for Direct Costs in FY2021.

Transit Funding—Two types of funds are used for transit planning purposes in the Pioneer Valley region; Section 5303 and Section 5307 funds of the Federal Transit Act Amendments of 1991. Section 5303 funds are earmarked for use in planning and technical studies related to urban mass transportation. They are filtered down from the Federal Transit Administration through the MassDOT to the regional planning agencies in the Commonwealth. In FY2020, Section 5303 funding was combined with PL funding in a single contract to be administered through FHWA with MassDOT providing the required 20% match.¹ A total of \$322,691 in Section 5303 funds has been programmed for the FY2021 Transportation Work Program.

Section 5307 funds can be used for planning as well as other purposes, and are distributed by the FTA on the basis of the Regional Transit Authority (RTA) service area population. The Pioneer Valley Transit Authority, using Section 5307 funds from the FTA, contracts with the PVPC for assistance on a wide range of planning activities. The required a 20% local match for 5307 Funds is provided by the PVTA. A total of \$285,000 in Section 5307 funds has been programmed for the FY2021 Transportation Work Program.

The Pioneer Valley Transit Authority, the FTA Section 5307 applicant, has consulted with the Pioneer Valley Planning Commission and concurs that the public involvement process adopted by the MPO for the development of the UPWP satisfies the public hearing requirements that pertain to the development of the Program of Projects included in the 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 as part of the UPWP review is not sufficient. FTA will require additional public involvement prior to grant approval, as presented in the joint FHWA/FTA environmental regulations, 23 CFR-Part 771.

Other Funding Sources – Other funding sources available are typically sought to conduct specific planning activities. These funds include highway funds such as Congestion Mitigation Air Quality

¹ The required Section 5303 match was previously provided by the PVTA. MassDOT now provides this match as part of a combined PL/5303 Contract that will be administered by FHWA. The UPWP will continue to reflect both the PL and 5303 Funding separately to clearly identify how this funding will be used for highway and transit planning.

(CMAQ) funds and Scenic Byway funds. These funds are awarded on a competitive basis and award is not guaranteed.

Many projects completed by PVPC's Community Development and Land Use Sections are funded through the award of competitive grants and through private contracts with local communities. These sources include Municipal Incentive Grants (MIGs), Community Development Block Grants, Community Development Action Grants, and Urban Development Action Grants. The PVPC also uses community assessment dollars to supplement the local technical assistance program.

FAST ACT PLANNING FACTORS

All metropolitan planning organizations are required to incorporate ten factors into their planning process. The Pioneer Valley MPO has taken great strides to incorporate these ten factors into the Unified Planning Work Program. The Ten Planning Factors and their corresponding transportation planning tasks are:

Factor	Description	UPWP Task
1	Support the economic vitality of the metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.	Task 1.4 - Transportation Improvement Plan (TIP) development Task 3.6 – Regional Performance Measures Assessment
2	Increase the safety of the transportation system for motorized and non-motorized users.	Task 3.1 - Regional Bicycle and Pedestrian Planning Task 3.7 - Regional Safety and Planning Studies
3	Increase the security of the transportation system for motorized and non-motorized users.	Task 3.2 - Transit System Surveys and Route Implementation Task 4.1 - Regional Transit Planning
4	Increase the accessibility and mobility of people and for freight.	Task 3.1 - Regional Bicycle and Pedestrian Planning Task 3.3 - Regional Freight Planning Task 4.1 - Regional Transit Planning Task 4.2 - Paratransit Planning Assistance
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.	Task 1.5 - Title VI and Environmental Justice Task 4.3 – Implementing the Regional Land Use Plan
6	Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.	Task 3.1 Regional Bicycle and Pedestrian Planning Task 3.2 - Transit System Surveys and Route Implementation Task 3.3- Regional Freight Planning
7	Promote efficient system management and operation.	Task 2.7 - Regional Performance Measures Task 3.2 Transit System Surveys and Route Implementation Task 3.4 - Regional Congestion Management Process - Project Development
8	Emphasize the preservation of the existing transportation system.	Task 3.5 - Regional Pavement Management System - Project Development Task 3.8 Climate Change Implementation
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	Task 3.8 - Climate Change Implementation Task 3.9 Green Streets and Infrastructure
10	Enhancing travel and tourism.	Task 4.4 Bicycle and Pedestrian Network and Bike Commute Week Task 4.7 Scenic Byways Support Task 4.8 Bike Share Implementation

FIXING AMERICA’S SURFACE TRANSPORTATION (FAST) ACT

The FAST Act was signed into law by President Obama on December 4, 2015. This transportation bill specifically addresses all modes of transportation and enhances many of the existing provisions and programs defined in past transportation legislation.

National goal areas identified as part of the Moving Ahead for Progress in the 21st Century (MAP-21) Act 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.

The Pioneer Valley MPO has developed Task 2.7 – Regional Performance Measures to assist in the development measures that advance the seven national goals and are consistent with Massachusetts GreenDOT policy and the Pioneer Valley Regional Transportation Plan. In addition, a number of tasks included as part of Work Element 3 of the UPWP advance a number of planning efforts that support the seven national goals.

Task	Description	National Goals Supported
2.7	Regional Performance Measures collects data used to monitor and evaluate regional performance measures established for the Pioneer Valley Region	All
3.1	Regional Bicycle and Pedestrian Planning focuses on the improvement of safety and mobility for bicycles and pedestrians by providing support for local and regional efforts to adopt and implement a “Complete Streets” approach to create neighborhoods, village centers and city streets that safely accommodate all modes of transportation.	Safety, System Reliability, Congestion Reduction
3.2	Transit System Surveys and Route Implementation – This ongoing task uses existing route data and ridership surveys to assist in improving the reliability and performance of the PVRTA fixed route system.	Safety, Congestion Reduction, System Reliability
3.3	Regional Freight Planning – The freight planning task focuses on identifying opportunities to enhance the movement of freight in the region.	Freight Movement and Economic Vitality

Task	Description	National Goals Supported
3.4	Regional Congestion Management Process (CMP) – The CMP uses a variety of data sources to measure congestion along regional corridors and identify congestion bottlenecks. Planning studies are developed for congested areas to assist in developing projects to reduce congestion.	Congestion Reduction, System Reliability
3.5	Regional Pavement Management System – Pavement condition data is collected for all federal aid eligible roadways in the region on a four year cycle. The impact of planned roadway improvement projects can be analyzed under a variety of funding levels to identify the level of investment required to keep pavement in a good state of repair.	Infrastructure Condition, Reduce Project Delivery Delays
3.6	Regional Performance Measures Assessment – This task provides an update on the progress made in meeting the adopted regional performance measures and targets. Data collected as part of Task 2.7 will be used to assist in calculating scores for projects reviewed as part of the region’s Transportation Evaluation Criteria (TEC) and document progress made towards regional performance targets.	All
3.7	Regional Safety and Planning Studies – The MPO data from MassDOT and local communities to identify high crash locations. Safety data is used to monitor the effectiveness of regional safety improvements and to advance planning studies to identify potential safety improvements.	Safety, Reduce Project Delivery Delays
3.8	Climate Change Implementation – This task assists Pioneer Valley communities to plan for the impacts of climate change on the regional transportation system. It also serves to develop strategies and projects that can have a positive impact on greenhouse gas emissions from transportation sources in compliance with the Massachusetts GreenDOT policy.	Infrastructure Condition, Environmental Sustainability
3.9	Green Street and Infrastructure - Encourages the use of green streets and green infrastructure where practical to reduce stormwater and other environmental impacts the regional transportation system.	Infrastructure Condition, Environmental Sustainability

FEDERAL PLANNING EMPHASIS AREAS

FHWA and FTA have established Federal Planning Emphasis Areas to assist in the implementation of the FAST Act and guide regional transportation planning efforts. The Federal Planning Emphasis Areas are:

- *Performance Management.* The PVPC has specifically included Tasks 2.7 and 3.6 in the UPWP to address the advancement of performance based planning and project selection. We will continue to work with local communities, MassDOT, and our federal partners to track regional performance measures and utilize the regional Transportation Evaluation Criteria to advance planning studies and transportation improvement projects in the Pioneer Valley Region.

- *Regional Models of Cooperation* - PVPC routinely coordinates its planning activities with MassDOT, regional transit authorities, and bordering regional planning agencies. Massachusetts RPAs meet quarterly with MassDOT to review the status of proposed transportation improvement project. Transportation Program Managers have monthly meetings to coordinate regional planning efforts tied to the TIP, UPWP, and Title VI. We also meet annually with the Capital Region Council of Governments, located in Hartford Connecticut, to coordinate cross-border transportation planning activities as appropriate for Interstate 91, transit planning, bicycle planning, the regional transportation model, and the Bradley International Airport.
- *Ladders of Opportunity – Access to Essential Services*. PVPC has incorporated enhanced coordination with a wide range of partners as part of our planning program to identify existing gaps in the regional transportation system. We utilize Task 1.5 – Title VI and Environmental Justice to identify opportunities for the public to be involved in the identification of social, economic and environmental impacts of transportation. Task 2.4 will also assess access to employment in the region using a variety of data.

PIONEER VALLEY MPO VISION AND GOALS

The Pioneer Valley Metropolitan Planning Organization developed a vision and regional goals to provide a framework for the development of the RTP. The UPWP strives to achieve this vision by incorporating the regional goals in all planning activities.

RTP Vision

The Pioneer Valley region strives to create and maintain a safe, dependable, resilient, environmentally sound, and equitable transportation system for all. We pledge to balance performance based strategies and projects that promote sustainable development, reduced use of fossil fuels, healthy and livable communities, provide for efficient movement of people and goods, advance economic vitality and enhance connectivity in the region.

REGIONAL GOALS

1. Safety
2. Operations and Maintenance
3. Environment
4. Coordination
5. Energy Efficiency
6. Cost Effectiveness
7. Intermodal Access
8. Multimodal Choices
9. Economic Productivity
10. Quality of Life
11. Environmental Justice
12. Land Use
13. Climate Change

For a complete description of the regional goals, please visit <http://www.pvpc.org/sites/default/files/Chapter%201%20-%20Introduction.pdf>.

PERFORMANCE BASED PLANNING AND PROGRAMMING

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) refers 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 to 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 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.

Regional Performance Target Status

Final Rule	Effective Date	Status	Updated
Safety Performance Measures (PM1)	April 14, 2016	MPO adopted state targets on January 28, 2020	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 PVTA TAM Plan Targets on March 26, 2019	Every Four Years
Public Transportation Agency Safety Plan (PTASP)	PVTA anticipates adopting PTASP Targets in April, 2020	MPO anticipates adopting PVTA PTASP Targets on May 25, 2020	Annually

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 and PTASP performance targets into 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 are presented in the following table.

Performance Targets for the Pioneer Valley MPO

Rule	Performance Measure	Target
PM1	Total Number of Fatalities	Reduce Total Number of Fatalities to 347 or less statewide
PM1	Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)	Reduce the Rate of Fatalities to 0.56/100 million VMT or less statewide
PM1	Total Number of Incapacitating Injuries	Reduce Total Number of Incapacitating Injuries to 2689 or less statewide
PM1	Rate of Serious Incapacitating per 100 Million VMT	Reduce the Rate of Incapacitating Injuries to 4.30/100 million VMT or less statewide
PM1	Total Number of Combined Incapacitating Injuries and Fatalities for Non-motorized Modes	Do Not Exceed the Current Average of 505 for Combined Incapacitating Injuries and Fatalities for Non-motorized Modes
PM2	Percentage of pavement of the Interstate System in Good condition	Maintain a condition of 70% or better for 2020 and 2022
PM2	Percentage of pavement of the Interstate System in Poor condition	Maintain a condition of 4% or better for 2020 and 2022
PM2	Percentage of pavement of the non-Interstate NHS in Good condition	Maintain a condition of 30% or better for 2020 and 2022
PM2	Percentage of pavement of the non-Interstate NHS in Poor condition	Maintain a condition of 30% or better for 2020 and 2022
PM2	Percentage of NHS bridges classified in Good condition	Maintain a condition of 15% or better for 2020 and 16% or better for 2022
PM2	Percentage of NHS bridges classifies in Poor condition	Maintain a condition of 13% or better for 2020 and 12% or better for 2022
PM3	Level of Travel Time Reliability (LOTTR) on the Interstate System	Maintain a LOTTR at or above 68% statewide for the Interstate System
PM3	Level of Travel Time Reliability (LOTTR) on non-Interstate NHS	Maintain a LOTTR at or above 80% statewide for the non-Interstate NHS
PM3	Level of Truck Travel Time Reliability (TTTR)	Maintain a TTTR of 1.85 or better statewide for the Interstate System.
PM3	Total reduction of on-road mobile source emissions from projects funded under the Congestion Mitigation and Air Quality Program (CMAQ) for the Springfield Maintenance Area	1622 Kg/day CO 1.4 Kg/day Ozone
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%
PTASP	Fatalities	Same as MPO targets for PM1
PTASP	Incapacitating Injuries	Same as MPO targets for PM1
PTASP	Safety Events	5-year (CY2015-2019) Average of 600,131 Miles per Safety Event
PTASP	System Reliability	20,759 miles between breakdowns

PIONEER VALLEY METROPOLITAN PLANNING ORGANIZATION MEMBERS

The Pioneer Valley Metropolitan Planning Organization (MPO) implements and oversees the 3C transportation planning process in the Pioneer Valley region. The objective of the **3C** transportation planning process is to assist, support, and provide the capability to maintain an open **comprehensive, cooperative, and continuing** transportation planning and programming process at all levels of government in conformance with applicable federal and state requirements and guidelines. The Pioneer Valley MPO was restructured in August of 2006 to enhance the role of the local communities in the transportation planning process and allow local MPO members to represent subregional districts respective to community size and geographic location.

- The Secretary and CEO of the Massachusetts Department of Transportation
- The Administrator of the Massachusetts Department of Transportation Highway Division
- The Chairman of the Pioneer Valley Planning Commission
- The Chairman of the Pioneer Valley Transit Authority Advisory Board
- The President and CEO of the Western Massachusetts Economic Development Council (EDC)
- The Mayors of two of the following three (3) urban core cities:

Chicopee	Holyoke	Springfield
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- The Mayor or a Selectman of one of the following four (4) cities and towns:

Agawam West	Southwick	Westfield
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- The Mayor, Selectman, or Town Councilor of one of the following five (5) cities and towns:

Amherst Northampton	Easthampton South Hadley	Hadley
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- A Selectman or Town Councilor from one of the following fourteen (14) suburban and rural towns:

Belchertown	Brimfield	East Longmeadow
Granby	Hampden	Holland
Longmeadow	Ludlow	Monson
Palmer	Pelham	Wales
Ware	Wilbraham	

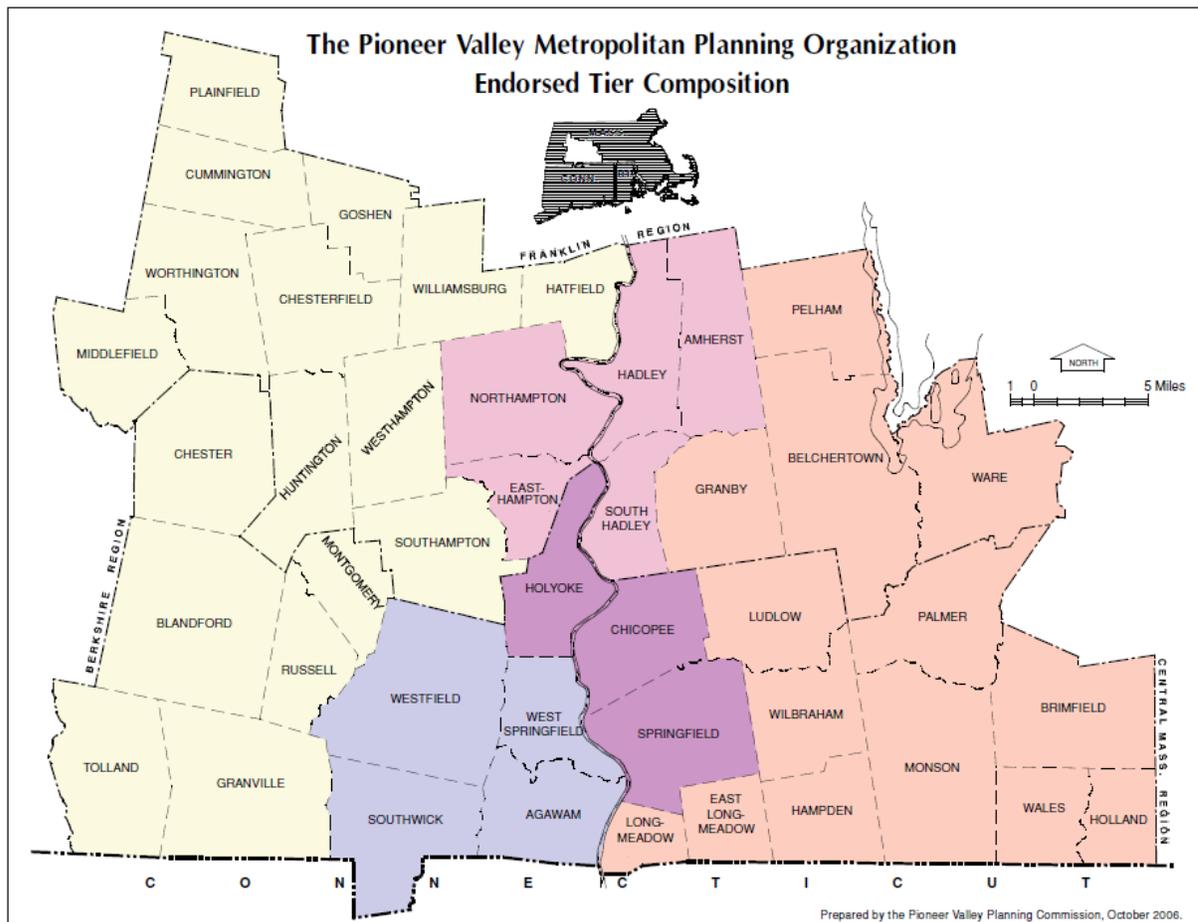
- A Selectman of one of the following seventeen (17) suburban and rural towns:

Blandford	Chester	Chesterfield
Cummington	Goshen	Granville
Hatfield	Huntington	Middlefield
Montgomery	Plainfield	Russell
Southampton	Tolland	Westhampton
Williamsburg	Worthington	

In addition, the Administrator of the Pioneer Valley Transit Authority, the Administrator of the Franklin Regional Transit Authority, the Joint Transportation Committee (JTC) Chair, and one representative each from the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the five (5) alternate community MPO representatives, and one representative each from both the Massachusetts Department of Transportation Highway Division District One and District Two Offices shall be considered ex-officio, non-voting members of the Pioneer Valley MPO. Alternate members shall be additional chief elected officials from each of the above-cited categories of communities and he/she shall be eligible to attend, participate and vote at MPO meetings in the event that the primary member cannot attend.

Pioneer Valley MPO Members

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 John Vieau	City of Chicopee
Mayor Alexander Morse	City of Holyoke
Mayor William C. Reichelt	City of West Springfield
Mayor Nicole LaChapelle	City of Easthampton
Carmina Fernandes	Ludlow Board of Selectmen
Roger Fuller	Chesterfield Board of Selectmen
Rick Sullivan	Economic Development Council of Western Massachusetts
Alternates	
Mayor Domenic Sarno	City of Springfield
John Martin	Southampton Board of Selectmen
Ex-Officio (Non-Voting)	
Jeff McEwen	Federal Highway Administration
Peter Butler	Federal Transit Administration
Sandra Sheehan	Pioneer Valley Transit Authority Administrator
Tina Cote	Franklin Regional Transit Authority Administrator
James Czach	Chairman – Pioneer Valley Joint Transportation Committee



JOINT TRANSPORTATION COMMITTEE (JTC)

The JTC is a committee comprised of representatives of local, regional and state governments, as well as private groups and individuals involved in providing transportation facilities, services, and/or planning. The JTC was established by the 3C Memorandum of Understanding for the purpose of incorporating citizen participation in the transportation planning process. It is a forum to guide transportation planning activities, transportation investments through the TIP and as an advisory body to the MPO.

Pioneer Valley Joint Transportation Committee Members and Alternates

Community	Member	Alternate
Agawam	Christopher Golba	Michelle Chase
Amherst	Guilford Mooring	Jason Skeels
Barnes Municipal Airport	Eric Billowitz	Vacant
Belchertown	Steven Williams	Gary Brougham/Douglas Albertson
Blandford	Josh Garcia	Vacant
Brimfield	Judith Carpenter	Vacant
Chester	John Murray	Vacant
Chesterfield	Matt Smith	Vacant
Chicopee	Elizabeth Botelho	Vacant
Cummington	Rob Dextraze	Vacant
East Longmeadow	Bruce Fenney	Vacant
Easthampton	Dan Murphy	Vacant
Goshen	Vacant	Vacant
Granby	David Derosiers	Vacant
Granville	Doug Roberts	Mathew Streeter
Hadley	Christian Stanley	Chris Okafor
Hampden	Vacant	Vacant
Hatfield	Phil Genovese	Garrett Barry
Holland	Brian Johnson	Larry Mandell
Holyoke	Michael McManus	Jeffrey Burkott/Robert Peirent
Huntington	Charles Dazelle	Vacant
Longmeadow	Mario Mazza	Richard Foster
Ludlow	Vacant	Elie Villeno
MassBike	Gary Briere	Marvin Ward
MassDOT District 1	Mark Moore	Peter Frieri
MassDOT District 2	Paula Simmons	Jeff Hoynoski
Middlefield	Rodney Savery, Jr.	Vacant
Mobility Impaired Representative	Carmen Rosado (STAVROS)	Vacant
Monson	John Morrell	Evan Brassard
Montgomery	Curtis Bush, Jr.	Vacant
Northampton	Wayne Feiden	Maggie Chan
Palmer	Gerry Skowronek	Vacant
Pelham	Rick Adamcek	Vacant
Pedestrian Representative	Betsy Johnson - WalkSpringfield	Dan Call – Westfield Greenway
Peter Pan Bus Lines	Peter Picknelly, Jr.	Vacant
Pioneer Valley Railroad	David Pederson	Vacant
Pioneer Valley Transit Authority	Paul Burns	Vacant
Plainfield	Merton Taylor Jr.	Vacant
Russell	Vacant	Vacant
South Hadley	Vacant	Vacant
Southampton	Randall Kemp	Vacant
Southwick	Randy Brown	Richard Grannells
Springfield	Andrew Krar	Christopher Cignoli/Peter Shumway
Tolland	James Deming	Kathleen Cowles
University of Massachusetts	Glen Barrington	Vacant
Wales	Bruce Cadieux	Jeff Vanais
Ware	Gilbert St. George-Sorel	Vacant
Western Massachusetts EDC	Vacant	Vacant
Westfield	Mark Cressotti	Jeremy Cigal
Westhampton	David Blakesly	Arthur Pichette
West Springfield	James Czach	Vacant
Wilbraham	Tonya Bosch	Dena Grochmal
Williamsburg	Vacant	Nick Dines
Worthington	Charley Rose	Peggy O'Neal

TRANSPORTATION PLANNING STAFF

The Pioneer Valley Planning Commission employs a total of nine full-time transportation planners, one part time transportation planner, and at least one part-time transportation intern.

<u>Name</u>	<u>Title</u>
Rana Al Jammal	Senior Transportation Planner - Specialist
Alexander Forrest	Transit Planner II
Amir Kouzehkanani	Principal Transportation Planner – Manager
Peter Kuusisto	Transit Planner II
Andrew McCaul	Senior Transportation Planner I
Jeffrey McCollough	Senior Transportation Planner - Specialist
Khyati Parmar	Senior Transportation Planner II
Dana Roscoe	Principal Planner - Section Head
Gary Roux	Principal Planner - Section Head
Vacant	Senior Transit Planner

STAFFING REPORT

The following PVPC staff members are expected to work on the FY2021 Unified Planning Work Program. The percentage of each staff member's time devoted to Transportation Planning Tasks as part of our MassDOT 3C and Section 5303 contracts is approximated under "% Time on Transportation".

<u>Staff</u>	<u>Position</u>	<u>% Time on Transportation</u>
Rana Al Jammal	Senior Transportation Planner - Specialist	80%
Rebecca Basch	Land Use Planner	10%
Ray Centeno	Graphics Designer	20%
Kenneth Comia	Land Use Planner	10%
Jacob Dolinger	GIS Specialist	20%
Alexander Forrest	Transit Planner II	50%
Patty Gambarini	Principal Planner – Section Head	15%
Molly Goren-Watts	Principal Planner/Manager of Regional Information and Policy Center	20%
Douglas Hall	Data Manager and Analyst	25%
Amir Kouzehkanani	Principal Transportation Planner - Manager	85%
Peter Kuusisto	Transit Planner II	50%
Andrew McCaul	Senior Transportation Planner I	86%
Jeffrey McCollough	Senior Transportation Planner - Specialist	75%
Corrin Meise-Munns	Land Use Planner	10%
Khyati Parmar	Senior Transportation Planner II	85%
Catherine Ratte	Principal Planner – Section Head	15%
Dana Roscoe	Principal Planner – Section Head	80%
Gary Roux	Principal Planner – Section Head	85%
Emily Slotnick	Land Use Planner	10%
Todd Zukowski	GIS/Cartographic – Section Head	25%
Vacant	Senior Transit Planner	50%
Transportation Intern	Intern	100%
Data Intern	Intern	25%

Staff members that are estimated to spend less than 10% of their time on tasks associated with the MassDOT 3C and Section 5303 contracts must be approved by the MassDOT Office of Transportation Planning.

FUNDING PROFILE

	Total	FHWA 3C PL	3C PL Match	Local Match	FTA S. 5303	5303 Match	PVTA 5307	5307 Match
1.0 Management & Certification of the 3C Process								
1.1 Management of the 3C Process	50,000	28,000	7,000		12,000	3,000		
1.2 Unified Planning Work Program	8,750	6,000	1,500		1,000	250		
1.3 Public Participation Process	22,500	12,000	3,000		6,000	1,500		
1.4 TIP Development	81,250	55,000	13,750		10,000	2,500		
1.5 Title VI and Environmental Justice	65,625	45,000	11,250		7,500	1,875		
Subtotal of Section 1.0	228,125	146,000	36,500		36,500	9,125		
2.0 Technical Support & Data Collection								
2.1 Traffic Counting	40,000	32,000	8,000					
2.2 Regional Travel Demand Modeling/Clean Air Planning	75,625	56,000	14,000		4,500	1,125		
2.3 GIS, Mapping and Graphics	91,750	54,200	13,550		7,200	1,800	12,000	3,000
2.3a PVTA Schedule Production - Graphics	45,000						36,000	9,000
2.4 Information Center	49,000	39,200	9,800					
2.5 Regional Congestion Management Process - Data	15,000	12,000	3,000					
2.6 Regional Pavement Management System - Data	32,500	26,000	6,500					
2.7 Regional Performance Measures Data Collection	12,500	10,000	2,500					
Subtotal of Section 2.0	361,375	229,400	57,350		11,700	2,925	48,000	12,000
3.0 RTP Planning								
3.1 Regional Bicycle, Pedestrian and Complete Streets Planning	65,000	52,000	13,000					
3.2 Transit System Surveys & Route Implementation	175,000				75,000	18,750	65,000	16,250
3.3 Regional Freight Planning	31,250	25,000	6,250					
3.4 Regional Congestion Management Process - Projects	160,000	120,000	30,000		8,000	2,000		
3.5 Regional Pavement Management System - Projects	45,000	36,000	9,000					
3.6 Regional Performance Measures Assessment	27,500	22,000	5,500					
3.7 Regional Safety and Planning Studies	161,293	124,034	31,009		5,000	1,250		
3.8 Climate Change Implementation	19,000	15,200	3,800					
3.9 Green Streets and Infrastructure	19,000	15,200	3,800					
Subtotal of Section 3.0	703,043	409,434	102,359		88,000	22,000	65,000	16,250
4.0 Ongoing Transportation Planning								
4.1 Regional Transit Planning	261,191				106,953	26,738	102,000	25,500
4.2 Paratransit Planning Assistance	35,000				15,000	3,750	13,000	3,250
4.3 Implementing the Regional Land Use Plan	19,000	15,200	3,800					
4.4 Bike and Pedestrian Network and Bike Commute Week	19,000	15,200	3,800					
4.5 Local Technical Assistance	22,750	18,200	4,550					
4.6 Local Pavement Management Program	7,000			7,000				
4.7 Scenic Byways Support	7,000	5,600	1,400					
4.8 Bike Share Implementation	12,000	9,600	2,400					
Subtotal of Section 4.0	382,941	63,800	15,950	7,000	121,953	30,488	115,000	28,750
MassDOT 3C Direct Costs	20,000	16,000	4,000					
Program Sum	1,695,484	864,634	216,159	7,000	258,153	64,538	228,000	57,000

*MassDOT S. 5303 match is 20% of total program amount. PVTA S. 5307 match is 20% of total program amount.

WORK ELEMENT 1 – MANAGEMENT AND CERTIFICATION OF THE 3C PROCESS

This work element encompasses the administration and support of the 3C transportation process and has been divided into the following tasks for FY 2021.

Task 1.1 Management of the 3C Process

OBJECTIVE:

To assist, support, and facilitate an open Comprehensive, Cooperative, and Continuing (3C) transportation planning and programming process at all levels of government in conformance with federal and state requirements as described in the 3C Memorandum of Understanding.

PREVIOUS WORK:

1. Management of the 3C process using previous Unified Planning Work Programs, transportation plans, Memorandum of Understanding, and Annual Review Reports.
2. Updated MOU for Springfield UZA

PROPOSED ACTIVITIES:

1. Provide liaisons on transportation related matters between PVPC communities, PVTA, private transportation providers, abutting regions, the State of Connecticut, and other organizations at the regional, state, and federal levels.
2. Work with the Metropolitan Planning Organization (MPO) and its constituent members. Present transportation plans, studies and programs developed through the 3C public participation process for appropriate MPO action.
3. Coordinate required MPO caucuses to solicit recommendations for local MPO members.
4. Provide technical assistance to the Joint Transportation Committee and subgroups thereof.
5. Participate in the Massachusetts Transportation Managers Group to improve the quality and operation of the transportation planning process.
6. Review and comment on federal and state transportation-related plans, programs, regulations and guidelines.
7. Provide transportation planning services in support of the PVPC's comprehensive planning programs.
8. Participate in informational transportation programs and courses. Review literature on new transportation planning procedures.

PRODUCTS:

1. Technical memoranda and reports as needed.
2. Monthly Invoices (completed monthly).
3. Updates to certification documents as required.
4. MPO meeting minutes (completed monthly).

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$ 28,000	14 weeks
MassDOT (20% match)	\$ 7,000	4 weeks
FTA S.5303	<u>\$ 15,000</u>	<u>8 weeks</u>
TOTAL	<u>\$50,000</u>	<u>26 weeks</u>
Direct Labor	\$22,604	
Indirect Costs	\$27,396	

Task 1.2 Unified Planning Work Program

OBJECTIVE:

To prepare and maintain a regional Unified Planning Work Program (UPWP) of state and federally funded transportation planning activities. The UPWP will include a summary of the estimated funding source(s) for each task and be completed in conformance with applicable federal, state, and regional guidelines.

PREVIOUS WORK:

1. Pioneer Valley Unified Work Programs 1974 - 2020.

PROPOSED ACTIVITIES:

1. Review and amend relevant portions of the PVPC's UPWP in order to meet new planning requirements and/or circumstances pertinent to the region's transportation sector. Circulate revisions to the appropriate agencies for review and/or endorsement.
2. Develop a new UPWP for the Pioneer Valley MPO covering the next federal fiscal year. The development of a new UPWP will be prepared in cooperation with the Regional Joint Transportation Committee (JTC) and MPO and subject to the current Public Participation Plan.
3. Update the Title VI Equity Analysis of the geographical distribution of UPWP planning activities in the PVPC region.
4. Perform outreach to member communities to identify potential transportation planning activities for inclusion in the UPWP.

PRODUCTS:

1. Amendments to the current UPWP as necessary.
2. UPWP for the next program year (FFY 2021). The estimated completion date is May 2020. Public engagement is estimated to begin in March 2020.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$6,000	3 weeks
MassDOT (20% match)	\$1,500	1 week
FTA S.5303	<u>\$1,250</u>	<u>1 week</u>
TOTAL	\$8,750	5 weeks
Direct Labor	\$3,956	
Indirect Costs	\$4,794	

Task 1.3 Public Participation Process

OBJECTIVE:

To provide the public with complete information, timely notice, full access to key decisions and opportunities for early and continuing involvement in the 3C process in compliance with the FAST Act. Expand the regional process to encourage participation from community-based organizations and under-represented populations.

PREVIOUS WORK:

1. Expanded stakeholder outreach and capacity building.
2. Press releases announcing transportation projects and events.
3. Updated JTC Bylaws.

PROPOSED ACTIVITIES:

1. Survey JTC, MPO, local partners and stakeholders on outreach and communication strategies to improve and expand participation.

2. Identify "virtual" technologies and practices in accordance with FHWA guidance.
3. Develop practices for evaluating the effectiveness of public outreach and stakeholder engagement.
4. Apply the Public Participation Process to transportation programs and tasks to: prepare for public meetings; attend public meetings; perform outreach to increase public participation; inform and educate residents and employers of the region about transportation legislation and PVPC products.
5. Update and revise the MPO online content to maintain current information on transportation studies and ongoing projects.
6. Explore alternative media outlets for reaching the Limited English Proficient (LEP) population in the region.
7. Network with social service agencies, neighborhood groups and community organizations to enhance existing outreach.

PRODUCTS:

1. Meeting minutes.
2. Press releases for transportation projects (as necessary).
3. Web based information distribution.
4. Public Outreach/Participation Survey. Fall 2020
5. Public Outreach/Participation Survey Results and Recommendations Report. Summer 2021

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$12,000	9 weeks
MassDOT (20% match)	\$ 3,000	2 weeks
FTA S.5303	<u>\$ 7,500</u>	<u>4 weeks</u>
TOTAL	\$22,500	15 weeks
Direct Labor	\$10,172	
Indirect Costs	\$12,328	

Task 1.4 Transportation Improvement Plan (TIP) Development

OBJECTIVE:

PVPC Staff with the assistants of MassDOT will provide the JTC with the information necessary to evaluate and prioritize a listing of transportation improvement projects. The JTC will use this list to develop a fiscally constrained TIP for the MPO for their review, release for public review, and ultimately endorse. Staff will work closely with federal, state and municipal partners to ensure that the process meets all federal, state and local requirements.

PREVIOUS WORK:

1. Pioneer Valley Transportation Improvement Programs 1974 – 2020
2. Updates to the Transportation Improvement Program Database
3. Annual Transportation Evaluation Criteria (TEC) Forms Update
4. Annual TEC summary sheet to assist in populating the Draft TIP.

PROPOSED ACTIVITIES:

1. PVPC will integrate the TIP into the new MassDOT eSTIP and continue to utilize "Grants Plus +" to develop the Transit TIP.
2. Assist communities with the development of new TIP projects through the MassDOT MaPIT intake tool. Attend training for updates to the project intake tool as necessary.
3. Assist the JTC in utilizing project evaluation criteria to develop a financially constrained project listing for each program year.
4. Perform air quality conformity and Greenhouse Gas emissions calculations.

5. Conduct a regional equity analysis for all programmed projects.
6. Conduct appropriate public participation for the TIP consistent with the public participation plan for the region.
7. Conduct formal TIP amendments and adjustments in consultation with the MPO as necessary.
8. Provide links on the PVPC web site for communities to access current as well as archived TIP documents and project information.

PRODUCTS:

1. FFY 2022 - 2026 Transportation Improvement Program. The estimated completion date is May 2021. Public engagement is estimated to begin in February 2021.
2. TIP Amendments and Adjustments as necessary.
3. Summary of comments received during public review for all TIP amendments. As necessary.
4. Ranked list of evaluated TIP projects, with corresponding TEC sheets. March 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$55,000	28 weeks
MassDOT (20% match)	\$13,750	7 weeks
FTA S.5303	<u>\$12,500</u>	<u>6 weeks</u>
TOTAL	\$81,250	41 weeks
Direct Labor	\$36,731	
Indirect Costs	\$44,519	

Task 1.5 Title VI and Environmental Justice

OBJECTIVE:

In compliance with Federal Statutes this task assists PVPC in identifying Title VI responsibilities and addressing environmental justice and social equity issues as part of its transportation planning process. This task addresses the goals of the RTP and the region’s Language Access Plan (LAP) to enhance the existing public participation process, better identify protected populations, and develop performance measures to evaluate transportation deficiencies, benefits, and burdens.

PREVIOUS WORK:

1. Update to the regional Four Factor analysis.
2. Finalized expanded membership on the Pioneer Valley Joint Transportation Committee (JTC) to include representatives from the pedestrian and mobility impaired communities.
3. Developed public notices for transportation products that comply with the region’s LAP.
4. Updated and submitted revised Title VI program to MassDOT Office of Diversity and Civil Rights (ODCR) and FTA.
5. Annual reporting to MassDOT on EJ, Title VI and LEP.

PROPOSED ACTIVITIES:

1. Continue use of the MassDOT “Engage Tool” to improve public outreach and interaction with the public. Staff will continue to identify new stakeholders and meet with regional organizations and groups to facilitate participation in the regional transportation planning process.
2. Revise and update the email database of community contacts for non-profit and community based organizations.
3. Identify training opportunities for staff regarding federal revisions to Title VI, LEP and EJ. Work with MassDOT, Massachusetts RPAs,

and local partners to identify best practices to improve LEP and Environmental Justice outreach and planning.

4. Provide an annual update of documented complaints, Title VI related activities, and progress in implementing Title VI programs to MassDOT.
5. Update Title VI Mapping tools for Title VI and EJ populations for PVPC communities to include data from the most recent version of the ACS.
6. Sign Certification and Assurances as put out by FTA/FHWA. Include Title VI language (as referenced by FHWA) into contracts with third party consultants advising entities of Title VI obligations.
7. Regularly monitor the benefits and burdens of transportation projects and conduct ongoing analysis of ways to engage all groups within the region and to increase participation in the transportation planning process.
8. Distribute Notice of Beneficiaries to community organizations and relevant contacts as identified in the Public Participation Plan
9. Provide translations consistent with the region's LAP for products and public notices for the MPO to provide increased opportunities for under-served populations to be represented in the public participation process.

PRODUCTS:

1. Updated email contact database and revised public outreach using the "Engage Tool." January 2021.
2. Annual report to MassDOT on EJ, Title VI and LEP. January 2021.
3. Updated maps of Title VI protected population demographics and related impacts.
4. Summary of Benefits and Burdens Analysis. May 2021 with public participation beginning in February 2021.
5. Translations consistent with the region's LAP for notices and products as necessary.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$45,000	22 weeks
MassDOT (20% match)	\$11,250	6 weeks
FTA S.5303	<u>\$ 9,375</u>	<u>5 weeks</u>
TOTAL	<u>\$65,625</u>	<u>33 weeks</u>
Direct Labor	\$29,668	
Indirect Costs	\$35,957	

WORK ELEMENT 2 - TECHNICAL SUPPORT & DATA COLLECTION

This element outlines specific activities to be conducted in support of transportation planning tasks described in other UPWP elements.

Task 2.1 Traffic Counting

OBJECTIVE:

To provide accurate and efficient bicycle, pedestrian and vehicle data collection services to support MassDOT, the PVPC's 43 member communities, and planning tasks included in the FY2021 UPWP.

PREVIOUS WORK:

1. Regional Traffic Counting Program and database 1985 - 2020.
2. Highway Performance Monitoring System (HPMS) data collection.
3. Updates to MassDOT MS2 traffic count site.
4. Regional Traffic Counts 2015 – 2019 Report.

PROPOSED ACTIVITIES:

1. Perform data collection for all transportation modes. Information on the regional data collection process is included in the appendix.
 - a) Collect 48-hour Automatic Traffic Recorder (ATR) count data and HPMS data for locations as requested by MassDOT. Utilize the Collector for ArcGIS mobile app to geo-code all traffic count locations.
 - b) Collect Turning Movement Count (TMC) data as requested by MassDOT and member communities.
 - c) Collect bicycle, pedestrian and vehicular count data to support UPWP tasks.
 - d) Update the MassDOT MS2 website and PVPC traffic count database to include all recent data collection.
 - e) Collect traffic data for underserved communities as identified in the UPWP Equity Assessment. Target communities for FFY2021 include Chesterfield, Granby, Goshen, Southampton, Wilbraham, Williamsburg, and Worthington.
2. Provide up to 2 free daily traffic counts per member community on request.
3. Collect and document vehicle classification data and speed data for the region.
4. Fine tune the newly developed draft online traffic count viewer and download portal.
5. Upload Average Daily Traffic (ADT) to MassDOT MS2.
6. Create map location for newly performed ADTs for new locations on MS2.

PRODUCTS:

1. Summary reports of daily traffic count information for the region. Ongoing task.
2. PVPC web page Average Daily Traffic counts by community. Ongoing task.
3. Document traffic counts for other UPWP tasks as necessary.
4. Online traffic count viewer and download portal. Summer 2021

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$32,000	16 weeks
MassDOT (20% match)	\$ 8,000	4 weeks
TOTAL	\$40,000	20 weeks
Direct Labor	\$18,083	
Indirect Costs	\$21,917	

Task 2.2 Regional Travel Demand Modeling/Clean Air Planning

OBJECTIVE:

Develop and maintain a baseline travel demand model to estimate future travel demand, calculate vehicles miles traveled, forecast long range transportation needs and estimate transportation impacts on air quality. Support local and regional sustainability and livability initiatives through analysis of corridors and projects in terms of circulation impacts and greenhouse gas emission reductions.

PREVIOUS WORK:

1. Updated the Regional Transportation Model to include revised demographic projections for the 2020 RTP.
2. Completed a Scenario Analysis of the impacts of removing tolls from the Massachusetts Turnpike.
3. Analyzed the impact of I-91 near and mid-term improvements on regional traffic flow.

PROPOSED ACTIVITIES:

1. Update Average Daily Traffic data for borders and external stations through existing counts and cross border consultation (ongoing).
2. Update information on non-exempt regional projects for inclusion in the statewide model (ongoing).
3. Update the MassBuilds site with new development data for the PVPC region (ongoing).
4. Perform air quality conformity determinations for TIP projects to be funded under the Congestion Mitigation and Air Quality (CMAQ) program (ongoing).
5. Utilize the regional transportation model to assist in the development of future build out estimates, provide support data and estimate the effects of planned transportation improvements (ongoing).
6. Coordinate regional travel demand model data with MassDOT, surrounding Massachusetts RPAs, and the Capital Region Council of Governments.
7. Adjust the number and size of regional TAZ's based on 2020 Census new blockgroups delineations estimated to be received August 2021.
8. As 2020 Census data becomes available, update and re-run 2020, 2030, and 2040 model years to obtain estimates based on new TAZ's and socioeconomic data obtained from 2020 US Census.
9. As discussed in the 2020 RTP update, PVPC will work with the JTC to translate community wide VMT from the Regional Travel Demand Model into an estimate of GHG emissions. December 2020.

PRODUCTS:

1. Refinement and maintenance of the regional travel demand model including 2020 Census updates (ongoing).
2. GHG emissions estimates by community. December 2020.
3. Air quality conformity and greenhouse gas analysis in support of the TIP. February 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$56,000	28 weeks
MassDOT (20% match)	\$14,000	7 weeks
FTA S. 5303	\$ 5,625	<u>2 weeks</u>
TOTAL	\$75,625	37 weeks
Direct Labor	\$34,189	
Indirect Costs	\$41,436	

Task 2.3 GIS, Mapping and Graphics

OBJECTIVE:

This on-going effort collects, maintains and creates geo-spatial data that supports the overarching performance initiatives of the FAST Act and the project-specific goals outlined in this UPWP. Through these activities, PVPC GIS/Graphics staff will provide planners, government partners and the public with traditional GIS mapping products intended to support the 3C planning process.

PREVIOUS WORK:

1. Maintenance of GIS regional transit system database, maps and schedules (Ongoing Task).
2. Revision and integration of relevant GIS spatial data/map coverage into Pioneer Valley regional projects. (Ongoing Task)
3. Maintenance of spatial transportation data layers such as functional classification of roads, traffic counts, pavement condition, bicycle and pedestrian infrastructure, etc. (Ongoing Task)
4. Updated online interactive ESRI map analysis tool for PVTA bus stop consolidation, optimization, and public information.
5. Drone deployment data collection for transportation-related analysis. (Ongoing Task).

PROPOSED ACTIVITIES:

1. Assist MassDOT District 2 in use of PVPC drone for the collection of visual evidence supporting the Local and Regional Bottleneck Grant program. (As needed.)
2. Identification, mapping and updates of Priority Development Areas (PDAs), 43D Priority Development Sites and Transformative Development Initiative Districts (TDIs) in coordination with other RPAs to improve PDA information statewide, improving compatibility from region to region. (Ongoing as needed.)
3. Collection and mapping of Affordable Housing data in coordination with other RPAs to improve Affordable Housing information statewide, improving compatibility from region to region. (Ongoing as needed.)
4. Develop and implement management strategies to address staff training, establish data standards, define data collection protocol and conform map design to standardize GIS products. (Ongoing task.)
5. Pursue the use of GIS and other automated mapping and spatial analytical technologies for transportation applications. Enhance existing digital base map data and develop geographically referenced data layers for use in transit service analysis, emergency response, critical infrastructure assessment, pavement management, and transportation system planning. (Ongoing task.)
6. Integrate information generated to support transit and transportation management systems into GIS. (Ongoing task.)
7. Work with state and federal agencies to review, correct and enhance regional GIS map coverage and related data to meet state and federal standards and support development of Homeland Security and pre-disaster mitigation spatial data. (Ongoing task.)
8. Assimilate state and federal data and data structure (i.e., road centerline/road inventory) into the PVPC's database and analytic modeling programs. (Ongoing task.)
9. Improve access and use of web-based GIS data/analysis, online data and map products. (As necessary.)
10. Provide support for transit planning services for the PVTA, including graphic layout, production of bus schedules, mapping, online bus

stop inventory, public outreach, rider guides, public information and other vital documents. (Ongoing task.)

PRODUCTS:

1. Development of new and enhanced digital data layers. As needed.
2. Update to municipal planimetric base maps as necessary.
3. Transportation systems facility and planning maps. As needed.
4. Expand, update and maintain the GIS website. As necessary.
5. Development of regional spatial data to support federal and state initiatives. As necessary.
6. Update centerline/road inventory and functionally classified roads, as necessary.
7. Maintenance, updates, and enhancements to ESRI online bus stop and route analysis interface. As necessary.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$54,200	27 weeks
MassDOT (20% match)	\$13,550	7 weeks
FTA S. 5303	\$ 9,000	4 weeks
PVTA S. 5307	\$15,000	8 weeks
TOTAL	\$91,750	46 weeks
Direct Labor	\$41,478	
Indirect Costs	\$50,272	

Task 2.4 Information Center

OBJECTIVE:

The Information Center focuses on assisting multiple partners to support the initiatives and goals of the FAST Act as well as regional transportation, economic development, land use, and municipal planning needs. In particular, this Task will provide data and resources to support Task 2.7 Regional Performance Measures Development.

PREVIOUS WORK:

1. Updated regional and municipal level population, household, and employment projections for the RTP and regional transportation model.
2. Data Digest report focused on commute times and patterns with the Pioneer Valley region.
3. Data to support updated definitions for regional EJ populations.
4. Developed and maintain a data downloads website available to regional planners and the public. www.pioneervalleydata.org
5. Provided data and research to assist transportation staff in developing the regional freight plan.

PROPOSED ACTIVITIES:

1. Collect and analyze data regarding current transportation, economic development, land use, and municipal planning issues. Continue to maintain and improve the Information Center's regional database to integrate transportation, demographic, economic, health, education and municipal data. This is an ongoing, annual task.
2. Assist decision makers and community members in making informed decisions about their community by sharing information widely. This activity continues to focus on making data easily available and understandable, using a variety of sources including the American Community Survey, the Economic Census, Census population estimates, municipal finance data, current economic indicators, and labor market information that will assist in positive transportation planning and decision making. Continued maintenance and

- improvements to data access through the PVPC website. This is an ongoing, annual task.
3. Respond to requests for data and analysis from municipalities and other external stakeholders as requested.
 4. Maintain regional data indicators related to socioeconomics, transportation, regional performance targets, sustainability, and health to include in State of the Region database, Pioneer Valley Data website, and community and regional profiles. This is an ongoing, annual task.
 5. Continue to maintain the integration of transportation related initiatives within the regional economic development plan. This is an ongoing, annual task.
 6. Provide support to transportation planners as they update the regional transportation model with the most up to date population and employment data and projections for future analysis. Assist with the integration of 2020 Census data as it is released. This is an ongoing, annual task.
 7. Maintain online data dashboard monitoring trends in key transportation indicators. This is an ongoing, annual task.
 8. Develop visual and informational data digest products related to job accessibility in the Pioneer Valley using the Accessibility Observatory (AO) data provided by MassDOT and U.S. Census Bureau Journey to Work data.

PRODUCTS:

1. Maintain information systems of socioeconomic and disparate data. Ongoing task.
2. Region wide data indicators updates to be conducted in December 2020 and May-July 2021.
3. PVPC website updates and maintenance. Ongoing task.
4. Maintain online data dashboard monitoring trends in key transportation indicators. Ongoing task.
5. Job Accessibility Data Digest. September 2021

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$39,200	20 weeks
MassDOT (20% match)	\$ 9,800	5 weeks
TOTAL	\$49,000	25 weeks
Direct Labor	\$22,152	
Indirect Costs	\$26,848	

Task 2.5 Regional Congestion Management Process (CMP) - Data Collection

OBJECTIVE:

Utilize R Studio and ESRI GIS to extract and process the Regional Integrated Transportation Information System (RITIS) into the CMP process. Staff will also collect and process data at park and ride lots throughout the region.

PREVIOUS WORK:

1. Analysis of data to update top congested corridors and regional bottlenecks.
2. Regional Park and Ride Lot data collection.

PROPOSED ACTIVITIES:

1. Collect data for CMP problem verification, studies, regional model calibration, and transportation monitoring. As necessary.
2. Download and review RITIS data sets for the region. Ongoing task.

3. Review the top congested corridors to identify regional bottlenecks – March 2021 – Summer 2021
4. Collect data at existing park and ride facilities and truck rest stops in the region. Ongoing task.
5. Review potential CMP data sources for potential use on non-NHS and federal aid eligible roadways. As necessary.

PRODUCTS:

1. Updated Pioneer Valley CMP Data set. Ongoing task.
2. Updated regional park and ride lot and truck rest stop occupancy summary. Monthly.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$12,000	6 weeks
MassDOT (20% match)	\$ 3,000	2 weeks
TOTAL	\$15,000	8 weeks
Direct Labor	\$6,781	
Indirect Costs	\$8,219	

Task 2.6 Regional Pavement Management System - Data Collection

OBJECTIVE:

Develop and maintain an updated pavement distress database for the Pioneer Valley Regional Pavement Management System (PMS) on all federal aid eligible roadways. PVPC staff collects pavement distress data on a 4-year rotating cycle based on federal aid eligible roadway mileage. The proposed four year pavement data collection plan is show in the UPWP Equity Assessment on page 55. This is an ongoing task.

PREVIOUS WORK:

1. Collection of roadway pavement distress data, roadway geometry and overall condition index (OCI) for all federal aid eligible roadways in the PVPC region.
2. Completed roadway pavement distress data collection in Granby, Granby, Hadley, South Hadley, Belchertown, Amherst, Pelham, and Ware.

PROPOSED ACTIVITIES:

1. Collect roadway pavement distress data on all federal aid roadways in Plainfield, Cummington, Goshen, Westhampton, Hatfield, Chester, Chesterfield, Huntington, Worthington, Easthampton, Worthington, Northampton, and Williamsburg. The process to collect and analyze pavement distress data including methodology, and software is explained in the appendix.
2. Collect and verify additional roadway information such as posted speed, shoulder width, functional class, curb reveal, area zoning, width, segment length, and special route designations. As necessary.
3. Collect roadway pavement distress and condition information for proposed transportation improvement projects in the region to continue to assist in the regional project evaluation process. As necessary.
4. Perform limited existing sidewalk inventory and data collection for interested communities on request.
5. Continue to conduct quality control checks of pavement inventory and condition data. As necessary.

6. Coordinate pavement data collection with MassDOT and other RPAs. As necessary.

PRODUCTS:

1. Pioneer Valley regional PMS Database. Ongoing task.
2. Region existing Overall Condition Index (OCI) Maps. Ongoing task.
3. Community existing OCI Maps. Ongoing task.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$26,000	13 weeks
MassDOT (20% match)	\$ 6,500	3 weeks
TOTAL	\$32,500	16 weeks
Direct Labor	\$14,693	
Indirect Costs	\$17,807	

Task 2.7 Regional Performance Measures

OBJECTIVE:

Collect data to evaluate and support regional performance measures as defined in the FAST Act, established by MassDOT and directed by the Pioneer Valley MPO. This task will support planning activities included as part of Tasks 1.4, 3.3, 3.4, 3.5, and 3.6.

PREVIOUS WORK:

1. Regional Performance Measures and Target Adoption.

PROPOSED ACTIVITIES:

1. Work with MassDOT, the JTC and MPO to update the status of established regional performance measures as necessary.
2. Collect, monitor, and maintain data to document the status of current regional performance measures and performance targets.
3. Collect and monitor data as related to the regional performance measures identified as part of the FAST Act.
4. Evaluate regional performance measures based on accepted methodology in consultation with MassDOT, PVTA, FHWA, and FTA.

PRODUCTS:

1. Update Regional Performance Measures database. Ongoing task.
2. Updated PM2 and PM3 targets. October 2020.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$ 10,000	5 weeks
MassDOT (20% match)	\$ 2,500	1 week
TOTAL	\$ 12,500	6 weeks
Direct Labor	\$ 5,651	
Indirect Costs	\$ 6,849	

WORK ELEMENT 3 - REGIONAL TRANSPORTATION PLANNING

This work element provides transportation planning that directly supports the development of projects included in the Regional Transportation Plan (RTP) or the development of RTPs.

Task 3.1 Regional Bicycle, Pedestrian and Complete Streets Planning

OBJECTIVE:

Provide support for local and regional efforts to adopt and implement a “Complete Streets” approach to create neighborhoods, village centers and city streets that safely accommodate all modes of transportation. To implement the goals and objectives of the Massachusetts Bicycle Plan, Massachusetts Pedestrian Plan, Massachusetts Safe Routes to School Program and Regional Transportation Plan to promote healthy transportation options such as walking and bicycling.

PREVIOUS WORK:

1. Pioneer Valley online map of existing bicycle facilities.
2. On-road bicycle lane counts.
3. Regional bike metric assessment.

PROPOSED ACTIVITIES:

1. Conduct user interview survey for shared-use-paths along the New Haven to Northampton Canal Greenway in Westfield/Southwick and identify economic impacts to local economies.
2. Work with MassDOT and the JTC’s Bicycle, Pedestrian, and Complete Streets subcommittee to identify bicycle and pedestrian count locations in FY 2021.
3. Work with the JTC’s Bicycle, Pedestrian, and Complete Streets subcommittee to ensure consistency with the RTP, implement sustainable transportation strategies and continue the regional on-road bicycle lane counting program.
4. Assist local communities in efforts related to Complete Streets policy initiatives, projects and the development of Prioritization Plans.
5. Participate in the Massachusetts Statewide Bicycle Advisory Board.
6. Participate in Valley BikeShare Committee meetings.

PRODUCTS:

1. JTC Bicycle, Pedestrian, and Complete Streets subcommittee meeting minutes and notices. Monthly.
2. Bicycle and pedestrian volume counts. Ongoing.
3. User survey of shared use paths. August 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$52,000	26 weeks
MassDOT (20% match)	<u>\$13,000</u>	<u>6 weeks</u>
TOTAL	\$65,000	32 weeks
Direct Labor	\$29,385	
Indirect Costs	\$35,615	

Task 3.2 Transit System Surveys and Route Implementation

OBJECTIVE:

To work closely with PVRTA to survey, monitor, and evaluate the quality of fixed route and paratransit services with respect to customer satisfaction, operational performance, and compliance with ADA and Title VI regulations.

PREVIOUS WORK:

1. Fixed route Mystery Rider onboard service quality observations and reports.
2. Paratransit Mystery Rider onboard ADA van service quality field observations and reports.
3. Customer surveys and engagement

PROPOSED ACTIVITIES:

1. Northern service area fixed route onboard customer survey. October 2020. Draft and Final Report May 2021.
2. Fixed route Mystery Rider onboard service quality observations, including ADA and Title VI compliance. Ongoing task.
3. Route specific analysis based on performance measures to determine any required increase or reduction in service.
4. Rider surveys on specific routes, as requested.

PRODUCTS:

1. Northern system onboard rider survey data and report. May 2021.
2. Fixed route Mystery Rider quarterly reports.
3. Route performance analysis as required.
4. Rider surveys of individual routes. As requested.
5. Other technical assistance for surveys and route implementation. As requested.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FTA S. 5303	\$ 93,750	47 weeks
PVRTA S. 5307	\$ 81,250	41 weeks
TOTAL	\$175,000	88 weeks
Direct Labor	\$79,114	
Indirect Costs	\$95,886	

Task 3.3 Regional Freight Planning

OBJECTIVE:

Coordinate with public and private partners to plan for the efficient movement of freight. Freight modes covered under this task include rail, truck, and air (when applicable). This task incorporates the freight planning requirements of the FAST Act and recommendations specific to the Pioneer Valley MPO included in the Massachusetts State Freight Plan and Pioneer Valley Regional Freight Transportation Plan.

PREVIOUS WORK

1. Massachusetts State Freight Plan Working Group.
2. Pioneer Valley Regional Freight Transportation Plan.

PROPOSED ACTIVITIES:

1. Work with the JTC, public and private sectors to identify regional freight bottlenecks on NHS corridors in the region. Using the latest NPMRDS data set staff will review the Truck Travel Time Reliability

- (TTTR), collect other site specific data and update the regional NHS freight bottlenecks. September 2021.
2. Continue to work with MassDOT and private entities to identify any adverse impacts to freight movement resulting from existing and proposed passenger rail service. Ongoing task.
 3. Participate in FHWA web conferences, and other related workshops and conferences regarding new freight requirements included in the FAST Act. As necessary.
 4. Perform an assessment of existing warning signs for all low-clearance railroad underpasses in the region. Collect information on existing sign placement, condition and detours. Develop a series of recommendations to upgrade and enhance advance warning signs for each underpass. Summer 2021.
 5. Continue the assessment of freight volume counts on state numbered roadways in the region. Review existing freight data on the MassDOT MS2 site, identify existing data by time of day and direction of travel and develop recommendations for future freight counts in the region.
 6. Expand on the freight safety data reported in the Pioneer Valley Regional Freight Transportation Plan. Work with the MassDOT Safety section to identify locations with a history of freight crashes.

PRODUCTS:

1. Low Clearance RR Underpass Sign Inventory, Summer 2021.
2. Freight Traffic Assessment, Reporting, and Counting, September 2021.
3. Regional Freight Crash Analysis, September 2021.
4. CMP Freight Bottleneck Updates, September 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$25,000	12 weeks
MassDOT (20% match)	\$ 6,250	<u>3 weeks</u>
TOTAL	\$31,250	15 weeks
Direct Labor	\$14,127	
Indirect Costs	\$17,123	

Task 3.4 Regional Congestion Management Process-Project Development

OBJECTIVE:

Use data collected as part of Task 2.5 to track and mitigate congestion identified as part of the Regional Congestion Management Process (CMP). Advance transportation studies to verify and develop appropriate recommendations to mitigate areas of congestion.

PREVIOUS WORK:

1. Before and After TIP Project Analysis.
2. Regional CMP Corridors Update.

PROPOSED ACTIVITIES:

1. Update the Regional Corridor Congestion Ranking based on RITIS data. Ongoing task.
 - a) Use R Studio to process RITIS data to support ongoing congestion activities.
 - b) Review real time data to identify potential new areas of congestion.
 - c) Use R Studio to develop a congestion “dashboard” for the region.

- d) Collect real-time traffic data through RITIS to verify afternoon peak hour congestion on I-91 SB near Exit 3.
2. Consult with the JTC to identify a congested corridor for further study.
 - a) Develop a status update of regional congested corridors for use in identification of potential study locations.
 - b) Consult with the JTC on preferred study location and development of the project limits.
 - c) Collect data as necessary including average daily traffic volumes, peak hour turning movement counts, peak hour travel time runs, and historic crash data.
 - d) Perform necessary capacity analysis for existing conditions and proposed future improvement scenarios.
 - e) Develop a series of recommendations to improve congestion and safety in the study area.
3. Work with communities to incorporate the ITS technology as appropriate into regional transportation improvement projects. Ongoing task.

PRODUCTS:

1. CMP Corridor updates for RTP. August 2021.
2. Regional Corridor Congestion Ranking based on NPMRDS data. Ongoing.
3. Congestion Study as coordinated with the JTC. September 2021
4. Congestion dashboard. September 2021
5. I-91 SB Congestion Analysis, Summer 2021

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$120,000	60 weeks
MassDOT (20% match)	\$ 30,000	15 weeks
FTA S. 5303	<u>\$ 10,000</u>	<u>5 weeks</u>
TOTAL	\$160,000	80 weeks
Direct Labor	\$72,333	
Indirect Costs	\$87,667	

Task 3.5 Regional Pavement Management System - Project Development

OBJECTIVE:

To maintain a regional Pavement Management System on all federal aid eligible roadways and prioritize regional pavement improvement projects. This task analyzes the data collected as part of Task 2.6. This is an ongoing task.

PREVIOUS WORK:

1. Regional PMS report for the Pioneer Valley Region.
2. Roadway improvement backlog of projects.

PROPOSED ACTIVITIES:

1. Analysis of the newly collected pavement distress data for the region's communities' federal-aid roadways in order to calculate OCI ratings, benefit/cost ratio listings, and develop a backlog of recommended improvement projects.
2. Perform various budget scenario analyses including the calculation of backlog of repairs for the region's federal-aid roadways. Develop specific regional pavement funding scenarios for use in the update to the RTP.

PRODUCTS:

1. Pavement OCI maps on each community's surveyed federal aid eligible roadways. As necessary.

2. Online OCI maps for federal aid eligible roadways. Summer 2021.
3. Community specific pavement information such as recommended repair strategies and benefit/cost ratio listing and backlog of repairs. As necessary.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$36,000	18 weeks
MassDOT (20% match)	\$ 9,000	<u>5 weeks</u>
TOTAL	\$45,000	23 weeks
Direct Labor	\$20,344	
Indirect Costs	\$24,656	

Task 3.6 Regional Performance Measures Assessment

OBJECTIVE:

This task supports federal planning requirements to integrate performance-based planning into the regional transportation planning process. Data collected as part of Task 2.7 of the UPWP will be used to identify the progress in meeting regional performance measures and targets. New performance measures and targets will be developed based on statewide performance measures as required by the FAST Act.

PREVIOUS WORK:

1. Regional Performance Target Adoption.

PROPOSED ACTIVITIES:

1. Analyze and track data collected as part of Task 2.7 of the UPWP to identify the progress in meeting regional performance measures. Ongoing task.
2. Work with MassDOT, PVTA, and surrounding regions to coordinate data collection and share analysis methods. Ongoing task.
3. Participate as part of MassDOT's Performance Management Subcommittee. Ongoing task.
4. Provide data and analysis as necessary to assist in scoring TEC forms submitted for TIP projects. February 2021.
5. Develop updates to regional performance measures and the TEC scoring process as necessary to coincide with statewide performance measures and FAST Act requirements. Ongoing task.

PRODUCTS:

1. Regional Performance Measures reporting and updates. Ongoing task.
2. PM2 and PM3 Target Updates. October 2020.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$22,000	11 weeks
MassDOT (20% match)	\$ 5,500	<u>3 weeks</u>
TOTAL	\$27,500	14 weeks
Direct Labor	\$12,432	
Indirect Costs	\$15,068	

Task 3.7 Regional Safety and Planning Studies

OBJECTIVE:

Develop transportation studies in cooperation with MassDOT and local communities to enhance safety for all modes of transportation. Utilize state and local traffic safety data as well as other relevant information to advance recommendations that are consistent with the Massachusetts Strategic Highway Safety Plan and assist in meeting regional safety performance targets.

PREVIOUS WORK:

1. At-grade Shared Use Path Crossing Study.
2. Top 100 High Crash Intersections in the Region and Top 10 High Crash Intersections in Local Communities Report Update
3. Pioneer Valley Safety Compass: Local Crash Data Analysis Update (Partial)

PROPOSED ACTIVITIES:

1. Contribute in MassDOT's Roadway Safety Audits and provide regional perspective and input. Ongoing task
2. Work in cooperation with MassDOT to promote and advance the goals and objectives of the Massachusetts Strategic Highway Safety Plan. Ongoing task.
3. Work in cooperation with MassDOT and the Town of West Springfield to advance the recommendations of the 2019 Route 20 Road Safety Audit.
 - a) Coordinate scope of work and study limits with MassDOT District 2 and the Town of West Springfield.
 - b) Perform data collection to verify current traffic volume and speed.
 - c) Update historic crash data through the West Springfield Police Department.
 - d) Work with representatives from the state and local government to identify preferred alternatives as recommended in the RSA. Perform technical analysis to identify recommendations for implementation.
4. Continue work on the Safety Compass report started as part of the FFY2020 UPWP. Staff will utilize historic MassDOT crash data to develop a detailed update for each of PVPC's 43 communities for the Safety Compass. Summer 2021
 - a) Develop an interactive map online with tools to view all the information for each community utilizing 'hover over' or 'click on the icon' options.
 - b) Create a database of non-motorist crashes in the region and by community to include in the interactive map.

PRODUCTS:

1. West Springfield Route 20 Roadway Safety Audit Implementation Study. August 2021.
2. Regional Safety Compass Interactive Map. Summer 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$124,034	62 weeks
MassDOT (20% match)	\$ 31,009	15 weeks
FTA S. 5303	<u>\$ 6,250</u>	<u>3 weeks</u>
TOTAL	<u>\$161,293</u>	<u>80 weeks</u>
Direct Labor	\$72,917	
Indirect Costs	\$88,376	

Task 3.8 Climate Change Implementation

OBJECTIVE:

To respond to the urgencies of climate change by reducing greenhouse gas emissions from transportation in compliance with the Massachusetts Global Warming Solutions Act (GWSA). To assist Pioneer Valley communities in implementing climate resiliency strategies.

PREVIOUS WORK:

1. Provided technical assistance to Pioneer Valley communities on Green Communities designations and climate action policies.
2. Completed initial research on an inventory and vulnerability assessment of critical Pioneer Valley infrastructure.

PROPOSED ACTIVITIES:

1. Continue to review and update strategies within Climate Action Plan and corresponding elements in Climate Change Toolkit; identify and fill gaps where needed.
2. Work with communities to advance Municipal Vulnerability Preparedness priorities related to infrastructure, including assisting 2 to 3 communities in getting culvert assessments.
3. Conduct in-field assessments on 2 to 3 problem culverts.
4. Continue to host Pioneer Valley Clean Energy Climate Action meetings.
5. Continue participating in Transportation Project Evaluation process with respect to TEC involving climate and sustainability as necessary.
6. More actively promote Climate Change Toolkit strategies in selected communities to reduce GHG emissions from Transportation.

PRODUCTS:

1. Updated Climate Action Strategies and corresponding tools that are implementable in the coming years. Ongoing task.
2. Advancement of MVP priority infrastructure projects in up to 3 communities. September 2021.
3. Completed culvert assessment forms with verification of submission to North Atlantic Aquatic Connectivity Collaborative (NAACC) database for 2 to 3 problem culverts.
4. Four meetings of the Pioneer Valley Clean Energy Climate Action committee.
5. Summary of projects and use of climate related transportation evaluation criteria (toward eventual evaluation of criteria and possible recommendation of amendments). As necessary.
6. Implementation of Climate Change Toolkit strategies in selected communities. Ongoing task.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$15,200	8 weeks
MassDOT (20% match)	<u>\$ 3,800</u>	<u>2 weeks</u>
TOTAL	<u>\$19,000</u>	<u>10 weeks</u>
Direct Labor	\$ 8,590	
Indirect Costs	\$10,410	

Task 3.9 Green Streets and Infrastructure

OBJECTIVE:

To promote the development of green streets and green infrastructure, in order to reduce stormwater and other environmental impacts of streets, roads, and municipal infrastructure.

PREVIOUS WORK:

1. Developed green infrastructure/green streets conceptual plan for Day Brook watershed in Holyoke.
2. Designed green infrastructure retrofit mapping methodology and tool and piloted in City of Springfield.

PROPOSED ACTIVITIES:

1. Continue a program of local technical assistance to municipalities to implement model green infrastructure strategies, including LID/green infrastructure subdivision regulations and zoning, treescape restoration plans and green streets project implementation. Ongoing task.
2. Continue to review and update strategies within regional Green Infrastructure Plan and corresponding elements in Green Infrastructure Toolkit, identify and fill gaps where needed. Ongoing task.
3. Continue work with municipalities to identify best green infrastructure retrofit locations for city/town properties, including roadway right of ways. This work is based on methodology PVPC developed in 2019 through a pilot UPWP project in Springfield and continued in 2020 for Agawam. Methodology is based on mapping considerations researched and identified for the Regional Green Infrastructure Plan and augmented with considerations from 2016 federal stormwater permits. For 2021, include at least one and possibly two rural communities for green infrastructure retrofit mapping. Ongoing task.
4. Evaluate green infrastructure and sustainability elements of proposed projects using the Transportation Project Evaluation criteria. As necessary.

PRODUCTS:

1. Adoption of green infrastructure strategies in selected communities. As necessary.
2. Implementation of green streets projects in coordination with local communities. Ongoing task.
3. Updated Green Infrastructure Plan Strategies and corresponding tools that are implementable in the coming years. Ongoing task.
4. Use of green infrastructure retrofit location methodology with retrofit mapping for up to 2 rural communities. September 2021.

	<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
	FHWA PL (80%)	\$15,200	8 weeks
	MassDOT (20% match)	<u>\$ 3,800</u>	<u>2 weeks</u>
	TOTAL	\$19,000	10 weeks
	Direct Labor	\$ 8,590	
	Indirect Costs	\$10,410	

WORK ELEMENT 4 - ONGOING TRANSPORTATION PLANNING

This element outlines specific activities to be conducted in support of Transportation Planning tasks described in other UPWP elements.

Task 4.1 Regional Transit Planning

OBJECTIVE:

To provide transit planning services to the Pioneer Valley Transit Authority (PVTA), the Pioneer Valley Metropolitan Planning Organization (PVMPO), and the member communities of these agencies. Types of services include technical assistance and analysis for transit planning, operations and capital programs; general organizational and technical assistance; assistance with regulatory compliance; and support and facilitation of public and agency participation.

PREVIOUS WORK:

1. PVTA fixed route services technical assistance.
2. Produced PVTA's printed fixed route bus schedules, system map, updated bus operator field guides and related products.
3. Analysis of operational data from PVTA's ITS systems.
4. Supported PVTA Advisory Board and subcommittee activities.
5. Transit TIP.
6. Public engagement and public hearings for proposed service and fare changes.
7. PVTA fare impact study.
8. Title VI service equity analysis.
9. Regional bus stop consolidation.

PROPOSED ACTIVITIES:

1. Continue to provide general support to PVTA operations and planning for fixed route services and facilities, including: service evaluation and optimization; compliance with ADA regulations, Title VI and environmental justice policies, and other applicable policies, laws, and regulations; updating and maintenance of vital documents; and other tasks as assigned.
2. Continue to update and produce PVTA's fixed route printed bus schedules, on-line and virtual schedules, bus operator field guides, and related products; and continue to manage print vendors for these products.
3. Continue to produce and install maps and signage at transit facilities and on vehicles as requested.
4. Continue to attend and participate in relevant public, municipal, regional, and state agency meetings.
5. Continue to provide analysis of data from PVTA's information systems as requested.
6. Continue to provide support for meetings of the PVTA Advisory Board and its subcommittees.
7. Continue to support PVTA Bus Rider Forums and other customer outreach.
8. Continue to conduct and enhance outreach to transit customers with limited English proficiency, including research on best practices, such as partnering with ESL programs, and assure compliance with requirements of Title VI for PVTA and PVMPO.
9. Support ongoing implementation of the PVTA public participation plan and language access plan.

10. Continue to provide support for new transit technologies and services, including bus rapid transit, microtransit, TNC coordination, Mobility as a Service, and mobile/electronic fare collection.
11. Continue to advance the use and incorporation of GIS, GPS, and online mapping technologies to support PVTA transit route and facilities planning, public engagement, and regulatory compliance.
12. Continue to support PVTA bus stop consolidation planning.
13. Continue to provide coordination among PVTA, PVMPO, PVPC staff, and MassDOT for proactive communication and the programming of transit items in the TIP.
14. Continue to coordinate and participate in transit planning activities of the PVMPO region among PVTA, MassDOT, Franklin Regional Transit Authority, Connecticut Department of Transportation, Capital Regional Council of Governments, Amtrak, intercity bus carriers and other transit service providers, and other stakeholders to enhance inter-regional transit services.

PRODUCTS:

1. PVTA fixed route printed schedules and related digital materials for web posting. As needed.
2. PVTA field operators guide updates. As needed.
3. PVTA Title VI Updates, Public Participation Plan Updates, Safety Plan and any additional FTA required document updates. As needed.
4. PVTA Transit TIP 2021-2025.
5. Brochures, public notices, posters, maps, website services, and other print and digital materials. As requested.
6. Updates and translation of “vital documents” in print and electronic formats for LEP persons. Ongoing.
7. Reports, plans, and other documents. Ongoing.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FTA S. 5303	\$133,691	67 weeks
PVTA S. 5307	<u>\$127,500</u>	<u>64 weeks</u>
TOTAL	\$261,191	131 weeks
Direct Labor	\$118,079	
Indirect Costs	\$143,112	

Task 4.2 Paratransit Planning Assistance

OBJECTIVE:

To provide planning and technical assistance to support the paratransit services for people with disabilities and seniors that are provided by PVTA in fulfillment of the requirements of USDOT Section 504 regulations and other planning requirements under the Americans with Disabilities Act and the policies of the PVTA Advisory Board, as well as similar transportation services provided by municipal councils on aging, human service agencies, health care providers, nonprofits, and other entities in the PVMPO region.

PREVIOUS WORK:

1. Paratransit planning assistance to PVTA such as public participation activities, operational analyses of policies and services.
2. Participated in activities of regional paratransit planning groups.
3. Support for the Paratransit Subcommittee of the PVTA Advisory Board.
4. Served on the PVTA Paratransit Appeals Committee.

5. Assistance related to FTA Section 5311 Rural Transit Assistance Program capital grants.
6. Quaboag Connector paratransit service technical assistance.
7. Human Service Transportation (HST) program support.

PROPOSED ACTIVITIES:

1. Continue to provide general paratransit planning assistance to PVTA, including public participation activities, analyses of policies and services, regulatory compliance, and updating and maintenance of vital documents. Ongoing task.
2. Continue to support the work of the Paratransit Subcommittee of the PVTA Advisory Board and provide a staff member to serve on the PVTA Paratransit Appeals Committee. Ongoing task.
3. Continue to support meetings of PVTA paratransit van riders who use the ADA Service and the Senior (Dial-a-Ride) Service.
4. Continue to participate in meetings and activities of regional paratransit planning groups as requested.
5. Continue to provide technical and administrative support to the MPO's Joint Transportation Committee (JTC) regarding mobility issues and concerns of the region's elderly and disabled residents.
6. Continue to coordinate and provide technical assistance to agencies seeking capital grants under FTA Section 5311 Rural Transit Assistance Program.
7. Perform paratransit surveys and studies requested by PVTA and PVMPO municipalities.
8. Continue to support communities seeking funds from the state Human Service Transportation (HST) program.
9. Work with the PVTA, FRTA, and Regional Coordinating Councils (RCC) to update the Coordinated Public Transit – Human Services Transportation Plan (CPT-HST) for the region. The CPT-HST will identify needs and gaps in human transportation services for seniors and individuals with disabilities.

PRODUCTS:

1. Data and analysis to support ADA and senior van service paratransit planning. As needed.
2. Materials for paratransit performance measure reports for PVTA paratransit services. As needed.
3. Facilitation and documentation of meetings of PVTA ADA van riders and Senior Service riders. As meetings occur.
4. CPT-HST Plan update. As necessary.
5. Reports and presentations to PVTA, JTC and PVMPO member municipalities. As requested.
6. Assistance with PVTA monthly paratransit performance measures. As requested.
7. Letters of support and technical exhibits for HST grant applications. As requested.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FTA S. 5303	\$18,750	9 weeks
PVTA S. 5307	<u>\$16,250</u>	<u>8 weeks</u>
TOTAL	\$35,000	17 weeks
Direct Labor	\$15,823	
Indirect Costs	\$19,177	

Task 4.3 Implementing the Our Next Future: The Region's Sustainability and Smart Growth Plan

OBJECTIVE:

Work with local communities to implement the “Our Next Future” Plan for sustainability and smart growth in the Pioneer Valley” region. To promote compact, efficient urban growth centered in existing urban and town centers served by existing transportation and other public infrastructure and services. Discourage urban sprawl, inefficient land use, and development in environmentally sensitive areas while striving to reduce auto trips and promote transit, walking, biking and car-pooling.

PREVIOUS WORK:

1. Valley Development Council meetings.
2. City of Holyoke model TOD overlay zoning regulations.
3. Regional Housing Plan Advisory Committee meetings.

PROPOSED ACTIVITIES:

1. Continue to provide staff support to the Valley Development Council, which provides input from community officials and the development community in implementing Valley Vision. Ongoing task.
2. Continue to provide staff support to the Housing Plan Advisory Committee to advance strategies for transit-oriented and community center mixed use housing development, and other priorities. Ongoing task.
3. Integrate priority development/conservation maps from 2014 into ongoing planning processes to provide updates for MassDOT as necessary.
4. Provide continued, targeted technical assistance to communities across the Pioneer Valley on an as-needed basis to implement pilot projects for Our Next Future strategies in the following key areas: commercial development standards; traditional neighborhood developments; mixed use village centers; cluster or creative development bylaws; transfer of development rights bylaws; inclusionary housing bylaws; local strategies to address global climate change and reduce greenhouse gas emissions; complete streets policies; form-based codes; and downtown revitalization strategies including market-rate housing. These strategies may include new local zoning bylaws and land use regulations, and policies on infrastructure improvements/extensions. Ongoing task.
5. Review and update strategies within regional Land Use and Housing plans and corresponding elements in Sustainability Toolkit, identify and fill gaps. As necessary.
6. Develop a community survey to identify the location of Affordable Housing Units in the region. The survey will focus on how communities define affordable housing units and the characteristics associated with existing and planned affordable housing in each community.

PRODUCTS:

1. Coordination of quarterly meetings of the Valley Development Council and related products.
2. Coordination of quarterly meetings of Housing Plan Advisory Committee.
3. Updates to 2014 priority development/conservation maps. As necessary.

4. Summary of assistance provided to communities to implement strategies from Our Next Future, and copies of adopted bylaws/ordinances. As necessary.
5. Activities and events to review and update strategies within regional Land Use and Housing plans and promote the Sustainability Toolkit. As necessary.
6. Affordable Housing Survey Summary. September 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$15,200	8 weeks
MassDOT (20% match)	<u>\$ 3,800</u>	<u>2 weeks</u>
TOTAL	\$19,000	10 weeks
Direct Labor	\$ 8,590	
Indirect Costs	\$10,410	

Task 4.4 Bicycle and Pedestrian Network and Bike Commute Week

OBJECTIVE:

Facilitate the development and increased use of a comprehensive linked regional network of bicycle and pedestrian trails and infrastructure in the Pioneer Valley. Promote livability, sustainability, healthy activities and bicycle friendly communities by making it easy and fun for people to try bicycling by facilitating the 20th annual Pioneer Valley Bicycle Commute Week. This is an ongoing annual task that is coordinated with Bay State Bike Week.

PREVIOUS WORK:

1. Regional Biking Map.
2. Updated Pioneer Valley Trails Map
3. Bike Commute Week activities since 1999.

PROPOSED ACTIVITIES:

1. Work to expand the region's off-road pedestrian and bike trails network, seeking collaborations with communities and non-profit organizations to implement new trails design and construction projects. Ongoing task.
2. Explore the potential to develop a more interactive trails resource interface for the region. Ongoing task.
3. Work with member municipalities, MassBike and MassDOT to facilitate Pioneer Valley Bike Commute Week/Bay State Bike Week which coincides with national Bike Commute Week—the third week of May. This includes identifying leaders in each community to facilitate community-specific activities and serving as liaison with MassDOT and MassBike. Ongoing task.
4. Promote Bike Commute Week through a variety of media platforms and in close collaboration with municipal officials and community-based organizations, assure publicity and broad promotion of Bike Commute Week activities. As necessary.

PRODUCTS:

1. Community trail technical assistance to map, design and construct new off-road regional trails. As necessary.
2. Bike Commute week report. Summer 2020.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$15,200	8 weeks
MassDOT (20% match)	<u>\$ 3,800</u>	<u>2 weeks</u>
TOTAL	\$19,000	10 weeks
Direct Labor	\$ 7,685	
Indirect Costs	\$11,315	

Task 4.5 Local Technical Assistance

OBJECTIVE:

Assist PVPC communities and organizations through short term technical transportation support as requested by the chief locally elected official. To review transportation related impact reports, traffic studies, and environmental notification forms. This is an ongoing task.

PREVIOUS WORK:

1. Data collection activities at the request of local communities.
2. Reviews of all MEPA documents filed in the Pioneer Valley Region.
3. Truck Exclusion Study – Day Street in West Springfield, MA.

PROPOSED ACTIVITIES:

1. Provide Local Technical Assistance (LTA) to communities on an as requested basis. Typical activities may include data collection, operational analysis, and small scale studies that can be completed in 2 -3 days of staff time. Community requests are considered on a case by case basis and preference is given to communities that have not recently received assistance.
2. Review and comment on all Environmental Notification Forms and Environmental Impact Reports as part of the MEPA process. Attend project scoping sessions for significant projects in the region as part of the MEPA process. Review all documents prepared under federal environmental laws and regulations.
3. Work with local communities to advance the recommendations of previously completed planning studies to the project development stage.
4. Assist member communities in the preparation of MassDOT Project Need Forms and Project Initiation Forms.

PRODUCTS:

1. Reports documenting the findings and recommendations of all LTAs. As necessary.
2. Recommendations and comments as appropriate for the review of MEPA documents. As necessary.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$18,200	9 weeks
MassDOT (20% match)	<u>\$ 4,550</u>	<u>2 weeks</u>
TOTAL	\$22,750	11 weeks
Direct Labor	\$10,285	
Indirect Costs	\$12,465	

Task 4.6 Local Pavement Management Program

OBJECTIVE:

To promote and update pavement management services for member communities by conducting road condition, budget, and plan analyses on a contract basis for the accepted paved locally maintained roadway system.

PREVIOUS WORK:

1. Local Pavement Management Data Collection and studies for Granville, Wilbraham, and Palmer.

PROPOSED ACTIVITIES:

1. Follow up with the local communities on requests for Pavement Management System assistance. The process to collect and analyze pavement distress data including methodology and software is explained in the appendix.
2. Meet with local officials and staff from the selected communities to explain the program and to coordinate activities.
3. Conduct training sessions to educate local DPW and Highway Department staff on the identification of pavement distresses as well as sidewalk distress and data recording techniques.
4. Assist communities in the development of new roadway improvement projects based on their annual maintenance budget.
5. Ensure that any new roadway is officially accounted for by Collecting GPS coordinate information to assist in Mapping.

PRODUCTS:

1. OCI Updates for specific roadways in communities with an existing Pavement Management Program. As requested.
2. Draft study for the Town of Blandford.
3. Updates for existing municipal pavement management plans, as requested.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
Estimated Local Funds	\$7,000	4 weeks
TOTAL	\$7,000	4 weeks
Direct Labor	\$3,165	
Indirect Costs	\$3,835	

Task 4.7 Scenic Byways Support

OBJECTIVE:

The objective of this task is to work with the Byway Area Committees for the Connecticut River Byway and the Route 112 Byway to prioritize and advance projects for each byway and to provide planning services and technical assistance.

PREVIOUS WORK

1. 2016 updated Corridor Management Plan (CMP) for the Connecticut River Scenic Farm Byway on Routes 47 and 63
2. Implemented an intergovernmental compact for land protection along the Connecticut River Scenic Byway.

3. Completed an Action Plan for the Highlands Footpath, a walking journey in the Route 112 and Jacob's Ladder Trail Scenic Byways.

PROPOSED ACTIVITIES:

1. Continue to coordinate and attend meetings of the Byway Area Committees and the regional trails advisory group working on the Highlands Footpath along the Route 20 and 112 Scenic Byways. Provide meeting notices, materials, and staff support. As necessary.
2. Work with above Committees and community representatives to prioritize and advance byway related tourism activities along with scenic byway projects related to land protection, acquisition of scenic easements, signage, scenic overlooks, trails and river access, and similar projects. Ongoing task.
3. Provide technical assistance to communities in byway project development, including identification of funding sources. As necessary.
4. Provide updates as needed for Western Massachusetts Scenic Byways website.

PRODUCTS:

1. Byway Area Committee meetings and activities. As necessary.
2. Quarterly regional trails advisory group meetings.
3. Technical assistance to communities in defining tourism and other byway projects and scopes of work for scenic byway priorities implementation funding. As necessary.
4. Updated Western Massachusetts Byways website. As necessary.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$5,600	3 weeks
MassDOT (20% match)	\$1,400	1 week
TOTAL	\$7,000	4 weeks
Direct Labor	\$3,165	
Indirect Costs	\$3,835	

Task 4.8 ValleyBike Implementation

OBJECTIVE:

ValleyBike is the regional bike share program for the Pioneer Valley region, serving the communities of Amherst, Chicopee, Easthampton, Holyoke, Northampton, South Hadley, Springfield, West Springfield and the University of Massachusetts. This is an ongoing task to provide planning support to assist the ValleyBike communities in the implementation and advancement of this program.

PREVIOUS WORK:

1. Bike Share Intergovernmental Compact and Community Agreements.
2. ValleyBike RFP release and management.
3. ValleyBike Vendor selection, oversight and management.
4. ValleyBike Year 1 CMAQ Analysis.

PROPOSED ACTIVITIES:

1. Participate in meetings of the Bike Share Steering Committee that will assist and guide the Bike Share program development process. Ongoing task.
2. Work with the vendor (Bewegen) to promote awareness of the ValleyBike Access Pass to economically disadvantaged people. Coordinate events through the Bike Share Steering Committee to promote and register people for the Access Pass.

3. Continue to support member municipalities with necessary planning work as necessary.
4. Work with community officials to coordinate promotion and public outreach activities for ValleyBike.
5. Evaluate monthly usage statistics and develop a year-end report on ValleyBike.

PRODUCTS:

1. ValleyBike Steering Committee monthly meetings. Ongoing task.
2. Valley Bike Access Pass Registration Event(s). Spring 2021.
3. Summary of Usage Statistics – Ongoing monthly task
4. Draft Report – Year 3, December 2020
5. Final Report – Year 3, February 2021

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$ 9,600	5 weeks
MassDOT (20% match)	\$ 2,400	1 week
TOTAL	\$12,000	6 weeks
Direct Labor	\$ 5,425	
Indirect Costs	\$ 6,575	

ADDITIONAL PLANNING PROJECTS

This section outlines activities for which funding has not yet been secured. These proposed tasks are provided for information purposes only. An amendment to the UPWP will be completed to reflect any contracts secured for these proposed tasks. No tasks have been identified to date that meet this criteria.

DRAFT ESTIMATED COMPLETION SCHEDULE OF PLANNING ACTIVITIES – FFY 2021 UPWP

Task	Product	Anticipated Completion	Public Engagement
1.1	Invoices	Monthly	
1.1	MPO Meeting Minutes	As necessary	
1.2	FY2021 UPWP	May 2021	March/April 2021
1.3	Press Releases and Public Participation Notices	As necessary	As necessary
1.3	Updated Contact Database	January 2021	
1.3	Public Outreach/Participation Survey	Fall 2020	
1/3	Public Outreach/Participation Survey Results and Recommendations Report	Summer 2021	
1.4	TIP Project Map	August 2021	
1.4	FY2022 - 2026 TIP	May 2021	February 2021
1.4	TEC Project Evaluation	March 2021	February 2021
1.4	TIP Amendments	As necessary	
1.5	Updated Demographic Maps	As necessary	
1.5	Updated Contact Database	January 2021	
1.5	Annual report to MassDOT on EJ, Title VI and LEP	January 2021	
1.5	Benefits and Burdens Analysis Update	May 2021	February 2021
2.1	Online traffic count viewer and download portal update	Summer 2021	
2.1	Website update of daily traffic counts	March 2021	
2.2	CMAQ and Greenhouse Gas Analysis	February/March 2021	
2.2	2020 Regional Model Update – US Census	September 2021	
2.2	Community GHG Emissions estimates	December 2020	
2.3	GIS mapping to support transportation planning	As needed	
2.3	GIS spatial data analysis	As needed	
2.4	Information Center Reports/ website updates	Ongoing	
2.4	Update region wide data indicators	December 2020 and July 2021	
2.4	Job Accessibility Data Digest	September 2021	
2.5	CMP Data Collection	Ongoing (September – June)	
2.5	Park and Ride/Truck Stop Occupancy Report	January 2021	
2.6	PMS Data Collection	Ongoing (requires dry pavement)	
2.7	Regional Performance Measures Data Collection	Ongoing	
3.1	JTC Bicycle and Pedestrian Subcommittee	Monthly	Monthly
3.1	Bicycle and Pedestrian Counts	Ongoing	
3.1	Shared Use Path User Survey	August 2021	
3.2	Mystery Rider, K-9, On time Performance reporting	Quarterly	
3.2	Bus Schedule Updates	As needed	
3.2	Northern system onboard rider survey data and report	May 2021	
3.3	Low Clearance RR Underpass Sign Inventory	Summer 2021	
3.3	Freight Traffic Assessment, Reporting, and Counting	September 2021	
3.3	Regional Freight Crash Analysis	September 2021	
3.3	CMP Freight Bottleneck Updates	September 2021	
3.4	CMP Corridor Updates	August 2021	
3.4	Belchertown Park Street Study	September 2021	
3.4	Congestion Dashboard	September 2021	
3.4	I-91 SB Congestion Analysis	Summer 2021	
3.5	Updated Online OCI Maps	Summer 2021	
3.6	Updated PM2 and PM3 regional targets	October 2020	
3.7	West Springfield Route 20 Roadway Safety Audit Implementation Study	August 2021	
3.7	Regional Safety Compass Interactive Map	Summer 2021	
3.8	Updates to Regional Climate Action Strategies	Ongoing	
3.8	Implementation of Climate Change Toolkit	Ongoing	
3.8	Culvert assessments for up to 3 communities	September 2021	
3.8	Pioneer Valley Clean Energy – Climate Action Meetings	Quarterly	
3.9	Updated Green Infrastructure Plan Strategies	Ongoing	
3.9	Updated Green Infrastructure Toolkit	Ongoing	
3.9	Model Green Infrastructure Strategies	Ongoing	

Task	Product	Anticipated Completion	Public Engagement
3.9	Green Infrastructure Retrofit Mapping – 2 Communities	September 2021	
4.1	PVTA Schedule Updates	As Needed	
4.1	PVTA System Map Update	As Needed	
4.2	Paratransit Performance Measures	Monthly	
4.3	TOD/Sustainability Ordinances and Bylaws	As requested	
4.3	Valley Development Council meetings	Quarterly meetings	
4.3	Updated Priority Development Area Maps	Ongoing	
4.3	Housing Plan Advisory Committee Meetings	Quarterly	
4.3	Affordable Housing Survey Summary	September 2021	
4.4	Community trail technical assistance	As necessary	
4.4	Regional Interactive Trails Interface Updates	Ongoing	
4.4	Bike Commute Week Report	Summer 2021	
4.5	Local Technical Assistance	As requested	As necessary
4.6	Blandford Pavement Management Report	Winter 2020	
4.7	Byway Area Committee meetings	As Needed	
4.7	Highlands Footpath Meetings	Quarterly	
4.7	Byway-related Tourism Materials	Ongoing	
4.8	ValleyBike Steering Committee Meetings	Monthly	
4.8	Valley Bike Access Pass Registration Event(s)	Spring 2021	
4.8	ValleyBike Year 3 Summary Report	February 2021	

UPWP EQUITY ASSESSMENT

PVPC conducted an equity assessment on the transportation planning tasks completed as part of previous UPWP's. This assessment process has previously been used on the Regional TIP and identifies how regional transportation improvement projects have potentially impacted defined minority and low-income block groups in the region. Analysis of these projects also reflects some of the planning work performed by staff under Task 1.5 - Title VI and Environmental Justice. A map of low income and minority areas in the region is shown on page 49 while the TIP project map is shown on page 50. A map of planning tasks completed by community from 2010 – 2021 is shown on the figure on page 51.

Past UPWP's were reviewed to identify the transportation planning tasks that were completed for each of the 43 communities in the PVPC region. Tasks included data collection, planning studies, local technical assistance requests, and regional activities such as the update to the TIP or CMP. All total, 1174 tasks were identified over this timeframe. While the total number of projects for each community is often a function of the size of the community, at least one task was completed for each community. This information is summarized on the table on page 52. Tasks completed or estimated to be completed as part of the FFY 2020 and FFY 2021 UPWP have also been included on this table for informational purposes. Completion of these tasks are estimated and will be updated as part of future UPWP's.

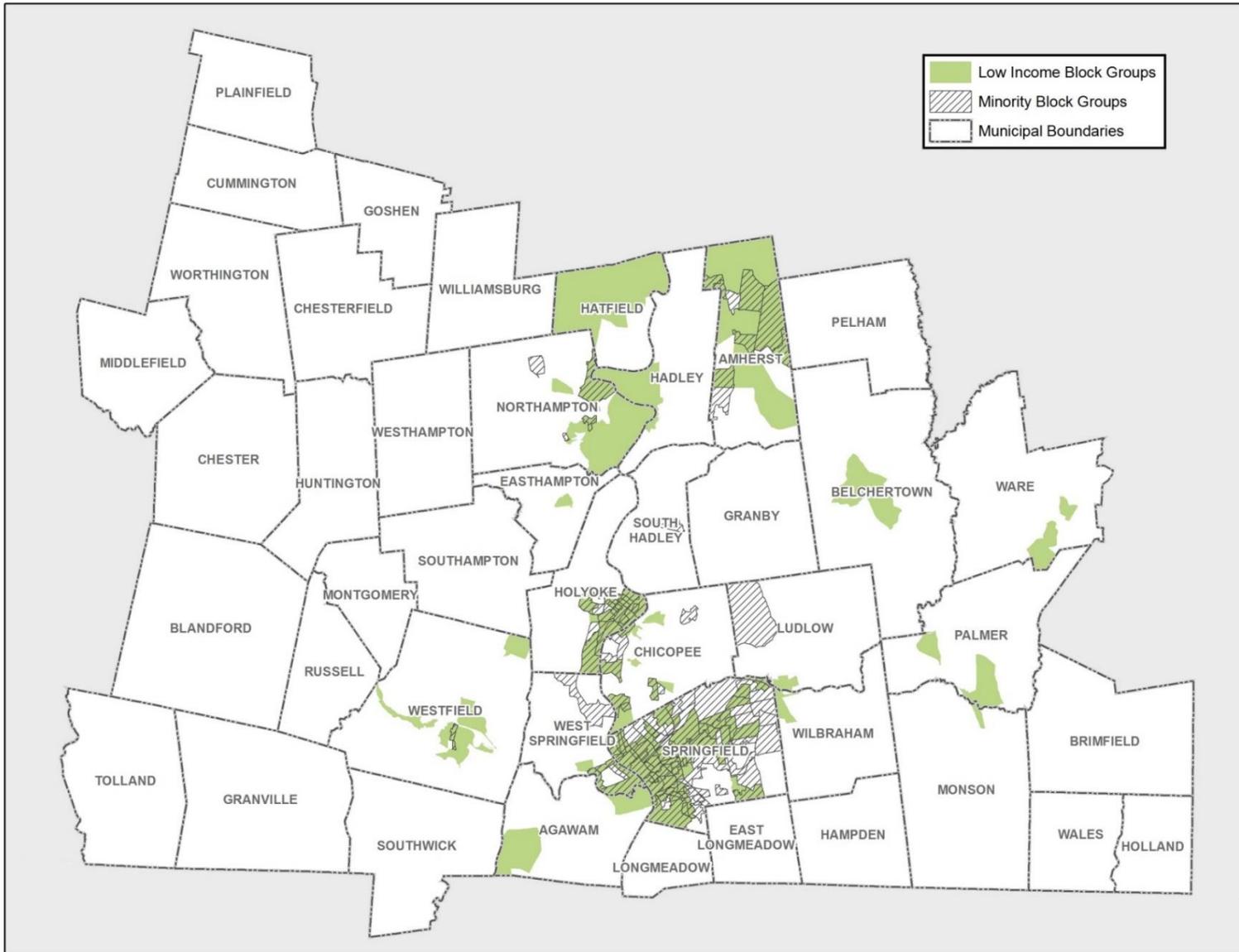
Only one community, Middlefield, was found to have less than five transportation tasks completed over the entire analysis period. Similarly, only one community, Granby, was identified as having only one transportation task completed from 2015 – 2019. This reflects the smaller size of these two communities and their small network of federal aid eligible roadways. PVPC has made efforts to reach out to communities to offer planning assistance such as traffic counts and safety assessments. Recent region-wide efforts such as the Safety Compass report have resulted in the ability to offer community wide data to each of the region's 43 cities and towns. PVPC also sends GIS related data directly to each community for integration into their own system.

Pavement management and traffic counting data collection have been conducted in PVPC communities as summarized in the tables on pages 53 and 54. In addition to counts completed for MassDOT and as part of ongoing planning studies, PVPC offers two free traffic counts for each member community per calendar year. Traffic counts from 2010 - 2019 were reviewed for each community to determine how much data has been collected across the region and to identify how many communities may not be aware of the traffic counting services that we offer. This information along with the estimated traffic counts for the 2020 and 2021 calendar years is summarized in the table on page 53. Traffic counts include both automatic traffic counts and manual turning movement counts.

A wide range of traffic count data has been collected across each of the 43 communities. In general, a higher number of completed traffic counts is an indication that a transportation safety or congestion study was conducted in that community during the calendar year. No traffic counts were performed over the five-year period from 2015-2019 for the Towns of Blandford, Holland, Montgomery, Southampton and Wales. Less than five traffic counts were performed in another 13 communities. In 2017 PVPC sent letters to the Board of Selectmen in communities with a low number of historic traffic counts to provide information on our regional traffic counting program. Unfortunately, this was not successful in increasing interest in the program. In response, PVPC has scheduled traffic counts in the UPWP beginning in FFY2020 for communities without recent count data as part of Task 2.1 – Traffic Counting. These counts will be conducted on key regional roadways and sent to the chief locally elected official and JTC representatives upon completion. A total of 10 traffic counts have been selected for the 2020 count season and 8 counts for the 2021 count season.

PVPC collects pavement distress data for all federal aid eligible roadways in the region. This data is typically collected on a four-year rotation and is summarized in the table on page 54 and figure on page 55. No pavement distress data is currently collected for the Town of Middlefield as there are no federal aid eligible roadways. Pavement distress data is summarized and distributed to each of the remaining 42 communities after it is collected. New pavement data was collected in 7 communities during 2019 to assist in the development of the update to the Regional Transportation Plan. New data will be collected in 9 communities in 2020 and 12 communities in 2021.

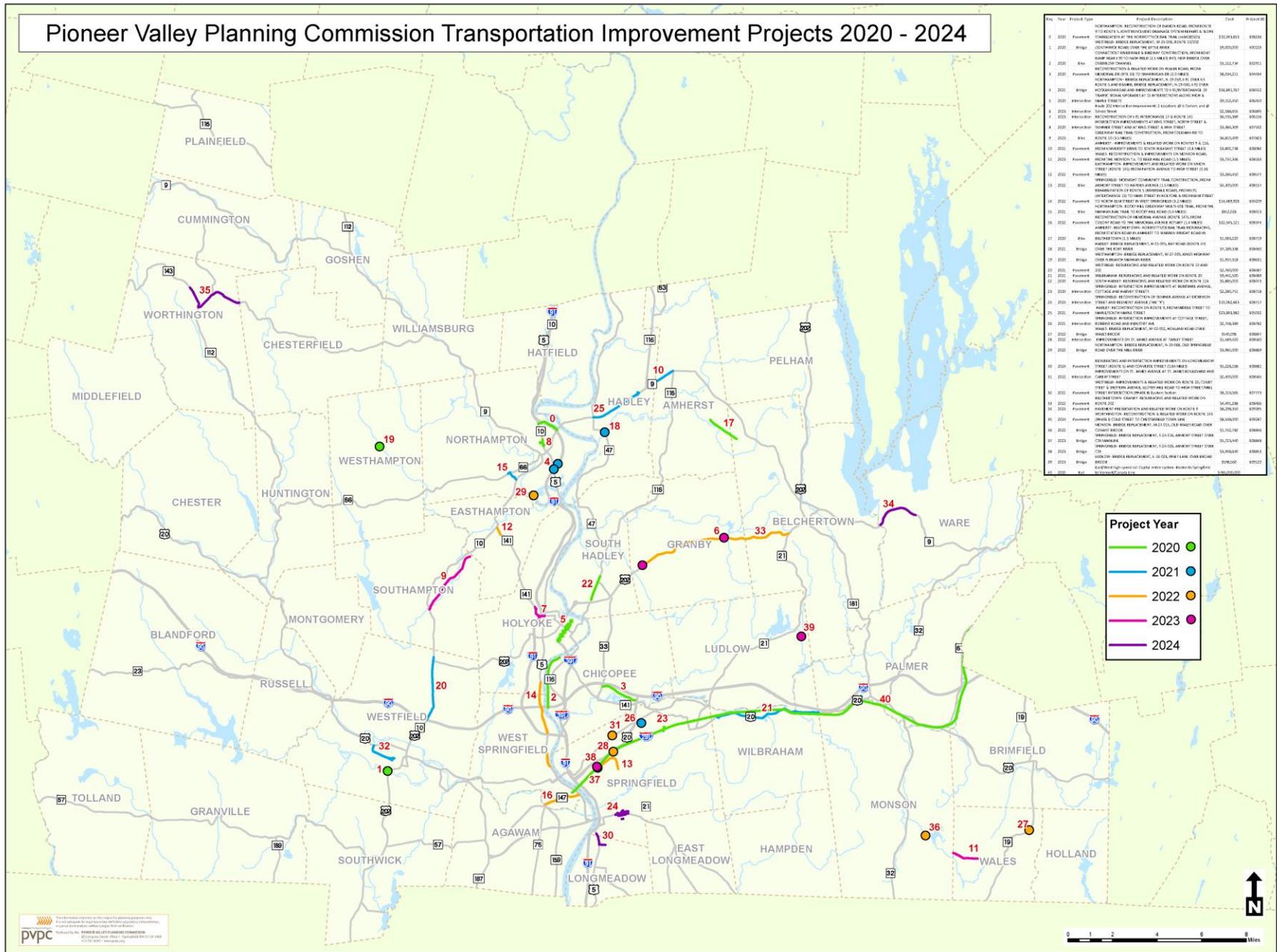
Low Income and Minority Areas Map



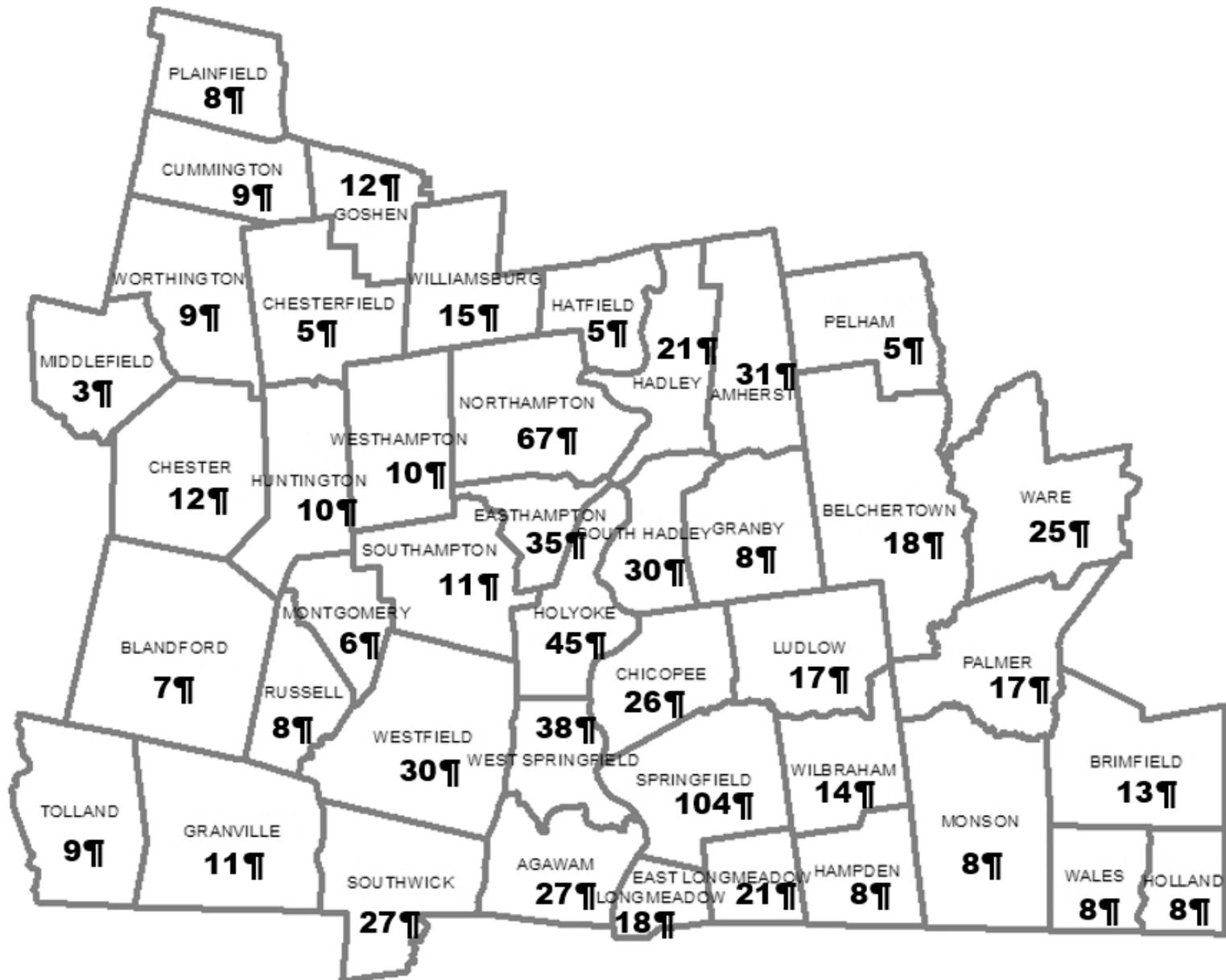
For more information on Equity please refer to the 2020 RTP - <http://www.pvpc.org/sites/default/files/Chapter%204%20-%20Equity.pdf>

TIP Project Distribution Map

Pioneer Valley Planning Commission Transportation Improvement Projects 2020 - 2024



Transportation Planning Activities by PVPC Community Map 2010 – 2021*



* Planning Activities for 2020 and 2021 are estimated based on current and proposed UPWP Tasks.

Transportation Tasks by Community and Year

Community	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*	2021*	Total
Agawam	2	2	2	1	3	1	3	5	5	3			27
Amherst	4	2	4	4	1	1	1	2	2	10			31
Belchertown	1	3	1		1	3	2	2	2	2		1	18
Blandford	1	1		1		1				1	1	1	7
Brimfield		2	3	2	1			1	3	1			13
Chester	1	2	1	1	1			3	1	1		1	12
Chesterfield	1						1		1			2	5
Chicopee	4	1	3	3	3	3	1	2	3	3			26
Cummington	1		1		1		1	1	2	1		1	9
East Longmeadow	2	2		1	1	1	1	3	3	4			18
Easthampton	3	3	2	1	3	1	1	5	4	11		1	35
Goshen	1	1	1		1	1	1	1	2	1		2	12
Granby		2		3				1			1	1	8
Granville		1	1	1	1		1		3	3			11
Hadley	1	3	4	2	1	2	1	2	2	2	1		21
Hampden	1		2		1		1	1	1		1		8
Hatfield				1			1			2		1	5
Holland	1	1				1	2	1	2				8
Holyoke	3	5	6	3	3	3	6	6	4	6			45
Huntington	1	1	1	2	1		1		1	1		1	10
Longmeadow	3		1	4	2	1	4	2	1	3			21
Ludlow	7	1			2		1	2		4			17
Middlefield		1								2			3
Monson	1	1		1				1	1	2	1		8
Montgomery			1	2	1			1		1			6
Northampton	7	6	5	7	3	4	5	6	6	17		1	67
Palmer	1					3	3	2	2	4	2		17
Pelham	1	1		1				1		1			5
Plainfield	1	1	1	1	1				1	1		1	8
Region Wide	38	29	33	34	28	30	26	24	26	30	28	29	355
Russell	1	1	1	1		1				3			8
South Hadley	3	1	2	4	3	2	1	4	2	7		1	30
Southampton	1	1	2	1		1	2	1	1	1			11
Southwick	6	2	1	2	3	1	2	3	1	4	1	1	27
Springfield	8	12	10	6	6	10	14	11	8	19			104
Tolland			1	1	1		1	1	2	2			9
Wales			1	1			1	2	2	1			8
Ware	5	2	1	2	2	3	2	2	1	3	2		25
West Springfield	4	3	2	2	1	1	3	9	2	9	1	1	38
Westfield	1	1	3	3	1		2	5	6	6	1	1	30
Westhampton	2			1	1			1		3		2	10
Wilbraham	1		1	1	1		2	1	4	2		1	14
Williamsburg	1		3	1	1	1	2	1	2	1		2	15
Worthington	1						1	1	2	2		2	9
Grand Total	121	95	101	102	80	76	97	117	111	180	40	54	1174

* Estimated

Traffic Counts by Community and Year

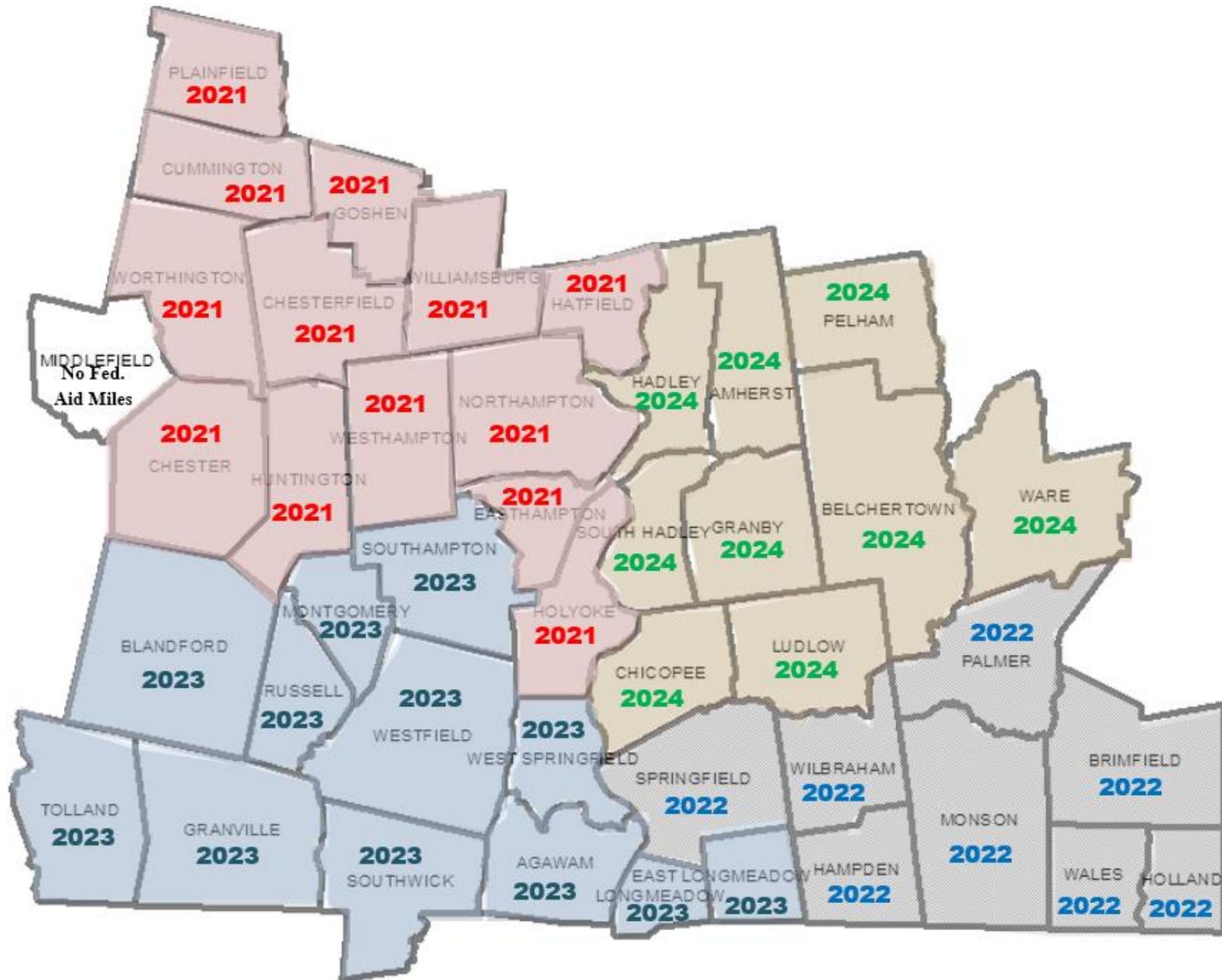
Community	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020*	2021*
Agawam	6		1		1		1	1	12	1	1	
Amherst	5	7	5	8	4	8	4	9	5	9		
Belchertown	2	9				1				1	1	
Blandford	1	2		1							1	
Brimfield			17					4	4			
Chester	1	1	1	2	2	1	4	1	1	1		
Chesterfield	4						2					1
Chicopee	10	1	1	1	16	1	13	7	8	1	1	
Cummington	2		2		2		4		2			
East Longmeadow	8	4		1		3		1		1		
Easthampton	10	4	3	16	3	6	8	5	3	6		
Goshen	3	1	1		2		1		1			1
Granby		1		6		10		1				1
Granville		3	2	1	1	2				2		
Hadley	1	1	3	8	1	21	1	1	2	1		
Hampden	6		2		2	3	2		2			
Hatfield							1			2	1	
Holland		1		1							1	
Holyoke	11	29	13	2	10	3	5	4	2	3		
Huntington	3			2		2			1	1	2	
Longmeadow	4		1	3	1		1		23	1		
Ludlow	9	1			1	6				4		
Middlefield										2	1	
Monson	2	7		2		3	1	3		2		
Montgomery			2								1	
Northampton	18	8	16	34	8	10	7	6	8	9	1	
Palmer	3									2	3	
Pelham	1	7		1		1		1		1		
Plainfield	1	2	6		2		1		1			
Russell	4	4	1	1						2	1	
South Hadley	6	12	1	4	3	25	1	26	5	5		
Southampton	4	14			3							1
Southwick	21	2	1	2	28	14	3	4	13	2		
Springfield	10	15	35	28	24	9	6	13	6	15	6	
Tolland			2	1	2	3		4	2	2		
Wales			2	4								1
Ware	9	1			15			1		1	1	
West Springfield	9	1	36	1	8	3	3	1	2	7	4	
Westfield	1	4	5	20	2	6	3	5	2	4	1	
Westhampton	1	1		1	3	1	4	1		3		
Wilbraham	5		3	2	7	2	3					1
Williamsburg			13		3	6	2					1
Worthington	1					2		1	1			1

* Estimated

Pavement Data Collection by Community and Year

Community	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Agawam		X			X		X					
Amherst		X			X	X		X	X		X	
Belchertown	X				X			X			X	
Blandford		X				X						
Brimfield	X					X						
Chester							X					X
Chesterfield	X					X				X		X
Chicopee	X		X			X					X	
Cummington		X				X				X		X
East Longmeadow	X	X				X			X	X		
Easthampton	X	X					X	X				X
Goshen		X				X				X		X
Granby	X					X					X	
Granville		X				X						
Hadley	X					X					X	
Hampden		X				X						
Hatfield	X					X						X
Holland	X					X						
Holyoke	X		X			X		X	X			
Huntington	X					X						X
Longmeadow		X			X		X					
Ludlow	X				X			X			X	
Middlefield	No Federal Aid Eligible Roadways											
Monson	X					X						
Montgomery	X					X						
Northampton	X			X	X		X					X
Palmer	X					X						
Pelham	X					X					X	
Plainfield	X		X			X				X		X
Russell	X					X						
South Hadley	X					X		X	X		X	
Southampton	X					X		X				
Southwick	X	X				X						
Springfield	X		X			X				X		
Tolland		X				X						
Wales	X					X						
Ware	X					X					X	
West Springfield		X			X		X					
Westfield	X			X		X						
Westhampton		X				X						X
Wilbraham	X					X			X			
Williamsburg		X				X						X
Worthington	X					X				X		X

Proposed Regional Pavement Management Data Collection by PVPC Community Map



PLANNING ACRONYMS

3C - Continuing, Comprehensive, and Cooperative Planning
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 Improv. 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 - District 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 Assoc. 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)
PEB - Potential for Everyday Biking
PCI - Pavement Condition Index
PL - [Metropolitan] Planning Funds
PMS - Pavement Management System
PMUG - Pavement Management Users Group
PPP - Public Participation Process
PTASP - Public Transportation Agency Safety Plan
PVTA - Pioneer Valley Transit Authority
QVDCD - Quaboag 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
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)

PREVIOUS TRANSPORTATION STUDIES

[FFY 2012 Unified Planning Work Program](#)

FFY 2011 Transportation Improvement Program
Amendments

FFY 2012 – 2015 Transportation Improvement Program
Project Development Process Primer Video
Manhan Rail Trail User Survey Report

[2012 Update to the Regional Transportation Plan](#)

Transit Mystery Rider Reports

[PVTA Non-Rider Survey](#)

Route 10 Build Out Analysis – Easthampton

Springfield Crash Data Analysis

Cottage Street at Robbins Road Safety Study – Springfield,
MA

Route 9 (Locust Street) at Hatfield Street Safety Study –
Northampton, MA

Valley Vision Update

Pioneer Valley Trail Map

Southampton Local Pavement Management Study

[FFY 2013 Unified Planning Work Program](#)

FFY 2012 Transportation Improvement Program
Amendments

[FFY 2013 – 2016 Transportation Improvement Program](#)

[Route 9 \(Federal Street\) at Bay Road Safety Study –](#)

[Belchertown, MA](#)

[Cottage Street, Robbins Road and Industry Avenue](#)

[Intersection: Springfield Safety Study](#)

PVPC/CRCOG MOU

Regional Traffic Count Report: 2007 – 2011

Regional Saturation Flow Rate Analysis

Paratransit User Survey

Mobility Chapter – Southampton Master Plan

Pleasant Street Congestion Study – Holyoke, MA

Regional Pavement Management Report Update

[Top 100 High Crash Intersections 2007 - 2009](#)

Williamsburg Pedestrian Safety Study

I-91 Corridor Planning Study Data Collection

PVTA Schedule Changes and Updates

[Coordinated Public Transit Human Service Transportation Plan](#)

PVPC Green Tips

Valley Vision ToolBox Update

2012 Bike Commute Week

Merrick/Memorial Phase 2 Data Collection

FFY 2014 Unified Planning Work Program

FFY 2013 Transportation Improvement Program
Amendments

FFY 2014 – 2017 Transportation Improvement Program

CMP Report Update

EJ and Title VI Reports to MassDOT

Regional Saturation Flow Rate Report

Mystery Rider Reports

PVTA Schedule Changes and Updates

PVPC Green Tips

Valley Vision ToolBox Update

2013 Bike Commute Week

Merrick/Memorial Phase 2 Existing Conditions

Brimfield Safety Study

[State of the Pioneer Valley Update](#)

Southern Service Area Customer Satisfaction Survey

Pine Street Congestion Study – Florence, MA

Final Top 100 High Crash Intersections 2007 – 2009

FFY 2015 Unified Planning Work Program

FFY 2014 Transportation Improvement Program
Amendments

FFY 2015 – 2018 Transportation Improvement Program

I-91 Corridor Planning Study – Existing Conditions

Merrick/Memorial Phase 2 Study

Ware Shuttle Survey

Palmer Shuttle Survey

Route 9 Safety and Livability Study Data Collection

Depot Street/Sheep Pasture/Powder Mill Road Safety Study

Route 202 at Amherst Street Traffic Signal Warrant Analysis

2014 Bike Commute Week

Regional Traffic Count Summary (2009-2013)

Valley Vision Toolbox Update

FFY 2016 Unified Planning Work Program

FFY 2016 Transportation Improvement Program
Amendments

FFY 2016 – 2019 Transportation Improvement Program

FY2016 Update to the Regional Transportation Plan

MassDOT Crash Data Updates

CMP Corridor and Bottleneck Update

EJ and Title VI Reports to MassDOT

CMAQ and Greenhouse Gas Analysis

Mystery Rider Reports

PVTA Schedule Changes and Updates

2015 Bike Commute Week

Updated Transportation Evaluation Criteria (TEC)

Route 9 Safety and Livability Study Draft Report

Updates to the Regional Transportation Model

FFY 2017 Unified Planning Work Program

FFY 2016 Transportation Improvement Program
Amendments

FFY 2017 – 2021 Transportation Improvement Program

2016 Bike Commute Week

Updated Transportation Evaluation Criteria (TEC)

Regional Transportation Model – Report on Future Traffic

Projections

Updated Public Participation Plan

Updates to Regional Data Indicators

Regional Freight Congestion Survey

GHG Analysis for Major Corridors

I-391 Ramp Congestion Study

Top 100 High Crash Intersection Report

Draft Critical Infrastructure Vulnerability Assessment

PVTA Northern Tier On-Board Survey

Regional Performance Measures Updates

FFY 2018 Unified Planning Work Program

FFY 2017 Transportation Improvement Program

Amendments

FFY 2018 – 2022 Transportation Improvement Program

2017 Bike Commute Week

High Speed Tolling Analysis for Massachusetts Turnpike

Agawam/West Springfield Route 147 Improvement Project

Analysis

Updated Online Regional Bike Map

Palmer Sidewalk Inventory

State Freight Plan Advisory Committee

Easthampton – Route 10 at South Street Intersection Study

Union Station Roadway Safety Audit

Safety Compass

Bike Share Scope of Work and Station Locations

FFY 2019 Unified Planning Work Program
FFY 2018 Transportation Improvement Program
Amendments
FFY 2019 – 2023 Transportation Improvement Program
2018 Bike Commute Week Report
Draft At-Grade Shared-use Path Crossing Safety Study
Agawam Safety Study – Pine Street at Barry Street
Before and After Congestion Studies – Roosevelt Avenue at
Island Pond Road and Alden Street
Final At-Grade Shared-use Path Crossing Safety Study
At-Grade Rail Crossing Study
Bliss Street at Williams Street Transportation Study –
Longmeadow

FFY2020 Unified Planning Work Program
FFY 2020 – 2024 Transportation Improvement Program
FFY 2019 TIP Amendments
Transportation Impacts on Route 20 of the Brimfield Antique
Shows
Before and After MassPike Toll Plaza Removal Analysis
PVTA Southern Tier Route Survey
2020 Update to the Pioneer Valley RTP
2019 Bike Commute Week Report
ValleyBike Year 1 Assessment Report

STUDIES COMPLETED AS PART OF THE FY 2020 UPWP

[Community and Facility Profiles](#) (various)
Local Technical Assistance Requests (various)
MassDOT Crash Data Updates
CMP Corridor and Bottleneck Updates
EJ and Title VI Reports to MassDOT
CMAQ and Greenhouse Gas Analysis
Mystery Rider Reports
PVTA Schedule Changes and Updates
TEC Evaluation Criteria Assessment
Regional Traffic Counting Program
Springfield UZA MOU Update
FFY2021 Unified Planning Work Program
FFY 2021 – 2025 Transportation Improvement Program
FFY 2020 TIP Amendments
CPT-HST Plan update
PVTA SMS/PTASP Plan
Ware-Palmer Rider survey
Westfield Rider survey
2019 Workforce Transportation Grant applications
2020 Bike Commute Week Report
ValleyBike Year 2 Assessment Report
Addendum to At-grade Shared Use Path Study
Top 100 Crash Intersections Report
Pioneer Valley Regional Freight Transportation Plan
Day Street Truck Exclusion Study – West Springfield
2020 JTC Bylaws Update
Benefits and Burdens Update
Regional Traffic Counts 2015-2019 Report
2040 Model Year Update and Analysis of I-91 Viaduct
Recommendations
Regional Data Indicators Update
Regional Bicycle and Pedestrian Gaps Assessment
Interstate and NHS Off Ramp Study
Palmer Local Pavement Management Report
ValleyBike Year 2 Assessment Report

FUNDING SUMMARY

Transportation Funding	Value	% of Total
FHWA PL (80%)	\$ 864,634.00	51.00%
MassHighway PL (20% match)	\$ 216,159.00	12.75%
FTA Section 5307 (80%)	\$ 228,000.00	13.45%
PVTA Section 5307 (20% match)	\$ 57,000.00	3.36%
FTA Section 5303 (80%)	\$ 258,153.00	15.23%
MassDOT Section 5303 (20% match)	\$ 64,538.00	3.81%
Local Funds (includes in-kind contributions)	\$ 7,000.00	0.41%
Total	\$ 1,695,484.00	100.00%
Other Funding		
	Value	% of Total
Other Commonwealth of Massachusetts	\$ 3,094,111.00	51.33%
US Environmental Protection Agency	\$ 200,000.00	3.32%
US Department Health/Human Services	\$ 170,000.00	2.82%
US Economic Development Administration	\$ 70,000.00	1.16%
Other Federal Revenue	\$ 175,000.00	2.90%
Local Grants	\$ 2,025,071.00	33.59%
Local Assessments	\$ 105,155.00	1.74%
Loan Repayment/Recapture	\$ 150,000.00	2.49%
Other	\$ 39,000.00	0.65%
Total	\$ 6,028,337.00	100.00%

Overall Funding	Value	% of Total
FHWA PL (80%)	\$ 864,634.00	11.19%
MassHighway PL (20% match)	\$ 216,159.00	2.80%
FTA Section 5307 (80%)	\$ 228,000.00	2.95%
PVTA Section 5307 (20% match)	\$ 57,000.00	0.74%
FTA Section 5303 (80%)	\$ 258,153.00	3.34%
MassDOT Section 5303 (20% match)	\$ 64,538.00	0.84%
Local Funds (includes in-kind contributions)	\$ 7,000.00	0.09%
Other Commonwealth of Massachusetts	\$ 3,094,111.00	40.06%
US Environmental Protection Agency	\$ 200,000.00	2.59%
US Department Health/Human Services	\$ 170,000.00	2.20%
US Economic Development Administration	\$ 70,000.00	0.91%
Other Federal Revenue	\$ 175,000.00	2.27%
Local Grants	\$ 2,025,071.00	26.22%
Local Assessments	\$ 105,155.00	1.36%
Loan Repayment/Recapture	\$ 150,000.00	1.94%
Other	\$ 39,000.00	0.50%
Total	\$ 7,723,821.00	100.00%

MPO ENDORSEMENT

Endorsement of the FFY2021 UPWP will be requested at the Pioneer Valley MPO Meeting currently scheduled for May 25, 2020.

APPENDIX

Pioneer Valley Planning Commission Traffic Counting Program

DATA COLLECTION

The Pioneer Valley Planning Commission collects transportation data on the movement of people and vehicles across specific points in the region. This information is often used as the basis for transportation planning studies but has a wide variety of applications and uses. The following provides a summary of the type of data collected, current data collection policies and the equipment used for data collection.

1. Data collected
 - a) Daily traffic count data is collected using Automatic Traffic Recorders (ATRs). Data is collected on a weekday for a minimum of 48 hours. All ATRs are capable of counting traffic volume, speed, vehicle class and gap data. Select ATRs are capable of classifying bicycles.
 - b) Intersection Turning Movement Counter (TMC) Counts are performed at intersections during the peak hours of travel (typically 7-9 AM and 4-6 PM). TMCs are counted in 15-minute intervals. Bicycles, pedestrians and trucks are all counted separately from passenger vehicles as part of all TMCs.
 - c) Bicycles and pedestrians are counted on shared use paths using a passive infra-red signal detector.
 - d) Pedestrians are manually counted at high volume locations during peak hours.
2. Data Collection Policies
 - a) PVPC performs traffic counts at specific locations as requested by MassDOT. The location of these counts is updated annual by MassDOT. The counts are conducted throughout the counting season. PVPC conducts traffic counts for areas subject to seasonal traffic variation such as schools, colleges, and special events during the appropriate time period to obtain average traffic volumes.
 - b) PVPC selects its own traffic count locations to supplement data collection activities required as part of ongoing corridor studies, the regional congestion management system, the regional pavement management system, and the regional transportation model.
 - c) PVPC collects bicycle and pedestrian volume counts for shared use paths, pedestrian counts on urban sidewalks and bicycle volumes on dedicated bike lanes in consultation with the JTC Bicycle, Pedestrian, and Complete Streets subcommittee.
 - d) A member community may request traffic counts under PVPC's LTA program. Under PVPC's current policy, each community is eligible to receive up to two free traffic counts per calendar year. After this member communities are charged for each count based on PVPC's actual cost.
 - e) Private organizations are charged for traffic counts based on PVPC's flat hourly rate.
3. Equipment
 - a) 11 Apollyon traffic recorders - Jamar Technologies, Inc.
 - b) 2 Cycles Plus traffic recorders (provides bicycle lane data) - Jamar Technologies, Inc.
 - c) 4 DB-100, 1 DB-400, and 1 TDC Ultra turning movement counters - Jamar Technologies, Inc.
 - d) 1 traffic recorder testing unit. All recorders are certified prior to the start of the counting season as required by MassDOT.

- e) 3 passive infra-red signal detectors (TRAFx and ECO) with a data logger to collect volume counts.
 - f) 1 COUNTcam 2 portable traffic video recorder.
4. Data
- a) All traffic counts are uploaded to the MassDOT MS2 site on a regular basis during the counting season. Bicycle and pedestrian count data are also shared with MassDOT. Copies of completed counts are distributed to member communities as they are finalized.

Pavement Management System Program

PVPC undertakes an ongoing Regional Pavement Management System Program. A Pavement Management System (PMS) is a systematic process that collects and analyzes roadway pavement information for use in selecting cost-effective strategies for providing and maintaining pavements in serviceable condition. The role of PMS is to provide an opportunity to improve roadway conditions, and to help make cost-effective decisions on maintenance priorities and schedules.

1. Regional Pavement Management
 - a) The roadway network covered by the regional PMS includes all urban and rural Federal-Aid eligible highways of the 43 cities and towns in the region constituting approximately 1,400 miles.
 - b) The region is divided into several sub-region areas with data collection activities performed on a 3 or 4-year rotational basis.
 - c) The regional PMS inventories the existing federal aid roadway network, records the pavement maintenance history for the network, and uses the pavement distress data collected to identify regional needs and maintenance activities.
2. Local Pavement Management
 - a) This program aims to provide the region's 43 communities with the knowledge and ability to effectively administer their available roadway improvement funds. It expands on the regional program to include all roadways maintained by the community. Communities are charged a fee for this service based on their roadway mileage.
3. Software
 - a) PVPC utilizes the Pavement Management software program "PAVEMENTView" developed by Cartegraph Systems. PAVEMENTView assesses the present pavement conditions and forecasts them annually based on historically derived roadway deterioration curves. Budget scenarios can be developed to identify the impact of various investments on pavement condition.
 - b) PAVEMENTView uses an Overall Condition Index (OCI) as a measurement of roadway serviceability and as a method to establish performance criteria.
4. Pavement Distress Data
 - a) Pavement distress data is collected via a windshield survey and is based on accepted federal standards.