

Pioneer Valley Metropolitan Planning Organization Unified Planning Work Program

October 1, 2021 to September 30, 2022



Catalyst for Regional Progress

pVPC

Prepared by:

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Unified Planning Work Program

Fiscal Year 2022
October 1, 2021 to September 30, 2022

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Prepared by the
Pioneer Valley Planning Commission

For the Pioneer Valley
Metropolitan Planning Organization

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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 2022 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 conduct a pedestrian safety study along Main and State Streets in the Town of Monson.
- Task 3.2 – Bike Share Implementation is an ongoing task to provide planning support to assist the regional bike share program, ValleyBike communities in its implementation and advancement. A summary of usage statistics for the 2021 calendar year will be developed as part of this report.
- Task 3.3 – Regional Freight Planning assists in the planning of the efficient movement of all forms of freight. This task will conduct an analysis of an existing low clearance railroad underpass at the intersection of Canal Street with Lyman Street in the City of Holyoke, MA.
- Task 3.4 – Regional Congestion Management Process Project Development analyzes regional travel time data along major transportation corridors to confirm areas of congestion. Staff will utilize data available through FHWA's National Performance Management Research Data Set (NPMRDS) to update the regional congested corridor ranking. Up to 5 locations will be identified based on their CMP ranking to perform an analysis of congestion.
- Task 3.5 – Regional Pavement Management will analyze the data collected under Task 2.5 in the communities of Brimfield, Hampden, Holland, Monson, Palmer, Springfield, Wales and Wilbraham.
- 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. PM1 targets will be updated in February of 2022. PM2 and PM3 targets will be updated in the fall of 2022 as part of this task.

- Task 3.7 – Regional Safety and Planning Studies will perform an assessment of safety and congestion at two intersections in the City of Springfield, MA. PVPC will also work in cooperation with MassDOT to use the IMPACT Safety Analysis Tools to identify potential areas for high risk crashes in the region.
- Task 3.8 – Transit System Surveys and Route Implementation works in cooperation with PVRTA 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 but delayed due to COVID will be finalized to assist in improving the quality of transit service in this area.
- Task 3.9 – Regional Transit Planning provides technical assistance and analysis for transit planning, operations and capital programs in cooperation with the PVRTA. Under this task, PVPC will provide support for bus stop consolidation as well as new transit technologies and services, including bus rapid transit, microtransit, TNC coordination, Mobility as a Service, and mobile/electronic fare collection.
- Task 3.10 – Paratransit Planning Assistance supports the paratransit services for people with disabilities and seniors that are provided by PVRTA in fulfillment of the requirements of USDOT Section 504 regulations and other planning requirements under the Americans with Disabilities Act.
- Task 3.11 – 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. PVPC will also work with municipalities to develop a prioritized list of culverts for repair and/or replacement.
- Task 3.12 – Green Streets and Infrastructure planning reduces the environmental impacts of streets, roads, and municipal infrastructure. As part of this task PVPC will continue a program of local technical assistance to municipalities to implement model green infrastructure strategies.

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 Scenic Byway Planning, Regional Land Use Planning and Local Technical Assistance.

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 FFY2022 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, 2021 through September 30, 2022
PVTA	October 1, 2021 through September 30, 2022

The Pioneer Valley Metropolitan Planning Organization endorsed the Unified Planning Work Program for the Pioneer Valley MPO on May 25, 2021.

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.

Amendments are defined as significant changes to the overall UPWP that require federal approval. Adjustments or administrative modifications are minor adjustments to the overall UPWP that do not require federal approval.

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

- Amendment with 21 day public comment period:
 - Addition or deletion of a UPWP task or sub-task.
 - Major changes to UPWP task descriptions, activities and other information.
 - Funding increases above the originally approved UPWP overall budget.
 - Funding transfers between tasks equal to or greater than 25% of the UPWP task budget.
 - Funding increases or decreases equal to or greater than 25% of the UPWP task budget.
- Adjustments or Administrative Modifications with an approval vote from the MPO and sign-off from the Office of Transportation Planning (OTP):
 - Minor changes to UPWP task descriptions, activities and other information.
 - Funding transfers between UPWP tasks less than 25% of the UPWP task budget.
 - Funding increases or decreases less than 25% of the UPWP task 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 \$1,348,622 in PL funds has been programmed for the FY2022 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 FY2022.

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. Beginning 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 All total, \$274,585 in Section 5303 funds was transferred from FTA to FHWA for the FY2022 UPWP. The total amount of PL funds programmed for the FY2022 Transportation Work Program includes this transfer of Section 5303 funds.

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 \$310,000 in Section 5307 funds has been programmed for the FY2022 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 (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:

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.

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, Pedestrian and Complete Streets Planning Task 3.7 - Regional Safety and Planning Studies
3	Increase the security of the transportation system for motorized and non-motorized users.	Task 3.8 - Transit System Surveys and Route Implementation Task 3.9 - Regional Transit Planning
4	Increase the accessibility and mobility of people and for freight.	Task 3.1 - Regional Bicycle, Pedestrian and Complete Streets Planning Task 3.3 - Regional Freight Planning Task 3.9 - Regional Transit Planning Task 3.10 - 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 4.1 – 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, Pedestrian and Complete Streets Planning Task 3.3- Regional Freight Planning Task 3.8 - Transit System Surveys and Route Implementation
7	Promote efficient system management and operation.	Task 3.4 - Regional Congestion Management Process Task 3.6 – Regional Performance Measures Assessment Task 3.8 Transit System Surveys and Route Implementation
8	Emphasize the preservation of the existing transportation system.	Task 3.5 - Regional Pavement Management System - Project Development Task 3.11 Climate Change Implementation
9	Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.	Task 3.11 - Climate Change Implementation Task 3.12 Green Streets and Infrastructure
10	Enhancing travel and tourism.	Task 3.1 - Regional Bicycle, Pedestrian and Complete Streets Planning Task 3.2 - Bike Share Implementation Task 4.2 Scenic Byways Support

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. The FAST Act will expire on September 30, 2021.

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 3.6– Regional Performance Measures Assessment 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
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	Bike Share Implementation – This ongoing task provides planning support to assist the regional bike share program, ValleyBike.	Congestion Reduction
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
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

Task	Description	National Goals Supported
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 will be collected 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	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 PVTA fixed route system.	Safety, Congestion Reduction, System Reliability
3.9	Regional Transit Planning – This ongoing task provides technical assistance and analysis for transit planning, operations and capital programs in cooperation with the PVTA.	Safety, Congestion Reduction, System Reliability
3.10	Paratransit Planning Assistance – Supports 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.	Safety, Congestion Reduction, System Reliability
3.11	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
3.12	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 Task 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 regularly with MassDOT to review the status of proposed transportation improvement projects. 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 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.

Public Transportation Agency Safety Plans (PTASP) were authorized by the MAP-21 legislation. Under this rule, operators of public transportation systems that receive Federal financial assistance under 49 U.S.C. Chapter 53 such as the PVTA, must develop and implement a PTASP to help ensure that public transportation systems are safe nationwide. The PTASP must include four main elements: (1) Safety Management Policy, (2) Safety Risk Management, (3) Safety Assurance, and (4) Safety Promotion.

Regional Performance Target Status

Final Rule	Effective Date	Status	Updated
Safety Performance Measures (PM1)	April 14, 2016	MPO adopted state targets on February 23, 2021	Annually
Pavement/Bridge Performance Measures (PM2)	May 20, 2017	MPO adopted state targets on October 1, 2018	Every Two Years
System Performance Measures (PM3)	May 20, 2017	MPO adopted state targets on October 1, 2020	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)	November 18, 2020	MPO adopted PVTA PTASP on November 24, 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 339 or less statewide
PM1	Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)	Reduce the Rate of Fatalities to 0.55/100 million VMT or less statewide
PM1	Total Number of Serious Injuries	Reduce Total Number of Serious Injuries to 2580 or less statewide
PM1	Rate of Serious Injuries per 100 Million VMT	Reduce the Rate of Serious Injuries to 4.23/100 million VMT or less statewide
PM1	Total Number of Non-Motorized Fatalities and Serious Injuries	Do Not Exceed the Current Average of 506 for the Total Number of Non-Motorized Fatalities and Serious Injuries statewide
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 classified 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	0.559 kg/day VOC 1.71 kg/day NOx 6.53 kg/day CO
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	Total Number of Fatalities	Target of 0 Fatalities
PTASP	Rate of Fatalities per Million Vehicle Miles Traveled (VMT)	Target Fatalities Rate of 0.0058/ million VMT
PTASP	Total Number of Incapacitating Injuries	Target of 0 Incapacitating injuries
PTASP	Rate of Incapacitating Injuries per Million VMT	Target Rate of Incapacitating Injuries of 0.0437/ million VMT

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	Southwick	Westfield
West		

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

Amherst	Easthampton	Hadley
Northampton	South Hadley	

- 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	

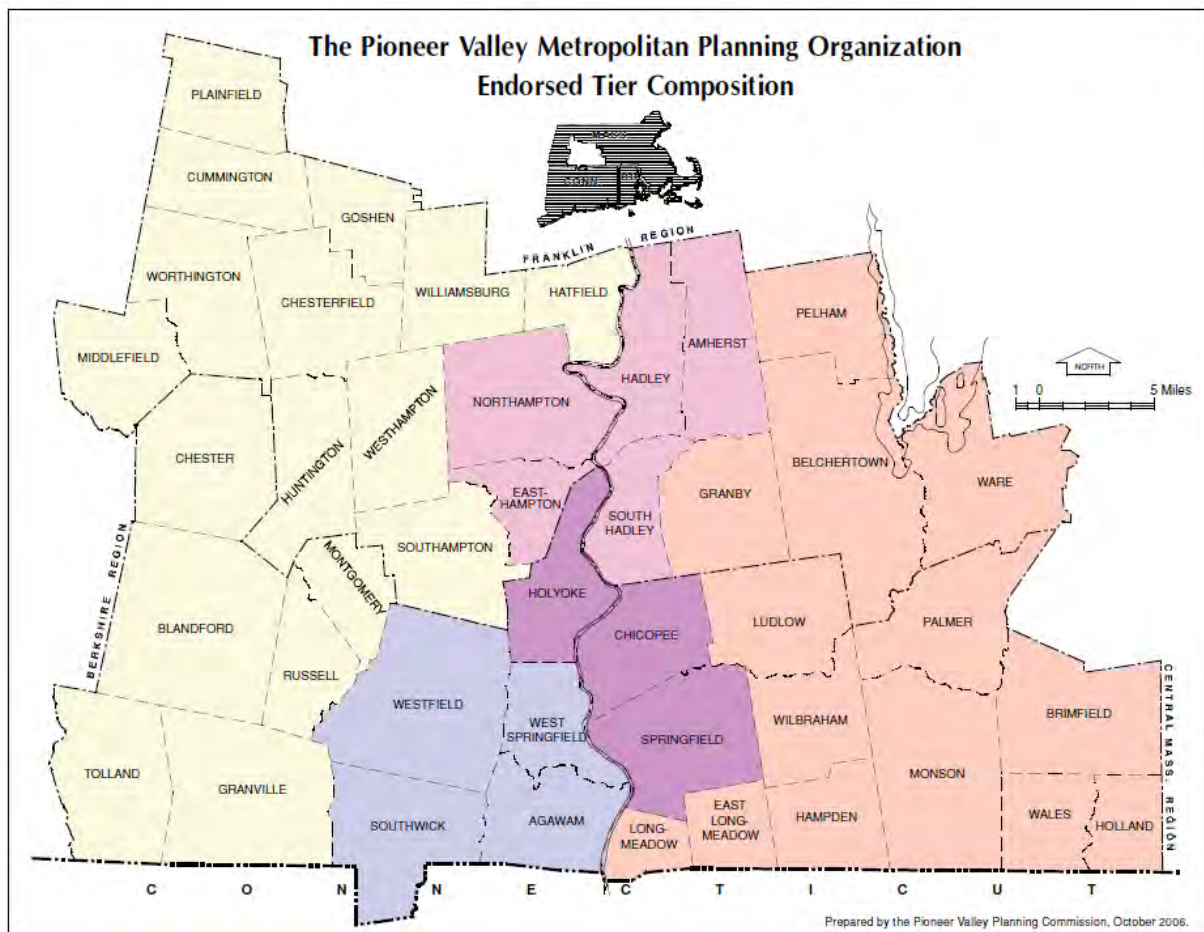
In addition, the Administrator of the Pioneer Valley Transit Authority, the Administrator of the Franklin Regional Transit Authority, the Joint Transportation Committee (JTC) Chair, and one representative each from the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the 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
Jamey Tesler	Acting 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 Domenic Sarno	City of Springfield
Mayor William C. Reichelt	City of West Springfield
Mayor Nicole LaChapelle	City of Easthampton
Roger Fuller	Chesterfield Board of Selectmen
Rick Sullivan	Economic Development Council of Western Massachusetts
Alternates	
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



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	Michelle Chase	Vacant
Amherst	Guilford Mooring	Jason Skeels
Barnes Municipal Airport	Christopher Willenborg	Vacant
Belchertown	Steven Williams	Gary Brougham/Douglas Albertson
Blandford	Josh Garcia	Vacant
Brimfield	Judith Carpenter	Vacant
Chester	Carl Baldasaro	Vacant
Chesterfield	Matt Smith	Vacant
Chicopee	Elizabeth Botelho	Doug Ellis
Cummington	Alan Taylor	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	Vacant	Timothy Keane
Ludlow	Vacant	Ellie Villano
MassBike	Gary Briere	Marvin Ward
MassDOT District 1	Mark Moore	Peter Frieri
MassDOT District 2	Paula Simmons	Vacant
Middlefield	Rodney Savery, Jr.	Vacant
Mobility Impaired Representative	Jennifer Lee (STAVROS)	Carmen Rosado (STAVROS)
Monson	Benjamin Murphy	Vacant
Montgomery	Curtis Bush, Jr.	Vacant
Northampton	Wayne Feiden	Maggie Chan
Palmer	Ryan McNutt	Gerry Skowronek
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	Chris Bouchard	Mike Sullivan
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	Vacant
Ware	Gilbert St. George-Sorel	Vacant
Western Massachusetts EDC	Vacant	Vacant
Westfield	Mark Cressotti	Jeremy Cigal
Westhampton	David Blakesly	Arthur Pichette
West Springfield	Vacant	Vacant
Wilbraham	Tonya Bosch	Dena Grochmal
Williamsburg	Daniel Banister	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
Amelia Morrissey	Transit Data Analyst
Khyati Parmar	Senior Transportation Planner II
Dana Roscoe	Principal Planner - Section Head
Gary Roux	Principal Planner - Section Head

STAFFING REPORT

The following PVPC staff members are expected to work on the FY2022 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	85%
Ray Centeno	Graphics Designer	20%
Jacob Dolinger	GIS Specialist	20%
Alexander Forrest	Transit Planner II	20%
Patty Gambarini	Principal Planner – Section Head	12%
Molly Goren-Watts	Principal Planner/Manager of Regional Information and Policy Center	15%
Douglas Hall	Data Manager and Analyst	20%
Amir Kouzehkanani	Principal Transportation Planner - Manager	76%
Peter Kuusisto	Transit Planner II	60%
Andrew McCaul	Senior Transportation Planner I	95%
Jeffrey McCollough	Senior Transportation Planner - Specialist	80%
Corrin Meise-Munns	Land Use Planner	10%
Amelia Morrissey	Transit Data Analyst	20%
Khyati Parmar	Senior Transportation Planner II	88%
Catherine Ratte	Principal Planner – Section Head	11%
Dana Roscoe	Principal Planner – Section Head	95%
Gary Roux	Principal Planner – Section Head	80%
Todd Zukowski	GIS/Cartographic – Section Head	25%
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	PVTA 5307	5307 Match
1.0 Management & Certification of the 3C Process						
1.1 Management of the 3C Process	40,000	32,000	8,000			
1.2 Unified Planning Work Program	15,000	12,000	3,000			
1.3 Public Participation Process	26,000	20,800	5,200			
1.4 TIP Development	131,250	105,000	26,250			
1.5 Title VI and Environmental Justice	78,750	63,000	15,750			
Subtotal of Section 1.0	291,000	232,800	58,200			
2.0 Technical Support & Data Collection						
2.1 Traffic Counting	35,000	28,000	7,000			
2.2 Regional Travel Demand Modeling/Clean Air Planning	85,000	68,000	17,000			
2.3 GIS, Mapping and Graphics	90,000	60,000	15,000		12,000	3,000
2.4 Information Center	37,000	29,600	7,400			
2.5 Regional Pavement Management System - Data Collection	42,000	33,600	8,400			
Subtotal of Section 2.0	289,000	219,200	54,800		12,000	3,000
3.0 RTP Planning						
3.1 Regional Bicycle, Pedestrian and Complete Streets Planning	75,000	60,000	15,000			
3.2 Bike Share Implementation	17,500	14,000	3,500			
3.3 Regional Freight Planning	30,000	24,000	6,000			
3.4 Regional Congestion Management Process	106,250	85,000	21,250			
3.5 Regional Pavement Management System - Project Dev.	50,000	40,000	10,000			
3.6 Regional Performance Measures Assessment	18,750	15,000	3,750			
3.7 Regional Safety and Planning Studies	115,872	92,698	23,174			
3.8 Transit System Surveys & Route Implementation	247,500	95,000	23,750		103,000	25,750
3.9 Regional Transit Planning	268,750	95,000	23,750		120,000	30,000
3.10 Paratransit Planning Assistance	35,000	15,000	3,750		13,000	3,250
3.11 Climate Change Implementation	19,000	15,200	3,800			
3.12 Green Streets and Infrastructure	19,000	15,200	3,800			
Subtotal of Section 3.0	1,002,622	566,098	141,524		236,000	59,000
4.0 Ongoing Transportation Planning						
4.1 Implementing the Regional Land Use Plan	15,000	12,000	3,000			
4.2 Scenic Byways Support	7,000	5,600	1,400			
4.3 Local Pavement Management Program	25,000			25,000		
4.4 Local Technical Assistance	34,000	27,200	6,800			
Subtotal of Section 4.0	81,000	44,800	11,200	25,000		
MassDOT 3C Direct Costs	20,000	16,000	4,000			
Program Sum	1,683,622	1,078,898	269,724	25,000	248,000	62,000

Funding estimates for FY2022 for federal PL funds were provided to the Pioneer Valley MPO by the MassDOT Office of Transportation Planning. All total, \$1,348,622 in PL funding was programmed in the FY2022 UPWP. This includes a total of \$274,585 in former Section 5303 funds that was transferred from FTA to FHWA. PVPC also receives a total of \$310,000 in Section 5307 funds under contract with PVTA. Local matching funds for the local pavement management program are estimated and not guaranteed. This estimate is based on historic funds received for this work.

A total of \$584,585 is programmed into transit planning activities in the FY2022 UPWP. This represents the total of the Section 5307 funding received from PVRTA and the Section 5303 funding transferred from FTA to FHWA. This money is programmed as follows:

Planning Task	Transit Funding Programmed
1.4 TIP Development	\$10,335
2.3 GIS, Mapping and Graphics	\$23,000
3.8 Transit System Surveys & Route Implementation	\$247,500
3.9 Regional Transit Planning	\$268,750
3.10 Paratransit Planning Assistance	\$35,000
Total	\$584,585

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 2022.

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).

Source	Budget	Est. Staff Effort
FHWA PL (80%)	\$ 32,000	16 weeks
MassDOT (20% match)	\$ 8,000	4 weeks
TOTAL	\$40,000	20 weeks
Direct Labor	\$17,982	
Indirect Costs	\$22,018	

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 - 2022.

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 Environmental Justice and 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 2023). The estimated completion date is May 2022. Public engagement is estimated to begin in March 2022.

<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	\$6,743	
Indirect Costs	\$8,257	

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. Updated JTC Bylaws.
3. Survey of JTC, MPO, local partners and stakeholders on outreach and communication strategies to improve and expand participation Survey of virtual public engagement.

PROPOSED ACTIVITIES:

1. Major revision to the MPO's Public Participation Plan (PPP).
2. Standardization of "virtual" meeting practices in accordance with new 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 and expand engagement with non-traditional partners including 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 (as necessary).
2. Press releases for transportation projects (as necessary).
3. Web based information distribution (as necessary).
4. Summary of public outreach related to the revised Public Participation Plan. September 2022.
5. Adoption of a New Public Participation Plan. September 2022.

<u>Source</u>	<u>Budget</u>
FHWA PL (80%)	\$20,800
MassDOT (20% match)	\$ 5,200
TOTAL	\$26,000
Direct Labor	\$11,688
Indirect Costs	\$14,312

<u>Est. Staff Effort</u>
10 weeks
3 weeks
13 weeks

Task 1.4 Transportation Improvement Plan (TIP) Development

OBJECTIVE:

The PVMPO with the assistance PVPC Staff, the JTC, and MassDOT will develop the 2023 – 2027 TIP. In order to complete this task the Transportation Evaluation Criteria (TEC) will first be reviewed and updated to ensure all Federal requirements are being considered. Once the TEC is updated Staff will work with the JTC to update project scoring and provide the MPO with the most up to date project information so that the MPO can program projects that help meet regional performance measures as well as Federal and State initiatives.

PREVIOUS WORK:

1. Pioneer Valley Transportation Improvement Programs 1974 – 2022
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. Continue to use the eSTIP and "Grants Plus +" to develop the 2023-2027 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.
9. Engage JTC, MPO, and Public to review and update TEC as needed to ensure TEC meets Federal requirements.

PRODUCTS:

1. FFY 2023 - 2027 Transportation Improvement Program. The estimated completion date is May 2022. Public engagement is estimated to begin in February 2022.
2. TIP Amendments and Adjustments as necessary.
3. Summary of comments received during public review for all TIP documents and amendments. As necessary.
4. Ranked list of evaluated TIP projects, with corresponding TEC sheets. March 2022.
5. Updated TEC form – December 2021.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$105,000	54 weeks
MassDOT (20% match)	\$ 26,250	13 weeks
TOTAL	\$131,250	67 weeks
Direct Labor	\$59,002	
Indirect Costs	\$72,248	

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.
 - a) Map the location of each project and calculate the distribution of project expenditures to minority populations, people with LEP, elderly populations, and people with disabilities categories. This work will also include low-income and transit-dependent households and include populations within a one-half mile buffer of projects programmed in the TIP.
 - b) Explore the expansion of existing equity populations to include people who are 75 years old or older, 17 years old or younger, or have a disability. Coordinate the analysis with the Joint Transportation Committee.
 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 2022.
2. Annual report to MassDOT on EJ, Title VI and LEP. January 2022.
3. Updated maps of Title VI protected population demographics and related impacts (as necessary).
4. Summary of Benefits and Burdens Analysis. May 2022 with public participation beginning in February 2022.
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%)	\$63,000	31 weeks
MassDOT (20% match)	\$15,750	8 weeks
TOTAL	\$78,750	39 weeks
Direct Labor	\$35,401	
Indirect Costs	\$43,349	

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 FY2022 UPWP.

PREVIOUS WORK:

1. Regional Traffic Counting Program and database 1985 - 2020.
2. Regional Traffic Counts 2015 - 2019
3. Data collection and analysis as part of Highway Performance Monitoring System (HPMS).
4. Updates to MassDOT MS2 traffic count site.
5. PVPC 2020 regional traffic counts monitoring COVID19 impact.

PROPOSED ACTIVITIES:

1. Perform data collection for all transportation modes. The process to collect and report including methodology, equipment, and locations is explained in the appendix. This work includes:
 - a) Collect 48 hour Automatic Traffic Recorder (ATR) count data and HPMS data for locations as requested by MassDOT.
 - b) Collect and document vehicle classification data and speed data for the region.
 - c) Collect Turning Movement Count (TMC) data as requested by MassDOT and member communities.
 - d) Collect bicycle, pedestrian and vehicular count data to support UPWP tasks.
 - e) Update the MassDOT MS2 website and PVPC traffic count database to include all recent data collection.
<https://mhd.public.ms2soft.com/tcds/tsearch.asp?loc=Mhd&mod=>
 - f) Collect traffic data for underserved communities as identified in the UPWP Equity Assessment. Target communities for FFY2022 include Blandford, Chesterfield, Goshen, Holland, Montgomery, Southampton and Wilbraham.
2. Provide up to 2 free daily traffic counts per member community on request.
3. Continue to monitor regional traffic of up to 30 locations counted in 2020.

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. Ongoing task.
4. Online traffic count viewer and download portal. Ongoing task.
5. Share traffic counts with respective communities. Ongoing task.

<u>Source</u>	<u>Budget</u>
FHWA PL (80%)	\$28,000
MassDOT (20% match)	<u>\$ 7,000</u>
TOTAL	\$35,000
Direct Labor	\$15,734
Indirect Costs	\$19,266

<u>Est. Staff Effort</u>
14 weeks
<u>4 weeks</u>
18 weeks

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. Estimated emissions of GHG and criteria pollutants by community based on VMT obtained from the 2010 Regional Travel Demand Model base year (February 2021).
2. Analyzed impact of I-91 near and mid term improvements on regional traffic flow (December 2020).
3. Coordinated with MassDOT OTP and District 2 to update the 2040 Regional Transportation Model network to include recommendations from the Springfield I-91 Viaduct Study (November 2020).
4. Updated the Regional Transportation Model to include revised demographic projections for the 2020 RTP (July 2020).

PROPOSED ACTIVITIES:

1. Update the traffic count database with current Average Daily Traffic data at community lines and external stations gathered from in-house traffic counts as well as from surrounding planning agencies (ongoing task).
2. Update information on non-exempt regional projects for inclusion in the statewide model from the Office of Transportation Planning (ongoing task).
3. Update the MassBuilds site with new development data for the PVPC region (ongoing task).
4. Perform air quality conformity determinations for TIP projects to be funded under the Congestion Mitigation and Air Quality (CMAQ) program (ongoing task).
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 task).
6. Coordinate regional travel demand model data with MassDOT, surrounding Massachusetts RPAs, and the Capital Region Council of Governments (ongoing task).
7. Adjust the number and size of regional TAZ's based on 2020 Census new block groups delineations estimated to be received August 2021. Spring 2022.
8. Begin updates for the 2020 Regional Transportation Model base year. This includes creating new TAZs with socio-economic data from block groups, as information from the Census 2020 data becomes available. The census data is expected to be obtained December 2021 pending future announcements. Estimated 18-month task to be completed in FFY2023 UPWP.
9. Evaluate the existing Speed/Capacity Lookup table used in running the Regional Transportation Model macro to identify any necessary adjustments. Summer 2022.
10. Participate in the statewide Socio-economic Projections Committee headed by MassDOT to develop new forecasts based on data derived from the 2020 Census for use in the Build Out scenarios of the 2024 RTP update (ongoing task).

11. As socio-economic data and future projections of Build Out years become available, update and re-run the 2020, 2030, and 2040 model years to obtain new estimates based on the new TAZ's and socio-economic data obtained from 2020 US Census (ongoing task).
12. Continue to collect Greenhouse Gas Data using PVPC's Picarro G2301 Gas Concentration Analyzer (ongoing task).

PRODUCTS:

1. Refinement and maintenance of the regional travel demand model. (ongoing task).
2. GHG Data Collection Summary Report. September 2022
3. Air quality conformity and greenhouse gas analysis in support of the TIP. February 2022.
4. Begin a process of updating the 2020 Base Year Model to include new 2020 socio-economic data from 2020 US Census data. March 2023.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$68,000	34 weeks
MassDOT (20% match)	\$17,000	8 weeks
TOTAL	\$85,000	42 weeks
Direct Labor	\$38,211	
Indirect Costs	\$46,789	

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. Updated online interactive ESRI map analysis tool for PVTA bus stop consolidation. Maintenance of GIS regional transit system database, maps and schedules (Ongoing Task).
2. Maintenance of spatial transportation data layers such as functional classification of roads, traffic counts, pavement condition, bicycle and pedestrian infrastructure, etc. (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. PVPC is fully licensed by the FAA for small Unmanned Aircraft System sUAS aka drone operation. PVPC follows FAA guidance and industry best practices including: pre-flight inspections, mission planning, weather monitoring, situational awareness, post-flight inspections and aircraft maintenance, as required. (As needed.)
2. Update Priority Development Areas (PDAs), 43D Priority Development Sites and Transformative Development Initiative Districts (TDIs) in the region. (Ongoing as needed.)
3. Continue work started in the summer of 2021 to identify and map the location of Affordable Housing in the region. (Ongoing task.)
4. 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, transportation system planning and regional performance measures. (Ongoing task.)

5. Work with state and federal agencies to review, correct and enhance regional GIS map coverage and related data to meet state and federal standards, support development of Homeland Security, pre-disaster mitigation spatial data and regional resiliency planning. (Ongoing task.)
6. 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.)
7. Improve access and use of web-based GIS data/analysis, online data and map products. (As necessary.)
8. 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. Funding has been budgeted separately for the production of schedules and graphics on behalf of the PVTa. (Ongoing task.)
9. Conduct outreach to regional communities to identify existing GIS layers that incorporate posted speed limit data.

PRODUCTS:

1. Development of new and enhanced digital data layers, municipal planimetric base maps and transportation systems facility maps to support federal and state initiatives. As needed.
2. Expand, update and maintain the GIS website. As necessary.
3. Update centerline/road inventory and functionally classified roads, as necessary.
4. Speed limit data layers. Summer 2022.
5. 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%)	\$60,000	30 weeks
MassDOT (20% match)	\$15,000	7 weeks
PVTa S. 5307	\$15,000	7 weeks
TOTAL	\$90,000	44 weeks
Direct Labor	\$40,459	
Indirect Costs	\$49,541	

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.

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

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. Maintain and improve data access through the PVPC website. This is an ongoing, annual task.
2. 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. Maintain online data dashboard monitoring trends in key transportation indicators. This is an ongoing, annual task.
3. 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.
4. Work in cooperation with regional Chambers of Commerce, the Massachusetts Small Business Development Center and major employers to identify changing workforce trends due to COVID-19. Develop a regional survey to assess how employees are returning to work or continuing to work from home as a result of the COVID-19 pandemic.

PRODUCTS:

1. Maintain information systems of socioeconomic and disparate data. Ongoing task.
2. Region wide data indicators updates to be conducted in December 2021 and May-July 2022.
3. PVPC website updates and maintenance of online data dashboard. Ongoing task. <https://pioneervalleydata.org/search-by-topic/>
4. Workforce Trends Report. September 2022

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$29,600	15 weeks
MassDOT (20% match)	\$ 7,400	4 weeks
TOTAL	\$37,000	19 weeks
Direct Labor	\$16,633	
Indirect Costs	\$20,367	

Task 2.5 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 shown in the proposed regional data collection by community map. 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 Holyoke, Easthampton, Northampton, Hatfield, Williamsburg, Westhampton, Huntington, Chesterfield, Goshen, Plainfield, Cummington, Worthington, Longmeadow and Chester.

PROPOSED ACTIVITIES:

1. Collect roadway pavement distress data on all federal aid roadways in Springfield, Wilbraham, Palmer, Brimfield, Holland, Wales, Monson, and Hampden in Summer 2022. 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%)	\$33,600	17 weeks
MassDOT (20% match)	\$ 8,400	4 weeks
TOTAL	\$42,000	21 weeks
Direct Labor	\$18,881	
Indirect Costs	\$23,119	

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 ([dashboard](#)) 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. Count for shared use paths and on-road bicycle lanes.
3. Survey of users on the Southwick and Westfield Columbia Greenway Rail Trails.
4. Assessment of metrics for potential bicycle use.
5. Bike Commute Week activities since 1999

PROPOSED ACTIVITIES:

1. Work with MassDOT and the JTC's Bicycle, Pedestrian, and Complete Streets subcommittee to identify bicycle and pedestrian count locations in FY 2022.
2. 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.
3. Develop and implement a survey of users of Valley Bike, the region's bike share resource. September 2022.
4. Assist local communities in efforts related to Complete Streets policy initiatives, projects and the development of Prioritization Plans. Ongoing task.
5. Participate in the Massachusetts Statewide Bicycle Advisory Board. Ongoing task.
6. Participate in Valley BikeShare Committee meetings. Ongoing task.
7. Identify pedestrian crossings that could benefit from enhancements and improvements. PVPC will utilize MassDOT crash risk data and new MUTD guidance to prioritize locations for potential crossing improvements. August 2022.
8. Work to expand the region's on-road and off-road pedestrian and bicycle network, seeking collaborations with communities and non-profit organizations to implement new trails design and construction projects. Ongoing task.
9. Conduct a pedestrian safety study along Main and State Streets in the Town of Monson. The safety study was requested by the town and would focus on existing access from Monson's Housing Authority property on State Street to the Main Street area. Currently, mobility limited individuals must navigate their wheelchairs in the roadway on State Street due to limited accessible sidewalks. A series of recommendations will be developed to improve pedestrian access and safety. Summer 2022.

10. Explore the potential to develop an interactive online resource interface for the region's network of shared-use-paths. Ongoing Task.
11. 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. This includes identifying leaders in each community to facilitate community-specific activities and serving as liaison with MassDOT and MassBike. Ongoing task.
12. 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.
13. Work with the JTC Bicycle, Pedestrian, and Complete Streets subcommittee to begin development of content on the PVPC website where interested people can learn about the history, location and planned location of regional shared use paths. September 2022.

PRODUCTS:

1. JTC Bicycle, Pedestrian, and Complete Streets subcommittee meeting minutes and notices. Monthly
2. Bicycle and pedestrian volume counts. Ongoing.
3. Online map resource for shared-use-paths and on-road bike lanes (as necessary).
4. User survey of Valley Bike Share. August 2022.
5. Matrix of high risk pedestrian crossings and implementation measures. August 2022.
6. Monson Pedestrian Safety Study. Summer 2022.
7. Community trail technical assistance to map, design and construct new bicycle facilities. As necessary.
8. Bike Commute week report. Summer 2022.
9. Regional Shared Use Path web content. Ongoing task with draft by September 2022.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$60,000	30 weeks
MassDOT (20% match)	\$15,000	7 weeks
TOTAL	\$75,000	37 weeks
Direct Labor	\$33,715	
Indirect Costs	\$41,285	

Task 3.2 Bike Share 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 1-3 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. Ongoing task.
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. Ongoing task.
5. Evaluate monthly usage statistics and develop a year-end report on ValleyBike. April 2022.

PRODUCTS:

1. ValleyBike Steering Committee monthly meetings. Ongoing task.
2. Valley Bike Access Pass Registration Event(s). As Needed.
3. Summary of Usage Statistics – Ongoing monthly task
4. Draft Report – Year 4, March 2022
1. Final Report – Year 4, April 2022

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$14,000	7 weeks
MassDOT (20% match)	\$ 3,500	4 weeks
TOTAL	\$17,500	11 weeks
Direct Labor	\$ 7,867	
Indirect Costs	\$ 9,633	

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.
3. Low Clearance Railroad Underpass Study

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 2022.
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. Work in cooperation with the City of Holyoke to study the low clearance railroad underpass at the intersection of Canal Street with

Lyman Street. This task was identified through previous work on the Regional Safety Compass and consultation with the City of Holyoke. Summer 2022.

- a) Update historic crash data through the Holyoke Police Department
- b) Collect data on existing truck generators in the vicinity of the study area.
- c) Perform an assessment of existing warning signs and devices in the study area.
- d) Develop a series of recommendations to alert overheight vehicles of the existing low clearance structure.

PRODUCTS:

1. Canal/Lyman Street RR Underpass Study, Summer 2022.
2. Freight Bottleneck Updates, September 2022.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$24,000	12 weeks
MassDOT (20% match)	\$ 6,000	3 weeks
TOTAL	\$30,000	15 weeks
Direct Labor	\$13,486	
Indirect Costs	\$16,514	

Task 3.4 Regional Congestion Management Process

OBJECTIVE:

Under this task staff will collaborate with MassDOT - Office of Transportation Planning, to incorporate new processes including Conveyal and Streetlight into our CMP process. Staff will continue to incorporate RITIS data into PVPC's ongoing congestion related planning activities. Staff will strengthen data for use in TEC rankings, 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.
3. Analysis of data to update top congested corridors and regional bottlenecks.
4. Regional Park and Ride Lot data collection.

PROPOSED ACTIVITIES:

1. Update the Regional Corridor Congestion Ranking based on RITIS data. Ongoing task.
 - a) Use Conveyal, ESRI GIS, PowerBI, Streetlight, and R Studio to process RITIS data to support ongoing congestion activities.
 - b) Review real time data to identify potential new areas of congestion.
 - c) Develop a congestion "dashboard" for the region. This dashboard will be web-browser based.
2. Identify no more than 5 location to perform congestion analysis, the locations will be chosen based on CMP ranking– August 2022.
3. Collect data at existing park and ride facilities and truck rest stops in the region. Coordinate all park and ride lot data with MassDOT. Ongoing task
4. Work with communities to incorporate the ITS technology as appropriate into regional transportation improvement projects. Ongoing task.

- Updated Pioneer Valley CMP Data set. Ongoing task.

PRODUCTS:

- CMP Corridor updates for RTP. August 2022.
- Regional Corridor Congestion Ranking based on Performance Measure Matrix. Ongoing.
- Congestion dashboard. September 2022
- Monthly Park and Ride Occupancy analysis
- Congestion Analysis (up to 5 locations). August 2022.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$ 85,000	42 weeks
MassDOT (20% match)	\$ 21,250	10 weeks
TOTAL	\$106,250	52 weeks
Direct Labor	\$ 47,764	
Indirect Costs	\$ 58,486	

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 2.5. This is an ongoing task.

PREVIOUS WORK:

- Regional PMS report for the Pioneer Valley Region.
- Community project priority listing.
- Roadway improvement backlog of projects.

PROPOSED ACTIVITIES:

- 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. Ongoing task.
- Perform various budget scenario analyses including the calculation of backlog of repairs for the region's federal-aid roadways. As necessary.

PRODUCTS:

- Pavement OCI maps on each community's surveyed federal aid eligible roadways. As necessary.
- Online OCI maps for federal aid eligible roadways. Summer 2022.
- 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%)	\$40,000	20 weeks
MassDOT (20% match)	<u>\$10,000</u>	<u>5 weeks</u>
TOTAL	\$50,000	25 weeks
Direct Labor	\$22,477	
Indirect Costs	\$27,523	

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. New performance measures and targets will be developed in consultation with MassDOT and the Pioneer Valley MPO 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 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 2022.
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 2022.
3. PM1 Target Updates. February 2022.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$15,000	10 weeks
MassDOT (20% match)	\$ 3,750	2 weeks
TOTAL	\$18,750	12 weeks
Direct Labor	\$ 8,429	
Indirect Costs	\$10,321	

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 the MassDOT IMPACT site as well as local traffic safety data and 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 Pioneer Valley Region: 2015 - 2017
3. Pioneer Valley Safety Compass: 2015 - 2017
4. Route 20 West Springfield Safety Study

PROPOSED ACTIVITIES:

1. Participate 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. Summarize and analyze crash information for the towns of Brimfield and Longmeadow to investigate anomalies in the total number of historic crashes identified as part of the Pioneer Valley Safety Compass report. Historic crash data along with most recent available crash trends will be compiled and compared. A town wide GIS analysis will be performed to further understand the type and locations of crash increases and other notable trends. December 2021 – February 2022.
4. Work in cooperation with the City of Springfield to advance safety studies for the intersection of St. James Avenue, Dartmouth Street, Dartmouth Terrace, and Worthington Street. This study was requested by the City of Springfield. Summer 2022.
 - a) Collect current traffic and transportation data related to speed, volume, heavy vehicles, turning movement counts, and existing geometry of the location.
 - b) Update historic crash data through the Springfield Police Department.
 - c) Perform technical analysis and identify conceptual alternatives to improve safety and reduce congestion.
5. Perform a Traffic Signal Warrant Analysis for the intersection of Page Boulevard with Bircham Street in the City of Springfield. Collect all necessary data to identify if the intersection currently meets the MUTCD minimum requirements to recommend the installation of a traffic signal. This study was requested by the City of Springfield. September 2022.
6. Utilize the MassDOT IMPACT Safety Analysis Tools to identify potential areas for high risk crashes in the region. September 2022.
7. Perform safety, traffic calming and truck exclusion route studies as requested by member communities. As necessary.

PRODUCTS:

1. Brimfield Crash History Study. December 2021.
2. Longmeadow Crash History Study. February 2022
3. Transportation Safety and Congestion Study for the intersection of St. James Avenue, Dartmouth Street, Dartmouth Terrace, and Worthington Street in Springfield, MA. Summer 2022.
4. Springfield Traffic Signal Warrants Analysis. September 2022.
5. Summary of Regional High Risk Crash Locations. September 2022.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
FHWA PL (80%)	\$ 92,698	46 weeks
MassDOT (20% match)	\$ 23,174	11 weeks
TOTAL	\$115,872	57 weeks
Direct Labor	\$ 52,089	
Indirect Costs	\$ 63,783	

Task 3.8 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 all Federal requirements including 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
4. Survey of Springfield residents for bus stop consolidation project.
5. Production of bus stop signs.

PROPOSED ACTIVITIES:

1. The Northern service area fixed route onboard customer survey had originally been proposed for October 2020, but the COVID restrictions that resulted in the 5-college area moving to on-line learning prevented the survey from being completed. The same work is now proposed for Spring 2022.
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. As necessary.
4. Rider surveys on specific routes, as requested.

PRODUCTS:

1. Northern system onboard rider survey data and report. September 2022.
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>
FHWA PL (80%)	\$ 95,000	42 weeks
MassDOT (20% match)	\$ 23,750	12 weeks
PVRTA S. 5307	<u>\$128,750</u>	<u>65 weeks</u>
TOTAL	\$247,500	119 weeks
Direct Labor	\$111,261	
Indirect Costs	\$136,239	

Task 3.9 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. Provided PVTA with planning and technical assistance for fixed route services and facilities planning and operations.
2. Produced PVTA's printed fixed route bus schedules, system map, and related products; updated bus operator field guides; managed vendors for printed products.
3. Produced and installed maps and signage for transit facilities. As requested.
4. Provided analysis of operational data from PVTA's ITS systems including as requested.
5. Supported PVTA Advisory Board and subcommittee activities as requested.
6. Provided general coordination among PVTA, PVMPO, PVPC staff, and MassDOT including regular executive level PVTA/PVPC coordination meetings and programming of transit items in the TIP.
7. Assisted PVTA with the preparation of two Federal grants (HOPE, AIM) that were both funded in FFY 2021.
8. Performed public engagement and facilitated public hearings for proposed service and fare changes.
9. Produced fare impact study.
10. Produced Title VI service equity analyses for proposed service changes; assisted with preparation of fare equity analysis.
11. Continued support for 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. Ongoing task.
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. Ongoing task.
3. Continue to assist PVTA staff with transit grant preparation and submission as applicable. Ongoing task.
4. Continue to produce and install maps and signage at transit facilities and on vehicles as requested. Ongoing task.
5. Continue to attend and participate in relevant public, municipal, regional, and state agency meetings. Ongoing task.
6. Continue to provide analysis of data from PVTA's information systems as requested. Ongoing task.
7. Continue to provide support for meetings of the PVTA Advisory Board and its subcommittees. Ongoing task.
8. Continue to support PVTA Bus Rider Forums and other customer outreach. Ongoing task.

9. 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. Ongoing task.
10. Support ongoing implementation of the PVTA public participation plan and language access plan. Ongoing task.
11. 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. Ongoing task.
12. 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. Ongoing task.
13. Continue to support PVTA bus stop consolidation planning. Ongoing task.
14. Continue to provide coordination among PVTA, PVMPO, PVPC staff, and MassDOT for proactive communication and the programming of transit items in the TIP. Ongoing task.
15. 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. Ongoing task.

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 2022-2026. May 2022.
5. Brochures, public notices, posters, maps, website services, and other print and digital materials. As requested. <http://www.pvta.com/>
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>
FHWA PL (80%)	\$ 95,000	42 weeks
MassDOT (20% match)	\$ 23,750	12 weeks
PVTA S. 5307	<u>\$150,000</u>	<u>75 weeks</u>
TOTAL	\$268,750	129 weeks
Direct Labor	\$120,814	
Indirect Costs	\$147,936	

Task 3.10 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. Provided general paratransit planning assistance to PVTA as requested, including public participation activities, operational analyses of policies and services.
2. Participated in activities of regional paratransit planning groups.
3. Provided support to the Paratransit Subcommittee of the PVTA Advisory Board as requested.
4. Provided a staff representative to serve on the PVTA Paratransit Appeals Committee. Prepared draft letters of eligibility determinations on behalf of the committee.
5. Provided 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. Coordinated and provided technical assistance to agencies seeking capital grants under FTA Section 5311 Rural Transit Assistance Program.
7. Provided technical assistance to Town of Ware for Quaboag Connector paratransit service.
8. Supported communities seeking funds from the state Human Service Transportation (HST) program.

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. September 2022.
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>
FHWA PL (80%)	\$15,000	7 weeks
MassDOT (20% match)	\$ 3,750	2 weeks
PVTA S. 5307	\$16,250	8 weeks
TOTAL	\$35,000	17 weeks
Direct Labor	\$15,734	
Indirect Costs	\$19,266	

Task 3.11 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. <http://www.pvpc.org/plans/pioneer-valley-sustainability-toolkit>
2. Explore feasibility and interest in the formation of a regional climate resilience working group of key municipal officials.
3. Work with municipalities to develop a prioritized list of culverts for repair and/or replacement, pulling from Hazard Mitigation Plans, latest MVP project analyses, and reviewing with local public works officials.
4. Continue to host Pioneer Valley Clean Energy Climate Action working group meetings and update the status/goals of the regional plan.
5. Stay abreast of TCI status, updates and progress and educate member communities and stakeholders about the Transportation and Climate Initiative (TCI) to reduce GHG emissions from transportation and create new funding streams for vital transportation work.
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. Notes from interviews with municipal thought leaders on regional climate resilience working group and the resiliency issues that will require regional response, and notes from 1st exploratory meeting with such a group. As necessary.
3. Completed culvert assessment forms with verification of submission to North Atlantic Aquatic Connectivity Collaborative (NAACC) database for 2 to 3 problem culverts. Summer 2022.
4. Four meetings of the Pioneer Valley Clean Energy Climate Action committee. Ongoing quarterly task.
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)	\$ 3,800	2 weeks
TOTAL	\$19,000	10 weeks
Direct Labor	\$ 8,541	
Indirect Costs	\$10,459	

Task 3.12 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 to update regional Green Infrastructure Toolkit, identify and fill gaps where needed. Ongoing task.
<http://www.pvpc.org/content/green-infrastructure-toolkit>
2. Explore feasibility and interest in the formation of a regional climate resilience working group of key municipal officials.
3. 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.
4. Advance work to develop green infrastructure BMP design templates with municipalities that can then be easily deployed for implementation throughout the region. Ongoing task.
5. Evaluate green infrastructure and sustainability elements of proposed projects using the Transportation Project Evaluation criteria. As necessary.

PRODUCTS:

1. Updated Green Infrastructure Toolkit elements. Ongoing task.
2. Notes from interviews with municipal thought leaders on regional climate resilience working group and the resiliency issues that will require regional response, and notes from 1st exploratory meeting with such a group. Spring 2022.
3. Implementation of green streets projects in coordination with local communities. Ongoing task.
4. Notes from meetings to identify best green infrastructure BMP design templates for region. 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	\$19,000	10 weeks
Direct Labor	\$ 8,541	
Indirect Costs	\$10,459	

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 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.
4. Expanding Housing Choice.
5. 2021 Housing Survey

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. Identify updated methodology and best approach to preparing next generation priority development/conservation maps (initially prepared in 2014) for use in ongoing planning processes and for MassDOT use 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. Continue to update regional Land Use and Housing Sustainability Toolkit, identify and fill gaps. As necessary.
<http://www.pvpc.org/content/smart-growth-toolkit>

PRODUCTS:

1. Coordination of quarterly meetings of the Valley Development Council and related products. Quarterly.
2. Coordination of quarterly meetings of Housing Plan Advisory Committee. Quarterly.

3. Revised methodology for 2014 priority development/conservation maps and defined pathway for future updates. September 2022.
4. Summary of assistance provided to communities to implement strategies from Our Next Future, and copies of adopted bylaws/ordinances. As necessary.
5. Updated Land Use and Housing Toolkit elements. As necessary.

<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	\$ 6,743	
Indirect Costs	\$ 8,257	

Task 4.2 Scenic Byways Support

OBJECTIVE:

The objective of this task is to prioritize and advance projects in conjunction with communities along the Connecticut River Byway, Jacob's Ladder Trail Byway and the Route 112 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 work with advisory groups to advance trail related projects located in Byway areas, including the New England National Scenic Trail, Highlands Footpath and the exploration of new mountain biking trails/destinations. Provide meeting notices, materials, and staff support. As necessary.
2. Inventory and evaluate amenities associated with Highlands Footpath segments, including parking areas and toilet facilities. Summer 2022.
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. <https://www.bywayswestmass.com/>

PRODUCTS:

1. Advisory Committee meetings and activities. As necessary.
2. Inventory and assessment of amenities associated with Highlands Footpath segments. Summer 2022.
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)	<u>\$1,400</u>	<u>1 week</u>
TOTAL	\$7,000	4 weeks
Direct Labor	\$3,147	
Indirect Costs	\$3,853	

Task 4.3 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 Blandford and Longmeadow.

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 two PVPC Communities. As requested.
3. Updates for existing municipal pavement management plans, as requested.

<u>Source</u>	<u>Budget</u>	<u>Est. Staff Effort</u>
Estimated Local Funds	<u>\$25,000</u>	<u>12 weeks</u>
TOTAL	\$25,000	12 weeks
Direct Labor	\$11,238	
Indirect Costs	\$13,762	

Task 4.4 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. Newton Street at Lyman Street Study, South Hadley, 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. As necessary.
3. Work with local communities to advance the recommendations of previously completed planning studies to the project development stage. As requested.
4. Assist member communities in the preparation of MassDOT Project Need Forms and Project Initiation Forms. As requested.

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%)	\$27,200	13 weeks
MassDOT (20% match)	\$ 6,800	3 weeks
TOTAL	\$34,000	16 weeks
Direct Labor	\$15,284	
Indirect Costs	\$18,716	

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.

ESTIMATED COMPLETION SCHEDULE OF PLANNING ACTIVITIES – FFY 2022 UPWP

Task	Product	Anticipated Completion	Public Engagement
1.1	Invoices	Monthly	
1.1	MPO Meeting Minutes	Monthly	
1.2	FY2022 UPWP	May 2022	March/April 2022
1.3	Press Releases and Public Participation Notices	As necessary	As necessary
1.3	Updated Public Participation Plan	September 2022	
1.4	Updated TEC Form	December 2021	October 2021
1.4	FY2022 - 2026 TIP	May 2022	February 2022
1.4	TEC Project Evaluation	March 2022	February 2022
1.4	TIP Amendments	As necessary	
1.5	Updated Demographic Maps	As necessary	
1.5	Updated Contact Database	January 2022	
1.5	Annual report to MassDOT on EJ, Title VI and LEP	January 2022	
1.5	Benefits and Burdens Analysis Update	May 2022	February 2022
2.1	Online traffic count viewer and download portal update	Ongoing	
2.1	Website update of daily traffic counts	Ongoing	
2.2	CMAQ and Greenhouse Gas Analysis	As necessary	
2.2	2020 Base Year Model	March 2023	
2.2	GHG Data Collection Report	September 2022	
2.3	GIS mapping to support transportation planning	As needed	
2.3	GIS spatial data analysis	As needed	
2.3	Regional Speed Limits Data Layers	Summer 2022	
2.4	Information Center Reports/ website updates	Ongoing	
2.4	Update region wide data indicators	December 2021 and July 2022	
2.4	Workforce Trends Report	September 2022	
2.5	PMS Data Collection	Ongoing (requires dry pavement)	
3.1	JTC Bicycle and Pedestrian Subcommittee	Monthly	Monthly
3.1	Bicycle and Pedestrian Counts	Ongoing	
3.1	Valley Bike User Survey	August 2022	
3.1	Monson Pedestrian Safety Study	Summer 2022	
3.1	High Risk Pedestrian Crossing Report	August 2022	
3.1	Bike Commute Week Report	Summer 2022	
3.1	Regional Shared Use Path web content	September 2022	
3.2	ValleyBike Steering Committee Meetings	Monthly	
3.2	Valley Bike Access Pass Registration Event(s)	As needed	
3.2	ValleyBike Year 4 Summary Report	April 2022	
3.3	Canal/Lyman Street RR Underpass Study	Summer 2022	
3.3	CMP Freight Bottleneck Updates	September 2022	
3.4	CMP Corridor Updates	August 2022	
3.4	Congestion Analysis (up to 5 locations)	August 2022	
3.4	Park and Ride/Truck Stop Occupancy Reports	Ongoing	
3.4	Regional Congestion Dashboard	September 2022	
3.5	Updated Online OCI Maps	Summer 2022	
3.6	Updated PM2 and PM3 regional targets	October 2022	
3.6	Updated PM1 regional targets	February 2022	
3.7	Brimfield Crash History Study	December 2021	
3.7	Longmeadow Crash History Study	February 2022	
3.7	St. James Ave. Safety Study	Summer 2022	
3.7	Springfield Traffic Signal Warrants Analysis	September 2022	
3.7	Regional High Risk Crash Locations Report	September 2022	
3.8	Mystery Rider, K-9, On time Performance reporting	Quarterly	
3.8	Northern system onboard rider survey data and report	September 2022	
3.9	PVTA Schedule Updates	As Needed	
3.9	PVTA System Map Update	As Needed	
3.9	Regional Transit TIP	May 2022	February 2022
3.10	Paratransit Performance Measures reporting	Monthly	
3.10	CPT-HST Plan Update	September 2022	

Task	Product	Anticipated Completion	Public Engagement
3.11	Updates to Regional Climate Action Strategies	Ongoing	
3.11	Implementation of Climate Change Toolkit	Ongoing	
3.11	Culvert assessments for up to 3 communities	Summer 2022	
3.11	Pioneer Valley Clean Energy – Climate Action Meetings	Quarterly	
3.12	Updated Green Infrastructure Plan Strategies	Ongoing	
3.12	Updated Green Infrastructure Toolkit	Ongoing	
3.12	Regional Climate Resilience Working Group	Spring 2022	
4.1	Valley Development Council Meetings	Quarterly meetings	
4.1	Updated Priority Development Area Maps	As Needed	
4.1	Housing Plan Advisory Committee Meetings	Quarterly	
4.1	Revised Priority Development Map Methodology	September 2022	
4.1	Land Use and Housing Toolkit Elements	As Needed	
4.2	Byway Area Committee meetings	As Needed	
4.2	Highlands Footpath Assessment	Summer 2022	
4.2	Byway-related Tourism Materials	Ongoing	
4.4	Local Technical Assistance	As requested	As necessary

UPWP EQUITY ASSESSMENT

The Pioneer Valley MPO is required to certify their planning process addresses the major transportation issues facing the region. This certification assures that planning is conducted in accordance with Title VI of the Civil Rights Act of 1964, and requirements of Executive Order 12898 (Environmental Justice). PVPC works cooperatively with MassDOT, the Pioneer Valley Transit Authority (PVTA), Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on addressing the principles of Title VI and Environmental Justice in the transportation planning process for the Region.

- The MPO defines “minority” as “the population that is not identified by the census as White-Non-Hispanic” in the ACS (2010 based Census). Under this definition, minority persons constitute 23.48% of the region’s population.
- The MPO defines “low income” areas using census block group data. Any block group with a proportion of people in that block group living at or below the federally defined poverty level that exceeds the proportion of people in poverty in the region as a whole, which is 15.47%, is defined as “low income.”
- The MPO identifies persons with Limited English Proficiency (LEP) through analysis of demographic data related to the ability to speak English from the 2013-17 U.S. Census and the American Community Survey (ACS). The PVMPO actively works to identify programs, activities, and services provided by the MPO that are of importance to the general public, and take reasonable steps to overcome language barriers.

For more information on Equity please refer to the 2020 RTP -

<http://www.pvpc.org/sites/default/files/Chapter%204%20-%20Equity.pdf>

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 50 while the TIP project map is shown on page 51. A map of planning tasks completed by community from 2011 – 2022 is shown on the figure on page 52.

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, 1216 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 53. Tasks completed or estimated to be completed as part of the FFY 2021 and FFY 2022 UPWP have also been included on this table for informational purposes. Completion of these tasks are estimated and additional detail is added at the completion of the federal fiscal year as part of future UPWP’s to identify other specific planning work completed such as requested traffic counts, local technical assistance requests, meeting attendance, etc.

Only one community, Middlefield, was found to have less than five transportation tasks completed over the entire analysis period. Every community had at least 2 transportation tasks completed from 2016 – 2020. 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.

The Transportation Tasks table on page 53 was annotated to identify communities that have at least one Census Block Group that meets the MPO’s definition of a Low Income or Minority Block Group. Similarly, communities with a higher percentage of population that speaks a language other than English were identified. PVPC works in close collaboration with each community to identify opportunities for outreach in the early stages of all planning tasks to engage, inform and involve all interested parties in the planning process. Some examples of how PVPC addressed Social Equity in the regional planning process are provided below:

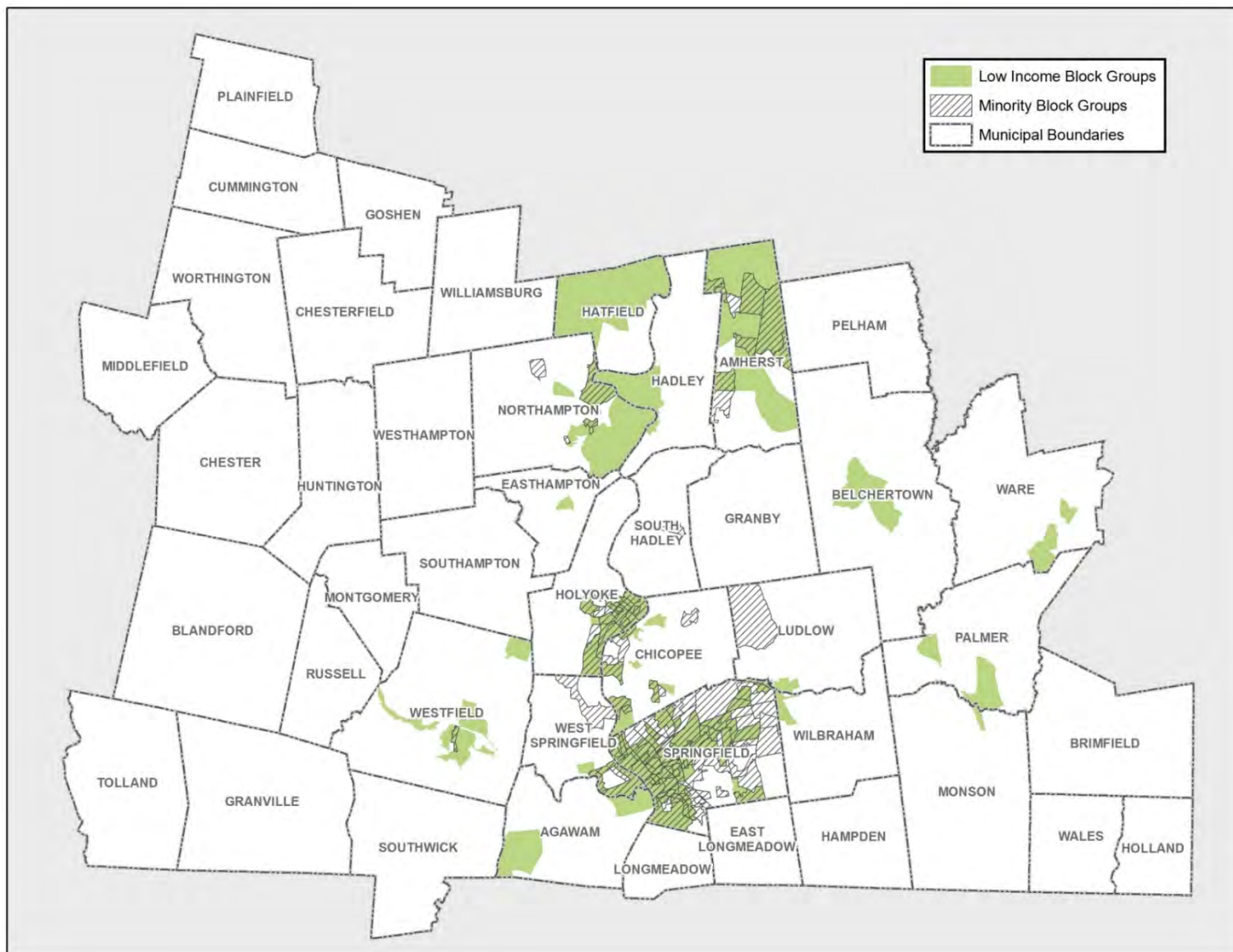
- PVPC included outreach to the local Russian population as part of the Merrick/Memorial Neighborhood Study in West Springfield, MA. Staff worked in cooperation with a local non-profit organization - Ascentria Care Alliance (formerly Lutheran Social Services of New England) to identify the critical concerns of the residents of the study area and organize a training session for residents to learn how to use the PVRTA bus system. All meeting notices were provided in both English and Russian and a Russian interpreter was present at public meetings.
- PVPC provides transit surveys performed as part of Task 3.2 - Transit System Surveys and Route Implementation in both English and Spanish. Additional languages are available on request.
- Live Well Springfield is a community based coalition that includes over 20 organizations working in Springfield. The coalition supports a grassroots movement towards health equity through improving access to healthy eating and active living opportunities. The Pioneer Valley Planning Commission is an active member of Live Well Springfield and has worked on food access projects and Springfield's walking and bicycling plan as part of the Live Well Springfield initiative.
- Task 3.2 – ValleyBike Implementation includes a task to promote awareness of the ValleyBike Access Pass for economically disadvantaged people. PVPC will provide assistance to promote and register people for the Access Pass.
- PVPC added Stavros, an organization with a mission to help persons with disabilities and Deaf people develop the tools and skills they need to take charge of their own lives, as a voting member of the JTC in 2019.
- The website for the MPO was recently revised to include translation tools for all LEP languages. All major documents, meeting notices and agendas for MPO related activities include a notice regarding the availability of language translations.

Pavement management and traffic counting data collection have been conducted in PVPC communities as summarized in the tables on pages 54 and 55. 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 2011 - 2020 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 2021 and 2022 calendar years is summarized in the table on page 54. Traffic counts include both automatic traffic counts and manual turning movement counts.

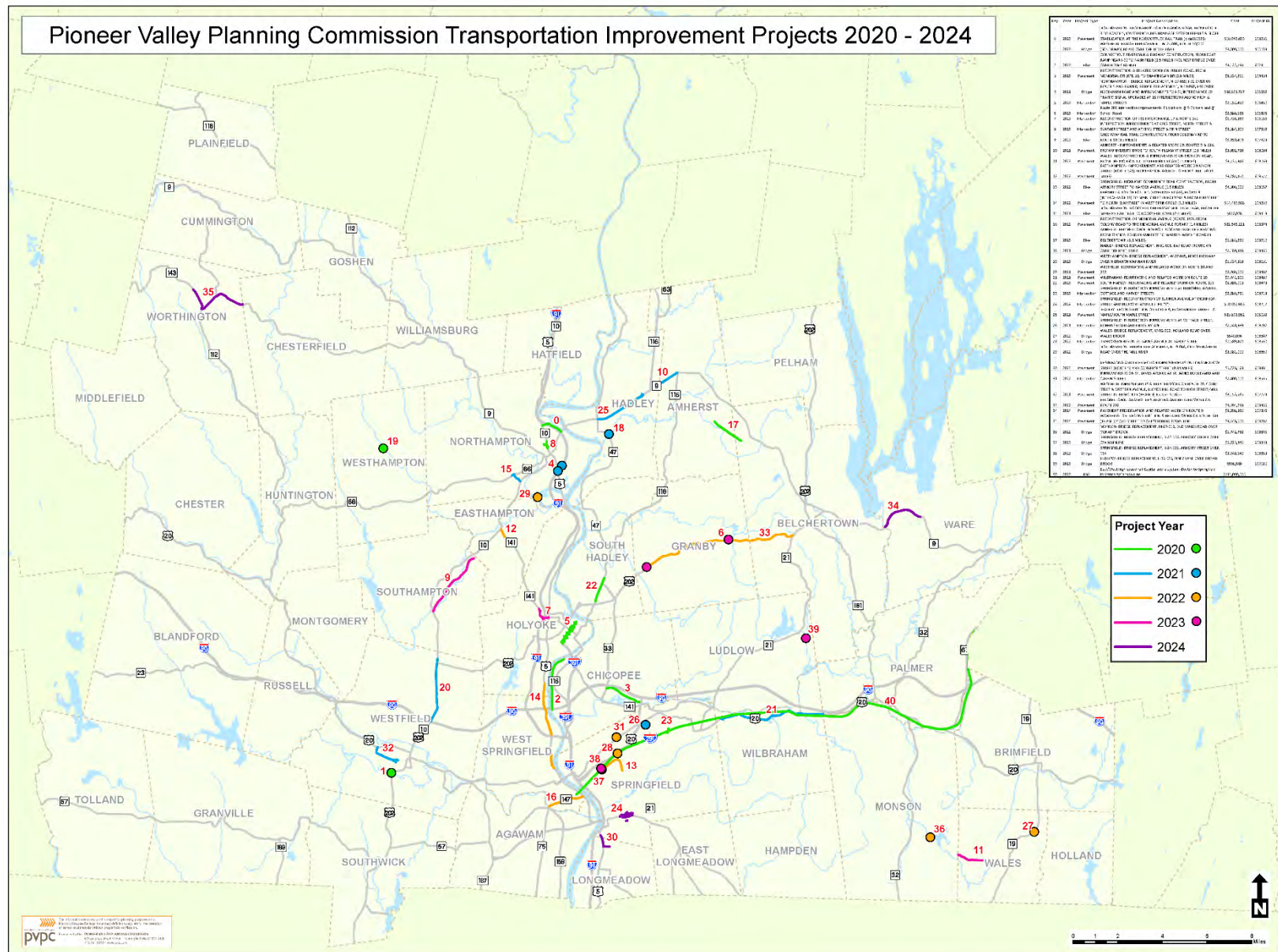
A wide range of traffic count data has been collected across each of the 43 communities. In general, a higher number of completed traffic counts is an indication that a transportation safety or congestion study was conducted in that community during the calendar year. No traffic counts were performed over the five-year period from 2016-2020 for the Towns of Blandford, Holland, Montgomery, Southampton and Wales. Less than five traffic counts were performed in another 17 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 started scheduling traffic counts beginning with the FY2020 UPWP beginning 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. These traffic counts were not performed in the 2020 calendar year due to the COVID-19 Pandemic. PVPC has scheduled traffic counts for both the 2021 and 2022 count seasons to address this deficiency.

PVPC collects pavement distress data for all federal aid eligible roadways in the region. This data is typically collected on a four-year rotation based on roadway miles. A summary is provided in the table on page 55 and figure on page 56. 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 12 communities during 2020 to assist in the development of the update to the Regional Transportation Plan. New data will be collected in 14 communities in 2021 and 8 communities in 2022.

Low Income and Minority Areas Map



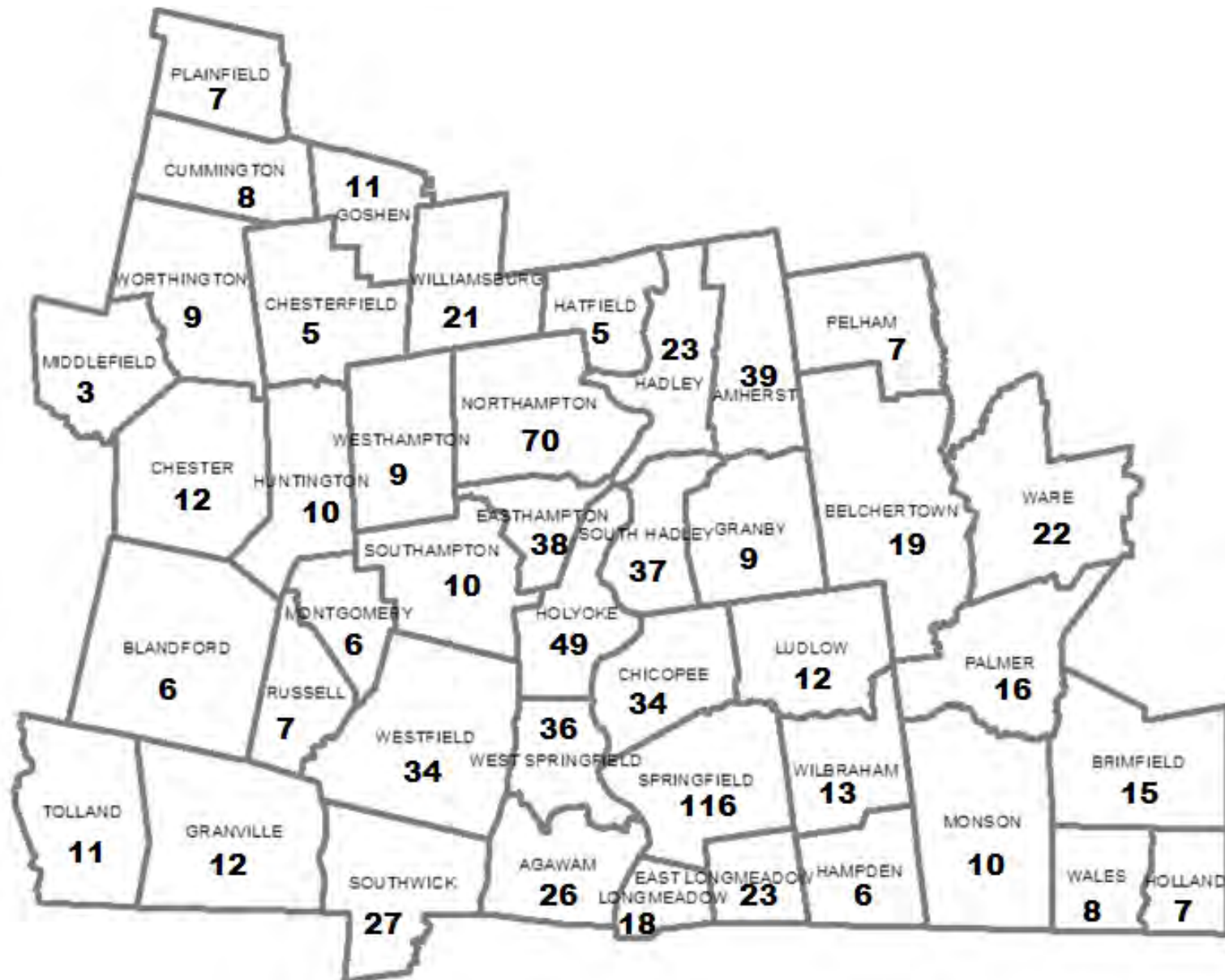
TIP Project Distribution Map



For an interactive version of this map please visit

<https://pvpc.maps.arcgis.com/apps/opstdashboard/index.html#/8da09ed612874979b2ee4fe30e123134>

Transportation Planning Activities by PVPC Community Map 2011 – 2022*



* Planning Activities for 2021 and 2022 are estimated based on current and proposed UPWP Tasks.

Transportation Tasks by Community and Year

Community	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	2022*	Total
Agawam 1 2	2	2	1	3	1	3	5	5	3	1			26
Amherst 1 2 3	2	4	4	1	1	1	2	2	10	12			39
Belchertown 1	3	1		1	3	2	2	2	2	2	1		19
Blandford	1		1		1				1	1	1		6
Brimfield	2	3	2	1			1	3	1	1		1	15
Chester	2	1	1	1			3	1	1	1	1		12
Chesterfield						1		1		1	2		5
Chicopee 1 2 3	1	3	3	3	3	1	2	3	3	12			34
Cummington		1		1		1	1	2	1		1		8
East Longmeadow	2		1	1	1	1	3	3	4	2			18
Easthampton 1	3	2	1	3	1	1	5	4	11	6	1		38
Goshen	1	1		1	1	1	1	2	1		2		11
Granby	2		3				1			2	1		9
Granville	1	1	1	1		1		3	3	1			12
Hadley 1	3	4	2	1	2	1	2	2	2	4			23
Hampden		2		1		1	1	1					6
Hatfield 1			1			1			2		1		5
Holland	1				1	2	1	2					7
Holyoke 1 2 3	5	6	3	3	3	6	6	4	6	6		1	49
Huntington	1	1	2	1		1		1	1	1	1		10
Longmeadow		1	4	2	1	4	2	1	3	4		1	23
Ludlow 1 2	1			2		1	2		4	2			12
Middlefield	1								2				3
Monson	1		1				1	1	2	3		1	10
Montgomery		1	2	1			1		1				6
Northampton 1 2	6	5	7	3	4	5	6	6	17	10	1		70
Palmer 1					3	3	2	2	4	2			16
Pelham	1		1				1		1	3			7
Plainfield	1	1	1	1				1	1		1		7
Region Wide	29	33	34	28	30	26	24	26	30	28	29	33	350
Russell	1	1	1		1				3				7
South Hadley 1 2	1	2	4	3	2	1	4	2	7	10	1		37
Southampton	1	2	1		1	2	1	1	1				10
Southwick	2	1	2	3	1	2	3	1	4	7	1		27
Springfield 1 2 3	12	10	6	6	10	14	11	8	19	18		2	116
Tolland		1	1	1		1	1	2	2	2			11
Wales		1	1			1	2	2	1				8
Ware 1	2	1	2	2	3	2	2	1	3	4			22
West Springfield 1 2 3	3	2	2	1	1	3	9	2	9	3	1		36
Westfield 1 2	1	3	3	1		2	5	6	6	6	1		34
Westhampton			1	1			1		3	1	2		9
Wilbraham 1		1	1	1		2	1	4	2		1		13
Williamsburg		3	1	1	1	2	1	2	1	7	2		21
Worthington						1	1	2	2	1	2		9
Grand Total	95	101	102	80	76	97	117	111	180	164	54	39	1216

* Estimated

1 Community with Low Income Block Groups

2 Community with Minority Block Groups

3 This community has a higher probability of requiring translation of documents into a language other than English

Traffic Counts by Community and Year

Community	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	2022*	Total
Agawam		1		1		1	1	12	1	1	1		19
Amherst	7	5	8	4	8	4	9	5	9	9	5		73
Belchertown	9				1				1	1			16
Blandford	2		1									1	4
Brimfield		17					4	4		1			26
Chester	1	1	2	2	1	4	1	1	1	1	1		16
Chesterfield						2					1	1	4
Chicopee	1	1	1	16	1	13	7	8	1	10	1		60
Cummington		2		2		4		2			2		12
East Longmeadow	4		1		3		1		1	2			12
Easthampton	4	3	16	3	6	8	5	3	6	5	3		62
Goshen	1	1		2		1		1			1	1	8
Granby	1		6		10		1			1	1		20
Granville	3	2	1	1	2				2				11
Hadley	1	3	8	1	21	1	1	2	1	2	2		43
Hampden		2		2	3	2		2			2		13
Hatfield						1			2				3
Holland	1		1									1	3
Holyoke	29	13	2	10	3	5	4	2	3	4	2	1	78
Huntington			2		2			1	1	1			7
Longmeadow		1	3	1		1		23	1	2	1		33
Ludlow	1			1	6				4	1			14
Middlefield									2				2
Monson	7		2		3	1	3		2	3		1	22
Montgomery		2										1	3
Northampton	8	16	34	8	10	7	6	8	9	8	7		121
Palmer									2				2
Pelham	7		1		1		1		1	1			12
Plainfield	2	6		2		1		1			1		13
Russell	4	1	1						2				8
South Hadley	12	1	4	3	25	1	26	5	5	8	4		94
Southampton	14			3							1	1	19
Southwick	2	1	2	28	14	3	4	13	2	5	2		76
Springfield	15	35	28	24	9	6	13	6	15	11	6	8	176
Tolland		2	1	2	3		4	2	2	2	2		20
Wales		2	4								1		7
Ware	1			15			1		1	2			20
West Springfield	1	36	1	8	3	3	1	2	7	2			71
Westfield	4	5	20	2	6	3	5	2	4	5	2		58
Westhampton	1		1	3	1	4	1		3	1	2		17
Wilbraham		3	2	7	2	3					1	1	19
Williamsburg		13		3	6	2				4	1		29
Worthington					2		1	1		1	1		6

* Estimated

For an interactive traffic count map please visit

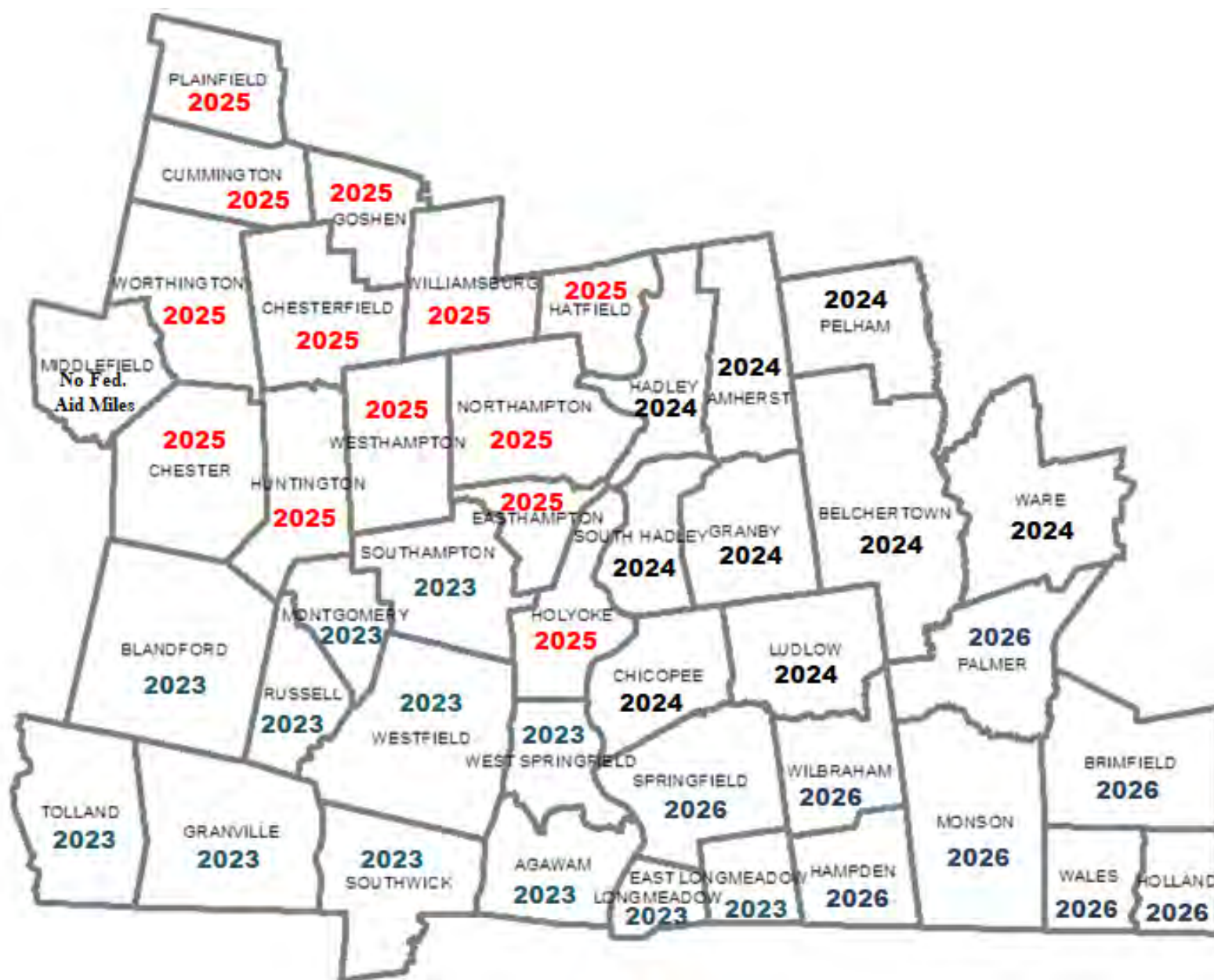
<https://pvpc.maps.arcgis.com/apps/opstdashboard/index.html#/effbf22c7418499a85fcf10d5ab97fc9>

Pavement Data Collection by Community and Year

Community	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Agawam	X			X		X			X			
Amherst	X			X	X		X	X		X		
Belchertown				X			X			X		
Blandford	X				X					X		
Brimfield					X			X				X
Chester						X					X	
Chesterfield					X				X		X	
Chicopee		X			X					X		
Cummington	X				X				X		X	
East Longmeadow	X				X			X	X			
Easthampton	X					X	X				X	
Goshen	X				X				X		X	
Granby					X					X		
Granville	X				X					X		
Hadley					X					X		
Hampden	X				X				X			X
Hatfield					X		X				X	
Holland					X			X				X
Holyoke		X			X		X	X			X	
Huntington					X			X			X	
Longmeadow	X			X		X					X	
Ludlow				X			X			X		
Middlefield*												
Monson					X				X		X	X
Montgomery					X				X			
Northampton			X	X		X					X	
Palmer					X					X		X
Pelham					X					X		
Plainfield		X			X				X		X	
Russell					X				X			
South Hadley					X		X	X		X		
Southampton					X		X		X			
Southwick	X				X				X			
Springfield		X			X				X			X
Tolland	X				X				X			
Wales					X			X				X
Ware					X					X		
West Springfield	X			X		X			X			
Westfield			X		X				X			
Westhampton	X				X			X			X	
Wilbraham					X			X				X
Williamsburg	X				X			X			X	
Worthington					X				X		X	

* There are no Federal Aid Eligible Roads in the Town of Middlefield

Proposed Regional Pavement Management Data Collection by PVPC Community Map



PLANNING ACRONYMS

3C - Continuing, Comprehensive, and Cooperative Planning	JTC - Joint Transportation Committee
AADT - Average Annual Daily Traffic	LEP - Limited English Proficiency
AASHTO - American Association of State Highway and Transportation Officials	LOS - Level of Service
ADA - Americans with Disabilities Act (1990)	LPMS - Local Pavement Management System
ADT - Average Daily Traffic	LRV - Light Rail Vehicle
AFV - Alternative Fuel Vehicles	LTA - Local Technical Assistance
ATR - Automatic Traffic Recorder	M.G.L. - Massachusetts General Laws
AVR - Average Vehicle Ridership	MAP 21 - Moving Ahead for Progress in the 21st Century
BAPAC - Barnes Aquifer Protection Advisory Committee	MARPA - Massachusetts Assoc. of Regional Planning Agencies
BID - Business Improvement District	MassDOT - Massachusetts Department of Transportation
BLOS - Bicycle Level of Service	MassGIS - Massachusetts Geographic Information System
BMP - Best Management Practice	MEPA - Massachusetts Environmental Policy Act
BMS - Bridge Management System	MMA - Massachusetts Municipal Association
CAAA - Clean Air Act Amendments of 1990	MOA - Memorandum of Agreement
CBD - Central Business District	MOU - Memorandum of Understanding
CDBG - Community Development Block Grant	MPO - Metropolitan Planning Organization
CDC - Centers for Disease Control	MUTCD - Manual of Uniform Traffic Control Devices
CEDS - Comprehensive Economic Development Strategy	NFA - Non-Federal Aid
CIP - Capital Improvements Plan (or Program)	NHS - National Highway System
CMAQ - Congestion Mitigation and Air Quality Improv. Program	NHTSA - National Highway Traffic Safety Administration
CMP - Congestion Management Process	NOx - Nitrogen Oxide
CNG - Compressed Natural Gas	NTSB - National Transportation Safety Board
CO - Carbon Monoxide	OCI - Overall Condition Index (Pavement)
COG - Council of Governments	PEB - Potential for Everyday Biking
Comm-PASS - Commonwealth Procurement Access and Solicitation System	PCI - Pavement Condition Index
CPA - Community Preservation Act	PL - [Metropolitan] Planning Funds
CPTC - Citizen Planner Training Collaborative	PMS - Pavement Management System
CRCOG - Capitol Region Council of Governments	PMUG - Pavement Management Users Group
CSO - Combined Sewer Overflow	PPP - Public Participation Process
DCR - Department of Conservation and Recreation	PTASP - Public Transportation Agency Safety Plan
DEP - Department of Environmental Protection	PVTA - Pioneer Valley Transit Authority
DHCD - Department of Housing and Community Development	QVCD - Quaboag Valley Community Development Corp.
DLTA - District Local Technical Assistance	REB - Regional Employment Board
DOT - Department of Transportation	RIF - Roadway Inventory Files
DPW - Department of Public Works	RPA - Regional Planning Agency
E.O. - Executive Order	RTA - Regional Transit Authority
EDC - Economic Development Council	RTP - Regional Transportation Plan
EIR - Environmental Impact Report	SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
EIS - Environmental Impact Statement	SBA - Small Business Administration
EJ - Environmental Justice	SIP - State Implementation Plan (for air quality)
ENF - Environmental Notification Form	SKC - Sustainable Knowledge Corridor
EOA - Economic Opportunity Area	SOV - Single Occupancy Vehicle
EOEEA - Executive Office of Energy and Environmental Affairs	SPR - Statewide Planning and Research Funds
EPA - Environmental Protection Agency	STIP - Statewide Transportation Improvement Program
FA - Federal Aid	STP - Surface Transportation Program
FAST - Fixing America's Surface Transportation Act	TDM - Transportation Demand Management
FC - Functional Classification (of roadways)	TEA-21 - Transportation Equity Act for the 21st Century
FHA - Federal Housing Administration	TIP - Transportation Improvement Program
FHWA - Federal Highway Administration	TMC - Turning Movement Count
FRCOG - Franklin Regional Council of Governments	TND - Traditional Neighborhood District
FRTA - Franklin Regional Transit Authority	TOD - Transit Oriented Design (or Development)
FTA - Federal Transit Administration	TRB - Transportation Research Board
GHG - Greenhouse Gas	TRO - Trip Reduction Ordinance
GIS - Geographic Information System	TSM - Transportation Systems Management
GPS - Global Positioning System	UMass - University of Massachusetts
HOV - High Occupancy Vehicle	UPWP - Unified Planning Work Program
HUD - U.S. Department of Housing and Urban Development	VMT - Vehicle Miles Traveled
ISTEA - Intermodal Surface Transportation Efficiency Act of 1991	VOC - Volatile Organic Compound
ITS - Intelligent Transportation Systems	VOR - Vehicle Occupancy Rate
JARC - Job Access and Reverse Commute	WBE - Women-owned Business Enterprises
JLSB - Jacob's Ladder Scenic Byway	WRWA - Westfield River Watershed Association
JLT - Jacob's Ladder Trail	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 2021 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
 2020 Regional Traffic Counting Program
 FFY2022 Unified Planning Work Program
 FFY 2022 – 2026 Transportation Improvement Program
 FFY 2021 TIP Amendments
 Public Participation Survey
 Safety Compass
 2021 JTC Bylaws Update
 Regional Data Indicators Update
 Blandford Local Pavement Management Report
 Longmeadow Local Pavement Management Report
 ValleyBike Year 3 Assessment Report
 Updates to the Regional Transportation Model
 Technical Report: Impacts of Roadway Improvements: A
 2040 Future Scenarios Comparison.
 Technical Report: Community Green House Gas Emissions
 Southwick Rail Trail/Columbia River Greenway Rail Trail
 User Survey
 Transit Schedule Updates
 Low Clearance RR Underpass Inventory
 Belchertown Main and Park Streets Congestion Study
 CMP Corridor Updates
 I-91 SB Congestion Analysis
 Regional Performance Measures Updates
 West Springfield Route 20 Safety Study
 Regional Culvert Assessments
 Green Infrastructure Retrofit Mapping
 PVTA Title VI Update
 Regional Affordable Housing Survey
 2021 Bike Commute Week
 Valley Bike Year 3 Report
 South Hadley Intersection Summary Report

FUNDING SUMMARY

Transportation Funding	Value	% of Total
FHWA PL (80%)	\$ 859,230.00	51.03%
MassHighway PL (20% match)	\$ 214,807.00	12.76%
FTA Section 5307 (80%)	\$ 248,000.00	14.73%
PVTA Section 5307 (20% match)	\$ 62,000.00	3.68%
FTA Section 5303 (80%)	\$ 219,688.00	13.05%
MassDOT Section 5303 (20% match)	\$ 54,897.00	3.26%
Local Funds (includes in-kind contributions)	\$ 25,000.00	1.48%
Total	\$ 1,683,622.00	100.00%
Other Funding	Value	% of Total
Other Commonwealth of Massachusetts	\$ 2,000,000.00	31.40%
Massachusetts DEP	\$ 1,500,000.00	23.55%
US Department Health/Human Services	\$ 170,000.00	2.67%
US Economic Development Administration	\$ 100,000.00	1.57%
Other Federal Revenue	\$ 100,000.00	1.57%
Local Revenue	\$ 2,252,353.00	35.36%
Local Assessments	\$ 107,722.00	1.69%
Loan Repayment/Recapture	\$ 100,000.00	1.57%
Other	\$ 39,000.00	0.61%
Total	\$ 6,369,075.00	100.00%

Overall Funding	Value	% of Total
FHWA PL (80%)	\$ 859,230.00	10.67%
MassHighway PL (20% match)	\$ 214,807.00	2.67%
FTA Section 5307 (80%)	\$ 248,000.00	3.08%
PVTA Section 5307 (20% match)	\$ 62,000.00	0.77%
FTA Section 5303 (80%)	\$ 219,688.00	2.73%
MassDOT Section 5303 (20% match)	\$ 54,897.00	0.68%
Local Funds (includes in-kind contributions)	\$ 25,000.00	0.31%
Other Commonwealth of Massachusetts	\$ 2,000,000.00	24.84%
Massachusetts DEP	\$ 1,500,000.00	18.63%
US Department Health/Human Services	\$ 170,000.00	2.11%
US Economic Development Administration	\$ 100,000.00	1.24%
Other Federal Revenue	\$ 100,000.00	1.24%
Local Revenue	\$ 2,252,353.00	27.97%
Local Assessments	\$ 107,722.00	1.34%
Loan Repayment/Recapture	\$ 100,000.00	1.24%
Other	\$ 39,000.00	0.48%
Total	\$ 8,052,697.00	100.00%

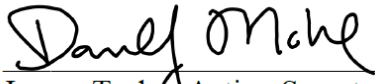
SUMMARY OF COMMENTS ON THE DRAFT UPWP

Task/Section	Comment	From	Response
Task 3.1	WalkBike Springfield suggests that, as part of the UPWP, PVPC set up a website where interested people can learn about the Connecticut River Walk and Bikeway: the concept, existing segments, segments under construction and segments in various planning stages.	Sheila McElwaine, WalkBike Springfield	This comment was discussed with the Pioneer Valley JTC. The JTC agreed with the request and recommended to add an ongoing task for all regional shared use paths.
General Comment	Accessibility could be enhanced through linking the table of contents to appropriate page numbers.	Derek Krevat, MassDOT Planning	The Table of Contents will be linked in the Final UPWP.
MPO Endorsement	Please ensure the final version of the document contains a signatory sheet with just one line for Acting Secretary Jamey Tesler, whose designee will sign on behalf of all MPO members as the Chair of the Pioneer Valley MPO.	Derek Krevat, MassDOT Planning	This signatory sheet has been included in the Final UPWP.
General Comment	For tasks that involve the study of specific locations (e.g. low clearance railroad study in Holyoke as part of Task 3.3 and safety studies in Springfield as part of Task 3.7) it would be beneficial to add a note on the context for how these locations were chosen for analysis as part of the UPWP.	Derek Krevat, MassDOT Planning	Additional information will be included in the Final UPWP as requested.
General Comment	General comment: For specific resources that have webpages or online dashboards associated with them (e.g. the Green Infrastructure Toolkit) it would be worth linking to these pages within the document.	Derek Krevat, MassDOT Planning	Additional links will be included in the Final UPWP as requested.
Task 3.1	Task 3.1: The new SRTS Program Dashboard (https://massdot.maps.arcgis.com/apps/opstdashboard/index.html#/67b6b4eb55ad4c359ed67af1c2ebc664) may assist with the goal of increasing participation in the SRTS Program.	Derek Krevat, MassDOT Planning	Comment noted. This link will be added to the Final UPWP.
General Comment	Communities are referenced under proposed activities when the task involves specific communities, but please consider the addition of a line to each task specifying community beneficiaries.	Derek Krevat, MassDOT Planning	Additional information will be added to the Final UPWP where appropriate as requested.
Performance Targets	Within the performance targets table on page 10, please revise the PM3 emissions targets to 0.559(VOC), 1.71(NOx), and 6.53 (CO) to align with MassDOT's 2020 submission to the Transportation Performance Management Portal.	Derek Krevat, MassDOT Planning	This change has been made.

Task/Section	Comment	From	Response
Staffing Report	Please indicate whether land use staff that occasionally bill to the PL contract, including Becky Basch and Emily Slotnick, are expected to work on the FFY 2022 UPWP.	Derek Krevat, MassDOT Planning	The staffing report has been reviewed and is correct as presented.
Equity Assessment	The equity assessment is a very strong section. Within the table on page 53, "Transportation Tasks by Community and Year," any background in the narrative, or a footnote, on why there has been a significant drop-off in community-specific tasks in FFY 2021 and FFY 2022 would be valuable. Does this have to do mostly with decreased traffic counts resulting from the COVID-19 pandemic?	Derek Krevat, MassDOT Planning	It is not expected that the number of planning tasks will reduce by a significant amount. Planning tasks are estimated for FFY 2021 and 2022. Additional detail is added at the completion of the federal fiscal year to identify other specific planning work completed such as requested traffic counts, local technical assistance requests, meeting attendance, etc.
Project Completion Estimate	If possible, it would be helpful to indicate for each product here and following a consistent estimate of the delivery time frame. If ongoing/as necessary, please note that as well.	Andrew Reovan, FHWA	The Draft UPWP was reviewed to identify all tasks that did not have an estimated product delivery timeframe. The Final UPWP reflects these updates,
Task 1.4	Will a similar summary of comments for the updated TIP be developed? Only amendments appear to be called out here.	Andrew Reovan, FHWA	Yes, a summary of comments will be developed for all TIP documents and amendments. The language in this section has been modified to clarify this in the Final UPWP.
Task 2.1	Is there a reason #1-2 are listed as ongoing tasks, but the remaining are not? Just wondering if the other three are also ongoing.	Andrew Reovan, FHWA	Yes, all five products in Task 2.1 are intended to be ongoing tasks. Additional language has been added to the Final UPWP to clarify.
Task 2.2	Will this continue beyond the FY? It would be OK to list as ongoing or beyond the FY with undefined date, if so. As long as there is some indication that it will be a task in the next UPWP.	Andrew Reovan, FHWA	Yes, this is intended to be an 18 month task. Additional language has been added to the Final UPWP to clarify.
General Comments	A number of emails requesting transportation improvements that involve scaling down infrastructure to promote safe walking and bicycling while protecting the environment. Copies of the complete version of these comments will be made available on request.	Sean Goonan, Chicopee Resident	Comments noted.

MPO ENDORSEMENT

The signatures below signify that all members of the Pioneer Valley Region's Metropolitan Planning Organization, or their designees, have met on May 25, 2021 and discussed the following item for endorsement: The Pioneer Valley Region's 2022 Unified Planning Work Program UPWP

A handwritten signature in black ink, appearing to read "Jamey Tesler", written over a horizontal line.

Jamey Tesler, Acting Secretary and Chief Executive Officer
Massachusetts Department of Transportation
Chair, Pioneer Valley MPO

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.