Transportation Performance Management

The Bipartisan Infrastructure Law (BIL) continues the requirements established in Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act for performance management. These requirements aim to promote the most efficient investment of Federal transportation funds. Performance-based planning ensures that the Pennsylvania Department of Transportation (PennDOT) and the Metropolitan Planning Organizations (MPOs) collectively invest Federal transportation funds efficiently towards achieving national goals. In Pennsylvania, the Rural Planning Organizations (RPOs) follow the same requirements as MPOs.

Transportation Performance Management (TPM) is a strategic approach that uses data to make investment and policy decisions to achieve national performance goals. 23 USC 150(b) outlines the national performance goal areas for the Federal-aid program. This statute requires the Federal Highway Administration (FHWA) to establish specific performance measures for the system that address these national goal areas. The regulations for the national performance management measures are found in 23 CFR 490.

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

Performance Based Planning and Programming

Pennsylvania continues to follow a Performance Based Planning and Programming (PBPP) process, with a focus on collaboration between PennDOT, FHWA, and MPOs/RPOs at the county and regional levels. These activities are carried out as part of a cooperative, continuing, and comprehensive (3C) planning process which guides the development of many PBPP documents, including:

- Statewide and Regional Long Range Transportation Plans (LRTPs)
- Twelve-Year Transportation Program (TYP)
- State Transportation Improvement Program (STIP)
- Regional Transportation Improvement Programs (TIPs)
- Transportation Asset Management Plan (TAMP)

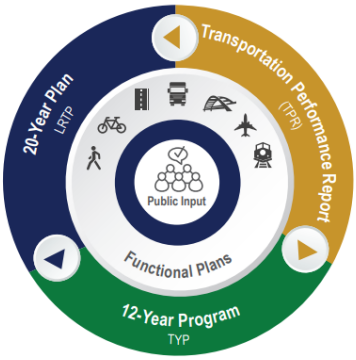
- Transit Asset Management (TAM) Plans
- Public Transportation Agency Safety Plans (PTASP)
- Pennsylvania Strategic Highway Safety Plan (SHSP)
- Comprehensive Freight Movement Plan (CFMP)
- Congestion Mitigation and Air Quality (CMAQ) Performance Plan(s)
- Congestion Management Process (CMP)
- Regional Operations Plans (ROPs)

The above documents in combination with data resources including PennDOT's bridge and pavement management systems, crash databases, historical travel time archives, and the CMAQ public access system provide the resources to monitor federal performance measures and evaluate needs across the state. Based on these resources, PennDOT and MPOs/RPOs have worked together to (1) create data driven procedures that are based on principles of asset management, safety improvement, congestion reduction, and improved air quality, (2) make investment decisions based on these processes, and (3) work to set targets that are predicted to be achieved from the programmed projects. Aligning goals and performance objectives across national (FHWA), state (PennDOT) and regions (MPOs/RPOs) provide a common framework for decision-making.

PennDOT, in cooperation with the MPOs/RPOs, has developed written provisions for how they will cooperatively develop, and share information related to the key elements of the PBPP process including the selection and reporting of performance targets. In addition, PennDOT has updated their Financial Guidance to be consistent with the PBPP provisions. The Financial Guidance provides the near term revenues that support the STIP.

Evaluating 2023-2026 STIP Performance

The Federal Fiscal Year (FFY) 2023-2026 State Transportation Improvement Program (STIP) supports the goal areas established in PennDOT's current long range transportation plan (Pennsylvania 2045). These include safety, mobility, equity, resilience, performance and resources. The goals are aligned with the national goal areas and federal performance measures and guide PennDOT in addressing transportation priorities.



The following sections provide an overview of the federal performance measures. Since asset management, reliability and CMAQ targets have not yet been set for the 2022-2025 performance period, the current project selection process for the FY2023-2026 TIP is highlighted and related to meeting future targets. Over the 4-year STIP, nearly 85% of the total funding is associated with highway and bridge reconstruction, preservation, and restoration projects. However, these projects are also anticipated to provide significant improvements to highway safety and traffic reliability for both

passenger and freight travel. Through these performance measures, PennDOT will continue to track performance outcomes and program impacts on meeting the transportation goals and targets. Decision support tools including transportation data and project-level prioritization methods will be continually developed and enhanced to meet PennDOT and MPO/RPO needs. Dashboards and other reporting tools will be maintained to track and communicate performance to the public and decision-makers.

Safety Performance Measures (PM1)

Background
The FHWA rules for the *National Performance Management Measures: Highway Safety Improvement Program* (Safety PM) and *Highway Safety Improvement Program* (HSIP) were published in the Federal Register (81 FR 13881 and 81 FR 13722) on March 15, 2016, and became effective on April 14, 2016. These rules established five safety performance measures (commonly known as PM1). The current regulations are found at 23 CFR 490 Subpart B and 23 CFR 924. Targets for the safety measures are established on an annual basis.
Data Source
Data for the fatality-related measures are taken from the Fatality Analysis Reporting System (FARS) and data for the serious injury-related measures are taken from the State motor vehicle crash database. The Vehicle Miles of Travel (VMT) are derived from the Highway Performance Monitoring System (HPMS).

2022 Safety Measures and Targets (Statewide)		
Measure	**Baseline (2016-2020)**	**Target (2018-2022)**
Number of fatalities	1,140.6	**1,113.7**
Rate of fatalities per 100 million VMT	1.157	**1.205**
Number of serious injuries	4445.6	**4,490.8**
Rate of serious injuries per 100 million VMT	4.510	**4.860**
Number of non-motorized fatalities & serious injuries	761.2	**730.1**

Methods for Developing Targets
An analysis of Pennsylvania's historic safety trends was utilized as the basis for PennDOT and MPO/RPO coordination on the State's safety targets. The targets listed above are based on a 2% annual reduction for fatalities and maintaining levels for suspected serious injuries, which was derived from the actions listed in the Strategic Highway Safety Plan (SHSP), crash data analysis and the desire to support the national initiative Toward Zero Deaths.

Progress Towards Target Achievement and Reporting:

PennDOT and the MPOs/RPOs continue efforts to ensure the STIP, regional TIPs, and Long-Range Transportation Plans (LRTPs) are developed and managed to support progress toward the achievement of the statewide safety targets. At this time, only the Delaware Valley Regional Planning Commission (DVRPC) has elected to establish their own regional safety targets. All other MPOs/RPOs have adopted the statewide targets.

PennDOT's Strategic Highway Safety Plan (SHSP) serves as a blueprint to reduce fatalities and serious injuries on Pennsylvania roadways and targets 18 Safety Focus Areas (SFAs) that have the most influence on improving highway safety throughout the state. Within the SHSP, PennDOT identifies 3 key emphasis areas to improve safety – impaired driving, lane departure crashes, and pedestrian safety.

2022 SHSP Safety Focus Areas			
Lane Departure Crashes	Speed & Aggressive Driving	Seat Belt Usage	Impaired Driving
Intersection Safety	Mature Driver Safety	Local Road Safety	Motorcycle Safety
Pedestrian Safety	Bicycle Safety	Commercial Vehicle Safety	Young & Inexperienced Drivers
Distracted Driving	Traffic Records Data	Work Zone Safety	Transportation Systems Management & Operations
Emergency Medical Services	Vehicle-Train Crashes		

Pursuant to 23 CFR 490.211(c)(2), a State Department of Transportation (DOT) has met or made significant progress toward meeting its safety performance targets when at least 4 of the 5 safety performance targets established under 23 CFR 490.209(a) have been met or the actual outcome is better than the baseline performance for the year prior to the establishment of the target. For Pennsylvania's 2020 targets, the FHWA determined in March 2022 that Pennsylvania did not meet the statewide targets and is subject to the provisions of 23 U.S.C. § 148 (i). This requires the Department to submit an implementation plan that identifies gaps, develops strategies, action steps and best practices, and includes a financial and performance review of all HSIP funded projects. In addition, the Department is required to obligate in Federal Fiscal Year (FFY) 2023 an amount equal to the FFY 2019 HSIP apportionment.

As part of the Highway Safety Improvement Program Implementation Plan, the Department identified gaps and best practices to support further reducing serious injuries and fatalities. The following opportunities were identified as ways to assist with meeting future targets: (1) appropriate project selection, (2) expanding local road safety in HSIP, (3) assessing programs that support non-motorized safety, (4) expanding use of systemic safety projects, (5) improved project tracking for evaluation purposes and (6) project prioritization for greater effectiveness.

PennDOT continues to provide feedback on statewide and MPO/RPO-specific progress towards target achievement. The progress helps regional MPOs/RPOs understand the impacts of their past safety investments and can guide future planning goals and strategy assessments.

Evaluation of STIP for Target Achievement:

The following will ensure that planned projects in the STIP will help to achieve a significant reduction of traffic fatalities and serious injuries on all public roads:

- PennDOT receives federal funding for its Highway Safety Improvement Program (HSIP). The 2023-2026 STIP includes $520 million of HSIP funding. The Department distributes nearly 70% of this funding to its regions based on fatalities, serious injuries, and reportable crashes. In addition, a portion of the HSIP funding is reserved for various safety initiatives statewide.
- All projects utilizing HSIP funds are evaluated based on a Benefit/Cost (B/C) analysis, Highway Safety Manual (HSM) analysis, fatal and injury crashes, application of systemic improvements, improvements on high-risk rural roads, and deliverability. Specifically, as part of PennDOT's HSIP application process, a data-driven safety analysis in the form of B/C analysis or HSM analysis is

required. Performing this analysis early in the planning process for all projects will help ensure projects selected for inclusion in the TIP will support the fatality and serious injury reductions goals established under PM1.

- The process for selecting safety projects for inclusion in the TIP begins with the Network Screening Evaluation that the Department has performed on a statewide basis. Selecting locations with an excess crash frequency greater than zero from this network screening is key to identifying locations with a high potential to improve safety. This evaluation has been mapped and is included in PennDOT's OneMap to ease use by PennDOT's partners. At the current time, this is not all inclusive for every road in Pennsylvania. Locations not currently evaluated may be considered by performing the same type of excess crash frequency evaluation the Department utilizes. Once this analysis has been performed, the data is used by the Engineering Districts and planning partners to assist MPO/RPO's in evaluating different factors to address the safety concern
- PennDOT continues to improve on the methods to perceive, define and analyze safety. This includes integration of Regionalized Safety Performance Functions (SPFs) that have been used to support network screening of over 20,000 locations.[1]
- PennDOT continues to identify new strategies to improve safety performance. PennDOT is actively participating in EDC 5 to identify opportunities to improve pedestrian safety as well as reduce rural roadway departures. These efforts new strategies are incorporated into future updates to the SHSP.
- Safety continues to be a project prioritization criterion used for selecting other STIP highway and bridge restoration or reconstruction projects. Many of these projects also provide important safety benefits.
- PennDOT continues to evaluate procedures to help in assessing how the STIP supports the achievement of the safety targets. As HSIP projects progress to the engineering and design phases, Highway Safety Manual (HSM) predictive analyses are completed for the project in accordance with PennDOT Publication 638. The HSM methods are the best available state of practice in safety analysis and provides quantitative ways to measure and make safety decisions related to safety performance. PennDOT will continue to identify ways to expand the application of HSM analyses to support more detailed assessments of how the STIP is supporting achievement of the safety targets.

The following are the LLTS MPO 2023-2026 TIP projects that help to achieve a significant reduction of traffic fatalities and serious injuries on all public roads:

MPMS	Roadway	Project Type	Project Name	Description
94567	SR 348	Safety Improvement	SR 348 Intersection Improvement	Safety improvements on SR 348 from Wimmers Rd to Cortez Rd.
113723	SR 632	Safety Improvement	Roadway Improvements SR 632	Roadway improvements on Carbondale Rd between Wemberly Hills Rd and Life Sciences Dr.

[1] For more information on SPFs: https://www.penndot.gov/ProjectAndPrograms/Planning/Research-And-Implementation/Pages/activeProjects/Safety-Performance-Functions.aspx

113985	Various	Safety Improvement	Guiderail Mash Upgrades	Guiderail upgrades in Lackawanna and Luzerne Counties.
114917	I-84	Safety Improvement	I-84 Cable Median Barrier	Installation of Cable Median Barrier on I-84.
9128	SR 115	Interchange Improvement	SR 115 over I-81	Construction of a new at-grade ramp reconnecting Bear Creek Blvd NB to I-81 SB. Replacement of 3 bridges, multiple sign structures and interchange ramp improvements.
85008	I-81	Safety Improvement	Blackman Street SB Ramp	Safety improvement on I-81 SB Exit 165 off ramp and intersection
92444	SR 118	Safety Improvement	Cooks Store Intersection	Safety improvement at intersection of SR 118, Fire House Rd and Mountain View Dr and intersection of SR 118 and Meeker Rd and intersection of SR 118 and Outlet Rd.
105164	SR 239	Safety Improvement	SR 239 Safety Improvement	Installation of Edge Line Rumble Strips on Union Rd/Pond Hill Rd between Fire Hall Rd and Grange Rd to West Vine St.

Pavement/Bridge Performance Measures (PM2)

Background

The FHWA rule for the National Performance Management Measures; Assessing Pavement and Bridge Condition for the National Highway Performance Program was published in the Federal Register (82 FR 5886) on January 18, 2017 and became effective on February 17, 2017. This rule established six measures related to the condition of the infrastructure on the National Highway System (NHS). The measures are commonly known as PM2. The current regulations are found at 23 CFR 490 Subpart C and Subpart D. Targets are established for these measures as part of a four-year performance period, the first was 2018 to 2021. This TIP includes projects that will impact the second four-year performance period of 2022 to 2025.

Data Source

Data for the pavement and bridge measures are based on information maintained in PennDOT's Roadway Management System (RMS) and Bridge Management System (BMS). The VMT are derived from the Highway Performance Monitoring System (HPMS).

2022-2025 Pavement Performance Measure Targets (Statewide) – Due October 1st 2022

Measure	Baseline 2021	2-year Target 2023	4-year Target 2025
% of Interstate pavements in Good condition	*TBD*	*TBD*	*TBD*
% of Interstate pavements in Poor condition	*TBD*	*TBD*	*TBD*

% of non-Interstate NHS pavements in Good condition	*TBD*	*TBD*	*TBD*
% of non-Interstate NHS pavements in Poor condition	*TBD*	*TBD*	*TBD*
Bridge Performance Measure Targets (Statewide)			
Measure	**Baseline 2021**	**2-year Target 2023**	**4-year Target 2025**
% of NHS bridges by deck area in Good condition	*TBD*	*TBD*	*TBD*
% of NHS bridges by deck area in Poor condition	*TBD*	*TBD*	*TBD*
Methods for Developing Targets			
Pennsylvania's pavement and bridge targets will be established by October 2022 through extensive coordination with a Transportation Asset Management Plan (TAMP) steering committee and workshops with MPOs/RPOs and FHWA's Pennsylvania Division. The targets will be consistent with PennDOT's asset management objectives of maintaining the system at the desired state of good repair, managing to lowest life cycle costs (LLCC), and achieving national and state transportation goals.[2] Targets are expected to be calculated based general system degradation (deterioration curves) offset by improvements expected from delivery of the projects in the TIP along with planned state funded maintenance projects.			

Progress Towards Target Achievement and Reporting:

PennDOT continues to implement enterprise asset management for programming and decision-making as outlined in the TAMP.[3] PennDOT is transitioning to the new TAMP that was finalized in the summer of 2022. The tools and methodologies are continually evaluated to prioritize state-of-good repair approaches that preserve transportation system assets. Within the TAMP, PennDOT identifies the following key objectives:

TAMP Objectives
- Sustain a desired state of good repair over the life cycle of assets
- Achieve the lowest practical life-cycle cost for assets
- Achieve national and state goals

PennDOT's analyses pertaining to life cycle management, risk management, financial planning, and any performance gaps culminate in an investment strategy to support the objectives and goals established in the TAMP.

PennDOT and the MPOs/RPOs continue to ensure the STIP, regional TIPs, and LRTPs are developed and managed to support progress toward the achievement of the statewide pavement/bridge objectives and targets that will be established for the 2022-2025 performance period. Pennsylvania's pavement and bridge projects provided in the FY2023-2026 TIP were selected through extensive coordination with PennDOT's Asset Management Section in accordance with the TAMP. The projects are consistent with PennDOT's asset management objectives of maintaining the system at the desired state of good repair, managing to lowest life cycle costs (LLCC), and achieving national and state transportation goals.

After the 2022-2025 performance targets are set, PennDOT will provide feedback on statewide and MPO/RPO-specific progress towards target achievement. The progress helps each region understand

[2] For more information on LLCC: https://www.penndot.gov/ProjectAndPrograms/Asset-Management/Documents/Lowest-Life-Cycle-Cost-Infographic.pdf

[3] PennDOT TAMP: https://www.penndot.pa.gov/ProjectAndPrograms/Asset-Management/Pages/default.aspx

the impacts of their past bridge and pavement investments and can guide future planning goals and strategy assessments.

Evaluation of STIP for Target Achievement:

The following has helped to ensure that planned projects in the STIP will help to maintain a desired state of good repair in bridge and pavement conditions for the interstate and NHS roadways:

- Nearly 85% of PennDOT's STIP funding is directed to highway and bridge preservation, restoration, and reconstruction projects. Many of these projects are focused on our state's interstate and NHS roadways.
- Pennsylvania's investment strategy, reflected in the statewide 2023 Twelve Year Program (TYP) and 2023-2026 STIP, is the result of numerous strategic decisions on which projects to advance at what time. PennDOT continues to address the challenges of addressing local needs and priorities, while ensuring a decision framework is applied consistently across the state.
- The TAMP provides a 12-year outlook that includes the financial strategy for various work types and is a driver for the TIP, STIP and LRTP development. The TAMP projects the levels of future investment necessary to meet the asset condition targets and contrasts them with expected funding levels. This helps PennDOT to make ongoing assessments and to reevaluate data associated with its future investment decisions.
- In support of the STIP development, PennDOT and MPOs/RPOs jointly developed and approved General and Procedural Guidance and Transportation Program Financial Guidance documents.[4] The guidance, which is consistent with the TAMP, formalizes the process for Districts, MPOs/RPOs and other interested parties as they identify projects, perform a project technical evaluation, and reach consensus on their portion of the program.
- The Procedural Guidance also helps standardize the project prioritization process. The guidance is key to resolving issues between programming to lowest life-cycle cost, managing current infrastructure issues and risk mitigation. The resulting methodology allows data-driven, asset management-based decisions to be made with human input and insight based on field evaluations to achieve maximum performance of the available funds. The guidance document is revised for each STIP cycle as PennDOT's asset management tools and methods evolve and enhance its ability to program to lowest life cycle cost.
- In the short term, candidate projects are defined, and the proposed program is compared to Pavement Asset Management System (PAMS) and Bridge Asset Management System (BAMS) outputs to verify that the program is developed to the lowest practical life cycle cost. The percentages of good and poor can also be projected for evaluation of how the program may impact the national performance measures. When PAMS and BAMS are further implemented and improved, then planners can use the systems to optimize the selection of projects to achieve optimal performance within the funding constraints. Draft programs can then be analyzed in relation to the PM2 measures.

The following are the LLTS MPO 2023-2026 TIP projects that address bridge and pavement conditions on the National Highway System:

[4] The 2023 Financial Guidance can be found at: https://talkpatransportation.com/how-it-works/tip

MPMS	Roadway	Project Type	Project Name	Description
7911	SR 7302	Replace/Rehab	North Main Ave Bridge over Leggets Creek	Bridge rehabilitation/replacement on North Main Ave Bridge over Leggets Creek.
8256	SR 8001	Bridge Replacement	SR 8001 ramp over SR 11	Bridge rehabilitation/replacement on SR 8001 (Ramp B Road) over SR 11.
61813	SR 6	Highway Restoration	SR 6 Robert P. Casey Highway Restoration	Highway restoration on Robert P. Casey Highway from I-81 to Roosevelt Highway.
67199	SR 3023	Bridge Restoration	SR 3023 over Roaring Brook	Bridge rehabilitation/replacement on Cedar Avenue over Roaring Brook.
69172	SR 8041	Bridge Preservation	SR 8041 over SR 11	Bridge preservation on SR 8041 (Ramp F) over SR 11.
84368	SR 6011	Bridge Replacement	SR 6011 Green Ridge Street	Bridge replacement on Green Ridge Street over Lackawanna River.
90260	SR 6006	Bridge Preservation	SR 6006 over Lackawanna River	Bridge preservation on Scranton Carbondale Highway over Lackawanna River.
95454	SR 11	Bridge Preservation	US 11 over Railroad	Bridge preservation on Pittston Avenue over Luzerne County Rail Authority.
106664	SR 8025	Bridge Restoration	SR 8025 over Roaring Brook	Bridge rehabilitation on SR 8025 (Ramp B) over Roaring Brook.
115982	SR 6006	Bridge Preservation	SR 6006 over SR 107 Preservation	Bridge preservation on Scranton Carbondale Highway over Rush Brook Creek.
117103	Various	Highway Restoration	Lackawanna County Capital	Resurfacing on various routes in Lackawanna County.
117976	Various	Highway Restoration	Federal Aid Paving 4-23-F	Resurfacing on various State Routes in various municipalities, Lackawanna County.
117977	Various	Highway Restoration	Federal Aid Paving 4-24-F	Resurfacing on various State Routes in various municipalities, Lackawanna County.
117979	Various	Highway Restoration	Federal Aid Paving 4-26-F	Resurfacing on various State Routes in various municipalities, Lackawanna County.
8999	SR 2005	Bridge Preservation	SR 2005 over Bowman Spring Run	Bridge preservation on Blackman Street over Bowman Spring Run.

9084	SR 924	Bridge Preservation	SR 924 over I-81	Bridge preservation on Can Do Expressway over I-81.
56623	SR 309	Bridge Replacement	SR 309 over Toby Creek	Bridge rehabilitation/replacement on Memorial Highway over Toby Creek.
67304	SR 115	Bridge Restoration	SR 115 over Reading Blue	Bridge rehabilitation/replacement on Bear Creek Boulevard over Reading Blue Mountain and Northern Railroad.
67366	SR 309	Bridge Preservation	SR 309 over SR 2022	Bridge preservation on North Cross Valley Expressway over SR 2022 and Railroad.
67408	SR 2002	Bridge Replacement	SR 2002 over Warrior Creek	Bridge rehabilitation/replacement on San Souci Parkway over Warrior Creek.
67417	SR 309	Bridge Restoration	SR 309 over Wilkes Barre Boulevard	Bridge preservation on North Cross Valley Expressway over Wilkes Barre Boulevard.
67456	SR 924	Bridge Replacement	SR 924 over Conrail	Bridge replacement on SR 924 (Hazelton Shepton Highway) over Conrail.
69228	SR 29	Bridge Restoration	SR 29 over New Commerce Blvd	Bridge preservation on South Cross Valley Expressway over New Commerce Boulevard.
79594	SR 309	Bridge Restoration	SR 309 over SR 2022	Bridge rehabilitation on North Cross Valley Expressway over Main Street.
93931	SR 11	Bridge Restoration	SR 11 over SR 2037	Bridge rehabilitation/replacement on SR 11 (Exeter Avenue) over SR 2037, Susquehanna River and Railroad.
97941	SR 309	Bridge Restoration	SR 309 over SR 8039 Ramp	Bridge rehabilitation on North Cross Valley Expressway over SR 8039 (Ramp A).
97942	SR 309	Bridge Replacement	SR 309 over Toby Creek	Bridge rehabilitation/replacement on Memorial Highway over Toby Creek.
97943	SR 309	Bridge Restoration	SR 309 over Toby Creek 2	Bridge rehabilitation on Memorial Highway over Toby Creek.
102030	SR 2002	Highway Reconstruction	SR 2002 San Souci Parkway	Reconstruction on San Souci Parkway from Loomis Street to Carey Avenue.

102116	SR 2005	Highway Restoration	SR 2005 Reconstruction	Reconstruction on Blackman Street from Mountain Boulevard to Sans Souci Parkway.
103454	SR 7304	Replace/Rehab	N Washington Street over Luzerne/Susquehanna Railroad	Bridge rehabilitation/replacement on North Washington St over Luzerne and Susquehanna Railroad.
113491	SR 29	Bridge Preservation	SR 29 over SR 11	Bridge preservation on South Cross Valley Expressway over SR 11 and Ramp 8027.
113521	SR 7220	Replace/Rehab	Hillside Road over Tobys Creek	Bridge rehabilitation/replacement on Hillside Rd over Tobys Creek.
115819	SR 1009	Bridge Preservation	SR 1009 Market Street over Susquehanna	Bridge preservation on Market Street over the Susquehanna River.
116423	SR 2005	Bridge Preservation	SR 2005 over Luzerne Couty Rail	Bridge Preservation on Blackman Street over Luzerne County Rail Authority.

System Performance Measures (PM3)

Background

The FHWA final rule for the *National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program* was published in the Federal Register (82 FR 5970) on January 18, 2017 and became effective on May 20, 2017. This rule established six measures related to various aspects of the transportation system (commonly known as PM3). The current regulations are found at 23 CFR 490 Subparts E, F, G & H. Targets are established for these measures as part of a four-year performance period, the first was 2018 to 2021. This TIP includes projects that will impact future performance periods based on when projects are constructed or completed.

Data Source

The Regional Integrated Transportation Information System (RITIS) software platform is used to generate the travel time-based measures. Data from the American Community Survey (ACS) and FHWA's CMAQ annual reporting system are used for the non-SOV travel and mobile source emissions measures, respectively.

Travel Time and Annual Peak Hour Excessive Delay Targets - Due October 1st 2022

Measure	Baseline 2021	2-year Target 2023	4-year Target 2025
Interstate Reliability (Statewide)	*TBD*	*TBD*	*TBD*
Non-Interstate Reliability (Statewide)	*TBD*	*TBD*	*TBD*
Truck Reliability Index (Statewide)	*TBD*	*TBD*	*TBD*
Annual Peak Hour Excessive Delay Hours Per Capita (Urbanized Area)	*Philadelphia - TBD*	*TBD*	*TBD*
	Pittsburgh – TBD	*TBD*	*TBD*
	Reading	*TBD*	*TBD*
	Allentown	*TBD*	*TBD*

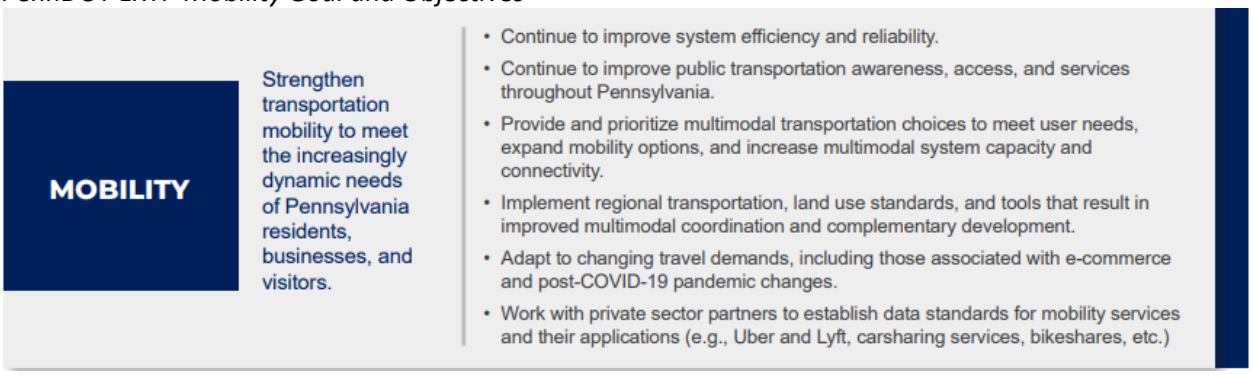
	Harrisburg	*TBD*	*TBD*
	York	*TBD*	*TBD*
	Lancaster	*TBD*	*TBD*
Non-SOV Travel Measure Targets			
Measure	**Baseline 2021**	**2-year Target 2023**	**4-year Target 2025**
Percent Non-Single Occupant Vehicle Travel (Urbanized Area)	*Philadelphia - TBD*	*TBD*	*TBD*
	Pittsburgh – TBD	*TBD*	*TBD*
CMAQ Emission Targets			
Measure		**2-year Target 2023**	**4-year Target 2025**
VOC Emissions (Statewide)		*TBD*	*TBD*
NOx Emissions (Statewide)		*TBD*	*TBD*
PM2.5 Emissions (Statewide)		*TBD*	*TBD*
PM10 Emissions (Statewide)		*TBD*	*TBD*
CO Emissions (Statewide)		*TBD*	*TBD*
Methods for Developing Targets			
The System Performance measure targets will be established by October 2022 in coordination with MPOs/RPOs within the state. PennDOT continues to evaluate historic variances in performance measures in relation to project completion to assist with the target setting process.			

Progress Towards Target Achievement and Reporting:

PennDOT and the MPOs/RPOs continue efforts to ensure the STIP, regional TIPs, and LRTPs are developed and managed to support the improvement of the reliability and CMAQ performance measures. This future progress will be measured against the targets established for the 2022-2025 performance period. PennDOT continues to monitor the impacts of completed investments on performance measures to better evaluate investment strategies. These efforts include evaluating the causes of historic reliability and delay issues, identifying freight bottlenecks, and assessing completed projects that provided the most benefits to reliability.

PennDOT remains committed to expand and improve system mobility and integrate modal connections despite the large percentage of funding dedicated to infrastructure repair and maintenance. PennDOT's LRTP provides objectives to address mobility across the transportation system that will guide investment decisions. The federal systems performance measures will be used to assess future progress in meeting these objectives and the associated targets.

PennDOT LRTP Mobility Goal and Objectives



Evaluation of STIP for Target Achievement:

The following has helped to ensure that planned projects in the STIP will help to achieve an improvement in the system performance measures for the statewide interstate and NHS road system:

- PennDOT continues to emphasize their Transportation Systems Management and Operations (TSMO) initiatives to program low-cost technology solutions to optimize infrastructure performance. This has included the development of Regional Operations Plans (ROPs) that integrate with the MPO Congestion Management Process (CMP) to identify STIP projects. A TSMO funding initiative was established in 2018 to further support these efforts. The 2023-2026 STIP includes over $289 million of funding dedicated to congestion relief projects.
- PennDOT has funded interstate projects to address regional bottlenecks. Mainline capacity increasing projects are limited to locations where they are needed most. These investments will provide significant improvements to mobility that support meeting the interstate and freight reliability targets.
- The statewide CMAQ program provides over $440 million of funding on the STIP for projects that benefit regional air quality. PennDOT has worked with Districts and MPO/RPOs to develop more robust CMAQ project selection procedures to maximize the air quality benefits from these projects.

- Over $210 million is provided in the STIP for multi-modal alternatives. This includes funding for transit operating costs, transit and rail infrastructure, support for regional carpooling and other bike and pedestrian infrastructure within the state. These projects provide opportunities to reduce vehicle miles of travel (VMT) and increase the percentage of non-single occupant vehicles.
- At this time, the potential impact of past and planned STIP investments on PM-3 performance measures are still being evaluated. The timeline for project implementation often prevents an assessment of measurable results until a number of years after project completion. PennDOT continues to monitor the impact of recently completed projects on the reliability and delay measures. As more data is obtained, these insights will help PennDOT in evaluating potential project impacts in relation to other factors including incidents and weather on system reliability and delay.

The following are the LLTS MPO 2023-2026 TIP projects that address Congestion Mitigation and Air Quality (CMAQ):

MPMS	Roadway	Project Type	Project Name	Description
92949	SR 8002	Congestion Reduction	Tigue Street Park N Ride	Construction of a Park and Ride on SR 8002 (Tigue Street).
102866	SR 3013	Safety Improvement	SR 3013 Main Street Signal Corridor	Signal and safety improvements on S Main St from Eynon St to the Ramps to the Scranton Expressway. 11 in total and most will be interconnected.
106681	SR 247	Congestion Reduction	SR 247 Expand Jessup Boro	Construction of a Park and Ride Extension on SR 247.
93038	SR 309	Congestion Reduction	Union St @ Park-N-Ride	Construction of a Park and Ride at the intersection of SR 309 and Union Street.
110327	SR 309	Safety Improvement	SR 309 Signal Corridor	Safety improvements on Memorial Highway/Tunkhannock Highway between SR 1050 and Wellington Avenue.

Transit Asset Management Performance Measures

Background

In July 2016, FTA issued a final rule (TAM Rule) requiring transit agencies to maintain and document minimum Transit Asset Management (TAM) standards, policies, procedures, and performance targets. The TAM rule applies to all recipients of Chapter 53 funds that either own, operate, or manage federally funded capital assets used in providing public transportation services. The TAM rule divides transit agencies into two categories (tier I and II) based on size and mode. The TAM process requires agencies to annually set performance measure targets and report performance against those targets. For more information see: Transit Asset Management | FTA (dot.gov)

Data Source

The TAM rule requires states to participate and/or lead the development of a group plan for recipients of Section 5311 and Section 5310 funding, and additionally allows other tier II providers to join a group plan at their discretion. All required agencies (Section 5311 and 5310) and remaining tier II systems except for Centre Area Transportation Authority (CATA), have elected to participate in the PennDOT Group Plan. The Group Plan is available on PennDOT's website at PennDOT Group Plan. The group plan is updated annually with new targets as well as the current performance of the group.

Transit Asset Management Targets (for all agencies in PennDOT Group Plan)

Performance Measure	Asset Class	FY2020-21 Target	Current Performance	FY 2021-22 Target
Rolling Stock (Revenue Vehicles)				
Age % of revenue vehicles within a particular asset class that have met or exceeded their Estimated Service Life (ESL)	AO-Automobile	16%	18%	**18%**
	BR-Over-the-road Bus	12%	18%	**18%**
	BU – Bus	29%	28%	**28%**
	CU-Cutaway	42%	52%	**52%**
	VN-Van	64%	63%	**63%**
	SV-Sports Utility Vehicle	17%	33%	**33%**
Equipment (Non-Revenue Vehicles)				
Age % of non-revenue/service vehicles within a particular asset class that have met or exceeded their ESL	Automobiles	46%	57%	**57%**
	Trucks / Rubber Tire Vehicles	50%	27%	**27%**
Facilities				
Condition % of facilities with a condition rating below 3.0 on the FTA TERM scale	Administrative / Maintenance Facilities	30%	14%	**14%**
	Passenger / Parking Facilities	83%	84%	**84%**

Methods for Developing Targets

PennDOT annually updates performance targets based on two primary elements: the prior year's performance and anticipated/obligated funding levels. PennDOT requires rolling stock and non-revenue vehicles (equipment) to meet both age and mileage ESL standards prior to being replaced. While the identified annual targets represent only age and condition in line with FTA guidelines, PennDOT will continue to apply age and mileage when making investment decisions.

Progress Towards Target Achievement and Reporting:

The Pennsylvania TAM Group Plan fulfills the PBPP requirement and encourages communication between transit agencies and their respective MPOs and RPOs. In accordance with the plan, the following actions take place that fulfill the PBPP requirement:

- PennDOT provides asset performance reports to transit agencies by August 31 of each year that measure performance against established targets for the previous fiscal year.
- Transit agencies review the content for accuracy and confirm with PennDOT that information related to transportation asset performance has been received and is accurate.
- Transit agencies share performance data with their respective planning partner by the end of each calendar year, or earlier as decided between the partners.
- New performance goals for the upcoming fiscal year are established no later than September 15 of each year and communicated to transit agencies covered under the group plan.
- Transit agencies continue regular coordination regarding the local Transportation Improvement Plan (TIP) and other planning initiatives of the local planning partner.

All transit agencies are required to utilize Pennsylvania's transit Capital Planning Tool (CPT) as part of their capital planning process and integrate it into their TAM process. The CPT is an asset management and capital planning application that works as the central repository for all Pennsylvania transit asset and performance management activities.

Consistent with available resources and in coordination with the PennDOT BPT, transit agencies are responsible for submitting projects consistent with the CPT for the development of the transit portion of the Program. This ensures that projects identified on the TIP are consistent with the TAM approach and respective TAM plans. PennDOT CPDM will update this project information in MPMS and share it with the MPOs/RPOs, PennDOT BPT, and the transit agencies.

Evaluation of STIP for Target Achievement:

The STIP includes an investment prioritization process using established decision support tools. The investment prioritization process occurs annually as part of the capital budgeting process. To prioritize investments at an agency level and at a statewide level, the following basic actions take place:

- Update inventory in the CPT to include age, mileage, condition, and operational status
- Identify assets that are not in a state-of-good-repair, using the following priority process:
    - Vehicles that surpass age and mileage ESL
    - Vehicles that surpass age or mileage ESL and are rated in poor condition or represent a safety hazard
    - Facilities that have a condition rating of less than 3 on the TERM Scale, with priority given to facilities that are the lowest in the scale and represent a critical need to maintain operational capacity
- Determine available funding based on federal and state funding sources
- Develop projects within the CPT Planner based upon funds availability
- Import CPT Planner into DotGrants for the execution of capital grants

Throughout the process, PennDOT reviews projects and works with agencies to approve and move projects forward through the grant process.

Public Transit Safety Performance Measures

In addition to the Transit Asset Management Performance, FTA issued a final rule on Public Transportation Agency Safety Plans (PTASP), effective July 19, 2019. The PTASP final rule (49 C.F.R. Part 673) is meant to enhance safety by creating a framework for transit agencies to manage safety risks in their organization. It requires recipients of FTA funding to develop and implement safety plans that support the implementation of Safety Management Systems (SMS). At this time, recipients of only Section 5311 (Formula Grants for Rural Areas) or Section 5310 (Enhanced Mobility of Seniors and Individuals with Disabilities Program) are exempt from the PTASP requirement.

As part of the plan development process, performance targets must be established for the following areas:

1. Fatalities,
2. Injuries,
3. Safety Events, and System Reliability

All public transit agencies in the Commonwealth have written safety plans compliant with Part 673 as of July 20, 2021. These safety plans must be updated annually based on agency specific execution dates and shared with PennDOT BPT. It is also the transit agency's responsibility to share the updated plan with their respective MPO/RPO, so the new targets and measures can be incorporated into regional planning practices.

APPENDIX

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

October 14, 2021

Dear Planning Partners:

Pursuant to the Code of Federal Regulations (23 CFR § 490) regarding National Performance Management Measures for the Highway Safety Improvement Program (HSIP), Pennsylvania has established the 2022 targets for the following Safety Performance Measures:

1) Number of fatalities
2) Rate of fatalities per 100 million Vehicle Miles Travelled (VMT)
3) Number of serious injuries
4) Rate of serious injuries per 100 million VMT
5) Number of non-motorized fatalities and serious injuries.

The Pennsylvania Department of Transportation (PennDOT) is required to establish these targets by August 31st each year. The 2022 targets found in Table 1 of the enclosure are based on a data driven trend analysis of the statewide fatality and suspected serious injury numbers (2 percent annual fatality reduction and maintaining level suspected serious injuries).

Metropolitan Planning Organization (MPOs) are required to establish targets within 180 days of PennDOT establishing its targets (by February 28, 2022) either by agreeing to plan and program projects in support of the PennDOT targets, or by establishing their own quantifiable targets. For consistency, PennDOT is requesting Rural Planning Organizations (RPOs) follow the same procedure. Table 2 of the enclosure reflects values for your MPO/RPO based on the same methodology that was used at the state level.

MPOs/RPOs wishing to establish their own quantifiable targets are requested to coordinate with PennDOT as early as possible, but no later than December 31, 2021.

A state is determined to have met or made significant progress toward meeting established targets if the outcome in 4 of 5 performance measures is better than the baseline number. For Pennsylvania's 2020 targets, the Federal Highway Administration (FHWA) will report this determination by March 31, 2022.

Preliminary data indicate Pennsylvania did not meet our 2020 targets and will be subject to the provisions of 23 United States Code § 148 (i). This will require the

Department to submit an implementation plan that identifies gaps, develops strategies, action steps and best practices, and includes a financial and performance review of all HSIP funded projects. This plan will be due June 30, 2022. In addition, we will be required to obligate in Federal Fiscal Year (FFY) 2023 an amount equal to the FFY 2019 HSIP apportionment.

For more information, please visit the FHWA Safety Performance Management website at https://safety.fhwa.dot.gov/hsip/spm/.

Your response is requested before February 28, 2022.

Please complete the following:

Lackawanna/Luzerne Transportation Study MPO

Planning Organization Name

Select one of the following options for establishing Safety Performance Measures:

☑ The MPO/RPO agrees to plan and program projects so that they contribute toward the accomplishment of the established PennDOT targets. The MPO/RPO will have the option to establish quantifiable targets of their own each year when new PennDOT targets are established. Table 2 of the enclosure reflects corresponding MPO/RPO values.

☐ The MPO/RPO has established quantifiable targets for each performance measure for our planning area. The targets and methodology used to develop them are enclosed with this letter. This option will require PennDOT coordination with the Federal Highway Administration to ensure that the targets established are not just aspirational but achievable based on the projects that are programmed on the MPO/RPO's Transportation Improvement Program. If choosing this option please notify the Center for Program Development and Management (CPDM) by December 31, 2021.

Concurrence: _____ _____

Authorized MPO/RPO Representative — Date

SUBMIT

Should you have any questions, please contact Casey Markey, Transportation Planning Manager, Center for Program Development and Management, at 717.787.1251 or cmarkey@pa.gov.

Sincerely,

Larry S. Shifflet

Larry S. Shifflet
Deputy Secretary for Planning

Sincerely,

Michael C. Keiser, P.E.

Digitally signed by Michael C. Keiser, P.E.
Date: 2021.10.18 08:29:52 -04'00'

Michael C. Keiser, P.E.
Acting Deputy Secretary for Highway Administration

Enclosure

pennsylvania
DEPARTMENT OF TRANSPORTATION

November 18, 2020

Dear Planning Organizations:

The Moving Ahead for Progress in the 21st Century Act (MAP-21) and Fixing America's Surface Transportation (FAST) Act established a series of performance measures to ensure effective use of Federal transportation funds. Title 23 Part 490 of the Code of Federal Regulations (23 CFR 490) establishes measures to assess pavements on the National Highway System (NHS), bridges carrying the NHS, and pavements on the Interstate, which are collectively referred to as the **PM-2** measures. 23 CFR 490.105 establishes measures to assess the performance of the NHS, freight movement on the Interstate, and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. These measures are collectively referred to as the **PM-3** measures. More information on Transportation Performance Management (TPM) is available at *https://www.fhwa.dot.gov/tpm/faq.cfm*.

PM-2 Performance Measures include:

- Percentage of pavements on the Interstate System in Good condition
- Percentage of pavements on the Interstate System in Poor condition
- Percentage of pavements on the NHS (excluding the Interstate System) in Good condition
- Percentage of pavements on the NHS (excluding the Interstate System) in Poor condition
- Percentage of NHS bridge deck area classified as in Good condition
- Percentage of NHS bridge deck area classified as in Poor condition

PM-3 Performance Measures include:

- Percent of Person-miles Traveled on the Interstate System that are Reliable
- Percent of Person-miles Traveled on the Non-Interstate NHS that are Reliable
- Interstate System Truck Travel Time Reliability Index
- Annual Hours of Peak-Hour Excessive Delay (PHED) per Capita
- Percent Non-Single Occupant Vehicle (SOV) Travel
- On-Road Mobile Source Emissions Reduction for CMAQ-funded Projects

In May 2018, the Pennsylvania Department of Transportation (PennDOT) established 2-year and 4-year targets in coordination with Pennsylvania's Planning Partners. All MPO/RPOs agreed to support the PennDOT statewide and regional PM-2 and PM-3 targets established at that time. In June 2019, PennDOT submitted a Transportation Asset Management Plan (TAMP) that published the PM-2 targets along with its plan to achieve them while progressing towards lowest life cycle cost planning and programming. The TAMP is available at: *https://www.penndot.gov/ProjectAndPrograms/Asset-Management/Documents/PennDOT-TAMP.pdf*

PennDOT Mid Performance Period Report

PennDOT recently submitted a *Mid Performance Period Progress Report* to the Federal Highway Administration (FHWA) on September 30, 2020. This progress report includes:

- The actual performance derived from the latest data collected through the midpoint of the performance period;
- A discussion of PennDOT's progress toward achieving each established 2-year target;
- A discussion on progress of PennDOT's efforts in addressing congestion at truck freight bottlenecks within the state;
- Adjustments to the 4-year targets for select performance measures with a discussion of the basis for the adjustment and how the revised targets support expectations in the long-range statewide transportation plan and the TAMP;
- MPO CMAQ performance plans for the Southwestern Pennsylvania Commission (SPC), Delaware Valley Regional Planning Commission (DVRPC) and Lancaster Metropolitan Planning Organization (MPO)s.

The FHWA makes a formal determination of significant progress in the achievement of 2- and 4-year targets. If significant progress is not made, states will be required to document actions to achieve targets in future performance periods. **Attachments 1-3** (addressing both the PM-2 and PM-3 measures) provide a summary of the actual 2-year performance and progress toward achieving the established statewide targets. Additional information is provided on individual MPO/RPO performance for select measures.

Adjustments to 4-Year Performance Targets and Coordination

The *Mid Performance Period Progress Report* offers an opportunity for PennDOT and its Planning Partners to review and adjust the 4-year targets for each of the PM-2 and PM-3 performance measures. All bridge, pavement, reliability, freight and CMAQ emission targets were assessed in coordination between PennDOT and Pennsylvania's MPO/RPOs. The CMAQ congestion and Non-SOV measure targets were reviewed by all relevant state DOT and MPO partners for each urbanized area (e.g. Philadelphia and Pittsburgh areas).

PennDOT has not adjusted any of the PM-2 targets. PennDOT has adjusted the PM-3 targets as summarized in **Table 1**. The adjusted statewide targets were provided in PennDOT's *Mid Performance Period Progress Report* to FHWA. PennDOT provided a presentation on the assessment of PM-2 and PM-3 targets at the September 16th Planning Partners call. The call included a discussion on the target setting process and requested comments on the proposed adjustments to the PM-3 target values. No MPO/RPOs indicated concerns regarding adjustments to the reliability, freight or CMAQ emission targets.

Table 1: Adjustments to Statewide PM-3 Targets
(All Other PM-2 and PM-3 Targets Remain Same as Baseline Report)

Measure	Original Target	Adjusted Target	Basis for Adjustment
Interstate Reliability	89.8%	**89.5%**	In the baseline report, PennDOT's target was developed to maintain status quo for operations. Based on a review of the first three years of data, there are yearly variations in the reliability measure. PennDOT has identified impacts of construction projects on reliability while work zone traffic restrictions are in effect. PennDOT's 2021 Statewide Transportation Improvement Program (STIP) has an increased focus on interstate highways, which will result in more construction projects. Major projects which will be underway in 2021 include the I-83 widening in Harrisburg, I-95 reconstruction in Delaware and Philadelphia Counties, the Southern Beltway interchange with I-79 near Pittsburgh, and I-81 reconstruction near Carlisle. Smaller projects like bridge rehabilitations also impact reliability when long-term lane closures are required. The target adjustment reflects a desire to maintain the status quo as planned in the baseline report while taking into account year-to-year variability with a multitude of construction scenarios. Other congestion management techniques to improve reliability will need to be planned and are beyond the timeframe of the 4-year target for this performance period.
Truck Travel Time Index	1.34	**1.40**	The impacts of construction work zones on the freight reliability measure cannot be mitigated prior to the 2021 construction season. PennDOT will continue to monitor data to develop appropriate mitigation strategies to improve freight reliability in future performance periods. The 4-year target is intended to account for anticipated construction projects which will impact 2021 performance and unknown freight impacts due to the COVID-19 pandemic.
CMAQ PM_{10} Emissions	17.47	**0.00**	The original target was set assuming PM10 benefits of CMAQ projects across the entire SPC region. The target should only be for the actual nonattainment/maintenance area which just includes Liberty Clairton. No CMAQ projects are anticipated in this area over the 4-year performance period. The statewide target was adjusted to zero.
CMAQ CO Emissions	1135.40	**250.00**	The DVRPC region is now in attainment for CO and no longer requires a target. As such, the statewide number is adjusted only to reflect the SPC area.

MPO/RPO Target Establishment

Per federal regulations, the MPO/RPOs must establish targets no later than 180 days after PennDOT adjusts their targets. The MPO/RPOs must establish targets by either:

- Agreeing to plan and program projects so that they contribute toward the accomplishment of the relevant PennDOT target for that performance measure; or
- Committing to a quantifiable target for that performance measure for their metropolitan planning area.

To ensure compliance with 23 U.S.C. §134, please respond to this letter by selecting an option for the adjusted PM-3 measures below before March 29, 2021. Note this action only applies to the measures for which PennDOT has adjusted targets.

Lackawanna/Luzerne Transportation Study MPO
Planning Organization Name

Please select one of the following options for the relevant PM-3 measures:

☑ The MPO/RPO decision-making body agrees to support the adjusted statewide PM-3 targets by planning and programming projects that contribute to meeting or making significant progress toward the established PennDOT performance targets.

☐ The MPO/RPO decision-making body commits to establishing their own quantifiable targets for these measures and has attached their methodology. MPOs/RPOs that establish their own targets will report the methodology used to develop them and are requested to coordinate with PennDOT as early as possible.

Concurrence:_____ Date:_____
Authorized MPO/RPO Representative

SUBMIT

Should you have any questions, please contact Casey Markey, Transportation Planning Manager, at 717.787.1251 or cmarkey@pa.gov.

Sincerely,

Larry S. Shifflet

Larry S. Shifflet
Deputy Secretary for Planning

Sincerely,

Melissa J. Batula, P.E.
Deputy Secretary for Highway Administration

Enclosure

Attachment 1: Summary of Performance Measure Targets and 2-Year Performance

		Performance Measures	2017 Baseline	2-Year (2019) Performance	2-Year Target	4-Year Original Target	4-Year Adjusted Target
PM-2	Pavement (Statewide)	Percentage of Pavements of the Interstate System in Good Condition		**71.5%**		60.0%	
		Percentage of Pavements of the Interstate System in Poor Condition		**0.4%**		2.0%	
		Percentage of Pavements of the Non-Interstate NHS in Good Condition	47.8%	**49.0%**			
		Percentage of Pavements of the Non-Interstate NHS in Good Condition		**37.6%**	35.0%	33.0%	
		Percentage of Pavements of the Non-Interstate NHS in Poor Condition	15.9%	**15.2%**			
		Percentage of Pavements of the Non-Interstate NHS in Poor Condition		**2.0%**	4.0%	5.0%	
	Bridge (Statewide)	Percentage of NHS Bridges Classified as in Good Condition	23.7%	**27.0%**	25.8%	26.0%	
		Percentage of NHS Bridges Classified as in Poor Condition	5.1%	**5.1%**	5.6%	6.0%	
PM-3	Reliability (Statewide)	Percent of the Person-Miles Traveled on the Interstate That Are Reliable	89.8%	**89.9%**	89.8%	89.8%	**89.5%**
		Percent of the Person-Miles Traveled on the Non-Interstate NHS That Are Reliable		**88.5%**		87.4%	
		Truck Travel Time Reliability (TTTR) Index	1.35	**1.36**	1.34	1.34	**1.40**
	CMAQ – Delay and Non-SOV (Urbanized Area)	Annual Hours of Peak Hour Excessive Delay Per Capita: Philadelphia		**14.6%**		17.2%	
		Annual Hours of Peak Hour Excessive Delay Per Capita: Pittsburgh		**10.1%**		11.8%	
		Percent of Non-Single Occupancy Vehicle (Non-SOV) Travel: Philadelphia	27.9%	**28.2%**	28.0%	28.1%	
		Percent of Non-Single Occupancy Vehicle (Non-SOV) Travel: Pittsburgh	24.8%	**25.5%**	24.6%	24.4%	
	CMAQ – Emissions (Statewide)	Total Emission Reductions: PM2.5	25.870	**143.210**	10.760	20.490	
		Total Emission Reductions: NOx	971.780	**971.050**	337.700	612.820	
		Total Emission Reductions: VOC	302.380	**231.780**	109.460	201.730	
		Total Emission Reductions: PM10	24.780	**0.000**	9.540		**0.000**
		Total Emission Reductions: CO	1135.400	**2969.640**	567.700	1135.400	**250.000**

(MPO/RPO Performance on PM-2 Measures Provided on PennDOT SharePoint Site)
https://spportal.dot.pa.gov/Planning/ProgramCenter/Performance%20Reports/Forms/AllItems.aspx
https://www.penndot.gov/ProjectAndPrograms/Asset-Management/Documents/PennDOT-TAMP.pdf

Attachment 2: Summary of MPO/RPO PM-3 Reliability Performance

Area (MPO/RPO)	Interstate Reliability			Non-Interstate Reliability			Truck Travel Time Reliability Index		
	2017 Baseline	2018	2019	*2017 Baseline*	2018	2019	*2017 Baseline*	2018	2019
Statewide Total	**89.8%**	**89.6%**	**89.9%**	**87.4%**	**88.2%**	**88.4%**	**1.34**	**1.39**	**1.36**
Statewide Target	**89.8% -> Adjusted to 89.5%** *2 & 4-Year Target*			**87.4%** *4-Year Target*			**1.34 -> Adjusted to 1.40** *2 & 4-Year Target*		
Adams	*Not Applicable*			86.2%	89.8%	93.4%	*Not Applicable*		
Altoona	100.0%	100.0%	100.0%	82.7%	83.9%	84.4%	1.21	1.25	1.18
Centre	100.0%	100.0%	100.0%	91.3%	93.2%	94.9%	1.13	1.33	1.15
DVRPC	65.5%	66.0%	66.6%	81.2%	82.6%	83.2%	2.01	2.04	1.99
Erie	100.0%	100.0%	100.0%	83.8%	86.7%	88.2%	1.25	1.23	1.29
Franklin	100.0%	100.0%	100.0%	93.8%	96.5%	94.6%	1.08	1.11	1.09
Harrisburg	91.3%	92.7%	92.4%	91.0%	92.4%	90.3%	1.32	1.33	1.31
Johnstown	*Not Applicable*			93.0%	94.5%	95.6%	*Not Applicable*		
Lancaster	100.0%	100.0%	100.0%	95.2%	95.3%	92.1%	1.09	1.12	1.17
Lebanon	100.0%	100.0%	100.0%	97.5%	97.7%	95.4%	1.12	1.14	1.15
Lehigh Valley	100.0%	100.0%	99.5%	86.4%	84.6%	85.4%	1.32	1.34	1.35
NEPA	100.0%	100.0%	99.9%	91.9%	90.9%	93.1%	1.26	1.25	1.28
North Central	100.0%	100.0%	100.0%	93.0%	95.7%	95.6%	1.10	1.11	1.50
Northern Tier	100.0%	100.0%	100.0%	98.8%	99.1%	94.7%	1.24	1.17	1.18
Northwest	100.0%	100.0%	100.0%	87.5%	91.5%	91.8%	1.18	1.32	1.17
Reading	100.0%	100.0%	100.0%	93.2%	94.2%	95.0%	1.12	1.38	1.19
S. Alleghenies	100.0%	100.0%	100.0%	95.9%	96.7%	94.2%	1.11	1.13	1.16
Scranton	98.3%	98.3%	98.2%	87.4%	90.3%	90.1%	1.39	1.28	1.35
SEDA-COG	100.0%	100.0%	100.0%	95.7%	96.4%	96.2%	1.11	1.11	1.12
SPC	92.9%	91.6%	92.1%	87.0%	87.7%	88.9%	1.42	1.49	1.46
SVTS	99.3%	99.2%	100.0%	95.1%	96.7%	95.9%	1.18	1.59	1.14
Wayne	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	1.11	1.12	1.17
Williamsport	100.0%	100.0%	100.0%	98.4%	98.3%	97.4%	1.16	1.18	1.19
York	100.0%	97.5%	94.9%	90.0%	89.6%	90.7%	1.22	1.32	1.28

Table Notes:

- The 2- and 4-year reliability targets only apply statewide. MPO/RPO values are provided for informational purposes only.
- At the mid-performance period (2019), Pennsylvania met the established 2-year target for interstate reliability. The state did not meet the 2-year truck travel time reliability index target. Although a 2-year target is not applicable to the non-interstate reliability measure, the mid-performance period data exceeds the 4-year target.
- PennDOT reliability targets were originally developed based on 2017 baseline values. The goal was to maintain baseline reliability throughout the four-year performance period. MPO/RPO values indicate areas that maintained their regional baseline value (green) or worsened over the baseline (red).

Attachment 3: Summary of MPO/RPO Emission Benefits from CMAQ-Funded Projects

(Listed MPO Targets are Only Included in Relevant MPO CMAQ Performance Plans – PennDOT does not report these targets as part of the Baseline and Mid-Performance Period Reports)

Measure	MPO	Emissions (kg/day)			
		2019	2021	2021	2018-2019
		2-year Target	Original 4-year Target	Adjusted 4-year Target	Actual 2-year Benefits
VOC Emissions	Statewide	**109.46**	**201.73**		**231.03**
	DVRPC (PA only)	**37.61**	**69.31**		**142.79**
	SPC	**58.06**	**107.00**		**66.76**
	Lehigh Valley	*N/A*	*N/A*		*20.19*
	Lancaster	*N/A*	**3.60**	***0.40***	*0.25*
	Reading	*N/A*	*N/A*		*0.32*
	NEPA	*N/A*	*N/A*		*0.72*
NOx Emissions	Statewide	**337.70**	**612.82**		**936.29**
	DVRPC (PA only)	**23.42**	**42.50**		**652.4**
	SPC	**256.11**	**464.77**	**250.00**	**152.55**
	Lehigh Valley	*N/A*	*N/A*		*126.64*
	Lancaster	*N/A*	**1.03**		*1.16*
	Reading	*N/A*	*N/A*		*3.08*
	NEPA	*N/A*	*N/A*		*0.46*
$PM_{2.5}$ Emissions	Statewide	**10.76**	**20.49**		**37.87**
	DVRPC (PA only)	**1.08**	**2.06**		**24.21**
	SPC	**7.01**	**13.35**	**10.00**	**6.21**
	Lehigh Valley	*N/A*	*N/A*		*5.48*
	York	*N/A*	*N/A*		*1.41*
	Harrisburg	*N/A*	*N/A*		*0.41*
	Lancaster	*N/A*	**0.04**		*0.06*
	Lebanon	*N/A*	*N/A*		*0.06*
	Johnstown	*N/A*	*N/A*		*0.03*
PM_{10} Emissions	Statewide	**9.54**	**17.47**	**0.00**	**0.00**
	SPC	**9.54**	**17.47**	**0.00**	**0.00**
CO Emissions	Statewide	**567.70**	**1135.40**	**250.00**	**133.37**
	DVRPC (PA only)	**282.74**	**565.47**	*Removed Target*	*N/A*
	SPC	**284.97**	**569.93**	**250.00**	**133.37**

Table Notes:

- Pollutant Definitions include VOC = Volatile Organic Compounds; NOx = Nitrogen Oxides; PM = Particulate Matter for specified size particles; and CO = Carbon Monoxide
- Emission benefits are estimated based on the total CMAQ-funded project emission benefits as reported in FHWA's CMAQ annual database. Project benefits are calculated by PennDOT and Planning Partners using available tools.
- DVRPC is now in attainment for CO and a CO target is no longer required for that region

LLTS MPO January 26, 2022 MPO Meeting

2k. 2022 Safety Target Settings (PM1)

Dean Roberts offered a review of our safety targets, Performance Measure 1 (PM1). This is the 5th year we are to bringing the targets to the committee to approve PM1. LLTS MPO has decided to support statewide targets and a letter will be sent to that effect.
Five measures make up the targets, number of fatalities, fatality rate, number of serious injuries, serious injury rate and number of non-motorized fatalities & serious injuries. The state did not meet its targets and will have to develop an HSIP plan as a result.
Dean Roberts made a motion for the LLTS MPO Technical Committee to support the statewide goals (for PM1) of the following targets; 1% reduction of fatality and 0% increase in serious injury.
Second by Brenda Sacco, motion carried.
Bob Fiume asked for a motion from the Coordinating Committee to support the statewide targets for PM1 safety targets.
Rich Roman moved to support the statewide targets for PM1 safety targets, second by John Pocius, motion carried.

LLTS MPO February 3, 2021 MPO Meeting

4c and 4d. Statewide Performance Measures PM1 – Safety Targets
PM2 – Pavement and Bridge
PM3 - CMAQ
Dean Roberts noted that PennDOT is going to all MPOs and RPOs to get approval of the Statewide Performance Measures. PM1 is the safety targets. The PM1 target goal was not met. Mr. Roberts explained how targets are met, how standard are set and how implementation is done. The measures are: number of fatalities, rate of fatalities, number of serious injuries, rate of serious injuries and number of combined non-motorized fatalities and non-motorized serious injuries.
PM2 is about the pavement and bridge conditions on interstates and National Highway System (NHS) routes. There are no changes to the PM2 targets right now. We will revisit this in 2 years.
PM3 is interstate reliability and truck travel on interstates and the CMAQ emissions. We are voting to adjust the Interstate reliability and truck travel time statewide targets.

Mr. Pitoniak asked for a motion from the Technical Committee to approve PM1, PM2 and PM3.
Susan Hazleton moved to approve the Performance measures, PM1, PM2, and PM3. Second by John Pocius. Motion carried.

Mr. Pedri asked for a motion from the Coordinating Committee to approve the Performance Measures, PM1, PM2 and PM3.
Bob Fiume Moved to approve the Performance Measures, PM1, PM2, and PM3. Second by Rich Roman. Motion carried.