

About the 2021-2024 Transportation Improvement Program (TIP)

What is the TIP?

The Transportation Improvement Program (TIP) proposes where projected transportation funding sources will be spent for the next four (4) years in York County, agreed upon by the York Area Metropolitan Planning Organization (YAMPO). The TIP lists all projects that intend to use federal funds, along with non-federally funded projects that are regionally significant. The TIP represents the transportation improvement priorities of the region and is required by federal law, currently the Fixing America's Surface Transportation Act (FAST Act). In addition to traditional highway and bridge projects, the TIP encompasses public transit, bicycle, pedestrian, and freight-related projects.

Federal regulation requires that the TIP cover a minimum of four federal fiscal years of programming. YAMPO TIP documents demonstrate a twelve (12) year planning and programming outlook in order to provide the area with a more realistic timeframe for the advancement of TIP projects and more accurate project costs. The TIP operates on a federal fiscal year (FFY) schedule that begins on a given year of October 1 then ending on September 30 the following year, and is updated every other year.

Who Recommends Projects for the TIP?

Securing a spot on the TIP is not a simple task. Although there are several ways in which a project can get on the TIP, the most typical course is PennDOT, along with individual municipalities in York County submit projects to the YAMPO. The Technical Committee goes through each project to approve, dismiss, or recommend other funding resources. The projects that are approved by the Technical Committee are then approved or dismissed by the Coordinating Committee.

Where Does the Funding Come From?

The Fixing America's Surface Transportation Act (FAST Act) distributes formula-driven funding to each state. Much of this funding has restrictions on where in York County it can be used, or what types of projects can be funded. Recently passed state transportation funding legislation (Act 89) also distributes a substantial amount of funds to each area of the Commonwealth. Local funding from municipalities, developers, or companies can be used to supplement the federal and state funding sources.

The list of projects on the TIP must also be fiscally constrained to the amount of funds that are expected to be available. In order to add projects to the TIP, others must be deferred, or additional funding must be identified.

In its simplest form, the TIP is authorization to seek funding. A project's presence on the TIP represents a critical step in the authorization of funding for a project. It does not, however, represent a commitment of funds, an obligation to fund, or a grant of funds. The TIP is not a final schedule of project implementation. The timeframe shown in the TIP is the best estimate at the time of TIP development,

which ranges from six to nine months prior to the beginning of the first fiscal year (FY) of the TIP period. Projects which cannot maintain that schedule are reprogrammed to later years. The TIP does not guarantee project implementation. Unforeseen problems may arise, such as engineering obstacles, environmental permit conflicts, changes in priorities, and additional financial constraints.

How Does a Project Get on the TIP?

First, a specific transportation need is identified. In many cases, municipal planners and engineers generate lists of potential improvements based on their needs, analyses, and citizen complaints and inquiries. In the event a municipality requests a local project be placed onto the TIP, it will be screened through the same project selection process as project found on a state-owned road or bridge (See Project Selection Criteria). Project proposals are also generated at the county and state level in much the same way. Upon selection by the York County Planning Commission (YCPC) staff, the new projects are brought before the YAMPO Technical and Coordinating Committees for approval.

For the 2021-2024 TIP project selection process, the projects were originally screened through the YAMPO Project Selection Criteria and YAMPO Coordinating and Technical Committees. Upon approval, the projects were selected by PennDOT to be discussed with municipalities and YCPC for further clarification and information. The issues discussed during these minutes, known as PennDOT Connects, provided insight into the candidate projects as well as other projects that may be impacted by the TIP candidate projects. Furthermore, other issues were addressed including stormwater or flooding issues, utilities, sidewalks, and more.

What Happens to a Project Once It Is on the TIP?

Once a project is on the TIP, a considerable amount of work remains to be done to bring it to completion. The designated lead agency is responsible for ensuring that its project moves forward. The lead agency, in most cases, is the state department of transportation (DOT) which in Pennsylvania is PennDOT, or in some cases, a county or city. Highway projects typically proceed in phases (preliminary engineering, final design, utility, right of way acquisition, construction). Each phase is included in the TIP, showing funding and anticipated schedule. Ideally, a project will advance according to its programmed schedule. In reality, however, projects are often delayed due to unforeseen obstacles, such as environmental issues and community concerns. Tracking each project's progress is important in order to identify and resolve delays as soon as possible and to reallocate resources as necessary.

Once federal funds have been made available (termed federally "authorized" or "obligated") for a project's final construction phase, it will no longer appear in future TIP documents (even though the project may not yet be constructed or completed).

Performance-Based Planning and Programming

The FAST Act and previous Moving Ahead for Progress in the 21st Century (MAP-21) Act requires State DOTs, MPOs, Transit Operators to establish and use a performance-based approach to transportation decision making. Included within the confines of a performance-based approach is the process of tracking performance measures, setting data-driven targets for each measure, and selecting projects to assist in meeting those targets. Additionally, the FAST Act also requires the TIP to include a description of its anticipated effect toward achieving the established performance targets, linking investment priorities to those performance targets. This section describes both highway and transit approaches to performance based planning and programming within the York MPO. This approach is intended to ensure targeted investment of federal transportation funds by increasing accountability and transparency, while providing better investment decisions that focus on specific outcomes.

The regulations required by FHWA are related to seven (7) national goals:

- Safety
- Infrastructure Preservation
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Days

FHWA have also created regulations, which establish final rules on performance measures to address the aforementioned goals, including:

- Fatalities and serious injuries, both number and rate per vehicle miles traveled, on all public roads;
- Pavement condition on the Interstate system and on the remainder of the National Highway System (NHS);
- Performance (system reliability) of the Interstate system and the remainder of the NHS bridge condition on the NHS;
- Bridge condition on the NHS;
- Traffic congestion;
- Freight movement on the Interstate system;
- On-road mobile source emissions.

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
- 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 set performance measure targets that guide state and regional investment decisions. Aligning goals and performance objectives across national (FHWA) state (PennDOT) and regions (MPOs/RPOs) provide a common framework for decision-making.

Highway Safety Performance Management Measures Rule (PM 1)

Highway Safety is the first national goal identified in the FAST Act and in March 2016, the FHWA Highway Safety Improvement Program and Safety Performance Management Measures Rule (Safety PM Rule) was finalized and published. Furthermore, State DOTs are tasked with reporting baseline values, targets, and progress toward achieving meeting the targets on an annual basis. In order to meet these regulations, PennDOT established Statewide Targets in August 2017. On December 5, 2019, the York MPO adopted supporting Pennsylvania’s Statewide Safety Performance Measure Targets. The following shows the CY 2019 Statewide Targets established based on 1% reduction of five-year average (2016-2020) and aggregated supporting regional York MPO Targets:

Figure 1

<i>Safety Performance Measure</i>	<i>Baseline (2014-2018)</i>	<i>Statewide Target (2016-2020)</i>	<i>York MPO Target (2016-2020)</i>	<i>York MPO Baseline (2014-2018)</i> [EK1]
<i>Number of fatalities</i>	1182	1,171.9	44.5	42.2

<i>Rate of fatalities per 100 million VMT</i>	1.169	1.148	1.336	1.275
<i>Number of serious injuries</i>	3839.6	4,400.3	143.5	128.2
<i>Rate of serious injuries per 100 million VMT</i>	3.797	4.309	4.309	3.874
<i>Number of non-motorized fatalities and non-motorized serious injuries</i>	679	781.7	23.7	19.2

Progress towards Target Achievement and Reporting:

PennDOT and the MPOs and RPOs will ensure regional TIPs, the Statewide Transportation Improvement Program (STIP), and Long Range Transportation Plans (L RTPs) are developed and managed to support progress toward target achievement. The 2019 STIP and individual TIPs were developed to ensure progress toward achievement of the state targets.

The following has helped to ensure planned Highway Safety Improvement Program (HSIP) projects in the STIP will help to achieve a significant reduction of traffic fatalities and serious injuries on all public roads:

- Implementing the strategies in the 2017 Strategic Highway Safety Plan (SHSP^[EK2]) through a data driven safety analysis, and the utilization of low-cost safety improvements system-wide support achieving these reductions.
- In January of 2017, the HSIP funding site was opened in SharePoint. The HSIP funding site provides a single point of communication for all HSIP project eligibility and funding requests. Project applications are reviewed through an approval workflow involving District and Central Office safety and planning staff.
- Projects are being planned and completed that were associated with the Intersection Safety Implementation Plan (ISIP), Roadway Departure Safety Implementation Plan (RDIP), and the Speed Management Action Plan (SMAP).
- Pennsylvania started using the PA Regionalized Safety Performance Functions (SPFs) developed for a statewide network screening of about 20,000 locations. These new evaluations will use the Highway Safety Manual (HSM)'s analysis method of Excess Expected Average Crash Frequency with Empirical Bayes (EB) adjustments also known as Potential for Safety Improvement (PSI). This method will use the calculated expected crashes for a location and subtract the Predicted crashes for that same location to produce an excess (or PSI) value. PennDOT's HSM Analysis Tool was created so the Pennsylvania regionalized SPFs can be utilized for location specific safety analysis.

Statewide (\$35M set aside):

Pennsylvania sets aside \$35 million per FFY of HSIP funds to utilize to advance projects statewide that are evaluated and ranked based on Benefit/Cost analysis, HSM analysis, fatal and injury crashes, application of systematic improvements, improvements on local roads and deliverability.

In May 2017, PennDOT Districts and Planning Partners were notified of the solicitation for FFY 2019 HSIP Set Aside Program. A data-driven safety analysis in the form of Benefit/Cost (B/C) analysis or Highway Safety Manual (HSM) analysis was strongly recommended. For the first time, evaluation criteria were weighted allowing each project to be scored and ranked. Evaluation criteria included B/C analysis, HSM analysis, fatal and injury crashes, application of systematic improvements, improvement on local roads, and deliverability. The HSIP Set Aside continues to place an emphasis on project delivery, with 80 of the applications submitted anticipated to let within the timeframe indicated in the solicitation for candidate projects.

Carryover projects previously approved were continued. New projects that meet eligibility requirements, were selected based on evaluation criteria scoring, and demonstrate a significant potential safety return for the cost, within the current available funding. Projects approved for set aside funding will remain on the HSIP SharePoint funding site as candidate applications to be considered as regional or set aside program funds become available. The HSIP set-aside projects will be continually monitored to maximize funding and project delivery. As set aside funding becomes available, additional eligible candidate projects will be advanced to maximize use of HSIP funding statewide.

York MPO

The York MPO FFY 2021-2024 TIP includes road safety improvement projects that are intended to improve the performance of the roadway system relative to the five federal safety performance measures. To ensure planned HSIP projects achieve a significant reduction of traffic fatalities and serious injuries on all public roads, the York MPO did the following for the development of the FFY 2021-2024 TIP:

- Consulted with county and municipal officials
- Reviewed crash statistics, mapping, data driven safety analysis, and prior road safety audits
- Participated in PennDOT Connects outreach meetings
- Participated in advisory committees for safety projects

In addition, the York MPO reviews the before and after crash data of each project programmed with the primary purpose to enhance safety. Every project programmed since 2006 is included in the review.

Based on this process, the following regional York MPO projects were included in the FFY 2021-2024 TIP to help achieve a significant reduction of traffic fatalities and serious injuries on all public roads:

Figure 2

Project	Improvement Focus
US 15 Safety Improvements	Serious Injury/Fatal Crashes
HSIP Line Item	Implementation of safety projects
East Prospect Road Improvements	Reduction of Crashes
US 30/Big Mount Safety Improvements	Reduction of Crashes
Bannister and Adams St Intersection Improvements	Reduction of Crashes

The HSIP Line Item is a set-aside on the 2021 TIP to complete projects that are identified as safety projects during the FFY 2021-2024.

When collaborating to set annual targets PennDOT will provide feedback on how the Pennsylvania as well as individual MPO/RPO regions are doing on progress towards target achievement.

PennDOT will continue to include information on Safety Targets and progress towards meeting targets as part of annual safety submissions to NHTSA and FHWA. As of December 2019, FHWA had determined that Pennsylvania did not meet all their safety targets; more specifically the 2% reduction in Serious Injuries and Fatalities. Four of the five measures need to be met or significantly improved upon.

FHWA will utilize 2014-2018 data as a base line period for assessing significant progress. Since the 2% reduction was not met, the new safety target, as agreed upon on at the December 5, 2019 YAMPO Coordinating Committee Meeting is now a 1% reduction.

Infrastructure (Pavement and Bridge) Performance Management Measures Rule (PM-2)

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. Targets are established biennially for these measures as part of a four-year performance period, the first of which began in 2018. The pavement and bridge performance measures, as adopted by YAMPO, include:

- % of pavements on the Interstate System in *Good* condition;
- % of pavements on the Interstate System in *Poor* condition;
- % of Non-Interstate NHS pavements in *Good* condition;
- % of Non-Interstate NHS pavements in *Poor* condition;
- % of NHS bridge deck area classified as in *Good* condition;
- % of NHS bridge deck area classified as in *Poor* condition.

The Infrastructure Performance Management Measure rule requires PennDOT to report and manage performance of the NHS, regardless of ownership or maintenance responsibility, for the full extent of the Interstate and Non-Interstate NHS, for both pavement and bridges.

Pennsylvania's pavement and bridge targets were established through extensive coordination with a Transportation Asset Management Plan (TAMP) steering committee and workshops with MPOs/RPOs and FHWA's Pennsylvania Division. The targets 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 (LLLC), and achieving national and state transportation goals.

PennDOT, as part of its asset management strategy, means to maintain as many highways and bridges in a state of *Good* repair. It defines the desired state of good repair relative to meeting the FHWA minimum condition thresholds for pavement and bridges: no more than five (5) percent of NHS Interstate lane-miles shall be rated in *Poor* condition (Pavement Figure Above), and no more than ten (10) percent of total NHS bridge deck area shall be rated as *Poor* (Bridge Figure Below).

Figure 3

MAP-21 Pavement Performance Measure								
Business Plan Network	Good				Poor			
	Miles	%	2020 Target	2022 Target	Miles	%	2020 Target	2022 Target
Interstate	41.8	61.14%	N/A	45%	0	0.06%	N/A	1%
NHS, Non-Interstate	43.5	42.46%	40%	27%	0.6	0.54%	2%	3%

Figure 4

MAP-21 Bridge Performance Measure								
Business Plan Network	Good				Poor			
	Count	Count %	Deck Area (Msf) ^[EK3]	Deck Area %	Count	Count %	Deck Area (Msf)	Deck Area %
Interstate	2	5.13%	0.677	61.53%	4	10.26%	0.055	4.97%
NHS, Non-Interstate	8	18.18%	0.084	19.27%	1	2.27%	0.006	1.30%
Total NHS	10	12.05%	0.761	49.55%	5	6.02%	0.06	3.93%

Progress Towards Target Achievement and Reporting

PennDOT continues to implement enterprise asset management for programming and decision-making as outlined in the TAMP. 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:

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

TAMP Objectives 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 targets established in the TAMP.

Figure 5

End of Calendar Year 2018 Status of Bridges (Based on 8' and greater)

Business Plan Network	Total Bridge Count	Total Deck Area (Msf)	Average Bridge DA(sf)	Closed Bridges	Posted Bridges	Poor Count	% Poor by Count	Poor-Deck Area (Msf)	% Poor by Deck Area	Non-Poor Bridges with a "5" Condition Rating
State >8'; Interstate/Ramps	51	0.4317	8464	0	0	4	7.84%	0.0546	12.65%	25
State >8'; NHS (non-Interstate)	65	0.4379	6737	0	0	2	3.08%	0.0066	1.15%	19
State >8'; non-NHS > 2000 ADT	270	0.598	2215	0	0	28	10.37%	0.04	6.68%	80
State >8'; non-NHS < 2000 ADT	269	0.3963	1473	2	11	35	13.01%	0.0376	9.48%	80
Total - State Bridges (>8')	655	1.8638	2846	2	11	69	10.53%	0.1387	7.44%	204
Local>20'	204	0.3589	1759	7	46	53	25.98%	0.1045	29.13%	71

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. At this time, MPO/RPOs have not established separate regional pavement or bridge targets. States are permitted to adjust their 4-year targets at the midterm of the performance period, representing data through 2019 in a report due to FHWA by October 1, 2020. In addition, PennDOT continues to provide feedback on statewide and MPO/RPO-specific progress towards target achievement. The progress helps each region understand the impacts of their past bridge and pavement investments and can guide future planning goals and strategy assessments.

- YAMPO staff works closely with PennDOT Engineering District 8-0 to ensure consistency with Performance Measure 2 targets as established by PennDOT. YAMPO will continue to work closely with District 8-0 on an ongoing basis to ensure planning and project programming is consistent with PennDOT best practices.
- Continue to monitor based on annual reports provided by PennDOT.

- For PM-2, candidate projects needed to address asset management were matched with regional needs based on the priorities established in the YAMPO LRTP. MPO staff worked with District 8-0 staff to address immediate needs and opportunities where they intersected with the LRTP.

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 bridge and pavement conditions for the state interstate and NHS roads:

- Nearly 85% of PennDOT's STIP funding is directed to highway and bridge restoration and reconstruction projects. Many of these projects are focused on our state's interstate and NHS roads.
- Pennsylvania's investment strategy, reflected in the statewide 2021 Twelve Year Program (TYP) and 2021-2024 STIP, is the result of numerous strategic decisions on which projects to advance at what time. These decisions are made by many different entities and must be made consistently across the state.
- The TAMP is a 10 year outlook that includes the financial strategy for various work types and is a driver for the TIP, STIP and LRTP development.
- In support of the STIP development, PennDOT and MPOs/RPOs jointly developed and approved General Procedural Guidance and Transportation Program Financial Guidance documents. The guidance, which is consistent with the TAMP, formalizes the process for MPOs/RPOs and other interested parties as they identify projects, perform a project technical evaluation, and reach consensus on their portion of the program—while meeting asset management targets within the available budget.
- 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—such as worst-first programming—and risk mitigation. The resulting methodology allows data-driven, asset management-based decisions to be made with human input and insight 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, fair, and poor can also be projected and compared to PM-2 targets based on the proposed improvements and built-in deterioration models. When PAMS and BAMS are further implemented and in the hands of planners, then the system outputs can be used to select projects. Draft programs can then be analyzed in relation to the PM-2 measures.

System Performance Measures (PM-3)

Improving system mobility and the efficiency of the transportation system is imperative to the economic health of the region. The PM-3 measures that completes the set of performance measures for State DOTs and MPOs to use as required by MAP-21 and the FAST Act are used for the following:

- To evaluate the system reliability of the Interstate and non-Interstate NHS to help carry out the National Highway Performance Program (NHPP);
- To assess goods movement on the Interstate NHS to implement the National Highway Freight Program (NHFP);

- To measure traffic congestion and on-road mobile sources emissions on the NHS to carry out the Congestion Mitigation and Air Quality (CMAQ) program.

These three measures are divided into categories with corresponding measures including:

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

Like the Safety Performance Measures (PM-1) and Infrastructure Performance Measures (PM-2), MPOs must establish targets by either agreeing to support the state targets or establishing their own quantifiable targets within 180 days after the State DOT establishes or amends their targets. The current PM-3 targets were established using historic trends for each measure in combination with regional mobility goals established in the statewide and regional LRTPs. At this time, limited historical information may hinder the assessment of trends for the traffic congestion and reliability measures. The assessment of trends may also include the evaluation of data within the CMP, Transportation System Management and Operations (TSMP), and CMAQ processes. On August 23, 2018, The YAMPO Board agreed to support the PM-2 and PM-3 targets set forth by the state of Pennsylvania for a period of two years. The targets that have been agreed upon for PM-3 are as follows in Figure 6 and 7.

The System Performance measure targets were developed in coordination with MPOs/RPOs within the state. Due to potential tool enhancements, limited historic information, and the need for additional research to understand the variances and factors influencing each of the performance measures, PennDOT has established conservative targets. In some respects, these may be more appropriately referred to as benchmarks. PennDOT will track the measures over the reporting period to identify trends and to support future target revisions. Note: The Peak Hour Excessive Delay and Non-SOV measures are only calculated for the urbanized areas. For the first four-year period, it is only the urbanized areas with a population over 1 million (which is Pittsburgh and Philadelphia). In the next performance period (beginning 1/1/2022), this will include urbanized areas with a population over 200,000.

Figure 6

<i>Travel Time and Annual Peak Hour Excessive Delay Measures</i>			
<i>(Estimated using RITIS Data Extract from May 8, 2018)</i>			
<i>Measure</i>	<i>Baseline (2017)</i>	<i>2-year Target (2019)</i>	<i>4-Year Target (2021)</i>
<i>Interstate Reliability (Statewide)</i>	<i>89.80%</i>	<i>89.80%</i>	<i>89.80%</i>
<i>Non-Interstate Reliability (Statewide)</i>	<i>87.40%</i>	<i>N/A</i>	<i>87.40%</i>
<i>Truck Reliability Index (Statewide)</i>	<i>1.34</i>	<i>1.34</i>	<i>1.34</i>

Figure 7

<i>PM-3 Target Values for CMAQ Emission Measures</i>			
<i>Measure</i>	<i>MPO</i>	<i>Emissions (kg/day)</i>	
		<i>2-Year Target (2019)</i>	<i>4-Year Target (2021)</i>
<i>PM 2.5 Emissions</i>	<i>Statewide</i>	<i>10.76</i>	<i>20.49</i>
	<i>York</i>	<i>0.06</i>	<i>0.11</i>

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 progress toward the achievement of the statewide system performance targets. At this time, MPO/RPOs have not established separate regional reliability targets. Regional targets are required for the Congestion Mitigation and Air Quality (CMAQ) delay and emissions measures per the applicability requirements of the federal performance measure rule. States are permitted to adjust their 4-year targets at the midterm of the performance period, representing data through 2019 in a report due to FHWA by October 1, 2020. PennDOT is planning to revise the system performance targets based on new data processing methodologies and will coordinate any updates to the performance measures with the MPOs/RPOs.

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 system performance objectives that guide investment decisions. These objectives are measured using multiple performance metrics including the federal systems performance measures.

- Provide multimodal infrastructure and technology advancements to eliminate bottlenecks and improve system efficiency and trip predictability
- Increase access to jobs, labor, and transportation choices in urban, suburban and rural communities
- Support communities through appropriate and equitable transportation modal options and investments
- Improve first and last mile intermodal access and connections

YAMPO TIP:

- YAMPO will continue to work with PennDOT Central Office and Engineering District 8-0 and review progress towards achieving the established Statewide Performance Measure Targets on an ongoing basis. This will ensure a continuing, comprehensive, and coordinated approach towards meeting the Performance Measure Targets.
- Federal and State Guidance for achieving established Performance Measure Targets will be considered and integrated into YAMPO planning program.
- YAMPO will use safety and available performance measure data in evaluating and updating its congestion management process plan.

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 2021-2024 STIP includes over \$289 million of funding dedicated to congestion relief projects. ACTPO TIP (PM-3)
- ACTPO will continue to work with PennDOT Central Office and Engineering District 8-0 and review progress towards achieving the established Statewide Performance Measure Targets on an ongoing basis. This will ensure a continuing, comprehensive, and coordinated approach towards meeting the Performance Measure Targets.
- Federal and State Guidance for achieving established Performance Measure Targets will be considered and integrated into ACTPO's planning programs.
- ACTPO will use safety and available performance measure data in evaluating and updating its congestion management process plan.
- Provide multimodal infrastructure and technology advancements to eliminate bottlenecks and improve system efficiency and trip predictability

- Increase access to jobs, labor, and transportation choices in urban, suburban and rural communities
- Support communities through appropriate and equitable transportation modal options and investments
- Improve first and last mile intermodal access and connections 22
- 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 the STIP on PM-3 performance measures cannot be determined. 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 and in revising future targets and goals.

YAMPO TIP (PM-3)

- YAMPO's current LRTP pre-dates the PM-3 system performance measures. These measures will be integrated into the forthcoming YAMPO Metropolitan Transportation Plan update.
- Support of the Susquehanna Regional Transportation Partnership (SRTP) Commuter Services and Transportation Set Aside (formerly TAP) programs continue to be a YAMPO's funding priority.
- Almost \$6,000,000 has been programmed for CMAQ projects on the FFY2021 YAMPO TIP, while there is over \$10,000,000 dedicated to the CMAQ line item.

Projects Implemented from the 2019 TIP

Below is the list of projects from the 2019-2022 TIP that were implemented during the TIP cycle and will not be carried over to the 2021-2024 TIP.

1. US-15 Resurfacing – York	Estimated Let 3/12/2020
2. US-15 Safety Improvements	Estimated Let 3/12/2020
3. Stewartstown Road Bridge	Construction 2020
4. Winterstown Road Resurfacing	Let 4/11/2019
5. Winterstown Road Resurface	Let 11/7/2019
6. Sherman Street Extended	Estimated Let 1/30/2020
7. Paradise Creek Bridge	Completed
8. S. Queen Street/Rathton Road	Completed except for Utility
9. Trib Doe Run Bridge-C[EK4]	Estimated Let 6/18/2020
10. I-83 Exit 4	In Construction
11. I-83 Lake Redman South	Let 9/13/2018– Active Construction
12. Main Street Improvements TAU	Let 10/10/2019
13. East Prospect Bridge-C	Let 11/7/2019– Construction 2020
14. Yocumtown Road Bridge-C	Let 10/10/2019
15. Old Trail Bridge-C	Let 1/31/2019– Construction 2019
16. Old Trail Road Bridge-C	Let 1/31/2019– Construction 2020
17. Furnace Road Bridge	Let 12/6/ 2018– Construction 2019
18. Woodbine Road Bridge-C	Let 12/6/2018– Construction 2019
19. Lincoln Highway Bridge 2-C	Estimated Let 1/30/2020– Construction 2020
20. Seven Valleys Road Bridge-C	Estimated Let 1/16/2020– Construction 2020
21. Burkholder Road Bridge over Beaver Creek	Let 12/13/2018– Construction 2020
22. Pleasant Grove Road Box Culvert 1 and 2	Let 12/13/2018
23. Snyder Corner Road Bridge– C	Let 11/1/2018– Construction 2019
24. Rippling Run Road Bridge– C	Let 11/1/2018
25. Swamp Road Pipe	Let 12/13/2008– Active Construction
26. George St. Improvements	Let 9/13/2018
27. Valley St. CO#114 Replacement	Let 1/1/2018

GLOSSARY

These abbreviations and acronyms can be found in the Public Narrative.

FEDERAL FUNDING SOURCES:

BOF– Bridge Off-System

CAQ^[EK5]– Congestion Mitigation/Air Quality

HSIP– Highway Safety Improvement Program

NHPP– National Highway Performance Program

STP– Surface Transportation Program

SXF– Special Federal Earmarked Funds

TAP– Transportation Alternatives Set-Aside

NFP– National Highway Freight Program

STATE FUNDING SOURCES:

183– State Bridge Funds for Local Bridges

185– State Bridge Funds for State Bridges

409– Maintenance Funds from Act 89

581– State Highway Funds

LOC– Local Funds

PROJECT PHASES:

P– Preliminary Engineering

F– Final Design

U– Utility

ROW– Right of Way

C– Construction

TSMO Funding Initiative FFY 2021

The Transportation System Management and Operations Funding Initiative awarded the York Area MPO with \$85,747 for FFY 2021 for new devices along US 30 for camera gaps. This federal funding source is a 50% match amount for the total project cost, which is \$171,494.