

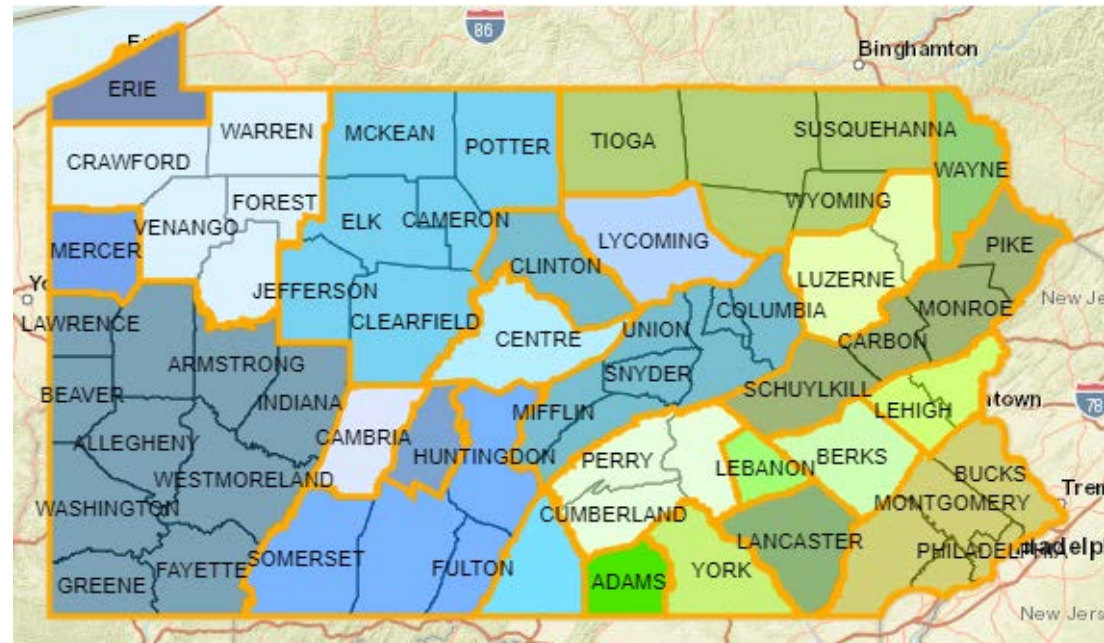
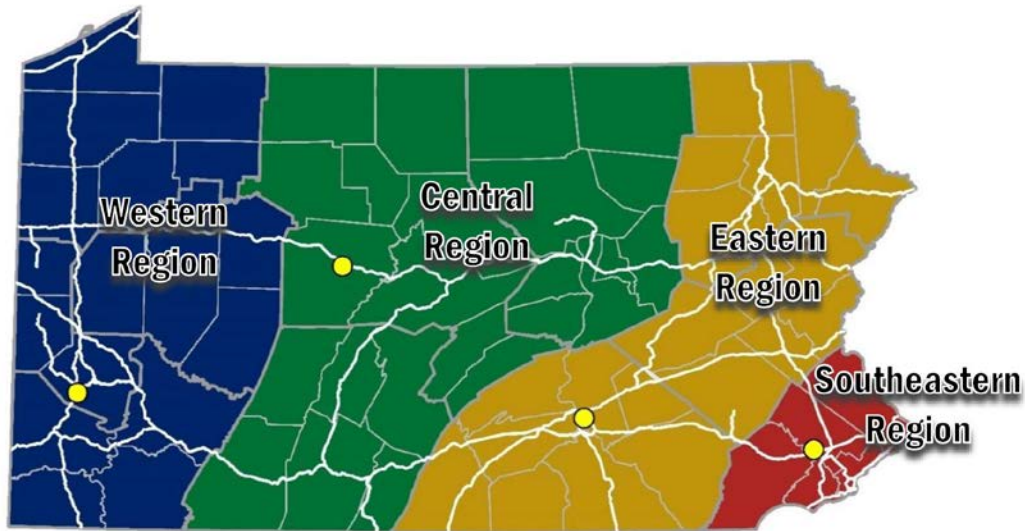
# Integrating TSMO Into PennDOT Planning Processes

**Frank Cavataio**  
**Manager – TSMO Planning & Funding**

**May 14, 2021**



# Integrating TSMO into Planning



**WELL DEFINED**

**INTEGRATED INTO GUIDANCE**

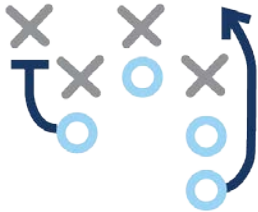
**ACCEPTED & UTILIZED**

## Transportation Systems Management & Operations



### TSMO Purpose

A way to address reliability, mobility, and congestion by using various strategies rather than just trying to build our way out.



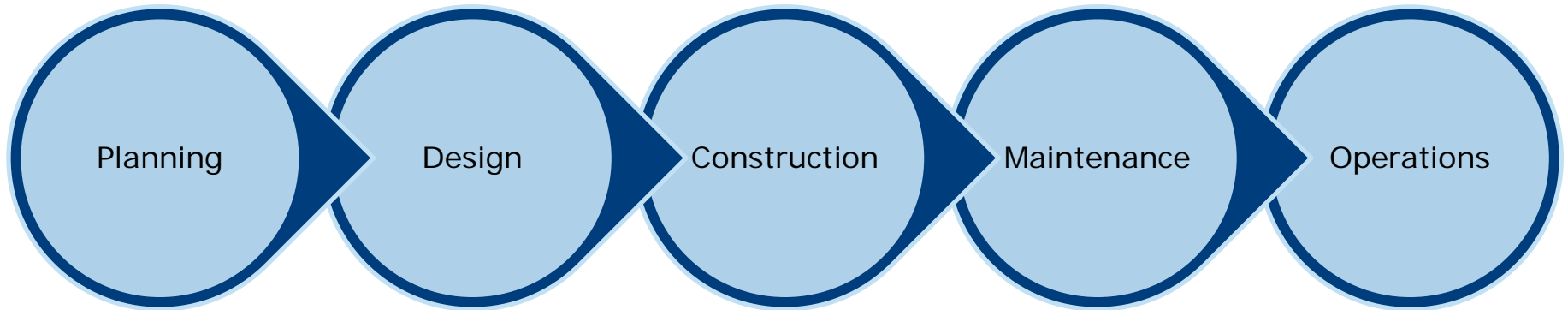
### TSMO Vision

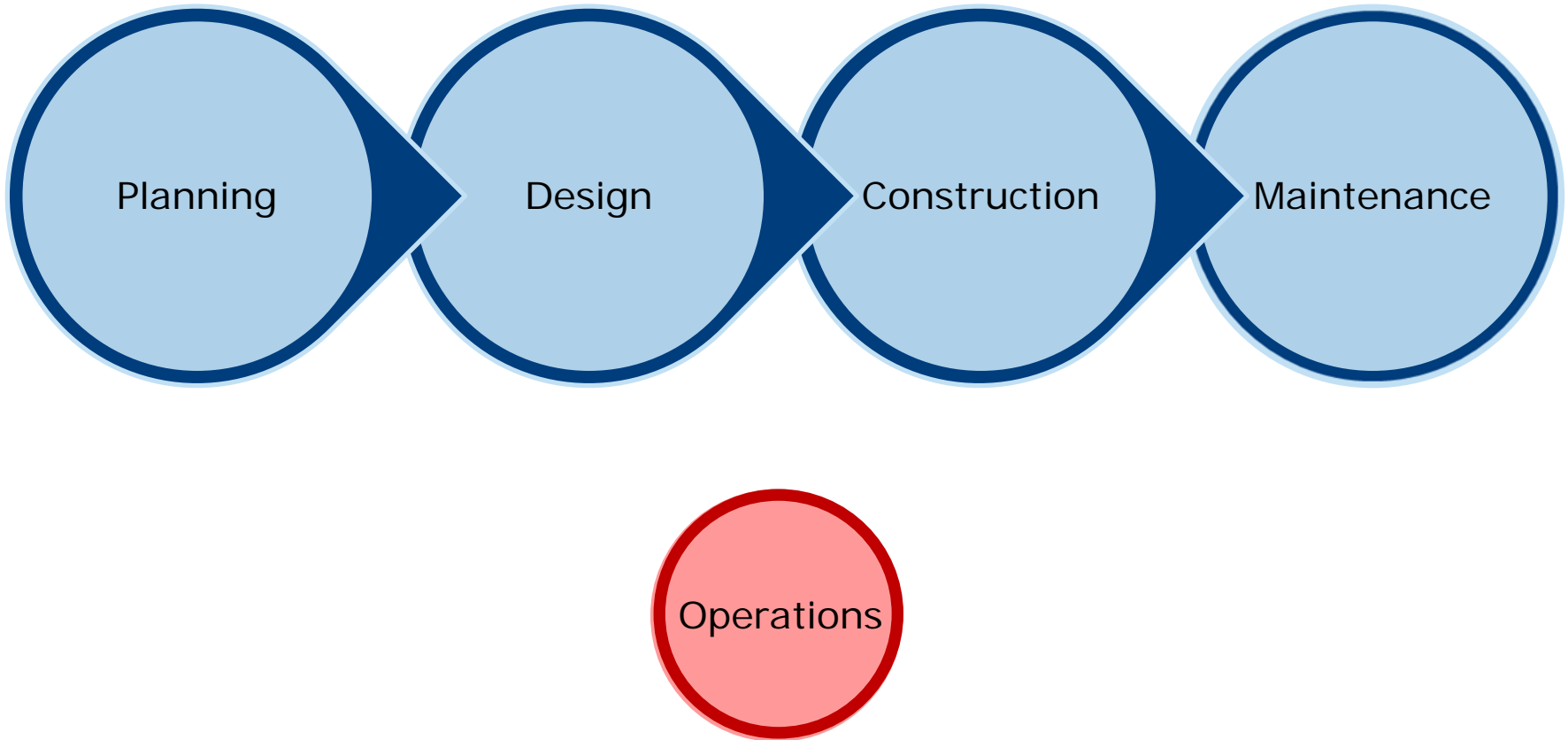
A less congested, more reliable network

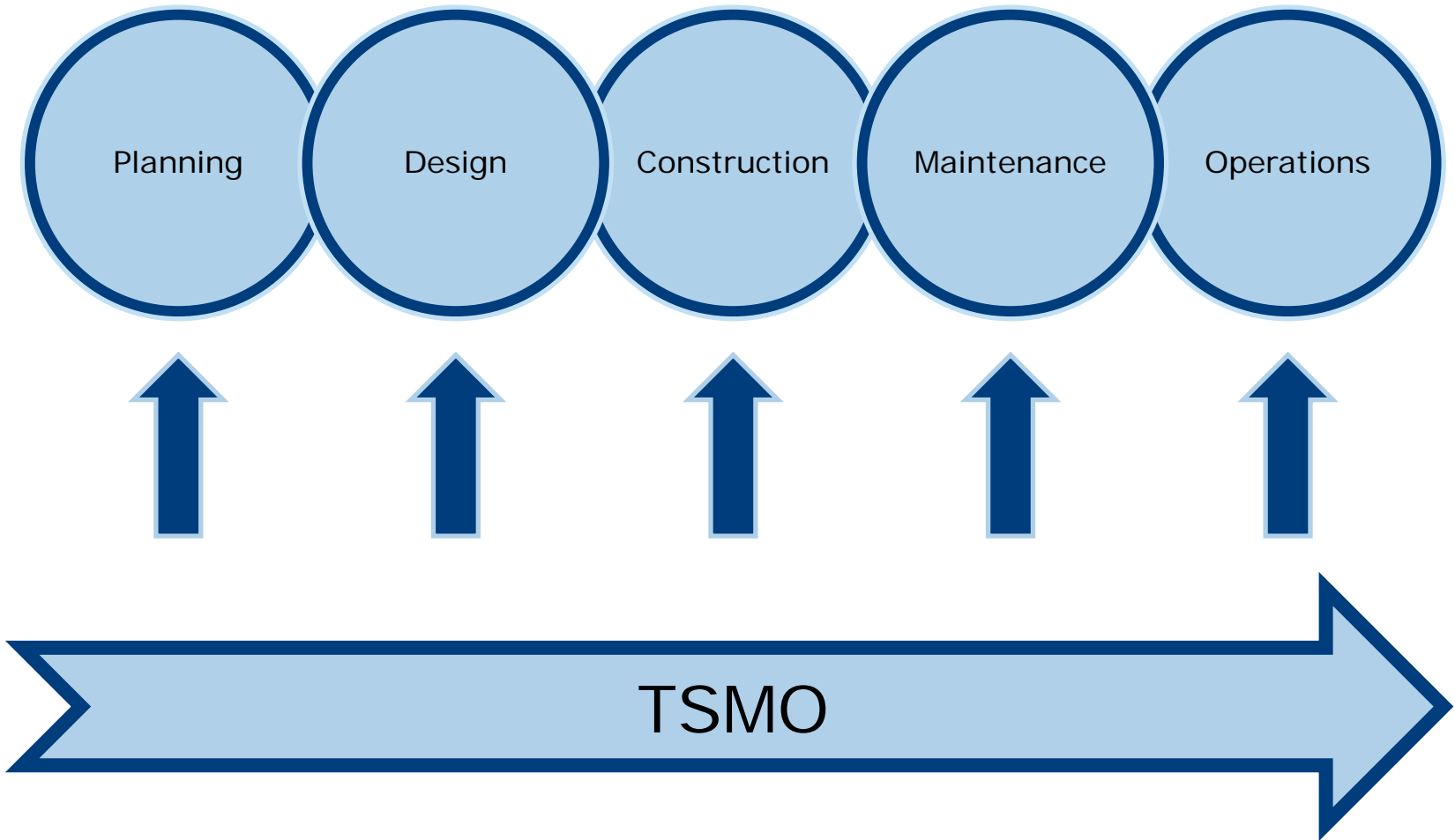


### TSMO Mission

Move people and goods, from Point A to Point B, as efficiently, safely, and reliably as possible.







**Current FFY 2021 STIP Executive Summary**

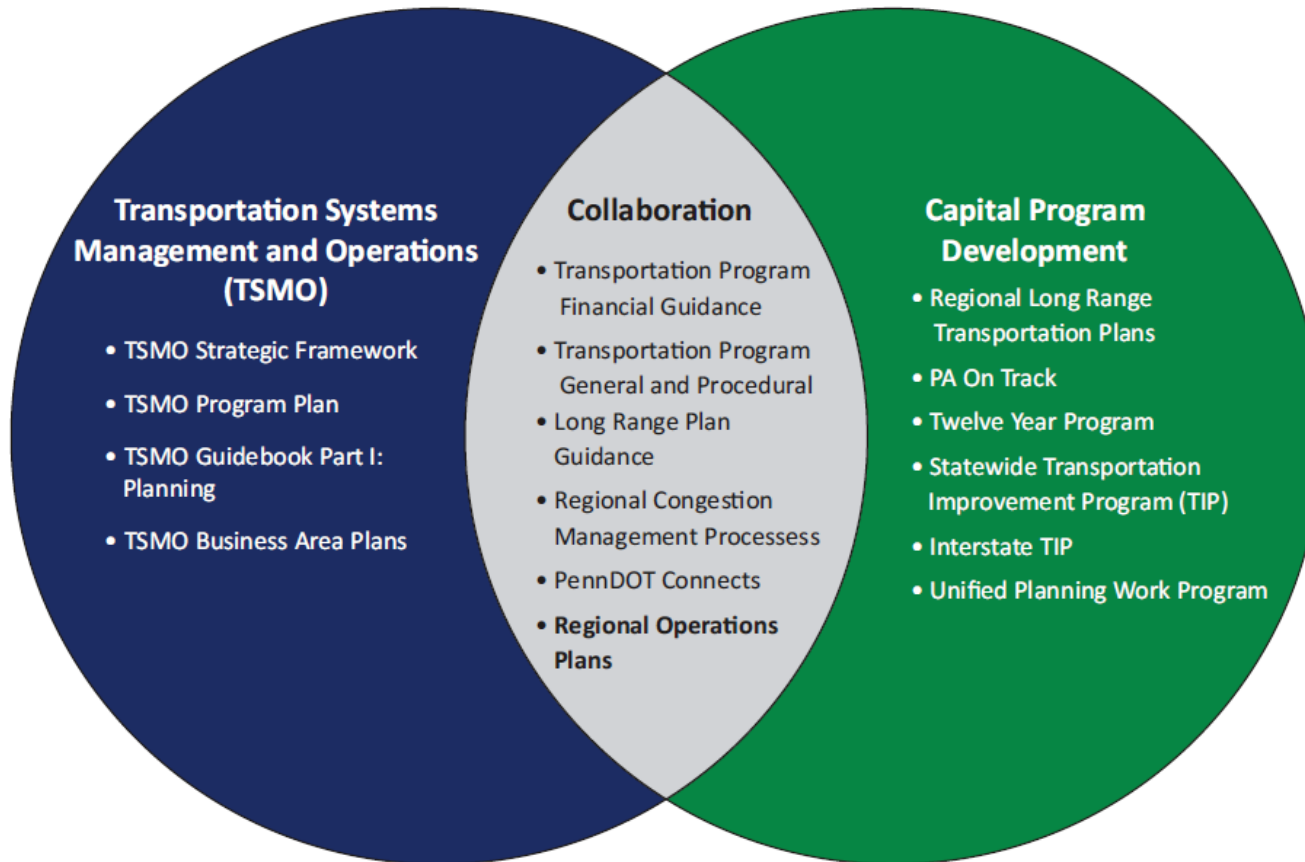
**Current FFY 2021 Financial and General & Procedural Guidance documents**

**TSMO Guidebook Part I: Planning**

**Regional Operations Plans (ROPs)**



## TSMO Relationship with the Planning Process



*“TSMO projects should be consistent with [FHWA operations guidance](#), as well as [Regional Operations Plans \(ROPs\)](#) and [ITS Architectures](#).*

*ROPs play a significant role in regional LRTP and TIP/TYP processes by helping to prioritize projects that incorporate TSMO solutions. “*

# REGIONAL OPERATIONS PLANS (ROPS)

## CENTRAL RTMC ROP 2018

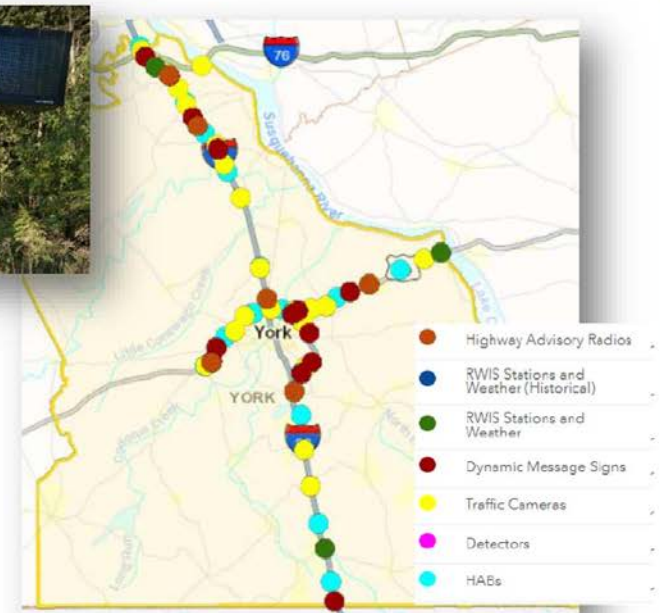
PennDOT District(s)	Planning Partner	Priority Area	Project #	Project Name	Project Location	Planned Improvements	Stakeholders	Timing	Status
3	SEDA-COG	Transportation System Safety	LT-01	I-80 ICM (Exit 232 to 241) + Parallel Corridor Improvements	I-80/US 11/PA-42, Bloomsburg	DMS, Integrated Corridor Management, Traffic Signal Improvements	PennDOT 2-0/3-0; SEDA-COG MPO	Long-Term	Planned
2,3,9	various	Communications Network	LT-02	I-80/I-99 Fiber Backbone	various	Fiber Backbone	PennDOT 2-0/3-0/9-0; Centre MPO; North Central RPO; SEDA-COG MPO; Altoona MPO; Southern Alleghenies RPO	Long-Term	Planned
2	North Central	Transportation System Safety	LT-03	I-80 ICM (Exit 97 to 101) + Parallel Corridor Improvements	I-80/US 219/PA-255, DuBois	DMS, Integrated Corridor Management, Traffic Signal Improvements	PennDOT 2-0; North Central RPO	Long-Term	In Design
3	Williamsport	Transportation System Safety	LT-04	I-180 Interchange Improvements	I-180, Williamsport	Queue Detection, Traffic Signal Improvements	PennDOT 3-0; Williamsport MPO	Long-Term	Planned
2	Centre	Transportation System Safety	LT-05	I-99/US 322 ICM (Atherton Street)	I-99/US 322/SR 3014, State College	Traffic Signal Improvements, CCTV, DMS, Integrated Corridor Management	PennDOT 2-0; Centre MPO	Long-Term	In Design
2	North Central	Transportation System Safety	LT-06	I-80 ICM (Exit 111 to 123)	I-80/PA-153/US 322/PA-879/PA-970	Integrated Corridor Management, DMS	PennDOT 2-0; North Central RPO	Long-Term	Planned
2	SEDA-COG	Transportation System Safety	LT-07	I-80 ICM (Exit 173 to 185)	I-80/PA-64/PA-477	Integrated Corridor Management	PennDOT 2-0; SEDA-COG MPO	Long-Term	Planned

## York Area MPO

### *Intelligent Transportation System (ITS)*

- 28 Traffic Cameras
- 16 Highway Advisory Beacons (HABS)
- 6 Highway Advisory Radios
- 3 Roadway Weather Information System (RWIS) Sensors
- 15 Dynamic Message Signs

At the Feb 25, 2021 YAMPO Coordinating Committee Meeting, the MPO approved a list of new ITS infrastructure in York County including closed-circuit traffic cameras, digital messaging signs, and signal light controllers. The new intelligent infrastructure increases reliability and mobility of existing infrastructure without adding capacity. The improvements also help with incident coordination/emergency responders, congestion monitoring, and distributing information to the traveling public. The newly approved infrastructure includes: 2 DMS, 17 CCTVs, and 10 signal controllers, including 1 DMS & 6 CCTVs on US-15, 1 DMS & 11 CCTVs on I-83, and 10 signal controllers on US-30.



## Appropriation 576

Dedicated \$16M annual budget for TSMO O&M costs

## Antiquated Device Replacement Program

\$1M State Funds annually

\$1M Federal Funds annually

## TSMO Line item for Interstate TIP

\$1M annually increasing to \$4M

## TSMO Funding Initiative

\$10M 2-year program

Match funds 50/50 for approved TSMO projects

**Realigned TSMO Funding Initiative application process to coincide with TIP update**

**Met with all MPO/RPO as part of ROP to discuss the need for TSMO**

**Established recurring meetings with Central Office Center for Program Development**

- **INFORMATION**
- [PennDOT TSMO Overview](#)
- [PennDOT TSMO Program Plan](#)
- [PennDOT TSMO Strategic Framework](#)
- [PUB 851 - TSMO Guidebook Part 1: Planning](#)

## Questions?

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BOMO

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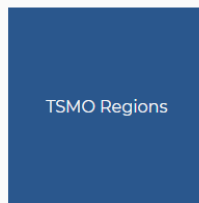
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[www.pa.gov](http://www.pa.gov)

[DOT](#) > [Projects & Programs](#) > Transportation Systems Management & Operations (TSMO)

## Transportation Systems Management & Operations (TSMO)

Transportation System Management and Operations (TSMO) programs are defined by the Federal Highway Administration (FHWA) as "a set of integrated strategies to optimize the performance of operations on existing infrastructure through implementation of multimodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of a transportation system." In simplest terms, TSMO is a way to address reliability, mobility, and congestion by utilizing strategies rather than only building out of congestion.



### Performance Report

[Current Edition - January 2020](#) (PDF)

[Third Edition - March 2019](#) (PDF)

[Second Edition - July 2018](#) (PDF)

[First Edition - February 2018](#) (PDF)

### Documents

[TSMO Strategic Framework](#) (PDF)

[TSMO Program Plan](#) (PDF)

[PUB 851 - TSMO Guidebook Part I: Planning](#) (PDF)

### Resources

[FHWA TSMO Resources](#)

[PennDOT One Map](#)

[Traffic Information Repository \(TIRe\)](#)

[Developer Resources \(Available Data Feeds\)](#)

## More info on PennDOT's TSMO and ROP efforts...

<https://www.penndot.gov/ProjectAndPrograms/operations>