Pennsylvania

Transit Asset Management Group Plan

Fiscal Year 2018-19 through 2022-23

Sponsored by:

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DEPARTMENT OF TRANSPORTATION

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Table of Contents

Introduction

Transit Asset Management (TAM) is a systematic process that enables public transportation agencies to reach and maintain assets in a State-of-Good-Repair (SGR). TAM accounts for the full life-cycle of an asset used for public transportation service, from procurement through operations and maintenance to final disposition. Originally authorized by the Moving Ahead for Progress in the 21st Century Act (MAP-21) and furthered by the Fixing America's Surface Transportation Act (FAST ACT), the Federal Transit Administration (FTA) developed the Transit Asset Management (TAM) model to:

- Monitor and manage public transportation assets
- Improve safety
- Increase reliability and performance
- Establish asset performance measures

In July 2016, FTA issued a final rule requiring transit agencies to maintain and document minimum TAM standards, policies, and procedures. 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 based on size and mode:

Tier I
- Operates Rail Fixed Guideway (§5337) **OR**
- Operates over 100 vehicles across all fixed route modes **OR**
- Operates over 100 vehicles in one non-fixed route mode

Tier II
- Urban and Rural Public Transportation (§5307, §5310, and §5311 eligible) **OR**
- Operates up to and including 100 vehicles across all fixed route modes **OR**
- Operates up to and including 100 vehicles in one non-fixed route mode

In Pennsylvania, the Pennsylvania Department of Transportation (PennDOT) is responsible for managing all public transportation programs for the Commonwealth. Through this responsibility, PennDOT manages an annual public transportation program of $1.5 billion in state funds and more than $30 million in direct federal funds. Pennsylvania is committed to ensuring that public transportation is safe, reliable, accessible, and affordable; and supports strong asset management as a key component to achieving these goals.

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. A listing of the agencies and their current accountable executive are identified on the following page.

# Pennsylvania Transit Asset Management (TAM) Group Plan Participants

Urban and Rural Fixed Route Agencies	Accountable Executive
Altoona Metro Transit (Amtran)	Mandy Murphy
Area Transportation Authority of NC PA (ATA)	Coletta Corioso
Beaver County Transit Authority (BCTA)	Kathy Clark
Borough of Mt. Carmel (LATS)	Victor Girardi
Borough of Pottstown (PART)	Kourtney High
Butler Transit Authority (BTA)	Tiffany Fosnaught
County of Lackawanna Transit Authority (COLTS)	Robert Fiume
County of Lebanon Transit Authority (LT)	Terry Smith
Crawford Area Transit Authority (CATA)	Tim Geibel
Cumberland-Dauphin-Harrisburg Transit Authority (CAT)	Eric Maguire
Endless Mountains Transportation Authority (BEST)	Nicole Farr
Erie Metropolitan Transit Authority (EMTA)	Jeremy Peterson
Fayette County (FACT)	Lori Groover-Smith
Hazleton Public Transit (HPT)	Ralph Sharp
Indiana County Transit Authority (IndiGO)	John Kanyan
Lehigh and Northampton Transportation Authority (LANTA)	Brendan Cotter
Luzerne County Transportation Authority (LCTA)	Norm Gavlick
Mercer County Regional Council of Governments (SVSS)	Kim DiCintio
Mid-County Transit Authority (TACT)	Patti Lynn Johnston
Mid-Mon Valley Transit Authority (MMVTA)	Nancy Basile
Monroe County Transit Authority (MCTA)	Walter Quadarella
New Castle Area Transit Authority (NCATA)	John Misiuda
Schuylkill County (STS)	Dave Bekisz
Transit Authority of Warren County (TAWC)	Wendy Hollabaugh
Williamsport Bureau of Transit (RVT)	Nicole Farr
Washington County Transportation Authority (WCTA)	Sheila Gombita
Westmoreland County Transit Authority (WCTA)	Alan Blahovec
Shared-Ride only Agencies (5310 eligible)	
Allied Coordinated Transportation Services, Inc.	Vanessa Cousins
Blair Senior Services	Dennis Wisor
Bucks County Transport	Jim Raymond
Butler County	Janine Kennedy
Call A Ride Services	Cindy Sunderland
Carbon County	Brendan Cotter
Centre County	David Lomison
Chester County	Christopher Burns
Clarion County	Wayne Brosius
Community Transit of Delaware County	Marj Babiak
Forest County	Brenda McCanna
Greene County	Rick Blaker
Huntingdon-Bedford-Fulton AAA	Mike Whysong
Pike County	Robert Ruiz
Somerset County	David Mrozowski
STEP, Inc.	Daniel Merk
Suburban Transit Network	Maria Church
Susquehanna County	Ronalyn Lewis
Wayne County	Carl Albright

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Statewide Asset Management System

PennDOT has developed software to assist in the inventory and monitoring of assets, including condition assessments and schedules of expected expenditures. This software, the Pennsylvania Capital Planning Tool (CPT), was created under a cooperative agreement between PennDOT and the Virginia Division of Rail and Public Transit (DRPT) and was funded through a FTA state-of-good-repair award.

Since 2016, PennDOT has used the Capital Planning Tool (CPT) to:

- Inventory all public transportation system assets;

- Collect relevant data on those assets;

- Predict asset replacement schedules based on Estimated Service Life (ESL) and asset condition;

- Create a four-year capital program for each public transportation system to submit to their regional planning organization for review and approval;

- Create an annual capital program for each public transportation system which becomes an agency's individual capital application in PennDOT's electronic granting system (dotGrants);

- Create an annual statewide public transportation capital program;

- Compare statewide capital needs to available funding; and

- Prioritize statewide capital program decisions based on meeting state-of-good-repair (SGR) targets within available funding.
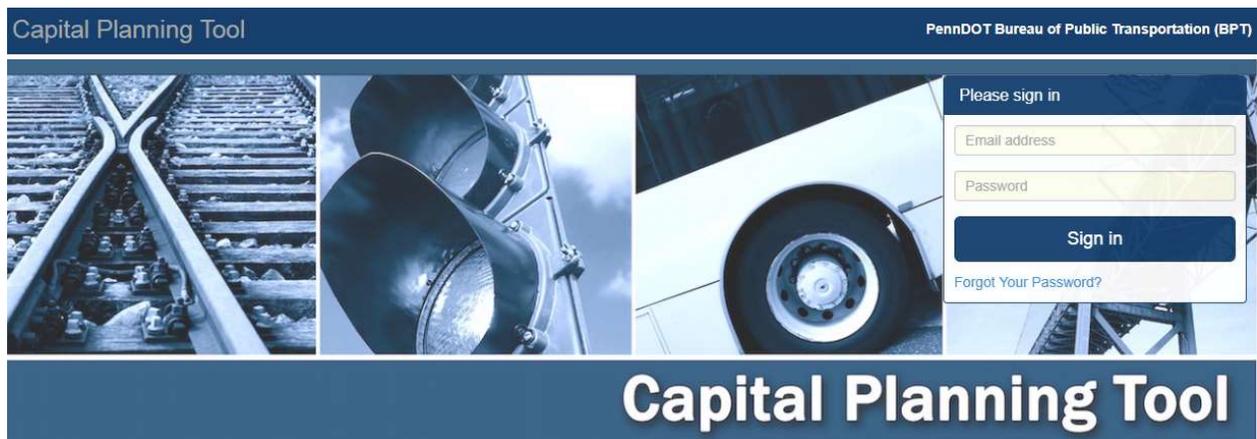
Asset Inventory and Condition Assessment

An accurate and comprehensive inventory of assets and a consistent condition assessment of these assets is the most critical element of the TAM process. The following sections outline the requirements for achieving this.

Asset Inventory

All Pennsylvania public transportation systems must maintain/update asset data in the CPT system. CPT stores crucial information about every asset type and maintains a complete history of the asset as it ages. Transit agencies record changes in condition, usage, value, depreciation, etc. for the following asset categories:

- **Rolling Stock (Revenue Vehicles):** Transit agency-owned or leased Fixed Route & Paratransit vehicles, used to provide public transportation.
- **Equipment:** Tangible support property having a useful life of at least one year, including all non-revenue/support vehicles.
- **Facilities:** A building or structure that is used in the provision of public transportation, including administrative and maintenance, and passenger and parking facilities.

The asset inventory forms the basis of the group TAM plan and a current, complete inventory of all assets over $50,000 in value is identified in Appendix A. It is important to note that this list represents a snapshot in time, and the CPT will be continually updated as assets are added, retired, or as facts change. For the most current asset inventory, the CPT should be used.

Condition Assessment

Each transit agency must update the age, mileage, and condition of their Rolling Stock and Equipment assets at least annually. Additionally, transit agencies must document the condition of each transit-related facility in the CPT. This annual update requirement exceeds the basic FTA requirement but is necessary for PennDOT to properly plan long-term capital funding. Each asset is rated as a whole integer using FTA's Transit Economic Requirements Model (TERM) scale:

Excellent	5.0	Brand new asset; no visible defects.
Good	4.0	Asset showing minimal signs of wear; some (slightly) defective or deteriorated component(s).
Adequate	3.0	Asset has reached its mid-life; some moderately defective or deteriorated component(s).
Marginal	2.0	Asset reaching or just past the end of its useful life; increasing number of defective or deteriorated component(s) and increasing maintenance needs.
Poor	1.0	Asset is past its useful life and needs immediate repair or replacement; may have critically damaged components(s).

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Agencies may reference the FTA Facility Condition Assessment Guidebook[1] for detailed assessment standards. Sample checklists are included as Appendix B.

Asset Inventory and Condition Verification

PennDOT staff, in coordination with transit agency management, will conduct periodic reviews of the CPT inventory and verify condition assessments though the following activities:

- **Transit Agency Performance Reviews**: A state-required comprehensive review of agency management and operations on five-year cycle.

- **Compliance Reviews:** PennDOT conducts regular compliance reviews of public transportation grantees, including those that receive §5310, §5311, and PennDOT Shared-Ride Lottery funding. These reviews are conducted on a periodic basis that is generally every three years.

- **Capital Program Field Reviews:** PennDOT Capital Division regularly completes capital program field reviews with grantees, where ongoing or recently closed projects are reviewed and capital plans are discussed.

PennDOT's goal is to actively engage with each individual transit agency on an annual basis, and complete an in-depth, on-site review at least once every three (3) years to confirm the accuracy of CPT data.

Estimated Service Life (ESL) Standards

The estimated life cycle or the acceptable period of use in service for a capital asset is determined by PennDOT Estimated Service Life (ESL) standards. An asset exceeding its ESL is a strong indicator that it may not be in a state-of-good-repair.

For the purpose of the PennDOT TAM group plan, PennDOT has elected to not use FTA's defined Useful Life Benchmarks (ULB) and instead use the state recognized ESL Standards. The current ESL standards are identified in Appendix C and available on the PennDOT website.[2]

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[1]https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Facility%20Performance%20Assessment%20Guidebook.pdf

[2] https://www.penndot.gov/Doing-Business/Transit/Procurement/Documents/BPT%20Estimated%20Service%20Life%20for%20Capital%20Items%202017.pdf

Asset Inventory and Condition Summary

Rolling Stock (Revenue Vehicles)					
Asset Class	Number	Average Mileage	Average Age	Number met or exceeding ESL	% met or exceeding ESL
AO-Automobile	22	54,680	5	4	18%
BR-Over-the-road Bus	53	218,177	7	6	11%
BU-Bus	877	230,927	7	197	22%
CU-Cutaway	1213	118,409	4	502	41%
VN-Van	295	123,004	6	185	63%
SV - Sports Utility Vehicle	7	48,171	1	1	14%
Grand Total	**2,467**	**113,338**	**4**	**895**	**24%**

Equipment (Non-Revenue Vehicles)					
Asset Class	Number	Average Mileage	Average Age	Number met or exceeding ESL	% met or exceeding ESL
Automobiles	136	62,777	8	55	40%
Trucks and other Rubber Tire Vehicles	54	44,658	26	5	48%
Grand Total	**190**	**58,064**	**8**	**60**	**32%**

Facilities				
Asset Class	Number	Average Condition on TERM Scale	Number below 3.0 on TERM Scale	% below 3.0 on TERM Scale
Administrative / Maintenance Facilities	41	3	14	34%
Passenger / Parking Facilities	148	3	60	41%
Grand Total	**189**	**3**	**74**	**39%**

Annual Performance Targets and Measures

PennDOT will annually update performance targets based on two primary elements:

- Prior year's performance
- Anticipated/obligated funding levels

As discussed in the investment prioritization section, 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.

Performance Measure	Asset Class	FY 2019-20 Target	Current Performance	FY 2020-21 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	38%	16%	16%
	BR-Over-the-road Bus	12%	12%	12%
	BU-Bus	28%	29%	29%
	CU-Cutaway	39%	42%	42%
	VN-Van	63%	64%	64%
	SV - Sports Utility Vehicle	33%	17%	17%
Equipment (Non-Revenue Vehicles)				
Age - % of non-revenue/service vehicles within a particular asset class that have met or exceeded their ESL	Automobiles	45%	46%	46%
	Trucks and other Rubber Tire Vehicles	50%	50%	50%
Facilities				
Condition - % of facilities with a condition rating below 3.0 on the FTA TERM scale	Administrative / Maintenance Facilities	39%	30%	30%
	Passenger / Parking Facilities	66%	83%	83%

Decision Support Tools

The PennDOT BPT, in coordination with the PennDOT Planning and Program Center, the Pennsylvania Public Transportation Association through PennTRAIN (PA Rural Technical Assistance Program), and local transit agencies will work to provide and regularly enhance decision support tools that aid in the implementation of the TAM Plan. There are several primary decision support tools currently in place that are foundational for the execution of TAM. They are:

- PennDOT Capital Planning Tool (CPT) – As documented above, the CPT allows PennDOT and transit agencies to view current inventory, assess current and future needs, and plan for capital replacement and investment based on current and forecasted funding. The CPT includes the ability to develop annual capital plans that, beginning with State Fiscal Year 2018-19, will import directly into DotGrants, PennDOT's online grants management system.

- Estimated Service Life (ESL) Standards – PennDOT has created ESL standards for most transit assets. The current ESL standards are identified in Appendix C.

- Agency Maintenance Plans – Agencies are required to have maintenance plans in place prior to receiving funding from PennDOT. Maintenance plans are reviewed as a requirement in the §5310 application, reviewed during §5311 compliance reviews, and are reviewed and discussed during the Transit Agency Performance reviews for all fixed route transit agencies.

- Capital Division Support – The PennDOT BPT Capital Division is charged with overseeing state and federal grants and guiding grantees and subrecipients through the capital project process, from project development through design or specifications development, construction or procurement, and project close-out.

In addition to the decision support tools identified above, PennDOT is in the process of implementing a statewide Fixed Route Intelligent Transportation Systems (FRITS) program. FRITS focuses on modernizing transit technology and creating a standard platform throughout the Commonwealth. One key piece of FRITS is real-time vehicle health monitoring, which will allow agencies to identify problems before they occur on vehicles and prolong vehicle life, while also allowing agencies to better prioritize capital needs.

Investment Prioritization

Using established decision support tools, investment prioritization will occur 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. A more detailed process is identified below according to each organizations roles and responsibility.

Planning Partner Coordination

Coordination between PennDOT, transit agencies, and the local planning partner—Metropolitan Planning Organization (MPO) or Rural Planning Organization (RPO)— is a vital component of TAM. Furthermore, the final rule on metropolitan and statewide planning, published in the Federal Register on May 27, 2016, requires MPOs to practice Performance Based Planning and Programming (PBPP).

As documented in a "Dear Colleague" letter from FTA Region III dated August 17, 2018, "As part of the implementation of the PBPP requirements, States, MPOs, and providers of public transportation must jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, and the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO. These jointly written provisions can be documented either as part of the metropolitan planning agreements required under 23 CFR 450.314 or documented in some other means outside of the metropolitan planning agreements as determined cooperatively by the MPOs, States, and providers of public transportation."

The Pennsylvania TAM Group Plan fulfills this requirement and encourages communication between transit agencies and their respective MPOs and RPOs. Using updated CPT data, PennDOT will provide annual reports on individual agency performance against established statewide targets to transit agencies for help in capital planning and in fulfilling the PBPP requirement. To do this, the following process will take place:

- PennDOT will provide 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 will review content for accuracy and confirm with PennDOT that information related to transportation asset performance has been received and is accurate.

- Transit agencies will 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 will be established no later than September 15 of each year and communicated to transit agencies covered under the group plan.

- Transit agencies will continue regular coordination regarding the local Transportation Improvement Plan (TIP) and other planning initiatives of the local planning partner.

To formalize this process, a separate acknowledgement form has been developed for each transit agency, a template for which is included in Appendix D.

Recordkeeping and Reporting

Maintaining accurate records of inventory and condition rating and reporting this information along with performance each year is part of the FTA TAM Rule. Accurate recordkeeping is critical to the success of TAM and the CPT.

Transit agencies shall update all assets in the CPT annually prior to December 31st.

PennDOT shall provide the following to National Transit Database (NTD) by the last business day of October of each calendar year per NTD requirements:

- Narrative description of any change in the condition of PennDOT's transit system or operations from the previous year

- Description of the progress made during the reporting year to meet the performance targets set in the previous reporting year.

- Asset inventory data for 5310 and 5311 recipients

- Asset performance data for 5310 and 5311 recipients

All tier II agencies that receive Section 5307 funding will report inventory and performance data directly to the NTD, including both full and limited reporting agencies.

Appendix A: Full Capital Asset Inventory

Appendix B: Sample Facility Condition Assessment Checklists

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Appendix C: PennDOT ESL Standards

Appendix D: Sample Performance Based Planning Approach Acknowledgement Form