# TRANSIT ASSET MANAGEMENT ROUNDTABLE CAMBRIDGE, MA - AUGUST 29, 2017





# INVESTMENT PRIORITIZATION

Heather Byers Data Coordinator



### SUBRECIPIENTS IN GROUP TAM PLAN

# o FTA Section 5311- Rural Transit Systems

# FTA Section 5310- Seniors and Individuals with Disabilities



# 5311 (RURAL)

# o 34 systems

- o \$25 million dollar program
  - o \$3 million distributed among capital project





# o 4 Year Plan

- o Updated yearly
- Includes all capital projects
- Based off statistical analysis
  - Example Once vehicles meet disposition guidelines they are eligible for replacement.

#### **Rolling Stock Disposition Guidelines**

Vehicle	5 years & 120,000 miles	6 years & 150,000 miles	150,000 miles	200,000 miles
Modified Mini Vans (MMV)	Х		Х	
Dedicated Access Vehicle (MV- 1)	Х		Х	
Accessible Van (AV)	Х		Х	
Light Transit Vehicle-Narrow Body (LTN)	Х		х	
Light Transit Vehicle-Low Floor (LTL)		х		х
Light Transit Vehicle (LTV)		Х		Х



# 5311 CAPITAL PROJECT PRIORITIZATION

- 1. Replacement Vehicles
- 2. Operations Equipment
- 3. Safety & Security
- 4. Expansion Vehicles and Renovations
- 5. Facility/Construction Projects





# 5310 (SENIORS AND INDIVIDUALS WITH DISABILITIES)

- o 200 agencies
  - o 725 revenue vehicles
- \$3.5 million dollar
   program
  - o Discretionary grant





# 5310 CAPITAL PROJECT PRIORITIZATION

- 1. Replacement Vehicles
- 2. Expansion Vehicles
- 3. Mobility Management
- 4. Capitalized Maintenance\*
- 5. Operating\*
- 6. Equipment





Use TAM Performance Measures to select projects that will improve the State of Good Repair

### Utilize TAM performance data to verify system needs

Improve investment decision strategy



### QUESTIONS









#### **Transit Asset Management Roundtable**

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### MASSACHUSETTS BAY TRANSPORTATION AUTHORITY



Large - 5th largest transit system, based on ridership

- Mature oldest subway system (opened in 1897)
- Multimodal 4 rapid transit
   lines, 182 bus routes, 5 BRT lines,
   14 commuter rail lines, 3 ferry
   routes, paratransit
- Widespread -175 communities served

Important to Region - daily ridership of 1.3 million trips; 55% of work trips to Boston are made on the MBTA



- In 1997, aware of an imbalance caused by expansion activity, the MBTA commissioned a study to determine the condition of its assets and to develop an SGR database that could help to:
  - Determine the condition of its assets
  - Define in monetary terms the SGR backlog
  - Estimate the funding necessary to return the system to a state of good repair
  - Articulate the case for additional funding on SGR
  - Help in the capital investment selection process
- The study and database implementation took 2 years to complete
- The SGR Database and its output were first used in 2000, resulting in the following:
  - Within 5 years funding for SGR projects increased from about 50% to almost 80%
  - Today, expansion projects are funded mainly with State dollars



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### TAM INTEGRATION OF MBTA SYSTEMS

#### Asset Management Plan (AMP)

The AMP documents how all of the MBTA's various TAM systems/processes (described below) work together to establish a framework by which decisions are made to acquire, maintain, renew, replace and dispose of transit assets





The MassDOT/MBTA Capital Investment Plan (CIP) represents a sustained shift in the process of capital budgeting at MassDOT and the MBTA.

This CIP is informed by a strategic vision, influenced by public and stakeholder input sought at the beginning of the process; built around funding programs; and projects in it were selected based on an objective and comparative evaluation.





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### **PRIORITIES**



#### Maintain and improve the overall condition and reliability of the transportation system

- Necessary routine and capital maintenance
- State of Good Repair projects designed primarily to bring asset condition up to an acceptable level
- Asset management and system preservation projects



#### Modernization

Modernize the transportation system to make it safer and more accessible and to accommodate growth

- Compliance with federal mandates or other statutory requirements for safety and/or accessibility improvements
- Projects that go beyond State of Good Repair and substantially modernize existing assets
- Projects that provide expanded capacity to accommodate current or anticipated demand on existing transportation systems

#### Expansion 3

Expand diverse transportation options for communities throughout the Commonwealth

- Projects that expand highway, transit and rail networks and/or services
- Projects that expand bicycle and pedestrian networks to provide more transportation options and address health and sustainability objectives



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System Preservation	<ul> <li>Projects should contribute to a state of good repair on the transportation system.</li> </ul>	
Mobility	Projects should provide modal options efficiently and effectively.	
Cost Effectiveness	<ul> <li>Projects should result in benefits commensurate with costs and should be aimed at maximizing the return on the public's investment.</li> </ul>	
Economic Impact	<ul> <li>Projects should support strategic economic growth in the Commonwealth.</li> </ul>	
Safety	<ul> <li>Projects should contribute to the safety and security of people and goods in transit.</li> </ul>	
Social Equity & Fairness	<ul> <li>Projects should equitably distribute both benefits and burdens of investments among all communities.</li> </ul>	
Environmental & Health Effects	<ul> <li>Projects should maximize the potential positive health and environmental aspects of the transportation system.</li> </ul>	
Policy Support	<ul> <li>Projects should get credit if they support local or regional policies or plans; or state policies not addressed through the other criteria.</li> </ul>	



### SELECTION CRITERIA WEIGHTS

Evaluation criteria	Description	Highway	Rail	Transit	Aeronautics	IT/RMV
System preservation	Projects should contribute to a state of good repair on the transportation system	15	10	15	20	
Mobility	Projects should provide modal options efficiently and effectively	20	20	25	15	
Cost effectiveness	Projects should result in benefits commensurate with costs and should be aimed at maximizing the return on the public's investment	10	10	10	10	Employ IT criteria that focuses on
Economic impact	Projects should support strategic economic growth in the Commonwealth	10	20	15	10	value and operations
Safety	Projects should contribute to the safety and security of people and goods in transit	15	20	10	25	impact, but also takes into account ability to support these goals
Social equity & fairness	Projects should equitably distribute both benefits and burdens of investments among all communities	10	10	10	5	
Environmental and health impacts	Projects should maximize the potential positive health and environmental aspects of the transportation system	10	10	10	10	<b>J</b>
Policy support	Projects should get credit if they support local or regional policies or plans; or state policies not addressed through other criteria	10	5	5	5	





Victor Rivas Deputy Director of Capital Programs Reporting, Metrics & Strategic Initiatives

MBTA | Capital Program Oversight

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### SEPTA'S ASSET MANAGEMENT PROGRAM

Laura J. Zale August 21, 2017





- Service area includes Southeastern PA, NJ, and DE
- Multimodal:
  - o Heavy Rail
  - o Commuter Rail
  - o Light Rail
  - o Bus
  - Trackless Trolley
  - o Paratransit



- Created by the consolidation of bankrupt transit providers between 1964 and 1983.
- Utilizing infrastructure maintained and owned by Amtrak, freight, and the City





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![](_page_22_Figure_0.jpeg)

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#### FIVE YEAR WORK PLAN FOR THE REGIONAL RAILROAD

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Drivers include Positive Train Control, Plant Rationalization, and Normal Replacement.

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- Incorporation of maintenance and renewals.
- Lifecycle management in planning.

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### SEPTA'S ASSET MANAGEMENT PROGRAM

Laura J. Zale August 21, 2017

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