Transit Asset Management Initial Performance Targets

December 6, 2016

Background

Federal TAM Law

MAP-21 required that every transit operator receiving federal funds must:

- Establish TAM Performance Targets
- Coordinate these Performance Targets with the State and MPOs
- Develop a TAMP
- Report asset inventories, condition, and performance measures through the NTD

https://www.gpo.gov/fdsys/pkg/FR-2016-07-26/pdf/2016-16883.pdf

TAM Final Rule

Different Requirements for Transit Providers of Different Sizes

Tier 1 = Providers with 101 or more revenue vehicles in service during peak regular operations

Tier 2 = Providers with 100 or fewer revenue vehicles in service during peak regular operations

Maryland 5310 providers are exempt because they provide "closed-door" service

MTA, Montgomery, and Prince George's counties are Tier 1

All other LOTS are considered Tier 2

Requirements for Tier 1 Providers

Tier 1 Providers will:

✓ Set performance targets for their agency

✓ Develop and implement their own agency TAM Plan

✓ Report annually through the National Transit Database

MTA will:

✓ Fulfill its own TAM requirements

✓ Provide oversight and technical support for Montgomery and Prince George's counties

Requirements for <u>Tier 2</u> Providers

Tier 2 Providers will:

✓ Participate in a <u>group</u> TAM process

✓ Agree upon <u>group</u> performance targets

✓ Participate in the development of a <u>group</u> TAM Plan

✓ Implement the group TAM plan within their agency

MTA will:

✓ Facilitate development of the group TAM Plan

✓ Submit reports to NTD on behalf of Tier 2 LOTS

✓ Provide oversight and technical support

All LOTS other than Montgomery & Prince George's counties

Final Inventory Requirements

Revenue Vehicles

All revenue vehicles regardless of ownership or funding source

Equipment (Including Non-Revenue Vehicles)

All non-revenue vehicles and equipment over $50,000 in value
Note MTA has more stringent criteria for LOTS, requiring all equipment over $1,000 in value.

Facilities

All administrative, maintenance, and passenger facilities regardless of ownership or funding source

Guideway

All guideway infrastructure (track, structures, power, train control, etc.) regardless of ownership or funding source

Final Performance Measures

Revenue Vehicles

% of assets at or past their useful life benchmark

Equipment (Non-Revenue Vehicles)

% of assets at or past their useful life benchmark

FTA default is an age-based analysis

Facilities

% of assets rated below condition "3" on the TERM scale

<u>Physical</u> condition assessment is required (only for buildings w/ direct federal or state funding)

Guideway

% of guideway directional route miles with performance restrictions

Performance Targets must be set by the federal deadline of January 1, 2017

TERM condition rating scale for Facilities

Condition	Ratings	Description
Excellent	5	No visible defects, new or near new condition, may still be under warranty
Good	4	Good condition, but no longer new, may have some slightly defective or deteriorated component(s), but is overall functional
Adequate	3	Moderately deteriorated or defective components but has not exceeded useful life
Marginal	2	Defective or deteriorated component(s) in need of replacement; exceeded useful life
Poor	1	Critically damaged component(s) or in need of immediate repair; well past useful life

FTA Facility Condition Assessment Guide

- Background

- Definitions

- Data Requirements

- Methods for condition assessment

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Facility%20Perform
ance%20Assessment%20Guidebook.pdf
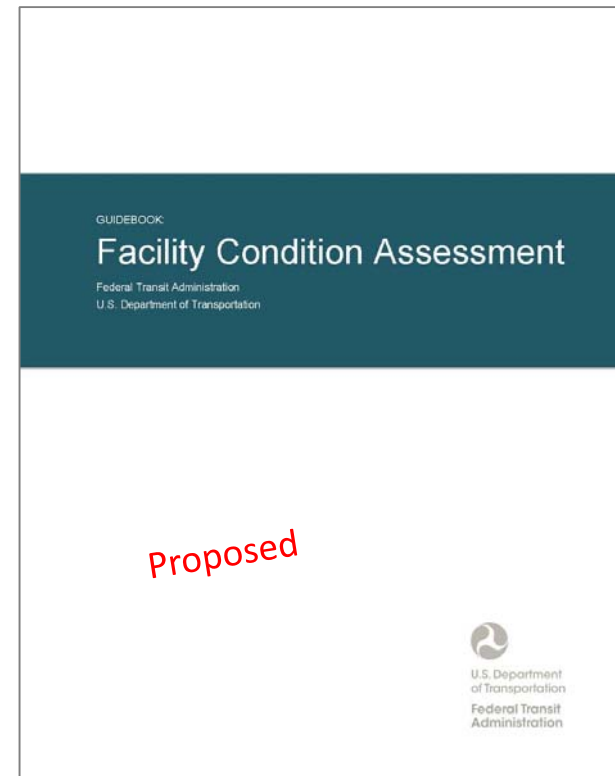
Requirements for MPO Coordination

For MTA and those LOTS operating in an urbanized area:

- SGR performance targets shall be coordinated with the MPO

- The MPO Long & Short Range Transportation Plans shall include:
  - A description of the SGR TAM performance measures and targets
  - A report evaluating LOTS asset condition against these measures
  - A discussion of how the TIP/STIP will help achieve the SGR targets

Requirements for NTD Reporting

All transit agencies to report:

- Asset inventories

- Performance targets/actuals

- Facility Condition

- Narrative on changes to asset condition

Tier 1's are responsible for their own NTD reporting.

MTA will submit NTD reports on behalf of all Tier 2's

Performance Measures In-Depth

Performance Measures In-Depth

Revenue Vehicles
% of assets at or past their useful life

For each asset class →

- Automobile
- Bus
- Cutaway Bus
- Ferryboat
- Van

Equipment (Including Non-Revenue Vehicles)
% of assets at or past their useful life

For each asset class →

- Truck
- Other

Facilities
% of assets rated below condition "3"
on the TERM scale

For each asset class →

- Admin Facility
- Maint Facility
- Passenger Facility

Guideway
% of guideway directional route miles with
performance restrictions

For each asset class →

- Heavy Rail
- Light Rail
- Commuter Rail
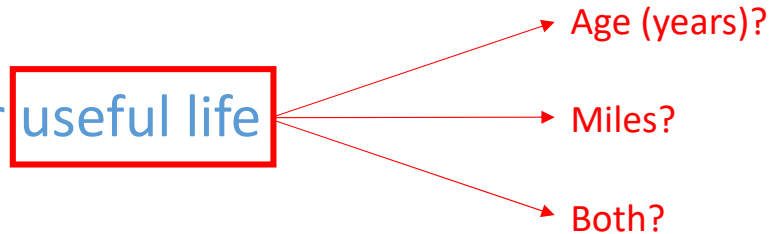
Performance Measure Challenges

Barriers to measuring performance today:

× Incomplete asset inventories (the basis for calculating performance)

× Differences in federal, state, and local policies

- Definitions (asset, equipment, etc.)
- Useful life policies

× Incomplete guidance from FTA

- Adopted facility condition assessment guide
- Dealing with unique circumstances

× MTA and LOTS processes still under development

Performance Measures In-Depth

Revenue Vehicles

% of assets at or past their useful life

- → Age (years)?
- → Miles?
- → Both?

FTA default useful life (for TAM purposes) is calculated in years
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20TAM%20ULB%20Cheat%20Sheet%202016-10-26.pdf

MTA will base <u>initial</u> performance measures on age (years) only. Other methods of benchmarking the useful life of revenue vehicles will be considered for future years.

Performance Measures In-Depth

Equipment (Including Non-Revenue Vehicles)

% of assets at or past their useful life → Age (years)?

→ Miles?

→ Hours?

FTA default useful life (for TAM purposes) is calculated in years
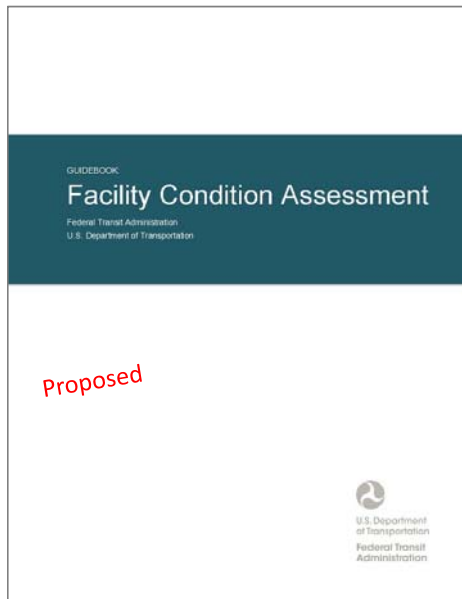https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20TAM%20ULB%20Cheat%20Sheet%202016-10-26.pdf

MTA will base <u>initial</u> performance measures on age (years) only. Other methods of benchmarking the useful life of revenue vehicles will be considered for future years.

Performance Measures In-Depth

Facilities

% of assets rated below condition "3" on the TERM scale

It's complicated…

Proposed

NOTE: All facility TERM ratings must be expressed as _integers_ (no decimals)

Component-Level Condition Assessment

Interior
TERM Rating: 1

Structure
TERM Rating: 2

Plumbing
TERM Rating: 2

HVAC
TERM Rating: 4

Overall Facility Weighted Average TERM Rating: 2

Site
TERM Rating: 1

Electrical
TERM Rating: 2

Exterior
TERM Rating: 2

Conveyance
TERM Rating: 2
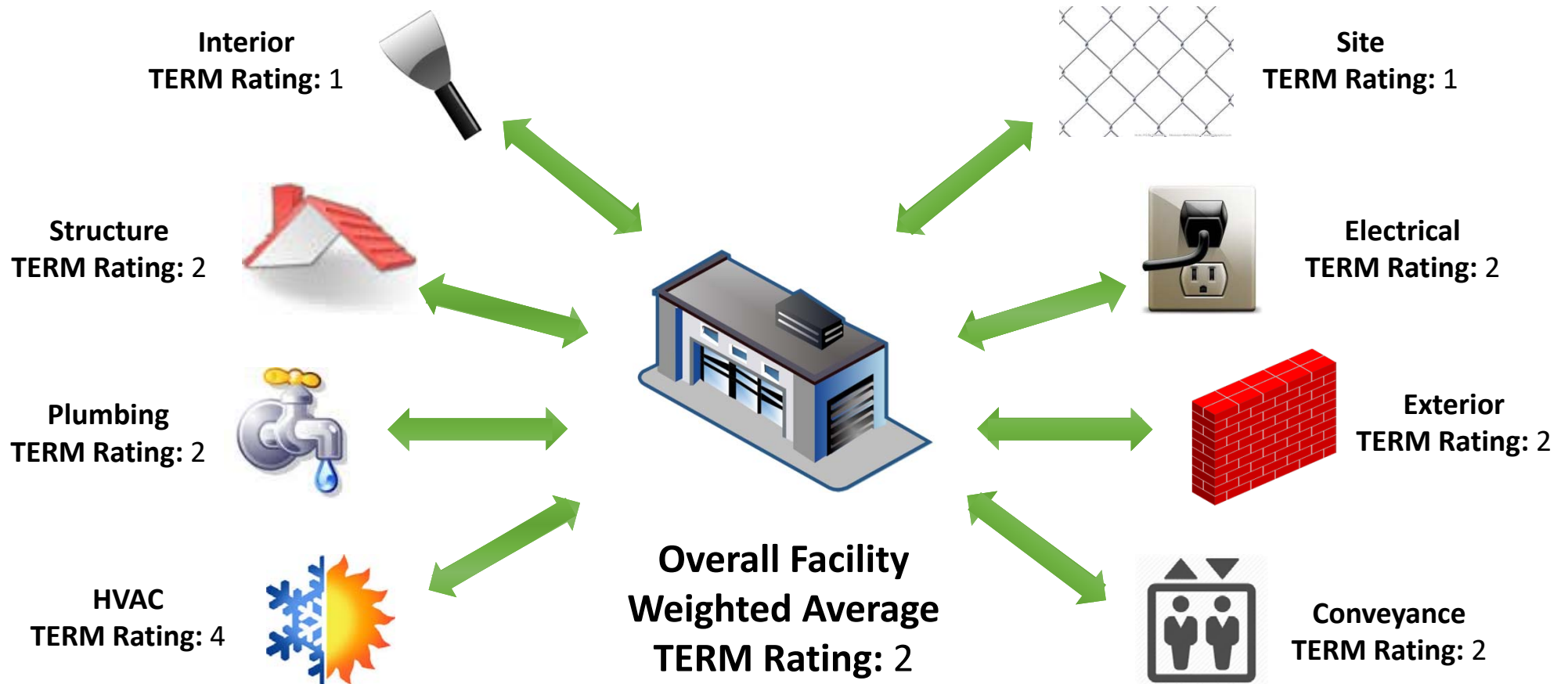
MTA Performance Targets (Draft)

MTA Revenue Vehicles

% of assets at or past their useful life

Mode	Asset Class (NTD)	BASELINE % Past Useful Life*	Initial Target *(Draft)*
Bus	Bus (60 ' Artic.)	0%	0%
Bus	Bus (40')	4.7%	4.7%
Metro	Heavy Rail	88.9%	88.9%
Light Rail	Light Rail	0%	0%
MARC	Locomotive	0%	0%
MARC	Passenger Coach	0%	0%
Mobility	Cutaway	0%	0%
Mobility	Automobile	4.4%	4.4%
Mobility	Van	0%	0%

MTA Equipment (Non-Revenue Vehicles)

% of assets at or past their useful life

Asset Class (NTD)	BASELINE % Past Useful Life*	Initial Target (Draft)
Steel Wheel Vehicles	61.1%	61.1%
Other Rubber Tire Vehicles (Service)	54.4%	54.4%

MTA Facilities

% of assets rated below condition "3" on the TERM scale

Asset Class (NTD)	BASELINE % Below "3" on TERM Scale*	Initial Target *(Draft)*
Administrative Facility	21%	21%
Maintenance Facility	65%	65%
Passenger Facility	17%	17%
Parking Lot	58%	58%

* Estimates based on age of each facility's components, not physical inspection

MTA Guideway

% of guideway directional route miles with performance restrictions

Mode	Asset Class (NTD)	BASELINE % Slow Zones*	Initial Target (Draft)
Metro	Heavy Rail	3.5%	3.5%
Light Rail	Light Rail	5.8%	5.8%
MARC*	Commuter Rail	5.8%	5.8%

* Baseline performance data not available from Amtrak and CSX; proposed MARC target is based on Light Rail analysis

LOTS Performance Targets

Tier 2 Revenue Vehicles

% of assets at or past their useful life

Asset Class (NTD)	BASELINE % Past Useful Life*	Initial Target
Bus (Heavy Duty)	23.8%	23.8%
Bus (Med Duty)	17.0%	17.0%
Cutaway Bus	59.5%	59.5%
Ferryboat	0%	0%
Automobile	50.0%	50.0%
Van	69.1%	69.1%

Some Tier 2 data from Baltimore City was not available to include in analysis

Tier 2 Equipment (Non-Revenue Vehicles)

% of assets at or past their useful life

Asset Class (NTD)	BASELINE % Past Useful Life*	Initial Target
Trucks	31.3%	31.3%
Other Rubber Tire Vehicles (Service)	59.5%	59.5%

Some Tier 2 data from Baltimore City was not available to include in analysis

Tier 2 Facilities

% of assets rated below condition "3" on the TERM scale

Asset Class (NTD)	BASELINE % Below "3" on TERM Scale*	Initial Target
Administrative Facility	25.0%	25.0%
Maintenance Facility	11.1%	11.1%
Admin & Maint Facility	25.0%	25.0%

Tier 2 data from Baltimore Co., Baltimore City, Harford Co., Washington Co. and TCCLES were not available to include in analysis

Estimates based on age of each facility's components, not physical inspection

Passenger facilities should only be counted if they include an enclosed building with passenger restrooms, etc.

Questions?