



TRANSIT ASSET MANAGEMENT PLAN STATUS REPORT – 2024



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Photo: South Campus Administrative Building and Acceptance Facility, Markham, IL

EXECUTIVE SUMMARY

Annually in May, the Regional Transportation Authority (RTA) approves and releases their Budget and Capital Program Call (the “Budget Call”) to the three Service Boards: Pace Suburban Bus, Metra Commuter Rail, and the Chicago Transit Authority (CTA).

The RTA FY2025 Budget Call section Service Board Information Requirements, 4. Five-Year Capital Program: C. states:

“The Service Boards must articulate their methodology for analyzing priorities and selecting projects to be funded in their 2025-2029 Program. This process should be reflective of each Service Board’s TAM (Transit Asset Management) Plan. Amendments and updates to TAM Plans should be provided to RTA as a part of the budget process and posted on each agency’s website in accordance with state legislation (Public Act 102-0573, Section 2705-203). RTA will use this to ensure compliance with Federal and State requirements, understand each Service Board’s approach to TAM, and to inform RTA’s Strategic Asset Management (SAM) activities that are ongoing.”

Additionally, the RTA FY2025 Budget Call Exhibit K 2025 Budget and Capital Program: Submission Checklist 4: Five-Year Capital Program G. states:

“Does the Service Board articulate clearly their methodology for prioritization of capital projects? Did they provide and updated TAM Plan if one has been completed in the last year?”

Per the TAM Final Rule, 49 CFR §625.29 Transit Asset Management Plan: Horizon Period, Amendments, and Updates:

*(a) **Horizon period.** A TAM plan must cover a horizon period of at least four (4) years.*

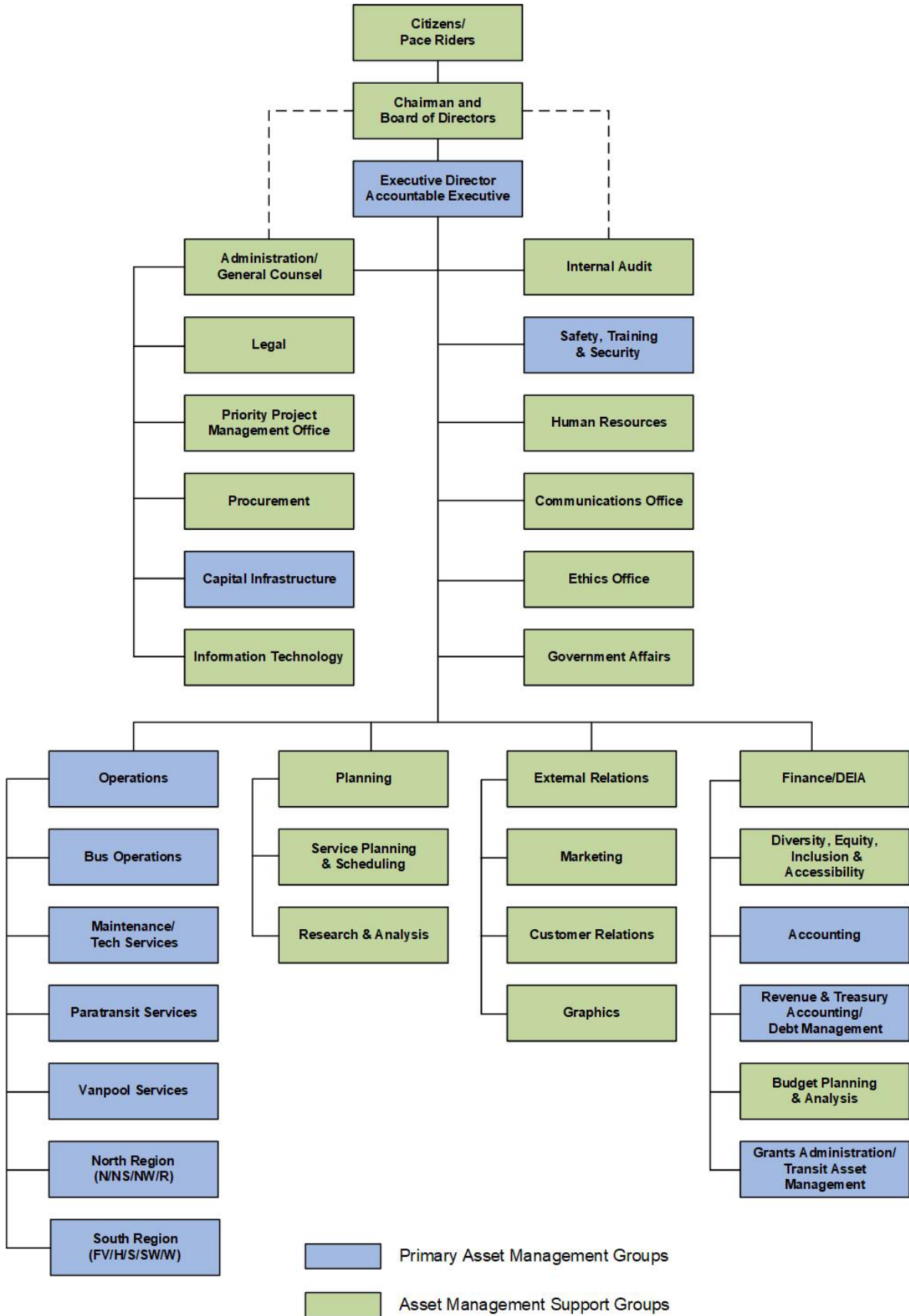
*(b) **Amendments.** A provider may update its TAM plan at any time during the TAM plan horizon period. A provider should amend its TAM plan whenever there is a significant change to the asset inventory, condition assessments, or investment prioritization that the provider did not reasonably anticipate during the development of the TAM plan.*

*(c) **Updates.** A provider must update its entire TAM plan at least once every four (4) years. A provider’s TAM plan update should coincide with the planning cycle for the relevant Transportation Improvement Program or Statewide Transportation Improvement Program.*

Annually, the TAM Department shall summarize those TAM Plan sections where changes are identified from the 2022 Horizon Plan to create an internal status report for **Melinda J. Metzger, Pace Executive Director**, and **Accountable Executive**. This report can be used upon ordinance or request, to inform external stakeholders, such as the RTA’s Annual Budget Call Submittal mentioned above.

At Pace, Transit Asset Management is an agency-wide effort as summarized in the organization chart on the next page.

PACE ASSET MANAGEMENT ORGANIZATION



1. INVESTMENT PRIORITIZATION

Per the TAM Final Rule, 49 CFR §625.33 Investment Prioritization states:

“(a) A TAM plan must include an investment prioritization that identifies a provider’s programs and projects to improve or manage over the TAM plan horizon period the state of good repair of capital assets for which the provider has direct capital responsibility.

(b) A provider must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year.

(c) A provider’s project rankings must be consistent with its TAM policy and strategies.

(d) When developing an investment prioritization, a provider must give due consideration to those state of good repair projects to improve that pose an identified unacceptable safety risk when developing its investment prioritization.

(e) When developing an investment prioritization, a provider must take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM plan horizon period.

(f) When developing its investment prioritization, a provider must take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities.”

Pace’s Investment Prioritization method, in the following pages, aligns with our Capital Project Scoring Criteria, and the process currently to be used to evaluate projects during the 2025-2029 annual budget cycle. The Investment Prioritization Framework is goal-orientated and objective-based in the out-years because it is dependent on the RTA receiving the fully apportioned regional funding estimates along with each Service Board receiving potential discretionary funding. Each program year needs to balance to the RTA Five-Year Capital Program Funding Marks.

Within each asset category reside individual asset class projects which are scored by pre-determined criteria and scoring ranges assigned to achieve up to a total maximum of 30 points. Each of the evaluators’ scores are averaged to produce an overall asset category score to assign a ranking within the Five-Year program. The Chief Financial Officer appoints a multi-department cross functional team, approved by the Executive Director, to complete the scoring. All team member scores are averaged to provide a singular score per project.

After the evaluation of projects, the Capital Grants and Transit Asset Management (TAM) Department prepares a draft recommended project list and submits it to Senior Staff for review and comment. Recommended projects are tied to available funding as established by the RTA projections (Marks) which are adopted no later than the September 15 statutory funding deadline.

Capital Project Criteria and Scoring Ranges

Below is an outline of our 13 criteria used during the scoring phase of the capital project prioritization process for a maximum total score of 30.

1. SAFETY - Max Score: 3

Security is also a factor in addition to safety improvements.

2. STATE OF GOOD REPAIR - Max Score: 3

< 1 year beyond useful life (2 points), > 1 year beyond useful life or poor condition (3 points).

3. RELIABILITY - Max Score: 3

Reliability of the capital item or service provided.

4. MOBILITY - Max Score: 3

Mobility Justice, ADA specific.

5. REGULATORY - Max Score: 2

Compliance with regulations (0 or 2 score).

6. EQUITY - Max Score: 3

Racial equity, factoring demographics of service area or location of project.

7. CAPACITY - Max Score: 2

Expansion of service or seating or facility space.

8. ACCESS TO KEY DESTINATIONS - Max Score: 1

Jobs, retail, healthcare, recreation, etc.

9. ECONOMIC DEVELOPMENT - Max Score: 1

Positive economic impact to area/location of project.

10. DELIVER VALUE ON INVESTMENTS - Max Score: 1

Operating impacts/ Recovery Ratio improvement and/or reduced O&M costs.

11. STAY COMPETITIVE - Max Score: 2

Improvements to rider experience, technology improvements, and/or ridership increase.

12. ENVIRONMENTAL IMPACT - Max Score: 3

Zero-Emission/Electrification (3 points), CNG (2 points), other (1-2 points).

13. AGENCY COMMITMENT - Max Score: 3

Multi-year funding, Board/Executive priority request, and/or mission critical.

Prioritization of Capital Investments

Due to the timing of the annual budget process, the information provided in this section is considered preliminary until approved by both the Pace and RTA Boards of Directors in November and December 2024, respectively. The following tables summarize Pace’s proposed five-year capital program:

- 2025-2029 Suburban Service Capital Business Plan (000s) - Constrained
- 2025 Ranked List of Capital Projects
- 2026-2029 Ranked List of Capital Projects

2025-2029 Suburban Service Capital Business Plan (000s) - Constrained ¹						
	2025	2026	2027	2028	2029	Total
Rolling Stock Quantities						
Fixed Route Electric Buses	0	0	25	40	40	105
Fixed Route OTR Coach Buses	13	0	0	0	0	13
Fixed Route EV Hybrid Buses	8	0	0	0	0	8
Paratransit Vehicles	15	133	27	13	146	334
Hydrogen Paratransit Vehicles	3	3	0	0	0	6
Rolling Stock						
Fixed Route Electric Buses	\$0	\$0	\$32,500	\$52,462	\$52,987	\$137,949
Fixed Route OTR Coach Buses	12,450	0	0	0	0	12,450
Fixed Route EV Hybrid Buses	9,600	0	0	0	0	9,600
Paratransit Vehicles	1,863	15,967	3,306	1,585	17,571	40,293
Hydrogen Paratransit Vehicles	2,158	2,227	0	0	0	4,385
Subtotal	\$26,071	\$18,194	\$35,806	\$54,047	\$70,558	\$204,677
Support Facilities & Equipment						
Southwest Division Electrification/Expansion	\$31,500	\$40,000	\$20,000	\$0	\$0	\$91,500
River Division Electrification/Expansion	20,250	20,250	19,170	19,170	3,200	82,040
Subtotal	\$51,750	\$60,250	\$39,170	\$19,170	\$3,200	\$173,540
Miscellaneous						
Unanticipated Capital	\$1,000	\$0	\$0	\$0	\$0	\$1,000
Subtotal	\$1,000	\$0	\$0	\$0	\$0	\$1,000
Grand Total - Constrained	\$78,821	\$78,444	\$74,976	\$73,217	\$73,758	\$379,217

¹ Pace Suburban Service and Regional ADA Paratransit Budget: 2025 Operating and Capital Program; 2025-2027 Business Plan for Operations; 2025-2029 Capital Business Plan. Proposed Program, October 2024.

2025 Ranked List of Capital Projects

Project Rank	Project Name	Asset Category	Amount Requested	Average Score
1	River Division Electrification/Expansion	Support Facilities & Equipment	\$82,056,335	23.6
2	Southwest Division Electrification/Expansion (Phase 1)	Support Facilities & Equipment	\$31,418,815	23.4
3	Paratransit Vehicles	Rolling Stock	\$4,680,000	20.0
4	Fixed Route Hybrid Buses	Rolling Stock	\$111,909,285	19.4
5	Hydrogen Paratransit Vehicles	Rolling Stock	\$3,000,000	18.4
6	Fixed Route Coach Buses	Rolling Stock	\$12,450,000	16.7

2026-2029 Ranked List of Capital Projects

Project Rank	Project Name	Asset Category	Amount Requested	Average Score
1	Southwest Division Electrification/Expansion (Phase 1)	Support Facilities & Equipment	\$91,502,418	23.7
2	Fixed Route Electric Buses	Rolling Stock	\$193,700,000	21.9
3	Pulse Cermak Line	Stations & Passenger Facilities	\$33,000,000	18.4
4	I-294 Cermak Road Station	Stations & Passenger Facilities	\$41,300,000	14.6
5	I-294 O'Hare Oasis Station	Stations & Passenger Facilities	\$10,995,036	14.6

Estimation of Available Capital Funding

To pay for our capital investments over the next five years, Pace will rely on funding from the sources described in FY2025-2029 Capital Program Expected Funds (000s).

FY2025-2029 Capital Program Expected Funds (000s)

Funding Source	Amount
Federal 5307/5339	\$273,529
State PAYGO	98,010
RTA ICE	6,678
Pace PBV	1,000
Total	\$379,217

2. ANNUAL NTD TAM AIM SUBMITTAL

Per the Federal Transit Administration's guidance²:

“The National Transit Database (NTD) program’s Asset Inventory Module (AIM) is designed to collect basic information on assets and infrastructure used by U.S. transit agencies to deliver service. The purpose of assembling a nationwide inventory is to improve the Federal Transit Administration’s (FTA’s) ability to project capital costs for the future replacement (and necessary capital renewal activities) of existing transit assets.

This information supports the FTA biennial report to the U.S. Congress regarding cost estimates of transit capital. These estimates directly influence the FTA annual budget request submitted for the Federal fiscal year (FFY). The Transit Asset Management (TAM) rule (49 CFR part 625) is a set of federal regulations that set out minimum Asset Management practices for Transit Providers. Beginning in Report Year (RY) 2018, agencies that receive or benefit from Chapter 53 funds from the Federal Transit Administration are required to report asset inventory and condition and performance information to the National Transit Database.”

Each Chapter 53 funding recipient developing a TAM Plan is required to report annually to the FTA NTD. Pace has two NTD ID reporting numbers:

- 50113 for the Suburban Bus Division
- 50182 for the Regional ADA Paratransit Services

Pace does not set Performance Measures for the NTD ID reporting number 50182 Regional ADA Paratransit Services, because capital responsibility for those assets belongs to the Contractor, not Pace. Annually, the TAM Department maintains a record copy of each NTD submitted form with the Narrative Report. The Pace NTD Annual TAM Asset Inventory Module (AIM) Inventory Submittal includes:

Annual Pace NTD TAM AIM Data Report Forms	
A-90	Transit Asset Management Performance Measures
A-15	Transit Asset Management Facilities Inventory
A-30	Revenue Vehicle Inventory:
	MB DO - Motor Bus Directly Operated
	MB PT - Motor Bus Purchased Transportation
	VP DO - Vanpool Directly Operated
	DR DO - Demand Response Directly Operated
A-35	DR PT - Demand Response Purchased Transportation
A-35	Service Vehicle Inventory

² National Transit Database, Asset Inventory Module, FY 2015 Reporting Manual.

3. ANNUAL NTD TAM PERFORMANCE MEASURE TARGETS and NARRATIVE REPORT

Annually, Transit agencies must report their fiscal year TAM Performance Measure Targets to the NTD for assets for which they have capital responsibility for replacement. Transit agencies must include a Narrative Report that provides a description of any change in the condition of the provider’s transit system from the previous year and describes the progress made during the year to meet the performance targets set in the previous reporting year.

The Useful Life Benchmarks (ULB) for Rolling Stock and Equipment categories are measured in years and based on Pace’s experience with these assets. The Facility condition ratings are based on FTA’s TERM scale. Assets are considered in a State of Good Repair (SOGR) with a score of 3 (adequate), 4 (good), or 5 (excellent). With a score of 2 (marginal) or 1 (poor), assets are in the SOGR backlog.

1. Rolling Stock					
Percent of revenue vehicles that have met or exceeded their Useful Life Benchmark (ULB)					
Performance Measure	ULB	2023 Target	2023 Actual	2023 Variance	2024 Target
BR - Over-the-Road Bus	12	0.00%	0.00%	0.00%	0.00%
BU - Bus	12	14.44%	15.61%	1.17%	15.61%
CU - Cutaway	4	59.38%	65.93%	6.55%	60.78%
MV - Minivan	5	100.00%	100.00%	0.00%	100.00%
VN - Van	5	72.13%	70.69%	1.44%	69.64%
2. Equipment					
Percent of service vehicles that have met or exceeded their Useful Life Benchmark (ULB)					
Performance Measure	ULB	2023 Target	2023 Actual	2023 Variance	2024 Target
Automobiles	5	100.00%	100.00%	0.00%	100.00%
Trucks and Other Rubber Tire Vehicles	5/10	54.42%	52.82%	1.60%	45.70%
3. Facility					
Percent of facilities rated below 3 on the FTA TERM condition scale					
Performance Measure	ULB	2023 Target	2023 Actual	2023 Variance	2024 Target
Passenger/Parking Facilities	N/A	13.64%	9.09%	4.55%	9.09%
Administrative/Maintenance Facilities	N/A	8.33%	8.33%	0.00%	7.14%

4. TAM FACILITY INVENTORY, CONDITION RATINGS and PERFORMANCE MEASURES

Pace utilizes Bus Transfer Centers, Park-n-Ride lots, and Passenger or Parking Facilities, which are primarily Transportation Centers that combine a Bus Transfer Center with parking. Pace also owns Administrative and Maintenance Facilities and uses support facilities owned by others to provide service. Additionally, Pace provides service to and from several Metra and CTA stations, and from locations not owned by Pace throughout the RTA service area in Northeastern Illinois.

Pace must annually report to the NTD on the facilities for which it has capital responsibility, as well as all passenger stations used in the provision of public transit. Pace passenger facilities without an enclosed building for passenger amenities such as ticketing, information, restrooms, concessions, do not meet NTD reporting requirements. However, because Pace has capital responsibility these are included the Initial 2018 and 2022 TAM Plan inventory per the Final Rule.

FTA Annual Facilities Condition Ratings

Facilities condition ratings are used for required NTD reporting to evaluate performance. With the introduction of TAM, Pace has been required since 2017 to develop performance measures for the assets for which it has capital replacement responsibility.

“For Passenger/Parking Facilities, the performance target must reflect the “percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale (1=Poor to 5=Excellent).”³

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

Pace facilities are scored using the *TAM Facility Performance Measure Reporting Guidebook: Condition Assessment Calculation*, issued by the FTA, as the primary source for inspection and grading methodology. The FTA Guidebook relies on visual inspection, and in cases of difficult to access areas, it relies on visual inspection from an access point. The FTA Guidebook requires condition scores be given to 10 building systems in each facility which are summed into a single score for each facility using a calculation method at the discretion of the agency.

³ Federal Transit Administration, U.S. Department of Transportation, National Transit Database Asset Inventory Module 2017-2018 Reporting Guide

ID	Building System
A	Substructure
B	Shell
C	Interiors
D	Conveyance
E	Plumbing
F	HVAC
G	Fire Protection
H	Electrical
I	Equipment / Fare Collection
J	Site

Facility Condition Assessments

Since 2018, Pace has assessed approximately one-quarter of its facilities each year in compliance with the FTA mandate to assess all facilities at least once every four years.

In August 2023, Pace executed a five-year contract with Bureau Veritas (BV) Technical Assessments LLC to perform annual Facilities Condition Assessments (FCA).

In October and November 2023, BV conducted their Year One FCA site visits and in June 2024, BV conducted their Year Two FCA site visits.

Current Condition Scores for Administrative/Maintenance Facilities		
Asset Name	Condition Rating	Assessment Date
Administration Headquarters	3	6/27-28/2024
Fox Valley Division	3	10/16-17/2023
Heritage Division	5	10/17-19/2023
McHenry Paratransit Garage	3	11/9/2023
North Division	3	11/8-9/2023
North Shore Division	3	11/7-8/2023
Northwest Division	3	6/5-6/2024
River Division	3	11/10/2023
South Division	4	10/12/2021
South Holland Acceptance Facility	4	10/13/2021
Southwest Division	4	10/13/2021
West Division	3	6/3-4/2024

Current Condition Scores for Passenger/Parking Facilities

Asset Name	Condition Rating	Assessment Date
Blue Island Park-n-Ride	3	10/20/2023
Bolingbrook - Canterbury Lane Park-n-Ride	3	4/28/2022
Bolingbrook - Old Chicago Park-n-Ride	3	4/28/2022
Bridgeview Transit Center	4	6/24/2024
Bridgeview Transit Center Park-n-Ride	4	6/24/2024
Buffalo Grove Park-n-Ride	3	4/27/2022
Buffalo Grove Transportation Center	4	4/27/2022
Burr Ridge Park-n-Ride	2	4/28/2022
Chicago Heights Transportation Center	3	10/12/2021
Elgin Transportation Center	4	6/25/2024
Elk Grove Park-n-Ride	2	4/27/2022
Harvey Transportation Center	3	10/20/2023
Harvey Transportation Center Park-n-Ride	2	10/20/2023
Hillside Park-n-Ride	3	6/24/2024
Homewood Park-n-Ride	4	10/19/2023
I-90/Barrington Road	4	6/25/2024
I-90/Barrington Road Park-n-Ride	4	6/25/2024
I-90/IL-25 Park-n-Ride	5	4/29/2022
I-90/Randall Road Park-n-Ride	5	4/29/2022
Northwest Transportation Center	3	6/26/2024
Northwest Transportation Center Park-n-Ride	3	6/26/2024
Plainfield Park-n-Ride Bus Transfer Center	4	6/7/2024
Plainfield Park-n-Ride	4	6/7/2024
Prairie Stone Transportation Center	2	4/29/2022

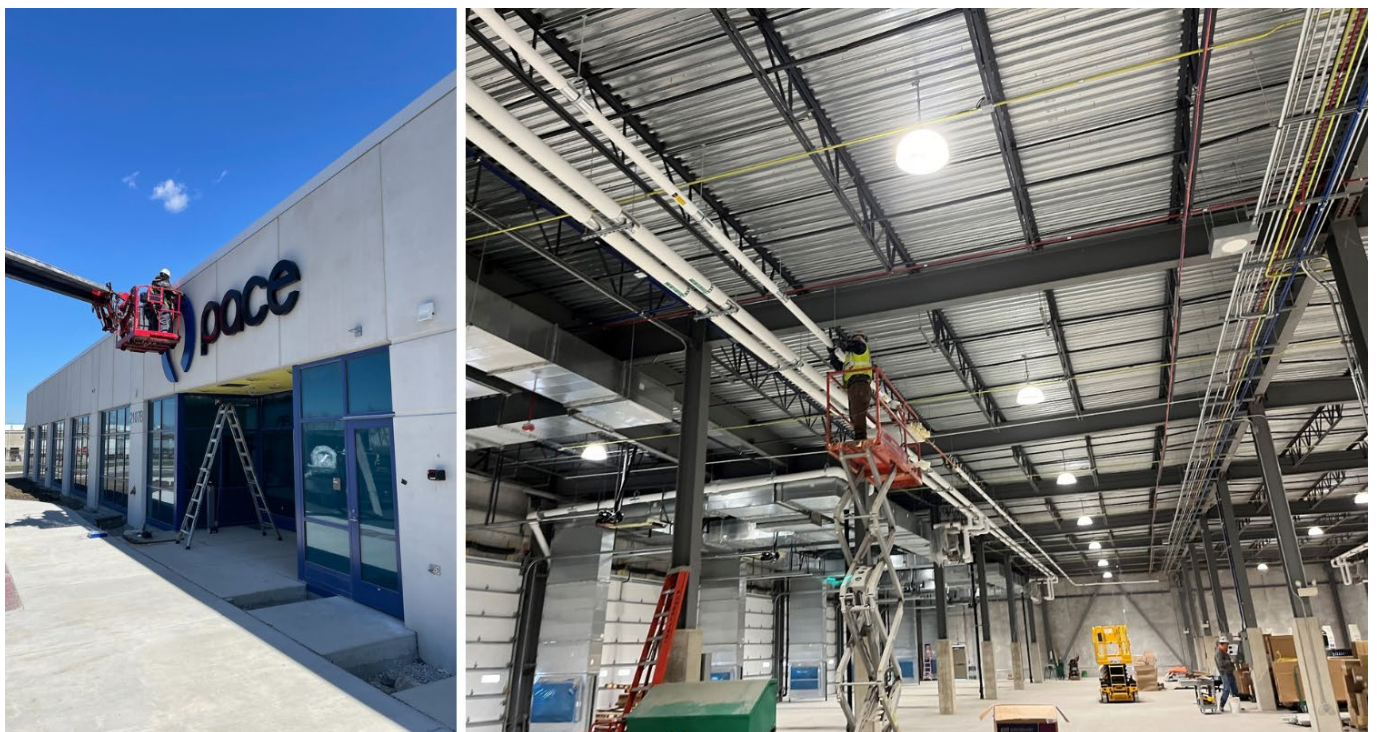


Photo: Left to Right, In progress South Campus Administrative Building and Acceptance Facility, Markham, IL

NTD Facilities Performance Measures

Performance Measures for Facilities				
Asset Type	2023 Target	2023 Actual	2023 Variance	2024 Target
Passenger/Parking	13.64%	9.09%	4.55%	9.09%
Administrative/Maintenance	8.33%	8.33%	0.00%	7.14%

Passenger/Parking Facilities: Pace’s Actual of 9.09% was favorable to the 2023 Projected Performance Target of 13.64% by 4.55%. In 2023, the current facilities condition assessment consultant assigned the Harvey Transportation Center a score of 3. In 2019, the prior consultant assigned it a score of 2. The 2024 Passenger/Parking Facilities Projected Performance Measure Target is set at 9.09%.

Administrative/Maintenance Facilities: Pace met its 2023 Projected Performance Targets of 8.33%. In 2024, final occupancy of both the Pace South Campus Acceptance Facility and the South Campus Office Building is anticipated. This will increase our inventory from 12 to 14 facilities. The 2024 Administrative/Maintenance Facilities Projected Performance Measure Target is set at 7.14%, improving 1.19% from the 2023 Actual of 8.33%.



Photo: Top to Bottom, In progress Northwest Transportation Center and new ADA Transfer Facility

5. TAM ROLLING STOCK INVENTORY, ULB INFORMATION and PERFORMANCE MEASURES

All transit agencies reporting service data must provide information on Revenue Vehicles by Mode and Type of Service. Transit agencies must inventory all vehicles they use to provide public transportation that have not been sold or disposed of by the end of the fiscal year. Vehicles must be reported on the first fiscal year in which they are used in revenue service. Transit agencies report Revenue Vehicle Inventory data by groups or fleets.

Over-The-Road Bus (BR)				
Manufacturer & Model	Length	Year	Age 2023	Quantity
MCI D400	40'	2013	10	13
MCI D400	40'	2015	8	9
MCI D400	40'	2017	6	8
MCI D400	40'	2021	2	7
				37

Bus (BU)				
Manufacturer & Model	Length	Year	Age 2023	Quantity
Eldorado E-Z Rider II	30'	2007	16	37
Eldorado E-Z Rider II	30'	2008	15	17
Eldorado E-Z Rider II	30'	2009	14	19
Eldorado E-Z Rider II	30'	2010	13	29
Orion VII Hybrid	30'	2011	12	2
Eldorado E-Z Rider II	30'	2011	12	4
Eldorado Axess	40'	2013	10	66
Eldorado Axess	40'	2014	9	37
Eldorado Axess	40'	2015	8	46
Eldorado Axess CNG	40'	2015	8	18
Eldorado Axess	40'	2016	7	88
Eldorado Axess	40'	2017	6	84
Eldorado E-Z Rider II (Trolley)	30'	2017	6	7
Eldorado Axess CNG	40'	2017	6	70
Eldorado Axess CNG	40'	2018	5	11
Eldorado Axess CNG	40'	2020	3	6
New Flyer XD40	40'	2020	3	84
Eldorado Axess	30'	2020	3	22
Gillig Electric	40'	2020	3	1
Eldorado Axess	30'	2022	1	44
				692

Cutaway (CU)

Manufacturer & Model	Length	Year	Age 2023	Quantity
Champion Crusader	21'	2009	14	2
Champion Crusader	21'	2012	11	3
Eldorado Aerotech	25'	2014	9	8
Champion Challenger	22'	2014	9	57
Champion Crusader	23'	2015	8	14
Eldorado Aerotech	25'	2016	7	38
Champion Crusader	23'	2017	6	34
Eldorado Aerotech	25'	2017	6	119
Champion Crusader	23'	2018	5	3
Eldorado Aerotech	25'	2018	5	28
Champion Crusader	21'	2019	4	21
Coach and Equipment Phoenix	28'	2022	1	111
Coach and Equipment Phoenix	28'	2023	0	58
				496

Minivan (MV)

Manufacturer & Model	Length	Year	Age 2023	Quantity
Dodge Caravan	17'	2012	11	1
Dodge Caravan	17'	2013	10	17
Dodge Caravan	17'	2016	7	4
Dodge Caravan	17'	2017	6	160
				182

Van (VN)

Manufacturer & Model	Length	Year	Age 2023	Quantity
Ford E350	19'	2011	12	1
Ford E350	18'-20'	2013	10	5
Ford Transit	19'-20'	2016	7	58
Ford Transit	19'	2017	6	50
Ford Transit	19'	2018	5	91
Ford Transit	18'-19'	2020	3	85
				290

Pace calculated the 2023 Revenue Vehicle Performance Measure Targets by dividing the Active Fleet that have met or exceeded their ULB by the Total Active Fleet. To conduct the 2024 Projected Vehicle Targets, one year is added to the vehicles age to re-baseline the fleet age. Pace then estimates the number of new vehicles it expects to receive during the year and adds them to the Projected Active Fleet.

Lastly, Pace estimates the number of Active Vehicles it expects to deactivate from service during the year and removes them from the Projected Active Fleet. Pace then calculates the 2024 Revenue Vehicle Projected Performance Measure Targets by dividing the Projected Active Fleet that will have met or exceeded their ULB by the Total Projected Active Fleet

Condition Information and NTD Performance Measures

For Rolling Stock, the Performance Measure must reflect the “percent of Revenue Vehicles that are expected to meet or exceed their Useful Life Benchmark ULB).” The values in the table represent the percentage of vehicles beyond their ULB.

Performance Measures for Rolling Stock					
Performance Measure	ULB	2023 Target	2023 Actual	2023 Variance	2024 Target
BR - Over-the-Road Bus	12	0.00%	0.00%	0.00%	0.00%
BU - Bus	12	14.44%	15.61%	1.17%	15.61%
CU - Cutaway	4	59.38%	65.93%	6.55%	60.78%
MV - Minivan	5	100.00%	100.00%	0.00%	100.00%
VN - Van	5	72.13%	70.69%	1.44%	69.64%

BR – Over-the-Road Bus: Pace maintained the 2023 Performance Measure Target of 0% as none of our vehicles exceeded their ULB. The 2024 Projected Performance Measure Target is set at 0%.

BU – Bus: Pace’s 2023 Actual of 15.61% was unfavorable to its 2023 Projected Performance Measure Target of 14.44% by 1.17%. The 2024 Projected Performance Measure Target is set at 15.61%.

CU – Cutaway: Pace’s 2023 Actual of 65.93% was unfavorable to its 2023 Projected Performance Measure Target of 59.38% by 6.55%. The 2024 Projected Performance Measure Target is set at 60.78%, improving 5.15% from the 2023 Actual of 65.93%.

MV – Minivan Pace maintained the 2023 Performance Measure Target of 100% as all our vehicles exceeded their ULB. The 2024 Projected Performance Measure Target is set at 100%. All vehicles will continue to exceed their ULB in 2024. There has been lower participation due to COVID and Pace is keeping vehicles longer because lower mileages are being accumulated.

VN – Van: Pace’s 2023 Actual of 70.69% was favorable to its 2023 Projected Performance Measure Target of 72.13% by 1.44%. The 2024 Projected Performance Measure Target is set at 69.64%, improving 1.05% from the 2023 Actual of 70.69%.



Photo: Pulse 40' Eldorado Axess Bus

6. TAM SERVICE VEHICLE (EQUIPMENT) INVENTORY, ULB INFORMATION and PERFORMANCE MEASURES

Annually, transit agencies must report the number of Service Vehicles or vehicles which do not carry passengers in the total fleet at the end of their fiscal year, and for which they have capital replacement responsibility. Transit agencies are required to report Service Vehicle inventory data by groups or fleets.

Automobiles			
Manufacturer & Model	Year	Age 2023	Quantity
Ford Focus	2009	14	1
Chevy Impala	2010	13	2
Ford Focus	2010	13	10
Ford Focus Electric	2014	9	1
Ford Taurus	2016	7	26
Ford Taurus	2017	6	4
			44

Trucks and Other Rubber Tire Vehicles (ORTV)					
Manufacturer & Model	Truck / ORTV	ULB	Year	Age 2023	Quantity
Chevy C7H042	Truck	10	1994	29	1
GMC C7H042	Truck	10	1994	29	1
International 4170	Truck	10	1995	28	4
International 4700	Truck	10	1995	28	2
Ford F350	Truck	10	2000	23	1
Ford F150	Truck	10	2005	18	1
Dodge Caravan	ORTV	5	2009	14	1
Ford F250	Truck	10	2009	14	2
Ford E350	ORTV	5	2010	13	9
Ford F350	Truck	10	2010	13	10
Dodge Caravan	ORTV	5	2011	12	1
Dodge Caravan	ORTV	5	2012	11	2
Ford E350 Cube Van	Truck	10	2012	11	2
Ford F250	Truck	10	2012	11	1
Dodge Caravan	ORTV	5	2013	10	3
Dodge Ram 1500	Truck	10	2013	10	3
Ford Explorer	ORTV	5	2013	10	12
Ford Transit Connect Mini	ORTV	5	2013	10	4
International 7400	Truck	10	2013	10	1
Dodge Grand Caravan	ORTV	5	2016	7	3
Ford F150	Truck	10	2016	7	1
Ford F350	Truck	10	2016	7	1
Ford Transit 350	ORTV	5	2016	7	1
Ford Explorer	ORTV	5	2017	6	2
Freightliner 35T	Truck	10	2018	5	1

Trucks and Other Rubber Tire Vehicles (Cont.)					
Ford Escape	ORTV	5	2018	5	8
Ford F150	Truck	10	2018	5	5
Ford F550	Truck	10	2018	5	1
Ford Escape	ORTV	5	2019	4	50
Ford F150	Truck	10	2020	3	4
Ford F250	Truck	10	2020	3	1
Freightliner 114SD	Truck	10	2021	2	1
Ford 250	Truck	10	2023	0	2
					142

Condition Information and NTD Performance Measures

Pace calculated the 2023 Service Vehicle Performance Measure Targets and the 2024 Service Vehicle Projected Performance Measure Targets using a similar methodology as for Revenue Vehicles. The only difference is that the Service Vehicle Inventory includes both Active **and** Inactive Vehicles owned by Pace in the fleet calculations.

For Service Vehicles, condition is measured based on the asset's age relative to Pace's Useful Life Benchmark (ULB). A ULB is the expected lifecycle of a capital asset for a Transit Provider's operating environment, or the acceptable period of use in service for a Transit Provider's operating environment, or as per FTA guidance. The values in the table below represent the percentage of Non-Revenue Vehicles beyond their ULB.

Performance Measures for Equipment					
Performance Measure	ULB	2023 Target	2023 Actual	2023 Variance	2024 Target
Automobiles	5	100.00%	100.00%	0.00%	100.00%
Trucks and Other Rubber Tire Vehicles	5/10	54.42%	52.82%	1.60%	45.70%

Automobiles: Pace maintained the 2023 Performance Measure Target of 100% as all our vehicles exceeded their ULB. The 2024 Projected Performance Measure Target is set at 100%. For Non-Revenue use, Pace has decided to go forward with only purchasing Trucks and Other Rubber Tire Vehicles rather than Automobiles.

Trucks and Other Rubber Tire Vehicles: Pace's 2023 Actual of 52.82% was favorable to its 2023 Performance Measure Target of 54.42% by 1.60%. The 2024 Projected Performance Measure Target is set at 45.70%, improving 7.12% from the 2023 Actual of 52.82%.



Photo: Non-Revenue Minivan

7. TAM ELECTRICAL/SIGNAL/COMMUNICATIONS INVENTORY

Electrical, Signal, and Communications is *not* yet a required annual NTD reporting asset category for transit agencies. However, it is included here based upon the RTA annual budget categories accounted for in Pace's Program of Projects, and because it is expected that all assets used in the provision of public transit will be included in the TAM Plan capital asset inventory.

Pace has different systems, and associated assets, which comprise our Electrical/Signal/Communications asset inventory including:

- Radio System
- Automated Vehicle Location (AVL) System
- Intelligent Bus System (IBS)
- Transit Signal Priority (TSP) System
- On-Bus Security System
- Bus Tracker Signage
- PULSE Monument Signage

The Radio System is for wireless two-way mobile communication between bus dispatch and bus drivers.

The Automated Vehicle Location (AVL) System is a communication technology used for tracking our paratransit vehicles.

The Intelligent Bus System (IBS) is a satellite-based communications technology, used to improve the tracking of fixed route buses, collection of data, and communication between Pace and our drivers and passengers for fixed route services.

Pace developed a Regional Interoperable Transit Signal Priority (TSP) System in coordination with Illinois, Chicago and County DOT's and CTA.

Pace also implemented signal timing optimization along intersections connecting individual signal interconnects by signal timing offsets.

Pace also identified and designed TSP Timing Plans for Transit Signal Priority intersection implementation along ten corridors within its service area. Pace plans to continue Transit Signal Priority deployment along other corridors and is also looking at centralized Transit Signal Priority options for future deployments.

All Pace buses are equipped with constant recording by internal security cameras and technology that enables external recording before and after incidents. These technologies promote the safety of passengers and drivers and enable Pace to identify driver behavior that may pose a safety risk.

Pace has diverse types of Bus Tracker signage deployed primarily at its highest-ridership locations. These electronic signs offer real-time information about upcoming bus departures and provide for customer-facing messaging. The table below lists different signage types and typical locations where these are installed.

Signage Type	Typical Installation	Quantity
Nexus Alpha Bus Tracker	Shelters/Buildings	98
“e-ink” CHK Bus Tracker	Shelters (embedded)	30
Parsons Video Bus Tracker	Transit Centers	29
Parsons Video Bus Tracker in Monument	Pulse Milwaukee Station	17
Parsons Video Bus Tracker in Monument	Pulse Dempster Station	29



Photo: PULSE Milwaukee Golf Mill Monument Signage with Video Bus Tracker

8. IMPLEMENTATION STRATEGY

Per the TAM Final Rule, 49 CFR §625.25 Implementation Strategy (b) states:
“A TAM Plan must include: (6) A provider’s TAM Plan implementation strategy”.

As defined in 49 U.S.C. Chapter 53 “Implementation Strategy” means a transit provider’s TAM Plan Implementation Strategy should outline the activities necessary to achieve its asset management goals (including all aspects of change management). The Plan should outline a schedule with roles, responsibilities, accountabilities, tasks, and dependencies. The implementation process should address dependencies, including reliance on the hiring of staff, funding availability, or software development.

In 2017, Pace’s TAM Plan consultant conducted a Gap Assessment to evaluate Pace’s general Asset Management maturity and to assist with the development of the October 1, 2018, Pace initial TAM Plan framework.

The consultant Gap Assessment produced a *Pace TAM Improvement Objectives Handbook*, proposing 23 objectives on expanding asset management culture and implementation. Subsequently, these were divided into three categories:

- **Baseline:** are well underway, with our commitment to continuing, expanding, or otherwise maintaining.
- **Implement Later:** need preliminary work to be completed before this can start and be moved to Baseline.
- **Further Investigate:** need to be further explored to determine whether they should be programmed. If accepted, these may advance to Implement Later.

1. Asset Management Documents and Systems

Accessibility of TAM Plan documents throughout the organization. Comprehensive documented procedures to regularly monitor policies procedures requiring updating.

Implementation Update:

The TAM Department implemented a TAM SharePoint intranet site to access TAM Plans and the annual Condition Assessment Reports, and centralize the NTD TAM AIM reporter source, working, and export files to eliminate silos of information. The development of SharePoint is an iterative process.

2. Condition Assessment Processes

Condition assessment approaches and results shared can be demonstrated consistently among different evaluators with data compiled for access and analysis to plan for predictive capital budget asset life cycle replacement.

Implementation Update:

The TAM Department is in FTA compliance with annually assessing at least one-quarter of Pace’s Facilities each year and will complete condition assessments of all Facilities in the FTA prescriptive four-year cycle. Pace will use consultants to produce asset condition assessments and accompany in-house staff in the field to produce an Annual Capital Asset Condition Assessment Report.

3. NTD Performance Measure Targets

Regular collection and reporting of asset performance versus targets aligned with enterprise-wide and departmental objectives, including asset condition.

Implementation Update:

The TAM Department has been in FTA compliance since 2017 to develop Performance Measure Targets for the assets for which Pace has capital responsibility. Subsequently, FTA required State of Good Repair (SGR) Performance Target Setting to be an annual component of the NTD Asset Inventory Module (AIM) reporting.

4. Vehicle Tracking Utility (VTU)

Have a central repository to know the quantity of vehicles available to provide the level of service Pace has predetermined needed for daily bus operation. This will benefit the following Business Units: Grants Administration & Transit Asset Management, Budget Planning & Analysis, Planning Office, Bus Operations, Maintenance/Tech Services, Paratransit, and Vanpool Services.

Implementation Update:

The TAM Department provided training for NTD AIM Reporters to begin using the VTU to report vehicles changing activity status during the year instead of the typical post NTD Submittal reconciliation update process that has been completed in prior years.

The TAM Department developed two sets of VTU enhancements, 3rd and 4th quarter, based on our lessons learned that occurred during the data reconciliation review, and input received during the NTD AIM Reporter training.

Currently, the VTU 3rd quarter enhancements are underway by our IT Department.

5. Investment Prioritization

New capital planning processes and procedures that are linked to the agency's organizational goals and asset management plan, and fully consider criticality, lifecycle costs, and condition of the asset, as well as the impact on O&M costs.

Implementation Update:

Pace revisited our 1991 capital priority scoring criteria to apply it to the 2023 capital budget call process. The TAM Department with the Chief Financial Officer developed this new scoring guide. Updates include new RTA Act requirements for state-funded projects and alignment with the RTA strategic plan. Updates also include adding categories for racial equity, mobility justice and environmental goals with an improved weighting system that better reflects evolving capital priorities of Pace and the region. The criteria include Safety, State of Good Repair, Reliability, Mobility, Regulatory, Equity, Capacity, Access to Key Destinations, Economic Development, Deliver Value on Investments, Stay Competitive, Agency Commitment.

6. Asset Management Organizational Development

Alignment of all tasks, roles to meet asset management objectives with all stakeholders fully understanding the context of what they do, their interdependencies and working together to improve processes over time with changing business conditions.

Implementation Update:

Developed and distributed NTD TAM Asset Inventory Module (AIM) data entry protocols to Reporters. Conducted Reporter workshops to review agreed data input methodology, monitor progress, and to inherently embed QA/QC oversight into Pace's annual upload to the NTD database.

18. Business Continuity Plan – Force Majeure

Preparation and continued service with safety during asset-related incidents or other major events.

Implementation Update:

Since the world-wide pandemic began, Pace prioritized the safety of our passengers and personnel by deep cleaning and sanitizing our vehicles and facilities daily, cleaning high-touch surfaces throughout the day, providing riders and personnel with hand sanitizer, providing personnel with PPE and thermometers for taking their temperature before reporting to work when not working remotely, separating operators from passengers using temporary and permanent barriers, and operating reduced service on some routes, reflecting reduced ridership while other routes experiencing an increase in demand have been reinstated.

22. Develop Asset Management Culture

Senior leadership and management staff demonstrate commitment to asset management as a team effort through proactive communication, cross-functional collaboration, with support and empowerment to achieve objectives. Staff have the skills and knowledge to apply asset management effectively.

Implementation Update:

The TAM Department circulated the TAM Objective Handbook and updates which outline the WSP developed implementation Objectives to Executive staff within the organization to assist in the development of Asset Management Culture. TAM Staff discussed with the IT department the ability to improve tracking of NTD information for Pace's fleet of vehicles, see *Objective 4. Vehicle Tracking Utility (VTU)*. Additionally, the TAM Portal, see *Objective 1. Asset Management Documents and Systems* was improved to provide links to additional documentation to staff.

Note: Objective Implementation is not dependent on a sequential order by the TAM Department or the Agency.

- The table above highlights only the status of Pace's implementation strategy for the Baseline Objectives. Currently, Objectives 7-17, 19-21, and 23 are in the Implement Later or Further Investigate categories.

9. LIST OF KEY ANNUAL ACTIVITIES

Per the TAM Final Rule, 49 CFR §625.25 Transit Asset Management Plan Requirements, (b) *Transit asset management plan elements (7)* states:

“A description of key TAM activities that a provider intends to engage in over the TAM plan horizon period;”

A list of key asset management activities or actions a transit provider determines are necessary for implementing TAM practices within the organization and are critically important to achieving the provider’s transit asset management goals for the year. These activities include, but are not limited to, outputs of transit asset management but may include activities that support asset management.

The TAM Department typical quarterly process for a Fiscal Year (FY) is reflected below, identifying those work products that are applicable to specific quarters of operations. These work products can also overlap quarters as well.

TAM Department List Of Key Annual Activities	
Quarter 1 (January through March)	Quarter 2 (April through June)
<ul style="list-style-type: none"> ▪ Prepare and submit the annual National Transit Database (NTD) Asset Inventory Module (AIM) Forms, set Performance Measure Targets, and produce a Narrative Report on changes in the status of Pace asset inventory condition. 	<ul style="list-style-type: none"> ▪ Complete NTD Reporting Task ▪ Conduct Physical Facility Conditions Assessment (FCA) to produce an annual report as input to the NTD A-90 TAM Performance Measure Targets Form and to inform the Pace Capital Budget Process. ▪ TAM Plan Implementation Strategy tasks.
Quarter 3 (July through September)	Quarter 4 (October through December)
<ul style="list-style-type: none"> ▪ Begin TAM Plan Updates. ▪ Participate in the Capital Budget tasks. ▪ TAM Plan Implementation Strategy tasks. 	<ul style="list-style-type: none"> ▪ Complete TAM Plan Update. ▪ Produce the TAM Plan Implementation Strategy Status Report.

Task that can occur in any quarter:

- Update the RTA Strategic Asset Management (SAM) Capital Optimization Support Tool (COST) model to help determine the regional State of Good Repair (SOGR) needs backlog & funding requirements.

End of Report